United States
Department of
Agriculture

Agricultural
Research
Service

Plant Inventory No. 208

Plant Materials Introduced January 1 to December 31, 1999 (Nos. 606708 to 612386)

Forward

Norris, R.A., ed. 1999. Plant Inventory No. 208. Plant Materials Introduced January 1 to December 31, 1999, Nos. 606708 to 612386. 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 1999. It is not a listing of plant material for distribution.

For questions about data organization and proper plant identification, contact the editor: R.A. Norris, dbmubn@ars-grin.gov

The following were donated by Paul W. Bosland, New Mexico State University, Department of Agronomy & Horticulture, Box 30003 - Dept. 3Q, Las Cruces, New Mexico 88003, United States. Received 11/14/1997.

PI 606708. Capsicum tovarii Eshbaugh et al.
Wild. NMCA 90008; Grif 14033.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1979.

PI 606709. Solanum melongena L.
Cultivar. NSL 6030; Grif 14168; WHITE BEAUTY.

The following were donated by Ferry-Morse Seed Company, Inc., P.O. Box 100, Mountain View, California 94042, United States. Received 1961.

PI 606710. Solanum melongena L.
Cultivar. NSL 6272; Grif 14169; CREOLE.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1977.

PI 606711. Solanum melongena L.
Cultivar. NSL 28160; Grif 14176; EBONY KING.

PI 606712. Solanum melongena L.
Cultivar. NSL 28161; Grif 14177; FORT MEYERS MARKET.

PI 606713. Solanum melongena L.
Cultivar. NSL 28163; Grif 14179; MINNOVAL.

The following were donated by Corneli Seed Company, 101 Chouteau Avenue, Saint Louis, Missouri 63102, United States. Received 1964.

PI 606714. Solanum melongena L.
Cultivar. NSL 34202; Grif 14183; POMPANO MARKET.

The following were donated by H.G. Hastings Company, Atlanta, Georgia, United States. Received 1965.

PI 606715. Solanum melongena L.
Cultivar. NSL 37030; Grif 14187; FLORIDA SPECIAL.

The following were donated by USDA, ARS, SRPIS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States. Received 1968.

PI 606716. Solanum melongena L.
Uncertain. NSL 70795; Grif 14193; G-18366-2.

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; Cal F. Konzak, Northwest Plant Breeding Company, NE 1725 Wheatland, Pullman, Washington 99163, United States. Received 12/18/1998.

PI 606717. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. WQL1BHWXD1b; NSGC 7354. GP-561. Pedigree - Selection from Bai Huo. Released 1999. A bulk of six plants selected and increased from the landrace 'Bai Huo' (originally obtained from the Chinese Academy of Agricultural Sciences, Beijing) are homozygous D-null at the Wx-D1 locus (Wx-D1b; Wx-D1 granule bound starch synthase, GBSS, EC 24.1.21, is lacking). Flowers without vernalization, but responds to 1-5 weeks of cold (4-8C) treatment. Carries the Pinb-D1b hardness allele; grain grown in California (1997-98) had a Single Kernel Characterization System hardness of 67+-13. Awned and has red grain color (one or more R genes).

The following were collected by Hiroshi Nakano, Tropical Agriculture Research Center, Plant Breeding Lab., Okinawa Branch, Maesato 1091, Ishigaki, Okinawa 907, Japan; Maqbool A. Bhatti, National Agricultural Research Ctr., P.O. NARC, Park Road, Islamabad, Pakistan; Yoshinobu Egawa, National Institute of Agrobiological Resources, Tsukuba, Ibaraki, Japan. Donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy. Received 10/11/1994.

PI 606718. Vigna unguiculata (L.) Walp.
Landrace. 2751 (6); RAWAN/LOBIA; Grif 12287. Collected 09/17/1991 in Punjab, Pakistan. Elevation 250 m. Near Kamoke. From a village market. Population contains whitish seeds and light red-brown seeds. White seed dominant. Small seed size.

PI 606719. Vigna unguiculata (L.) Walp.
Landrace. 2765 (3); SPIN LOBIA; Grif 12288. Collected 09/21/1991 in North-West Frontier, Pakistan. Near Dhudial. From a village market. Two Phaseolus vulgaris seeds mixed in. White seed coat color. Medium seed size.

PI 606720. Vigna unguiculata (L.) Walp.
Landrace. 2854 (2); LOBIA; Grif 12289. Collected 10/30/1991 in North-West Frontier, Pakistan. Elevation 1800 m. Near Dogal-Patrak. Five km W Patrak. Fifty one km NE is Patrak. From farmstore. Highly variable, originally mixed with Phaseolus vulgaris [2854 (2) A]. Mixture of Vigna and Phaseolus. Vigna variable for seed coat color and size. Phaseolus red seed color. Large seed size.

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. Received 07/12/1990.

PI 606721. Vigna unguiculata (L.) Walp.
Cultivated. WJK-PRC-28; W6 4486; Grif 12326. Collected 05/26/1990 in Shanxi, China. Market vendor, Xian, from central Shanxi Province. Seed mixture with different seed coat colors, shapes and sizes. Seed quality poor, some seeds damaged by bruchids.

PI 606722. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. WJK-PRC-59; W6 4517; Grif 12327. Collected 05/30/1990 in Sichuan, China. Elevation 450 m. Open air market in Leshan, Sichuan Province. Grown locally. Supposedly has a short pod. Primarily red seeds.

PI 606723. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. WJK-PRC-60; W6 4518; Grif 12328. Collected 05/30/1990 in Sichuan, China. Elevation 450 m. Open air market in Leshan, Sichuan Province. Grown locally. Supposedly a yard long bean.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by Paul Quek, International Plant Genetics Resources Institute, Regional Office for Asia, the Pacific and Oceania, c/o IDRC, 7th Storey, RELC Building, Singapore. Received 11/29/1994.

PI 606724. Vigna unguiculata (L.) Walp.
Wild. 1044; Grif 12367. Collected 1988 in Yemen.

The following were collected by Citoyen Nlandu ne Nsaku, Institut de Recherche, Agronomique et Zootechnique (IRAZ), De La C.E.P.G.L., B.P. 91, Gitega, Burundi. Donated by Paul Quek, International Plant Genetics Resources Institute, Regional Office for Asia, the Pacific and Oceania, c/o IDRC, 7th Storey, RELC Building, Singapore. Received 11/29/1994.

PI 606725. Vigna unguiculata (L.) Walp.
Cultivated. GMN 50; Grif 12388. Collected 05/17/1989 in Kasai-Oriental, Zaire. Latitude 6 deg. 45' S. Longitude 83 deg. 57' E. Elevation 780 m. INERA Station.

The following were developed by Robert Elmore, Mississippi State University, Prairie Research Unit, P. O. Box 124, Prairie, Mississippi 39756, United States; Jimmie H. Hatchett, USDA-ARS, Dept of Entomology, Waters Hall, Manhattan, Kansas 66506-4004, United States; P. Stephen Baenziger, University of Nebraska, Department of Agronomy, 330 Keim Hall, Lincoln, Nebraska 68583-0915, United States; Lenis A. Nelson, University of Nebraska-Lincoln, Institute of Agric. and Nat. Resources, Panhandle Res. & Extension Center, Scottsbluff, Nebraska 69361, United States; Clinton E. Peterson, USDA, ARS, Department of Horticulture, University of Wisconsin, Madison, Wisconsin 53706, United States; David D. Baltensperger, University of Nebraska, Panhandle Res. & Ext. Center, 4502 Avenue I, Scottsbluff, Nebraska 69361-4939, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; B.

Moreno-Sevilla, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68583, United States; C.J. Peterson, USDA, ARS, University of Nebraska, Dept. of Agronomy, Lincoln, Nebraska 68583, United States; D.R. Shelton, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68583, United States; John E. Watkins, University of Nebraska, Dept. of Plant Pathology, Lincoln, Nebraska 68583, United States. Received 01/12/1999.

PI 606726. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. "CULVER"; NE93554; NSGC 7355. CV-880; PVP 9900404. Pedigree - NE82419/Arapahoe = Trapper//Comanche/Ottawa/3/CIMMYT/Scout/4/Buckskin sib/Homestead/5/Arapahoe. Released 1998. Hard red winter wheat. Superior adaptation to dryland wheat production systems in southern and central Nebraska and similar growing areas in adjacent states. Awned, white-glumed. Field appearance similar to Alliance although not as yellow-green in color. Medium maturity. Winterhardiness good to very good. Moderately resistant to stem rust and leaf rust.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 01/13/1999.

PI 606727. Glycine max (L.) Merr.
Cultivar. "92B23". PVP 9900085.

PI 606728. Glycine max (L.) Merr.
Cultivar. PVP 9900086.

PI 606729. Glycine max (L.) Merr.
Cultivar. PVP 9900087.

PI 606730. Glycine max (L.) Merr.
Cultivar. PVP 9900088.

PI 606731. Glycine max (L.) Merr.
Cultivar. PVP 9900089.

PI 606732. Glycine max (L.) Merr.
Cultivar. PVP 9900090.

PI 606733. Glycine max (L.) Merr.
Cultivar. PVP 9900091.

PI 606734. Glycine max (L.) Merr.
Cultivar. PVP 9900092.

PI 606735. Glycine max (L.) Merr.
Cultivar. PVP 9900097.

PI 606736. Glycine max (L.) Merr.
Cultivar. PVP 9900098.

PI 606737. Glycine max (L.) Merr.
Cultivar. PVP 9900099.

PI 606738. Glycine max (L.) Merr.
Cultivar. PVP 9900100.

PI 606739. Glycine max (L.) Merr.
Cultivar. PVP 9900101.

PI 606740. Glycine max (L.) Merr.
Cultivar. PVP 9900102.

PI 606741. Glycine max (L.) Merr.
Cultivar. PVP 9900103.

PI 606742. Glycine max (L.) Merr.
Cultivar. PVP 9900104.

PI 606743. Glycine max (L.) Merr.
Cultivar. PVP 9900105.

The following were developed by Jeff Pedersen, USDA, ARS, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68583-0937, United States ; J.J. Toy, USDA-ARS, Univ. of Nebraska-Lincoln, Dept. of Agronomy, Lincoln, Nebraska 68583-0937, United States. Received 11/09/1998.

PI 606744. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-563. Pedigree - SC10 / SC559. Released 06/1998. R-line with potential to give high yielding hybrids. Anthesis in 86 days, averages 115 cm in height, purple plant color, white seed, and no pigmented testa.

PI 606745. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-564. Pedigree - SC120 / SC133. Released 06/1998. R-line with the potential to give high yielding hybrids. Anthesis in 72 days, averaged 95 cm in height, tan plant color, white seed, and no pigmented testa.

PI 606746. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-565. Pedigree - 83M3 / E35-1. Released 06/1998. R-line exhibiting very early maturity (59 days to anthesis), tan plant color, 75 cm in height, white seed, and no pigmented testa.

PI 606747. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-566. Pedigree - 83M3 / E35-1. Released 06/1998. R-line exhibiting very early maturity (58 days to anthesis), tan plant color, 115 cm in height, white seed, and no pigmented testa.

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; Greg Noel, USDA-ARS, University of Illinois, Department of Plant Pathology, Urbana, Illinois 61801, United States; T.R. Cary, University of Illinois, Illinois Agr. Exp. Sta., Dept. of Agronomy, Urbana, Illinois 61801, United States; D.D. Hoffman, University of Illinois, Dept. of Crop Sciences, 1102 S.

Goodwin, Urbana, Illinois 61801, United States. Received 11/23/1998.

PI 606748. Glycine max (L.) Merr.
Cultivar. Pureline. CV-401. Pedigree - Jack x Resnik. Indeterminate line with Group IV maturity (relative maturity 4.4) maturing 1 day later than Stressland and 1 day earlier than Mustang. Flowers white, gray pubescence, brown pods at maturity, and dull yellow seeds with buff hila. May have up to 2% other plant and seed types. Susceptible to phytophthora rot (Races 1, 4, and 7) (Phytophthora sojae), brown stem rot (Phialophora gregata), and sudden death syndrome (Fusarium solani). Resistant to Races 2, 3, 4, 5 and 14 and moderately resistant to Race 1 when evaluated against soybean cyst nematode (Heterodera glycines) in the greenhouse.

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; Greg Noel, USDA-ARS, University of Illinois, Department of Plant Pathology, Urbana, Illinois 61801, United States; T.R. Cary, University of Illinois, Illinois Agr. Exp. Sta., Dept. of Agronomy, Urbana, Illinois 61801, United States; R.A. Leitz, University of Illinois, Dept. of Crop Sciences, 1102 S. Goodwin, Urbana, Illinois 61801, United States. Received 11/23/1998.

PI 606749. Glycine max (L.) Merr.
Cultivar. Pureline. CV-402. Pedigree - Jack x Hartwig. Indeterminate line with Group IV maturity (relative maturity 4.5) maturing 3 days later than Stressland and 1 day later than Mustang. Flowers white, gray pubescence, brown pods at maturity, and dull yellow seeds with buff hila. May have up to 2% other types. Susceptible to Phytophthora rot (Races 1, 4, and 7) (Phytophthora sojae), brown stem rot (Phialophora gregata), and sudden death syndrome (Fusarium solani). Resistant to Races 1, 3, and 5, and moderately susceptible to Race 4, and moderately resistant to Race 14 when evaluated against soybean cyst nematode (Heterodera glycines) in the greenhouse.

The following were collected by John L. Schwendiman, USDA-SCS, Plant Materials Center, Pullman, Washington, United States. Donated by John L. Schwendiman, USDA-SCS, Plant Materials Center, Pullman, Washington, United States; David Brenner, Iowa State University, Regional Plant Introduction Station, Room G208, Agronomy Building, Ames, Iowa 50011-1170, United States. Received 09/15/1972.

PI 606750. Melilotus albus Medik.
Wild. Collected 1964 in Eskisehir, Turkey. Latitude 39 deg. 40' 0'' N. Longitude 30 deg. 20' 0'' E. Eskisehir, via grasslands and Animal Husbandry Research Station, Ankara. Separation from PI 383707 74ncpo01 of 20 biennial plants. Part of a regeneration planting of Row 417. Nineteen of the plants were of the standard type, one was the bushy type.

The following were collected by Hans-Martin Burki, CABI Bioscience Centre,

Rue des Grillons 1, Delemont, Jura CH-2800, Switzerland. Received 12/14/1998.

PI 606751. Amaranthus blitum L.
Wild. Collected 10/1998 in Zurich, Switzerland. Latitude 47 deg. 18' 0'' N. Longitude 8 deg. 30' 0'' E. Elevation 442 m. Swiss Federal Research Station for Agroecology and Agriculture (FAL), CH 8046 Zurich. Sugarbeet field. Weakly pseudogleyic loamy brown soil from colluvium.

The following were developed by Pybas Vegetable Seed Co., Inc., United States . Received 01/14/1999.

PI 606752. Lactuca sativa L.
Cultivar. PVP 9900059.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 01/14/1999.

PI 606753. Festuca arundinacea Schreb.
Cultivar. PVP 9900106.

The following were developed by Michigan Agric. Exp. Station, Michigan State University, East Lansing, Michigan 48804, United States. Received 01/14/1999.

PI 606754. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900107.

The following were developed by Novartis Seeds, Inc., United States. Received 01/14/1999.

PI 606755. Phaseolus vulgaris L.
Cultivar. PVP 9900108.

The following were developed by Advanta Seeds Pacific, Inc., Oregon, United States. Received 01/14/1999.

PI 606756. Festuca arundinacea Schreb.
Cultivar. PVP 9900111.

PI 606757. Festuca arundinacea Schreb.
Cultivar. PVP 9900112.

PI 606758. Festuca arundinacea Schreb.
Cultivar. PVP 9900113.

PI 606759. Festuca arundinacea Schreb.
Cultivar. PVP 9900114.

PI 606760. Festuca arundinacea Schreb.
Cultivar. PVP 9900115.

PI 606761. Festuca arundinacea Schreb.
Cultivar. PVP 9900116.

PI 606762. Festuca arundinacea Schreb.
Cultivar. PVP 9900117.

The following were developed by Paragon Seed, Inc., United States. Received 01/14/1999.

PI 606763. Lactuca sativa L.
Cultivar. PVP 9900122.

The following were developed by Clarence J. Peterson, USDA-ARS, Washington State University, Pullman, Washington, United States; Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States. Received 01/19/1999.

PI 606764. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Pedigree - UNA (NS 1971)/3/Oasis/WA6362/WA6242/4/Tres//Eltan. Club-type soft white winter wheat. Semi-dwarf, awned, mid-season maturity, white straw and white glumes. Adapted for production in the areas of eastern Washington with snowmold infestations. Superior yield potential to Eltan, Sprague, and Hiller, especially under snowmold pressure. Matures seven days earlier than Eltan when recovering from severe snowmold infestation. Test weights are similar to Eltan and greater than Hiller. Good resistance to snowmold, stripe rust, and Cephalosporium stripe. Moderately resistant to leaf rust and foot rot (eyespot).

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; Roland F. Line, USDA, ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164, United States; Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States; Richard Hoffman, Washington State University, Dept. of Crop & Soil Science, Spillman Farm, Pullman, Washington 99164-6420, United States; S.R. Lyon, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; E. Donaldson, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States. Received 01/19/1999.

PI 606765. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. CV-882. Pedigree - Jacmar/Stephens//Tres/4/PI 167822/CI 13438//Luke/3/Paha. Club-type soft white winter wheat. Tall, awnless, white glumes, and white straw. Adapted for production in the semi-arid region (<14 inches annual precipitation) of eastern Washington, as a replacement for Moro. Excellent emergence, straw strengthand adult plant stripe rust resistance. Winter hardiness and snowmold resistance is similar to Eltan. Superior to Moro in yield and test weight. Excellent club wheat quality characteristics.

The following were developed by Edwin Donaldson, Washington State University, Dry Land Research Unit, P.O. Box B, Lind, Washington, United States; Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States. Received 01/19/1999.

PI 606766. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Pedigree - Buchanan/4/Kavkaz/3/PI 17346/Itana//Wanser. Hard red winter wheat. Tall, awned, mid to late season maturity, white straw, and white glumes. Adapted for production in the semi-arid region (<14 inches annual precipitation) of eastern Washington. Superior yield potential to all adapted hard rewinter wheats. Grain protein content, test weight, and emergence similar to Buchanan. Good tolerance to snowmold, stripe rust, and Cephalosporium stripe. Susceptible to foot rot (eyespot).

The following were developed by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/1986.

PI 606767. Amaranthus cruentus L.
Cultivated. This is a Mexican x Aztec breeding line. The orange and green striped stems make it easy to distinguish this line from weedy amaranths at emergence. Grain in the orange flowers matures about a week later than 1011.

The following were developed by Zeno W. Wicks III, South Dakota State University, Plant Science Department, NPB 248B, Brookings, South Dakota 57007, United States; M.L. Carson, South Dakota State University, Plant Sciences Department, Brookings, South Dakota 57007, United States; D.L. Robbins, South Dakota State University, Plant Sciences Department, Brookings, South Dakota 57007, United States; South Dakota State University, South Dakota Agricultural Exp. Station, Brookings, South Dakota, United States. Donated by Zeno W. Wicks III, South Dakota State University, Plant Science Department, NPB 248B, Brookings, South Dakota 57007, United States. Received 03/19/1991.

PI 606768. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-75. Pedigree - Derived from eight generations of selfing an individual plant of Pioneer Hybrid 3709. Released 03/1985. Yellow dent inbred line. This line was evaluated for agronomic performance and in hybrid combination for yield and moisture. Released because of its potential to produce competitive hybrids for central and southern South Dakota.
Derived by selfing for eight generations with selection for desirable plant, ear, and root traits. Evaluated for 3 years at Brookings and would be considered intermediate to late flowering because it silked 2 days after A632, 4 days after A619, 11 days after CM105, and 15 days after A654.
Plants approximately 120 cm tall with ear placement approximately 75 cm above the ground. Light green with narrow and distinctly upright leaves, small tassels, and red cobs. Ear length about 15 cm and ears are borne on 7.5 cm shanks. 12 to 14 rows of medium size kernels on each cob. Seed moisture content about 20%, 60 days after pollination. Good vigor, ear

fill, stalk strength, and stay green. Acceptable husk looseness and roots. Good combining ability with both A619 &.

PI 606769. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-76. Pedigree - Derived from eight generations of selfing a single plant of the cross SDp309 X W64A. Released 03/1985. Yellow dent inbred line. Evaluated for agronomic performance and in hybrid combination for yield and moisture. Released because of its potential to produce competitive hybrids for central and southern South Dakota.
Derived by selfing for eight generations with selection for desirable plant, ear, and root traits. At Brookings, intermediate to late flowering because it silked 1 day before A632, 1 day after A619, 8 days after CM105, and 12 days after A654(AES 500). Plants approximately 150 cm tall with ear placement 60-70 cm above the ground. Narrow, dark green leaves, small tassels, and a red cob. Ear length is about 16.5 cm and ears are borne on 11 cm shanks. 18 rows of medium-small kernels. Seed moisture content about 20%, 60 days after pollination. Very good vigor and ear fill. Good stalk strength and husk looseness. Acceptable stay green and roots. Good combining ability with A632 producing a 4 year average of 7.90 Mg/ha compared to 8.36 Mg/ha for Pioneer 3901 when tested.

The following were developed by Mike McLaughlin, USDA, ARS, P. O. Box 5367, Highway 12, Mississippi State, Mississippi 39762-5367, United States; Gary A. Pederson, USDA, ARS, Waste Management and Forage, Research Unit, Mississippi State, Mississippi 39762-5367, United States. Received 12/18/1998.

PI 606770. Trifolium repens L.
Breeding. Population. GP-8. Pedigree - Derived from a single Regal plant. Released 1998. White clover developed for hypersensitive resistance to peanut stunt cucumovirus (PSV). Similar to Regal in appearance and growth and should be useful in producing PSV-resistant cultivars.

The following were developed by Mike McLaughlin, USDA, ARS, P. O. Box 5367, Highway 12, Mississippi State, Mississippi 39762-5367, United States; Timothy E. Fairbrother, USDA, ARS, Crops Science Research Lab., P. O. Box 5367, Mississippi State, Mississippi 39762-5367, United States; Dennis E. Rowe, USDA, ARS, Crop Science Research Lab., Forage Research Unit, Mississippi State, Mississippi 39762-5367, United States. Received 12/18/1998.

PI 606771. Trifolium alexandrinum L.
Breeding. Population. GP-192. Pedigree - Produced from 3 PIs (468401, 517064, and 517060). Released 1998. Berseem clover resistant to bean yellow mosaic potyvirus (BYMV). Developed from intercrosses of plant introductions (PIs) screened for resistance to BYMV. Germplasm should be useful in development of BYMV-resistant cultivars.

PI 606772. Trifolium alexandrinum L.
Breeding. Population. GP-193. Pedigree - Produced from 11 PIs (220147, 291548, 291549, 517056, 468402, 517057, 445883, 420811, 163315, 445897 and 445882) and Multicut. Released 1998. Berseem clover resistant to

bean yellow mosaic potyvirus (BYMV). Developed from intercrosses of plant introductions (PIs) screened for resistance to BYMV. Germplasm should be useful in development of BYMV-resistant cultivars.

PI 606773. Trifolium alexandrinum L.
Breeding. Population. GP-194. Pedigree - Produced from remnant healthy plants of 78 PI lines with <80% resistant plants, Bigbee, and Multicut. Released 1998. Resistant to bean yellow mosaic potyvirus (BYMV). Developed from intercrosses of plant introductions (PIs) screened for resistance by BYMV. Germplasm should be useful in development of BYMV-resistant cultivars.

PI 606774. Trifolium alexandrinum L.
Breeding. Population. GP-195. Pedigree - Derived from intercross of 3 PIs (517055, 201954, and 241475). Released 1998. Berseem clover susceptible to bean yellow mosaic potyvirus (BYMV). Developed as an experimental control from intercrosses of susceptible plant introductions (PIs) inoculated with BYMV in greenhouse tests. Germplasm should be useful as an experimental virus-susceptible control.

PI 606775. Trifolium alexandrinum L.
Breeding. Population. GP-196. Pedigree - Derived from 9 PIs which included 8 named cultivars (468401, Lage; 220147, Frontier; 291548, Hustler; 291549, Musquawi; 468402, Balem; 420811, Eitan; 163315, Barain; 445875, Lyallpur Late; and 445882, Late Flowering). Released 1998. Berseem clover resistant to bean yellow mosaic potyvirus (BYMV). Resembles Multicut in growth habit and should be useful as a source of BYMV resistance for further selection and cultivar development.

The following were developed by Pybas Vegetable Seed Co., Inc., United States . Received 01/25/1999.

PI 606776. Apium graveolens L.
Cultivar. PVP 9900063.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 01/25/1999.

PI 606777. Medicago sativa L.
Cultivar. PVP 9900064.

The following were developed by Coastal Seeds, Inc., United States. Received 01/25/1999.

PI 606778. Lactuca sativa L.
Cultivar. PVP 9900066.

The following were developed by Goertzen Seed Research, Kansas, United States . Received 01/25/1999.

PI 606779. Triticum aestivum L., nom. cons. **subsp. aestivum**

Cultivar. PVP 9900068.

PI 606780. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900069.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 01/25/1999.

PI 606781. Phaseolus vulgaris L.
Cultivar. PVP 9900070.

PI 606782. Phaseolus vulgaris L.
Cultivar. PVP 9900071.

PI 606783. Phaseolus vulgaris L.
Cultivar. PVP 9900072.

PI 606784. Phaseolus vulgaris L.
Cultivar. PVP 9900073.

The following were developed by USDA, ARS, SRPIS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States. Received 01/25/1999.

PI 606785. Vigna unguiculata (L.) Walp.
Cultivar. PVP 9900074.

The following were developed by Hazera Quality Seeds Ltd., Brurin, D.N., Shikmim, Israel. Received 01/25/1999.

PI 606786. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900075.

PI 606787. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900076.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 01/25/1999.

PI 606788. Sorghum bicolor (L.) Moench
Cultivar. PVP 9900077.

The following were developed by Speight Seed Farms, Inc., Box 507, Winterville, North Carolina 28590, United States. Received 01/25/1999.

PI 606789. Nicotiana tabacum L.
Cultivar. PVP 9900078. Flue-cured.

The following were developed by Brotherton Seed Company, P.O. Box 1378, Moses

Lake, Washington, United States. Received 01/25/1999.

PI 606790. Pisum sativum L.
Cultivar. PVP 9900081.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 01/25/1999.

PI 606791. Lactuca sativa L.
Cultivar. PVP 9900082.

The following were developed by Nickerson S.A., United States. Received 01/25/1999.

PI 606792. Pisum sativum L.
Cultivar. PVP 9900083.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 01/25/1999.

PI 606793. Poa pratensis L.
Cultivar. PVP 9900084.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 01/25/1999.

PI 606794. Daucus carota L.
Cultivar. PVP 9900093.

The following were developed by The J.C. Robinson Seed Company, Waterloo, Nebraska, United States. Received 01/25/1999.

PI 606795. Zea mays L. **subsp. mays**
Cultivar. PVP 9900094.

PI 606796. Zea mays L. **subsp. mays**
Cultivar. PVP 9900095.

The following were developed by Larry A. Walters, Nu-World Amaranth, Inc., P.O. Box 2202, Naperville, Illinois 60567, United States. Donated by Lynn Field, University of Minnesota, 135 Crops Research, 1903 Hendon Avenue, St. Paul, Minnesota 55108, United States. Received 05/08/1991.

PI 606797. Amaranthus cruentus L.
Cultivar. White seeded grain cultivar. Most of the stem, leaves, and infloresence green. Base of stem pink.

The following were collected by Daniel Early, Central Oregon Community

College, New College Way, Bend, Oregon 97701, United States. Developed by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 606798. Amaranthus cruentus L.
Breeding. Collected 1977 in Mexico, Mexico. Latitude 19 deg. 15' 0'' N. Longitude 99 deg. 1' 0'' W. Elevation 2200 m. Tuyehualco. Pedigree - Original, un-selected A. cruentus germplasm of RRC 362. The A. hypochondriacus part is maintained as RRC 362. RRC 1032 is the source of some important cultivars. Seeds white. Infloresences green and red and marbled. Leaves green and rufescent-greenish with red overtones. RRC Class Type is: Mexican mercado. Plants are not uniform.

PI 606799. Amaranthus cruentus L.
Breeding. Collected 1977 in Mexico, Mexico. Pedigree - SPS from RRC NUM 77S-362. Eliminated from grain development research after poor yields in 1978. Red marbled on green infloresence. Grain type with white seeds, and green leaves. RRC class type is Mexican.

Unknown source. Received 1999.

PI 606800. Gossypium hirsutum L.

Unknown source. Received 1986.

PI 606801. Gossypium hirsutum L.
Collected in United States.

Unknown source. Received 1986.

PI 606802. Gossypium hirsutum L.
Collected in United States.

Unknown source. Received 1986.

PI 606803. Gossypium hirsutum L.
Collected in United States.

The following were donated by T. W. Culp, USDA, ARS, Pee Dee Exp. Station, P.O. Box 271, Florence, South Carolina 29503, United States. Received 1979.

PI 606804. Gossypium hirsutum L.
Breeding. GP-46. Pedigree - Derived from crosses with southeastern commercial cultivars, Coker 421, Atlas and Carolina Queen. Developed specifically from a cross of Coker 421 x PD 4398. Info. from Crop Sci. 19(5):751 (1979) -- breeding line with extra fiber strength. Represents significant step in overcoming adverse association between yield and fiber quality (especially strength). Extremely susceptible to

fusarium-wilt, rootknot-nematode complex and verticillium wilt. Combines well. Unusually high fiber elongation. Cultivated.

PI 606805. Gossypium hirsutum L.
CV-85. Pedigree - Developed by pedigree selection from the cross of Pee Dee 4381 x PD 8623. Info. from Registration Notice, South Carolina Agr. Exp. St. (1984) -- high fiber strength. Commercial variety of upland cotton. Plant type moderately open. Well balanced. Vigorous seedling stage, with large leaves. Foliage medium heavy. At maturity, plants erect with excellent resistance lodging. Bolls medium sized. Fiber quality excellent. Yields equal or superior to leading southeastern cultivars. Fiber length within range med. staple cottons. Intermediate reaction Fusarium oxysporium & Meloidogyne. Adapted Southeast. Cultivated.

PI 606806. Gossypium hirsutum L.
CV-86. Pedigree - Developed from bulked seed increase of an F3 plant selected from the composite cross of two F1 hybrids (FTA 266 x Atlas) x (AC 235 x Dixie King). Info. from Registration Notice, South Carolina Agricultural Experiment Station (1984) -- good yield due to rapid fruiting and shorter exposure period of fruiting parts to insect attacks. Resistant Fusarium oxysporum & Meloidogyne incognita (both intermediate reaction), rootknot nematode complex and boll weevil. Early maturing. High fiber strength. Compact plant type. Cultivated.

Unknown source. Received 1986.

PI 606807. Gossypium hirsutum L.
Collected in United States.

Unknown source. Received 1986.

PI 606808. Gossypium hirsutum L.
Collected in United States.

The following were developed by Mississippi State University, Mississippi Agr. Exp. Sta., State College, Mississippi, United States. Received 1986.

PI 606809. Gossypium hirsutum L.
Cultivar. CV-88; PVP 8500176. Collected in Mississippi, United States.

The following were developed by California Planting Cotton Seed Distributors, 30597 Jack Ave., Shafter, California 93263, United States. Received 09/22/1989.

PI 606810. Gossypium hirsutum L.
Collected in California, United States.

The following were developed by Mississippi State, Crop Science Research Laboratory, P.O. Box 5367, Mississippi State, Mississippi 39762, United

States. Received 11/1990.

PI 606811. Gossypium hirsutum L.
Collected in Mississippi, United States.

Unknown source. Received 1990.

PI 606812. Gossypium hirsutum L.
GP-254. Collected in South Carolina, United States.

The following were developed by Rogers Delinting Company. Received 1990.

PI 606813. Gossypium hirsutum L.
Collected in Texas, United States.

The following were developed by Cargill Wheat Research Farm, 2450 Drake Rd., Fort Collins, Colorado, United States. Received 04/23/1991.

PI 606814. Gossypium hirsutum L.
Cultivar. PVP 8600087. Collected in United States.

The following were developed by Ministerio de Agricultura, Pesa y Alimentacion, Seville, Sevilla, Spain. Received 01/1993.

PI 606815. Gossypium hirsutum L.
Collected in Spain.

PI 606816. Gossypium hirsutum L.
Collected in Spain.

The following were developed by J. F. Poisson, INTA - EEA, Saenz Pena, Buenos Aires, Argentina. Received 01/1993.

PI 606817. Gossypium hirsutum L.
Collected in Buenos Aires, Argentina.

PI 606818. Gossypium hirsutum L.
Collected in Buenos Aires, Argentina.

PI 606819. Gossypium hirsutum L.
Collected in Buenos Aires, Argentina.

PI 606820. Gossypium hirsutum L.
Collected in Buenos Aires, Argentina.

The following were developed by F. Douglas Wilson, USDA, ARS, Western Cotton Research Laboratory, 4135 East Broadway Road, Phoenix, Arizona 85040, United States. Received 01/1993.

PI 606821. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - EL SALVADOR-COTTON LEAF CRUMPLE VIRUS RESISTANCE.

PI 606822. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - (TEXAS 703 X STONEVILLE 7A)(THRIP SUSCEPTIBLE).

PI 606823. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - (TEXAS 703 X STONEVILLE 7A)(THRIP SUSCEPTIBLE).

PI 606824. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - DELTAPINE 61, SPONTANEOUS.

PI 606825. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - TEXAS 1182 (LUKEFAHR, BAHA CALIFORNIA).

PI 606826. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - (TEXAS 301-14 X ACALA GLANDLESS)F3, SPONTANEOUS.

The following were donated by F. Douglas Wilson, USDA, ARS, Western Cotton Research Laboratory, 4135 East Broadway Road, Phoenix, Arizona 85040, United States. Received 1985.

PI 606827. Gossypium hirsutum L.
Early maturity. High lint percentage. Nectaried. Normal pubescence. Normal leaf shape. Resistant to pink bollworm, Pectinophora gossypiella. Cultivated.

PI 606828. Gossypium hirsutum L.
Breeding. GP-260. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella). Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

PI 606829. Gossypium hirsutum L.
Breeding. GP-261. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella). Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

PI 606830. Gossypium hirsutum L.
Breeding. GP-263. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella). Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

PI 606831. Gossypium hirsutum L.
Breeding. GP-262. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella).

Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

PI 606832. Gossypium hirsutum L.
Breeding. GP-264. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella). Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

PI 606833. Gossypium hirsutum L.
Breeding. GP-265. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella). Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

PI 606834. Gossypium hirsutum L.
Breeding. GP-266. Info. from Crop Sci. 26(1):206 (1986) -- nectariless. Smoothleaf. Resistant pink bollworm (Pectinophora gossypiella). Comparative data available for yield, lint percentage, fiber length & strength, fiber elongation percent, and micronaire. Cultivated.

The following were developed by F. Douglas Wilson, USDA, ARS, Western Cotton Research Laboratory, 4135 East Broadway Road, Phoenix, Arizona 85040, United States. Received 01/1993.

PI 606835. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - PINK BOLLWORM RESISTANT SELECTION FROM TEXAS 39.

PI 606836. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - SUSCEPTIBLE SIB TO T39C-1-L.

PI 606837. Gossypium hirsutum L.
Collected in Arizona, United States. Pedigree - PINK BOLLWORM RESISTANT.

The following were developed by Tom Kirby. Received 01/1993.

PI 606838. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 SURVIVOR, NEM/FUS=8290-4.

PI 606839. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 SURVIVOR, NEMA/FUS=8290-5.

PI 606840. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 R54-17=7157, MED. HT. COLUMNAR.

PI 606841. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G5244=G8160 x T4852

MEDIUM HEIGHT GLANDLESS.

PI 606842. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DES 9608 NECTARLESS=H6180.

PI 606843. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (LA FREGO 2-13170 x T1307) x SJ-2=H7050.

PI 606844. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DEL CERRO 153 (MIN. SIDE BRANCHES).

PI 606845. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DEL CERRO 169 (MIN. SIDE BRANCHES).

PI 606846. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (NILES 1657-77 x SJ-2), 1980 CROSS.

PI 606847. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NM1073 x S155, 2 x SJ-1 f6=H6097.

PI 606848. Gossypium hirsutum L.
Collected in California, United States. Pedigree - A 76-73 (NM)=7421.

PI 606849. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NM1073 x S155, 2 x SJ-1, 3 x T5690.

PI 606850. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-58 MEDIUM HEIGHT 87-88.

PI 606851. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N6072 x T6310 (BEST '87 YIELD).

PI 606852. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (N9281 x T5690) x 4-42 CLUSTER, 87X.

PI 606853. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (N9281 x T5690) x SS2086 ROW 50, 1987X.

PI 606854. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (N9281 x T5690) x (YSLETA C x T5690) 87X.

PI 606855. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 ROW 50 x

SJ-5, 87X.

PI 606856. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (N6072 x SS2086) x SJ-5, 87X.

PI 606857. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (N9281 x T5690) x (N6072 x SS2086), 87X.

PI 606858. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SB 3-10 (WALHOOD 82).

PI 606859. Gossypium hirsutum L.
Collected in California, United States. Pedigree - COKER 310, MEDIUM HEIGHT 87-88.

PI 606860. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T6892 WILT RES SJ-4=8325.

The following were developed by University of California Cotton Extension, Shafter, California, United States. Received 01/1993.

PI 606861. Gossypium hirsutum L.
Collected in California, United States. Pedigree - AC42-2 "OKRA LEAF" (WALHOOD 82).

The following were developed by Tom Kirby. Received 01/1993.

PI 606862. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PI 451742 (CHINESE LINES).

PI 606863. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PI 451749 (CHINESE LINES).

PI 606864. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 R54-19 (WITH SIDE BRANCHES).

PI 606865. Gossypium hirsutum L.
Collected in California, United States. Pedigree - MCMICHAELS (12302 x 1746) HIGH LINT %.

PI 606866. Gossypium hirsutum L.
Collected in California, United States. Pedigree - MCMICHAELS 17-4-6 HIGH LINT %.

PI 606867. Gossypium hirsutum L.
Collected in California, United States. Pedigree - MCMICHAELS 12302

HIGH LINT %.

PI 606868. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 12302-4 x (TANG x 4-42).

PI 606869. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NM7403 x ATE1-57.

The following were developed by University of California Cotton Extension, Shafter, California, United States. Received 01/1993.

PI 606870. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T1307 x PD2165.

The following were developed by Tom Kirby. Received 01/1993.

PI 606871. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T1307=(C6TE x NM7378, NOT 8311).

PI 606872. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T4445=(12302 x (TANG x 4-42)) x T1307.

PI 606873. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T4445 x 12302.

PI 606874. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T4852 x S1391.

PI 606875. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S196 x NM B4364.

PI 606876. Gossypium hirsutum L.
Collected in California, United States. Pedigree - C6TE x NM7403.

PI 606877. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (7389=N9281 x T5690) x (7341=CA1072).

PI 606878. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T1307-2 x PD2165, 3x MO71-327.

PI 606879. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (1656-77 x SJ-2) x 1656-77.

PI 606880. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (H6156 x G8160)=H7257.

PI 606881. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (H6114 x G4051)=H7258.

PI 606882. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (H6156 x G4051)=H7259.

PI 606883. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (H6156 x G4612)=H7260.

PI 606884. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (7158=2086 R54-10) x (7115=2086 R95-2).

PI 606885. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2280 R79-4, 1986 SELECTION.

PI 606886. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-5 x SS2086, 1987 CROSS.

PI 606887. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 x SJ-5, 1987 CROSS.

PI 606888. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PIMA S-6 x SS2280 (ALL 4 LOCK).

PI 606889. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 CLUSTER=7343 (MIN. SIDE BRANCHES).

PI 606890. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T6310=(C6TE x NM B3080)=7390.

PI 606891. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PANDORA (SHORT FRUITING BRANCH).

PI 606892. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 ROW 31 IN 1986.

PI 606893. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 ROW 49 IN 1986.

PI 606894. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 ROW 95-19 IN 1986.

PI 606895. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2280 ROW 16-4 IN 1986.

PI 606896. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-5 x SS2280, 1986 CROSS.

PI 606897. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7136=(SJ-5 x 6-19-66), 79 CROSS "C".

PI 606898. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7280=(C1 x (4852 x 6-19-66)), 82 CR. "C".

PI 606899. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7046=SS2086 ROW 54-19 IN 1986 "C".

PI 606900. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ((N9281 x 5690) x (6072 x 2086)) x 7280.

PI 606901. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2280 ROW 16-5 IN 1986.

PI 606902. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2806 ROW 95-4 IN 1986.

PI 606903. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 ROW 95-18 IN 1986.

PI 606904. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2280, 21p FROM BEST 7 ROWS IN 87.

PI 606905. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7280=(C1 x (4852 x 6-199-66)), 82 CR. "C".

PI 606906. Gossypium hirsutum L.
Collected in California, United States.

PI 606907. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7136=(SJ-5 x 6-19-66) 1979 CROSS "C".

PI 606908. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (4-42 x DPL DWARF), 1989 COLUMNAR SEL.

PI 606909. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 8010-P5=2086 SHORT COLUMNAR SELECT.

PI 606910. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7046=SS2086 ROW 54-19 IN 1986 "C".

PI 606911. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7280=(C1 x (4852 x 6-19-66)), 82 CR "C".

PI 606912. Gossypium hirsutum L.
Collected in California, United States. Pedigree - B101=7436.

PI 606913. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (4852 x DUNN 118)=7226.

PI 606914. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7280=(C1 x (4852 x 6-19-66)), 82 CR "C".

PI 606915. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7046=SS2086 ROW 54-19 IN 1986 "C".

PI 606916. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS2086 ROW 35 IN 1986.

PI 606917. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7749=(N6072 x 2086), 86 CROSS.

PI 606918. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7605=(2086 x N8577), 86 CROSS.

PI 606919. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7280=(C1 x (4852 x 6-19-66)), 82 CR "C".

PI 606920. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7046=SS2086 ROW 54-19 IN 1986 "C".

PI 606921. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7788=((A673 x N6072) x T5690), 87 SEL.

PI 606922. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7887=SJ-2 x (SJ-2 x N6072), 87 SEL.

PI 606923. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 SURVIVOR, NEMA/FUS NURSERY.

PI 606924. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 8324 x S155.

PI 606925. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N9281 x N6048.

PI 606926. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N5191 x 5690.

PI 606927. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N4212 x 5690.

PI 606928. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 87 SEL NEM/FUS SURVIVORS.

PI 606929. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N9281 x N6048.

PI 606930. Gossypium hirsutum L.
Collected in California, United States. Pedigree - RELEASED GLANDLESS LINE.

PI 606931. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (PD2165 x 6142) x G4611.

PI 606932. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G4611 x G4387.

PI 606933. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (NM1479 x 6142) x G4611.

PI 606934. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 86 SEL NEM/FUS SURVIVORS.

PI 606935. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 x N9281.

PI 606936. Gossypium hirsutum L.
Collected in California, United States. Pedigree - RELEASED NEMATODE LINE.

PI 606937. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T1307 x G8160.

PI 606938. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G4387 x NMS920.

PI 606939. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G4387 x G4611.

PI 606940. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G4387 x NMG800.

PI 606941. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N9308 x SJ-2.

PI 606942. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N5141 x 1307.

PI 606943. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NEMATODE RELEASE.

PI 606944. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N5191 x (12302 x 4852).

PI 606945. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N6072 x N9311.

PI 606946. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N6072 x N8577.

PI 606947. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N8577 x N9311.

PI 606948. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G4387 x (6142 x S845).

PI 606949. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G8160 x (6142 x 7403).

PI 606950. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-77 GS x G4387.

PI 606951. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PARENT OF N6072.

PI 606952. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 5690 x 1307.

PI 606953. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4852 x (C6TE x DC503).

PI 606954. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (C6TE x 7403) x (1-57 x 364).

PI 606955. Gossypium hirsutum L.

Collected in California, United States. Pedigree - (1-11 x 7403) x (1-57 x 364).

PI 606956. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4852 x (7403 x 1-57).

PI 606957. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 12302 x (TANG x 4-42).

PI 606958. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4445 x (C6TE x DC503).

PI 606959. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 7403 x 4-42-77.

PI 606960. Gossypium hirsutum L.
Collected in California, United States. Pedigree - HAEF-242.

PI 606961. Gossypium hirsutum L.
Collected in California, United States. Pedigree - C6TE x 7378.

PI 606962. Gossypium hirsutum L.
Collected in California, United States. Pedigree - RELEASE-"NECTARILESS".

PI 606963. Gossypium hirsutum L.
Collected in California, United States. Pedigree - RELEASE-"NECTARILESS".

PI 606964. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 GLANDLESS.

PI 606965. Gossypium hirsutum L.
Collected in California, United States. Pedigree - TANG x HAP.

PI 606966. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 x TANG.

PI 606967. Gossypium hirsutum L.
Collected in California, United States. Pedigree - AHA 46-124-14.

PI 606968. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4852 x (7403 x 4-42-77).

PI 606969. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (7403 x 4-42-77) x (1-57 x 364).

PI 606970. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-77 GLANDLESS.

PI 606971. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4852 x PAYM DW(72X) .

PI 606972. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4852 x 6-19-66 (78X).

PI 606973. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x YSLETA COMP .

PI 606974. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x (NRO 13-27 x 1307).

PI 606975. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x ((M063 x 7403) x LUB2).

PI 606976. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (NRO 13-27 x 1307) x B101(72X).

PI 606977. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (Nr0 7-10 x 1307) x 4852 (72X).

PI 606978. Gossypium hirsutum L.
Collected in California, United States. Pedigree - YSLETA COMP x PD6520 (72X).

PI 606979. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x (4852 x ACCO 266).

PI 606980. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x (4852 x DUNN 19).

PI 606981. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x DSMS SS1 PS .

PI 606982. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DSMS SS1 PS.

PI 606983. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJC-1 x (4852 x DUNN 118).

PI 606984. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-5 x (1307 x 6-19-66).

PI 606985. Gossypium hirsutum L.
Collected in California, United States. Pedigree - YSLETA COMP x 5690.

PI 606986. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 6-19-66 x SJ-5.

PI 606987. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (MO63-277 c 7403) x LUB2.

PI 606988. Gossypium hirsutum L.
Collected in California, United States. Pedigree - E1029 (NEW MEXICO).

PI 606989. Gossypium hirsutum L.
Collected in California, United States. Pedigree - YSLETA COMPACT.

PI 606990. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NRO 13-22 x 1307 (72X).

PI 606991. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NRO 13-11 RESEL x 4852 (72X).

PI 606992. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4852 x DUNN 119 (72X).

Unknown source. Received 1999.

PI 606993. Gossypium hirsutum L.

Unknown source. Received 1999.

PI 606994. Gossypium hirsutum L.

The following were developed by Tom Kirby. Received 01/1993.

PI 606995. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N8577 x (N8577 x N9311) 80X.

PI 606996. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S438 C6-5.

PI 606997. Gossypium hirsutum L.
Collected in California, United States. Pedigree - C6TE.

PI 606998. Gossypium hirsutum L.
Collected in California, United States. Pedigree - AHA 46-124-14.

PI 606999. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ATE ROW 534-1959.

PI 607000. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 86-86 ROW 718-1960 "YSLETA".

PI 607001. Gossypium hirsutum L.
Collected in California, United States. Pedigree - C6TE 565 ROW 71-3-1959.

PI 607002. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 x DPL DWARF R201B-1963.

PI 607003. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 1961 MODEL.

PI 607004. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-132 1962 PROG. INC.

PI 607005. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N8577 x (N6072 x N8577) 80X.

PI 607006. Gossypium hirsutum L.
Collected in California, United States. Pedigree - AHA 46-124-14.

PI 607007. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ACALA 29.

PI 607008. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ACALA 51.

PI 607009. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ATE x 4-42 R663-1959.

PI 607010. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 5-12-7-6 R223-1960.

PI 607011. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S5-4-1-7-27.

PI 607012. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAL 7-8.

PI 607013. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ATE (1961).

PI 607014. Gossypium hirsutum L.
Collected in California, United States. Pedigree - STRAIN 1-61 (1961).

PI 607015. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N6072 x (N6072 x N9311) 80X.

PI 607016. Gossypium hirsutum L.
Collected in California, United States. Pedigree - MISSDEL X P18C.

PI 607017. Gossypium hirsutum L.
Collected in California, United States. Pedigree - BEASLEY'S HYBRID.

PI 607018. Gossypium hirsutum L.
Collected in California, United States. Pedigree - FLO GREEN SEED.

PI 607019. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAL 7-5.

The following were developed by M. Kirby. Received 01/1993.

PI 607020. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAL 4.

The following were developed by Tom Kirby. Received 01/1993.

PI 607021. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 258A=C6TE x CAL7.

PI 607022. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 1518(a x 11=R 1001-36-1963).

PI 607023. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-155.

PI 607024. Gossypium hirsutum L.
Collected in California, United States. Pedigree - MO 61-47 OF.

PI 607025. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 x N8577 78X.

PI 607026. Gossypium hirsutum L.
Collected in California, United States. Pedigree - WILDS A 51P1.

PI 607027. Gossypium hirsutum L.
Collected in California, United States. Pedigree - TIDEWATER (SEABROOK).

PI 607028. Gossypium hirsutum L.
Collected in California, United States. Pedigree - BAR x 16.

PI 607029. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 1019(1 x 25-7=R1001-37-1963).

PI 607030. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-25=R1129-1965.

PI 607031. Gossypium hirsutum L.
Collected in California, United States. Pedigree - A29 x (M x A).

PI 607032. Gossypium hirsutum L.
Collected in California, United States. Pedigree - AHA 7T x (M x A27).

PI 607033. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S918 (12302 RESEL).

PI 607034. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S845 (12302 RESEL).

PI 607035. Gossypium hirsutum L.
Collected in California, United States. Pedigree - W 8577 x (SJ-2 x N8577) 80X.

PI 607036. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DELFOS 531C.

PI 607037. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DELTA TYPE WEBBER.

PI 607038. Gossypium hirsutum L.
Collected in California, United States. Pedigree - MISSDEL 6 PI 1.

PI 607039. Gossypium hirsutum L.
Collected in California, United States. Pedigree - A40.

PI 607040. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-132 (53).

PI 607041. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-77 (64).

PI 607042. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42-162 (64).

PI 607043. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S5304 PD 0111.

PI 607044. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S5306 PD 6520.

PI 607045. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-2 x N9311 78X.

PI 607046. Gossypium hirsutum L.
Collected in California, United States. Pedigree - BALLARD'S D10.

PI 607047. Gossypium hirsutum L.
Collected in California, United States. Pedigree - C6-5 (R271-1961).

PI 607048. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - R-14-574 (R680-1961).

PI 607049. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - 4-42-176(64).

PI 607050. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - 4-42-94.

PI 607051. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - 4-42-135.

PI 607052. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - (1 x 1517) 548-13-9 .

PI 607053. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - S5307 PD 0109.

PI 607054. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - S5303 PD 0113.

PI 607055. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - (1GS x 12302) x T1307.

PI 607056. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - T1307 x G8160.

PI 607057. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - SJ-2 x N9281 78X.

PI 607058. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - R-15-7 (ROW 1139-1963) HAEF.

PI 607059. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - HA 6-1-5 (ROW 244-1561).

PI 607060. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - 241 TH x STA C.

PI 607061. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - (1 x 1517) 49-13-4 .

PI 607062. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - 1-62-595 (1962).

PI 607063. *Gossypium hirsutum* L.
Collected in California, United States. Pedigree - 4-42 1958 MODEL (1964).

PI 607064. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 1963 MODEL (1959).

PI 607065. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S5305 PD9241.

PI 607066. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NM 1517-75.

PI 607067. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S918 x G0717.

PI 607068. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T1307 x PD2165.

PI 607069. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ATE 1-57 x E364.

PI 607070. Gossypium hirsutum L.
Collected in California, United States. Pedigree - TH458.

PI 607071. Gossypium hirsutum L.
Collected in California, United States. Pedigree - HA 1-9.

PI 607072. Gossypium hirsutum L.
Collected in California, United States. Pedigree - TEF 193.

PI 607073. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 1964 MODEL.

PI 607074. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 1965 MODEL.

PI 607075. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 1842-POSO RANCH 1963.

PI 607076. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 BULK SELF-1951 .

PI 607077. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 12302-89.

PI 607078. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S658=12302 S96-5.

PI 607079. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (ATE 1-57 x E364) x (C6TE x NM 3080).

PI 607080. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (12302 x TANG 4-42) x (G8160 x T4852).

PI 607081. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T5690 x (G8160 x T4852).

PI 607082. Gossypium hirsutum L.
Collected in California, United States. Pedigree - "7391" INCREASE PEDIGREE SJ-5.

PI 607083. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 257A=THEF x A29.

PI 607084. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 741 PANDORA x TH x 1-HA-46.

PI 607085. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 12302 (ROW 5713-1963).

PI 607086. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 (1953).

PI 607087. Gossypium hirsutum L.
Collected in California, United States. Pedigree - STRAIN 39 (1963).

PI 607088. Gossypium hirsutum L.
Collected in California, United States. Pedigree - STRAIN 1602-5 (1963).

PI 607089. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 1-62-100 (1962).

PI 607090. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S1603 (12302).

PI 607091. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SS106 P18C (1959).

PI 607092. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 12302 x 1900-1.

PI 607093. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T4852 x T1307.

PI 607094. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (E364 x 12302) x T1307.

PI 607095. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NILES 6-19-66 (TALL, COLUMNAR).

PI 607096. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAMDEE.

PI 607097. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PAYMASTER 792.

PI 607098. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NILES 6-19-66 x SJ-2 80X.

PI 607099. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAMDEE x SJ-2 80X.

PI 607100. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PAYMASTER 792 x SJ-2 80X.

PI 607101. Gossypium hirsutum L.
Collected in California, United States. Pedigree - OKRA LEAF (WALHOOD SHORT BR).

PI 607102. Gossypium hirsutum L.
Collected in California, United States. Pedigree - STROMBERG CLUSTER.

PI 607103. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NILES 6-19-66 x SJ-5 78X.

PI 607104. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAMD-E x SJ-5 78X.

PI 607105. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PAYMASTER 792 x SJ-5 78X.

PI 607106. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SPL728 (DWARF).

PI 607107. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NILES 1657-77 (CLUSTER).

PI 607108. Gossypium hirsutum L.
Collected in California, United States. Pedigree - OKRA LEAF (WALHOOD SHORT BR).

PI 607109. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 4-42 x PAYMASTER DW (WALHOOD).

PI 607110. Gossypium hirsutum L.
Collected in California, United States. Pedigree - YOUNGS ACALA.

PI 607111. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ACALA 1064.

PI 607112. Gossypium hirsutum L.

Collected in California, United States. Pedigree - ACALA SHAFTER STATION.

PI 607113. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (6-19-66 x SJ-5) x 6-19-66 80X.

PI 607114. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (CAMDEE x SJ-5) x CAMDEE 80X.

PI 607115. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (PAYMASTER 792 x SJ-5) x PAYMASTER 792 80X.

PI 607116. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 6-1-5 x 7378.

PI 607117. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T1307 x G8160.

PI 607118. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-5 x MEX NAKED 86X.

PI 607119. Gossypium hirsutum L.
Collected in California, United States. Pedigree - SJ-5 x ARK CLEAN 86X.

PI 607120. Gossypium hirsutum L.
Collected in California, United States. Pedigree - HA 6-1-5-22 (TALL, GS).

PI 607121. Gossypium hirsutum L.
Collected in California, United States. Pedigree - DEL CERRO 247 RE: 7338.

PI 607122. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ORIGINAL ACALA.

PI 607123. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ACALA 1-13-3-1.

PI 607124. Gossypium hirsutum L.
Collected in California, United States. Pedigree - McNAIR 235.

PI 607125. Gossypium hirsutum L.
Collected in California, United States. Pedigree - HA6-1 x TH3865 (TALL).

PI 607126. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CHRP (WALHOOD SHORT BR.).

PI 607127. Gossypium hirsutum L.

Collected in California, United States. Pedigree - ERG4 (WALHOOD SHORT BR).

PI 607128. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NM1073 x S155, 2 x SJ-1, 3 x SJ-4 (UC631).

PI 607129. Gossypium hirsutum L.
Collected in California, United States. Pedigree - LA FREGO 2-13170 x T1307.

PI 607130. Gossypium hirsutum L.
Collected in California, United States. Pedigree - PEDIGREE=H7050.

PI 607131. Gossypium hirsutum L.
Collected in California, United States. Pedigree - TEX 27 x M8.

PI 607132. Gossypium hirsutum L.
Collected in California, United States. Pedigree - RESELECT H6157-3.

PI 607133. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CA1072.

PI 607134. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CA 1076-74-1 (SEMI CLUSTER, TALL).

PI 607135. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NILES TA x M.

PI 607136. Gossypium hirsutum L.
Collected in California, United States. Pedigree - E364 x 12302-89.

PI 607137. Gossypium hirsutum L.
Collected in California, United States. Pedigree - S845 x T1307.

PI 607138. Gossypium hirsutum L.
Collected in California, United States. Pedigree - NM7403 x ATE 1-57.

PI 607139. Gossypium hirsutum L.
Collected in California, United States. Pedigree - T4852 x 12302.

PI 607140. Gossypium hirsutum L.
Collected in California, United States. Pedigree - ATE-11 x NM7403.

PI 607141. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (12302 x TANG 4-42) x (G8160 x T4852).

PI 607142. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 6-1-5 x NM7378.

PI 607143. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G8160 x T4852.

PI 607144. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N9291 x N6048.

PI 607145. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N9311 x((4852 x (C6TE x 4-42-72)).

PI 607146. Gossypium hirsutum L.
Collected in California, United States. Pedigree - 12302 x T4852.

PI 607147. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (E364 x 12302) x T4852.

PI 607148. Gossypium hirsutum L.
Collected in California, United States. Pedigree - EARLY FLUFF 316.

PI 607149. Gossypium hirsutum L.
Collected in California, United States. Pedigree - BR EMPIRE x A709.

PI 607150. Gossypium hirsutum L.
Collected in California, United States. Pedigree - TH386.

PI 607151. Gossypium hirsutum L.
Collected in California, United States. Pedigree - (CAMP x THEF) x (STA C x A29).

PI 607152. Gossypium hirsutum L.
Collected in California, United States. Pedigree - CAL 2.

PI 607153. Gossypium hirsutum L.
Collected in California, United States. Pedigree - G6142 x 12302-89 (66142=1 x 77 GS).

PI 607154. Gossypium hirsutum L.
Collected in California, United States. Pedigree - FBCX-2 x S842.

PI 607155. Gossypium hirsutum L.
Collected in California, United States. Pedigree - N8577 x ((4852 x (C6TE x 4-42-77))).

PI 607156. Gossypium hirsutum L.
Collected in California, United States.

Unknown source. Received 1995.

PI 607157. Gossypium hirsutum L.

Unknown source. Received 03/01/1994.

PI 607158. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607159. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607160. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607161. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607162. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607163. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607164. Gossypium hirsutum L.

Unknown source. Received 12/01/1994.

PI 607165. Gossypium hirsutum L.

Unknown source. Received 01/02/1995.

PI 607166. Gossypium hirsutum L.

The following were donated by Peggy Thaxton, Texas A&M University, Dept. of Soil and Crop Science, College Station, Texas 77843, United States. Received 01/02/1995.

PI 607167. Gossypium hirsutum L.

Unknown source. Received 01/02/1995.

PI 607168. Gossypium hirsutum L.

The following were developed by T.W. Rogers, Arkansas Agr. Exp. Sta., Arkansas, United States. Received 1974.

PI 607169. Gossypium hirsutum L.
Cultivar. PVP 7200069.

Unknown source. Received 1995.

PI 607170. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607171. Gossypium hirsutum L.

Unknown source. Received 11/15/1995.

PI 607172. Gossypium hirsutum L.

Unknown source. Received 10/1995.

PI 607173. Gossypium hirsutum L.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 1974.

PI 607174. Gossypium hirsutum L.
Cultivar. PVP 7300103.

PI 607175. Gossypium hirsutum L.
Cultivar. PVP 7300014.

PI 607176. Gossypium hirsutum L.
Cultivar. PVP 7200143.

The following were developed by G & P Seed Company, Inc., United States. Received 1978.

PI 607177. Gossypium hirsutum L.
Cultivar. PVP 7700018.

PI 607178. Gossypium hirsutum L.
Cultivar. PVP 7700019.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 1978.

PI 607179. Gossypium hirsutum L.
Cultivar. PVP 7800023.

The following were developed by Custom Ag Service, Inc., United States. Received 1979.

PI 607180. Gossypium hirsutum L.
Cultivar. PVP 7700042.

PI 607181. Gossypium hirsutum L.
Cultivar. PVP 7700043.

The following were developed by Pioneer Hi-Bred International, Inc., 6800 Pioneer Pkwy., P.O. Box 316, Johnston, Iowa 50131-0316, United States. Received 1979.

PI 607182. Gossypium hirsutum L.
Cultivar. PVP 7800104.

Unknown source. Received 08/1995.

PI 607183. Gossypium hirsutum L.

Unknown source. Received 08/1995.

PI 607184. Gossypium hirsutum L.

Unknown source. Received 1996.

PI 607185. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607186. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607187. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607188. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607189. Gossypium hirsutum L.

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PI 607190. Gossypium hirsutum L.

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PI 607191. Gossypium hirsutum L.

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PI 607192. Gossypium hirsutum L.

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PI 607193. Gossypium hirsutum L.

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PI 607194. Gossypium hirsutum L.

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PI 607195. Gossypium hirsutum L.

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PI 607196. Gossypium hirsutum L.

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PI 607197. Gossypium hirsutum L.

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PI 607198. Gossypium hirsutum L.

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PI 607199. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607200. Gossypium hirsutum L.

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PI 607201. Gossypium hirsutum L.

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PI 607202. Gossypium hirsutum L.

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PI 607203. Gossypium hirsutum L.

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PI 607204. Gossypium hirsutum L.

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PI 607205. Gossypium hirsutum L.

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PI 607206. Gossypium hirsutum L.

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PI 607207. Gossypium hirsutum L.

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PI 607208. Gossypium hirsutum L.

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PI 607209. Gossypium hirsutum L.

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PI 607210. Gossypium hirsutum L.

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PI 607211. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607212. Gossypium hirsutum L.

Unknown source. Received 1995.

PI 607213. Gossypium hirsutum L.

The following were developed by J.H. Lambright, United States. Received 1979.

PI 607214. Gossypium hirsutum L.
Cultivar. PVP 7800029.

The following were developed by P. Hanks, United States; W. Hanks, United States. Received 1979.

PI 607215. Gossypium hirsutum L.
Cultivar. PVP 7605014.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 1979.

PI 607216. Gossypium hirsutum L.
Cultivar. PVP 7800097.

Unknown source. Received 1998.

PI 607217. Gossypium hirsutum L.

Unknown source. Received 1998.

PI 607218. Gossypium hirsutum L.

Unknown source. Received 1998.

PI 607219. Gossypium hirsutum L.
Cultivar.

Unknown source. Received 1998.

PI 607220. Gossypium hirsutum L.
Cultivar.

Unknown source. Received 1998.

PI 607221. Gossypium hirsutum L.
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PI 607222. Gossypium hirsutum L.
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PI 607223. Gossypium hirsutum L.
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PI 607224. Gossypium hirsutum L.
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PI 607225. Gossypium hirsutum L.
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PI 607226. Gossypium hirsutum L.
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PI 607227. Gossypium hirsutum L.
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PI 607228. Gossypium hirsutum L.
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PI 607229. Gossypium hirsutum L.
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PI 607230. Gossypium hirsutum L.
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PI 607231. Gossypium hirsutum L.
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PI 607232. Gossypium hirsutum L.
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PI 607376. Gossypium hirsutum L.

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PI 607377. Gossypium hirsutum L.

Unknown source. Received 1998.

PI 607378. Gossypium hirsutum L.

The following were developed by Lee Panella, USDA, ARS, Sugarbeet Research Unit, Crops Research Laboratory, Fort Collins, Colorado 80526-2083, United States. Received 01/11/1999.

PI 607379. Beta vulgaris L. **subsp. vulgaris**
Breeding. Population. Pedigree - Colchicine doubled version of FC712. Tetraploid (2n = 4x=36), multigerm (MM), non O-type, pseduo self-fertile, and 4% green hypocotyls. Of 122 plants examined for pollen production, 8% were Type O, 11 % Type 1 (both considered male sterile), 14% Type 2, and 67% Type 3. Excellent resistance to Rhizoctonia root rot (Rhizoctonia solani) and good resistance to Cercospora leaf spot (Cercospora beticola).

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; R.J. Suttner, Southern Illinois University, Dept. of Plant, Soil, and General Agriculture, Carbondale, Illinois 62901-4415, United States; O. Myers, Jr., Southern Illinois University, Dept. of Plant, Soil, and General Agriculture, Carbondale, Illinois 62901-4415, United States. Received 12/29/1998.

PI 607380. Glycine max (L.) Merr.
Cultivar. Pureline. CV-399. Pedigree - Composite of six sublines selected from LS87-1311 which segregated for flower color. Relative maturity of 4.3. Growth habit indeterminate, flowers white, tawny pubescence, and pod walls tan. Plant height averages 99 cm. Lodging score averages 1.4. Seedcoats shiny yellow with black hila. Seed size approx. 141 mg seed-1. Seed composition averages 403 g kg-1 oil on a dry weight basis. Resistance to soybean cyst nematode (Heterodera glycines) races 3, 5, and 14. Moderate resistance to SCN race 4. Moderately resistant to soybean sudden death syndrome (Fusarium solani). Susceptible to races 1 and 4 of phytophthora rot (Phytophthora sojae) and soybean mosaic virus.

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 12/14/1998.

PI 607381. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-297. Pedigree - BS13(S)C5-12-2-1-1-1-1-1-1-1-1. Tall, vigorous line with excellent plant height that flowers 90-95 days after planting. Ears with 16 rows of dent, yellow kernels, and pink cobs. Developed by pedigree selection from a strain of Iowa Stiff Stalk Synthetic (BSSS), BS12(S)C5.

PI 607382. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-298. Pedigree - BSSS(R)C9-107-1-1-2-1-1-1-1-1-1-1-1

. Tall, vigorous line with good plant health and combining ability in crosses with lines with Lancaster Sure Crop germplasm. Flowers 90-95 days after planting. Ears with 14 rows of dent, yellow kernels, and pink cobs. Developed by single seed descent from a strain of Iowa Stiff Stalk Synthetic, BSSS(R)C9, after nine cycles of reciprocal recurrent selection from BSCB1(R) as the tester.

PI 607383. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-299. Pedigree - BS11(FR)C9-3237-12-1-1-1-1-2-1-1. Dark green, upright leaf orientation. Excellent plant health and good combining ability with lines having BSSS germplasm. Good seed yield of semi-dent. Ears with 14-16 rows, yellow kernels, and red cobs. Flowers 90-95 days after planting. Developed by pedigree selection from BS11 after nine cycles of reciprocal full-sib selection with BS10 as the tester.

PI 607384. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-300. Pedigree - CIMMYT Pool 41-C15-19-2-1-1-1-1-1-1-1-1. Above average combining ability with lines having origins from BSSS and non-BSSS groups. Flowers 90-95 days after planting. Ears with 12 rows of yellow, semi-dent kernels and pink cobs. Developed by pedigree selection from CIMMYT Pool 41, which is a genetically broad-based population developed for temperate areas.

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. Received 03/01/1999.

PI 607385. Glycine max (L.) Merr.
Cultivar. Pureline. CV-405. Pedigree - Burlison x C1732. Indeterminate line of late Group II maturity (relative maturity 2.8). Flowers purple, tawny pubescence, brown pods at maturity, and shiny yellow seeds with black hila. May have up to 2% other plant and seed types. Resistant to Phytophthora rot (races 1 and 7) (Phytophthora sojae). Susceptible to brown stem rot (Phialophora gregata), sudden death syndrome (Fusarium solani), and Races 3 and 4 of the soybean cyst nematode(SCN) (Heterodera glycines).

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; 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. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 02/24/1999.

PI 607386. Zea mays L. **subsp. mays**
Breeding. Population. GP-359. Pedigree - Selected from BS21 developed from the cross of BS5 and BS20. Developed from a cross of BS5, as a

source of earliness, and BS20, which contributed root and stalk strength. Germplasm of BS21 includes about 54% Reid Yellow Dent, 18% Minnesota 13, 13% European Flint, and 15% from sources of unknown origin. Seven cycles of reciprocal recurrent half-sib selection with BS22 as tester were completed. Selection emphasized greater grain yield and improved root and stalk strength. Direct response was 4.4% cycle-1 for grain yield. Maturity classification is AES 500-600.

PI 607387. Zea mays L. **subsp. mays**
Breeding. Population. GP-360. Pedigree - Selected from BS22 developed by intermating 16 lines; A619, A632, B55, B68, C123, Ch9, CM37 (CMV3 x B14) B14, M14m Mo17, MS214, Pa884P, SD10, SD15, Va43, and W153R. Developed by intermating 16 earlier maturity inbred lines. Based on origin of lines, germplasm of BS22 includes 45% Reid Yellow Dent, 13% Lancaster Sure Crop, 9% Minnesota 13, and 33% from sources of unknown origin. Seven cycles of reciprocal recurrent half-sib selection with BS21 were completed. Selection emphasized greater yield and improved stalk and root strength. Direct response was 4.4% cycle-1 for grain yield. Maturity classification is AES 500-600.

The following were developed by Steve A. Eberhart, USDA, ARS, National Seed Storage Laboratory, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States; R.W. Briggs, Crow's Hybrid Corn Co., Milford, Illinois 60953, United States; T. Colbert, Pioneer Hi-Bred International, Inc., Princeton, Indiana 57670, United States; A. Mousel, Novartis Seeds, Inc., Stanton, Minnesota 55018, United States; J. Raycraft, 703 N. Linden, Normal, Illinois 61761, United States; K. Wrede, The J.C. Robinson Seed Company, Henrietta, Missouri 64036, United States. Received 08/01/1995.

PI 607388. Zea mays L. **subsp. mays**
Breeding. Population. GP-347. Pedigree - Developed by recombining BSL(S)C4 (PI 608771) and elite inbred lines derived from Lancaster. Yellow, semi-flint breeding population developed by Rod Edmondson, Funk Seeds International, Kinston, NC, from BSL(S)C4 (PI 608771 (Crop Sci. 12:132) [developed from the Lancaster Surecrop variety (PI 280061)]) and from elite inbred lines derived from Lancaster Surecrop. Two cycles of Reciprocal Recurrent Selection were completed with a B73 derived inbred line tester. Multi-stage selection for improved disease resistance (southern corn leaf blight, anthracnose, and gray leaf spot), reduced lodging, and increased yield was used.

PI 607389. Zea mays L. **subsp. mays**
Breeding. Population. GP-348. Pedigree - Formed by recombining BSSS(R)C6, BSSS(R)C7, and BS13(S)C1. B73 and A632 were introgressed into RSSSC to form GS02C0. Yellow dent breeding population developed by Robert Briggs, Funk Seeds International, Rochelle, IL, from RSSSC with introgression of B73 [PI 550473 (Crop Sci. 12:721)], A632 (PI 587140), and four other Stiff stalk inbred lines. Three cycles of reciprocal recurrent selection involving multi-stage selection for improved resistance to northern corn leaf, reduced lodging, and increased yield were completed using an Oh43 derived inbred line as tester. RSSSC was developed from BSSS(R)C7 (Crop Sci. 14:341-342), BS13(S2)C1 (PI 608782 (Crop Sci. 19:755)], BSSS2(S2)C1 (Crop Sci. 11:140-141), and BSSS2(S1)C2 and was released by John Dudley (Crop Sci. 19:583-588).

PI 607390. Zea mays L. **subsp. mays**
Breeding. Population. GP-349. Pedigree - Developed from OhS3 (an Ohio selection from BS3) with introgression of B37. Yellow dent breeding population developed by Rod Edmondson, Funk Seeds International, Kinston, NC, from OhS3 (OhS3 (Cro Sci. 34:1132) is an Ohio selection from BS3 [PI 55044 (Crop Sci. 14:341-342)]).

PI 607391. Zea mays L. **subsp. mays**
Breeding. Population. GP-350. Pedigree - Developed from VACEX (Virginia Corn Belt Exotic breeding population) developed by Clarence Genter. Yellow, semi-flint breeding population developed by Rod Edmondson, Funk Seeds International, Kinston, NC from VACEX (Virginia-Corn Belt Exotic breeding population developed by Clarence Genter, Blacksburg, VA) with introgressions of four elite non-stiff stalk inbred lines. Four cycles of Reciprocal Recurrent Selection were completed with a B73 derived inbred line as tester. Multi-stage selection for improved disease resistance (southern corn leaf blight, gray leaf spot, and anthracnose), reduced lodging, and increased yield was used.

PI 607392. Zea mays L. **subsp. mays**
Breeding. Population. GP-351. Pedigree - Developed from PHWI(M)C9 [Pioneer Hi-Bred West Indies composite with sources: C5-3x660 (11.30%), C103 (3.67%), C103x595 (2.82%), C103xAI-11 (8.19%), C103xHI-19 (8.76%), HyxE7-10 (11.86%), M14xCBB2-19 (3.39%), and exotic sources from: Cuba (23.45%), Dominican Rep. (3.95%), Haiti (0.85%), Martinique (10.73%), St. Croix (2.82%), Trinidad (8.19%)]. Yellow, semi-dent breeding population developed from PHWI(M)C9 [Pioneer Hi-Bred West Indies composite (Crop Sci. 14:881-885; Crop Sci. 5:87-90; Crop Sci. 12:301-304; Crop Sci. 14:881-885)] by Terry Colbert, Funk Seeds International, Union City, TN. Two cycles of Reciprocal Recurrent Selection were completed with a non-stiff stalk inbred line as tester. Multi-stage selection for improved disease resistance (southern corn leaf blight, gray leaf spot, MDMV, and MCDV), reduced lodging, and increased yield was used.

PI 607393. Zea mays L. **subsp. mays**
Breeding. Population. GP-352. Pedigree - Developed from NSS(2), NS(B)FR(2), BS17, BS20(S)C2 and 6 elite Stiff stalk inbred lines. Yellow dent breeding population developed by Ken Wrede, Funk Seeds International, Seward, NE, from NSS(2) (Crop Sci. 38:287-288, Crop Sci. 29:314-319), NS(B)FR(2), BS17 (PI 608780 (Crop Sci. 19:565)], BS20(S)C2 [PI 608776 (Crop Sci. 16:886-887)] and six elite Stiff stalk inbred lines. Three cycles of reciprocal recurrent selection involving multi-stage selection for reduced lodging and increased yield were completed using Mo17Ht as tester.

PI 607394. Zea mays L. **subsp. mays**
Breeding. Population. GP-353. Pedigree - Developed from NBS(2), NB(S)FR(2), VaCBS(S)C4, and BS11(FR)C2 (PI 550477). Yellow, semi-flint breeding population developed by Ken Wrede, Funk Seeds International, Seward, NE, from NBS(2) (Crop Sci. 38:287-288, Crop Sci. 29:314-319), NB(S)FR(2), VaCBS(S)C4 [Developed by four cycles of recurrent selection among S1 lines from Virginia Corn-Belt Southern (NSL 26526) by Clarence Genter (Crop Sci. 6:429-431, 4)], and BS11(FR)C2 [PI 550477 (Crop Sci.

14:341-342)]. Two cycles of Reciprocal Recurrent Selection were completed with B73 [PI 550473 (Crop Sci. 12:721)] as tester. Multi-stage selection for reduced lodging and increased yield was used.

PI 607395. Zea mays L. **subsp. mays**
Breeding. Population. GP-354. Pedigree - Developed by intercrossing several elite non-Stiff stalk inbred lines. Yellow, semi-flint breeding population was developed by Terry Colbert, Funk Seeds International, Union City, TN, by intercrossing several elite non-Stiff stalk inbred lines. One cycle of Reciprocal Recurrent Selection was completed with a stiff stalk inbred line as tester. Multi-stage selection for improved disease resistance (southern corn leaf blight, gray leaf spot, MDMV, and MCDV), reduced lodging, and increased yield was used.

PI 607396. Zea mays L. **subsp. mays**
Breeding. Population. GP-355. Pedigree - Developed from FS7B. Yellow, semi-dent breeding population developed from BS7B [(Ames 14257) Florida 767 improved by 7 cycles of recurrent selecton with F44 x F6 as tester by Earl Horner, Gainsville, FL]. Two cycles of Reciprocal Recurrent Selection were completed with a non-Stiff stalk inbred line as tester by Joe Raycraft, Funk Seeds International, Coolidge, GA. Multi-stage selection for improved disease resistance (southern corn leaf blight, MDMV, and MCDV), reduced lodging, and increased yield was used.

PI 607397. Zea mays L. **subsp. mays**
Breeding. Population. GP-356. Pedigree - Developed from FS7B and an Elite Virus Dent Synthetic. Yellow, semi-dent breeding population developed from FS7B [(Ames 14257) Florida 767 improved by 7 cycles of recurrent selection with F44 x F6 as tester by Earl Horner, Gainsville, FL] and an Elite Virus Dent Synthetic by Joe Raycraft, Funk Seeds International, Coolidge, GA. One cycle of Reciprocal Recurrent Selection was completed with a non-Stiff stalk inbred line as tester. Multi-stage selection for improved disease resistance (southern corn leaf blight, MDMV, and MCDV), reduced lodging, and increased yield was used.

PI 607398. Zea mays L. **subsp. mays**
Breeding. Population. GP-357. Pedigree - Developed from CBW II with subsequent introgression of elite Corn Belt non-stiff stalk inbred lines . Yellow, semi-flint breeding population developed from CBW II (formed by Steve Eberhart in Kenya from more than 100 Lation American landrace accessions from CIMMYT and Corn Belt germplasm). Four cycles of mass selection were completed by Alan Mousel, Funk Seeds International, Boyton Beach, FL. In each cycle 7 rows of GS50 and one row comprised of a mixture of elite inbred lines derived from Funk's non-stiff stalk type breeding populations were planted. Seed was saved from GS50 selected plants.

PI 607399. Zea mays L. **subsp. mays**
Breeding. Population. GP-358. Pedigree - Developed from CBW I with subsequent introgression of elite Corn Belt stiff stalk inbred lines. Yellow, semi-dent breeding population developed from CBW I (formed by Steve Eberhart in Kenya from more than 100 Latin American landrace accessions from CIMMYT and Corn Belt germplasm). Four cycles of mass selection were completed by Alan Mousel, Funk Seeds International, Boyton Beach, FL. In each cycle 7 rows of BS51 and one row, comprised of

a mixture of elite inbred lines derived from Funk's stiff stalk type breeding populations, were planted. Seed saved from GS51 selected plants .

The following were donated by E. S. Horner, University of Florida, Department of Agronomy, Gainesville, Florida 32631, United States. Received 10/03/1990.

PI 607400. Zea mays L. **subsp. mays**
Breeding. Population. Collected in Florida, United States. Pedigree - Developed from Florida 767. Yellow dent breeding population formed by intercrossing southern open-pollinated varieties. Seven cycles of recurrent selection with F44 x F6 as tester for improved disease resistance, reduced lodging, and higher yields were completed in Florida.

The following were donated by Virginia Polytechnic Institute and State University, Virginia Agr. Exp. Sta., Blacksburg, Virginia 24061, United States. Received 1963.

PI 607401. Zea mays L. **subsp. mays**
Population. Originated in Florida in 1952-53 from crosses of several inbred lines commonly used in the corn belt with a composite of pollin from 2 nuseries of S.C & 1 of Miss. It has been maintained in isolation since that time with selection in recent years for yellow kernels and plants adapet to nar: Va. It has a wide diversity of germplasm, relatively low eared and has been selected for res. to diseases in Virginia.

The following were collected by Zhemeng Institute of Agricultural Sciences, China. Donated by Jeff Dahlberg, USDA, ARS, Tropical Agric. Research Station, 2200 Ave. Pedro Albizu-Campos, Mayaguez, Puerto Rico. Received 03/19/1999.

PI 607402 QUAR. Sorghum sp.
Cultivated. Collected in China. Naiman, Neimenggu. Lysine content 4.73%.

PI 607403 QUAR. Sorghum sp.
Cultivated. Collected in China. Naiman, Meimenggu. Lysine content 4.54%.

The following were collected by Suihua Institute of Agricultural Sciences, China. Donated by Jeff Dahlberg, USDA, ARS, Tropical Agric. Research Station, 2200 Ave. Pedro Albizu-Campos, Mayaguez, Puerto Rico. Received 03/19/1999.

PI 607404 QUAR. Sorghum sp.
Cultivated. Collected in China. Lanxi. Tolerant to cold stress.

The following were collected by Shanxi Academy of Agricultural Sciences, Yang Ling, Shanxi, China. Donated by Jeff Dahlberg, USDA, ARS, Tropical Agric. Research Station, 2200 Ave. Pedro Albizu-Campos, Mayaguez, Puerto Rico.

Received 03/19/1999.

PI 607405 QUAR. Sorghum sp.
Cultivated. Collected in Shanxi, China. Shouyan. Tolerant to cold stress.

PI 607406 QUAR. Sorghum sp.
Cultivated. Collected in Shanxi, China. Yingxian. Tolerant to cold stress.

The following were collected by Heilongjiang Academy of Agricultural Sciences, Harbin, Heilongjiang, China. Donated by Jeff Dahlberg, USDA, ARS, Tropical Agric. Research Station, 2200 Ave. Pedro Albizu-Campos, Mayaguez, Puerto Rico. Received 03/19/1999.

PI 607407 QUAR. Sorghum sp.
Cultivated. Collected in Heilongjiang, China. Hulang. Tolerant to cold stress.

PI 607408 QUAR. Sorghum sp.
Cultivated. Collected in Heilongjiang, China. Hulan. Tolerant to cold stress.

The following were donated by Jeff Dahlberg, USDA, ARS, Tropical Agric. Research Station, 2200 Ave. Pedro Albizu-Campos, Mayaguez, Puerto Rico. Received 03/19/1999.

PI 607409 QUAR. Sorghum sp.
Cultivated. Tolerant to cold stress.

The following were donated by Shaw Arboretum, P.O. Box 38, Interstate 44 and Highway 100, Gray Summit, Missouri 63039, United States; Kansas Wildflower Society, Kansas, United States. Received 04/01/1996.

PI 607410. Agastache scrophulariifolia (Willd.) Kuntze
Cultivated. Collected 1992 in Kansas, United States.

The following were collected by I.G. Levichev. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 09/29/1992.

PI 607411. Alcea nudiflora (Lindl.) Boiss.
Wild. Collected 1989 in Uzbekistan. Western Tian-Shan Mountains, Tschatkalik Range, Central Asia.

The following were collected by Harold Pellett, University of Minnesota, Minnesota Landscape Arboretum, P.O. Box 39, Chanhassen, Minnesota 55317, United States. Received 06/25/1997.

PI 607412. Alcea nudiflora (Lindl.) Boiss.

Wild. Collected 1996 in Taldyqorghan, Kazakhstan. Latitude 45 deg. 31' 0'' N. Longitude 80 deg. 43' 29'' E. Elevation 1235 m. Khrebet Dzhungarskiy Alatau (mountains).

The following were donated by University of Guelph, Arboretum, Guelph, Ontario N1G 2W1, Canada. Received 05/25/1990.

PI 607413. Alnus incana subsp. rugosa (Du Roi) R. T. Clausen
Wild. Collected in Ontario, Canada. Latitude 44 deg. 52' N. Longitude 76 deg. 46' W. Elevation 251 m. Frontenac Co., Palmerston Tp. Wet sand.

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 Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal . Received 06/04/1997.

PI 607414. Antirrhinum majus subsp. linkianum (Boiss. & Reut.) Rothm.
Wild. Collected 07/23/1996 in Portugal.

The following were donated by Peter van der Linden, The Morton Arboretum, 4100 Ill., Rte. 53, Lisle, Illinois 60532-1293, United States. Received 04/04/1995.

PI 607415. Betula humilis Schrank
Wild. Collected in Gorno-Altay, Russian Federation. Altai Mountains, near the village of Sugash. Low ground along stream.

The following were donated by Botanischer Garten der Univ. Halle, Halle (Saale), Saxony-Anhalt, Germany; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

PI 607416. Calendula maroccana Ball
Cultivated.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Jardin Botanique de Bordeaux, Terrasse du Jardin Public, Place Bardineau, Bordeaux, Gironde 33000, France. Received 06/21/1996.

PI 607417. Calendula maroccana Ball
Cultivated.

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 607418. Calendula officinalis L.
Uncertain. Collected in Algeria. Djurdjura.

PI 607419. Calendula suffruticosa Vahl
Wild. Collected 1982 in Libya. Tamasla, 15 km east of Bani Walid, Bani Walid District, Tripolitania.

PI 607420. Calendula suffruticosa subsp. fulgida (Raf.) Ohle
Wild. Collected 1985 in Sicily, Italy. Elevation 600 m. Erice.

The following were donated by Botanical Garden, University of Joensuu, Box 111, Joensuu, Pohjois-Karjala SF 80101, Finland. Received 04/30/1991.

PI 607421. Dianthus arenarius L.
Wild. Collected in Pohjois-Karjala, Finland. Latitude 62 deg. 36' N. Longitude 30 deg. 2' E. Kontiolahti, Kulho. Sandy hill.

The following were donated by Ogrod Botaniczny Uniwersytetu Im. A. Mickiewicza, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland. Received 08/16/1991.

PI 607422. Dianthus carthusianorum L.
Wild. Collected in Bydgoszcz, Poland. Zielonczyn.

The following were donated by Botanischer Garten, Universitat Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

PI 607423. Dianthus hybrid
Cultivated. Pedigree - Extremely variable, perennials with fragrant flowers and bearded petals. Likely OP garden hybrids.

PI 607424. Dianthus hybrid
Cultivated. Pedigree - Extremely variable, perennials with fragrant flowers and bearded petals. Likely OP garden hybrids.

PI 607425. Dianthus hybrid
Cultivated. Pedigree - Extremely variable, perennials with fragrant flowers and bearded petals. Likely OP garden hybrids.

PI 607426. Gypsophila paniculata L.
Cultivated.

PI 607427. Gypsophila scorzonerifolia Ser.
Cultivated.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Botanical Garden, Stockholm, Stockholm,

Sweden. Received 06/21/1996.

PI 607428. Heteranthemis viscidehirta Schott
Cultivated.

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 607429. Lavatera punctata All.
Uncertain.

PI 607430. Lavatera punctata All.
Uncertain.

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 607431. Leucanthemum adustum (W. D. J. Koch) Gremli
Wild. Collected 1994 in Switzerland. Elevation 600 m. Collected at foot of Jura Mountains.

The following were collected by Krystyna Dabrowska, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin, Poland; Maria Franszczak-Byc, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Ryszard Sawicki, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Irena Stropek, Ogrod 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 607432. Leucanthemum vulgare Lam.
Wild. Collected in Poland. Krasnystaw-Lopiennik, southeast of Lublin.

The following were collected by Krystyna Dabrowska, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin, Poland; Maria Franszczak-Byc, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Ryszard Sawicki, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Malgorzata Rozycka, Ogrod Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland. Donated by Instytut Hodowli I Aklimatyzacji Roslin, Ogrod Botanicany, Ul. Jezdziecka 5, Bydgoszcz, Bydgoszcz 85-687, Poland. Received 06/12/1996.

PI 607433. Leucanthemum waldsteinii (Sch. Bip.) Pouzar
Wild. Collected in Krosno, Poland. Elevation 710 m. Bieszczady Mountains

at Ustrzyki Gorne.

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 607434. Malva cretica subsp. althaeoides (Cav.) Dalby
Uncertain. Collected in Spain.

The following were donated by Denver Botanical Gardens, 909 York St., Denver, Colorado 80206, United States; Kuibyshev Botanical Garden, State University, Moscovskoe Shosse 36, Kuibyshev, Samara 443086, Russian Federation. Received 10/16/1988.

PI 607435. Physocarpus ribesifolius Kom.
Cultivated.

The following were donated by USDA, ARS, U.S. National Arboretum, 3501 New York Avenue, N.E., Washington, District of Columbia 20002, United States. Received 01/25/1985.

PI 607436. Rhodotypos scandens (Thunb.) Makino
Wild. Collected 1984 in Kyonggi, Korea, South. Beside village of Koju Dong, Taechong-myon taechong Island, Ongjingun. Thin woods.

The following were donated by The Morton Arboretum, Route 53, Lisle, Illinois 60532, United States. Received 03/10/1987.

PI 607437. Rhus copallinum L.
Wild. Collected in Kansas, United States. Montgomery County.

The following were donated by Peter van der Linden, The Morton Arboretum, 4100 Ill., Rte. 53, Lisle, Illinois 60532-1293, United States. Received 04/04/1995.

PI 607438. Sibiraea laevigata (L.) Maxim.
Wild. Collected in Gorno-Altay, Russian Federation. Yabagon Pass in Terchtinsky Range of the Altai Mountains. Base of west-facing slope below Yabagon.

The following were donated by Hortus Botanicus, Universitatis Mariae Curie-Sklodowska, UL. Slawinkowska 3, Lublin, Lublin 20-818, Poland. Received 08/21/1989.

PI 607439. Sorbaria hybrid
Cultivated. Pedigree - Putative pedigree: Sorbaria kirilowii X Sorbaria sorbifolia.

The following were donated by University of Toronto, Seed Exchange Program, Department of Botany, Toronto, Ontario M5S 3B2, Canada. Received 04/08/1993.

PI 607440. Spiraea alba Du Roi
Wild. Collected 04/1993 in Ontario, Canada.

The following were donated by Robert G. McDaniel, University of Arizona, Department of Plant Sciences, Tucson, Arizona 85721, United States. Received 07/17/1995.

PI 607441. Tanacetum cinerariifolium (Trevir.) Sch. Bip.
Cultivated. Arizona-bred stress tolerant synthetic. Progenitor seed which resulted in a patented clone, (Plant Patent Number 7495). NSSL destroyed the original sample, which was inviable per the June 12 letter.

The following were donated by Hortus Botanicus Academiae, Silvotechnicae, St. Petersburg, Leningrad, Russian Federation; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Correnssstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 02/05/1997.

PI 607442. Tanacetum poteriifolium (Ledeb.) Grierson
Cultivated.

The following were collected by Ju. A. Lux; T.K. Perfilova. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 02/03/1994.

PI 607443. Tanacetum vulgare L.
Wild. Collected in Leningrad, Russian Federation. Near the village of Plodovoje, Priosersk District.

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 607444. Vaccaria hispanica (Mill.) Rauschert **subsp. hispanica**
Uncertain.

The following were developed by Doug Brede, Jacklin Seed Company, West 5300 Riverbend avenue, Post Falls, Idaho 83854-9499, United States; S.H. Samudio, Jacklin Seed Company, 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 03/15/1999.

PI 607445. Lolium perenne L.
Cultivar. Population. CV-199. Pedigree - Modified advanced generation synthetic developed from maternal progenies of 18 clones. The eighteen clones trace to plants selected from APM, Advent, Saturn, and Pinnacle perennial ryegrass varieties. Attractive turf with high density and

medium-fine leaf texture. Improved turf quality. Moderate resistance to dollarspot (Lanzia and Moellerodiscus), large brown patch (Rhizoctonia solani), red thread (Laerisaria fuciformis), and gray leaf spot (Pyricularia grisea). Plant height from ground to top of spike 51.5 cm in 1995 and 55 cm in 1996.

The following were donated by Asian Vegetable Research and Development Center, P.O. Box 42, Shanhua, Tainan, Taiwan; Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 02/20/1981.

PI 607446. Amaranthus tricolor L.
Landrace. Collected 09/01/1977 in Thailand. Latitude 18 deg. 47' 0'' N. Longitude 98 deg. 59' 0'' E. Chiang Mai. Unusual white stems and petioles, without chlorophyll. Seeds black, leaves green. Blooms early. The RRC class type is: cultivated vegetable.

The following were collected by F.J. Lawrence. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 607447. Amaranthus retroflexus L.
Wild. Collected 11/09/1979 in Jamaica. Vegetable use is unusual for this species. Seeds black, oliage and flowers green. The RRC type is: weed. It is said to be a wild variety eaten by humans, pigs, and chickens.

The following were donated by K. Omara, Assiut University, Assiut, Egypt. Received 04/20/1999.

PI 607448 QUAR. Zea mays L. **subsp. mays**
Cultivar. Population. Drought resistance.

PI 607449 QUAR. Zea mays L. **subsp. mays**
Cultivar. Population. Drought resistance.

PI 607450 QUAR. Zea mays L. **subsp. mays**
Cultivar. Population. Drought and heat resistance.

The following were collected by Donald Pratt, Iowa State University, Botany Department, 353 Bessey Hall, Ames, Iowa 50011, United States. Received 04/01/1999.

PI 607451. Amaranthus palmeri S. Watson
Wild. Collected 09/25/1998 in Kansas, United States. Latitude 39 deg. 9' 0'' N. Longitude 96 deg. 38' 24'' W. 2-3 miles south of Manhattan on Highway 18, or 1 mile north of airport, Section 22, (T-10 S, R-7 E), Riley County. Infestation in tomato field.

PI 607452. Amaranthus palmeri S. Watson
Wild. Collected 09/25/1998 in Kansas, United States. Latitude 38 deg.

30' 0'' N. Longitude 97 deg. 7' 48'' W. 6 miles east of Durham, Section 8, (T-18 S, R-3 E), Marion County. Infestation in squash field.

PI 607453. Amaranthus rudis J. D. Sauer
Wild. Collected 09/25/1998 in Kansas, United States. Latitude 38 deg. 30' 0'' N. Longitude 97 deg. 7' 48'' W. 6 miles east of Durham, Section 8, (T-18 S, R-3 E), Marion County. Infestation in squash field.

PI 607454. Amaranthus palmeri S. Watson
Wild. Collected 09/25/1998 in Kansas, United States. Latitude 38 deg. 12' 0'' N. Longitude 97 deg. 48' 0'' W. Near Hutchinson at mile marker 86, Highway 61, 2 miles from Keno County line, (T-21 S, R-5 W), McPherson County. Infestation in sorghum field.

PI 607455. Amaranthus palmeri S. Watson
Wild. Collected 09/26/1998 in Kansas, United States. Latitude 37 deg. 39' 0'' N. Longitude 98 deg. 42' 0'' W. Behind Pratt Super 8 motel, just off Highway 61, (T-27 S, R-13 W), Pratt County. Sorghum field.

PI 607456. Amaranthus palmeri S. Watson
Wild. Collected 09/26/1998 in Kansas, United States. Latitude 37 deg. 48' 0'' N. Longitude 100 deg. 12' 0'' W. Arkansas River at Howell, Section 20, (T-26 S, R-26 W), Ford County. Dried, sandy riverbed.

PI 607457. Amaranthus palmeri S. Watson
Wild. Collected 09/26/1998 in Kansas, United States. Latitude 37 deg. 51' 36'' N. Longitude 100 deg. 33' 36'' W. Half mile south of Charleston, Section 24, (T-26 S, R-30 W), Gray County. Harvested wheat field.

PI 607458. Amaranthus retroflexus L.
Wild. Collected 09/26/1998 in Kansas, United States. Latitude 37 deg. 51' 36'' N. Longitude 100 deg. 33' 36'' W. Half mile south of Charleston, Section 24, (T-26 S, R-30 W), Gray County. Harvested wheat field.

PI 607459. Amaranthus arenicola I. M. Johnst.
Wild. Collected 09/27/1998 in Kansas, United States. Latitude 37 deg. 57' 0'' N. Longitude 100 deg. 50' 24'' W. South bank of Arkansas River, near bridge of Highway 83, south of Garden City, Section 20, (T-24 S, R-32 W), Finney County. Sandy river bank.

PI 607460. Amaranthus retroflexus L.
Wild. Collected 09/27/1998 in Kansas, United States. Latitude 38 deg. 3' 0'' N. Longitude 100 deg. 54' 0'' W. 2-3 miles north of Garden City along Highway 83, Section 30, (T-23 S, R-33 W), Finney County. Harvested wheat field.

PI 607461. Amaranthus palmeri S. Watson
Wild. Collected 09/27/1998 in Kansas, United States. Latitude 38 deg. 3' 0'' N. Longitude 100 deg. 54' 0'' W. 2-3 miles north of Garden City along Highway 83, Section 30, (T-23 S, R-33 W), Finney County. Harvested wheat field.

PI 607462. Amaranthus rudis J. D. Sauer

Wild. Collected 09/27/1998 in Kansas, United States. Latitude 39 deg. 18' 0'' N. Longitude 100 deg. 26' 24'' W. South fork of the Solomon River, Section 4, (T-9 S, R-28 W), Sheridan County. Dry river bed.

PI 607463. Amaranthus hybridus L.
Wild. Collected 10/10/1998 in Iowa, United States. Latitude 40 deg. 31' 12'' N. Longitude 91 deg. 27' 0'' W. Along Highway 61 at turn to Montrose, Section 3, Montrose Township (T-66 N, R-5 W), Lee County. Road construction site.

PI 607464. Amaranthus retroflexus L.
Wild. Collected 10/10/1998 in Iowa, United States. Latitude 40 deg. 31' 12'' N. Longitude 91 deg. 27' 0'' W. Along Highway 61 at turn to Montrose, Section 3, Montrose Township (T-66 N, R-5 W), Lee County. Road construction site. At the time of collection the bracts were noted to be short for A. retroflexus.

PI 607465. Amaranthus retroflexus L.
Wild. Collected 10/10/1998 in Iowa, United States. Latitude 41 deg. 0' 0'' N. Longitude 92 deg. 10' 12'' W. Batavia, Section 31, Locust Grove Township (T-72 N, R-11 W), Jefferson County. Margin of corn field. At the time of collection the bracts were noted to be short for A. retroflexus.

The following were donated by Charles O. Youtsey, Florida Dept. of Agriculture, Division of Industry & Consumer Services, 3027 Lake Alfred Road, Winter Haven, Florida 33881, United States. Received 01/01/1994.

PI 607466. Afraegle paniculata (Schumach.) Engl.
Wild. Described in The Citrus Industry vol 1, p. 409-411. Origin: West Africa: Liberia (?), Ivory coast, Ghana, Dahomey, Nigeria. Source: DPI seeds (ARB-16-2) originated from seed obtained from Dr. Prevatt at Florida Southern College.

The following were donated by David T. Jones, University of Malaya, Department of Botany, Kuala Lumpur, Kuala Lumpur, Malaysia. Received 08/01/1991.

PI 607467. Severinia disticha (Blanco) Swingle
Wild. Origin: Kg. Laut Kinarut, Papar District, Sabah, East Malaysia; in disturbed beach forest (wild). Collected by D.T. Jones, August 1, 1991 (DTJ 3352); Identification no. CFG 91027.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia; Maria Luisa Ugarte, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Technologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba,

Bolivia. Received 04/26/1993.

PI 607468. Solanum megistacrolobum Bitter
Wild. Collected 02/19/1993 in Tarija, Bolivia. Latitude 21 deg. 34' 54'' S. Longitude 65 deg. 1' 58'' W. Elevation 3820 m. Aviles: 43.5 km N of town square of Yanchara, on rd to Iscayachi, 13.3 km S of town square of Iscayachi. growing in moist organic soil about and out of rock walls, and at cliff face, with Loasa and other Compositae. Corolla violet, pentagonal. Fruits round-ovoid.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia. Received 04/26/1993.

PI 607469. Solanum brevicaule Bitter
Wild. Collected 02/23/1993 in Chuquisaca, Bolivia. Latitude 20 deg. 44' 57'' S. Longitude 65 deg. 5' 7'' W. Elevation 2993 m. Nor Cinti: Uturungo, 27.5 km E of bridge in San Pedro, on road to Culpina. growing by rock wall by corn field. Corolla blue, rotate. Fruits round.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 12/05/1994.

PI 607470. Solanum commersonii Dunal
Wild.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Roel Hoekstra, Center for Plant Breeding and Reproduction Research, Center for Genetic Resources The Netherlands (CGN), Droevendaalsesteeg 1,, Wageningen, Gelderland 6700 AA, Netherlands; Braulio Vilchez, Instituto Tecnolosgico de Costa Rica, Departimento de Biologma, P.O. Box 159-7050, Cartago, Cartago, Costa Rica. Received 02/10/1997.

PI 607471. Solanum longiconicum Bitter
Wild. Collected 12/12/1996 in Cartago, Costa Rica. Latitude 10 deg. 0' N. Longitude 83 deg. 45' W. Elevation 2910 m. Volcan Turrialba, 9.5 km on road towards volcano. along road at base of steep mountan side. Corolla white or white with lila nerves. All fruits from 1 plant only.

The following were donated by Gino Aguirre, PROINPA, Programa de Investigacion de la Papa, Casilla 405, Cochabamba, Cochabamba, Bolivia. Received 07/27/1993.

PI 607472. Solanum stenotomum Juz. & Bukasov
Cultivar.

The following were donated by M.S. Ramanna, Agricultural University, P.O.B. 386 / 6700 AJ, Lawickse Allee 166, Wageningen, Gelderland, Netherlands. Received 10/28/1996.

PI 607473. Solanum tuberosum L.
Cultivar.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Konrad Schuler, Institute for Plant Genetics, IPK, Genbank-Aussenstelle Nord, 0-2551, Gross Lusewitz, Germany; Antonio Rivera-Pena, INIFAP, Programa Nacional de la Papa, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands. Received 11/13/1997.

PI 607474. Solanum x edinense P. Berthault
Wild. Collected 10/27/1997 in Mexico, Mexico. Latitude 19 deg. 11' 12'' N. Longitude 99 deg. 39' 22'' W. Elevation 2840 m. 2.4 km SW of Zacango (zoo) at SW end, on paved and then dirt road ascnding base of Nevado de Toluca, E-facing slope of volcano. growing in sandy soil under shrubs. Sixteen tubers (red skin) collected from one colony.

Unknown source. Received 01/27/1998.

PI 607475. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607476. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607477. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607478. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607479. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607480. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607481. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607482. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607483. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607484. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607485. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607486. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607487. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607488. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607489. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 607490. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607491. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607492. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607493. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607494. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607495. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607496. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607497. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 607498. Solanum tuberosum L.
Cultivar.

Unknown source. Received 10/13/1998.

PI 607499. Solanum tuberosum L.
Cultivar.

Unknown source. Received 10/13/1998.

PI 607500. Solanum tuberosum L.
Cultivar.

Unknown source. Received 10/13/1998.

PI 607501. Solanum tuberosum L.
Cultivar.

Unknown source. Received 10/13/1998.

PI 607502. Solanum tuberosum L.
Cultivar.

The following were donated by T. Trought, Office of Scientific Research, Amman, Jordan. Received 09/04/1952.

PI 607503. Phalaris brachystachys Link
Uncertain. Original seed of PI 202677 had 2 types of seed. Phalaris brachystachy was given a new PI number.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 04/05/1999.

PI 607504. Helianthus annuus L.
Breeding. Inbred. Pedigree - Ha 821/2698-1. Maintainer line that produces hybrids which are higher in linoleic acid content than normal check hybrids grown in the U.S. The overall linoleic acid of hybrids produced by the female line was 68.5%.

PI 607505. Helianthus annuus L.
Breeding. Inbred. Pedigree - HA 821/2698-1. Maintainer line that produces hybrids which are higher in linoleic acid content than normal check hybrids grown in the U.S. The overall linoleic acid of hybrids produced by the female line was 68.6%.

PI 607506. Helianthus annuus L.
Breeding. Inbred. Pedigree - RHA 274/2696-1. Restorer line that produces

hybrids which are higher in linoleic acid content than normal check hybrids grown in the U.S. The overall linoleic acid of hybrids produced by the restorer line was 68.1%.

PI 607507. Helianthus annuus L.
Breeding. Inbred. Pedigree - RHA 274/2696-1. Restorer line that produces hybrids which are higher in linoleic acid content than normal check hybrids grown in the U.S. The overall linoleic acid of hybrids produced by the restorer line was 66.4%.

PI 607508. Helianthus annuus L.
Breeding. Inbred. Pedigree - RHA 801/RHA 274//Myhoco H-9. Restorer line with plant height of 145 cm and has genes for fertility restoration of the PET1 cytoplasmic male sterility. Hybrids with the restorer line had 16% higher yield than checks over the 3 years of testing. Days from planting to flowering 70. Oil content (dry weight basis) 442 g kg-1. Significantly lower Phomopsis infection.

PI 607509. Helianthus annuus L.
Breeding. Inbred. Pedigree - HA 323/Ames 3234. Population with resistance to rust race 777. Confection seed type, lodging resistance, and single-headed plant type.

PI 607510. Helianthus annuus L.
Breeding. Inbred. Pedigree - RHA 324/Ames 3234. Population with resistance to rust race 777. Confection seed type, stem branching, and lodging resistance.

PI 607511. Helianthus annuus L.
Breeding. Inbred. Pedigree - RHA 377/PI 432512. Population with resistance to rust race 777. Oilseed type selected for upper-stem branching, absence of anthocyanin in the seed coat, lodging resistance, oil content, and adaptability to the central and north-central production areas of the U.S. Seeds have a striped seed coat.

The following were developed by W. A. Compton, University of Nebraska, Department of Agronomy, Crop, Range, Soil, and Weed Sciences, Lincoln, Nebraska 68583, United States; J.H. Lonnquist; N.E. Williams. Donated by Edward H. Coe, Jr., USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States. Received 05/06/1992.

PI 607512. Zea mays L. **subsp. mays**
Breeding. Inbred. GP-37. Pedigree - Selected from (Oh7 x 'Stiff Stalk Synthetic' gamete). Yellow dent inbred line selected from Oh7 x 'Stiff Stalk Synthetic' gamete. It flowers about 1 day later than B14A. It has good general combining ability and is very high yielding in certain crosses. N7A machine-combines poorly at high moisture levels but is a very good sheller at lower moisture levels. It has good late season health as a line but tends toward premature death in crosses. It tends to have above average resistance to leaf freckles and wilt and has good resistance to wheat streak mosaic virus and downy mildew. Its cold germination and early vigor should be adequate for use as a single cross seed parent, and pollen shed is adequate for its use as a male. Tassels extrude well for detasseling but pull hard. Maturity clasification is

about AES700.

The following were developed by Robert H. Peterson, University of Minnesota, 411 Borlaug Hall, 1991 Buford Circle, St. Paul, Minnesota 55108-6026, United States; Jon L. Geadelmann, Holden's Foundation Seeds, Inc., Minnesota Research Station, Rt. 1, Box 112, Stanton, Minnesota 55018, United States; E.H. Rinke, Plant Improvement Station, Nova Lisboa, Angola; J.C. Sentz. Donated by University of Minnesota, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States. Received 03/19/1991.

PI 607513. Zea mays L. **subsp. mays**
Breeding. Population. GP-64. Pedigree - Developed from controlled six and eight-way crosses among 13 inbred lines (A90, A498, A508, A509, A513, CMD5, MS1334, ND203, W33, W59M, W65, W79A, W103). Yellow dent population developed from controlled six and eight-way crosses among 13 inbred lines (A90, A498, A508, A509, A513, CMD5, MS1334, ND203, W33, W59M, W65, W79A, W103). These crosses were randomly mated for six generations to produce the population. AS-A was used in a study of recurrent selection methods (Crop Sci. 11:658-661). AS-A is of AES300 maturity and has good stalk strength.

PI 607514. Zea mays L. **subsp. mays**
Breeding. Population. GP-65. Pedigree - Developed from 12 inbred lines (A90, A498, A508, A509, A513, ND203, R5, V3, W33, W65, W79A, W103) with W103 making up 5/16 of the population. Yellow dent population developed from 12 inbred lines (A90, A498, A508, A509, A513, ND203, R5, V3, W33, W65, W79A, W103). Emphasis was placed on earliness in that W103 made up 5/16 of the base population. Controlled crossing among the inbred lines produced eight-way crosses which were randomly mated for six generations. AS-B has good stalk strength and is of AES200 maturity.

PI 607515. Zea mays L. **subsp. mays**
Breeding. Population. GP-66. Pedigree - Developed from crosses involving eight inbred lines (A73, B14, CO106, ND255, Oh43, V3, WD, WF9). Yellow semident population developed from crosses involving eight inbred lines (A73, B14, CO106, ND255, Oh43, V3, WD, WF9). Selections from these crosses were randomly mated for six generations. The population was then subjected to several cycles of mass selection for early flowering and resistance to smut (caused by Ustilago maydis). AS-D is of AES100-200 maturity.

PI 607516. Zea mays L. **subsp. mays**
Breeding. Population. GP-68. Pedigree - Developed from crosses of Cuzco Blanco with 10 inbred lines (A90, A427, A495, A498, A509, A513, A556, CMD5, MS1334, ND203) by three cycles of S1 recurrent selection. Yellow floury population. Deep kernel variety of Peruvian origin, was crossed with 10 inbred lines (A90, A427, A495, A498, A509, A513, A556, CMD5, MS1334, ND203) to form AS-DK C0. Three cycles of recurrent selection for kernel depth were completed using the S1 progeny method, followed by three generations of random mating. Developed to provide a source of deep-kernel germplasm adapted to temperate latitudes. Kernels average 1.5 cm in depth. AES500 maturity.

PI 607517. Zea mays L. **subsp. mays**

Breeding. Population. GP-67. Pedigree - Developed by crossing Netherlands and USSR introductions with early-flowering selections from early x late crosses among inbred lines of USA origin. Dark yellow flint population developed by crossing Netherlands and USSR introductions with early-flowering selections from early x late crosses among inbred lines of USA origin. These crosses were randomly mated for six generations. Very early population of AES100 maturity.

PI 607518. Zea mays L. **subsp. mays**
Breeding. Population. GP-69. Pedigree - Developed from AS-3(HT)CO (derived from inbreds A73, A286, A295, A375, Oh5, Oh43, Oh51A, W22) by three cycles of half-sib recurrent selection with Minnesota Synthetic 1 as tester. Yellow dent population. AS-3(HT)C0 (formerly designated Minnesota Synthetic 3) was developed from random mating an eight-way cross of inbreds A73, A286, A295, A375, Oh5, Oh43, Oh51A, W22. Three cycles of half-sib recurrent selection for grain yield were completed with the tester Minnesota Synthetic 1 (Developed from intercrossing A71, A374, B164, Mich. 265, Mich. 401, SD100, W20, WR3). Effects of recurrent selection on genetic variability and performance of a synthetic maize variety were reported (Achmad Baihaki. 1973. M.S. Thesis, University of Minnesota, St. Paul). AS-3(HT)C3 is of AES500-600 maturity.

The following were developed by H. Z. Cross, North Dakota State University, 329 Walster Hall, Fargo, North Dakota 58105, United States; William Wiidakas, North Dakota State University, Department of Agronomy, Fargo, North Dakota 58102, United States. Donated by H. Z. Cross, North Dakota State University, 329 Walster Hall, Fargo, North Dakota 58105, United States. Received 03/19/1991.

PI 607519. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-40. Pedigree - Developed from (ND408 x ND230)x ND408. Yellow dent inbred line developed from (ND408 x ND230)x ND408 in a program designed to transfer the early maturity and vigor of ND230 into the more desirable agronomic type of ND408 by self pollination and selection for early silking date and agronomic type for several generations. At Fargo, ND240 flowers about 4 days later than ND230 and 8 days earlier than ND408. ND240 has a medium tall plant with upper ear placement slightly above the midpoint of the stalk. Usually single stalked and semiprolific. Produces medium long, thick ears with 18 to 20 rows of deep kernels. In 1974 NCR-2 tests, ND240 exhibited above average resistance to yellow leaf blight and high root-pulling resistance, but was susceptible to maize chlorotic dwarf virus. Has more resistance to root lodging than ND230. In tests in central North Dakota, ND240 has displayed high combining ability for yield, shelling percentage, and low ear moisture at harvest, but below average combining for stalk.

PI 607520. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-41. Pedigree - Developed from (ND408 x ND230) x ND408. Yellow dent inbred line developed from (ND408 x ND230)x ND408 in a program designed to transfer the early maturity and vigor of ND230 into the more desirable agronomic type of ND408 by self pollination and selection for early silking date and agronomic type for several

generations. ND241 is a sister line to ND240, but is slightly taller than ND240 with a higher ear placement. It has about the same number of leaves which are slightly longer and wider. At Fargo, ND241 flowers 2 days later than ND240. ND241 produces single stalked plants and is semiprolific. Ears are shorter and thinner than those of ND240 with 16 to 18 rows of kernels which tend to be deeper. In 1974 regional tests, ND241 had above average root-pulling resistance and resistance to yellow leaf blight, and it had more resistance to maize dwarf mosaic virus and maize chlorotic dwarf virus than ND240. Susceptible to first brood European corn borer (Ostrinia nubilalis) feeding. Combining ability.

The following were developed by Robert H. Peterson, University of Minnesota, 411 Borlaug Hall, 1991 Buford Circle, St. Paul, Minnesota 55108-6026, United States; Jon L. Geadelmann, Holden's Foundation Seeds, Inc., Minnesota Research Station, Rt. 1, Box 112, Stanton, Minnesota 55018, United States. Donated by University of Minnesota, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States. Received 03/19/1991.

PI 607521. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-43. Pedigree - Developed from AS-A, a population derived from 13 Corn Belt lines (A90, A498, A508, A509, A513, CMD5, MS1334, ND203, W33, W59M, W65, W79A, W103). Yellow dent inbred line developed from AS-A (PI 607513; Crop Sci. 16:605-606), a population derived from 13 Corn Belt lines, by self-pollination and selection at plant densities of approximately 35,000/ha. Reaches 50% silk emergence 10 days earlier, is 9 cm shorter in plant height, and is equal to A632 in ear height when grown near St. Paul, MN. A661 has intermediate leaf-feeding (first brood) resistance to European corn borer. It had high general combining ability (GCA) for grain yield and satisfactory GCA for stalk strength in single and three-way cross hybrid performance tests conducted in central and northern Minnesota for 3 years. Has intermediate leaf-feeding resistance to first-brood Ostrinia nubilalis. Early AES300 maturity.

PI 607522. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-44. Pedigree - Developed from AS-A, a population derived from 13 Corn Belt lines (A90, A498, A508, A509, A513, CMD5, MS1334, ND203, W33, W59M, W65, W79A, W103). Yellow dent inbred line developed from AS-A (PI 607513; Crop Sci. 16:605-606), a population derived from 13 Corn Belt lines, by self-pollination and selection at plant densities of approximately 35,000/ha. Reaches 50% silk emergence 13 days earlier, is 36 cm shorter in plant height, and is 28 cm shorter in ear height than A632 when grown near St. Paul. In single and three-way-cross hybrids tested in central and northern Minnesota over 3 years, A662 demonstrated high GCA for grain and yield and satisfactory GCA for stalk strength. Intermediate resistance to leaf-feeding European corn borer. AES200 maturity.

PI 607523. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-45. Pedigree - Developed from (A427 x Cuzco Blanco)A427(2). Yellow dent inbred line developed from [A427 (Ames 23435) x Cuzco Blanco]A427(2) by self-pollination and selection at moderate plant densities. Cuzco Blanco is a Peruvian variety. A663 reaches 50% silk emergence 6 days later than A632 and is similar to A632

in plant and ear height when grown near St. Paul. Very high GCA for stalk strength and high GCA for grain yield in single and three-way-cross hybrid performance tests conducted in southern Minnesota and northern Iowa for 3 years. Intermediate leaf-feeding resistance to European corn borer. AES600 maturity.

PI 607524. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-46. Pedigree - Developed from (ND203 x A636) x A636(2). Yellow dent inbred line developed from (ND203 x A636) X A636(2) by selection for early flowering F2, BC1, and BC2 plants grown at densities of about 70,000 plants/ha. Subsequent selfing and selection was conducted at densities of about 35,000/ha. Reaches 50% silk emergence 7 days earlier and its plants are 9 cm shorter with ears 7 cm higher than those of A632 when grown near St. Paul. Three years of single and three-way-cross hybrid performance tests in central Minnesota have shown that A664 contributes high grain yield and satisfactory stalk strength to its hybrids. Moderately susceptible to leaf feeding by European corn borer. AES200 maturity.

PI 607525. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-47. Pedigree - Developed from (ND203 x A635) X A635(3). Yellow dent inbred line developed from (ND203 x A635) x A635(3) by selection for early flowering F2, BC1, and BC2 plants grown at densities of about 70,000 plants/ha. Subsequent selfing and selection was conducted at densities of about 35,000/ha. Reaches 50% silk emergence 6 days earlier than A632 when grown near St. Paul. Plant and ear heights of A665 are 35 and 20 cm shorter, respectively, than those of A632. A665 contributed high grain yield and satisfactory stalk strength to its hybrids in 3 years of single and three-way-cross hybrid performance tests conducted in central Minnesota. Intermediate leaf-feeding resistance to European corn borer. AES200 maturity.

The following were developed by H. Z. Cross, North Dakota State University, 329 Walster Hall, Fargo, North Dakota 58105, United States. Received 03/19/1991.

PI 607526. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-48. Pedigree - Developed from (W129 x W128). Yellow dent inbred line developed from (W129 x W128), a cross of two early Wisconsin experimental inbreds, by self-pollination and selection for early silking and agronomic type for six generations. At Fargo, ND, ND100 silks about 15 days earlier than ND408 and 10 days earlier than ND300. Plants are medium short with ears borne on lower third of the stalk. Long, wide leaves and relatively small tassels. Ears are of medium length with 12 to 14 rows of rather shallow kernels. In 1977 NCR-2 tests, ND100 was rated resistant to wheat streak mosaic virus; tolerant to bacterial leaf blight (Erwinia stewartii); moderately susceptible to anthracnose stalk rot (Colletotrichum graminicola), diplodia stalk rot, and maize dwarf mosaic virus; and susceptible to northern leaf blight (Helminthosporium turcicum), anthracnose leaf blight (Colletotrichum graminicola), maize chlorotic dwarf virus, and European corn borer (Ostrinia nubilalis). In diallel tests in eastern North Dakota, ND100 has.

PI 607527. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-49. Pedigree - Developed from (W739 x W845). Yellow dent inbred line developed from (W739 x W845) by self-pollination and selection for agronomic type for six generations. ND300 produces medium tall plants with relatively low ear placement, above average tassel size, and average leaf length and width. Plants are semi-prolific with long, slender ears borne on medium long shanks. Ears normally have 14 to 18 rows of average depth kernels. In 1977 NCR-2 tests, ND 300 was rated resistant to bacterial leaf blight and wheat streak mosaic virus; tolerant to anthracnose stalk rot; moderately susceptible to anthracnose leaf blight, diplodia stalk rot, and maize dwarf mosaic virus; and susceptible to northern leaf blight, maize cholorotic dwarf virus, and European corn borer. In diallel tests in eastern North Dakota, ND300 hybrids produced above average yields, test weights, and shelling percentages. General combining abilities for stalk and root lodging and ear moisture were satisfactory. Released for potential use in.

The following were developed by Sam C. Anand, University of Missouri, Department of Agronomy, 210 Waters Hall, Columbia, Missouri 65211, United States. Received 03/11/1999.

PI 607528. Glycine max (L.) Merr.
Cultivar. Pureline. CV-404. Pedigree - Hartz 5164 x Hartwig. Late Maturity Group V (relative maturity 5.8) and is determinate in growth habit. Flowers white and tawny pubescence. Resistant to all known soybean cyst nematode (Heterodera glycines) races. Also resistant to southern root-knot nematode (Meloidogyne incognita) and peanut root-knot nematode (M. arenaria). Susceptible to stem canker. Seeds yellow with black hila. Protein 404 g kg-1 and oil 190 g kg-1.

The following were developed by Doug Brede, Jacklin Seed Company, West 5300 Riverbend avenue, Post Falls, Idaho 83854-9499, United States; S.H. Samudio, Jacklin Seed Company, 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 04/07/1999.

PI 607529. Lolium perenne L.
Cultivar. Population. CV-200. Pedigree - Developed from progenies of APM . Attractive turf with medium-high density and medium-fine leaf texture and good spring green up. Improved turf quality, and has demonstrated moderate resistance to dollarspot (Lanzia and Moellerodiscus), large brown patch (Rhizoctonia solani), and red thread (Laetisaria fuciformis).

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; Elias M. Elias, North Dakota State University, Department of Plant Sciences, P.O. Box 5051, Fargo, North Dakota 58104-5051, United States. Received 04/15/1999.

PI 607530. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. Pureline. CV-886; PVP 9900266. Pedigree - D8479 / Renville. Yield high, kernels large, gluten strong, protein average, and day

length-sensitive. Plants medium in height and maturity. Spikes mid-long, awned, oblong, mid dense, and erect. Kernels amber color and large-sized (38.1 mg). Strong gluten and 136 g kg-1 Semolina protein. Grain volume 765.1 kg m-3. Resistant to stem rust (Puccinia graminis) and leaf rust (P. recondita).

PI 607531. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. Pureline. CV-885; PVP 9900265. Pedigree - D8193 / D8335. Yield high, kernels large, gluten very strong, protein high, and day length-sensitive. Plants medium in height and maturity. Spikes mid-long, awned, oblong, lax, and erect. Kernels amber color and large-sized (38.2 mg). Strong gluten and 141 g kg-1 semolina protein. Grain volume 753.5 kg m-3. Resistant to stem rust (Puccinia graminis) and leaf rust (P. recondita).

The following were developed by Sahin, Gerard Doustraat 3, Alphen Aan Den Rijn, South Holland 2406 GV, Netherlands. Donated by Johnny's Selected Seeds, Foss Hill Road, Albion, Maine 04910, United States. Received 01/19/1999.

PI 607532. Amaranthus cruentus L.
Cultivar. Pedigree - A single off-type plant selection from Amaranthus of unknown origin in 1989 trials. Reselected for trueness of type in the following years, generation after generation. Ornamental with unusual irregularly patterned red and golden green spikes on sturdy stems resemble a jester's cap. Grown for their long-lasting flowers and long blooming period. Excellent for use as fresh or dried flowers. Support is advised. Grow in average well-drained soil. Height 36-48". Days to bloom 80-100.

The following were donated by Johnny's Selected Seeds, Foss Hill Road, Albion, Maine 04910, United States; Kieft Seeds Holland, P.O. Box 63, 1606 ZH Venhuizen, Venhuizen, North Holland 1607 MN, Netherlands. Received 01/19/1999.

PI 607533. Amaranthus hypochondriacus L.
Cultivar. Very short for this species, green flowers and foliage. Developed especially for ornamental cutting. Excellent for use as fresh or dried flowers. Grow in average well-drained soil. Long-lasting, colorful 12-24" upright spikes. Early to bloom and easy to grow. Excellent for front of border and in containers. Average 42,500 seeds/oz. Days to bloom 80-100.

PI 607534. Amaranthus hypochondriacus L.
Cultivar. Very short for this species, red flowers and foliage. Developed especially for ornamental cutting. Excellent for use as fresh or dried flowers. Grow in average well-drained soil. Long-lasting, colorful 12-24" upright spikes. Early to bloom and easy to grow. Excellent for front of border and in containers. Average 34,500 seeds/oz. Days to bloom 80-100.

The following were developed by University of Florida, Florida Agr. Exp. Sta., Gainsville, Florida, United States. Received 05/13/1999.

PI 607535. Arachis hypogaea L.
Cultivar. PVP 9900212.

The following were developed by Novartis Seeds, Inc., United States. Received 05/13/1999.

PI 607536. Pisum sativum L.
Cultivar. PVP 9900214.

PI 607537. Pisum sativum L.
Cultivar. PVP 9900216.

The following were developed by Turf Merchants, Inc., United States. Received 05/13/1999.

PI 607538. Festuca arundinacea Schreb.
Cultivar. PVP 9900217.

The following were developed by Paragon Seed, Inc., United States. Received 05/13/1999.

PI 607539. Lactuca sativa L.
Cultivar. PVP 9900222.

PI 607540. Lactuca sativa L.
Cultivar. PVP 9900223.

The following were developed by Novartis Seeds, Inc., United States. Received 05/13/1999.

PI 607541. Glycine max (L.) Merr.
Cultivar. PVP 9900224.

The following were developed by DEKALB Genetics Corporation, United States. Received 04/13/1999.

PI 607542. Zea mays L. **subsp. mays**
Cultivar. PVP 9900225.

PI 607543. Zea mays L. **subsp. mays**
Cultivar. PVP 9900226.

PI 607544. Zea mays L. **subsp. mays**
Cultivar. PVP 9900227.

PI 607545. Zea mays L. **subsp. mays**
Cultivar. PVP 9900228.

PI 607546. Zea mays L. **subsp. mays**

Cultivar. PVP 9900229.

PI 607547. Zea mays L. **subsp. mays**
Cultivar. PVP 9900230.

The following were developed by Western Plant Breeders, Inc., Phoenix, Arizona, United States. Received 04/13/1999.

PI 607548. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900231.

PI 607549. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900232.

The following were developed by Abbott & Cobb, Inc., United States. Received 04/13/1999.

PI 607550. Citrullus lanatus (Thunb.) Matsum. & Nakai
Cultivar. PVP 9900233.

The following were developed by DEKALB Genetics Corporation, United States. Received 04/13/1999.

PI 607551. Zea mays L. **subsp. mays**
Cultivar. PVP 9900234.

PI 607552. Zea mays L. **subsp. mays**
Cultivar. PVP 9900235.

PI 607553. Zea mays L. **subsp. mays**
Cultivar. PVP 9900236.

PI 607554. Zea mays L. **subsp. mays**
Cultivar. PVP 9900237.

PI 607555. Zea mays L. **subsp. mays**
Cultivar. PVP 9900238.

PI 607556. Zea mays L. **subsp. mays**
Cultivar. PVP 9900239.

The following were developed by Luther Talbert, Montana State University, Department of Plant Sciences, 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; Howard Bowman, Montana State University, Dept. of Plant & Soil Sciences, Bozeman, Montana 59717, 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, 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; R.N. Stougaard, Northwestern Agric. Res. Ctr., Kalispell, Montana 59901, United States; D. Habernicht, Montana State University, Plant Sciences Dept., Bozeman, Montana 59717, United States . Received 05/03/1999.

PI 607557. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. CV-879; PVP 200000144. Pedigree - MT8808*/Marberg. Maturity mid-season. Height normal (non-semidwarf). Resistant to stem rust (Puccinia graminus). Susceptible to leaf rust (Puccinia recondita) and Russian wheat aphid (Diuraphis noxia). Resistant to wheat stem sawfly (Cephus ciactus). Lodging moderately resistant.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 04/13/1999.

PI 607558. Lactuca sativa L.
Cultivar. PVP 9900240.

The following were developed by Abbott & Cobb, Inc., United States. Received 04/13/1999.

PI 607559. Citrullus lanatus (Thunb.) Matsum. & Nakai
Cultivar. PVP 9900241.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/13/1999.

PI 607560. Phaseolus vulgaris L.
Cultivar. PVP 9900242.

PI 607561. Phaseolus vulgaris L.
Cultivar. PVP 9900243.

PI 607562. Phaseolus vulgaris L.
Cultivar. PVP 9900244.

PI 607563. Phaseolus vulgaris L.
Cultivar. PVP 9900245.

PI 607564. Phaseolus vulgaris L.
Cultivar. PVP 9900246.

PI 607565. Phaseolus vulgaris L.
Cultivar. PVP 9900247.

The following were developed by Thomas G. Isleib, North Carolina State University, Department of Crop Science, Box 5155, Raleigh, North Carolina 27695-7629, United States; R. Walton Mozingo, Tidewater Agricultural Research and Extension Center, 6321 Holland Road, Suffolk, Virginia 23437, United States; Terry A. Coffelt, USDA, ARS, U.S. Water Conservation Laboratory, 4331

E. Broadway Rd., Phoenix, Arizona 85040-8807, United States. Received 05/03/1999.

PI 607566. Arachis hypogaea L.
Cultivar. Pureline. CV-66. Pedigree - VA 81B / VA 780839P. Large-seeded virginia-type peanut with high yield potential (5%-12% higher than current cultivars). Plants spreading (runner) growth habit with prostrate lateral branches and an erect main stem. Main stem height short (25 cm). Maturity considered early (138-150 DAP), especially with irrigation. Testa color pink and excellent pod characteristics, which include bright color, shape, and size for the in-shell trade. Highly desirable by the peanut industry. Milling data shows 42% extra large kernels (ELK), 17% mediums, and 4.6% No. 1 and No.2's with a 70% total mill outturn. Removing the jumbo and fancy size pods for in-shell use indicates turn out of 10% jumbo size and 45% fancy size pods. Blanchability excellent with 89.2% whole blanched, 2.5% not blanched and 4.8% partially blanched for ELK. Shelf life acceptable by the industry based on iodine value of 98.6 and oleic/linoleic (O/L) acid ratio of 1.52. Does not have any known pest resistance.

The following were developed by Seeds West, Inc., United States. Received 04/13/1999.

PI 607567. Cynodon dactylon (L.) Pers.
Cultivar. PVP 9900248.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/13/1999.

PI 607568. Lactuca sativa L.
Cultivar. PVP 9900249.

The following were developed by NDSU Research Foundation, North Dakota, United States. Received 04/13/1999.

PI 607569. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900250.

The following were developed by Merrill Lewis, Fossum Cereals, 830 Key St., Bellingham, Washington 98225, United States. Received 04/13/1999.

PI 607570. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900251.

The following were developed by Gen-Tec Seeds, Limited, Woodslee, Ontario, Canada. Received 04/13/1999.

PI 607571. Phaseolus vulgaris L.
Cultivar. PVP 9900252.

The following were developed by Abbott & Cobb, Inc., United States. Received 04/13/1999.

PI 607572. Citrullus lanatus (Thunb.) Matsum. & Nakai
Cultivar. PVP 9900253.

The following were developed by Coastal Seeds, Inc., United States. Received 04/13/1999.

PI 607573. Lactuca sativa L.
Cultivar. PVP 9900254.

The following were developed by Fox Bean Company, United States. Received 04/13/1999.

PI 607574. Phaseolus vulgaris L.
Cultivar. PVP 9900255.

The following were developed by Virginia Agricultural Experiment Station - Blacksburg, Blacksburg, Virginia, United States. Received 04/13/1999.

PI 607575. Glycine max (L.) Merr.
Cultivar. PVP 9900256.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 04/13/1999.

PI 607576. Glycine max (L.) Merr.
Cultivar. PVP 9900257.

The following were developed by Coastal Seeds, Inc., United States. Received 04/13/1999.

PI 607577. Lactuca sativa L.
Cultivar. PVP 9900259.

The following were developed by Advanta Seeds UK Limited, United Kingdom. Received 04/13/1999.

PI 607578. Pisum sativum L.
Cultivar. PVP 9900260.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 04/13/1999.

PI 607579. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900262.

The following were developed by Novartis Seeds, Inc., United States. Received 04/13/1999.

PI 607580. Phaseolus vulgaris L.
Cultivar. PVP 9900263.

The following were developed by Terral Seed, Inc., Lake Providence, Louisiana, United States. Received 04/13/1999.

PI 607581. Glycine max (L.) Merr.
Cultivar. PVP 9900264.

The following were developed by Gen-Tec Seeds, Limited, Woodslee, Ontario, Canada. Received 04/13/1999.

PI 607582. Phaseolus vulgaris L.
Cultivar. PVP 9900267.

The following were developed by Cornell Research Foundation, Inc., New York, United States. Received 04/13/1999.

PI 607583. Carica papaya L.
Cultivar. PVP 9900268.

The following were developed by Pure Line Seeds, Inc., P.O. Box 8866, Moscow, Idaho 83843, United States. Received 04/13/1999.

PI 607584. Pisum sativum L.
Cultivar. PVP 9900269.

The following were developed by Cornell Research Foundation, Inc., New York, United States. Received 04/13/1999.

PI 607585. Carica papaya L.
Cultivar. PVP 9900270.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/13/1999.

PI 607586. Pisum sativum L.
Cultivar. PVP 9900272.

The following were developed by Novartis Seeds, Inc., United States. Received 04/13/1999.

PI 607587. Phaseolus vulgaris L.

Cultivar. PVP 9900273.

The following were donated by USDA, ARS, Plant Science Research Division, Beltsville, Maryland 20705, United States. Received 02/1962.

PI 607588. Zea mays L. **subsp. mays**
Breeding. Population. This is a yellow version of the standard Southern Variety, Neal Paymaster. May have value as breeding stock.

PI 607589. Zea mays L. **subsp. mays**
Breeding. Population. This is an early variety adaped to Tennessee and similar latitude. May be useful as a source of earliness among Southern Types.

PI 607590. Zea mays L. **subsp. mays**
Breeding. Population. This synthetic was made from lines having a minimum of kernel indentation. Has been used to a limited extent as a source for new inbred lines.

PI 607591. Zea mays L. **subsp. mays**
Breeding. Population. This 16 line synthetic has been used extensively as source material for new lines in Iowa and Illinois. Has been an excellent source of new inbreds.

PI 607592. Zea mays L. **subsp. mays**
Breeding. Population. This is a 16 line synthetic made of lines having rough kernel indentation. May be useful as source material for this trait.

PI 607593. Zea mays L. **subsp. mays**
Breeding. Population. A white variety which used to be widely grown in Northern Iowa and adjacent areas.

PI 607594. Zea mays L. **subsp. mays**
Breeding. Population. This is a 16 line synthetic made up of lines having a high degree of resistance to ear rots. May be useful as breeding stock.

PI 607595. Zea mays L. **subsp. mays**
Breeding. Population. This is a synthetic developed for possible use as a tester to evaluate disease resistance of new material. Has never been used extensively for this purpose.

PI 607596. Zea mays L. **subsp. mays**
Breeding. Population. This is a synthetic made up of early southern lines and may by a source of earliness useful in the south.

PI 607597. Zea mays L. **subsp. mays**
Breeding. Population. This is a synthetic made from a series of low-eared inbred lines. It may have value as a source of the low-ear trait.

PI 607598. Zea mays L. **subsp. mays**
Breeding. Population. A synthetic made up of early lines for possible

use as parental material in the northern part of the Corn Belt. Has never been used for this purpose except to a limited extent in Iowa.

PI 607599. Zea mays L. **subsp. mays**
Breeding. Population. Krug was a high yielding variety developed in Illinois. Several inbred lines from this variety are in extensive commercial use.

PI 607600. Zea mays L. **subsp. mays**
Breeding. Population. This is a standard Southern variety.

PI 607601. Zea mays L. **subsp. mays**
Breeding. Population. This synthetic was developed for possible usefulness as a tester. Has never been so used.

PI 607602. Zea mays L. **subsp. mays**
Breeding. Population. This variety was once widely grown in kansas and Missouri. It has been a good source of inbred lines and is worth saving for its potential breeding value.

PI 607603. Zea mays L. **subsp. mays**
Breeding. Population. This strain was developed to have a long husked early strain May have possible use as parental material in the South where a combination of earliness and husk protection are required.

PI 607604. Zea mays L. **subsp. mays**
Breeding. Population. Thompson Prolific is an early white variety adapted to Tennessee and similar latitiudes. This is a yellow strain developed from the white variety.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 06/26/1989.

PI 607605. Vigna unguiculata (L.) Walp.
Cultivated. Collected 04/09/1986 in Pakistan. Purchased in market (Bazar), Peshawar.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by Paul Quek, International Plant Genetics Resources Institute, Regional Office for Asia, the Pacific and Oceania, c/o IDRC, 7th Storey, RELC Building, Singapore. Received 11/29/1994.

PI 607606. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607607. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607608. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607609. Vigna unguiculata (L.) Walp.

Uncertain. Collected 1988 in Yemen.

PI 607610. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607611. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607612. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607613. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607614. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607615. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607616. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607617. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607618. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Yemen.

PI 607619. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Saudi Arabia.

PI 607620. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Saudi Arabia.

PI 607621. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Saudi Arabia.

PI 607622. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Saudi Arabia.

PI 607623. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Saudi Arabia.

PI 607624. Vigna unguiculata (L.) Walp.
Uncertain. Collected 1988 in Saudi Arabia.

Unknown source. Received 10/1991.

PI 607625. Gossypium hirsutum L.

Unknown source. Received 1999.

PI 607626. Gossypium hirsutum L.

Unknown source. Received 1999.

PI 607627. Gossypium hirsutum L.

Unknown source. Received 1999.

PI 607628. Gossypium hirsutum L.

The following were developed by EMBRAPA - CENARGEN, S.A.I.N. - Parque Rural - C.P. 10.2372, Brasilia, Federal District CEP 70.770, Brazil. Received 1986.

PI 607629. Gossypium hirsutum L.
Collected in Brazil. Pedigree - INFAOL SI-20. COLL BY - M.J. LUKEFAHR.

PI 607630. Gossypium hirsutum L.
Collected in Brazil. Pedigree - IPA 841 PRECOCE. COLL BY M.J. LUKEFAHR .

PI 607631. Gossypium hirsutum L.
Collected in Brazil. Pedigree - MF 4. COLL BY - M.J. LUKEFAHR.

PI 607632. Gossypium hirsutum L.
Collected in Brazil. Pedigree - ENPA 80/2BR. COLL BY - M.J. LUDKEFAHR.

PI 607633. Gossypium hirsutum L.
Collected in Brazil. Pedigree - ENPA 78/3B. COLL BY - M.J. LUKEFAHR.

PI 607634. Gossypium hirsutum L.
Collected in Brazil. Pedigree - ENPA 80/1B. COLL BY M.J. LUKEFAHR.

PI 607635. Gossypium hirsutum L.
Collected in Brazil. Pedigree - VELUDO E-71. COLL BY - M.J. LUKEFAHR.

Unknown source. Received 07/06/1939.

PI 607636. Gossypium hirsutum L.
Collected in Tamaulipas, Mexico.

Unknown source. Received 1986.

PI 607637. Gossypium hirsutum L.
Collected in Tamaulipas, Mexico.

Unknown source. Received 1986.

PI 607638. Gossypium hirsutum L.
Collected in Thailand.

Unknown source. Received 1986.

PI 607639. Gossypium hirsutum L.
Collected in Thailand.

Unknown source. Received 1986.

PI 607640. Gossypium hirsutum L.
Collected in Thailand. Pedigree - FAINOI A25.

Unknown source. Received 1986.

PI 607641. Gossypium hirsutum L.
Collected in Thailand. Pedigree - FAINOI A07.

Unknown source. Received 1987.

PI 607642. Gossypium hirsutum L.
Collected in Mexico. Pedigree - WIR-6508 , SAF-3I-2.

Unknown source. Received 1987.

PI 607643. Gossypium hirsutum L.
Collected in India. Pedigree - WIR-6618 , DS-59.

Unknown source. Received 1987.

PI 607644. Gossypium hirsutum L.
Collected in Former Soviet Union. Pedigree - WIR-6627 AS-1C.

Unknown source. Received 1987.

PI 607645. Gossypium hirsutum L.
Collected in Former Soviet Union. Pedigree - WIR-6628 , AS-9C.

Unknown source. Received 1987.

PI 607646. Gossypium hirsutum L.
Collected in Former Soviet Union. Pedigree - WIR-6629 AS-4C.

Unknown source. Received 1987.

PI 607647. Gossypium hirsutum L.
Collected in Mexico. Pedigree - WIR-6642 , QRT-6-11.

Unknown source. Received 1987.

PI 607648. Gossypium hirsutum L.
Collected in Mexico. Pedigree - WIR-6647 SAE-23-1.

Unknown source. Received 1987.

PI 607649. Gossypium hirsutum L.
Collected in Mexico. Pedigree - WIR-6661 , Q-16-7.

Unknown source. Received 1987.

PI 607650. Gossypium hirsutum L.
Collected in India. Pedigree - WIR-6677 , 320-F.

The following were developed by Colima Collection, Colima, Mexico. Received 1987.

PI 607651. Gossypium hirsutum L.
Collected in Colima, Mexico. COLL BY KOCH, ET AL - 87141 *.

Unknown source. Received 1987.

PI 607652. Gossypium hirsutum L.
Collected in Michoacan, Mexico. COLL BY KOCH, ET AL - 87140.

Unknown source. Received 1986.

PI 607653. Gossypium hirsutum L.
Collected in Paraguay.

Unknown source. Received 1986.

PI 607654. Gossypium hirsutum L.
Collected in Paraguay.

Unknown source. Received 1987.

PI 607655. Gossypium hirsutum L.
Collected in Mexico. Pedigree - P-193.

Unknown source. Received 1987.

PI 607656. Gossypium hirsutum L.
Collected in Mexico. Pedigree - P-194.

Unknown source. Received 1987.

PI 607657. Gossypium hirsutum L.
Collected in Mexico. Pedigree - P-195.

Unknown source. Received 07/06/1939.

PI 607658. Gossypium hirsutum L.
Collected in United States.

Unknown source. Received 1987.

PI 607659. Gossypium hirsutum L.
Collected in Iran. Pedigree - GX-420 , TEX 1437.

The following were developed by Socorro Island, Socorro Island, Revillagigedo, Mexico. Received 1981.

PI 607660. Gossypium hirsutum L.
Collected in Mexico.

The following were developed by Playa Ostional Nicoya Penninsula, Guanacaste, Costa Rica. Received 1984.

PI 607661. Gossypium hirsutum L.
Collected in Costa Rica. COLL BY GRAYUM & DeNEVERS #4644.

The following were developed by Socorro Island, Socorro Island, Revillagigedo, Mexico. Received 1979.

PI 607662. Gossypium hirsutum L.
Collected in Mexico.

Unknown source. Received 1971.

PI 607663. Gossypium hirsutum L.
Collected in Mexico. FR. ISLA DE ALGODON (NEAR SAN FERNANDO), TAMP.

The following were developed by Socorro Island, Socorro Island, Revillagigedo, Mexico. Received 1982.

PI 607664. Gossypium hirsutum L.
Collected in Mexico.

PI 607665. Gossypium hirsutum L.
Collected in Mexico.

PI 607666. Gossypium hirsutum L.
Collected in Mexico.

Unknown source. Received 07/06/1939.

PI 607667. Gossypium hirsutum L.
Collected in Venezuela. FR. MATURIN, VENEZUELA.

The following were developed by FRJ OM IRCT, Paraguay. Received 1986.

PI 607668. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - SP 510 X P 279 - 22.

PI 607669. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - SP 510 X P 279 - 100.

PI 607670. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIR PAN - 4521.

PI 607671. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIRPAN 358.

PI 607672. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIRPAN 111.

PI 607673. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIRPAN 9736.

PI 607674. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIRPAN 26.

PI 607675. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIRPAN 173.

PI 607676. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CHIRPAN 433.

PI 607677. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 357 (0288).

PI 607678. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 432 (0289).

PI 607679. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 996 (0290).

PI 607680. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 7193-9W-79.

PI 607681. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 4912 X 37-1-73-1-3C.

PI 607682. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 77-3840 X 21-17-6-75.

PI 607683. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 8169-13-80.

PI 607684. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 8169-16-80-1.

PI 607685. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 8165-1-80.

PI 607686. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 77-3840-6M X 1656-71-3C.

PI 607687. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - E X A4-6-78.

PI 607688. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - GF4-3840 X 63L-3-75-L.

PI 607689. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - CS-8309.

PI 607690. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 1209-619 X A4-10W-77-1.

PI 607691. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - 1656-71-2C.

PI 607692. Gossypium hirsutum L.
Collected in Paraguay. Pedigree - S X 491L-6M-4C.

Unknown source. Received 1987.

PI 607693. Gossypium hirsutum L.
Collected in Michoacan, Mexico. Pedigree - G. lauceolatum. COLL BY KOCH, FRYXELL, & ALTMAN 87199.

Unknown source. Received 1986.

PI 607694. Gossypium hirsutum L.
Collected in Peten, Guatemala. COLL BY PAT BROWN FOR J.E. JONES.

Unknown source. Received 1987.

PI 607695. Gossypium hirsutum L.
Collected in Mexico. COLL BY J.BAUML & R.G.VOSS #1725.

Unknown source. Received 1987.

PI 607696. Gossypium hirsutum L.
Collected in India. Pedigree - WIR-6682 (USSR-6).

Unknown source. Received 1987.

PI 607697. Gossypium hirsutum L.
Collected in Peru. Pedigree - WIR-6716 (USSR-15).

The following were developed by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 1985.

PI 607698. Gossypium hirsutum L.
Collected in Russian Federation.

PI 607699. Gossypium hirsutum L.
Collected in Russian Federation.

The following were developed by NI VAVILOV IPI, India. Received 1985.

PI 607700. Gossypium hirsutum L.
Collected in India.

PI 607701. Gossypium hirsutum L.
Collected in India.

The following were collected by A. E. Percival, USDA, ARS, Crop Germplasm Research, 2765 F&B Road, College Station, Texas 77845, United States; James M. Stewart, University of Arkansas, College of Agriculture, Department of Agronomy, Fayetteville, Arkansas 72701, United States. Received 01/1991.

PI 607702. Gossypium hirsutum L.
Collected 12/04/1991 in Baja California, Mexico.

Unknown source. Received 01/1991.

PI 607703. Gossypium hirsutum L.
Collected 12/1990 in Baja California, Mexico.

The following were collected by M. J. Lukefahr, USDA Cotton Production Research, Laboratory, P.O. Box 267, Weslaco, Texas, United States. Received 1983.

PI 607704. Gossypium hirsutum L.
Collected in Nigeria.

PI 607705. Gossypium hirsutum L.
Collected in Amazonas, Brazil.

PI 607706. Gossypium hirsutum L.
Collected in Amazonas, Brazil.

PI 607707. Gossypium hirsutum L.
Collected in Amazonas, Brazil.

PI 607708. Gossypium hirsutum L.
Collected in Amazonas, Brazil.

PI 607709. Gossypium hirsutum L.
Collected in Amazonas, Brazil.

PI 607710. Gossypium hirsutum L.
Collected in Para, Brazil.

PI 607711. Gossypium hirsutum L.
Collected in Para, Brazil.

PI 607712. Gossypium hirsutum L.
Collected in Bahia, Brazil.

PI 607713. Gossypium hirsutum L.
Collected in Bahia, Brazil.

PI 607714. Gossypium hirsutum L.
Collected in Brazil.

The following were collected by Gast. Received 1976.

PI 607715. Gossypium hirsutum L.
Collected in American Samoa.

The following were collected by J.B Hutchinson, Cotton Research Station, Trinidad, Trinidad and Tobago. Received 07/06/1939.

PI 607716. Gossypium hirsutum L.
Collected in Malta.

The following were collected by B.M. Boom. Received 08/1991.

PI 607717. Gossypium hirsutum L.
Collected 03/19/1990 in Puerto Rico.

Unknown source. Received 08/1991.

PI 607718. Gossypium hirsutum L.
Collected in Venezuela.

Unknown source. Received 10/1991.

PI 607719. Gossypium hirsutum L.
Collected in Bahamas.

The following were collected by A. E. Percival, USDA, ARS, Crop Germplasm Research, 2765 F&B Road, College Station, Texas 77845, United States; James M. Stewart, University of Arkansas, College of Agriculture, Department of Agronomy, Fayetteville, Arkansas 72701, United States. Received 1988.

PI 607720. Gossypium hirsutum L.
Collected 09/03/1988 in Paraiba, Brazil.

PI 607721. Gossypium hirsutum L.
Collected 03/09/1988 in Paraiba, Brazil.

PI 607722. Gossypium hirsutum L.
Collected 03/09/1988 in Paraiba, Brazil.

PI 607723. Gossypium hirsutum L.
Collected 03/09/1988 in Paraiba, Brazil.

PI 607724. Gossypium hirsutum L.
Collected 09/03/1988 in Paraiba, Brazil.

PI 607725. Gossypium hirsutum L.
Collected 09/03/1988 in Paraiba, Brazil.

PI 607726. Gossypium hirsutum L.
Collected 03/1988 in Paraiba, Brazil.

PI 607727. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607728. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607729. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607730. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607731. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607732. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607733. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607734. Gossypium hirsutum L.

Collected 09/04/1988 in Brazil.

PI 607735. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607736. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607737. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607738. Gossypium hirsutum L.
Collected 09/04/1988 in Brazil.

PI 607739. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607740. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607741. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607742. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607743. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607744. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607745. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607746. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607747. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607748. Gossypium hirsutum L.
Collected 09/05/1988 in Brazil.

PI 607749. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607750. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607751. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607752. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607753. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607754. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607755. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607756. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607757. Gossypium hirsutum L.
Collected in Brazil.

PI 607758. Gossypium hirsutum L.
Collected in Brazil.

PI 607759. Gossypium hirsutum L.
Collected 09/01/1988 in Brazil.

PI 607760. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607761. Gossypium hirsutum L.
Collected 09/06/1988 in Brazil.

PI 607762. Gossypium hirsutum L.
Collected 09/07/1988 in Brazil.

PI 607763. Gossypium hirsutum L.
Collected 09/07/1988 in Brazil.

PI 607764. Gossypium hirsutum L.
Collected 09/08/1988 in Brazil.

PI 607765. Gossypium hirsutum L.
Collected 09/08/1988 in Brazil.

PI 607766. Gossypium hirsutum L.
Collected 09/09/1988 in Brazil.

PI 607767. Gossypium hirsutum L.
Collected 09/09/1988 in Paraiba, Brazil.

PI 607768. Gossypium hirsutum L.
Collected 09/09/1988 in Paraiba, Brazil.

PI 607769. Gossypium hirsutum L.
Collected 09/09/1988 in Ceara, Brazil.

PI 607770. Gossypium hirsutum L.
Collected 09/09/1988 in Ceara, Brazil.

PI 607771. Gossypium hirsutum L.
Collected 09/09/1988 in Ceara, Brazil.

PI 607772. Gossypium hirsutum L.
Collected 09/09/1988 in Ceara, Brazil.

PI 607773. Gossypium hirsutum L.
Collected 09/09/1988 in Ceara, Brazil.

PI 607774. Gossypium hirsutum L.
Collected 09/10/1988 in Ceara, Brazil.

PI 607775. Gossypium hirsutum L.
Collected 09/10/1988 in Ceara, Brazil.

PI 607776. Gossypium hirsutum L.
Collected 09/11/1988 in Ceara, Brazil.

PI 607777. Gossypium hirsutum L.
Collected 09/11/1988 in Pernambuco, Brazil.

PI 607778. Gossypium hirsutum L.
Collected 09/11/1988 in Ceara, Brazil.

Unknown source. Received 1988.

PI 607779. Gossypium hirsutum L.
Collected 09/11/1988 in Ceara, Brazil.

The following were collected by A. E. Percival, USDA, ARS, Crop Germplasm Research, 2765 F&B Road, College Station, Texas 77845, United States; James M. Stewart, University of Arkansas, College of Agriculture, Department of Agronomy, Fayetteville, Arkansas 72701, United States. Received 1988.

PI 607780. Gossypium hirsutum L.
Collected 09/12/1988 in Ceara, Brazil.

PI 607781. Gossypium hirsutum L.
Collected 09/12/1988 in Pernambuco, Brazil.

PI 607782. Gossypium hirsutum L.
Collected 09/12/1988 in Pernambuco, Brazil.

PI 607783. Gossypium hirsutum L.
Collected 09/13/1988 in Bahia, Brazil.

PI 607784. Gossypium hirsutum L.
Collected 09/14/1988 in Bahia, Brazil.

PI 607785. Gossypium hirsutum L.
Collected 09/15/1988 in Pernambuco, Brazil.

PI 607786. Gossypium hirsutum L.

Collected 09/15/1988 in Bahia, Brazil.

PI 607787. Gossypium hirsutum L.
Collected 09/16/1988 in Pernambuco, Brazil.

PI 607788. Gossypium hirsutum L.
Collected 09/17/1988 in Bahia, Brazil.

PI 607789. Gossypium hirsutum L.
Collected 09/17/1988 in Bahia, Brazil.

PI 607790. Gossypium hirsutum L.
Collected 09/18/1988 in Pernambuco, Brazil.

PI 607791. Gossypium hirsutum L.
Collected 09/18/1988 in Pernambuco, Brazil.

PI 607792. Gossypium hirsutum L.
Collected 09/18/1988 in Piaui, Brazil.

PI 607793. Gossypium hirsutum L.
Collected 09/18/1988 in Piaui, Brazil.

PI 607794. Gossypium hirsutum L.
Collected 09/18/1988 in Piaui, Brazil.

PI 607795. Gossypium hirsutum L.
Collected 09/18/1988 in Piaui, Brazil.

PI 607796. Gossypium hirsutum L.
Collected 09/19/1988 in Piaui, Brazil.

PI 607797. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607798. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607799. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607800. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607801. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607802. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607803. Gossypium hirsutum L.
Collected 09/19/1988 in Ceara, Brazil.

PI 607804. Gossypium hirsutum L.
Collected 09/20/1988 in Ceara, Brazil.

PI 607805. Gossypium hirsutum L.
Collected 09/20/1988 in Ceara, Brazil.

PI 607806. Gossypium hirsutum L.
Collected 09/20/1988 in Ceara, Brazil.

PI 607807. Gossypium hirsutum L.
Collected 09/20/1988 in Ceara, Brazil.

PI 607808. Gossypium hirsutum L.
Collected 09/21/1988 in Brazil.

PI 607809. Gossypium hirsutum L.
Collected 09/21/1988 in Brazil.

PI 607810. Gossypium hirsutum L.
Collected 09/21/1988 in Brazil.

PI 607811. Gossypium hirsutum L.
Collected 09/21/1988 in Brazil.

Unknown source. Received 1988.

PI 607812. Gossypium hirsutum L.
Collected in Brazil.

Unknown source. Received 1988.

PI 607813. Gossypium hirsutum L.
Collected in Brazil.

Unknown source. Received 1988.

PI 607814. Gossypium hirsutum L.
Collected in Brazil.

Unknown source. Received 1988.

PI 607815. Gossypium hirsutum L.
Collected in Brazil.

Unknown source. Received 1994.

PI 607816. Gossypium hirsutum L.

Unknown source. Received 1998.

PI 607817. Gossypium hirsutum L.
Landrace. Collected in Tamaulipas, Mexico.

Unknown source. Received 1998.

PI 607818. Gossypium hirsutum L.
Landrace. Collected in Oaxaca, Mexico.

Unknown source. Received 03/1995.

PI 607819. Gossypium hirsutum L.
Collected in Oaxaca, Mexico.

Unknown source. Received 1998.

PI 607820. Gossypium hirsutum L.
Landrace. Collected in Oaxaca, Mexico.

Unknown source. Received 1995.

PI 607821. Gossypium hirsutum L.
Landrace. Collected in Sonora, Mexico. Latitude 27 deg. 38' 0'' N. Longitude 108 deg. 57' 0'' W.

Unknown source. Received 1997.

PI 607822. Gossypium hirsutum L.
Collected in Colima, Mexico.

Unknown source. Received 1997.

PI 607823. Gossypium hirsutum L.
Collected in Colima, Mexico.

Unknown source. Received 1997.

PI 607824. Gossypium hirsutum L.

Unknown source. Received 1996.

PI 607825. Gossypium hirsutum L.
Collected in Indonesia.

The following were developed by A. E. Percival, USDA, ARS, Crop Germplasm Research, 2765 F&B Road, College Station, Texas 77845, United States.

Received 09/26/1996.

PI 607826. Gossypium hirsutum L.
Breeding.

PI 607827. Gossypium hirsutum L.
Breeding.

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 607828. Dorycnium graecum (L.) Ser.
Wild. Collected 08/30/1996 in Albania. Latitude 41 deg. 31' 10'' N. Longitude 20 deg. 5' 24'' E. Elevation 780 m. Village of Pelsh, Mat District, along road to Peshkopi. The collectors observed that it is spreading. David Brenner observed in an Ames, Iowa grow-out (1999) that the flowers are white, with purple keels hidden by othe flower parts. The rachis is very short, so that the five leaflets are almost sessile.

The following were developed by Milton C. Engelke, Texas A&M University, Research and Extension Center, 17360 Coit Road, Dallas, Texas 75252, United States. Donated by Reed E. Barker, USDA, ARS, Natl. Forage Seed Prod. Res. Ctr., Oregon State University, Corvallis, Oregon 97331-7102, United States. Received 05/1999.

PI 607829. Zoysia matrella (L.) Merr.
Cultivar. 10778. Collected in Korea, South. Collected from the grounds of Seoul National University campus, Suwon. Warm-season, sod-forming grass introduced from Asia. Used as lawngrass in southeastern U.S. Finer, denser sod, but less winter-hardy than Zoysia japonica Steud.

PI 607830. Zoysia matrella (L.) Merr.
Cultivar. . Warm-season, sod-forming grass introduced from Asia. Used as lawngrass in southeastern U.S. Finer, denser sod, but less winter-hardy than Zoysia japonica Steud.

PI 607831. Zoysia matrella (L.) Merr.
Cultivar. 10636. Pedigree - Discovered in turf cultivar test plots at Dallas, Texas. Warm-season, sod-forming grass introduced from Asia. Used as lawngrass in southeastern U.S. Finer, denser sod, but less winter-hardy than Zoysia japonica Steud.

PI 607832. Zoysia japonica Steud.
Cultivar. . Warm-season, sod-forming grass from Asia. Used for general-purpose turf and erosion control in southeastern U.S. Relatively winter-hardy, but does not thrive or compete well where summers are short or cool. Grows best on heavy soils; not drought resistant. Relatively coarse and tough. Produces seed, but generally planted

vegetatively.

The following were developed by Victor B. Youngner, Riverside, California, United States. Donated by Reed E. Barker, USDA, ARS, Natl. Forage Seed Prod. Res. Ctr., Oregon State University, Corvallis, Oregon 97331-7102, United States. Received 05/1999.

PI 607833. Zoysia japonica Steud.
Cultivar. 5845. Pedigree - Discovered in turf cultivar plot at University of California South Coast Field Station. Warm-season, sod-forming grass from Asia. Used for general-purpose turf and erosion control in southeastern U.S. Relatively winter-hardy, but does not thrive or compete well where summers are short or cool. Grows best on heavy soils; not drought resistant. Relatively coarse and tough. Produces seed, but generally planted vegetatively. Zoysiagrass plant `El Toro` a new and distinct variety of Zoysia turfgrass (Zoysia japonica) characterized by its rapid establishment rate and shorter dormant period compared to other Zoysia varieties, its early spring greenup and good Fall color retention and further characterized by its superior tolerance to Zoysia rust (Puccinia Spp.) and high tolerance to drought.

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. Received 03/29/2000.

PI 607834. Phaseolus vulgaris L.
Cultivar. Pureline. Pedigree - Developed from multiple interracial cross: Michoacan 91-A/3/BAT 304/G811//XAN 112/ABB6. Shiny black seeded bean of indeterminate growth habit (type III) developed for rainfed conditions in the highlands of Mexico. Average blooming and maturity 48 and 105 days after planting, respectively. Medium black seed which averages 31 g/100 seeds. In trials conducted in the subhumid highlands from 1994 to 1998, averaged 1940 kg ha-1 and 960 kg ha-1 in the semiarid highlands. Resistant to anthracnose rust, halo and common blight and carries the single dominant hypersensitive I gene for resistance to Bean Common Mosaic Virus (ECMV).

The following were developed by James H. Orf, University of Minnesota, Dept. of Agronomy and Plant Genetics, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States; Roxanne Denny, University of Minnesota, Dept of Plant Pathology, 495 Borlaug Hall, 1991 Upper Buford Cir., St. Paul, Minnesota 55108, United States. Received 02/22/2000.

PI 607835. Glycine max (L.) Merr.
Cultivar. Pureline. CV-416. Pedigree - Natto x M87-926. Relative maturity of 0.0 and would be considered a full season cv. at lat. 46 deg. to 48 deg. N. Flowers white, tawny pubescence and tan pods. Seeds have yellow seed coat and yellow hilum. Semideterminate growth habit and averages about 62 cm tall. Seeds average about 7.5 grams per 100 seeds. Considered a natto type. Protein and oil content from 1996 URT data was 43.6% and 19.9%, respectively. Carries the Rps1 gene for phytophthora

resistance (Phytophthora sojae).

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 03/06/2000.

PI 607836. Arachis hypogaea L.
Cultivar. CV-67; PVP 200000255. Pedigree - GA-C330A / GA-T2636M. Released 1999. Large-seeded peanut with significantly higher O/L fatty acid ratio (ca. 40 vs 3) as compared to NC 7 in south Georgia. The high O/L trait provides for longer shelf-life, improved oil quality, and better nutrition. High level of resistance to TSWV being comparable to Georgia Green, which is a TSWV-resistant runner-type cultivar. Decumbent spreading growth habit, medium maturity, and pink testa color. Combines high yield, high O/L ratio, and high level of TSWV resistance into a large-seeded line.

The following were developed by Charles Tischler, USDA-ARS, 808 E. Blackland Rd., Temple, Texas 76502, United States. Received 02/06/2000.

PI 607837. Panicum virgatum L.
Breeding. Population. Pedigree - Derived from Alamo switchgrass by 3 cycles of recurrent selection for low crown node placement under dim, continuous light. Average crown node elevation of 0.03 cm above the soil surface when grown from seed under continuous dim light (PPFD 1.5 uM m-2 sec -1) at a constant temperature of 30 C for 7 days. Alamo has an average crown node elevation of 0.25 cm above the soil surface when grown under the same conditions. Thus, more responsive to red light in the seedling stage than Alamo. Indistinguishable from Alamo in the mature plant form (2 or more years of age).

PI 607838. Panicum virgatum L.
Breeding. Population. Pedigree - Derived from Alamo switchgrass by 3 cycles of recurrent selection for high crown node placement under dim, continuous light. Average crown node elevation of 0.87 cm above the soil surface when grown from seed under continuous dim light (PPFD 1.5 uM m-2 sec-1) at a constant temperature of 30 C for 7 days. Alamo has an average crown node elevation of 0.25 cm above the soil surface when grown under the same conditions. Thus, less responsive to red light in the seedling stage than Alamo. Indistinguishable from Alamo in the mature plant form (2 or more years of age).

The following were developed by Kimberlee Kidwell, Washington State University, Dept. of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States. Received 03/27/2000.

PI 607839. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Pedigree - Pavon 'S'/5/PI167822/CI13438 113-6//Idaed/Marfed 68-5/4/Lemhi 66/3/Yaktana 54A*4/Norin 10/Brevor/6/Walladay/7/PI506355/8/Treasure. Common-type, soft white, semi-dwarf spring wheat. Awned, mid-season maturity, white straw and white glumes. emonstrated tolerance to natural infestations of Hessian

fly. Resistant to stripe rust and moderately resistant to leaf rust. Targeted to the northeastern and southeastern production regions of Washington state as a replacement for Penawawa and Alpowa due to its high grain yield potential and superior stripe rust resistance, and/or as a replacement for Wakanz and Wawawai, based on its Hessian fly resistance. Outstanding end-product quality compared to other varieties currently in commercial production. High molecular weight glutenin subunits of null (1A), 6+8 (1B) and 2+12 (1D). Test weight is nearly equal to that of Penawawa, lower than Alpowa and Wawawai and higher than Vanna. Susceptible to the Russian wheat aphid.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Konrad Schuler, Institute for Plant Genetics, IPK, Genbank-Aussenstelle Nord, 0-2551, Gross Lusewitz, Germany; Antonio Rivera-Pena, INIFAP, Programa Nacional de la Papa, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands. Received 09/06/1997.

PI 607840. Solanum demissum Lindl.
Wild. Collected 09/06/1997 in Aguascalientes, Mexico. Latitude 21 deg. 46' 30'' N. Longitude 102 deg. 38' 55'' W. Elevation 2400 m. on W slopes of Sierra El Laurel, ca 10 km by air SE of Calvillo, by the end of the road by a dam, passing Rancho de Los Adobes, SSP 1:250,000-scale Map F13-9. growing at base of a stone fence. Three living plants and two immature round fruits collected, plants with violet corollas and round immature fruits.

PI 607841. Solanum demissum Lindl.
Wild. Collected 09/11/1997 in Durango, Mexico. Latitude 24 deg. 24' 56'' N. Longitude 105 deg. 35' 16'' W. Elevation 2580 m. on dirt road W of Durango on way to Mazatlan, diverging N at Coyotes at San Miguel de Cruces, 92 km up this dirt road, 1:250,000-scale Map G13-11. growing in pine woods near roadside (E side). Eight mature fruits collected.

PI 607842. Solanum polytrichon Rydb.
Wild. Collected 09/12/1997 in Durango, Mexico. Latitude 24 deg. 42' 37'' N. Longitude 104 deg. 38' 35'' W. Elevation 1900 m. Km 87 along Rt 45 N of Durango to Hidalgo del Parral, SSP 1:250,000-scale Map G13-11. growing under cactus plants in organic soil. 44 fruits collected from 8 plants.

PI 607843. Solanum leptosepalum Correll
Wild. Collected 09/21/1997 in Coahuila, Mexico. Latitude 26 deg. 50' 53'' N. Longitude 101 deg. 16' 27'' W. Elevation 2070 m. near top of Sierra de La Gloria, from about 15 km E of Monclova on road to Candela, then S on road to farm of Dr. Cardenas (by swimming pool complex), up private dirt road to nearing top of sierra, then hike to top, SSP 1:250,000-scale Map. growing under cacti and bushes. All stages of development from non-flowering to fruiting pl., corolla pentagonal, violet, 3 plants, two tubers, and 13 fruits colleced.

PI 607844. Solanum macropilosum Correll

Wild. Collected 09/24/1997 in Nuevo Leon, Mexico. Latitude 23 deg. 59' N. Longitude 99 deg. 44' W. Elevation 2750 m. slopes of Cerro El Viejo, along logging path up hill, ca. 5.5 km (by air) ENE of town square of Zaragoza, SSP 1:250,000-scale Map F14-2. growing in a limestone rock pile along roadside. Corolla pentagonal, violet, fruits verrucose, maturing to mature, 20 fruits collected from five plants.

PI 607845. Solanum macropilosum Correll
Wild. Collected 09/24/1997 in Nuevo Leon, Mexico. Latitude 23 deg. 59' N. Longitude 99 deg. 43' W. Elevation 2850 m. slopes of Cerro El Viejo, along logging path up hill, ca. 6 km (by air) ENE of town square of Zaragoza, SSP 1:250,000-scale Map F14-2. growing among stones of natural landslide of limestone rocks on steep slope. Corolla pentagonal, violet, fruits verrucose, 40 fruits collected from 10 plants.

PI 607846. Solanum verrucosum Schltdl.
Wild. Collected 09/25/1997 in Nuevo Leon, Mexico. Latitude 24 deg. 52' 41'' N. Longitude 100 deg. 13' 20'' W. Elevation 3220 m. Cerro Potosi, NW of Galeana, on road to microwave tower, by the first of the two sets of towers, SSP 1:250,00-scale map G14-10. growing in oak pine forest. Thousands of plants present. Plants with leaves varying much in morphology. Fruits with raised verrucose points to raised dots, to no dots.

PI 607847. Solanum stoloniferum Schltdl. & Bouche
Wild. Collected 09/30/1997 in Mexico, Mexico. Latitude 19 deg. 14' 56'' N. Longitude 99 deg. 35' 15'' W. Elevation 2610 m. INIFAP Experimental Station potato field, outskirts of Metepec, SSP 1:250,000-scale map E14-2. growing along fence row. Corollas white and purple on different plants, 20 fruits collected from five plants.

PI 607848. Solanum verrucosum Schltdl.
Wild. Collected 10/01/1997 in Hidalgo, Mexico. Latitude 20 deg. 10' 4'' N. Longitude 98 deg. 41' 35'' W. Elevation 2830 m. El Chico National Park N of Pachuca, 5 km W along the road diverging into the park, on both sides of road, by sign La Cabanas de Lobo, SSP 1:250,000-scale map F14-11. growing in fir and oak forest with moss on leaf litter. No flowers present, fruits with raised verrusose points to non-raised clearer green dots, to no dots, 20 fruits collected from five pl.

PI 607849. Solanum demissum Lindl.
Wild. Collected 10/01/1997 in Hidalgo, Mexico. Latitude 20 deg. 10' 4'' N. Longitude 98 deg. 41' 35'' W. Elevation 2830 m. El Chico National Park N of Pachuca, 5 km W along road diverging into the park, on S side of road, by sign La Cabanas de Lobo, SSP 1:250,000-scale map F14-11. growing in fir and oak forest with moss on leaf litter. Four fruits collected from one plant.

PI 607850. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/01/1997 in Hidalgo, Mexico. Latitude 20 deg. 18' 57'' N. Longitude 98 deg. 15' 16'' W. Elevation 2290 m. on Metepec-Tenango de Doria road, 20 km NE of intersection of road entering Metepec, on N side of road, SSP 1:250,000-scale map E14-3. growing at base of rock. Plants to 30 cm tall, no flowers present, fruits ovoid, pointed at end.

PI 607851. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/01/1997 in Hidalgo, Mexico. Latitude 20 deg. 18' 56'' N. Longitude 98 deg. 15' 30'' W. Elevation 2270 m. on Metepec-Tenango de Doria road, 16 km NE of intersection of this road with road entering Metepec, on S side of road on slope, SSP 1:250,000-scale map E14-3. growing on slope by roadside and among and under shrubs down slope. 20 fruits collected from five plants.

PI 607852. Solanum oxycarpum Schiede
Wild. Collected 10/01/1997 in Hidalgo, Mexico. Latitude 20 deg. 18' 56'' N. Longitude 98 deg. 15' 30'' W. Elevation 2280 m. on Metepec-Tenango de Doria road, 16 km NE of intersection of this road with road entering Metepec, on S side of road from 50 and then 250 m up slope off road, SSP 1:250,000-scale map E14-3. growing in moist organic soil among and under shrubs. Fruits conic, eight fruits collected from three plants.

PI 607853. Solanum oxycarpum Schiede
Wild. Collected 10/02/1997 in Veracruz, Mexico. Latitude 19 deg. 36' 44'' N. Longitude 97 deg. 1' 55'' W. Elevation 2188 m. collected at La Joya (Perote-Jalapa road) ca 100 m S of road by the restaurants on the road, SSP 1:250,000-scale map E14-3. growing in pine litter with moss covering of soil covering volcanic rocks. 10 fruits collected from four plants, fruits mature, conical and pointed at end.

PI 607854. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/04/1997 in Puebla, Mexico. Latitude 18 deg. 17' 50'' N. Longitude 97 deg. 3' 58'' W. Elevation 2640 m. from Tehuacan to Oaxaca road, turn NE on road to Zoquitlan, 22 km along road, by divergence of road to Coyomeapa, SSP 1:250,000-scale map E14-6. growing on steep slope in waste area by roadside, in area of pines and oaks, growing with Solanum oxycarpum. Six fruits collected from three plants.

PI 607855. Solanum oxycarpum Schiede
Wild. Collected 10/04/1997 in Puebla, Mexico. Latitude 18 deg. 17' 50'' N. Longitude 97 deg. 3' 58'' W. Elevation 2640 m. from Tehuacan to Oaxaca road, turn NE on road to Zoquitlan, 22 km up road, by divergence of road to Coyomeapa, SSP 1:250,000-scale map E14-6. growing in waste area on steep slope by roadside, in area of pines and oaks, and in adjacent pine and oak woods, growing with Solanum brachycarpum. 50 fruits collected from 15 plants.

PI 607856. Solanum oxycarpum Schiede
Wild. Collected 10/04/1997 in Oaxaca, Mexico. Latitude 18 deg. 10' 31'' N. Longitude 97 deg. 0' 22'' W. Elevation 2240 m. Km 25 on the road from Teotitlan to Huautla, about 20 m S of road above stream, SSP 1:250,000-scale map E14-6. growing on steep slope by roadside, in pine and oak woods in shade. 13 fruits collected from five plants.

PI 607857. Solanum oxycarpum Schiede
Wild. Collected 10/04/1997 in Oaxaca, Mexico. Latitude 18 deg. 9' 57'' N. Longitude 96 deg. 59' 52'' W. Elevation 2370 m. Km 27.2 on road from Teotitlan to Huautla, at Puerto Soledad, SSP 1:250,000-scale map E14-6. growing in pine and oak woods. 20 fruits collected from eight plants.

PI 607858. Solanum morelliforme Bitter & Munch

Wild. Collected 10/04/1997 in Oaxaca, Mexico. Latitude 18 deg. 9' 57'' N. Longitude 96 deg. 59' 52'' W. Elevation 2370 m. Km 27.2 on road from Teotitlan to Huautla, at Puerto Soledad, SSP 1:250,000-scale map E14-6. growing on branch of a mature pine tree in shade. 20 fruits collected from four plants.

PI 607859. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/06/1997 in Oaxaca, Mexico. Latitude 16 deg. 6' 58'' N. Longitude 96 deg. 28' 36'' W. Elevation 2750 m. on Rt. 175 (Oaxaca to Puerto Angel road), 4.0 km N of N end (by church) of Suchiltepec, by km marker 143, by water drain underpass base on E side of road, SSP 1:250,000-scale map E14-2. growing in moist organic soil in area of pine and oak woods. Corollas purple, rotate, 20 mature ovate fruits collected from five plants.

PI 607860. Solanum oxycarpum Schiede
Wild. Collected 10/10/1997 in Chiapas, Mexico. Latitude 16 deg. 48' 52'' N. Longitude 92 deg. 34' 58'' W. Elevation 2800 m. Cerro Zontehuitz, 9.7 km up microwave tower road, turning off the San Cristobal de las Casas to Tenejapa Road, same location as Tarn et al. 277, SSP 1:250,000-scale map E15-11. growing along roadside in black organic soil. Eight fruits collected from two plants, fruits ovate-conical, mature, corolla rotate, purple.

PI 607861. Solanum oxycarpum Schiede
Wild. Collected 10/10/1997 in Chiapas, Mexico. Latitude 16 deg. 49' 6'' N. Longitude 92 deg. 34' 49'' W. Elevation 2950 m. 50 m walk down hill from uppermost of antenna cluster on Cerro Zontehuitz, by lower of two shrines, SSP 1:250,000-scale map E15-11. growing in black organic soil. Corollas white and purple in same population, fruits ovoid-conical, mature, 15 fr coll from five plants, lvs w & w/o interjected lfts.

PI 607862. Solanum oxycarpum Schiede
Wild. Collected 10/11/1997 in Chiapas, Mexico. Latitude 15 deg. 24' 13'' N. Longitude 92 deg. 10' 43'' W. Elevation 2410 m. 17.4 km N of Rt. 190 just S of Motozintla, on road to El Porvenir, ca 50 m W of road, SSP 1:250,000-scale map D15-2 (very close to Spooner et al. 4211 collected in 1988). growing in rich soil in openings in woods. Corolla rotate, purple, fruit conical, 16 fruits collected from four plants.

PI 607863. Solanum clarum Correll
Wild. Collected 10/11/1997 in Chiapas, Mexico. Latitude 15 deg. 27' 58'' N. Longitude 92 deg. 16' 50'' W. Elevation 2850 m. 1.1 km N of town square of El Porvenir, on road to Siltepec, ca 50 m W of road, SSP 1:250,000-scale map D15-2 (very close to Spooner et al. collection 4216 collected in 1988). growing in moss under mature pine trees in organic soil. No flowers, fruits rare, round, three fruits collected from three plants.

PI 607864. Solanum schenckii Bitter
Wild. Collected 10/13/1997 in Oaxaca, Mexico. Latitude 17 deg. 9' 44'' N. Longitude 93 deg. 35' 2'' W. Elevation 2720 m. 3.5 km E of La Cumbre on road to Yuvila, and 3.3 km W of Yuvila, SSP 1:250,000-scale map E14-9 . growing in recent clearing in pine and oak woods. Corolla purple, lighter adaxially, upper pair of lateral leaflets decurrent on only some

plants, 13 ovoid, verrucose fruits coll. 3 pl.

PI 607865. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/18/1997 in Guerrero, Mexico. Latitude 17 deg. 33' 2'' N. Longitude 99 deg. 41' 32'' W. Elevation 2200 m. road W of Chilpancingo de las Bravos, 1 km W of Omiltemi, 15 m off N side of road, SSP 1:250,000-scale map E14-8. growing in clearing in oak pine woods. Corolla rotate, purple streaked with white, 12 ovoid-conical fruits collected from three plants.

PI 607866. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/18/1997 in Guerrero, Mexico. Latitude 17 deg. 33' 3'' N. Longitude 99 deg. 42' 1'' W. Elevation 2370 m. road W of Chilpancingo de los Bravos, 3 km W of Omiltemi, 15 m on S side of road, SSP 1:250,000-scale map E14-8. growing in oak pine woods in rich soil over volvanic rocks. Corolla rotate, purple streaked with white, two ovoid-conical fruits collected from one plant.

PI 607867. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/18/1997 in Guerrero, Mexico. Latitude 17 deg. 33' 16'' N. Longitude 99 deg. 42' 45'' W. Elevation 2530 m. road W of Chilpancingo de los Bravos, 4.3 km W of Omiltemi, on both sides of road, SSP 1:250,000-scale map E14-8. growing along roadside and in clearing in oak pine woods. Corolla rotate, purple streaked with white, 24 ovoid-conical fruits collected from eight plants.

PI 607868. Solanum demissum Lindl.
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 8' 52'' N. Longitude 99 deg. 48' 32'' W. Elevation 3450 m. on Rt. 10, 4.8 km S of La Puerta (on Rt. 134), on W side of road, in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano, SSP 1:250,000-scale map E14-2. growing in rich organic soil along roadside in area of pine and fir forest. Flowers not present, eight ovoid fruits collected from four plants.

PI 607869. Solanum demissum Lindl.
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 4' 37'' N. Longitude 99 deg. 50' 16'' W. Elevation 3100 m. at El Capulin, a small settlement 21.3 km S of La Puerta (on Rt. 134), in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano, SSP 1:250,000-scale map E14-2. growing in rich organic soil about house and fields, in area of pine and fir woods, with S. x edinense. Eight fruits collected from five plants.

PI 607870. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 3' 59'' N. Longitude 99 deg. 50' 40'' W. Elevation 3100 m. from El Capulin, a small settlement 21.3 km S of La Puerta (on Rt. 134), drive 2 km E and then S on track into forest, in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano, SSP 1:250,000-scale map E14-2. growing in rich soil in pine and fir woods. Flowers not present, nine ovoid-conical fruits collected from four plants, this species abundant.

PI 607871. Solanum demissum Lindl.
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 3' 59''

N. Longitude 99 deg. 50' 40'' W. Elevation 3100 m. from El Capulin, a small settlement 21.3 km S of La Puerta (on Rt. 134), drive 2 km E and then S along track into woods, in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano, SSP 1:250,000-scale map E14-2. growing in rich organic soil along roadside pine and fir woods. Eight ovoid fruits collected from six plants.

PI 607872. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 9' 56'' N. Longitude 99 deg. 53' 35'' W. Elevation 2750 m. growing along roadside and 50 m downslope of road, on N side of Rt. 134, 35.7 km SW of Toluca (by posted road signs), shortly SW of entrance to Meson Viejo, SSP 1:250,000-scale map E4-12. growing in pine fir woods. Corollas rotate, purple, 31 ovoid fruits collected from 11 plants.

PI 607873. Solanum demissum Lindl.
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 9' N. Longitude 99 deg. 53' W. Elevation 2750 m. growing about 500 m SW of Meson Viejo, about 35 km SW of Toluca (by posted road signs, SSP 1:250,000-scale map E14-2. growing at base of Agave plant at edge of cultivated field. One plant with ovoid fruits collected.

PI 607874. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/23/1997 in Michoacan, Mexico. Latitude 19 deg. 27' 48'' N. Longitude 102 deg. 20' 25'' W. Elevation 2550 m. NW-facing slope of Volcan Tancitaro, 11 km SE of Periban on road to Paso la Nieve, then a 50 m walk uphill SE of road, SSP 1:250,000-scale map E13-3. growing among shrubs in newly planted avocado plantation. Flowers absent, 27 round dotted or verrucose fruits collected from eight plants.

PI 607875. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/23/1997 in Michoacan, Mexico. Latitude 19 deg. 27' N. Longitude 102 deg. 20' W. Elevation 2600 m. NW-facing slope of Cerro Tancitaro, 11 km SE of Periban on road to Paso la Nieve, then a 1.5 km walk SE uphill, SSP 1:250,000-scale map E13-3. growing among shrubs in newly planted avocado plantation. Flowers absent, tubers and dotted and verrucose fruits collected.

PI 607876. Solanum brachycarpum (Correll) Correll
Wild. Collected 10/23/1997 in Michoacan, Mexico. Latitude 19 deg. 27' N. Longitude 102 deg. 20' W. Elevation 2650 m. NW-facing slope of Cerro Tancitato, 11 km SE of Periban on road to Paso la Nieve, then a 2 km walk SE up hill, SSP 1:250,000-scale map E13-3. growing among shrubs in newly planted avocado plantation. Corollas rotate with small acumens, white mottled purple, with white rays top and bottom, dotted or verrucose fruits collected.

PI 607877. Solanum demissum Lindl.
Wild. Collected 10/27/1997 in Mexico, Mexico. Latitude 19 deg. 10' 46'' N. Longitude 99 deg. 40' 19'' W. Elevation 2800 m. 3.5 km SW of Zacango (zoo) at SW end, on paved and then dirt road ascending Nevado de Colima, on E-facing slope of volcano, SSP 1:250,000-scale map E14-2. growing in sandy soil under shrubs. Flowers absent, two fruits collected from one plant.

PI 607878. Solanum demissum Lindl.
Wild. Collected 10/27/1997 in Mexico, Mexico. Latitude 19 deg. 11' 46'' N. Longitude 99 deg. 13' 58'' W. Elevation 3270 m. W-facing slope of Volcan Ajusco, about 5 km S of El Ajusco, on W side of road, SSP 1:250,000-scale map E14-2. growing in organic soil among shrubs in area of pine trees. Flowers absent, 30 fruits and two tubers collected from 10 plants.

PI 607879. Solanum demissum Lindl.
Wild. Collected 10/27/1997 in Mexico, Mexico. Latitude 19 deg. 9' 35'' N. Longitude 99 deg. 23' 47'' W. Elevation 3200 m. W-facing slope of Volcan Ajusco, Km 5 from Tlaxiaco-Ajusco, SSP 1:250,000-scale map E14-2. growing on rocky organic soil in area of pine trees. Flowers absent, four fruits collected from two plants.

The following were collected by Antonio Rivera-Pena, INIFAP, Programa Nacional de la Papa, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico. Received 08/25/1988.

PI 607880. Solanum hintonii Correll
Wild. Collected 08/25/1988 in Mexico, Mexico. Latitude 19 deg. 2' N. Longitude 100 deg. 6' W. Elevation 1860 m. 6.5 km SW of Temascaltepec-Valle de Bravo road, on road to San Pedro Tenayac, on S side of road, about 50 m downstream of bridge over road. Along streambank in area with pine and oak; some in moss. Flowers stellate and white, fruit conical, green and white mottle.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Alberto Salas, International Potato Center, P.O. Box 5969, Lima, Lima, Peru . Received 02/23/1998.

PI 607881. Solanum acaule Bitter
Wild. Collected 02/23/1998 in Puno, Peru. Latitude 16 deg. 15' 39'' S. Longitude 69 deg. 0' 37'' W. Elevation 3850 m. Yunguyo: in town of Muchace, ca. 10 km ENE of Yunguyo, 100 m N of road. growing in a cultivated potato field. Plants in flower and fruit.

PI 607882. Solanum megistacrolobum subsp. toralapanum (Cardenas & Hawkes) Giannattasio & D. M. Spooner
Wild. Collected 03/01/1998 in Puno, Peru. Latitude 15 deg. 16' 52'' S. Longitude 70 deg. 16' 53'' W. Elevation 3910 m. Lampa: 30.8 km S of big church in Pucara on new road to Julica, exactly at km 1291, ca. 100 m E (uphill) of road. growing among rocks on slope below cliff. Plants common, fruits and flowers present.

PI 607883. Solanum raphanifolium Cardenas & Hawkes
Wild. Collected 03/02/1998 in Cuzco, Peru. Latitude 14 deg. 29' 35'' S. Longitude 71 deg. 9' 51'' W. Elevation 3700 m. Canchis: cemetery on SE end of town of Marangani, on E side o road to Puno. growing in grasses in sunny areas and at edge of bushes. Purple, pentagonal corollas and mature fruits present.

PI 607884. Solanum marinasense Vargas
Wild. Collected 03/03/1998 in Cuzco, Peru. Latitude 13 deg. 35' 32'' S. Longitude 71 deg. 52' 32'' W. Elevation 3550 m. Cusco: from the Universidad Nacional San Antonio de Cusco on the S side of the town of Cusco, E of main road through town, drive up road going toward Granja Kaira San Geronimo to km 7.5, then walk uphill 300 m. growing in rocky field on slope among grasses and Compositae and shrubs. Purple pentagonal corollas and mottled spherical fruits present.

PI 607885. Solanum brevicaule Bitter
Wild. Collected 03/06/1998 in Cuzco, Peru. Latitude 13 deg. 14' 57'' S. Longitude 71 deg. 54' 37'' W. Elevation 3740 m. Calca: 13.6 km N of town square of Calca on road to Lares, E side of road. growing among rocky soil and out of rock walls. Corollas purple, rotate, fruits globose to slightly oval.

PI 607886. Solanum tuberosum subsp. andigena Hawkes
Wild. Collected 03/08/1998 in Cuzco, Peru. Latitude 13 deg. 49' 37'' S. Longitude 71 deg. 49' 41'' W. Elevation 2510 m. Paruro: 13.6 km S of Paruro on the road to Colcha. growing in corn field. Escaped cultivar in corn field, tubers tan with purple splotches, no flowers present but mature fruits collected.

PI 607887. Solanum santolallae Vargas
Wild. Collected 03/12/1998 in Cuzco, Peru. Latitude 13 deg. 10' 46'' S. Longitude 72 deg. 32' 30'' W. Elevation 2650 m. Urubamba: growing along Inca train from Machu Pichu N to Winaywayna, about 1.5 km S of Winaywayna. growing in organic soil in rockfall by path. Corollas rose-purple, rotate, fragrant, fruits conical, maturing.

PI 607888. Solanum raphanifolium Cardenas & Hawkes
Wild. Collected 03/13/1998 in Cuzco, Peru. Latitude 13 deg. 13' 38'' S. Longitude 72 deg. 30' 19'' W. Elevation 3700 m. Urubamba: growing about archaeological site of Runquracay, on Inca trail N and W of Machu Pichu, ca. 2 km E of village of Pacaymayo, at crossing of Inca Trail with Rio Pacaymayo. growing among Stipa ichu grasses and among short bushes. Corollas purple, pentagonal, fruits globose to ovoid.

PI 607889. Solanum buesii Vargas
Wild. Collected 03/13/1998 in Cuzco, Peru. Latitude 13 deg. 14' S. Longitude 72 deg. 30' W. Elevation 3600 m. Urubamba: growing about Rio Pacaymayo, at village of Pacaymayo, at crossing of River with Inca Trail N and W of Machu Pichu. growing by stream. Corollas purple, rotate with large acumens, fruits conical.

PI 607890. Solanum chillonanum Ochoa
Wild. Collected 03/21/1998 in Apurimac, Peru. Latitude 13 deg. 50' 16'' S. Longitude 72 deg. 15' 8'' W. Elevation 4050 m. Cotabambas: located at a place called Quellomayo, 39 km SE of center of town of Cotabambas, ca. (not measured) 10 km NW of town of Tambobamba, ca. 50 m E of road. growing among rocks and Stipa ichu grass in humid organic soil. Corollas purple, rotate, fruits globose, plants to 50 cm tall.

PI 607891. Solanum acroscopicum Ochoa
Wild. Collected 04/05/1998 in Tacna, Peru. Latitude 17 deg. 27' 4'' S.

Longitude 70 deg. 0' 47'' W. Elevation 3215 m. Tarata: 11.5 km NE of town square of Tarata on road to Anaque Putinaa, among bushes on sides of irrigation canal, just above water holding tank. growing along sides of canal in area of very dry shrubs and cactus. Fruits globose.

PI 607892. Solanum acaule Bitter
Wild. Collected 04/06/1998 in Moquegua, Peru. Latitude 16 deg. 51' 55'' S. Longitude 70 deg. 40' 14'' W. Elevation 3660 m. Mariscal Nieto: 15 km NW of El Cruce on road to Carumas (33 km between these places). growing along roadside and adjacent upper slope among Stipa ichu grasses and bushes. Mature fruits collected.

PI 607893. Solanum sp.
Wild. Collected 04/08/1998 in Moquegua, Peru. Latitude 16 deg. 37' 9'' S. Longitude 71 deg. 10' 26'' W. Elevation 3300 m. General Sanchez Cerro: 2 km E of entrance (to the S) to town square of Puquina on road to Omate, ca 100 m uphill (N or road). growing in sandy soil at border of cultivated field on ancient terrace ("andenes"). Corollas purple, rotate, fruits maturing to globose, spherical, verrucose.

PI 607894. Solanum sandemanii Hawkes
Wild. Collected 04/09/1998 in Arequipa, Peru. Latitude 16 deg. 23' 48'' S. Longitude 71 deg. 26' 7'' W. Elevation 2750 m. Arequipa: at base of small cliff on E side of Quebrada Honda, ca. 25 m from base of quebrada, ca. 100 m upstream (N) from Arequipa to Chiguata road, at a point 59.8 km ENE of Pan American Highway (by posted road signs). growing in very dry stony and sandy soil. Plants brown and withering, 10-20 cm tall, tubers small and light tan and shiny, fruits globose.

PI 607895. Solanum sandemanii Hawkes
Wild. Collected 04/09/1998 in Arequipa, Peru. Latitude 16 deg. 16' 50'' S. Longitude 71 deg. 31' 1'' W. Elevation 2600 m. Arequipa: 18 km N of main town square (Plaza de Armas) of Arequipa on road to Cabreria (just S of this locality), then 100-150 m W or road. growing among grasses and bushes and cacti in very dry sandy and rocky soil. Plants brown and withering, 10-20 cm tall, tubers small and light tan and shiny, fruits globose to ovoid.

PI 607896. Solanum aymaraesense Ochoa
Wild. Collected 04/17/1998 in Apurimac, Peru. Latitude 14 deg. 3' 44'' S. Longitude 73 deg. 14' 54'' W. Elevation 2465 m. Aymareas: 400 E of San Francisco (a place located at the deviation of the road N of Toraya), on S side of road, ca. 20 m from margin of Rio Chalhuanca. growing in organic soil among large rocks. Plants to 1 m tall, flowers absent, fruits globose.

The following were developed by J. Mitchell McGrath, USDA, ARS, Department of Crop and Siol Science, Michigan State University, East Lansing, Michigan 48824-1325, United States. Received 04/15/1999.

PI 607897. Beta vulgaris L.
Breeding. Population. Monogerm O type line with resistance to Aphanomyces, Cercospora, Aphanomyces, and some resistance to Rhizoctonia.

PI 607898. Beta vulgaris L.
Breeding. Population. Pedigree - Original parentage from G.W. Demmings globe shaped red table beet X sugarbeet selections. Self incompatible multigerm progeny segregating mainly red hypocotyl color, with moderate resistance to Cercospora leaf spot. Averages 107% root weight, 96% sucrose percentage, and 95% recoverable white sugar per ton compared with the commercial hybrid Mono-Hy-E4. Field trail hybrids having SR80 as pollinator parent averaged 100-123% root weight, 93-96% sucrose percentage, and 100% of the purity of Mono-Hy-E4. Can be machine harvested with 50% less soil adhering to the taproots than for Mono-Hy-E4. In comparison with SR87, a smooth root germplasm, produces about one ton per acre less root weight with 0.9% higher sucrose percentage. Root smoothness score of 2.25 in comparison of 1.75 for SR87 and 3.25 for Mono-Hy-E4.

The following were developed by J. C. Theurer, Sugarbeet Investigations, Crops Res. Lab., Utah State Univ., Logan, Utah 84322, United States; Joseph W. Saunders, USDA, ARS, Michigan State University, Sugarbeet, Bean & Cereal Res., East Lansing, Michigan 48823-1325, United States; J.M. Halloin, USDA, ARS, Sugarbeet and Bean Research Unit, Dept. of Botany and Plant Pathology, East Lansing, Michigan 48824, United States; J. Mitchell McGrath, USDA, ARS, Department of Crop and Siol Science, Michigan State University, East Lansing, Michigan 48824-1325, United States. Received 04/15/1999.

PI 607899. Beta vulgaris L.
Breeding. Population. GP-215. Pedigree - Original parentage from G.W. Demings globe-shaped root progenies (selections from table beet x sugar beet) crossed with SP6822-0 MM, the pollen parent of hybrid USH20. Self incompatible multigerm progeny segregating for red and green hypocotyl, with good resistance to Cercospora leaf spot. Can be machine harvested with 25-30% of the soil adhering to the tap root compared with commercial hybrids. Hybrids having SR87 as pollinator averaged 103% root weight, 88% sucrose percent, and 100% clear juice purity of the commercial hybrid Mono-Hy-E4.

The following were developed by Gerald Wilde, Kansas State University, Department of Entomology, 123 Waters Hall, Manhattan, Kansas 66506-4004, United States; Mitchell R. Tuinstra, Kansas State University, Department of Agronomy, 3007 Throckmorton Hall, Manhattan, Kansas 66506, United States; Mitchell R. Tuinstra, Kansas State University, Department of Agronomy, 3007 Throckmorton Hall, Manhattan, Kansas 66506, United States. Received 04/14/1999.

PI 607900. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-569. Pedigree - IS 2388 derivative. Agronomically acceptable grain sorghum with outstanding resistance to greenbug (Schizaphis graminum). 3-dwarf genotype that flowers in approx. 73 days and grows to a height of 82 cm.

The following were developed by Mitchell R. Tuinstra, Kansas State University, Department of Agronomy, 3007 Throckmorton Hall, Manhattan, Kansas

66506, United States. Received 04/14/1999.

PI 607901. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-570. Pedigree - KS71///KS71//IAP3BR/IS22253. Elite, grain-sorghum pollinator that restores male fertility in A1 cytoplasm. Good general combining ability and hybrids produced are well-adapted to the dryland environments commonly found in the Central Great Plains. 3-dwarf genotype that flowers in 76 days and grows to a height of 100 cm. Possesses purple plant color and seeds have yellow endosperm and unpigmented testa.

The following were developed by S.N. Nigam, Int. Crops Res. Inst. for the Semi-Arid Tropics, Legumes Program, Patancheru, Andhra Pradesh 502 324, India . Received 01/04/2000.

PI 607902. Arachis hypogaea L.
Breeding. Oil content high. Resistant to foliar diseases. Advanced breeding line.

PI 607903. Arachis hypogaea L.
Breeding. Oil content high. Resistant to foliar diseases. Advanced breeding line.

PI 607904. Arachis hypogaea L.
Breeding. Oil content high. Resistant to foliar diseases. Advanced breeding line.

PI 607905. Arachis hypogaea L.
Breeding. Oil content high. Resistant to foliar diseases. Advanced breeding line.

PI 607906. Arachis hypogaea L.
Breeding. Oil content high. Insect pest resistant. Advanced breeding line.

PI 607907. Arachis hypogaea L.
Breeding. Oil content high. BND resistant. Advanced breeding line.

PI 607908. Arachis hypogaea L.
Breeding. Oil content high. BND resistant. Advanced breeding line.

PI 607909. Arachis hypogaea L.
Breeding. Oil content low. Insect pest resistant. Advanced breeding line.

PI 607910. Arachis hypogaea L.
Breeding. Oil content low. Resistant to foliar diseases. Advanced breeding line.

PI 607911. Arachis hypogaea L.
Breeding. Oil content low. Resistant to foliar diseases. Advanced breeding line.

PI 607912. Arachis hypogaea L.

Breeding. Oil content low. Resistant to foliar diseases. Advanced breeding line.

The following were developed by S.L. Dwivedi, Int. Crops Res. Inst. for the Semi-Arid Tropics, Genetic Resources Program, Patancheru P.O., Andhra Pradesh 502 324, India; S.N. Nigam, Int. Crops Res. Inst. for the Semi-Arid Tropics, Legumes Program, Patancheru, Andhra Pradesh 502 324, India; Young Keun Cheong, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), 381, Korea, South; Jong-Tae Kim, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South; Youn-Sup Oh, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South; Myung-Kyu Oh, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South; Young-Sun Jang, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South; Moon-Soo Park, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South; Su-Yeon Cho, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South; Jung-Gon Kim, National Honam Agricultural Experiment Station, RDA, Iksan 570-080, Korea, South; Ki-Hun Park, Research Management Bureau, Rural Development Administration (RDA), Suwon 441-707, Korea, South; Jong-Chul Ko, National Honam Agricultural Experiment Station, Rural Development Administration (RDA), Iksan 570-080, Korea, South. Received 05/28/1999.

PI 607913. Arachis hypogaea subsp. fastigiata Waldron
Cultivar. Pureline. CV-63. Pedigree - ICGV 87124 x G 201 F2-B1-B1-B1-B1-B1. Spanish type peanut. Growth habit erect with large size obovate dark green leaves. Average primary and secondary branches are 11. Pods 2-seeded, small with slight to moderate pod constriction, moderate pod beak and slight pod reticulation and ridges. Meat content 73%, 100-seed weight 49g, oil content 50%, protein content 21%, and O/L ratio of 1.4. Seeds light red color. Highly resistant to pod rot (Fusarium solani).

The following were developed by ConAgra, Inc., United States. Received 06/28/1999.

PI 607914. Cicer arietinum L.
Cultivar. PVP 9900290.

The following were donated by University of Saskatchewan, Crop Science Department, Saskatoon, Saskatchewan S7N 0W0, Canada. Received 1978.

PI 607915. Lens culinaris Medik. **subsp. culinaris**
Result of line selection from PI 343028 from Russia. Large-seeded (Chilean type) with yellow cotyledons and is higher yielding than Commercial Chilean lentils. Seed is thicker than most and colorless (occasional purple splotches). Stems contain anthocyanin pigmentation. Flower is white with faint blue veins on the banner. Keel has faint blue tip, fading to colorless. 2-3 flowers and pods on fine axillary

pedicels. Adapted to Saskatchewan.

The following were developed by Jim Shine, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; B. Glaz, USDA, ARS, Sugarcane Field Station, Canal Point, Florida 33438, United States; P.Y.P. Tai, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; Christopher W. Deren, University of Florida, Institute of Food and Agriculture, EREC Box 8003, Belle Glade, Florida 33430, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; Jack C. Comstock, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 06/01/1999.

PI 607916. Saccharum hybrid
Cultivar. CV-107. Pedigree - CP 81-1238 / CP 78-1610. Recommended for planting only on sandy soil where sucrose concentration and cane tonage were better than the standards. Shows adequate resistance for commmercial production in Florida to sugarcane mosaic virus (strain E), eye spot (Bipolaris sacchari), smut (Ustilago scitamines), rust (Puccinia melanocephala) and has moderately resistance to leaf scald)Xanthomonas albilineans).

PI 607917. Saccharum hybrid
Cultivar. CV-108. Pedigree - CP 72-1210 / LCP 81-30. Cane yield high on organic soils and with moderate sucrose content. Production on sandy soils equaled that of the most widely grown cultivar. Recommended for planting on both organic and sand soils. Shows adequate resistance for commercial production in Florida to sugarcane mosaic virus (strain E), leaf scald (Xanthomonas albilineans), eye spot (Bipolaris sacchari), smut (Ustilago scitaminea), rust (Puccinia melanocephala) and RSD (Clavibacter xyli). Fiber content 10.52% compared with 10.37% for CP 70-1133.

PI 607918. Saccharum hybrid
Cultivar. CV-109. Pedigree - CP 81-1254 / CP 72-2086. Exceptional clone with higher levels of sugar concentration and cane tonage than the standard. Recommended for planting only on organic soils. Shows adequate resistance for commercial production in Florida to leaf scald (Xanthomonas albilineans), eye spot (Bipolaris sacchari), smut (Ustilago scitaminea), rust (Puccinia melanocephala), and RSD (Clavibacter xyli). Moderately resistant to sugarcane mosaic virus (strain E). Fiber content of 9.85% compared to 10.37% for the CP 70-1133, the commercial check.

PI 607919. Saccharum hybrid
Cultivar. CV-110. Pedigree - Parentage unknown. Recommended for planting only on organic soils where the sucrose content was standard with higher cane yields for higher sugar/unit area production. Shows adequate resistance for commercial production in Florida to sugarcane mosaic virus (strain E), leaf scald (Xanthomonas albilineans), eye spot (Bipolaris sacchari), smut (Ustilago scitaminea), rust (Puccinia melanocephala), and RSD (Clavibacter xyli). Fiber content of 8.9% compared to 10.4% for CP 70-113.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; Juan Dominguez, C.I.F.A., Alameda del Obispo, Apdo. 3092, Cordoba, Cordoba 14080, Spain. Donated by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 05/10/1999.

PI 607920. Helianthus annuus L.
Breeding. Inbred. GP-230. Pedigree - RHA 801 / Odessa Hybrid Bulk. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halstedii). Homozygous for fertility restoration of PET1 cytoplasmic male sterility.

PI 607921. Helianthus annuus L.
Breeding. Inbred. GP-231. Pedigree - RHA 801 / Odessa Hybrid Bulk. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halstedii). Homozygous for fertility restoration of PET1 cytoplasmic male sterility.

PI 607922. Helianthus annuus L.
Breeding. Inbred. GP-232. Pedigree - RHA 274 / Turbo. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halstedii). Heterozygous for fertility restoration of PET1 cytoplasmic male sterility.

PI 607923. Helianthus annuus L.
Breeding. Inbred. GP-233. Pedigree - RHA 274 / Edirne 87. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halistedii). Heterozygous for fertility restoration of PET1 cytoplasmic male sterility.

PI 607924. Helianthus annuus L.
Breeding. Inbred. GP-234. Pedigree - RHA 274 / Edirne 87. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halistedii). Heterozygous for fertility restoration of PET1 cytoplasmic male sterility.

PI 607925. Helianthus annuus L.
Breeding. Inbred. GP-235. Pedigree - RHA 274 / Edirne 87. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halstedii). Homozygous for fertility restoration of PET1 cytoplasmic male sterility.

PI 607926. Helianthus annuus L.
Breeding. Inbred. GP-236. Pedigree - RHA 274 / Edirne 87. Excellent yield and oil content potential. Resistance to Orobanche (Orobanche cernua) and Race 2 downy mildew (Plasmopara halstedii). Homozygous for fertility restoration of PET1 cytoplasmic male sterility.

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 05/10/1999.

PI 607927. Helianthus annuus L.
Genetic. Population. GS-18. Pedigree - HA 89*3/ H. annuus. Oilseed maintainer genetic stock with single-headed charactertistic. Segregating for resistance to imazethapyr and imazamox herbicides.

PI 607928. Helianthus annuus L.
Genetic. Population. GS-19. Pedigree - RHA 409//RHA 376*2/ H. annuus. Oilseed restorer genetic stock which will segregate for the recessive branching characteristic. Segregating for resistance to imazethapyr and imazamox herbicides.

PI 607929. Helianthus annuus L.
Genetic. Population. GS-20. Pedigree - HA 292*3 / H. annuus. Confection maintainer genetic stock with the single-headed characteristic. Segregating for resistance to imazethapyr and imazamox herbicides.

PI 607930. Helianthus annuus L.
Genetic. Population. GS-21. Pedigree - RHA 324//RHA 280*2/ H. annuus. Confection restorer genetic stock which will segregate for the recessive branching characteristic. Segregating for resistance to imazethapyr and imazamox herbicides.

The following were developed by R. A. Frederickson, Texas A & M University, Department of Plant Pathology, and Microbiology, College Station, Texas 77843, United States; Bill Rooney, USDA, ARS, Beasley Lab, TAMU, College Station, Texas 77841, United States; Fred R. Miller, Texas A & M University, Department of Soil & Crop Science, College Station, Texas 77843-2474, United States. Received 05/27/1999.

PI 607931. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-567. Pedigree - (SC719-11E*SC630-11E(II))-1-3-B2-B1-B1-B2-B3-2-CBK. Seed ovate, bright red pericarp (RRYYII), thick mesocarp (zz), and no testa (b1b1B2B2). Plant color purple (PPQQ), awnless, and purple glumes that cover approx. 30% of the grain. Panicles medium in size, slightly open, narrow and taper to point at the tip of the panicle. B-line in the A1 cytoplasmic genetic male sterility system. Days to anthesis ranged from 62 to 89 depending on the environment. Tall three dwarf (dw1Dw2dw3dw4), with a phenotypic range of height from 120 to 135 cm. Resistant to systemic downy mildew pathotype 1 but susceptible to pathotype 3. Susceptible to head smut. Very resistant to grain mold.

The following were developed by R. A. Frederickson, Texas A & M University, Department of Plant Pathology, and Microbiology, College Station, Texas 77843, United States; Bill Rooney, USDA, ARS, Beasley Lab, TAMU, College Station, Texas 77841, United States; S.D. Collins, Texas Agr. Exp. Sta., Texas A&M University, College Station, Texas 77843, United States; Darrell T. Rosenow, Texas Agricultural Experiment Station, Route 3, Box 219, Farm and Market Road 1294, Lubbock, Texas 79401-9757, United States. Received 05/27/1999.

PI 607932. Sorghum bicolor (L.) Moench
Breeding. Pureline. GP-568. Pedigree - Bulk of 18 F8 lines with pedigree

of (BTx623*QL3-India). Requires 59 days to reach 50% anthesis with individual plants ranging from 64 to 78 days. Plants three dwarf in height (dw1Dw2dw3dw4) and the height averages 106 cm with a range from 85 to 130 cm. Inflorescence shape compact-elliptic and glumes purple, awnless, and cover less than one-quarter of each caryopsis. Grain has white epicarp, thick mesocarp, lacks a pigmented testa, and plants purple pigmented. Resistant to pathotypes 1 and 3 of P. sorghi and to all known Texas races of Sporisorium reilianum. Susceptible to Colletotrichum graminicola, but there is a range of response. Immune to damage caused by maize dwarf virus.

The following were developed by Terrance P. Riordan, Nebraska Agricultural Experiment Station, University of Nebraska, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; J.M. Johnson-Cicalese, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; F.P. Baxendale, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; R.C. Shearman, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; P.G. Johnson, Utah State University, Dept. of Plants, Soils & Biometeorology, Logan, Utah 84322-4820, United States; R.E. Gaussion, University of Nebraska, Dept. of Hort., Lincoln, Nebraska, United States; R.V. Klucas, University of Nebraska, Dept. of Biochem., Lincoln, Nebraska, United States. Received 06/10/1999.

PI 607933. Buchloe dactyloides (Nutt.) Engelm.
Cultivar. CV-196. Pedigree - Female clone selected from a stand of buffalograss east of Kensington, Smith County, Kansas. Low growing and dark color. Smaller stolon nodes and leaf measurements than Texoka, which results in a turf of finer texture. Pubescent leaves are a distinguishing characteristic. Size of female flowers is similar to other varieties. Nearly 100% female. Determined to have a nuclear DNA content of 2.58-0.02 picograms DNA per nucleus. Color gray-blue-green. Improved turfgrass quality compared to older, forage type buffalograsses like Texoka and to turf varieties 315, 378, 609 and Prairie. Exhibited superior quality when mowed at heights as low as 1.6cm. Moderate rate of establishment. As a typical northern-adapted cultivar, enters winter dormancy early in fall.

The following were developed by Terrance P. Riordan, Nebraska Agricultural Experiment Station, University of Nebraska, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; J.M. Johnson-Cicalese, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; F.P. Baxendale, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; R.E. Gaussoin, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; R.C. Shearman, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; P.G. Johnson, Utah State University, Dept. of Plants, Soils & Biometeorology, Logan, Utah 84322-4820, United States; R.V. Klucas, University of Nebraska, Dept. of Biochem., Lincoln, Nebraska, United States. Received 06/10/1999.

PI 607934. Buchloe dactyloides (Nutt.) Engelm.
Cultivar. CV-197. Pedigree - Female clone selected from NE 84-104. Male

parent not known. Vigorous buffalograss similar to 609 but with improved winter hardiness. Exhibits stolon internodes similar to 315 and shorter than 609. Leaf measurements are like the other turf varieties and experimentals 315, 609, NE86-61, and Ne86-120, but smaller than Texoka. This results in a finer leaf texture than Texoka. Significantly less pubescence on nodes and leaves. Improved turf quality characteristics when compared to forage-type varieties, and is similar to other turf varieties. Much improved sod-forming ability when compared to other cultivars hardy in the northern part of the Great Plains. Exhibited excellent quality when mowed at heights as low as 1.6cm, similar to the height used on golf course fairways.

The following were developed by Terrance P. Riordan, Nebraska Agricultural Experiment Station, University of Nebraska, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; J.M. Johnson-Cicalese, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; F.P. Baxendale, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; R.E. Gaussoin, University of Nebraska-Lincoln, 377 Plant Science, Lincoln, Nebraska 68583-0724, United States; John E. Watkins, University of Nebraska, Dept. of Plant Pathology, Lincoln, Nebraska 68583, United States; P.G. Johnson, Utah State University, Dept. of Plants, Soils & Biometeorology, Logan, Utah 84322-4820, United States; R.V. Klucas, University of Nebraska, Dept. of Biochem., Lincoln, Nebraska, United States. Received 06/10/1999.

PI 607935. Buchloe dactyloides (Nutt.) Engelm.
Cultivar. CV-198. Pedigree - Female clone selected from a stand of buffalograss in Osborne County, Kansas. Dark green color and excellent turfgrass quality at low to high mowing heights. Exhibits excellent quality when mowed at heights as low as 1.6cm. Leaf width measurements are smaller than Texoka, indicating a finer texture of the resulting turf. Pubescent nodes and leaves are two of the most distinguishing characteristics. Female flowers tend to be larger than the other varieties, but not significantly larger than 315 and Texoka. Nearly 100% female.

The following were developed by Hugo E. Vivar, International Maize & Wheat Improvement Center, Lisboa 27, Apdo. Postal 6-641, Mexico City, Federal District 06600, Mexico; Patrick M. Hayes, Oregon State University, Department of Crop Science, Crop Science Building 107, Corvallis, Oregon 97331-3002, United States; Russ S. Karow, Oregon State University, Dept. of Crop & Soil Science, Corvallis, Oregon 97331-3002, United States; A.E. Corey, Oregon State University, Dept. of Crop and Soil Science, Corvallis, Oregon 97331, United States; R. Dovel, Oregon State University, Dept. of Crop and Soil Science, Corvallis, Oregon 97331, United States; C. Mundt, Oregon State University, Dept. of Botany and Pl. Pathology, Corvallis, Oregon 97731, United States; K. Rhinart, Oregon State University, Dept. of Crop and Soil Sciences, Corvallis, Oregon 97731, United States. Received 07/08/1999.

PI 607936. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. CV-278. Pedigree - Calicuchima-sib/Bowman-derivative. Two-row spring barley with quantitative resistance to barley stripe rust (Puccinia striiformis) and

Barley Yellow Dwarf Virus (BYDV). Quantitative trait loci (QTLs) determining resistance to barley stripe rust were mapped on chromosomes 4 (4H) and 7 (5H). Resistance to BYDV determined by the Ryd2 gene on chromosome 3 (3H). One of 110 doubled haploid lines derived from the F1 of Calicuchima-sib/Bowman-derivative. The doubled haploids were developed by the Hordeum bulbosum technique. Grain very plump, high test weight, and an acceptable yield record under irrigated conditions and under dryland conditions where earliness is an advantage. Novel quality profile of high starch content, high enzymes, and low beta glucan. Rough-awns, white-aleurone, and short rachilla hair. Additional genotype identifiers are 35 Restriction Fragment Length Polymorphisms (RFLPs) and 15 Simple Sequence Repeats.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Taciana Barbosa Cavalcanti, EMBRAPA-CENARGEN, SAIN - Parque Rural, Caixa Postal 10.2372, Brasilia, Federal District 70770, Brazil. Donated by L. Coradin, Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, CEP 70.000, Brasilia, Federal District, Brazil. Received 04/27/1990.

PI 607937. Cuphea ericoides Cham. & Schltdl.
Wild. Collected 03/01/1989 in Bahia, Brazil. Latitude 11 deg. 33' S. Longitude 41 deg. 6' W. Elevation 870 m. 8 km east-southeast of Morro do Chapeau on BA 052. Roadside flat into pasture, near rocky outcroppings, sands
among rocks.

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The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; G. Pedralli, Centro Internacional de Mejoramiento de Maiz y Trigo, Brazil. Donated by EMBRAPA - CENARGEN, S.A.I.N. - Parque Rural - C.P. 10.2372, Brasilia, Federal District CEP 70.770, Brazil. Received 05/06/1991.

PI 607938. Cuphea calophylla var. mesostemon (Koehne) Lourteig
Wild. Collected 11/01/1989 in Parana, Brazil. Latitude 25 deg. 13' S. Longitude 49 deg. 59' W. Elevation 895 m. Vila Velha. 31 km northwest of intersection Uniao da Vitoria and road to Cruz Machado, toward Cruz Machado at Rio Palmital. Roadside, open grassland.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; G. Pedralli, EMBRAPA-CENARGEN, Brasilia, Federal District, Brazil. Donated by EMBRAPA - CENARGEN, S.A.I.N. - Parque Rural - C.P. 10.2372, Brasilia, Federal District CEP 70.770, Brazil. Received 05/06/1991.

PI 607939. Cuphea varia Koehne ex Bacig.
Wild. Collected 11/05/1989 in Parana, Brazil. Latitude 25 deg. 34' S. Longitude 54 deg. 32' W. Elevation 255 m. 6 km southeast of Foz do Iguacu toward falls on BR 469. Roadside into wet swampy pasture.

PI 607940. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 11/25/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 18' S. Longitude 50 deg. 58' W. Elevation 740 m. 17 km southeast of Ana Rech toward Vila Oliva. Steep open grassland above road, rocky clay loams.

PI 607941. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 11/26/1989 in Rio Grande do Sul, Brazil. Latitude 28 deg. 17' S. Longitude 51 deg. 12' W. Elevation 915 m. 4 km north of intersection BR285 and road to Esmeralda, at Muitos Capoes. Open grassland, slight slope above wet area, red clays.

PI 607942. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 11/30/1989 in Santa Catarina, Brazil. Latitude 27 deg. 17' S. Longitude 50 deg. 28' W. Elevation 1095 m. 12 km west of Curitibanos on BR470 toward Rio do Sul. Low wet area, clays. Maybe same as one of the accessions #52 thru #54.

PI 607943. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 11/30/1989 in Santa Catarina, Brazil. Latitude 27 deg. 35' S. Longitude 50 deg. 23' W. Elevation 915 m. Ponte Alta. 29 km south of intersection BR470 and BR116 toward Lages, on BR116. Roadside grassland, heavy vegetation, brown loams.

PI 607944. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 12/01/1989 in Santa Catarina, Brazil. Latitude 27 deg. 15' S. Longitude 50 deg. 27' W. Elevation 900 m. Ponte Alta do Norte. 29 km south of intersection BR470 and BR116 toward Lages, on BR116. Along roadway.

PI 607945. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 12/01/1989 in Santa Catarina, Brazil. Latitude 26 deg. 58' S. Longitude 50 deg. 35' W. Elevation 1040 m. Near Lebon Regis. 36 km west of intersection BR116 and road to Lebon Regis. Open grassland among brush, slight slope, red clays.

PI 607946. Cuphea glutinosa Cham. & Schltdl.
Wild. Collected 12/04/1989 in Parana, Brazil. Latitude 25 deg. 45' S. Longitude 49 deg. 41' W. Elevation 1050 m. 4 km northeast of Lapa toward Curitiba on BR476. Open grassland, mixed vegetation, along roadway to among
rocks, light colored sandy soils.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Alvaro Campos, Universidad National Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico. Donated by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 09/30/1991.

PI 607947. Cuphea hookeriana Walp.
Wild. Collected 09/11/1991 in Oaxaca, Mexico. Latitude 18 deg. 10' N.

Longitude 97 deg. 53' W. Elevation 1910 m. 45.6 km east-northeast of Teotitlan toward Huautla on Mex 182. Steep rocky roadside, among rocks. Roadside to 10 m above road.

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PI 607948. Cuphea hookeriana Walp.
Wild. Collected 09/11/1991 in Oaxaca, Mexico. Latitude 18 deg. 8' N. Longitude 96 deg. 52' W. Elevation 1195 m. 0.5 km from Huautlade Jimenez toward Eloxochitlan. Steep rocky roadside, gravels.

PI 607949. Cuphea aequipetala Cav.
Wild. Collected 09/14/1991 in Oaxaca, Mexico. Latitude 17 deg. 12' N. Longitude 96 deg. 36' W. Elevation 2310 m. Near El Punto. 30.9 km southwest of Ixtlan along Mex 175, near Resturante Del Monte. Extending from 2-3 km south of site to above Ixtlan. Roadside areas, at edge of brush near pine forrests. Rocky clay loams.

PI 607950. Cuphea aequipetala Cav.
Wild. Collected 09/15/1991 in Oaxaca, Mexico. Latitude 17 deg. 1' N. Longitude 96 deg. 6' W. Elevation 1830 m. 1.7 km west of Ayutla toward Mitla. Extends for several km either side of site. Roadside ditch. Clay loam.

PI 607951. Cuphea cyanea DC.
Wild. Collected 09/15/1991 in Oaxaca, Mexico. Latitude 17 deg. 1' N. Longitude 96 deg. 7' W. 2.5 km west of Ayutla toward Mitla. Roadside ditch near steep cut. Rocks and gravel.

PI 607952. Cuphea wrightii A. Gray **var. wrightii**
Wild. Collected 09/16/1991 in Oaxaca, Mexico. Latitude 17 deg. 5' N. Longitude 96 deg. 37' W. Elevation 1580 m. Near Oaxaca. 7.2 km north of junction Mex 190 and Mex 175, on Mex 175 toward Tuxtepec. Roadside ditch. Among heavy weeds, silt loam.

PI 607953. Cuphea glossostoma Koehne
Wild. Collected 09/19/1991 in Chiapas, Mexico. Latitude 16 deg. 50' N. Longitude 93 deg. 5' W. Elevation 1080 m. Near Tuxtla Ger. At end of road to El Sumidero canyon. Among rocks at lookout to along roadway. Heavy vegetation, rocks and gravel.

PI 607954. Cuphea aequipetala Cav.
Wild. Collected 09/21/1991 in Chiapas, Mexico. Latitude 17 deg. 4' N. Longitude 92 deg. 53' W. Elevation 1460 m. At north side of Jitotol, extending along Mex 195 north to at least Pueblo Nuevo and south of site for several km. Roadside grassy area. Sands to silt loam.

PI 607955. Cuphea hookeriana Walp.
Wild. Collected 09/21/1991 in Chiapas, Mexico. Latitude 16 deg. 55' N. Longitude 92 deg. 55' W. Elevation 1300 m. Near Bochil. 18.1 km south of intersection of road to El Bosque and Mex 195, to Jitotol toward Tuxtla Ger. Brushy roadside into pasture. Gravel.

PI 607956. Cuphea aequipetala Cav.
Wild. Collected 09/22/1991 in Chiapas, Mexico. Latitude 16 deg. 45' N.

Longitude 92 deg. 26' W. Elevation 2060 m. Near San Cristobal. 17.8 km east of intersection Mex 190 and Mex 199, on Mex 199 toward Ococingo. Grazed over raodside grassy area. Sands and gravel.

PI 607957. Cuphea lutea Rose
Wild. Collected 09/24/1991 in Oaxaca, Mexico. Latitude 17 deg. 42' N. Longitude 96 deg. 48' W. Elevation 1660 m. 8.1 km north of Mex 190 on road through San Juan del Estado, north of Oaxaca. Roadside ditch. Rocky clay.

The following were collected by Shirley A. Graham, Kent State University, Dept. of Biological Sciences, Kent, Ohio 44242-0001, United States. Received 10/17/1991.

PI 607958. Cuphea aequipetala Cav.
Wild. Collected in Oaxaca, Mexico. Elevation 2200 m. 29 km south of Miahuatlan on Hwy 175 to Pochutla. Disturbed roadside slopes in oak woods.

PI 607959. Cuphea aequipetala Cav.
Wild. Collected in Oaxaca, Mexico. Elevation 1600 m. 1 km north of Ixtapa on Hwy 195 (Chiapa del Corzo to Pichualco road). Rocky limestone hills.

The following were donated by Shirley A. Graham, Kent State University, Dept. of Biological Sciences, Kent, Ohio 44242-0001, United States. Received 10/17/1991.

PI 607960. Cuphea gaumeri Koehne
Wild. Collected in Yucatan, Mexico. Yucatan peninsula.

The following were collected by Shirley A. Graham, Kent State University, Dept. of Biological Sciences, Kent, Ohio 44242-0001, United States. Received 10/17/1991.

PI 607961. Cuphea hookeriana Walp.
Wild. Collected in Nayarit, Mexico. 10 km south of Aquilas Serdan on Hwy 200 (Tepic-Compostela road). Steep bank in open oak woods.

PI 607962. Cuphea hookeriana Walp.
Wild. Collected in Jalisco, Mexico. North of Nevado de Colima between Cd. Guzman and Autlan, 20 km west of Cd. Guzman.

PI 607963. Cuphea hookeriana Walp.
Wild. Collected in Jalisco, Mexico. 4 miles below summit, Cerro Tequila. Disturbed areas in oak woods.

PI 607964. Cuphea hookeriana Walp.
Wild. Collected in Michoacan, Mexico. 2 km west of Tarecuato on Jacona-Los Reyes road. Open pine-oak woods.

PI 607965. Cuphea hookeriana Walp.

Wild. Collected in Durango, Mexico. 185 km on Durango-Mazatlan Hwy, 49 km east of Sinaloa-Durango line. Pine-oak forests.

PI 607966. Cuphea hookeriana Walp.
Wild. Collected in Chiapas, Mexico. Ca. 1 km north of Ixtapa on Hwy 195 (Chiapa del Corzo to Pichualco road). Limestone hills.

PI 607967. Cuphea hookeriana Walp.
Wild. Collected in Chiapas, Mexico. 2 km south of Motozintla on Hwy 211. Cloud forest, pine area.

PI 607968. Cuphea hookeriana Walp.
Wild. Collected in Oaxaca, Mexico. 22 km northwest of Huatla de Jimenez on road from Teotitlan. Exposed dry limestone banks.

PI 607969. Cuphea llavea Lex.
Wild. Collected in Nayarit, Mexico. 5 km northwest of Tepic on Hwy 15-Libre. Oak woods.

The following were collected by Roger Fuentes-Granados, Iowa State University, Plant Introduction Station, G212 Agronomy, Ames, Iowa 50011, United States; William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Alvaro Campos, Universidad National Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico. Donated by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Alvaro Campos, Universidad National Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico. Received 10/19/1993.

PI 607970. Cuphea aequipetala Cav.
Wild. Collected 10/06/1993 in Guanajuato, Mexico. Latitude 20 deg. 51' N. Longitude 100 deg. 31' W. Elevation 2180 m. Near Hda Las Mojas. Ca. 200 miles west of Guanajuato-Queretaro border, on highway from San Miguel de Allende to Queretaro. Limestone outcropping. Assoc. vegetation: Ipomoea, Eupatorium, Tagetes, Cuphea aequipetala. Photo 4/22.

PI 607971. Cuphea aequipetala Cav.
Wild. Collected 10/07/1993 in Hidalgo, Mexico. Latitude 20 deg. 37' N. Longitude 99 deg. 3' W. Elevation 2110 m. 6.3 km east of intersection with road to Cardonal, near Tolantongo National Park. Roadside ditch, moist, clay soils. Assoc. vegetation: cult agave, mixed grasses & composites. Photo 4/33-36.

The following were collected by CIDA, Apartado Oficial, La Alberca, Murcia 30150, Spain; Reinhard Vogel. Received 04/17/1996.

PI 607972. Euphorbia lagascae Spreng.
Wild. Collected 1986 in Cordoba, Spain. Latitude 37 deg. 23' 0'' N.

Longitude 1 deg. 57' 0'' W. Near Huercal Overa along Highway N340 between Huercal Overa and Puerto Lumbreras.

PI 607973. Euphorbia lagascae Spreng.
Wild. Collected 1987 in Murcia, Spain. Latitude 37 deg. 34' 0'' N. Longitude 1 deg. 49' 0'' W. Near Puerto Lumbreras along Highway CV6202 between Puerto Lumbreras and Aguilas.

PI 607974. Euphorbia lagascae Spreng.
Wild. Collected 1987 in Murcia, Spain. Latitude 38 deg. 14' 0'' N. Longitude 1 deg. 25' 0'' W. Near Cieza along Highway N301 between Cieza and Murcia. Approximately 1 km from Rambla del Judio.

PI 607975. Euphorbia lagascae Spreng.
Wild. Collected 1988 in Murcia, Spain. Latitude 38 deg. 4' 0'' N. Longitude 1 deg. 3' 0'' W. Near Santomera along Highway N340 between Alicante and Murcia near the exit to La Mota.

PI 607976. Euphorbia lagascae Spreng.
Wild. Collected 1988 in Murcia, Spain. Latitude 37 deg. 55' 0'' N. Longitude 1 deg. 5' 0'' W. Near Tinosa between Molino at Highway C3319 and Los Garres. Latitude and longitude are estimates.

The following were donated by William Van Roekel, USDA-ARS, North Central Regional Plant Intro. Sta., Iowa State University, Ames, Iowa 50011-1170, United States. Received 08/04/1997.

PI 607977. Euphorbia dentata Michx.
Clone. Developed in United States.

The following were collected by H. Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany. Received 09/03/1997.

PI 607978. Euphorbia helioscopia L.
Wild. Collected 1997 in Saxony, Germany. Latitude 51 deg. 20' 0'' N. Longitude 12 deg. 29' 0'' E. Baalsdorf.

The following were developed by Agripro Seeds, Inc., Iowa, United States. Received 06/28/1999.

PI 607979. Gossypium hirsutum L.
Cultivar. PVP 9900274.

The following were developed by DEKALB Genetics Corporation, United States. Received 06/28/1999.

PI 607980. Glycine max (L.) Merr.
Cultivar. PVP 9900276.

PI 607981. Glycine max (L.) Merr.
Cultivar. PVP 9900277.

PI 607982. Glycine max (L.) Merr.
Cultivar. PVP 9900279.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 06/28/1999.

PI 607983. Helianthus annuus L.
Cultivar. PVP 9900329.

PI 607984. Helianthus annuus L.
Cultivar. PVP 9900330.

PI 607985. Helianthus annuus L.
Cultivar. PVP 9900331.

PI 607986. Helianthus annuus L.
Cultivar. PVP 9900332.

The following were developed by Cornell University, New York Agric. Exp. Station, Ithaca, New York, United States; Molly Jahn, Cornell University, Department of Plant Breeding & Biometry, 312 Bradfield Hall, Ithaca, New York 14853-1902, United States. Received 06/28/1999.

PI 607987. Cucurbita moschata (Duchesne ex Lam.) Duchesne ex Poir.
Cultivar. PVP 9900258.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 06/28/1999.

PI 607988. Gossypium hirsutum L.
Cultivar. PVP 9900291.

PI 607989. Gossypium hirsutum L.
Cultivar. PVP 9900292.

PI 607990. Gossypium hirsutum L.
Cultivar. PVP 9900293.

PI 607991. Gossypium hirsutum L.
Cultivar. PVP 9900294.

PI 607992. Gossypium hirsutum L.
Cultivar. PVP 9900295.

PI 607993. Gossypium hirsutum L.
Cultivar. PVP 9900296.

PI 607994. Gossypium hirsutum L.

Cultivar. PVP 9900297.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 06/28/1999.

PI 607995. Gossypium hirsutum L.
Cultivar. PVP 9900299.

PI 607996. Gossypium hirsutum L.
Cultivar. PVP 9900300.

PI 607997. Gossypium hirsutum L.
Cultivar. PVP 9900301.

PI 607998. Gossypium hirsutum L.
Cultivar. PVP 9900302.

PI 607999. Gossypium hirsutum L.
Cultivar. PVP 9900303.

The following were developed by HybriTech Seed International, Inc., A Unit of Monsanto Company, United States. Received 06/28/1999.

PI 608000. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900304.

PI 608001. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900305.

PI 608002. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. PVP 9900306.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 06/28/1999.

PI 608003. Lactuca sativa L.
Cultivar. PVP 9900307.

The following were developed by California Cooperative Rice Research Foundation, Biggs, California, United States. Received 06/28/1999.

PI 608004. Oryza sativa L.
Cultivar. PVP 9900310.

PI 608005. Oryza sativa L.
Cultivar. PVP 9900311.

The following were developed by T.J. Seed Company, United States. Received 06/28/1999.

PI 608006. Glycine max (L.) Merr.
Cultivar. PVP 9900312.

The following were developed by NDSU Research Foundation, North Dakota, United States. Received 06/28/1999.

PI 608007. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900320.

The following were developed by Western Valley Seed Company, Idaho, United States. Received 1975.

PI 608008. Pisum sativum L.
Cultivar. PVP 7500038.

The following were donated by Brotherton Seed Company, P.O. Box 1378, Moses Lake, Washington, United States. Received 1966.

PI 608009. Pisum sativum L.
Uncertain.

The following were developed by Mike Ambrose, AFRC Cereals Collection, John Innes Centre, Norwich Research Park, Norwich, England NR4 7UH, United Kingdom . Received 1995.

PI 608010. Pisum sativum L.
Cultivar.

The following were developed by James H. Helm, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; Manuel Cortez, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; Don Salmon, Agriculture and Agri-Food Canada, Field Crop Research Centre, 5030 50 Street, Lacombe, Alberta T4L 1W8, Canada; Patricia E. Juskiw, Alberta Agriculture, Field Crop Development Centre, 5030-50 St., Lacombe, Alberta T4L 1W8, Canada; T.R. Duggan, Alberta Agriculture, Field Crop Development Ctr., 5030-50 St., Lacombe, Alberta T4L 1W8, Canada; Vern S. Baron, Alberta Agriculture, Field Crop Development Ctr., 5030-50 St., Lacombe, Alberta T4L 1W8, Canada; Susan Albers, Alberta Agriculture, Field Crop Development Ctr., 5030-50 St., Lacombe, Alberta T5B 4K3, Canada. Received 06/11/1999.

PI 608011. X Triticosecale sp.
Cultivar. Pureline. CV-17. Pedigree - 7631-ED4B/RL4137//7431A-68E4/3/Panther'S'/4/87DE01. Winter triticale with short stature standard height, and good winter hardiness. Leaves medium green, medium wide, and medium long with glaborous sheaths and blades. Flag leaf medium green, medium wide and medium long with upright attitude. Kernels light red, medium wide, and medium in length. Spike tapering, erect in attitude, medium in density, medium long, waxy, easy threshing and very short awnlettes. Good resistance and moderate

tolerance to conditions inducing sprouting. Well adapted to high snowfall areas of the Canadian prairies or in minimum tillage situations with good snow trapping.

The following were developed by W. Stewart, Alberta Agriculture, Bag Service #47, 5718-56 Avenue, Lacombe, Alberta T0C 1SO, Canada; James H. Helm, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; Manuel Cortez, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; Don Salmon, Agriculture and Agri-Food Canada, Field Crop Research Centre, 5030 50 Street, Lacombe, Alberta T4L 1W8, Canada; Patricia E. Juskiw, Alberta Agriculture, Field Crop Development Centre, 5030-50 St., Lacombe, Alberta T4L 1W8, Canada. Received 06/11/1999.

PI 608012. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. CV-280. Pedigree - Nopal'S"-Ager[(F10.14/Mona-EmirxBco.Mr-Gvs)Api-CM67xOre]. Six row hulless feed barley. Spring habit, rough awned and amber aleurone. Flag leaf dark green, medium wide, and medium long. Spike dense, semi-erect and short. Kernel medium wide and medium length. Resistant to lodging and resistant to scald and septoria. High yielding adapted to the western prairies of Alberta.

The following were collected by Michigan State University, Department of Crop Science, East Lansing, Michigan, United States; USDA, SCS, Rose Lake Plant Materials Center, East Lansing, Michigan, United States. Received 04/18/1994.

PI 608013. Viburnum opulus var. americanum Aiton
Wild. Collected 1981 in Ohio, United States. Latitude 41 deg. 15' N. Longitude 81 deg. 41' W. Summit Co. Typically found in moist wooded sites, it grows well on wet soils. It does not perform well on dry sites. Description differs from other accessions mainly in that it is one of the taller accessions with good lateral spread and good vigor. CSC Method of Selection: Selected by comparative evaluation, from an assembly of 69 accessions collected in 1981 and 1982 from the midwest and northwest US, on the basis of vigor, survival, size, foliage and genetic purity. CSC Anticipated Conservation Use: To be used in field windbreaks under center pivot irrigation and on non-irrigated cropland consisting of wet or organic soils. 2/13/89.

The following were collected by USDA, SCS, Rose Lake Plant Materials Center, East Lansing, Michigan, United States. Received 04/18/1994.

PI 608014. Viburnum opulus var. americanum Aiton
Wild. Collected 1981 in Vermont, United States. Washington Co., Coolin Farm, Route 2 north of the Marsh-Plain motel. Typically found in moist wooded sites, it grows well on wet soils. It does not perform well on dry sites. Differs from other accessions in its expectional vigor and abundant foliage. CSC Method of Selection: Selection by comparative evaluation, from an assembly of 69 accessions collected in 1981 and 1982 from the midwest and northeast US, on the basis of vigor, survival, size, foliage and genetic purity. CSC Anticipated Conservation Use: To

be used in field windbreaks under center pivot irrigation and on non-irrigated cropland consisting of wet or organic soils. 2/13/89.

The following were collected by Philip Koch, USDA-NRCS, Rose Lake Plant Materials Center, 7472 Stoll Road, East Lansing, Michigan 48823-9807, United States. Received 04/18/1994.

PI 608015. Viburnum opulus var. americanum Aiton
Wild. Collected 1981 in Michigan, United States. Leelanau County, Michigan. R11W, T28N. Typcially found in moist wooded sites, it grows well on wet soils. It does not perform well on dry sites. Differs from other accessions in its exceptional vigor and abundant foliage. SCS Method of Selection: by comparative evaluation, from an assembly of 69 accessions collected in 1981 and 1982 from the Midwestern and Northeastern United States, on the basis of vigor, survival, size, foliage and genetic purity. SCS Anticipated Conservation Use: To be used in field windbreaks under center pivot irrigation and on nonirrigated cropland consisting of wet or organic soils.

The following were developed by Harley D. Jacquot, McGregor Land & Livestock, Inc., Colfax, Washington, United States. Received 1977.

PI 608016. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. PVP 7700045. Pedigree - Omar Selection SN-263/Moro. Released 1978.

The following were collected by J. And A. Faults, 906 Hastings, Delta, Colorado 81416, United States. Received 1980.

PI 608017. Triticum turgidum subsp. polonicum (L.) Thell.
Cultivated. Collected 1950 in Colorado, United States. Inaweep Canyon, southwest of Whitewater, Colorado. Found in a clay pot in a cave in Colorado in 1950.

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 608018. Amaranthus caudatus L.
Genetic. Collected 06/01/1981 in Bolivia. Pedigree - Segregated from HH 54 (PI 490607) as a rare early flowering plant in the 1980 David Ca. nursery, by Holly Hauptli. The segregation information was provided by Hauptli on the original seed packet. Seeds white and pink, flowers pink, leaves green. RRC class type is South American. In a field planting, the infloresence was erect but did not mature seeds, plants were less diseased than the Peruvian A. caudatus plants. These observations were made by the Rodale Research Center staff.

The following were collected by H. Hauptli, University of California,

Department of Agronomy and Range Science, Davis, California 95616, United States. Developed by David Brenner, Iowa State University, Regional Plant Introduction Station, Room G208, Agronomy Building, Ames, Iowa 50011-1170, United States. Donated by Leon Weber, Rodale Research Center, P.O. Box 323, RD #1, Kutztown, Pennsylvania 19530, United States. Received 08/26/1994.

PI 608019. Amaranthus caudatus L.
Landrace. Collected 12/1979 in Ecuador. Tabacundo. Pedigree - Separation from Ames 5261. The collector and Rodale Research Center noted a mixture of species in the original seed sample of HH 75 (Ames 5261). This is the Amaranthus caudatus portion. Seeds black.

The following were developed by Mario C. Therrien, Agriculture and Agri-Food Canada, Brandon Research Centre, Box 1000A, Brandon, Manitoba R7A 5Z7, Canada . Received 08/19/1999.

PI 608020. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. CV-277. Pedigree - Tupper/Johnston//Conquest/3/Abee/4/Ellice/Bedford. Six-row hulless spring barley of short stature, high yield potential and moderate straw strength. Broadly adapted to the Canadian Prairies and Eastern Canada. Hull retention is 10-14%, or moderate. Seed size large. Maturity mid-range. Resistant to Rhyncosporium secales and Cochliobolus sativum. Spike mid-size and decumbent.

The following were developed by Verne A. Sisson, North Carolina State University, Crop Science Department, Oxford Tobacco Research Station, Oxford, North Carolina 27565, United States. Received 09/07/1999.

PI 608021. Nicotiana tabacum L.
Cultivar. Pureline. CV-117. Pedigree - NC37NF / K346. Short-day, photoperiod sensitive (non-flowering) flue-cured genotype with moderate resistance to bacterial wilt (Pseudomonas solanacearum), high resistance to black shank (Phytophthora parasitica), and resistant to Races 1 and 3 of root-knot nematodes (Meloidogyne incognita). Excellent yielding ability and produces a good quality cured leaf.

The following were developed by Paul Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Jeffrey J. Steiner, USDA, ARS, Natl. Forage Seed Prod. Res. Ctr., 3450 S.W. Campus Way, Corvallis, Oregon 97331-7102, United States. Received 09/07/1999.

PI 608022. Lotus glaber Mill.
Breeding. Population. GP-197. Pedigree - Traces to 38 foreign introductions and 4 domestic cultivars. One domestic and the 38 foreign introductions were originally collected in or acquired from Australia, Czechoslovakia, France, Greece, Hungary, Italy, Kazakhstan, the former Soviet Union, Spain, Turkey and Maryland, USA. The 3 other domestic naturalized accessions were collected near Half Moon Bay and Visalia, CA, USA. Narrow leaf trefoil with a broad genetic base compiled into a single source for selection of new cultivars.

PI 608023. Lotus uliginosus Schkuhr
Breeding. Population. GP-198. Pedigree - Traces to 80 foreign introductions and 2 domestic cultivars. Introductions originally collected in or acquired from Belgium, Germany, New Zealand, Portugal, South Africa, Spain, and Turkey. The two domestic cultivars, Kaiser and Marshfield, were obtained from the USDA-Natural Resources Conservation Service, Plant Materials Center in Corvallis, OR. A broad genetic base germplasm compiled into a single source for selection of new cultivars.

The following were developed by J. S. Rice, South Carolina Agr. Exp. Sta., Clemson University, Dept. of Agronomy and Soils, Clemson, South Carolina 29631, United States; A.R. Mazur, Clemson University, Dept. of Crop and Soil Environmental Science, Clemson, South Carolina 29634-0359, United States. Received 08/02/1999.

PI 608024. Festuca arundinacea Schreb.
Breeding. Population. GP-4. Pedigree - Rebel Jr., Aztec, Bonsai and Twilight. Very fine textured, very dark green color, low vertical growth habit, brown patch resistant, and leaf spot resistant. Flowering 15-20 days later than Ky 31.

PI 608025. Festuca arundinacea Schreb.
Breeding. Population. GP-5. Pedigree - Rebel, Jaguar and Aztec. Fine textured, dark green color, vigorous grower, weakly rhizomotous, brown patch resistant, and leaf spot resistant. Flowering 15-20 days later than Ky 31.

PI 608026. Festuca arundinacea Schreb.
Breeding. Population. GP-6. Pedigree - Derived from Rebel and Rebel Jr. Medium textured, medium green color, vigorous grower, weakly rhizomotous, brown patch resistant, and leaf spot resistant. Flowering 15 to 20 days later than Ky 31.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901, United States; Ronald F. Bara, Rutgers University, New Jersey Agricultural Experiment Station, Cook College, New Brunswick, New Jersey 08903, United States; Dirk A. Smith, New Jersey Agricultural Experiment Station, Plant Science Dept., Cook College, Rutgers Univ., New Brunswick, New Jersey 08903, United States; W.A. Meyer, Rutgers University, Cook College, Plant Sciences Dept., P.O. Box 231, New Brunswick, New Jersey 08903, United States; Timothy M. Ford, Lebanon Seaboard Corporation, P.O. Box 10, Huntsville, Utah 84317, United States; Rachael Bara, Rutgers University, Cooks College, Plant Science Dept., New Brunswick, New Jersey 08901-8520, United States. Received 09/08/1999.

PI 608027. Festuca arundinacea Schreb.
Cultivar. Population. CV-83; PVP 9900388. Pedigree - Selected from old turfs of the United States and plants related to Rebel tall fescue. Attractive, medium-low-growing, turf type tall fescue capable of producing a medium-dense, persistent, medium-fine turf with a dark green color. Performed well in latest NTEP trials and showed moderately good resistance to the large brown patch disease (Rhizoctonia solani).

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901, United States. Received 09/08/1999.

PI 608028. Festuca arundinacea Schreb.
Cultivar. Population. PVP 9900389. Pedigree - Selected from old turfs of the United States and plants related to Rebel tall fesuce. Lower growing, turf-type tall fescue with an excellent record of overall performance in NTEP trials. Produces a dense, medium-dark green turf with fine leaves, good drought tolerance and medium-good resistance to large brown patch disease (Rhizoctonia solani).

The following were collected by Andrew L. Thomas, University of Missouri-Columbia, College of Agriculture, Food and Natural Resources, Southwest Missouri Center, Mount Vernon, Missouri 65712-9523, United States. Received 09/09/1999.

PI 608029. Amaranthus albus L.
Wild. Collected 08/30/1999 in Missouri, United States. Latitude 37 deg. 4' 0'' N. Longitude 93 deg. 53' 0'' W. Elevation 378 m. Southwest Center, Mt. Vernon.

The following were collected by David Asch, University of Iowa, Office of the State Archaeologist, 302 Eastlawn, Iowa City, Iowa 52242, United States. Donated by Robert Myers, University of Missouri, Department of Agronomy, 210 Waters Hall, Columbia, Missouri 65211, United States; Gail E. Wagner, Univ. of South Carolina, Dept. of Anthropology, Columbia, South Carolina 29208, United States. Received 02/21/1995.

PI 608030. Chenopodium bushianum Aellen
Wild. Collected 06/1997 in Illinois, United States. Near Kampsville. Our original seed was grown in a greenhouse in 1992 by Robert Myers.

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 09/30/1999.

PI 608031. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. Pedigree - KS831936-3//Colt/Cody. Hard red winter wheat.

PI 608032. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. Pedigree - KS831936-3//Colt/Cody. Hard red winter wheat.

The following were developed by David B. Weaver, Auburn University, Department of Agronomy and Soils, 202 Funchess Hall, Auburn, Alabama 36849, United States; R. Rodriguez-Kabana, Auburn University, Department of Plant Pathology, 139 Funchess Hall, Auburn, Alabama 36849-4201, United States; R.R.

Sharpe, Auburn University, Alabama Agric. Exp. Sta., Dept. of Agronomy & Soils, Auburn, Alabama 36849, United States. Received 09/09/1999.

PI 608033. Glycine max (L.) Merr.
Cultivar. Pureline. CV-411. Pedigree - N85-492 x Coker 85-483. Maturity Group VIII, adapted from 30 deg. 20' to 35 deg. North latitude. Determinate stem termination, purple flowers, gray pubescence, and brown pod walls. Seed yellow with buff hila. Plant height averages 96 cm. Seed have 21.1% oil and 41.2% protein. Resistant to races 3 and 14 of the soyben cyst nematode (Heterodera glycines), Southern root-knot nematode (Meloidogyse incognita), and frogeye leaf spot (Cercospora sojina). Lodging (scale: 1 = no lodging, 5 = all plants prostrate) is 2.2.

The following were donated by Crites-Moscow Growers, Inc., 212 8th, P.O. Box 8912, Moscow, Idaho 83843, United States. Received 05/1997.

PI 608034. Pisum sativum L. **subsp. sativum**
Cultivated. The primary dry pea of Eastern Washington in the 1980's and 1990's. Dumas Seed of Moscow, Idaho and Spokane Seed of Spokane, Washington contracted with Campbell's Soup to create "Improved Campbell Scotch". Colombian is a specific lot of "Improved Campbell Scotch" that is effectively a selection. Campell Scotch was derived from a green seeded Thomas Laxton selection and a selection from a cross between Delwiche Early Sctoch and a small seeded Alaska segregate(N227).

The following were developed by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States; P.N. Patel, University of California, Dept. of Botany and Pl. Sciences, Riverside, California 92521-0124, United States; Jeff Ehlers, University of California, Riverside, Department of Botany & Plant Sciences-072, Riverside, California 92521-0124, United States; Pioneer Hi-Bred International, Inc, United States; W.C. Matthews, University of California, Dept. of Nematology, Riverside, California 92521-0415, United States; P.A. Roberts, University of California, Dept. of Nematology, Riverside, California 92521-0415, United States. Received 09/09/1999.

PI 608035. Vigna unguiculata (L.) Walp.
Cultivar. Pureline. CV-167; PVP 200000183. Pedigree - UCR 336 / UCR 1393 . Erect, indeterminate compact cowpea with heat tolerance during flowering and resistance to Races 3 and 4 of Fusarium wilt (Fusarium oxysporum) and root-knot nematodes (Meloidogyne incognita and M. javanica). Carries gene Rk and a recessive gene that together protects against Rk-virulent M. incognita and M. javanica. Reproduction and root-galling due to Rk-virulent M. incognita and M. javanica are about half those observed on cultivars CB46 and CB88. Begins flowering in about 52 days from sowing and the first flush of pods is mature in about 95 days when planted in early May in the San Joaquin Valley, CA. Average seed weight 224 mg/seed. Seed coat bright white and medium black 'eye'. Excellent canning quality.

The following were donated by John M. Kraft, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350,

United States. Received 1981.

PI 608036. Pisum sativum L.
GP-15. Pedigree - Parentage is {691005 x [('Small Sieve Freezer' X C-165) F3 X ('Early Perfection 3040' X C-165) F3] F6}F7. Info. from Crop Sci. 16(1):126 (1976) -- small-sieved canner breeding line. Resistant to wilt (a new strain capable of destroying pea varieties resistant to race 5). Has mixture dimpled and smooth green seed. Blooms at 12th to 14th node and sets single and double pods. Segregating for resistance to race 2. Cultivated. White flowered and about 1-1/2 to 2 feet tall at maturity under ideal growing conditions.

PI 608037. Pisum sativum L.
GP-16. Pedigree - Parentage is {691004 x [('Small Sieve Freezer' X C-165) F3 X ('Early Perfection 3040' X C-165) F3] F6}F7. Info. from Crop Sci. 16(1):126 (1976) -- small-sieved canner breeding line. Resistant to wilt (a new strain capable of destroying pea varieties resistant to race 5). Smooth green seeds. Blooms at 12th to 14th node and sets single and double pods. Cultivated. White flowered and about 1-1/2 to 2 feet tall at maturity under ideal growing conditions.

PI 608038. Pisum sativum L.
GP-17. Pedigree - Parentage [(Small Sieve Freezer X C-165) F3 X (Early Perfection 3040 X C-165) F3] F6 X 691004] F7. Small-sieved canner breeding line. Resistant to wilt (a new strain capable of destroying pea varieties resistant to race 5). Smooth green seeds. Blooms at 12th to 14th node and sets single and double pods. Cultivated. White flowered and about 1-1/2 to 2 feet tall at maturity under ideal growing conditions.

The following were developed by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, 451C, Corvallis, Oregon 97331-3002, United States; J.M. Crane, Oregon State University, Dept. of Crop and Soil Science, Crop Science Bldg, Rm. 107, Corvallis, Oregon 97331, United States. Received 09/15/1999.

PI 608039. Limnanthes alba subsp. versicolor (Greene) C. T. Mason
Breeding. Pureline. GP-30. Pedigree - Developed from a wild Limnanthes alba ssp. versicolor population (PI 374801) by selecting for seeds/plant (in the absence of pollinators) among S0, S1, S2, S3, and S4 progeny. Selected progeny were advanced by single seed descent. The most strongly self-pollinated individual was selected and advanced each generation. Strongly self-pollinated inbred line that produces significantly more seed by self-pollination than Mermaid ($p < 0.0001$), a predominately allogamous, insect-pollinated cultivar. Produces 57.6 seeds/plant, whereas Mermaid produces 3.0 seeds/plant ithe absence of pollinators. This is the first true breeding self-pollinated inbred line developed for meadowfoam. This germplasm line grows prostrately and is less productive than upright insect-pollinated cultivars, but is an excellent source of self-pollination and is agronomically superior to interspecific sources of self-pollination (e.g. L. floccossa and L. gracilis).

The following were developed by James S. Quick, Colorado State University, Department of Agronomy, Fort Collins, Colorado 80523, United States. Received 10/13/1999.

PI 608040. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Pedigree - A748OW-9-2/A75284W-1. Awned, medium height, brown-glumed and most similar to Manning in appearance. Spikes erect to inclined and averages 4 to 7 days later in maturity than Manning and equal to Jeff. Averages 5 cm taller than Manning and is similar in straw strength. When compared to the current highest performing HRW wheat, has a 11 percent higher grain yield when grown under dryland management in northwestern Colorado. Test weight about 1.3 kg hl-1 lower than Manning in 2 yrs. of tests. Resistant to dwarf bunt (T. caries). Moderately susceptible to stripe rust (Puccinia striiformis). Resistant to stripe rust races CDL-17, CDL-37, and CDL-45 but is susceptible to race CDL-43. Excellent bread making quality. More tolerance to dough mixing than Manning and a slightly longer mixing requirement. Flour extraction is satisfactory and comparable to Utah 100 and Boundary. Interior and exterior loaf characteristics equal or superior to Manning.

The following were developed by M. Ken Aycock, Jr., University of Maryland, Department of Agronomy, College Park, Maryland 20742, United States. Received 10/01/1999.

PI 608041. Nicotiana tabacum L.
Cultivar. Pureline. CV-119. Pedigree - [(MD 341 x MD 609) x MD 609] BC7 F11. Maryland tobacco with resistance to three diseases: tobacco mosaic virus (TMV), wildfire (Phytophthora syringae), and black shank (Phytophthora parasitica). Similar to MD 609 for yield but has better quality as measured by the quality index and percentage of desirable cured leaf colors. Leaves long with medium width and pointed tips. Tall (76.4 cm), flowers 63 days after transplanting, and contains 3.16% total alkaloids.

PI 608042. Nicotiana tabacum L.
Cultivar. Pureline. CV-118. Pedigree - [(A911 x MD 609) x MD 609] BC1 F13. Maryland tobacco with resistance to three diseases: tobacco mosaic virus (TMV), wildfire (Pseudomonas syringae), and black shank (Phytophthora parasitica). Similar to MD 609 for yield but has better quality. Leaves long with medium width and pointed tips. Tall (73.4 cm), flowers 64 days after transplanting, and contains 2.81% total alkaloids.

The following were developed by M.J. Murray, Unknown. Donated by Alfred Haunold, USDA, ARS, Oregon State University, Department of Crop Sciences, Corvallis, Oregon 97333, United States. Received 01/01/1983.

PI 608043. Mentha spicata L.
Breeding. Pedigree - Selection from European stock.

The following were collected by M.J. Murray, Unknown. Donated by Alfred Haunold, USDA, ARS, Oregon State University, Department of Crop Sciences,

Corvallis, Oregon 97333, United States. Received 01/01/1983.

PI 608044. Mentha x dalmatica Tausch
Wild. Collected 1968 in Georgia. Latitude 43 deg. 0' N. Longitude 41 deg. 0' E. Elevation 0 m. Sukhumi, inland from the Black Sea beach. Pedigree - Collected from the wild in the USSR.

The following were developed by M.J. Murray, Unknown. Donated by Alfred Haunold, USDA, ARS, Oregon State University, Department of Crop Sciences, Corvallis, Oregon 97333, United States. Received 01/01/1983.

PI 608045. Mentha hybrid
Breeding. Pedigree - 10213(MEN 134,4n pepp) x crispa(2n=96)6th BC to 10213. M. piperita x M. spicata var. crispa 6th backcross to M. piperita .

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; David Yarborough, University of Maine, 5722 Deering Hall, Orono, Maine 04469-5722, United States. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 10/14/1999.

PI 608046. Corylus heterophylla Fisch. ex Trautv.
Cultivated. Collected 09/1999 in Jilin, China. Latitude 42 deg. 52' N. Longitude 129 deg. 31' E. Elevation 0 m. Market sample collected from around Yanji City. Pedigree - Purchased at market by Yanji City, China.

The following were donated by John White, Ancient Lifeways Institute, Michael Hollow Road, Box 27, Michael, Illinois 62065, United States. Received 05/25/1999.

PI 608047. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus**
Some are naked. The earliest French explorers mentioned the different varieties of watermelon the Illiniwek were growing. One said the best were those with red seeds. The old Native American man who grew these watermelons died before any more information could be obtained.

The following were collected by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Donated by USDA, ARS, NERPIS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States; Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 10/26/1999.

PI 608048. Cucurbita pepo L.
Collected 11/1960 in Pakistan. Mangora village bazaar, Swat.

The following were developed by Marie Langham, South Dakota State University, Department of Plant Science, 219 Agr. Hall, Box 2207-A, Brookings, South

Dakota 57007, United States; Jimmie H. Hatchett, USDA-ARS, Dept of Entomology, Waters Hall, Manhattan, Kansas 66506-4004, United States; Jeffrey L. Gellner, South Dakota State University, Plant Science Department, Box 2109, Brookings, South Dakota 57007, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; O.K. Chung, USDA-ARS, U.S. Grain Marketing Research Lab., Hard Winter Wheat Quality Lab., Manhattan, Kansas 66506, United States; Yue Jin, South Dakota State University, Plant Science Department, Plant Science Building - P.O. Box 2108, Brookings, South Dakota 57007, 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 ; B.E. Ruden, South Dakota State University, Plant Science Dept., Brookings, South Dakota 57007, United States; S. Kalsbeck, South Dakota State University, Plant Science Department, Brookings, South Dakota 57007, United States; B.W. Seabourn, USDA, ARS, Grain Marketing and Production Research Center, Hard Winter Wheat Quality Lab., Manhattan, Kansas 66506, United States; Scott Haley, Colorado State University, Soil and Crop Sciences Dept., Fort Collins, Colorado 80523, United States; R. Little, South Dakota State Univ., Plant Science Dept., Brookings, South Dakota 57007, United States. Received 10/25/1999.

PI 608049. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. CV-887. Pedigree - Brule//Bennett/Chisholm/3/Arapahoe. Awned, red-glumed, medium-tall and medium-late maturity, hard red winter wheat with superior winter survival ability and a very broad disease resistance package. Moderately resistant or resistant to stem, leaf rust, tan spot, septoria leaf blotch, and wheat streak mosaic virus. Heterogeneous for resistance to the Great Plains Biotype of Hessian fly. Coleoptile length average and straw strength fair. End-use quality characteristics include average test weight, medium-high kernel weight, above average flour ash content, fair flour extraction, good flour protein content, good water absorption with average mixing time, good mixing tolerance, and good loaf volume.

Unknown source. Received 07/06/1939.

PI 608050. Gossypium barbadense L.
Collected in Dominican Republic.

Unknown source. Received 07/06/1939.

PI 608051. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608052. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608053. Gossypium barbadense L.
Collected in French Guiana.

Unknown source. Received 07/06/1939.

PI 608054. Gossypium barbadense L.
Collected in Merida, Venezuela.

Unknown source. Received 07/06/1939.

PI 608055. Gossypium barbadense L.
Collected in Colombia.

Unknown source. Received 07/06/1939.

PI 608056. Gossypium barbadense L.
Collected in Colombia.

Unknown source. Received 07/06/1939.

PI 608057. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608058. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608059. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608060. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608061. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608062. Gossypium barbadense L.
Collected in Manabi, Ecuador.

Unknown source. Received 07/06/1939.

PI 608063. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608064. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608065. Gossypium barbadense L.
Collected in Sudan.

Unknown source. Received 07/06/1939.

PI 608066. Gossypium barbadense L.
Collected in Ecuador.

Unknown source. Received 07/06/1939.

PI 608067. Gossypium barbadense L.
Collected in Galapagos Islands, Ecuador.

Unknown source. Received 07/06/1939.

PI 608068. Gossypium barbadense L.
Collected in Galapagos Islands, Ecuador.

Unknown source. Received 07/06/1939.

PI 608069. Gossypium barbadense L.
Collected in Galapagos Islands, Ecuador.

Unknown source. Received 07/06/1939.

PI 608070. Gossypium barbadense L.
Collected in Galapagos Islands, Ecuador.

Unknown source. Received 07/06/1939.

PI 608071. Gossypium barbadense L.

Collected in United States.

Unknown source. Received 07/06/1939.

PI 608072. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608073. Gossypium barbadense L.
Collected in Catamarca, Argentina.

Unknown source. Received 07/06/1939.

PI 608074. Gossypium barbadense L.
Collected in Catamarca, Argentina.

Unknown source. Received 07/06/1939.

PI 608075. Gossypium barbadense L.
Collected in Bolivia.

Unknown source. Received 07/06/1939.

PI 608076. Gossypium barbadense L.
Collected in Santa Cruz, Bolivia.

Unknown source. Received 07/06/1939.

PI 608077. Gossypium barbadense L.
Collected in Santa Cruz, Bolivia.

Unknown source. Received 07/06/1939.

PI 608078. Gossypium barbadense L.
Collected in Paraguay.

Unknown source. Received 07/06/1939.

PI 608079. Gossypium barbadense L.
Collected in Michoacan, Mexico.

Unknown source. Received 07/06/1939.

PI 608080. Gossypium barbadense L.
Collected in Corrientes, Argentina.

Unknown source. Received 07/06/1939.

PI 608081. Gossypium barbadense L.
Collected in United Kingdom.

Unknown source. Received 07/06/1939.

PI 608082. Gossypium barbadense L.
Collected in Alta Verapaz, Guatemala.

Unknown source. Received 07/06/1939.

PI 608083. Gossypium barbadense L.
Collected in Alta Verapaz, Guatemala.

Unknown source. Received 07/06/1939.

PI 608084. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608085. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608086. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608087. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608088. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608089. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608090. Gossypium barbadense L.
Collected in Cote D'Ivoire.

Unknown source. Received 07/06/1939.

PI 608091. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608092. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608093. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608094. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608095. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608096. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608097. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608098. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608099. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608100. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608101. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608102. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608103. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608104. Gossypium barbadense L.
Collected in Brazil.

Unknown source. Received 07/06/1939.

PI 608105. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608106. Gossypium barbadense L.
Collected in Togo.

Unknown source. Received 07/06/1939.

PI 608107. Gossypium barbadense L.
Collected in Togo.

Unknown source. Received 07/06/1939.

PI 608108. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608109. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608110. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608111. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608112. Gossypium barbadense L.
Collected in Colombia.

Unknown source. Received 07/06/1939.

PI 608113. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608114. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608115. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608116. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608117. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608118. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608119. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608120. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608121. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608122. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608123. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608124. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608125. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608126. Gossypium barbadense L.

Collected in United States.

Unknown source. Received 07/06/1939.

PI 608127. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608128. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608129. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608130. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608131. Gossypium barbadense L.
Collected in Bolivia.

Unknown source. Received 07/06/1939.

PI 608132. Gossypium barbadense L.
Collected in Bolivia.

Unknown source. Received 07/06/1939.

PI 608133. Gossypium barbadense L.
Collected in Bolivia.

Unknown source. Received 07/06/1939.

PI 608134. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608135. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608136. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608137. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608138. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608139. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608140. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608141. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608142. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608143. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608144. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608145. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608146. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608147. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608148. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608149. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608150. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608151. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608152. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608153. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608154. Gossypium barbadense L.
Collected in Venezuela.

Unknown source. Received 07/06/1939.

PI 608155. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608156. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608157. Gossypium barbadense L.
Collected in Philippines.

Unknown source. Received 07/06/1939.

PI 608158. Gossypium barbadense L.
Collected in Philippines.

Unknown source. Received 07/06/1939.

PI 608159. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608160. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608161. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608162. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608163. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608164. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608165. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608166. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608167. Gossypium barbadense L.
Collected in Amazonas, Brazil.

Unknown source. Received 07/06/1939.

PI 608168. Gossypium barbadense L.
Collected in Amazonas, Brazil.

Unknown source. Received 07/06/1939.

PI 608169. Gossypium barbadense L.
Collected in Amazonas, Brazil.

Unknown source. Received 07/06/1939.

PI 608170. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608171. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608172. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608173. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608174. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608175. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608176. Gossypium barbadense L.
Collected in Morocco.

Unknown source. Received 07/06/1939.

PI 608177. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608178. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608179. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608180. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608181. Gossypium barbadense L.

Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608182. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608183. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608184. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608185. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608186. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608187. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608188. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608189. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608190. Gossypium barbadense L.
Collected in Egypt.

Unknown source. Received 07/06/1939.

PI 608191. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608192. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608193. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608194. Gossypium barbadense L.
Collected in Morocco.

Unknown source. Received 07/06/1939.

PI 608195. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608196. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608197. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608198. Gossypium barbadense L.
Collected in Morocco.

Unknown source. Received 07/06/1939.

PI 608199. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608200. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608201. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608202. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608203. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608204. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608205. Gossypium barbadense L.
Collected in Dominican Republic.

Unknown source. Received 07/06/1939.

PI 608206. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608207. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608208. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608209. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608210. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608211. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608212. Gossypium barbadense L.
Collected in Cauca, Colombia.

Unknown source. Received 07/06/1939.

PI 608213. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608214. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608215. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608216. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608217. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608218. Gossypium barbadense L.
Collected in Arauca, Colombia.

Unknown source. Received 07/06/1939.

PI 608219. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608220. Gossypium barbadense L.
Collected in Ancash, Peru.

Unknown source. Received 07/06/1939.

PI 608221. Gossypium barbadense L.
Collected in Ancash, Peru.

Unknown source. Received 07/06/1939.

PI 608222. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608223. Gossypium barbadense L.
Collected in Peru.

Unknown source. Received 07/06/1939.

PI 608224. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608225. Gossypium barbadense L.
Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 608226. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608227. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608228. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608229. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608230. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608231. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608232. Gossypium barbadense L.
Collected in Dominican Republic.

Unknown source. Received 07/06/1939.

PI 608233. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608234. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608235. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608236. Gossypium barbadense L.

Collected in France.

Unknown source. Received 07/06/1939.

PI 608237. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608238. Gossypium barbadense L.
Collected in Colombia.

Unknown source. Received 07/06/1939.

PI 608239. Gossypium barbadense L.
Collected in Arauca, Colombia.

Unknown source. Received 07/06/1939.

PI 608240. Gossypium barbadense L.
Collected in Santander, Colombia.

Unknown source. Received 07/06/1939.

PI 608241. Gossypium barbadense L.
Collected in Tumbes, Peru.

Unknown source. Received 07/06/1939.

PI 608242. Gossypium barbadense L.
Collected in Tumbes, Peru.

Unknown source. Received 07/06/1939.

PI 608243. Gossypium barbadense L.
Collected in Tumbes, Peru.

Unknown source. Received 07/06/1939.

PI 608244. Gossypium barbadense L.
Collected in Tumbes, Peru.

Unknown source. Received 07/06/1939.

PI 608245. Gossypium barbadense L.
Collected in Tumbes, Peru.

Unknown source. Received 07/06/1939.

PI 608246. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608247. Gossypium barbadense L.
Collected in Ecuador.

Unknown source. Received 07/06/1939.

PI 608248. Gossypium barbadense L.
Collected in Ecuador.

Unknown source. Received 07/06/1939.

PI 608249. Gossypium barbadense L.
Collected in Ecuador.

Unknown source. Received 07/06/1939.

PI 608250. Gossypium barbadense L.
Collected in Ecuador.

Unknown source. Received 07/06/1939.

PI 608251. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608252. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608253. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608254. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608255. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608256. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608257. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608258. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608259. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608260. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608261. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608262. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608263. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608264. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608265. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608266. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608267. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608268. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608269. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608270. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608271. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608272. Gossypium barbadense L.
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Unknown source. Received 07/06/1939.

PI 608273. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608274. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608275. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608276. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608277. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608278. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608279. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608280. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608281. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608282. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608283. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608284. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608285. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608286. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608287. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608288. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608289. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608290. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608291. Gossypium barbadense L.

Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608292. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608293. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608294. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608295. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608296. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608297. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608298. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608299. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608300. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608301. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608302. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608303. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608304. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608305. Gossypium barbadense L.
Collected in Barbados.

Unknown source. Received 07/06/1939.

PI 608306. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608307. Gossypium barbadense L.
Collected in United States.

Unknown source. Received 07/06/1939.

PI 608308. Gossypium barbadense L.
Collected in Brazil.

Unknown source. Received 07/06/1939.

PI 608309. Gossypium barbadense L.
Collected in Narino, Colombia.

Unknown source. Received 07/06/1939.

PI 608310. Gossypium barbadense L.
Collected in Piura, Peru.

Unknown source. Received 07/06/1939.

PI 608311. Gossypium barbadense L.
Collected in Lima, Peru.

Unknown source. Received 07/06/1939.

PI 608312. Gossypium barbadense L.
Collected in Loreto, Peru.

Unknown source. Received 07/06/1939.

PI 608313. Gossypium barbadense L.
Collected in France.

Unknown source. Received 07/06/1939.

PI 608314. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608315. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608316. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608317. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608318. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608319. Gossypium barbadense L.
Collected in Loja, Ecuador.

Unknown source. Received 07/06/1939.

PI 608320. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608321. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608322. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608323. Gossypium barbadense L.
Collected in El Oro, Ecuador.

Unknown source. Received 07/06/1939.

PI 608324. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608325. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608326. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608327. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608328. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608329. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608330. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608331. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608332. Gossypium barbadense L.
Collected in Guayas, Ecuador.

Unknown source. Received 07/06/1939.

PI 608333. Gossypium barbadense L.
Collected in Belize.

Unknown source. Received 07/06/1939.

PI 608334. Gossypium barbadense L.
Collected in Belize.

Unknown source. Received 07/06/1939.

PI 608335. Gossypium barbadense L.
Collected in Belize.

Unknown source. Received 07/06/1939.

PI 608336. Gossypium barbadense L.
Collected in Belize.

Unknown source. Received 07/06/1939.

PI 608337. Gossypium barbadense L.
Collected in Belize.

Unknown source. Received 07/06/1939.

PI 608338. Gossypium barbadense L.
Collected in Belize.

Unknown source. Received 07/06/1939.

PI 608339. Gossypium barbadense L.
Collected in Zulia, Venezuela.

Unknown source. Received 07/06/1939.

PI 608340. Gossypium barbadense L.
Collected in Zulia, Venezuela.

Unknown source. Received 07/06/1939.

PI 608341. Gossypium barbadense L.
Collected in Zulia, Venezuela.

Unknown source. Received 08/1991.

PI 608342. Gossypium barbadense L.
Collected in Chile.

Unknown source. Received 09/1992.

PI 608343. Gossypium barbadense L.
Collected in Namibia.

Unknown source. Received 02/1993.

PI 608344. Gossypium barbadense L.
Collected in United States. Pedigree - F4 FROM CROSS OF COASTLAND 310 X PIMA-51.

Unknown source. Received 1988.

PI 608345. Gossypium barbadense L.
Wild. Collected in Brazil.

Unknown source. Received 06/1994.

PI 608346. Gossypium barbadense L.

The following were collected by A. E. Percival, USDA, ARS, Crop Germplasm Research, 2765 F&B Road, College Station, Texas 77845, United States; James M. Stewart, University of Arkansas, College of Agriculture, Department of Agronomy, Fayetteville, Arkansas 72701, United States. Received 1988.

PI 608347. Gossypium barbadense L.
Collected 08/31/1988 in Federal District, Brazil.

Unknown source. Received 1998.

PI 608348. Gossypium barbadense L.

Unknown source. Received 1996.

PI 608349. Gossypium barbadense L.

Unknown source. Received 1996.

PI 608350. Gossypium barbadense L.

Unknown source. Received 1996.

PI 608351. Gossypium barbadense L.

Unknown source. Received 1995.

PI 608352. Gossypium barbadense L.

Unknown source. Received 1995.

PI 608353. Gossypium barbadense L.

Unknown source. Received 1999.

PI 608354. Gossypium barbadense L.

Unknown source. Received 1999.

PI 608355. Gossypium barbadense L.

The following were developed by 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; H.H. Mundel, Agriculture and Agri-Food Canada, Research Centre, 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. Received 04/15/1999.

PI 608356. Phaseolus vulgaris L.
Cultivar. Pureline. CV-168. Pedigree - Ember //2x(NW63//Redkloud/Kentwood). High-yielding early-maturing (99 d compared to 102 d for NW63 in 13 trials). Lodging resistant small red dry bean suited to the narrow-row (drilling) production system used in non-traditional areas of western Canada. Type IIb indeterminate growth habit with no vines with a seed weight of 32.4g 100 seed-1. Moderately resistant to white mold (Sclerotinia sclerotiorum). Susceptible to common blight (Xanthomonas campestris) and halo blight (pseudomonas syringae). Moderately resistant to root rot (Fusarium oxysporum and Pythium ultimum) and moderately susceptible to Rhizoctonia solani.

The following were developed by Lawrence D. Young, USDA, ARS, West Tennessee Experiment Station, 605 Airways Blvd., Jackson, Tennessee 38301, United States; Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States. Received 04/02/1999.

PI 608357. Glycine max (L.) Merr.
Breeding. Pureline. GP-275. Pedigree - Bedford(6) x Tracy. Maturity Group V released to provide soybean breeders with a potential parent to develop multiple pest resistant cultivars. Developed by backcrossing to transfer the gene Rps3-a into the cultivar Bedford. Similar to Bedford for all observable traits and has the same level of resistance to races 3 and 14 of the soybean cyst nematode.

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States. Received 04/23/1999.

PI 608358. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96621. Soft red winter wheat two gene (Rht1,Rht2) semidwarf near-isoline. Plant height 55% of recurrent parent Nord Desprez (ND). Heading date 1 d later than ND. Spikes oblong, awnless, white. Kernels ovate, short to midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (21%), test weight (12%) and grain yield (13%). Higher harvest index (28%) and kernels/spike (56%) than ND and less lodging (6% vs

10%). Coldhardiness similar to ND (medium-low). Percent stand low (45%) vs ND (72%).

PI 608359. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96622. Soft red winter wheat two gene (Rht1,Rht2) semidwarf near-isoline. Plant height 51% of recurrent parent, Nord Desprez (ND). Heading date 2 d later than ND. Spikes oblong, awnless, white. Kernels ovate, short to midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (18%), test weight (10%), and grain yield (16%). Higher harvest index (26%) and kernels/spike (40%) than ND and has less lodging (1% vs 10%). Medium low coldhardiness similar to ND. Percent stand low (45%) vs ND (72%).

PI 608360. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96623. Soft red winter wheat two gene (Rht1,Rht2) semidwarf near-isoline. Plant height 49% of recurrent parent, Nord Desprez (ND). Heading date 3 d later than ND. Spikes oblong, awnless, white. Kernels ovate, short to midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (16%), test weight (10%), and grain yield (20%). Higher harvest index (24%) and kernels/spike (22%) than ND with less lodging (2% vs 10%). Medium low coldhardiness similar to ND. Percent stand low (45%) vs ND (72%).

PI 608361. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96624. Soft red winter wheat two gene (Rht1, Rht2) semidwarf near-isoline. Plant height 53% of recurrent parent, Nord Desprez (ND). Heading date 2 d later than ND. Spikes oblong, awnless, white. Kernels ovate, short to midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (17%), test weight (10%), and grain yield (19%). Higher harvest index (23%) and kernels/spike (42%) than ND with less lodging (2% vs 10%). Medium low coldhardiness similar to ND. Percent stand low (47%) vs ND (72%).

PI 608362. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96627. Soft red winter wheat one gene (Rht2) semidwarf near-isoline. Plant height 82% of recurrent parent, Nord Desprez (ND). Heading date 1 d later than ND. Spikes oblong, awnless, white spikes. Kernels midlong, ovate, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (7%) and test weight (6%), greater grain yield (3%), higher harvest indes (17%), and kernels/spike (31%) than ND with less lodging (3% vs 10%). Coldhardiness similar to ND (medium-low). Percent stand lower (57%) than ND (72%).

PI 608363. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96629. Soft red winter wheat one gene (Rht1) semidwarf near-isoline. Plant height 87% of recurrent parent, Nord Desprez (ND) with similar heading date. Spikes oblong, awnless, white. Kernels ovate, midlong,

pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (7%) and test weight (4%), greater grain yield (14%), harvest index (10%) and kernels/spike (26%) than ND with less lodging (3% vs 10%). Coldhardiness similar to ND (medium-low). Percent stand lower (58%) vs ND (72%).

PI 608364. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96630. Soft red winter wheat one gene (Rht2) semidwarf near-isoline. Plant height 81% of recurrent parent, Nord Desprez (ND). Heading date 1 d later than ND. Spikes oblong, awnless, white. Kernels ovate, midlong, soft to semihard, and pale red; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (13%) and test weight (7%), greater grain weight (4%), harvest index 15%) and kernels/spike (31%) than ND with less lodging (3% vs 10%). Coldhardiness similar to ND (medium-low). Percent stand lower (53%) than ND (72%).

PI 608365. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96633. Soft red winter wheat one gene (Rht2) semidwarf near-isoline. Plant height 80% of recurrent parent, Nord Desprez (ND). Heading date 1 d later than ND. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard; crease midwide, middeep/pitted, germ and rush midsize. Compared to ND, lower kernel weight (12%) and test weight (6%), greater grain yield (3%), harvest index (23%) and kernels/spike (38%) tha ND with less loding (3% vs 10%). Coldhardiness similar to ND (medium-low). Percent stand low (53%) vs ND (72%).

PI 608366. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96636. Soft red winter wheat one gene (Rht1) semidwarf near-isoline. Plant height 90% of recurrent parent, Nord Desprez (ND). Heading date 1 d earlier than ND. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (14%) and test weight (1%), greater grain yield (9%), harvest index (15%) and kernels/spike (38%) than ND with less lodging (3% vs 10%). Coldhardiness similar to ND (medium-low) and percent stand lower (60%) vs ND (72%).

PI 608367. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96637. Soft red winter wheat one gene (Rht2) semidwarf near-isoline. Plant height 81% of recurrent parent, Nord Desprez (ND). Heading date 1 d later than ND. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, and soft to semihard;crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (14%), test weight (7%), greater grain weight (2%), harvest index (17%) and kernels/spike (32%) than ND but similar for lodging. Coldhardiness similar to ND (medium-low). Percent stand lower (57%) than ND (72%).

PI 608368. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96638. Soft red winter wheat one gene (Rht1) semidwarf near-isoline. Plant height 91% of recurrent parent, Nord Desprez (ND). Heading date 1 d earlier than ND. Spikes oblong, awnless, white. Kernels ovate,

midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (14%) and test weight (1%), greater grain yield (9%), harvest index (15%) and kernels/spike (29%) than ND with slightly less lodging (7% vs 10%). Coldhardiness similar to ND (medium-low) and percent stand lower (60%) vs ND (72%).

PI 608369. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96640. Soft red winter wheat one gene (Rht1) semidwarf near-isoline. Plant height 91% of recurrent parent, Nord Desprez (ND). Heading date 1 d earlier than ND. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard; crease midwide, middeep/pitted; germ and brush midsize. Compared to ND, lower kernel weight (10%) and test weight (1%), greater grain yield (12%), harvest index (13%) and kernels/spike (40%) than ND with less lodging (4% vs 10%). Coldhardiness similar to ND (medium-low). Percent stand lower (60%) vs ND (72%).

PI 608370. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96641. Soft red winter wheat midtall non-semidwarf (rht1,rht2) near-isoline. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard; crease midwide, middeep and some pitted. Germ and brush midsize. Very similar to the recurrent parent, Nord Desprez for plant height, heading date, lodging resistance, grain yield, kernel wt., test wt., harvest index, kernels/spike, coldhardiness and emergence ability.

PI 608371. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96642. Soft red winter wheat midtall non-semidwarf (rht1,rht2) near-isoline. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard;crease midwide, middeep and some pitted. Germ and brush midsize. Very similar to recurrent parent, Nord Desprez, for plant height, heading date, lodging resistance, grain yield, kernel wt., test wt., harvest index, kernels/spike, coldhardiness and emergence ability.

PI 608372. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96643. Soft red winter wheat midtall non-semidwarf (rht1,rht2) near-isoline. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard;crease midwide, middeep and some pitted. Germ and brush midsize. Very similar to the recurrent parent, Nord Desprez, for plant height, heading date, lodging resistance, grain yield, kernel wt., test wt., harvest index, kernels/spike, coldhardiness and emergence ability.

PI 608373. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Norin 10/Brevor, 14//7*Nord Desprez, ARS 96644. Soft red winter wheat midtall non-semidwarf (rht1,rht2) near-isoline. Spikes oblong, awnless, white. Kernels ovate, midlong, pale red, soft to semihard;crease midwide, middeep and some pitted. Germ and brush midsize. Very similar to the recurrent parent, Nord Desprez, for plant height, heading date, lodging resistance, grain yield, kernel

wt., test wt., harvest index, kernels/spike, coldhardiness and emergence ability.

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; C. Mousset-Declas, INRA, SGAP BV 1540, Laboratoire des Leguminueses, Dijon, Cote-d'Or 21034, France; R.E. Mundell, University of Kentucky, Dept. of Agronomy, Lexington, Kentucky 40546-0091, United States. Received 04/27/1999.

PI 608374. Trifolium pratense L.
Genetic. GS-12. Pedigree - Two plants of the tetraploid Swiss cultivar Temara that expressed a ruffled leaflet trait were crossed in isolation. Tetraploid Ruffled Leaflet (98-L38-1799) is the result of three cycles of phenotypic recurrent selection for the ruffled leaflet trait on the hybrid progeny. Plants express puckering, crinkling or ruffling of the edges of leaflets. Condition expressed in field and greenhouse at Lexington, Kentucky. No gene symbols have been assigned.

The following were donated by James R. Steadman, University of Nebraska, Department of Plant Pathology, 406 Plant Science Hall, Lincoln, Nebraska 68583, United States. Received 10/30/1996.

PI 608375. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608376. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608377. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608378. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608379. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608380. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608381. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608382. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608383. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608384. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608385. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608386. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608387. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608388. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608389. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608390. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608391. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608392. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608393. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608394. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608395. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608396. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608397. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608398. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608399. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608400. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608401. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608402. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608403. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

PI 608404. Phaseolus vulgaris L.
Landrace. Part of the group developed by J.R. Steadman as a broad spectrum pathogen test set testing variability in Phaseolus vulgaris races.

The following were donated by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Chinese Academy of Agricultural Sciences, Institute of Crop Germplasm Resources, Crop Introduction Laboratory, Beijing, Beijing 100081, China. Received 07/06/1995.

PI 608405. Oryza sativa L.
Cultivar. Developed in China. Wu Feng Leng Shui Zhan is an indica, glutinous, middle-season rice cultivar originating from Wufeng County, Hubei Province.

PI 608406. Oryza sativa L.
Cultivar. Developed in China. Binyang Zhan is an indica, glutinous, middle-season rice cultivar originating from Laifeng County, Hubei Province.

PI 608407. Oryza sativa L.
Cultivar. Developed in China. Shangying Gu is an indica, glutinous, late-season rice cultivar from Tiandeng County, Guangxi Province.

PI 608408. Oryza sativa L.
Cultivar. Developed in China. Jing Guzhi is an indica, glutinous, middle-season rice cultivar from Enshi City, Hubei Province.

PI 608409. Oryza sativa L.
Cultivar. Developed in China. 80 Zhan is an indica, glutinous, middle-season rice cultivar.

PI 608410. Oryza sativa L.
Landrace. Collected in Sichuan, China. Latitude 30 deg. 0' N. Longitude 103 deg. 0' E. Zhuya Gu is an indica, glutinous, middle-season rice cultivar.

PI 608411. Oryza sativa L.
Cultivar. Developed in China. Bawang Bian is a japonica, glutinous, middle-season rice cultivar.

PI 608412. Oryza sativa L.
Landrace. Collected in Sichuan, China. Latitude 30 deg. 0' N. Longitude 103 deg. 0' E. Xuxu Zhan is an indica, glutinous, middle-season rice cultivar.

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 608413. Oryza sativa L.
Breeding. Developed in Colombia. Source 913431. Site UY4. Season WS. Nursery Remnant.

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 608414. Oryza sativa L.
Breeding. Pedigree - IR28222-9-2-2-2-2/IR31868-64-2-3-3-3//IR4563-52-1-3-6. Source 910746. Site UA. Season DS. Nursery Remnant.

PI 608415. Oryza sativa L.
Breeding. Source 900446. Site UY. Season DS. Nursery Remnant.

PI 608416. Oryza sativa L.
Breeding. Pedigree - IR 37704-131-2-1-3-2/IR 24632-34-2. Source 903478. Site UB1. Season WS. Nursery Remnant.

PI 608417. Oryza sativa L.
Breeding. Pedigree - IR 28224-3-2-3-2/IR 28222-9-2-2-2-2//IR 28143-51-3-3-1-3. Source 951011. Site UB2-UB3-3. Season DS. Nursery IRBPHN.

PI 608418. Oryza sativa L.
Breeding. Pedigree - TOX896-R-R-R-102/IR 37870-57-3-3-2//IR 28224-3-2-3-2. Source 951012. Site UB2-UB3-3. Season DS. Nursery Remnant.

PI 608419. Oryza sativa L.
Breeding. Pedigree - IR 64/IR 35293-125-3-2-3. Source 912326. Site UY-LOWER. Season DS. Nursery Remnant.

PI 608420. Oryza sativa L.
Breeding. Pedigree - New Sabarmati (Bas)/IR 24632-34-2. Source 922958. Site UB. Season DS. Nursery Remnant.

PI 608421. Oryza sativa L.
Breeding. Pedigree - IR 28239-94-2-3-6-2/IR 24632-34-2. Source 912336. Site UY-LOWER. Season DS. Nursery Remnant.

PI 608422. Oryza sativa L.
Breeding. Pedigree - IR 44592-62-1-3-3-2/IR 28239-94-2-3-6-2. Source 950749. Site UB2-UB3-3. Season DS. Nursery IRBPHN.

PI 608423. Oryza sativa L.
Breeding. Pedigree - IR 45912-9-1-2-2/IR 42000-211-1-2-2-3. Source 950751. 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 608424. Oryza sativa L.
Cultivar. Developed in Taiwan. Source 922697. Site UU. Season DS. Nursery Remnant.

PI 608425. Oryza sativa L.
Breeding. Developed in India. Source 923368. Site UA. Season WS. Nursery Remnant.

PI 608426. Oryza sativa L.
Cultivar. Developed in Taiwan. Source 881502. Site UG BANAUE. Season DS. Nursery Remnant.

The following were donated by Robert H. Dilday, USDA-ARS, Dale Bumpers National Rice Res. Ctr., 2980 Hwy 130 East, Stuttgart, Arkansas 72160, United States. Received 05/15/1996.

PI 608427. Oryza sativa L.
Cultivar. Developed in Korea, South.

The following were donated by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Chinese Academy of Agricultural Sciences, Inst. of Crop Breeding & Cultivation, Beijing, Beijing, China. Received 05/20/1997.

PI 608428. Oryza sativa L.
Cultivar. Developed in China.

PI 608429. Oryza sativa L.
Cultivar. Developed in China.

The following were donated by Karen A.K. Moldenhauer, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States. Received 09/10/1997.

PI 608430. Oryza sativa L.
Breeding. Developed in Vietnam. Glutinous.

PI 608431. Oryza sativa L.
Breeding. Developed in Vietnam. Salt tolerant mutant.

The following were developed by CLRRI, Can Tho, Vietnam. Donated by Karen A.K. Moldenhauer, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States. Received 09/10/1997.

PI 608432. Oryza sativa L.
Breeding. Long grain semi-dwarf mutant.

PI 608433. Oryza sativa L.
Breeding.

PI 608434. Oryza sativa L.
Breeding.

PI 608435. Oryza sativa L.
Breeding.

PI 608436. Oryza sativa L.
Breeding.

The following were developed by Albin Anderson, North Dakota State University, Hultz Hall 269, Department of Entomology, Fargo, North Dakota 58105, United States; Robert Dregseth, North Dakota State University, Entomology Department, Hultz Hall, Room 270, Fargo, North Dakota 58105, United States; Larry G. Campbell, USDA, ARS, Northern Crops Research Laboratory, 1307 North 18th Street, Fargo, North Dakota 58105-5677, United States. Received 01/25/1999.

PI 608437. Beta vulgaris L.
Breeding. Population. GP-207. Pedigree - Selected from population synthesized by crossing lines from the discontinued ARS (Logan, UT)/Amalgamated Sugar Co. sugarbeet root maggot resistance breeding program with maggot resistant selections from a population closely related to F1010 (PI 535818). Multigerm, green hypocotyl, diploid line. Roots white skin and flesh and sugarbeet shape. Sugarbeet root maggot damage substantially less than any commerical hybrid. On a zero to 9 scale, where higher ratings indicate more damage, rated between 1.8 and 2.6, compared to ratings of 4.7 to 5.8 for commercial hybrids.

The following were developed by Clay Sneller, University of Arkansas, Department of Agronomy, Fayetteville, Arkansas 72701, United States; Thomas G. Isleib, North Carolina State University, Department of Crop Science, Box 5155, Raleigh, North Carolina 27695-7629, United States; Brian W. Diers, University of Illinois, Dept. of Crop Science, 1102 S. Goodwin Ave., Urbana, Illinois 61801, United States; J.F. Boyse, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States. Received 02/01/1999.

PI 608438. Glycine max (L.) Merr.
Cultivar. Pureline. CV-400. Pedigree - E86067 x Kenwood. Indeterinate with late group I maturity. Matures 125 days after planting, seed yield 3,366 kg ha-1, and plant height 79cm. Seed 177 mg seed-1, protein content 402 g kg-1 and oil content 204 g kg-1. Flowers purple, tawny pubescence, and yellow seeds with black hila. Does not have a major gene conferring resistance to phytophthora rot (Phytophthora sojae) and is susceptible to brown stem rot (Phialophora grepata). Partial resistance to sclerotinia stem rot (Sclerotinia sclerotiorum).

The following were developed by J. Rennie Stavely, USDA, ARS, Microbiology and Plant Pathology Lab., Room 252, Building 011A, BARC-West, Beltsville,

Maryland 20705-2350, United States. Received 12/09/1996.

PI 608439. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608440. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608441. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608442. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608443. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608444. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608445. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608446. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608447. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608448. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608449. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608450. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

PI 608451. Phaseolus vulgaris L.
Cultivated. Bean differential for bean rust (Uromyces appendiculatus).

The following were donated by North Carolina State University, North Carolina Agr. Exp. Sta., Raleigh, North Carolina, United States. Received 1970.

PI 608452. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608453. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608454. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn

Varieties.

PI 608455. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608456. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608457. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608458. Zea mays L. **subsp. mays**
Landrace. Population. Red seed, North Carolina Open-pollinated Corn Varieties.

PI 608459. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608460. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608461. Zea mays L. **subsp. mays**
Landrace. Population. White Seed, North Carolina Open-pollinated Corn Varieties.

PI 608462. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608463. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608464. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608465. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608466. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608467. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608468. Zea mays L. **subsp. mays**

Landrace. Population. Mixed seed color, North Carolina Open-pollinated Corn Var.

PI 608469. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608470. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608471. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608472. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608473. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-Pollinated Corn Varieties.

PI 608474. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608475. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608476. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608477. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn varieties.

PI 608478. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608479. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608480. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608481. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color, North Carolina Open-pollinated Corn Var.

PI 608482. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608483. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608484. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608485. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608486. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608487. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color, North Carolina Open-pollinated Corn Var.

PI 608488. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608489. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608490. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color, North Carolina Opem-pollinated Corn Var.

PI 608491. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608492. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color, North Carolina Open-pollinated Corn Var.

PI 608493. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color with red stripe, North Carolina Open-Pollin ated Corn Varieties.

PI 608494. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varietes.

PI 608495. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color, North Carolina Open-pollinated Corn Var.

PI 608496. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608497. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608498. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608499. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608500. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608501. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608502. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608503. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608504. Zea mays L. **subsp. mays**
Breeding. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608505. Zea mays L. **subsp. mays**
Breeding. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608506. Zea mays L. **subsp. mays**
Breeding. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608507. Zea mays L. **subsp. mays**
Breeding. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608508. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608509. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn

Varieties.

PI 608510. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608511. Zea mays L. **subsp. mays**
Landrace. Population. Red seed, North Carolina Open-pollinated Corn Varieties.

PI 608512. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608513. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608514. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608515. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608516. Zea mays L. **subsp. mays**
Landrace. Population.

PI 608517. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Corn Varieties.

PI 608518. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608519. Zea mays L. **subsp. mays**
Landrace. Population.

PI 608520. Zea mays L. **subsp. mays**
Landrace. Population.

PI 608521. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Corn Varieties.

PI 608522. Zea mays L. **subsp. mays**
Landrace. Population. Mixed seed color, North Carolina Open-pollinated Corn Var.

PI 608523. Zea mays L. **subsp. mays**
Landrace. Population. White seed with blue kernels, North Carolina Open-pollin- ated Corn Varieties.

PI 608524. Zea mays L. **subsp. mays**
Landrace. Population. Multicolored seed, North Carolina Open-pollinated Corn Var.

PI 608525. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed, North Carolina Open-pollinated Seed Collection.

PI 608526. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated Seed Collection.

PI 608527. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated seed collection.

PI 608528. Zea mays L. **subsp. mays**
Landrace. Population. White seed, North Carolina Open-pollinated corn collection.

PI 608529. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608530. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608531. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608532. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608533. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L.Thompson, Crop Science Dept., N.C. St. Univ.

PI 608534. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608535. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608536. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608537. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608538. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608539. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608540. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608541. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608542. Zea mays L. **subsp. mays**
Landrace. Population.

PI 608543. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/72 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608544. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science dept., N.C. St. Univ.

PI 608545. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608546. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/71 from D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608547. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/72 from D.L.Thompson, Crop Science Dept., N.C. St. Univ.

PI 608548. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/72 form D.L. Thompson, Crop Science Dept., N.C. St. Univ.

PI 608549. Zea mays L. **subsp. mays**
Landrace. Population. Received 12/72 from D.L. Thompson, Crop Science Dept., North Carolina State University.

The following were donated by USDA, ARS, North Carolina State University, North Carolina Agr. Exp. Sta, Raleigh, North Carolina 27607, United States. Received 02/1978.

PI 608550. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed color, 78 % germination in 1977.

PI 608551. Zea mays L. **subsp. mays**
Landrace. Population. White seed color, 78 % germination in 1977.

PI 608552. Zea mays L. **subsp. mays**
Landrace. Population. Mixed white and yellow seed color, 90 % germination in 1977.

PI 608553. Zea mays L. **subsp. mays**
Landrace. Population. White seed color, 70 % germination in 1977.

PI 608554. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed color, 70 % germination in 1977.

PI 608555. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed color, 88 % germination 1977.

PI 608556. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed color, 68 % germination in 1977.

PI 608557. Zea mays L. **subsp. mays**
Landrace. Population. Yellow seed color, 65 % germination 1977.

PI 608558. Zea mays L. **subsp. mays**
Landrace. Population. White seed color, 80% germination in 1977.

PI 608559. Zea mays L. **subsp. mays**
Landrace. Population. Mixed white and yellow seed color, 94 % germination in 1977.

PI 608560. Zea mays L. **subsp. mays**
Landrace. Population. White seed color, 96 % germination in 1977.

PI 608561. Zea mays L. **subsp. mays**
Landrace. Population. White seed color, 96 % germination in 1977.

The following were developed by New Mexico State University Agricultural Experiment Station, Las Cruces, New Mexico 88003, United States. Received 02/19/1999.

PI 608562. Allium cepa L.
Cultivar. PVP 9800315.

The following were developed by Busch Agricultural Resources, Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 02/19/1999.

PI 608563. Hordeum vulgare L. **subsp. vulgare**
Cultivar. PVP 9900124.

The following were donated by Montana Turfgrass Technologies, Montana, United States. Received 02/19/1999.

PI 608564. Poa pratensis L.
Cultivar. PVP 9900125.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 02/19/1999.

PI 608565. Medicago sativa L.
Cultivar. PVP 9900126.

The following were donated by Pioneer Hi-Bred International, Inc, United States. Received 02/19/1999.

PI 608566. Medicago sativa L.
Cultivar. PVP 9900127.

The following were developed by Kleinwanzlebener Saatzucht, Einbeck-Hannover, Lower Saxony, Germany. Received 02/19/1999.

PI 608567. Zea mays L. **subsp. mays**
Cultivar. PVP 9900128.

The following were developed by Novartis Seeds, Inc., United States. Received 02/19/1999.

PI 608568. Phaseolus vulgaris L.
Cultivar. PVP 9900129.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 02/19/1999.

PI 608569. Zea mays L. **subsp. mays**
Cultivar. PVP 9900130.

PI 608570. Zea mays L. **subsp. mays**
Cultivar. PVP 9900131.

PI 608571. Zea mays L. **subsp. mays**
Cultivar. PVP 9900132.

PI 608572. Zea mays L. **subsp. mays**
Cultivar. PVP 9900133.

PI 608573. Zea mays L. **subsp. mays**
Cultivar. PVP 9900134.

The following were developed by Virginia Agric. Exp. Station, Richmond, Virginia, United States. Received 02/19/1999.

PI 608574. Glycine max (L.) Merr.
Cultivar. PVP 9900135.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 02/19/1999.

PI 608575. Gossypium hirsutum L.
Cultivar. PVP 9900136.

PI 608576. Gossypium hirsutum L.
Cultivar. PVP 9900137.

PI 608577. Gossypium hirsutum L.
Cultivar. PVP 9900138.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901, United States. Received 02/19/1999.

PI 608578. Festuca arundinacea Schreb.
Cultivar. PVP 9900142. Pedigree - Plants selected from old turfs of the U.S. or the Rebel breeding program were evaluated in mowed clonal plots and/or spaced-plant nurseries. Intercrosses of best performing plants were subjected to many cycles of population improvement including popu lation backcrossing combined with phenotypic and genotypic recurrent selection. Attractive, medium-dark-green, persistent, medium-low-growing, turf-type tall fescue with medium-fine leaf blades. Excellent record of performance in the NTEP turf trials established in 1996 and evaluated at 28 locations throughout the U.S. (6,7). Ranked first in 1997 and second in 1998 in mean turfgrass quality of the 129 tall fescue cultivars evaluated in the 27 tests growing in full sun. Also performed well in a shade trial in Mississippi and under traffic stress at Mead, NE. Did well at varying nitrogen fertility regimes, different mowing heights, and various irrigation levels tested. Showed good performance in the cool-humid, cool-arid, and transition zones of the U.S.

The following were developed by Michigan State University, Michigan Agr. Exp. Sta., East Lansing, Michigan 48824, United States. Received 02/19/1999.

PI 608579. Avena sativa L.
Cultivar. PVP 9900143.

The following were developed by Kim Bodger, John Bodger & Sons Company, 1800 N. Tyler Avenue, South El Monte, California 91733, United States. Received 02/19/1999.

PI 608580. Tagetes patula L.
Cultivar. PVP 9900144.

PI 608581. Catharanthus roseus (L.) G. Don

Cultivar. PVP 9900145.

The following were developed by Cenex Harvest States, United States. Received 02/19/1999.

PI 608582. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900146.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 02/19/1999.

PI 608583. Pisum sativum L.
Cultivar. PVP 9900147.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 02/19/1999.

PI 608584. Brassica napus L.
Cultivar. PVP 9900149.

The following were developed by Western Rice Research Busch Agricultural Resources, Inc., United States. Received 02/19/1999.

PI 608585. Oryza sativa L.
Cultivar. PVP 9900150.

PI 608586. Oryza sativa L.
Cultivar. PVP 9900151.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 02/19/1999.

PI 608587. Brassica napus L.
Cultivar. PVP 9900152.

The following were developed by Garst Seed Company, United States. Received 02/19/1999.

PI 608588. Zea mays L. **subsp. mays**
Cultivar. PVP 9900153.

PI 608589. Zea mays L. **subsp. mays**
Cultivar. PVP 9900154.

PI 608590. Zea mays L. **subsp. mays**
Cultivar. PVP 9900155.

PI 608591. Zea mays L. **subsp. mays**
Cultivar. PVP 9900156.

PI 608592. Zea mays L. **subsp. mays**
Cultivar. PVP 9900157.

PI 608593. Zea mays L. **subsp. mays**
Cultivar. PVP 9900158.

PI 608594. Zea mays L. **subsp. mays**
Cultivar. PVP 9900159.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 02/19/1999.

PI 608595. Pisum sativum L.
Cultivar. PVP 9900160.

PI 608596. Pisum sativum L.
Cultivar. PVP 9900161.

PI 608597. Pisum sativum L.
Cultivar. PVP 9900162.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 02/19/1999.

PI 608598. Agrostis stolonifera var. palustris (Huds.) Farw.
Cultivar. PVP 9900163.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608599. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 57' 40'' N. Longitude 108 deg. 17' 8'' W. Elevation 1524 m. Purdy Mesa (summit) on Kannah Creek, Mesa County. Farm. Pedigree - Original source of variety was Bloody Butcher. Raber recently purchased his farm from Eugene Stephens who sold this corn along with the farm.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Abram J. Relyea, Colorado, United States. Developed by Sanchez, Chama, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608600. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States.

Latitude 37 deg. 9' 43'' N. Longitude 105 deg. 22' 40'' W. Elevation 2499 m. Chama, Costilla County. Pedigree - 2 years of culture on the Antecino farm with good isolation. Originally from a man named Sanchez in Chama who had been growing it for a number of years.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Angelo A. Blase, Colorado, United States. Developed by Felix Arrellano, Route 1, Box 131, Walsenburg, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608601. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 37 deg. 37' 0'' N. Longitude 104 deg. 50' 0'' W. Elevation 1920 m. 3 1/2 miles west of Walsenburg, Huerfano County. Pedigree - 43 years of culture on the Arrellano farm. Poor isolation, may have been some mixing with white flour since 1917 and white dent since 1955 because of only 20 yards separation from the whites. Brought from Mexico by Arrellano's father in 1917.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Abram J. Relyea, Colorado, United States. Developed by Salvador Lopez, San Pablo, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608602. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 37 deg. 8' 57'' N. Longitude 105 deg. 23' 47'' W. Elevation 2499 m. San Pablo, Costilla County. Pedigree - 39 years of culture on the Lopez farm. Good isolation since hybrids were not grown in the area. Mrs. Lopez received this corn from her father in 1921.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Forest T. McWilliams, Colorado, United States. Developed by Albert Henderson, Drennan, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608603. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 45' 0'' N. Longitude 104 deg. 26' 0'' W. Elevation 1859 m. 1 mile east of Drennan, El Paso County. Pedigree - 12 years of culture on the Henderson farm. Fair isolation, probable crossing with Henderson's open-pollinated yellow dent and that of his neighbor's. Henderson mixed about 5% yellow kernels with the variety every few years. Originated from a man in Fountain, Colorado (~1948) who had grown it for 3 or 4 years. Henderson believed the man brought the corn from the Rocky Ford area.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Forest T. McWilliams, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608604. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 58' 0'' N. Longitude 104 deg. 13' 0'' W. Elevation 1981 m. 6 miles south and 4 1/2 miles east of Calhan, El Paso County. Pedigree - A number of years of culture on the Whitney farm with good isolation.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608605. Zea mays L. **subsp. mays**
Landrace. Population. Maize Genetics Cooperation Newsletter 35, 1961. Colo. Farm and Home Research, March-April, 1961.

PI 608606. Zea mays L. **subsp. mays**
Landrace. Population. Maize Gen. Coop. Newsletter 35, 1961. Colo. Farm & Home Research, March-April, 1961.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Developed by John A. Williams, Route 4, Pueblo, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608607. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 15' 0'' N. Longitude 104 deg. 35' 0'' W. Elevation 1402 m. A few miles east of Pueblo (around Road 24), Pueblo County. Pedigree - Original source of variety was Minnesota 13. ~35 years of culture on the Williams farm. Isolation was fair since Williams gave his neighbors the corn whenever their fields were nearby, and tried to keep his RYD at the other end of the farm. However, some mixing has probably occurred. Williams was supplied this corn by a Pueblo County agent named Bert Sawhill. Sawhill received the corn in 1920 from a seedsman in Colorado Springs named William Doner.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608608. Zea mays L. **subsp. mays**
Landrace. Population. Maize Genetics Coop. Newsletter 35, 1961. Colo. Farm & Home Research, March-April, 1961.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Richard O. Woodfin, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608609. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 9' 32'' N. Longitude 108 deg. 43' 42'' W. Elevation 1372 m. Near Fruita, Mesa County. Pedigree - 3 years of culture on the McDowell farm. Fair isolation with the nearest corn 1/2 mile away and neither he or his neighbors grew hybrids. May have been crossed with Bloody Butcher at one time. McDowell was supplied this corn by C. Englehart, a seed dealer in Fruita. Englehart was supplied the corn by Tony Serve of Loma who had grown it for 15 years. Serve received it from John Eckert of Eckert in the Cedaredge area who had grown it for at least 20 years. Eckert may have crossed this variety with Bloody Butcher at one time.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Bruce G. Whitmore, Colorado, United States. Developed by John Jacobs, Eads, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608610. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 34' 0'' N. Longitude 102 deg. 56' 0'' W. Elevation 1311 m. Prairie Queen Community, 6 miles north and 3 miles west of Eads, Kiowa County. Pedigree - Original source of variety was Lancaster Surecrop which Jacobs got from Pennsylvania. At least 20 years of culture on the Jacobs farm.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Developed by Floyd Mudge, 3109 East 1/2 Road, Route 1, Grand Junction, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608611. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 8' 0'' N. Longitude 108 deg. 27' 0'' W. Elevation 1433 m. 4 miles northeast of Grand Junction, Mesa County. Pedigree - Original source of variety was Iowa Goldmine from Iowa. At least 15 years of culture by Mudge. Mudge lived in several different places in the northern region of the valley and grew this corn in all of those places. Isolation unknown, closest cornat time of collection was 1/2 mile away.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608612. Zea mays L. **subsp. mays**
Landrace. Population. Maize Gen. Coop. Newsletter 35, 1961. Colo. Farm & Home Research, March-April, 1961.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; James A. Spiers, Colorado, United States. Developed by Elmer Oestman, Wray, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608613. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 20' 0'' N. Longitude 102 deg. 14' 0'' W. Elevation 1158 m. 15 miles north of Wray, Yuma County. Pedigree - Original source of variety was a strain of Iowa Silvermine (according to Oestman). 15 years of culture on Oestman farm with good isolation.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Forest T. McWilliams, Colorado, United States. Developed by Waite Whitney, Calhan, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608614. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 58' 0'' N. Longitude 104 deg. 13' 0'' W. Elevation 1981 m. 6 miles south and 4 1/2 miles east of Calhan, El Paso County. Pedigree - Original source of variety was Iowa Silvermine. 25 years of culture on Whitney farm. Good isolation since Whitney tried to keep it separated from other corn. The nearest corn at time of collection was Whitney's Calico field 1 1/4 miles southeast. This corn had been grown in the Calhan area since about 1910. Whitney received his corn from the Calhan area ~1935.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Richard O. Woodfin, Colorado, United States. Developed by Fred Selan, Grand Junction, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608615. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 9' 0'' N. Longitude 108 deg. 28' 0'' W. Elevation 1433 m. 4 miles northeast of Grand Junction, Mesa County. Pedigree - 38 years of culture on Selan farm. Fair isolation since there had been some crossing with other types. Original source of variety was Iowa.

Selan brought his corn from the Uinta Basin of Utah in 1922.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; John T. Haddan, Colorado, United States. Developed by R.M. LeBlanc, RR 2, Holyoke, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608616. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1959 in Colorado, United States. Latitude 40 deg. 39' 0'' N. Longitude 102 deg. 20' 0'' W. Elevation 1158 m. 5 miles north and 3 miles west of Holyoke, Phillips County. Pedigree - 10 years of culture on LeBlanc farm. Fair isolation, had been kept as free as possible from hybrids. There was some crossing with a Yuma stock in 1950, but little evidence of the cross existed at the time of collection. LeBlanc was supplied this variety by Earl Cheney (1 mile north of Haxtun) in 1949. Cheney received the corn from Leonhard Fetzer. Fetzer received the corn from a man who brought it from Nebraska around 1930.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; John T. Haddan, Colorado, United States. Developed by Henry Lambert, Dailey, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608617. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 39' 24'' N. Longitude 102 deg. 43' 24'' W. Elevation 1219 m. 1/4 mile south of Dailey, Logan County. Pedigree - Mixture of a local white variety and an early white variety from Minnesota. 13 years of culture on the Lambert farm with good isolation. Lambert obtained this corn from Chase Meakins (3 1/4 miles north and 1/4 mile east of Dailey) about 1947. Meakins, in turn, obtained it from George Hoffman (Iliff area). Hoffman received the corn from Stanley Mitchell (north of Proctor) about 1922-24. J.E. Morrison, Logan County agent, got 1 bushel of an early white variety from Minnesota. Hoffman mixed Morrison's corn with Mitchell's corn and made selections for several years.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Donald K. Chadwick, Colorado, United States. Developed by Art Brandenburg, Flagler, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608618. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1957 in Colorado, United States. Latitude 39 deg. 22' 0'' N. Longitude 103 deg. 0' 0'' W. Elevation 1433 m. 8 miles northeast of Flagler, Kit Carson County. Pedigree - Original

source of variety was Minnesota 13. 27 years of culture on the Brandenburg farm with good isolation. Originated from a farmer southeast of Potter, Nebraska about 1930.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608619. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 10' 0'' N. Longitude 108 deg. 48' 0'' W. Elevation 1372 m. 5 miles west of Fruita, Mesa County. Pedigree - Original source of variety was Minnesota 13. 3 years of culture on the Serve farm. Fair isolation since Serve tried to maintain separation, but he also raised the variety Cedaredge Special. Purchased from a seed store in Salt Lake City, Utah about 1957 or 1958.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Edwin H. Amend, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608620. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 10' 0'' N. Longitude 103 deg. 2' 0'' W. Elevation 1341 m. 1 1/2 miles north and 2 1/2 miles east of Platner, Washington County.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; John T. Haddan, Colorado, United States. Developed by Rex Meakins, Haxtun, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608621. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1952 in Colorado, United States. Latitude 40 deg. 42' 0'' N. Longitude 102 deg. 38' 0'' W. Elevation 1219 m. 6 miles north of Haxtun, Phillips County. Pedigree - Variety originated from a mixture of Minnesota 13 (for earliness) and Reids Yellow Dent (for kernel depth). 37 years of culture on the Meakins farm. Good isolation since Meakins stopped growing it when hybrids came along. Rex Meakins's father, S.J. Meakins, started growing this corn about 1915. Rex Meakins grew it every year from 1921-1952.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Forest T. McWilliams, Colorado, United States. Developed by Albert Henderson, Drennan, Colorado, United States. Donated by

Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608622. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 45' 0'' N. Longitude 104 deg. 26' 0'' W. Elevation 1859 m. 1 mile east of Drennan, El Paso County. Pedigree - 39 years of culture on the Henderson farm. Every 2 or 3 years Henderson would add 5% of a 90-day eastern yellow dent (from southeast Kansas) to 95% of his own. He avoided "inbreeding" by selecting his seed corn over the entire field. Fair isolation since most of the corn grown in the region was open-pollinated derived from Henderson. Closest hybrid was 1 mile south and the prevailing winds were from the north. However, Henderson grew some Calico on his farm. This variety originated in the Drennan community in 1921 and Henderson grew it every year except one until time of collection.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Bruce G. Whitmore, Colorado, United States. Developed by John Jacobs, Eads, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608623. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 34' 0'' N. Longitude 102 deg. 56' 0'' W. Elevation 1311 m. Prairie Queen Community, 6 miles north and 3 miles west of Eads, Kiowa County. Pedigree - Original source of variety was Lancaster Surecrop from Pennsylvania. At least 20 years of culture on the Jacobs farm.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608624. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 8' 0'' N. Longitude 102 deg. 44' 0'' W. Elevation 1250 m. 1 mile north and 1 mile west of Yuma, Yuma County. Pedigree - 1 year of culture on the Renzelman farm. Fair isolation since there was not much corn grown in the area.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; James A. Spiers, Colorado, United States. Developed by John Clark, Wray, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608625. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 5' 0'' N. Longitude 102 deg. 22' 0'' W. Elevation 1158 m. 8-9 miles west of Wray, Yuma County. Pedigree - 25 years of culture on the Clark farm with fair isolation. Variety originated from a man in Yuma named Wachter around 1935. Clark replenished his own supply of corn about every 2 years with some corn from Wachter. However, after Wachter either died or left the area about 1955, Clark started saving his own seed.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Carl H. Powell, Colorado, United States. Developed by J.H. Winters, Delta, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608626. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 40' 35'' N. Longitude 108 deg. 4' 58'' W. Elevation 1615 m. California Mesa (summit) near Delta, Delta County. Pedigree - Original source of variety was Minnesota 13. 42 years of culture on the Winters farm with good isolation. Variety originated from the Fort Collins-Longmont area in 1918.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Angelo A. Blase, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608627. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 37 deg. 37' 0'' N. Longitude 104 deg. 50' 0'' W. Elevation 1920 m. 3 1/2 miles west of Walsenburg, Huerfano County. Pedigree - 4 years of culture on the Arrellano farm. Poor isolation, there may have been some mixing with Arrellano's white flour and bule flour corns. Variety originated from Mexico City in 1955 when a friend of Arrellano's brought back a handful of kernels.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Bruce G. Whitmore, Colorado, United States. Developed by Robert Sallee, Eads, Colorado, United States; Wayne Singer, Eads, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608628. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 34' 0'' N. Longitude 102 deg. 56' 0'' W. Elevation 1311 m. Prairie Queen Community, 6 miles north and 3 miles west of Eads,

Kiowa County. Pedigree - Native white dent with over 30 years of culture on the Sallee and Singer farm.

PI 608629. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 34' 0'' N. Longitude 102 deg. 56' 0'' W. Elevation 1311 m. Prairie Queen Community, 6 miles north and 3 miles west of Eads, Kiowa County. Pedigree - Original source of variety was Australian White Flint. 54 years of culture on the Sallee and Singer farm. Sallee brought this corn from Fort Scott, Kansas in 1906, where it had been grown by his father.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Angelo A. Blase, Colorado, United States. Developed by Felix Arrellano, Route 1, Box 131, Walsenburg, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608630. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 37 deg. 37' 0'' N. Longitude 104 deg. 50' 0'' W. Elevation 1920 m. 3 1/2 miles west of Walsenburg, Huerfano County. Pedigree - 90 years of culture on the Arrellano farm. Poor isolation since there may have been some mixing with Arrellano's white dent since 1955. Arrellano's father brought 1/2 cup of this variety from Taos, New Mexico in 1870.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Donald K. Chadwick, Colorado, United States. Developed by Bill Kroeger, Burlington, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608631. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 28' 0'' N. Longitude 102 deg. 16' 0'' W. Elevation 1158 m. 12 miles north of Burlington, Kit Carson County. Pedigree - 30 years of culture on the Kroeger farm.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; John T. Haddan, Colorado, United States. Developed by Eldred Atkins, Haxtun, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608632. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 41' 0'' N. Longitude 102 deg. 38' 0'' W. Elevation 1219 m. 4 miles north of Haxtun, Phillips County. Pedigree - 14 years of culture on the Atkins farm. Fair isolation since hybrids had been

across the road to the east since 1957, but prevailing wind is northwest. Variety originated from local growers (not Moon or Pond) in the Haxtun area in 1946. Two of the sources were Lawrence Atkins and a man named Fenningsmeyer.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Edwin H. Amend, Colorado, United States. Developed by Warren Harper, Star Route, Brush, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608633. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1959 in Colorado, United States. Latitude 40 deg. 5' 0'' N. Longitude 103 deg. 37' 0'' W. Elevation 1402 m. 12 miles south and 2 miles east of Brush, Morgan County. Pedigree - 20-30 years of culture on the Harper farm. Fair isolation since no steps were taken to isolate this variety, however not much corn was grown in the area. Variety originated from the Yuma area (it was believed Harper picked up his supply locally).

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; James A. Spiers, Colorado, United States. Developed by Roland Houston, Eckley, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608634. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 1' 0'' N. Longitude 102 deg. 29' 0'' W. Elevation 1219 m. 8 miles south of Eckley, Yuma County. Pedigree - 15 years of culture on the Houston farm. Poor isolation since it was occasionally grown close to hybrids.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; John T. Haddan, Colorado, United States. Developed by Wilbur Kipp, RR 2, Haxtun, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608635. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 40' 0'' N. Longitude 102 deg. 39' 0'' W. Elevation 1219 m. 3 miles north and 3 miles west of Haxtun, Logan County. Pedigree - 13 years of culture on the Kipp farm. Original source of variety was J.A. Sand who had a field 1 1/2 miles south of Haxtun in 1947.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins,

Colorado, United States; James A. Spiers, Colorado, United States. Developed by Elmer Oestman, Wray, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608636. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 20' 0'' N. Longitude 102 deg. 14' 0'' W. Elevation 1158 m. 15 miles north of Wray, Yuma County. Pedigree - 10 years of culture on the Oestman farm. Poor isolation since some white corn (possibly belonging to his brother, Fred Oestman) appparently got into the stock since there were some white cap kernels and white cobs. An elevator was probably the original source of this variety.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Donald K. Chadwick, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608637. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 34' 0'' N. Longitude 102 deg. 5' 0'' W. Elevation 1158 m. 18 miles northeast of Burlington, Kit Carson County. Pedigree - 4 years of culture on the Paintin farm. Poor isolation since other corn had been grown fairly close. Variety originated from northeast of Wray in 1956.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608638. Zea mays L. **subsp. mays**
Landrace. Population. Maize Genetics Cooperation Newsletter 35, 1961. Colo. Farm and Home Research, March-April, 1961.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; John T. Haddan, Colorado, United States. Developed by W.W. Singleton, Fleming, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608639. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 40 deg. 43' 0'' N. Longitude 102 deg. 46' 0'' W. Elevation 1219 m. 4 miles north and 1 3/4 miles west of Dailey, Logan County. Pedigree - 10 years of culture on the Singleton farm. Poor isolation since the neighbors had grown hybrids for about 3 years. Variety was obtained from an elevator in Dailey about 1950, although it originated from the Yuma area.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1968.

PI 608640. Zea mays L. **subsp. mays**
Landrace. Population.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; James A. Spiers, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608641. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1959 in Colorado, United States. Latitude 40 deg. 15' 0'' N. Longitude 102 deg. 16' 0'' W. Elevation 1158 m. 14 miles northwest of Wray, Yuma County. Pedigree - 2 years of culture on the Smith farm with good isolation. Original source of variety is believed to be Homer Wheeler of Eckley who had grown this corn for many years.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608642. Zea mays L. **subsp. mays**
Landrace. Population. Maize Genetics Cooperation Newsletter 35, 1961. Colo. Farm and Home Research, March-April, 1961.

PI 608643. Zea mays L. **subsp. mays**
Landrace. Population. Maize Gen. Coop. Newsletter 35, 1961. Colo. Farm & Home Research, March-April, 1961.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Fred A. Fitzsimmons, Colorado, United States. Developed by Walter Hall, McElmo Route, Cortez, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608644. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 37 deg. 19' 21'' N. Longitude 108 deg. 36' 39'' W. Elevation 1463 m. McElmo Canyon, southwest of Cortez, Montezuma County. Pedigree - This variety originated from a cross Hall made about 1930 between Reid Yellow Dent and White Elephant (a white flint variety with a white cob). About 30 years of culture on the Hall farm. Good isolation since there had been little chance for crossing with other corns.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Bert L. Ransom, Colorado, United States. Developed by Carl Pedersen, Arapahoe, Colorado, United States. Donated by Colorado

State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1961.

PI 608645. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 38 deg. 51' 0'' N. Longitude 102 deg. 10' 54'' W. Elevation 1219 m. Arapahoe, Cheyenne County. Pedigree - Over 20 years of culture on the Pedersen farm with good isolation.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; James A. Spiers, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608646. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1961 in Colorado, United States. Latitude 40 deg. 6' 50'' N. Longitude 102 deg. 29' 25'' W. Eckley, Yuma County. Pedigree - Variety originated from Minnesota 13.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Developed by John Erion, Vineland, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608647. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1948 in Colorado, United States. Latitude 38 deg. 14' 0'' N. Longitude 104 deg. 27' 0'' W. Elevation 1402 m. 1 mile south and 3/4 mile east of Vineland, Pueblo County. Pedigree - Original source of variety was Iowa Silvermine. 33 years of culture on the Erion farm. Good isolation since Erion quit growing this variety when hybrids came along. Variety originated from Henry Fields Seed Company of Shenandoah, Iowa in 1914. Erion grew it from 1915 to about 1948. Some of the sample may have been grown by T.J. Thompson of Vineland, but it is all from Erion's stock.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608648. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1945 in Colorado, United States. Latitude 38 deg. 14' 44'' N. Longitude 104 deg. 27' 32'' W. Elevation 1402 m. Near Vineland, Pueblo County. Pedigree - Original source of variety was Australian White Flint. Several years of culture on the Thompson farm. At one time, Australian White Flint was grown in great quantities in the Vineland area. Thompson's neighbor, John Erion, remembers growing this corn in 1914.

PI 608649. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1961 in Colorado, United States. Latitude 40 deg. 37' 32'' N. Longitude 103 deg. 12' 26'' W. Near Sterling, Logan County.

The following were donated by Colorado State University, Colorado Agric. Exp. Station, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608650. Zea mays L. **subsp. mays**
Landrace. Population.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Edwin H. Amend, Colorado, United States. Donated by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608651. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1960 in Colorado, United States. Latitude 39 deg. 57' 0'' N. Longitude 103 deg. 12' 0'' W. Elevation 1402 m. 15 miles south of Akron, Washington County.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Donated by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608652. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1961 in Colorado, United States. Latitude 39 deg. 3' 50'' N. Longitude 108 deg. 33' 0'' W. Western Slope near Grand Junction, Mesa County. Pedigree - Original source of variety was Golden Glow.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States; Chester R. Fithian, Colorado, United States. Donated by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608653. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1956 in Colorado, United States. Latitude 40 deg. 20' 0'' N. Longitude 103 deg. 58' 0'' W. 1 mile south of Weldona, Morgan County. Pedigree - 1 year of culture on the Schaeffer farm. Fair isolation since one ear had a few sweet corn kernels and Schaeffer said there was sweet corn nearby. Original source of variety was Barteldes Seed Company of Denver in 1956.

PI 608654. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1953 in Colorado, United States. Latitude 40 deg. 13' 0'' N. Longitude 103 deg. 49' 0'' W. 2 miles west

and 1 mile south of Fort Morgan, Morgan County.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Developed by William B. Foster, Elizabeth, Colorado, United States. Donated by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608655. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1959 in Colorado, United States. Latitude 39 deg. 27' 0'' N. Longitude 104 deg. 40' 0'' W. Elevation 1981 m. Near Elizabeth, 2 1/4 miles east of Hilltop, just inside the Elbert County border. Pedigree - Original source of variety was Iowa Silvermine. About 28 years of culture on the Foster farm. Good isolation since Foster practiced strict selection for pure white kernels. Yellow kernels very seldom showed in later years. This variety was brought from Iowa about 1921. It was then grown in the Hilltop area until about 1931 when Foster first received it.

The following were collected by David W. Crumpacker, Colorado State University, Corn Improvement Project, Department of Agronomy, Fort Collins, Colorado, United States. Donated by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608656. Zea mays L. **subsp. mays**
Landrace. Population. Collected 1961 in Colorado, United States. Latitude 39 deg. 10' 0'' N. Longitude 108 deg. 47' 0'' W. 4 miles west of Fruita, or 1 1/2 miles southeast of Loma, Mesa County. Pedigree - Original source of variety was Iowa Silvermine. 4 years of culture on the Serve farm. Very good isolation since Serve tried to keep all his varieties at least 500 feet apart and none of his neighbors' corn was closeby. About 1954, Serve got this corn from Mr. Castor, who in turn got it from Mr. Nowles of Fruita. However, Serve did not grow the corn until about 1957.

The following were donated by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 1979.

PI 608657. Zea mays L. **subsp. mays**
Landrace. Population.

The following were developed by M. Rahman, Bangladesh Agr. Res. Inst., Ishurdi, Bangladesh; J. C. Kumar, Punjab Agricultural University, Department of Vegetable Crops, Landscaping and Floriculture, Ludhiana, Punjab 141 004, India; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; M.S. Hassan, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; M.A. Afzal, Bangladesh Agricultural Research Institute, Pulses Research Centre,

Joydebpur, Gazipur, Bangladesh; A.N.M.M. Murshed, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; W. Zaman, Pulses Research Centre, BARI, Joydebpur, Bazipur-1701, Bangladesh. Donated by A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 02/23/1999.

PI 608658 QUAR. Lens culinaris Medik.
Cultivar. Pureline. CV-9. Pedigree - Single plant selection from F2 population of BLL 79666 x Pabnalocal. Released 1995. Medium-seeded high yielding variety. Medium stature, semi-erect with dark green leaves without tendrils. Flowers white, and pod and leaves turn into straw color while stem remains green at maturity. Seed coat dark gray and cotyledon color bright orange. Average seed mass of ca. 2.5g 100 seed-1. Resistant to lentil rust (Uromyces vieiae-fabae) and stemphylium blight (Stemphylium botryosum).

The following were collected by Doyle G. Whiting, 4416 Forest Lake Drive, Del Valle, Texas 78617-5612, United States. Donated by Kim Hummer, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/08/1998.

PI 608659. Vitis sp.
Wild. Collected 10/01/1998 in Texas, United States. From the wild, 10 miles from Austin, Texas. Collected from three old vines in the woods. Fruit black (purple), 1.5 to 1.8 cm. diam.

The following were collected by John Asbury, 4201 Dove Lane, Temple, Texas 76502-2953, United States. Donated by Diane S. Pavek, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, 4th Floor, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/22/1998.

PI 608660. Vitis monticola Buckley
Wild. Collected 10/16/1998 in Texas, United States. Bell County, Texas. 0.3 miles from junction of County Road 343 and Farm Market Road 931, near Leon Junction.

The following were donated by Asian Vegetable Research and Development Center, P.O. Box 42, Shanhua, Tainan, Taiwan; Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 02/20/1981.

PI 608661. Amaranthus blitum L.
Cultivated. Collected 09/01/1977 in India. Dark red-purple leaf color is unusual for this species. Seeds black. The RRC type is: horsetooth.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 05/30/1990.

PI 608662. Amaranthus blitoides S. Watson
Wild. Collected in Hungary. A prostrate spreading annual herb.

PI 608663. Amaranthus blitoides S. Watson
Wild. Collected in Canada. A prostrate spreading annual herb.

The following were developed by Shu-Ten Tseng, California Cooperative Rice Research Foundation, Inc., P.O. Box 306, Biggs, California 95917-0306, United States. Received 02/05/1999.

PI 608664. Oryza sativa L.
Cultivar. Pureline. PVP 9900309. Pedigree - M7/R660//M7/R1588/3/82-Y-52/4/Rexmont/83-Y-45. Photoperiod non-sensitive, early maturing, semidwarf long-grain rice. Leaves and spikelets glabrous except some hairs present on lemma and palea keels. Spikelet awnless and straw-colored with red apiculus and light purple stigma. Reaches 50% heading in about 88 days. Averaged 91 cm in height and resistant to lodging. Kernel has light brown pericarp, colorless, non-glutinous, non-aromatic endosperm with amylose content of 24.6% and an intermediate gelatinization temperature. 'Strong' viscogram profile.

PI 608665. Oryza sativa L.
Cultivar. Pureline. PVP 9900308. Pedigree - 82-Y-51/83-Y-45//L-202/PI373938/3/83-Y-45/PI457918. Photoperiod non-sensitive, early maturing, semidwarf, aromatic long-grain rice. Reaches 50% heading in about 91 days with average height of 100 cm. Leaves and spikelets pubescent. Apiculus color varies from colorless, light purple to purple. Rice kernel brown with light brown pericarp, colorless, non-glutinous, aromatic endosperm with amylose content of 23%. Intermediate gelatinization temperature and a kernel elongation ratio of 2.06 during cooking. Endosperm contains 660 ppb of 2-acetyl-l-pyrroline.

The following were developed by Harold E. Pattee, USDA, ARS, North Carolina State University, Box 7625, Raleigh, North Carolina 27695-7625, United States ; Thomas G. Isleib, North Carolina State University, Department of Crop Science, Box 5155, Raleigh, North Carolina 27695-7629, United States; R. Walton Mozingo, Tidewater Agricultural Research and Extension Center, 6321 Holland Road, Suffolk, Virginia 23437, United States; P.W. Rice, North Carolina State University, Dept. of Crop Science, Box 7629, Raleigh, North Carolina 27695-7629, United States; R.W. Mozingo II, North Carolina State University, Dept. of Crop Science, Box 7629, Raleigh, North Carolina 27695-7629, United States. Received 02/18/1999.

PI 608666. Arachis hypogaea L.
Cultivar. Pureline. CV-62; PVP 9900337. Pedigree - NC 7 / NC 9. Virginia-type with alternate branching. Growth habit intermediate between bunch and runner. Average mainstem length (31cm), leaflet size (60 mm long, 26 mm wide). Seeds large (104 mg seed-1) with pink testa and high oil content. Partially resistant to tomato spotted wilt virus and susceptible to early leafspot (Cercospora arachidicola), Cylindrocladium black rot (Cylindrocladium parasiticum), Sclerotinia blight (Sclerotinia minor), and stem rot (Sclerotium rolfsii). Significantly more jumbo pods (71 vs. 57%) and extra large kernels (51 vs. 48%) than NC 7, the standard large-seeded Virginia-type peanut

cultivar.

The following were developed by Lynn W. Gallagher, University of California, Dept of Agronomy & Range Science, One Shields Ave., Davis, California 95616, United States; Robert W. Matchett, Northrup King Company, Woodland, California, United States. Received 03/01/1999.

PI 608667. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Pedigree - Sma1/Sunbar 401/3/Gus//Kombyne = Steptoe/2*Diamant/3/Minn. Dwarf 64.98-8/Briggs/4/Asse/5/Sunbar 401/3/Gus//Kombyne. Released 1999. Six-row spring barley. Semi-smooth awns.

The following were developed by Lynn W. Gallagher, University of California, Dept of Agronomy & Range Science, One Shields Ave., Davis, California 95616, United States; Robert W. Matchett, Northrup King Company, Woodland, California, United States; Y. Paul Puri, University of California, Tulelake Field Station, Tulelake, California 96134, United States. Received 03/01/1999.

PI 608668. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Pedigree - Gus/Kombyne//Sma1/3/Sma1/SB401; Sma1 = Steptoe/2*Diamant/3/Minn. Dwarf 64.98-8/Briggs/4/Asse. Released 1999. Six-row spring barley. Rough awns.

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 02/22/1999.

PI 608669. Arachis hypogaea L.
Genetic. Pureline. GS-7. Pedigree - Off-type plant in a foundation seed increase field of Virginia Bunch 67 and has bred true-to-type since discovery in 1967. Released 1998. Plants have semi-erect or decumbent growth habits, medium maturity, and pink testa color. Leaf color light or pale green with small white speckled areas on the youngest leaflets giving a rusty appearance.

PI 608670. Arachis hypogaea L.
Genetic. Pureline. GS-8. Pedigree - PI 203396 / Georgia Runner. Released 1998. Predominantly red testa color with small singular white spot located on the opposite end of the seed from the hilum. Plants have spreading growth habit and medium late maturity.

The following were developed by George J. Vandemark, USDA, ARS, Route 2, Box 2953A, Prosser, Washington 99350, United States. Received 02/04/1999.

PI 608671. Medicago sativa L. **subsp. sativa**
Cultivar. Population. Pedigree - Agate, Dawson, and BIC5WH. Developed to resist alfalfa mosaic virus (ALMV) and is intended to use in the Pacific Northwest and intermountain regions of the U.S. 67.8% resistant to AMLV, 29.6% resistant to bacterial wilt (Clavibacter michiganensis subsp.

insidiosum), 61.1% resistant to Fusarium wilt (Fusarium oxysporum), 42.5% resistant to stem nematode (Ditylenchus dipsaci), 5.1% resistance to Phytophthora root rot (Phytophthora megasperma), 11.1% resistant to Verticillium wilt (Verticillium alboatrum), 44.)% resistance to spotted alfalfa aphid (Therioaphis maculata), 58.7% survival under blue alfalfa aphid attack. Fall dormancy is similar to Saranac. Yield 8.8 tons dry hay/acre compared to Vernema at 8.6 tons in the same tests. Yield 8.5 tons dry hay/acre compared to Vernal at 7.2 tons in the same tests.

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, Agronomy Department, 1150 Lilly Hall, West Lafayette, Indiana 47907-1150, United States; Sue Cambron, USDA-ARS, Department of Entomology, Purdue University, West Lafayette, Indiana 47907, United States; Gregory E. Shaner, Purdue University, Dept. of Botany & Plant Pathology, 1155 Lilly Hall, West Lafayette, Indiana 47907-1155, United States ; G. Buechley, Purdue University, Dept. of Botany and Plant Pathology, West Lafayette, Indiana 47907, United States; Keith Perry, Purdue University, Department of Botany and Plant Pathology, 1155 Lilly Hall of Life Sciences, West Lafayette, Indiana 47907-1155, United States; D.M. Huber, Purdue University, Dept. of Botany & Plant Pathology, West Lafayette, Indiana 47907, United States; H.C. Sharma, Purdue University, Department of Agronomy, West Lafayette, Indiana 47906, United States. Received 03/01/1999.

PI 608672. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Pureline. CV-877; PVP 9900340. Pedigree - INW9241/3/Auburn//Caldwell/Sullivan/4/Clark; INW9241 = Auburn/9/Monon/Bruehl 236/6/Arthur 71/5/Arthur/Agatha/4/Beau/3/Arthur*2//Riley*3/Bulgaria 88/7/Beau//Siete Cerros/Arthur/8/Beau/Caldwell. Released 1999. Released for low incidence of Fusarium head blight (FHB) (Fusarium graminearum), winterhardiness, and moderate resistance to glume blotch (Stagonospora nodorum), and Septoria leaf blotch (Septoria tritici), and very good soft wheat milling and baking qualities. Developed by a modified pedigree breeding method and is the selfed progeny of an F5 plant. Resistant to Puccinia recondita, Blumaria graminis, soil borne wheat mosaic virus, wheat yellow mosaic virus, and Gaeumannomyces graminis. Susceptible to biotype L of Mayetiola destructor.

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, Agronomy Department, 1150 Lilly Hall, West Lafayette, Indiana 47907-1150, United States; Sue Cambron, USDA-ARS, Department of Entomology, Purdue University, West Lafayette, Indiana 47907, United States; Gregory E. Shaner, Purdue University, Dept. of Botany & Plant Pathology, 1155 Lilly Hall, West Lafayette, Indiana 47907-1155, United States ; G. Buechley, Purdue University, Dept. of Botany and Plant Pathology, West Lafayette, Indiana 47907, United States; Keith Perry, Purdue University, Department of Botany and Plant Pathology, 1155 Lilly Hall of Life Sciences, West Lafayette, Indiana 47907-1155, United States; H.C. Sharma, Purdue University, Department of Agronomy, West Lafayette, Indiana 47906, United States; V.M. Cook, Monsanto Global Seed Group, Spencer, Iowa 51301, United States. Received 03/01/1999.

PI 608673. Avena sativa L.
Cultivar. Pureline. CV-359; PVP 9900339. Pedigree - Avon//Rodney/Milford/11/Noble/CIav 6975/9/Mo.06328/8/CIav 8454/7/Otee/6/Clintford/5/Roxton, Victoria, Hajira, Banner/Ajax, Victoria, Hajira, Banner//Clinton59*7/Landhafer/3/PI 183989/Putnam/4/Clintford/10/Allen//Noble/Stout/4/Lang/3/Noble*2/IowaX434-II//Stout/NY5832-4*2/12/Iowa H728. Released 1998. Spring oat adapted throughout the midwest and upper midwest regions of the U.S. Resistant to prevalent cultures of Puccinia coronata var. avenae and has resistance/tolerance to barley yellow dwarf virus. Midseason in maturity, excellent lodging resistance, light tan grain color, high test weight and relatively high percent groat protein.

The following were developed by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 12/09/1995.

PI 608674. Phaseolus vulgaris L.
Breeding. Pedigree - 5-593 (pure line). (Genetic Marker 26) Genotype: T P [C r] D J G B V Rk. Idaho increase.

PI 608675. Phaseolus vulgaris L.
Breeding. Pedigree - pgri BC3 5-593 from 4-93. (Genetic Marker 28) Source cv. Lamprecht V0400, PI 527735. Griseoalbus allele at P, seed gray white, and flowers nearly white with violet color in upper center of the banner. Idaho increase.

PI 608676. Phaseolus vulgaris L.
Breeding. Pedigree - cu BC3 5-593 from 3-527. (Genetic Marker 29) Source cv. Prakken 75, all recessive stock. Unchangeable cartridge buff seeds. Idaho increase.

PI 608677. Phaseolus vulgaris L.
Breeding. Pedigree - cv BC3 5-593 from 4-94. (Genetic Marker 30) Source PI 527774. Allele expresses only with V. Seed color brown tinged with grayish indigo. Idaho increase.

PI 608678. Phaseolus vulgaris L.
Breeding. Pedigree - b v BC3 5-593 from 4-120. (Genetic Marker 31) Source b from PI 527774. Seeds yellow brown. Idaho increase.

PI 608679. Phaseolus vulgaris L.
Breeding. Pedigree - v BC3 5-593 from 4-375. (Genetic Marker 32) Source PI 527830. Seeds mineral brown. Idaho increase.

PI 608680. Phaseolus vulgaris L.
Breeding. Pedigree - vlae BC3 5-593. (Genetic Marker 33) Source PI 527745. Pink flower allele at V, which is pleiotropic for black corona. Idaho increase.

PI 608681. Phaseolus vulgaris L.
Breeding. Pedigree - G b V BC3 5-593 from 4-121. (Genetic Marker 34) Source b from PI 527774. Seeds dark brown violet. Idaho increase.

PI 608682. Phaseolus vulgaris L.
Breeding. Pedigree - Spindly branch-3 (sb-3). (Genetic Marker 35) Induced mutant in BC1 to 5-593. O-450 S1.

PI 608683. Phaseolus vulgaris L.
Breeding. Pedigree - Silver leaf (sil). (Genetic Marker 36) Induced mutant in BC1 6o 5-593. 1-584 S1.

The following were donated by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 01/1998.

PI 608684. Phaseolus vulgaris L.
Genetic. Genetic Marker 37 Gene Symbol= g B v = gray-greenish brown (buff citrine) seed.

PI 608685. Phaseolus vulgaris L.
Genetic. Genetic Marker 38 Gene Symbol= g b v = pale greenish-yellow seed.

PI 608686. Phaseolus vulgaris L.
Genetic. Genetic Marker 39 Gene Symbol= j = non-shiny dark purple seed with near white in corona region.

PI 608687. Phaseolus vulgaris L.
Genetic. Genetic Marker 40 Gene Symbol= d j = non-shiny dark purple seed (paler than with j alone) & white hilum ring & corona.

PI 608688. Phaseolus vulgaris L.
Genetic. Genetic Marker 41 Gene Symbol= j v = grayish violet with mineral brown margo region in unstable pattern & near white corona.

PI 608689. Phaseolus vulgaris L.
Genetic. Genetic Marker 42 Gene Symbol= d j v = pale greyish green (or violet) in unstable pattern & white hilum ring & corona of seed.

PI 608690. Phaseolus vulgaris L.
Genetic. Genetic Marker 43 Gene Symbol= j b v = greyish violet except for yellow brown margo region in unstable pattern & near white s.

PI 608691. Phaseolus vulgaris L.
Genetic. Genetic Marker 44 Gene Symbol= d j b v = pale grey or pale greyish violet (paler than jalone), highly variable with white hilum.

PI 608692. Phaseolus vulgaris L.
Genetic. Genetic Marker 45 Gene Symbol= j b = greyish brown or dark brown violet, highly variable & near white corona of seed.

PI 608693. Phaseolus vulgaris L.
Genetic. Genetic Marker 46 Gene Symbol= j g B v = greyish brown or greyish violet, highly variable & near white corona of seed.

PI 608694. Phaseolus vulgaris L.

Genetic. Genetic Marker 47 Gene Symbol= cu b v rk = light red kidney color seed.

PI 608695. Phaseolus vulgaris L.
Genetic. Genetic Marker 48 Gene Symbol= [?R] b v = oxblood, a slightly bluish dark red kidney color seed.

PI 608696. Phaseolus vulgaris L.
Genetic. Genetic Marker 49 Gene Symbol= cu d j = pure white seed.

PI 608697. Phaseolus vulgaris L.
Genetic. Genetic Marker 50 Gene Symbol= cuDj = very pale cartridge buff with brown hilum ring & white corona.

PI 608698. Phaseolus vulgaris L.
Genetic. Genetic Marker 51 Gene Symbol= cv D j = pale gray seed with brown hilum ring & white corona.

PI 608699. Phaseolus vulgaris L.
Genetic. Genetic Marker 52 Gene Symbol= fin T P cu d j G b vlae Rk Asp = "all recessive tester" with pure white seed.

PI 608700. Phaseolus vulgaris L.
Genetic. Genetic Marker 53 Gene Symbol= t self-colored = self-colored (totally colored) black seed.

PI 608701. Phaseolus vulgaris L.
Genetic. Genetic Marker 54 Gene Symbol= t expansa with fibula arcs = expansa (minimus) with fibula arcs pattern of partly colored seed.

PI 608702. Phaseolus vulgaris L.
Genetic. Genetic Marker 55 Gene Symbol= t z = virgarcus pattern partly colored seed; allele at zonal locus.

PI 608703. Phaseolus vulgaris L.
Genetic. Genetic Marker 56 Gene Symbol= t z bip = bipunctata pattern of partly colored seed.

PI 608704. Phaseolus vulgaris L.
Genetic. Genetic Marker 57 Gene Symbol= p+ pc = pure white cotyledons & persistent green color of pod & seed after senescence.

PI 608705. Phaseolus vulgaris L.
Genetic. Genetic Marker 58 Gene Symbol= ace = high gloss pods, ace from acera.

PI 608706. Phaseolus vulgaris L.
Genetic. Genetic Marker 59 Gene Symbol= asp = non-glossy seed coat due to rough (asper) seed coat surface.

PI 608707. Phaseolus vulgaris L.
Genetic. Genetic Marker 61 Gene Symbol= stp = pleotropic different stippled patterns to seed coat & to flowers.

PI 608708. Phaseolus vulgaris L.

Genetic. Genetic Marker 62 Gene Symbol= stphbw = pleiotropic stipple to seed coat & half banner white pattern to flowers.

PI 608709. Phaseolus vulgaris L.
Genetic. Genetic Marker 63 Gene Symbol= stpmic = white micropyle stripe, no pattern to flowers.

PI 608710. Phaseolus vulgaris L.
Genetic. Genetic Marker 64 Gene Symbol= Vwf = black seed coat (with B) & white flowers.

PI 608711. Phaseolus vulgaris L.
Genetic. Genetic Marker 65 Gene Symbol= uni=3nde = node dependent expression of leaves (unifoliate at lower nodes & normal leaves at higher).

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany; Universitat Potsdam, Botanischer Garden, Maulbeerallee 2, Potsdam, Berlin 14469, Germany. Received 12/07/1993.

PI 608712. Spinacia tetrandra Steven ex M. Bieb.
Cultivated.

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany; Botanical Institute, Turcomania, Ashgabat, Turkmenistan. Received 12/07/1993.

PI 608713. Spinacia turkestanica Iljin
Cultivated.

The following were developed by Agripro Seeds, Inc., Iowa, United States; United Grain Growers Ltd., Box 03, Semans, Saskatchewan, Canada. Received 03/22/1999.

PI 608714. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9800360.

The following were developed by HybriTech Seed International, Inc., A Unit of Monsanto Company, United States. Received 03/22/1999.

PI 608715. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9800361.

The following were developed by Busch Agricultural Resources, Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 03/22/1999.

PI 608716. Oryza sativa L.

Cultivar. PVP 9900164.

PI 608717. Oryza sativa L.
Cultivar. PVP 9900165.

The following were developed by Stoneville Pedigreed Seed Co., Mississippi, United States. Received 03/22/1999.

PI 608718. Gossypium hirsutum L.
Cultivar. PVP 9900166.

PI 608719. Gossypium hirsutum L.
Cultivar. PVP 9900167.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 03/22/1999.

PI 608720. Pisum sativum L.
Cultivar. PVP 9900168.

The following were developed by Busch Agricultural Resources, Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 03/22/1999.

PI 608721. Oryza sativa L.
Cultivar. PVP 9900169.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 03/22/1999.

PI 608722. Medicago sativa L.
Cultivar. PVP 9900170.

The following were developed by Robert H. Busch, USDA, ARS, University of Minnesota, Dept. of Agronomy & Plant Genetics, St. Paul, Minnesota 55108, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; G. Hareland, USDA, ARS, Fargo, North Dakota 58105, United States; Jochum Wiersma, University of Minnesota, Northwest Experiment Station, 108 Agricultural Research Center, Crookston, Minnesota 56716, United States; G. Linkert, University of Minnesota, St. Paul, Minnesota 55108, United States; R. Dill-Macky, University of Minnesota, St. Paul, Minnesota 55108, United States; H. Schmidt, Pioneer Hi-Bred International, Moorhead, Minnesota 56500, United States; I. Edwards, Biowest Australia Pty. Ltd., P.O. Box 136, Joondalup, Western Australia 6919, Australia. Received 03/08/1999.

PI 608723. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. CV-872; PVP 9900171. Pedigree - W8814/Norak. Released 1998. Hard red spring wheat. Agronomic data collected from 18 location years in Minnesota. Maturity intermediate with semidwarf

height. Protein percent intermediate, averaging 14.5%. Resistant to all tested races of stem rust (Puccinia graminis) and is resistant to moderately resistant to leaf rust (P. reconditia) races in adult field tests. Moderately susceptible to fungal leaf disease but is moderately resistant to Fusarium head blight spead in the spike. Tolerance of seed to maintain plump kernels when infected by Fusarium is only average.

The following were developed by Seeds West, Inc., United States. Received 03/22/1999.

PI 608724. Cynodon dactylon (L.) Pers.
Cultivar. PVP 9900172.

The following were developed by Central Valley Seeds, Inc., United States. Received 03/22/1999.

PI 608725. Lactuca sativa L.
Cultivar. PVP 9900173.

The following were developed by James H. Orf, University of Minnesota, Dept. of Agronomy and Plant Genetics, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States; Roxanne Denny, University of Minnesota, Dept of Plant Pathology, 495 Borlaug Hall, 1991 Upper Buford Cir., St. Paul, Minnesota 55108, United States. Received 03/22/1999.

PI 608726. Glycine max (L.) Merr.
Cultivar. Pureline. CV-413; PVP 9900174. Pedigree - BSR101 x Kato. Relative maturity of 1.4. Indeterminate growth habit, purple flowers, tawny pubescence and tan pods. Seeds have yellow seed coats, black hila and a dull seed coat luster. Averages about 90 cm tall. Seeds average about 19.5 grams per 100 seeds. Protein and oil content from 1995-1996 URT data was 42.9% and 20.0%, respectively. Carries the Rps1 gene for resistance to phytophthora root rot (Phytophthora sojae).

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 03/22/1999.

PI 608727. Lactuca sativa L.
Cultivar. PVP 9900175.

The following were developed by Stoneville Pedigreed Seed Co., Mississippi, United States. Received 03/22/1999.

PI 608728. Gossypium hirsutum L.
Cultivar. PVP 9900176.

PI 608729. Gossypium hirsutum L.
Cultivar. PVP 9900177.

The following were developed by William Davis, 1109 Yonkers, Plainveiw, Texas 79072, United States. Received 03/22/1999.

PI 608730. Gossypium hirsutum L.
Cultivar. PVP 9900182.

The following were developed by Enza Zaden De Enkhuizer Zaadhandel B.V., Enkhuizen, North Holland, Netherlands. Received 03/22/1999.

PI 608731. Lactuca sativa L.
Cultivar. PVP 9900183.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 03/22/1999.

PI 608732. Gossypium hirsutum L.
Cultivar. PVP 9900184.

PI 608733. Gossypium hirsutum L.
Cultivar. PVP 9900185.

PI 608734. Gossypium hirsutum L.
Cultivar. PVP 9900186.

The following were developed by Novartis Seeds, Inc., United States. Received 03/22/1999.

PI 608735. Pisum sativum L.
Cultivar. PVP 9900187. Snap pea.

The following were developed by Southeast Distributors, Inc., United States. Received 03/22/1999.

PI 608736. Gossypium hirsutum L.
Cultivar. PVP 9900188.

The following were developed by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Hassan A. Melouk, USDA, ARS, Oklahoma State University, Department of Plant Pathology, Stillwater, Oklahoma 74078, United States; Olin D. Smith, Texas A&M University, Department of Soil & Crop Sciences, College Station, Texas 77843-2474, United States. Received 03/22/1999.

PI 608737. Arachis hypogaea L.
Cultivar. CV-64; PVP 9900189. Pedigree - TP 107-11 // TxAG-5 / TP 107-11 . Runner market-type peanut with partial resistance to sclerotinia blight (Sclerotinia minor), high grade, and good yield potential. Prostrate plant growth habit with leaflet size and shape, stem thickness, and leaf color similar to Florunner. Mainstems tend to be slightly shorter, but the secondary branches more compressed, making the

mainstem more prominent than Florunner.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 03/22/1999.

PI 608738. Gossypium hirsutum L.
Cultivar. PVP 9900190.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 03/22/1999.

PI 608739. Gossypium hirsutum L.
Cultivar. PVP 9900191.

PI 608740. Gossypium hirsutum L.
Cultivar. PVP 9900192.

The following were developed by Delta & Pine Land Company, United States. Received 03/22/1999.

PI 608741. Gossypium hirsutum L.
Cultivar. PVP 9900193.

PI 608742. Gossypium hirsutum L.
Cultivar. PVP 9900194.

PI 608743. Gossypium hirsutum L.
Cultivar. PVP 9900195.

The following were developed by Pure Seed Testing, Inc., 29975 S. Barlow Road, Canby, Oregon 97013, United States. Received 03/22/1999.

PI 608744. Festuca rubra L. **subsp. rubra**
Cultivar. PVP 9900196.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 03/22/1999.

PI 608745. Gossypium hirsutum L.
Cultivar. PVP 9900197.

The following were developed by Waller Flowerseed Company, P.O. Box 935, 4th and Obispo Streets, Guadalupe, California 93434, United States. Received 03/22/1999.

PI 608746. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900198.

PI 608747. Matthiola incana (L.) R. Br.

Cultivar. PVP 9900199.

PI 608748. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900200.

PI 608749. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900201.

PI 608750. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900202.

PI 608751. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900203.

PI 608752. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900204.

PI 608753. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900205.

PI 608754. Matthiola incana (L.) R. Br.
Cultivar. PVP 9900206.

The following were developed by South Dakota Agric. Exp. Station, Highmore, South Dakota, United States. Received 03/22/1999.

PI 608755. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900208.

The following were developed by World Wide Wheat, L.L.C., United States. Received 03/22/1999.

PI 608756. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. PVP 9900209.

The following were developed by Novartis Seeds, Inc., United States. Received 03/22/1999.

PI 608757. Pisum sativum L.
Cultivar. PVP 9900210. Snap pea.

PI 608758. Phaseolus vulgaris L.
Cultivar. PVP 9900211.

The following were developed by Martin Geibel, Genbank Obst, Bergweg 23, Dresden-Pillnitz, Saxony D-01326, Germany. Received 03/09/1999.

PI 608759. Malus sylvestris Mill.
Collected in Germany. Latitude 51 deg. 22' 0'' N. Longitude 14 deg. 6' 0'' E. Saxonia (Ost-Erzgebirge and Elbe-Valley, near Dresden). Pedigree - M. sylvestris, Barenhecke 3 x M. sylvestris, Klipphausen. Cross of

wild M. sylvestris; clone of this is Q 37771.

PI 608760. Malus sylvestris Mill.
Collected in Germany. Latitude 51 deg. 22' 0'' N. Longitude 14 deg. 6' 0'' E. Saxonia (Ost-Erzgebirge and Elbe-Valley, near Dresden). Pedigree - M. sylvestris, Oelsen 2 x M. sylvestris, Hartmann-Muhle 1. Cross of wild M. sylvestris.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Shivabhai Patel, Seed Merchants & Producers, Gujarat, India. Received 04/15/1986.

PI 608761. Amaranthus tricolor L.
Cultivar. Totally red plant for vegetable use. Seeds black.

The following were collected by T.M. Koyama, New York Botanical Gardens, P.O. Box 366, Tuckahoe, New York 10707-0366, United States. Received 06/01/1987.

PI 608762. Spinacia oleracea L.
Uncertain. Collected 02/22/1986 in Thailand. Latitude 17 deg. 38' 0'' N. Longitude 98 deg. 20' 0'' E. Doi Tung, Thai-Burmese frontier, Chaing Rai Province.

The following were developed by Robert F. Eslick, Montana State University, Plant and Soil Science Department, Bozeman, Montana 59715, United States. Donated by Research Corporation Technologies, Inc., United States. Received 1976.

PI 608763. Hordeum vulgare L. **subsp. vulgare**
Cultivar. PVP 7500061. WA (waxy) SH (short) A (awned) NU (nude) PANA (Compana).

The following were developed by G. F. Sprague, University of Illinois, Department of Agronomy, Turner Hall, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States; Fred Dicke, 1430 Harding, Ames, Iowa 50010, United States; W.D. Guthrie, USDA, ARS, Dept. of Entomology, Iowa State University, Ames, Iowa 50010, United States; W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; L.H. Penny. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 07/03/1998.

PI 608764. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-7. Pedigree - B55 is a selection from the single cross Oh45 x W92 tested as (Oh45 x W92)-1-1-2. Released 1963. B55 is a selection from the single cross Oh45 x W92 that was released in 1963. The plant is large with a big ear and good pollen production. It has intermediate resistance to first brood European corn borer (Ostrinia nubilalis). Hybrids with B55 usually have above-average yield, satisfactory root and stalk strength, but slow ear drying. Maturity classification is AES700. B55 was developed in a research program and

evaluated extensively in hybrid combinations. It was released in 1963 because of its potential value in seed production programs and further use in breeding programs.

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 01/24/1992.

PI 608765. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-39. Pedigree - B77 is a selection from Pioneer Two-Ear Composite (PHPRC), tested as BS11(FR)CO-Q51-3-2-1-2-1. B77 is a yellow dent inbred line that was selected from Pioneer Two-Ear Composite (PHPRC), a synthetic developed by crossing southern prolific germ plasm and Corn Belt lines. Pioneer Two-Ear Composite [BS11(FR)C0] was used as one of the populations for the reciprocal full-sib selection program described by Hallauer (Crop Sci. 7:192-195; Crop Sci. 14:341-342). Selection for a two-ear plant type has given a genotype that produces good second ears on nearly 100% of the plants at densities up to 38,000 plants/ha. Pollen production is satisfactory, silks emerge 1 to 2 days after the first shedding of pollen, and seed set is good on both ears. Seed is relatively small and shallow dented. The line has intermediate resistance to first brood European corn borer and common fungus leaf diseases and high resistance to maize chlorotic dwarf, but it is moderately susceptible to maize dwarf mosaic. Evaluations for yield in single crosses in Iowa for 4 years have shown B77 to have the highest.

PI 608766. Zea mays L. **subsp. mays**
Breeding. Inbred. PL-42. Pedigree - B79 is a selection from Iowa Two Ear Synthetic No. 1 (GP-12, PI 550446) tested as BS10(FR)CO-Q98-10-1-4-1. B79 is a yellow dent inbred line selected from Iowa Two-ear Synthetic No. 1 (PI 550446 registered in Crop Sci.11:140-141), a synthetic developed by intermating 10 inbred lines of USA North Central Corn Belt maturity that had strong potential to develop two ears/plant. Iowa Two-ear Synthetic No. 1 [BS10(FR)C0] was used as one of the populations for the reciprocal full-sib selection program described by Hallauer (Crop Sci. 7:192-195; Crop Sci. 14:341-342). Selection and self pollination in the ear-to-row system for several generations has given a genotype that produces a high frequency of harvestable second ears at moderate plant densities. The date of silk emergence of B79 is 3 to 4 days later than inbred B14A. Pollen production is satisfactory; silks emerge about 2 days after the first shedding of pollen; and seed set is good on both ears. The seed has intermediate size with a reddish color, and seed yield is relatively high. The line has intermediate resistance to broods.

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of 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 01/24/1992.

PI 608767. *Zea mays* L. *subsp. mays*
Breeding. Inbred. PL-50. Pedigree - B84 is a selection from Iowa BSSS(HT)C7 [renamed BS13(S2)C0] that was tested as BS13(S2)CO-45-6-2-1-1. B84 is a yellow dent maize inbred line selected from BSSS(HT)C7, which is an improved Iowa Stiff Stalk synthetic developed by seven cycles of recurrent selection for yield and other traits. Selection was based on half-sib progeny performances with Ia13 double-cross as the tester parent. The designation was changed to BS13(S2)CO because S2 progeny became the basis for evaluation in the next cycle of selection. B84 evolved from one of the 10 S2 lines selected for recombination to give BS13(S2)C1 [BS13(S2)C1 (PI 608782) is registered in Crop Sci. 19:755]. The line has been developed by selection and self-pollination in the ear-to-row system for six generations. The plant has an erect-leaf orientation and will produce a high frequency of harvestable second ears when the plant density is less than 40,000 plants/ha. Pollen production is good, and silks emerge 1 to 2 days after the first shedding of pollen. The date of silk emergence is 1 to 2 days later than that of.

PI 608768. *Zea mays* L. *subsp. mays*
Breeding. Inbred. PL-59. Pedigree - B87 is a selection from BS22 tested as BS22CO-148-1-1-2. B87 is a yellow dent maize inbred line selected from BS22 which is a synthetic variety that is similar to A6l9 x A632 for maturity. The line was developed by selection and self pollination in the ear-to-row system at high plant densities (approximately 59,000 plants/ha) for five generations. The first hybrid evaluation was in a S0 plant x H99 testcross in a recurrent selection program, and evaluations with H99 were continued in successive selfing generations. Data obtained in 11 experiments conducted from 1976 to 1980 in northern Iowa show that B87 is comparable to A632 for hybrid yield performance and superior for resistance to root and stalk lodging. Silk emergence for the line is 1 day earlier than for A632 (Iowa Exp. Stn. strain). The top ear node is approximately 10 cm lower than that of A632. With artificial infestation of first-brood, European corn borer (Ostrinia nubilalis, Hubner), the resistance rating is 3 (1 = highly resistant, 9 = highly susceptible).

The following were developed by Fred Dicke, 1430 Harding, Ames, Iowa 50010, United States; W.D. Guthrie, USDA, ARS, Dept. of Entomology, Iowa State University, Ames, Iowa 50010, United States; W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; Steve A. Eberhart, USDA, ARS, National Seed Storage Laboratory, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States; Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States; L.H. Penny; Gene E. Scott, USDA, ARS, Corn Host Resistance Research Unit, P.O. Box 9555, Mississippi State, Mississippi 39762, United States. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 07/03/1998.

PI 608769. *Zea mays* L. *subsp. mays*
Breeding. Population. GP-20. Pedigree - BSCB7 was developed from

Pennsylvania Intermediate Synthetic. Information on source materials is not complete, but the following inbred lines were included: A, A71, C103, K155, NC34, Oh04, Oh26, Oh28, Oh40B, W23, L317, Os420, WF9, and M14. Released 1967. BSCB7 (Iowa Corn Borer Synthetic No. 7), BSCB8 (Iowa Corn Borer Synthetic No. 8), and BSCB6 [Iowa Corn Borer Synthetic No. 6 (PI 550453; Crop Sci. 11:140-141)] are yellow dent breeding populations developed after three cycles of recurrent selection for resistance to first brood of European corn borer (Ostrinia nubilalis) in Pennsylvania Intermediate Synthetic, Pennsylvania Late Synthetic, and Pennsylvania Early Synthetic, respectively. The Pennsylvania Synthetics were developed by Dr. Wernham, Pennsylvania State University, in a program of selection for resistance to northern corn leaf blight. Originally, there was only one synthetic, but selection for maturity resulted in the three synthetics. Information on source materials is not complete, but the following inbred lines were included: A, A71, C103, K155, NC34, Oh04, Oh26, Oh28, Oh40B, W23, L317, Os420, WF9, and M14.

PI 608770. Zea mays L. **subsp. mays**
Breeding. Population. GP-21. Pedigree - BSCB8 was developed from Pennsylvania Late Synthetic. Information on source materials is not complete, but the following inbred lines were included: A, A71, C103, K155, NC34, Oh04, Oh26, Oh28, Oh40B, W23, L317, Os420, WF9, and M14. Released 1967. BSCB8 (Iowa Corn Borer Synthetic No. 8), BSCB7 (Iowa Corn Borer Synthetic No. 7), and BSCB6 [Iowa Corn Borer Synthetic No. 6 (PI 550453; Crop Sci. 11:140-141)] are yellow dent breeding populations developed after three cycles of recurrent selection for resistance to first brood of European corn borer (Ostrinia nubilalis) in Pennsylvania Late Synthetic, Pennsylvania Intermediate Synthetic, and Pennsylvania Early Synthetic, respectively. The Pennsylvania Synthetics were developed by Dr. Wernham, Pennsylvania State University, in a program of selection for resistance to northern corn leaf blight. Originally, there was only one synthetic, but selection for maturity resulted in the three synthetics. Information on source materials is not complete, but the following inbred lines were included: A, A71, C103, K155, NC34, Oh04, Oh26, Oh28, Oh40B, W23, L317, Os420, WF9, and M14.

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; Steve A. Eberhart, USDA, ARS, National Seed Storage Laboratory, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States; Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 01/24/1992.

PI 608771. Zea mays L. **subsp. mays**
Breeding. Population. GP-22. Pedigree - BSL(S)C4 was developed from the open-pollinated Lancaster Surecrop variety (PI 213697). Released 1971. BSL(S)C4 is a yellow dent breeding population developed from the open-pollinated Lancaster Surecrop variety by four cycles of recurrent S1 selection for stalk-rot resistance. Lancaster Surecrop (PI 213697) was obtained from the North Central Regional Plant Introduction Station, Ames, Iowa, in 1955. S1 progenies were grown with three replications at Ames, Iowa, each cycle and artificially inoculated with spores of

Diplodia zeae (Schw.) Lev. The selection intensity was 12, 6, 12, and 11%, respectively, for the four cycles of selection. BSL(S)C0, Cl, C2, and C3 were evaluated as populations per se and in testcross with two unrelated single-cross testers for several agronomic characters (Iowa State J. Sci. 43 (3):229-237; Iowa State J. Sci. 43(3):239-251). BSL(S)C3 was slightly taller, 3 days later in silk emergence, more resistant to natural stalk rot and field stalk lodging, and similar for grain yield (but higher in testcross yields) than Lancaster Surecrop.

PI 608772. Zea mays L. **subsp. mays**
Breeding. Population. GP-23. Pedigree - BS5 was developed by intermating twenty-three inbred lines: A265, A548, A554, A575, A619, B8, Ch9, F2, F7, F47, F49, F52, F431, Mt42, ND203, WD, WH, WJ, W9, W59M, W97A, W75, and W153R. Released 1971. BS5 is an early yellow dent synthetic that was developed by intermating twenty-three inbred lines: A265, A548, A554, A575, A619, B8, Ch9, F2, F7, F47, F49, F52, F431, Mt42, ND203, WD, WH, WJ, W9, W59M, W97A, W75, and W153R. This early synthetic was formed in the following manner: single crosses among lines, double crosses among single crosses; all possible double-double crosses among double crosses; and randomly mating the composite for two generations. The purpose for developing this synthetic was to provide an early population for recurrent selection and line development. No selection has been practiced in the synthetic, and the relative yield potential of the synthetic is unknown. BS5 is an early synthetic for central Iowa, requiring approximately 70 days from planting to silking.

PI 608773. Zea mays L. **subsp. mays**
Breeding. Population. GP-24. Pedigree - BS7 was developed from Kenya CBK (CBK I) by two cycles of mass selection in Iowa. Released 1971. BS7 is a yellow dent semi-exotic breeding population derived from CBK [CBK I (PI 329228)] by two cycles of mass selection in Iowa. CBK I was formed at Kitale, Kenya, by the Major Cereal Project in Africa, with USAID, USDA-ARS, the East African Agriculture and Forestry Research Organization, and the Kenya Ministry of Agriculture, cooperating. CBK I included approximately 50% Corn Belt germplasm and approximately 50% exotic material. The Corn Belt sources were: BSSS2 (PI 550444), BSAA (PI 550448), BSBB (PI 550449), Iowa Two-ear Synthetic #1 (PI 550446), Krug Mass Selection, Nebraska Population V, Nebraska Population L, Pioneer 2-Ear Composite, Pioneer hybrids, DeKalb hybrids, Funk hybrids, and PAG hybrids. The exotic material was: French lines (F2, F7, F47, F49, F52, and F431), NBZ (Corn Belt X Brazilian varieties), Nebr. (Eto X early USA), Nebr. (Eto X Gaspe Flint), Alaskan Composite (Gaspe Flint X early USA double crosses), Kenya Katumani Panmix (composite of Central.

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of 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 01/24/1992.

PI 608774. Zea mays L. **subsp. mays**
Breeding. Inbred. GP-62. Pedigree - B75 is a selection from Iowa Corn Borer Synthetic No. 3 [BSCB3 (PI 550450)]. B75 is a yellow dent germplasm line selected from BSCB3 (PI 550450 registered in Crop Sci.

11:140-141) which is a synthetic developed by intermating l6 inbred lines of USA North Central Corn Belt maturity that had good resistance to leaf feeding by the European corn borer. This single-eared line has been developed by selection and self pollination in the ear-to-row system for eight generations. The tassel has only one or two lateral branches, but the pollen production is satisfactory. Silk emergence, which occurs 2 to 3 days after the first shedding of pollen, is 2 to 3 days earlier than that of inbred Bl4A. The seed is relatively large and yield is good. It is highly resistant to leaf feeding by first-brood European corn borer, but is moderately susceptible to leaf-sheath and collar feeding by second brood. It has good field resistance to sorghum downy mildew, moderate resistance to southern corn leaf blight (race O) and northern corn leaf blight, and low-level resistance to.

The following were developed by Don C. Peters, Oklahoma State University, Dept. of Entomology/Div. of Agric., 501 Life Sciences West, Stillwater, Oklahoma 74078-0464, United States; W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; J.C. Owens; R.R. Rogers, Unknown. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 01/24/1992.

PI 608775. Zea mays L. **subsp. mays**

Breeding. Population. GP-72. Pedigree - BS19 was developed by two cycles of S1 selection in the maize synthetic originally called Iowa Early Rootworm Synthetic developed by intermating W153R, A239, A251, A265, A297, A417, A556, A632, Ms107, Oh43, R168, and SD10. Released 1976. BS19(S)C2 is a yellow dent improved population of a maize synthetic originally designated as Iowa Early Rootworm Synthetic. A large number of inbred lines were evaluated as inbreds per se and in hybrid combinations for corn rootworm tolerance and several root traits. Twelve inbred lines were selected as parent lines for an early synthetic to be used in further studies of resistance, particularly tolerance, to corn rootworms [Diabrotica virgifera Le Conte, D. longicornis (Say), and D. undecimpunctata Barber]. These lines were: W153, A239, A251, A265, A297 A417, A556, A632, Ms107, Oh43, R168, and SD10. Collectively, these inbred lines possessed root characteristics believed required in a population for good tolerance to corn rootworm larval damage. Recurrent selection based on the evaluation of S1 lines in replicated experiments was used for two cycles, resulting in the C2 population. Traits evaluated were resistance to root lodging in the second cycle, and root.

PI 608776. Zea mays L. **subsp. mays**

Breeding. Population. GP-73. Pedigree - BS20(S)C2 was developed by two cycles of S1 selection in BS20 (originally called Iowa Late Rootworm Synthetic) that was formed by intermating 12 inbred lines: B14A, B53, B57, B64, B67, B69, A73, N6, N28, R101, HD2286 (BSSS sel.), and 38-11. Released 1976. BS20(S)C2 is a yellow dent synthetic that was derived from BS20 (originally designated as Iowa Late Rootworm Synthetic). A large number of inbred lines were evaluated as inbreds per se and in hybrid combinations for corn rootworm tolerance and several root traits. Twelve inbred lines were selected as parent lines for a late synthetic, BS20, to be used in further studies of resistance or tolerance to corn rootworms. These lines were: B14A, B53, B57, B64, B67, B69, A73, N6,

N28, R101, HD2286 (BSSS sel.), and 38-11. As a group, these inbred lines would contribute root characteristics believed required in a maize population for good tolerance to corn rootworm larval damage. Six of these lines originated from BSSS (Iowa Stiff Stalk Synthetic), and B64 derived from a backcross program in which B14 was the recurrent parent; consequently, BS20CO obtained more than 55% of its genes from BSSS. An evaluation of BS20CO in a synthetic diallel showed that it was superior in.

The following were developed by W.D. Guthrie, USDA, ARS, Dept. of Entomology, Iowa State University, Ames, Iowa 50010, United States; W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of 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 01/24/1992.

PI 608777. Zea mays L. **subsp. mays**
Breeding. Inbred. GP-76. Pedigree - B85 was developed from BSCB6(S)C3-77. Inbred B85 is a yellow dent inbred line developed from BSCB6(S)C3. BSCB6 (PI 550453 registered in Crop Sci.11:140-141) was first designated Iowa Corn Borer Synthetic No. 6. BSCB6(S)C3 was developed from Pennsylvania Early Synthetic by three cycles of recurrent selection based on S1 line resistance to leaf feeding by the European corn borer (Ostrinia nubilalis Hubner) (resistance to first brood of the European corn borer). B85 has an erect-leaf orientation and is single-eared. Pollen production is adequate and silks emerge 3 to 4 days after the first shedding of pollen. The date for silk emergence is 2 days earlier than A632. The ear is relatively small, with 12 to 14 kernel rows, and the seed is intermediate in size with a shallow dent. Inbred B85 is highly resistant to leaf feeding by first brood of the European corn borer; consequently, it is a good source of resistance in an early maturity breeding program. Evaluations in northern Iowa for 4 years have shown that.

PI 608778. Zea mays L. **subsp. mays**
Breeding. Inbred. GP-77. Pedigree - B86 is a selection from the single cross B52 x Oh43 tested as (Oh43 x B52)-52-1-2-5-1. B86 is a yellow dent inbred line developed from the single cross, B52 x Oh43. Inbred Oh43 (Ames 19288) contributed leaf-feeding resistance to the European corn borer and B52 (PI 550454) contributed high resistance to sheath and collar feeding by the European corn borer after silk emergence (resistance to second brood of the European corn borer). B52 has also intermediate resistance to the first brood. Inbred B86 was developed by selection and self pollination in the ear-to-row system for the F3 to F5 generations. Artificial infestation of the corn borer was used in each generation, with separate nurseries for the first and second broods. Subsequent evaluations of B86 in two seasons with high level artificial infestations of the insect have shown that it is highly resistant to the first brood and nearly as resistant as B52 to the second brood. It is the first inbred stock of U.S. Corn Belt origin known to combine into one genotype good resistance to the insect for the life.

PI 608779. Zea mays L. **subsp. mays**
Breeding. Population. GP-78. Pedigree - BS1 was obtained by crossing

Iowa Two-ear Synthetic No. 1 C2 (BS10) and Iowa Corn Borer Synthetic No. 3 (BSCB3) and random mating for two generations. 16 F6 lines were selected for recombination to give BS1(HS)C1. Released 1979. BS1 is a yellow dent maize breeding population that was obtained by crossing Iowa Two-Ear Synthetic No.1 C2 (Crop Sci. 11:140-141) and Iowa Corn Borer Synthetic No.3 (Crop Sci. 11:140-141) now designated BS10 and BSCB3, respectively, and random mating for two generations. BS10 was developed by recombining 10 two-eared inbred lines and then using mass selection for two generations to increase the frequency of two-eared plants. BSCB3, was developed by recombining 16 inbred lines that had high level resistance to leaf feeding in the whorl stage by (Ostrinia nubilalis Hubner) (first brood European corn borer resistance). Consequently, BS1 is a broad genetic base population and has favorable gene frequencies for resistance to stalk rot, resistance to first brood European corn borer, and prolificacy. Both BS10 and BSCB3, showed above average general combining ability in studies of a diallel of synthetics (Crop Sci. 12:16-18; Crop Sci. 8:448-451). BS1 was the source population.

PI 608780. Zea mays L. **subsp. mays**
Breeding. Population. GP-79. Pedigree - BS17 was developed by recombining six versions of BSSS from recurrent selection programs: BS13(S2)C2; BSSS(R)C7; BSSS2(S1)C3; BSSS2(S2)C2; BSSSC3 selected for stalk rot and first brood European corn borer resistance; BSSSC3 selected for tolerance tolarval feeding by corn rootworm and for root strength. BS17 is a yellow dent breeding population that was developed by recombining six versions of Iowa Stiff Stalk Synthetic [BSSS (J. Am. Soc. Agron. 38:108-117)] from recurrent selection programs. These included: BS13(S2)C2 (Crop Sci. 19:755); BSSS(R)C7 (Crop Sci. 14:341); BSSS2(S1)C3 (Crop Sci. 11:140-141;); BSSS2(S2)C2; BSSSC3 selected for stalk rot and first brood European corn borer resistance; BSSSC3 selected for tolerance to larval feeding by western corn rootworm (Diabrotica virgifera Le Conte), northern corn rootworm (D. Iongicornis Say), and southern corn rootworm (D. undecimpunctata howardi Barber) and for root strength. BS13(S2)C2 was developed from BSSS by recurrent selection with Ial3 (double-cross hybrid) as a tester for seven cycles [BSSS(HT) C7] and two cycles of selection based on S2 line performance. [B73 came from BSSS(HT)C5, and B84 came from BSSS (HT)C7.] Selection was primarily for grain yield and resistance to root and stalk lodging in all.

The following were developed by P. J. Loesch, Jr., Iowa State University, 101E 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 01/24/1992.

PI 608781. Zea mays L. **subsp. mays**
Breeding. Population. GP-80. Pedigree - BSAAo2(S)C1 was developed from BSAA by crossing to o2 and three generations of backcrossing to BSAA with selection for o2 followed by one cycle of S1 selection. BSAAo2(S)C1 is a yellow dent improved opaque-2 version of the broadly based Iowa Iowa Synthetic AA [BSAA (PI 550448; Crop Sci. 11:140-141)]. A homozygous stock for the opaque-2 gene was crossed to the normal BSAA population. The normal by opaque-2 cross was allowed to intermate and plants from opaque-2 kernels were backcrossed to the normal BSAA

population. Three backcrosses each followed by one generation of intermating were made to the normal BSAA population. After the last intermating, S1 recurrent selection was initiated to improve the population for yield and other agronomic traits. One cycle of S1 recurrent selection was practiced with 200 S1 lines. The superior 10% for grain yield, percentage protein, and percentage lysine were recombined to form the Cl. The resulting selected population was random mated for one additional generation and constitutes the germplasm available for general distribution. BSAAo2(S)C1 is a genetically broad based population of AES800.

The following were developed by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States; O.S. Smith, AR, SEA, USDA, United States. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 01/24/1992.

PI 608782. Zea mays L. **subsp. mays**
Breeding. Population. GP-81. Pedigree - BS13(S)C1 was developed from Iowa Stiff Stalk Synthetic (BSSS) by seven cycles of half-sib selection [BSSS(HT)C7] and one cycle of S2 selection. BS13(S2)C1 is a yellow dent breeding population that was developed from Iowa Stiff Stalk Synthetic (BSSS) by seven cycles of half-sib selection [BSSS(HT)C7] and one cycle of S2 selection. Half-sib selection was initiated in BSSS in 1939 with double-cross Iowa 13 (J. Am. Soc. Agron. 38:108-117). [(L317 x BL239)(BL345 X MC401)], used as the tester and designated as BSSS(HT). After seven cycles of half-sib selection, one cycle of S2 selection was completed to form BS13(S2)C1. Evaluation of BSSS(HT)C7 after seven cycles of half sib selection showed that selection was effective for the yield improvement of the population itself and in crosses with testers (Crop Sci. 13:451-456; Crop Sci. 14:881-885). Selections from the cycles of selection of BSSS have shown it is a superior source population for the extraction of inbred lines that have high yield in crosses with Mol7. B73 was one of the 10 S1 selections used to form the sixth cycle, BSSS(HT)C6. B84 was one of the 10 S2.

PI 608783. Zea mays L. **subsp. mays**
Breeding. Population. GP-82. Pedigree - BS16 was developed by six cycles of mass selection for adaptation in the ETO Composite obtained from Colombia, South America. BS16 is a yellow semi-dent breeding population that was developed by six cycles of mass selection for adaptiveness in the ETO Composite from Colombia, South America (Crop Sci. 12:203-206). BS16 is adapted to central Iowa and its resistance to feeding by first and second-brood European corn borer (Ostrinia nubilalis Hubner) is above average. BS16 was tested as a cultivar in replicated yield tests (Crop Sci. 12:203-206); it had greater yield, similar grain moisture and stalk lodging, and greater root lodging and dropped ears than Iowa Stiff Stalk Synthetic. The combining ability of BS16 with other breeding populations has not been determined. BS16 is characterized by vigorous plants with large tassels and considerable leaf pubescence, and ears with semi-dent kernels that range from light yellow to light orange. BS16 is of Corn Belt maturity and includes germplasm different from that currently used in most breeding populations.

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of 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 01/24/1992.

PI 608784. Zea mays L. **subsp. mays**
Breeding. Population. GP-94. Pedigree - BS23 was developed from maize germplasm and teosinte. BS23 is a yellow semi-dent breeding population developed from maize germplasm and teosinte. A maize composite that included teosinte (Zea mexicana) and maize germplasm was obtained from Dr. Mumm (Crow's Hybrid Co.) for use in research for prolific maize. The proportion of teosinte germplasm and the maize stocks are not known. Inbred lines of the two-ear type were developed and evaluated for agronomic performance with a double-double-cross tester. Eight lines were selected and recombined to give a synthetic variety, designated 'Teozea', which was further sib-mated with selection of two-ear plants for two generations. An additional generation of random mating with no selection was used to obtain the seed supply for distribution as BS23. Silk emergence is 3 to 4 days earlier than for BSSS CO. In central Iowa, BS23 has good disease resistance and usually shows a strong stay-green characteristic. There is a high frequency of second ears when the plant density is less than.

The following were developed by Doug Brede, Jacklin Seed Company, West 5300 Riverbend avenue, Post Falls, Idaho 83854-9499, United States; Mark J. Sellmann, Jacklin Seed Company, Research Dept., West 5300 Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 02/25/1999.

PI 608785. Festuca arundinacea Schreb.
Cultivar. Population. CV-76. Pedigree - Modified advanced generation synthetic cultivar whose parentage traces back to 90% Pixie, 6% Crossfire, 2% Rebel, and 2% Vegas tall fesue. Attractive turfgrass with high quality performance. Performs well in full sun and in shade. Darker green color than most contemporaries. Improved brown patch (Rhizoctonia solani) resistance.

PI 608786. Festuca arundinacea Schreb.
Cultivar. Population. CV-77. Pedigree - Traces back to 50% Pixie, 19% Coronado, and 31% to polycrosses with various Jacklin experimentals. These Jacklin experimentals trace back 3 and 4 generations of repeated breeding and selection to Pixie, Rebel, Arid and Wrangler. Attractive turf that grows well under low fertility such as a nitrogen regime of 10-15 gm-2. Performs well under moderately low cutting heights of 1.5 to 3.8 cm. Good resistance to leaf spot disease (Drechslera spp.) and Pythium blight (Pythium spp.) Richer green color than most current varieties.

PI 608787. Festuca arundinacea Schreb.
Cultivar. Population. CV-78. Pedigree - Originated from 15 lines with parentage that traces to 40% Pixie, 31% various Jacklin experimentals, 7% J-1048, 7% Vegas, 3% Cochise, 3% Amigo, 3% Finelawn 88, 3% Coronado, and 3% Arid tall fescue. Attractive turf with improved overall turf

quality. Performs well under traffic stress and maintains a good quality even under a moderately low height of cut (1.5 to 3.8cm). Darker green in color compared with comparable varieties. Tends to be earlier greening up in the spring.

PI 608788. Festuca arundinacea Schreb.
Cultivar. Population. CV-79. Pedigree - Traces back to 83% Pixie and 17% Vegas tall fescue. Attractive turfgrass with improved overall turf quality. Maintains excellent quality even when subjected to traffic stress. Dark rich green color and it tends to be more dense in the spring. Good brown patch (Rhizoctonia solani) resistance.

The following were collected by E.L. Smith, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States. Received 03/1970.

PI 608789. Triticum aestivum L., nom. cons. **subsp. aestivum**
Landrace. Collected 01/15/1964 in Harer, Ethiopia. Latitude 9 deg. 30' 0'' N. Longitude 41 deg. 30' 0'' E. Deggo. Pedigree - Separation of species from CItr 14721.

The following were collected by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 01/1949.

PI 608790. Triticum turgidum subsp. durum (Desf.) Husn.
Landrace. Collected 09/09/1948 in Urfa, Turkey. Latitude 37 deg. 2' 0'' N. Longitude 37 deg. 58' 0'' E. Birecik. Elevation between 304-608 m (estimated by GIS). Pedigree - Separation of species from PI 172554.

The following were donated by J. L. Hudson, Seedsman, P.O. Box 1058, Redwood City, California 94064, United States; Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 608791. Amaranthus hybrid
Cultivar. Pedigree - Parents include Amaranthus cruentus and a long bract species. An ornamental with red flowers, rufescent-greenish with red overtones leaves, and brown seeds. The RRC class type is: spike, the seeds matured early, with high yield at the RRC center in Pennsylvania.

The following were donated by Estacao de Melhoramento de Plantas, Elvas, Portalegre, Portugal. Received 09/28/1950.

PI 608792. Triticum aestivum subsp. spelta (L.) Thell.
Landrace. Collected in Portugal. Pedigree - Separation of species from PI 192856.

The following were collected by L.P. Reitz, Crops Research Division, USDA-ARS, Plant Industry Station, Beltsville, Maryland 20705-2350, United States. Received 09/06/1967.

PI 608793. Triticum aestivum L., nom. cons. **subsp. aestivum**
Landrace. Collected in Kabul, Afghanistan. Latitude 34 deg. 31' 0'' N. Longitude 69 deg. 11' 0'' E. Ministry of Agriculture, Kabul. Pedigree - Separation of species from PI 321737.

The following were donated by D.M. Stewart, USDA-ARS, Cooperative Rust Laboratory, University of Minnesota, St. Paul, Minnesota, United States; Turda Experiment Station, Turda, Cluj, Romania. Received 03/29/1971.

PI 608794. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivated. Pedigree - Separation of species from PI 362071.

The following were collected by E. Bennett, Crop Ecology & Genetic Resources Unit, Plant Production and Protection Division, FAO, Rome, Latium, Italy. Received 04/13/1972.

PI 608795. Triticum aestivum L., nom. cons. **subsp. aestivum**
Landrace. Collected 1968 in Cyprus. Pedigree - Separation of species from PI 372447.

The following were collected by Institute of Agricultural Research, Addis Ababa, Shewa, Ethiopia. Received 04/23/1974.

PI 608796. Triticum aestivum L., nom. cons. **subsp. aestivum**
Landrace. Collected in Ethiopia. Pedigree - Separation of species from PI 387793.

The following were donated by USDA, ARS, Colorado Agric. Exp. Station, Fort Collins, Colorado, United States. Received 1977.

PI 608797. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Crop year 1977. Immed. par. 73/5-1-13-L21. Product of selection and breeding for resistance to yellow wilt. Literature reference: John O. Gaskill, Roberto Ehrenfeld. 1976. Breeding sugarbeet for resistance to yellow wilt. J. American Society Sugar Beet Technol. 19:25-44.

PI 608798. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin: Chile Crop year: 1977 Immed. parent 75/5-1-15-L46. Product of selection and breeding for resistance to yellow wilt. Lit. reference - John O. Gaskill, Roberto Ehrenfeld 1976. Breeding sugarbeet for resistance to yellow wilt. J. Am. Soc. Sugar Beet Technol. 19:25-44.

PI 608799. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 74/6-3-48-L3, a product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 608800. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 74/6-3-78-L4, a product of selection and breeding

sugarbeet, in Chile, for resistance to yellow wilt. Do not distribute without approval from Research Leader, USDA-SEA-AR-WR, Sugarbeet Production Research, P.O. Box 5098, Salinas, California 93915.

The following were donated by Edward J. Ryder, USDA, ARS, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 1979.

PI 608801. Beta vulgaris L. **subsp. vulgaris**
Sugarbeet nematode wilt tolerant selection made at the Institute voor Rationele Suikerproductie, Bergen op Zoom, th Netherlands.

The following were donated by J. O. Gaskill, Colorado State University, Crops Research Lab, WR Sugarbeet Production Research, Fort Collins, Colorado 80523, United States. Received 1980.

PI 608802. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 608803. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

The following were donated by Edward J. Ryder, USDA, ARS, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 1981.

PI 608804. Beta vulgaris L. **subsp. vulgaris**
The tetraploid Janasz variety crossed with the tetraploid NB1 inbred. Janasz is a high sucrose variety from Poland and NB1 is a self-fertile multigerm inbred with resistance to bolting and curly top.

The following were developed by Frank Davis, USDA-ARS, Crop Science Research Lab., P.O. Box 5248, Mississippi State, Mississippi 39762, United States; W. Paul Williams, USDA-ARS-CHPRRU, Box 9555, 344 Dorman Hall, Mississippi State, Mississippi 39762, United States. Donated by W. Paul Williams, USDA-ARS-CHPRRU, Box 9555, 344 Dorman Hall, Mississippi State, Mississippi 39762, United States. Received 02/17/1999.

PI 608805. Zea mays L. **subsp. mays**
Breeding. Partinbred. GP-345. Pedigree - Developed by selfing for 8 generations in a cross between two S1 lines from Multiple Borer Resistant (MBR) populations developed at CIMMYT. Height medium, kernels pale yellow and cobs white. Maturity classification AES 1100. Intermediate level of resistance to southwestern corn borer (5.0 on a scale of 0, no damage, to 9, heavy damage) and fall armyworm (4.5 on a scale of 0 to 9).

PI 608806. Zea mays L. **subsp. mays**
Breeding. Inbred. GP-346. Pedigree - Developed by selfing for 8 generations in GT-DDSA (C5) (PI 518769). Height medium, kernels and cobs white. Maturity classification AES1100. Moderate resistance to leaf

feeding by southwestern corn borer (5.6 on a scale of 0, no damage, to 9, heavy damage) and fall armyworm (5.5 on a scale of 0 to 9).

The following were developed by Doug Brede, Jacklin Seed Company, West 5300 Riverbend avenue, Post Falls, Idaho 83854-9499, United States; Mark J. Sellmann, Jacklin Seed Company, Research Dept., West 5300 Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 03/05/1999.

PI 608807. Festuca arundinacea Schreb.
Cultivar. Population. CV-80. Pedigree - Maternal parentage is 27% Pixie, 27% Crossfire, 27% Twilight, 7% Avanti, 6% Monarch, and 6% Hubbard 87. Attractive turf with good overall quality. Good brown patch (Rhizoctonia solani) resistance. Darker genetic color.

PI 608808. Festuca arundinacea Schreb.
Cultivar. Population. CV-81. Pedigree - Advanced generation synthetic cultivar developed from the maternal progenies of 35 clones. The 35 clones trace to 20% Pixie, 20% various Medalist America experimentals, 20% Hubbard 87, 13% Crossfire, 7% Shenandoah, 7% Twilgiht, 7% Monarch, and 6% Avanti tall fescue varieties. Attractive turfgrass with improved turf quality and superior genetic color. Resistance to Pythium blight (Pythium spp.) and stem rust (Puccina graminis).

The following were developed by Victor Maddox, Mississippi State University, Plant and Soil Sciences, 117 Dorman Hall, Mississippi State, Mississippi 39759, United States; H. Wayne Philley, Mississippi State University, Dept. of Plant & Soil Sciences, Box 9555, Mississippi State, Mississippi 39762, United States; J.M. Goatley, Jr., Mississippi State University, Dept. of Plant and Soil Sciences, Mississippi State, Mississippi 39762, United States; Jeff V. Krans, Mississippi State University, Department of Plant & Soil Sciences, Box 9555, Mississippi State, Mississippi 39762, United States. Received 03/08/1999.

PI 608809. Agrostis stolonifera L.
Breeding. Population. GP-1. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher salt tolerance than Penncross. Useful in developing cultivars adapted to putting green application in the southeastern U.S.

PI 608810. Agrostis stolonifera L.
Breeding. Population. GP-2. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher salt tolerance than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608811. Agrostis stolonifera L.
Breeding. Population. GP-3. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608812. Agrostis stolonifera L.
Breeding. Population. GP-4. Pedigree - Ecotype collected in Mississippi.

Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608813. Agrostis stolonifera L.
Breeding. Population. GP-5. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608814. Agrostis stolonifera L.
Breeding. Population. GP-6. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608815. Agrostis stolonifera L.
Breeding. Population. GP-7. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the sotheastern U.S.

PI 608816. Agrostis stolonifera L.
Breeding. Population. GP-8. Pedigree - Ecotype collected in Mississippi. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608817. Agrostis stolonifera L.
Breeding. Population. GP-9. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608818. Agrostis stolonifera L.
Breeding. Population. GP-10. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608819. Agrostis stolonifera L.
Breeding. Population. GP-11. Pedigree - Ecotype collected in Mississippi. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

PI 608820. Agrostis stolonifera L.
Breeding. Population. GP-12. Pedigree - Developed from tissue culture involving callus induction from Penncross seed. Released 1994. Higher summer survival than Penncross. Useful in developing creeping bentgrass cultivars adapted to putting green application in the southeastern U.S.

The following were developed by W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011,

United States; Steve A. Eberhart, USDA, ARS, National Seed Storage Laboratory, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States; Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Donated by Iowa Agricultural Experiment Station, Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa, United States. Received 03/1970.

PI 608821. Zea mays L. **subsp. mays**
Breeding. Population. GP-25. Pedigree - BS8 was developed from Kenya SK (CBK II) by two cycles of mass selection in Iowa. BS8 is a semi-exotic synthetic derived from Kenya SK (CBK II) by two cycles of mass selection in Iowa. SK (PI 347266) was formed at Kitale, Kenya, by the Major Cereals Project in Africa, with USAID, USDA-ARS, the East African Agriculture and Forestry Research Organization, and the Kenya Ministry of Agriculture, cooperating. SK includes germplasm from the southern USA and the Corn Belt and exotic material from Central and South America, Africa and Europe. The sources were: N. Carolina Jarvis and Indian Chief, DeKalb southern hybrids, Funk Deep South Syn., Funk Tropical Syn., Coker hybrids, Pioneer southern hybrids, Pioneer West Indies Synthetic (Iowa), Pioneer West Indies Synthetic (Tenn.), Pioneer Caribbean Composite, Pioneer Jamaica Synthetic, Tuxpeno X Lancaster, Yugoslav hybrids, Diacol V254, Diacol V540C, Nigeria Late Composite, Nigeria Composite C, Zambia SR52, Zambia Kalahari Syn., Ecuador 573, Puerto Rico GPO2 and GPO6, Cuba 40-Hawaii 5, Cometico, Israel hybrids,.

The following were donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 608822. Rubus idaeus L.
Cultivar. Pedigree - Open-pollinated composite of "Fallred".

The following were collected by Washburn. Donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 608823. Rubus idaeus L.
Cultivated. Collected in Ohio, United States. East of Mentor, Ohio on Johnnycake Ridge in Mr. Washburns garden. Pedigree - Open-pollinated composite of "Red Everbearing Raspberry". Open-pollinated seed collected from 1964 to 1966.

The following were collected by Edward A. Pontzer, 500 Spruce St., St. Marys, Pennsylvania 15857, United States. Developed by Edward A. Pontzer, 500 Spruce St., St. Marys, Pennsylvania 15857, United States. Donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 608824. Rubus idaeus L.
Cultivar. Collected in Pennsylvania, United States. Elevation 640 m. The Plants came from an abandoned field, growing among common blackberry. The field has since reverted to poverty grass. Pedigree -

Open-pollinated composite of "Pontzer Blackberry".

The following were collected by Glenn W. Dobson, Rt 19, Wyoming, New York 14591, United States. Donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 608825. Rubus idaeus L.
Cultivar. Collected in New York, United States. Pedigree - Open-pollinated composite of "Crimson Cone".

The following were donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 608826. Rubus idaeus L.
Cultivar. Collected in England, United Kingdom. Pedigree - Open-pollinated tetraploid "Malling Expolit".

PI 608827. Rubus idaeus L.
Cultivar. Developed in Finland. Pedigree - Open-pollinated "Anelma", R. idaeus x R. articus. Reference PI 247797.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Sheng Ke Xi, The Chinese Academy of Forestry, Beijing, Beijing, China; Qinghua Zhang, Institute of Forest Ecology and Environment, Chinese Academy of Forestry, Wan Shou Shan, Beijing, Beijing 100091, China. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/24/1996.

PI 608828. Rubus crataegifolius Bunge
Wild. Collected 08/08/1996 in Heilongjiang, China. Latitude 44 deg. 56' N. Longitude 128 deg. 37' E. Elevation 325 m. 210 km east of Harbin. small river valley among low hills Chang Guang Chei Ling, a branch of Changbai Mountains. Pedigree - collected from the wild in Heilongjiang, Chinabought from a peddler in Yabuli. During the summer of 1996, Maxine Thompson, Joseph Postman and Chad Finn, along with three Chinese colleagues, explored the Northeastern Provinces of China - In Search of Genetic Resources of Small Fruit Crops. One of the most noteworthy collections to result from this expedition is a sample of wild Rubus crataegifolius Bunge with exceptional fruit size. We encountered this species in the wild, and made many seed collections between about 41 and 46 degrees north latitude, but along the banks of the Songhua reservoir near the city of Jilin we found a half dozen local vendors selling fruit

that was twice the size of anything we had encountered. We purchased about a pound of fruit from each vendor, which was combined as one sample. The fruit had been collected in the mountains within about 5 kilometers of the reservoir. Most of the fruit measured between 2.5 and 3 cm wide. The fruit we were able to collect in other regions was at most 1.5 cm in width.

PI 608829. Rubus crataegifolius Bunge
Wild. Collected 08/01/1996 in Jilin, China. Latitude 42 deg. 49' N. Longitude 127 deg. 54' E. Elevation 431 m. close to Ar Do Bai He. hills at edge of creek open exposure. Pedigree - collected from the wild in Jilin, China.

PI 608830. Rubus crataegifolius Bunge
Wild. Collected 08/03/1996 in Jilin, China. Latitude 42 deg. 9' N. Longitude 127 deg. 32' E. Elevation 692 m. 5 - 6 km southeast of Songhianghe Town. valley in the foothills of Changbai Mountains roadside, disturbed earth. Pedigree - collected from the wild in Jilin, China.

PI 608831. Rubus crataegifolius Bunge
Wild. Collected 07/20/1996 in Heilongjiang, China. Latitude 45 deg. 12' N. Longitude 126 deg. 49' E. Elevation 0 m. fruit was collected about 60 km south of Harbin. Pedigree - collected in the wild in Heilongjiang, Chinabut sample was bought from a peddler nearHarbin.

PI 608832. Rubus crataegifolius Bunge
Wild. Collected 08/09/1996 in Heilongjiang, China. Latitude 44 deg. 57' N. Longitude 128 deg. 59' E. Elevation 325 m. 30 km east of Yabuli Yabuli Forestry Bureau. small river valley among low hills Chang Guang Chei Ling, a branch of the Changbai Mountains. Pedigree - collected from the wild in Heilongjiang, China.

PI 608833. Rubus crataegifolius Bunge
Wild. Collected 08/07/1996 in Heilongjiang, China. Latitude 45 deg. 12' N. Longitude 126 deg. 49' E. Elevation 0 m. collected near Harbin. said to have been harvested in mountains south of Harbin. Pedigree - collected from the wild in Heilongjiang, Chinapurchased from a peddler in Harbin.

PI 608834. Rubus parvifolius L.
Wild. Collected 08/07/1996 in Heilongjiang, China. Latitude 45 deg. 15' N. Longitude 127 deg. 42' E. Harbin. probably collected south of Harbin. Pedigree - collected from the wild in Heilongjiang, Chinabought from a peddler in a market in Harbin.

PI 608835. Rubus parvifolius L.
Wild. Collected 07/31/1996 in Jilin, China. Latitude 43 deg. 43' N. Longitude 126 deg. 42' E. Elevation 154 m. collected beside lake 20 km southeast of Jilin. hills Vendors beside lake said to have collected within 5-10 km. Pedigree - collected from the wild in Jilin, Chinapurchased from vendors.

PI 608836. Rubus arcticus L. **subsp. arcticus**
Wild. Collected 07/18/1996 in Heilongjiang, China. Latitude 47 deg. 11'

N. Longitude 128 deg. 52' E. Elevation 330 m. Dailing, Heilongjiang Liangshui Forest Preserve. Hills Xiao xing an ling dense herbaceous forest Open area along road near preserve headquarters. Pedigree - collected from the wild in Dailing, Heilongjiang China.

PI 608837. Rubus arcticus L. **subsp. arcticus**
Wild. Collected 07/27/1996 in Heilongjiang, China. Latitude 51 deg. 40' N. Longitude 124 deg. 23' E. Elevation 498 m. about 1 km north of Xin Ling Town. low hills (Da Xing An Ling) understory in forest. Pedigree - collected from the wild in Xin Ling, Heilongjiang, China.

PI 608838. Rubus idaeus L.
Cultivated. Collected 08/08/1996 in Heilongjiang, China. Latitude 44 deg. 56' N. Longitude 128 deg. 0' E. Elevation 325 m. Yabuli village (= apple for the wild Malus baccata) (=Yabloko). Pedigree - red raspberry selection found in China but likelyintroduced many years ago by the Russians, who establishedthe village.

PI 608839. Rubus idaeus L.
Cultivated. Collected 08/09/1996 in Heilongjiang, China. Latitude 44 deg. 57' N. Longitude 128 deg. 59' E. Elevation 355 m. Hu Fong Forest Farm Yabuli Forestry Bureau 30 km east of Yabuli. roadside patch. Pedigree - escapes from cultivated red raspberry.

PI 608840. Rubus multibracteatus H. Lev. & Vaniot
Wild. Collected 1995 in Yunnan, China. Malipo. Pedigree - collected from the wild in Yunnan, China.

The following were collected by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Qinghua Zhang, Institute of Forest Ecology and Environment, Chinese Academy of Forestry, Wan Shou Shan, Beijing, Beijing 100091, China. Received 10/24/1996.

PI 608841. Rubus niveus Thunb.
Wild. Collected 09/1996 in Hubei, China. Latitude 31 deg. 40' N. Longitude 110 deg. 36' E. Elevation 1500 m. Shennongjia. Mountins, Nature Preserve. Pedigree - collected from the wild in Hubei, China.

PI 608842. Rubus pungens Cambess.
Wild. Collected 09/1996 in Hubei, China. Latitude 31 deg. 40' N. Longitude 110 deg. 36' E. Elevation 1500 m. Shennongjia. Mountains in Nature Preserve. Pedigree - collected from the wild in Hubei, China.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Sheng Ke Xi, The Chinese Academy of Forestry, Beijing, Beijing, China; Qinghua Zhang, Institute of Forest Ecology and Environment, Chinese Academy of Forestry, Wan Shou Shan, Beijing, Beijing

100091, China. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/24/1996.

PI 608843. Rubus sachalinensis H. Lev.
Wild. Collected 08/03/1996 in Jilin, China. Latitude 42 deg. 9' N. Longitude 127 deg. 15' E. Elevation 677 m. 8 - 10 km southeast of Songjianghe Town. valley in foothills of Changbai Mountains along roadside. Pedigree - collected from the wild in Jilin, China.

PI 608844. Rubus sachalinensis H. Lev.
Wild. Collected 07/18/1996 in Heilongjiang, China. Latitude 42 deg. 9' N. Longitude 127 deg. 15' E. Elevation 330 m. 26 km northwest of Dailing city Mixed evergreen hardwood forest with dense undergrowth. Hills Xiao xing an ling open area in front of main building at headquarters of nature preserve. Pedigree - collected from the wild in Jilin, China.

PI 608845. Rubus sachalinensis H. Lev.
Wild. Collected 07/23/1996 in Heilongjiang, China. Latitude 52 deg. 12' N. Longitude 124 deg. 5' E. Elevation 450 m. Jagedaqi (Huzhong Bureau) 50 km northeast of Huzhong. roadside, broad river valley between low hills Da xing an ling. Pedigree - collected from the wild in Jagedaqi, Heilongjiang, China.

PI 608846. Rubus sachalinensis H. Lev.
Wild. Collected 08/03/1996 in Jilin, China. Latitude 41 deg. 59' N. Longitude 127 deg. 36' E. Elevation 640 m. 4 - 5 km Southeast of Jeng Bei Village (Songjianghe Forest Bureau). Valley in foothills of Changbai Mountains. Pedigree - collected from the wild in Jilin, China.

PI 608847. Rubus sachalinensis H. Lev.
Wild. Collected 08/02/1996 in Jilin, China. Latitude 41 deg. 55' N. Longitude 127 deg. 55' E. Elevation 1172 m. Changbai Shan (Changbai Mountains) Nature Preserve. Mountains collected by roadside. Pedigree - collected from the wild in Jilin, China.

PI 608848. Rubus sachalinensis H. Lev.
Wild. Collected 07/24/1996 in Heilongjiang, China. Latitude 52 deg. 5' N. Longitude 123 deg. 19' E. Elevation 526 m. Jagedaqi (Hu Zhong Bureau) southwest of HuZhong town. hills road cut along road to Hu Zhong Natural Preserve. Pedigree - collected from the wild in Jagedaqi, Heilongjiang, China.

PI 608849. Rubus crataegifolius Bunge
Wild. Collected 08/02/1996 in Jilin, China. Latitude 42 deg. 10' N. Longitude 127 deg. 36' E. Elevation 862 m. in foothills of Changbai Mountains. Valley in Residential alley. Pedigree - collected from the wild in Jilin, China.

PI 608850. Rubus arcticus L.
Wild. Collected 07/22/1996 in Heilongjiang, China. Latitude 50 deg. 18' N. Longitude 124 deg. 7' E. Elevation 338 m. 17 km south of Jagedaqi

Jagedaqi Forest Preserve. river valley, low hills edge of experimental Pinus plots. Pedigree - collected from the wild in Jagedaqi, Heilongjiang, China.

PI 608851. Rubus saxatilis L.
Wild. Collected 07/25/1996 in Heilongjiang, China. Latitude 53 deg. 25' N. Longitude 122 deg. 16' E. Elevation 438 m. Jagedaqi (Mo He Bureau) 74 km north of Mo He. Hilly (Da xing an ling) roadside near Pinus sylvestris mongolica, open forest. Pedigree - collected from the wild in Jagedaqi, Heilongjiang, China.

PI 608852. Rubus saxatilis L.
Wild. Collected 07/26/1996 in Heilongjiang, China. Latitude 52 deg. 16' N. Longitude 124 deg. 42' E. Elevation 369 m. Roadside - picked by a local girl along road from Mo He to Xin Ling. 16 km south of Ta He Town. Hilly (Da xing an ling). Pedigree - collected from the wild in Ta He, Heilongjiang, China.

The following were collected by Donna Rae McKay, USDA Forest Service, Forest Resources Bldg, Corvallis, Oregon 97331, United States. Received 03/19/1998.

PI 608853. Rubus spectabilis Pursh
Wild. Collected 07/11/1989 in Oregon, United States. Pedigree - Collected from the wild in Oregon.

PI 608854. Rubus spectabilis Pursh
Wild. Collected 06/1988 in Oregon, United States. Pedigree - Collected from the wild in Oregon.

PI 608855. Rubus spectabilis Pursh
Wild. Collected 07/11/1989 in Oregon, United States. Pedigree - Collected from the wild in Oregon.

PI 608856. Rubus spectabilis Pursh
Wild. Collected 06/10/1977 in Oregon, United States. Pedigree - Collected from the wild in Oregon.

The following were collected by Kim Hummer, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 08/11/1998.

PI 608857. Rubus chamaemorus L.
Wild. Collected 08/06/1998 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 151 deg. 20' W. Elevation 10 m. Next to nature trail walking path, Kenai Wildlife Refuge, Soldatna, Alaska. Near edge of lake in open sun. Associated plants: Vaccinium vitis-ideaus, labrador tea and Sitka spruce. Pedigree - Open pollenated collection from the wild in Alaska.

PI 608858. Rubus pedatus Sm.
Wild. Collected 08/06/1998 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 151 deg. 20' W. Elevation 10 m. Collected along edge of woodland nature trail, Kenai Wildlife Refuge, Soldatna, Alaska. The edge

of tall Sitka Spruce woodland. Associated plants Vaccinium vitis-ideaus, Black Cottonwood and Devils Club. Pedigree - Collected from the wild in Alaska.

PI 608859. Rubus idaeus L.
Wild. Collected 08/07/1998 in Alaska, United States. Latitude 61 deg. 26' 16'' N. Longitude 150 deg. 10' 5'' W. Elevation 10 m. Along river's edge for about 0.5 mile, sampling many plants, Little Susitna River Park, Alaska. Very moist boggy location by river edge next to open woods. Associated with devil's club,red currant, watermellonberry, cranberry-bush (Viburnum edulum). Pedigree - Open pollenated collection from the wild in Alaska.

PI 608860. Rubus pedatus Sm.
Wild. Collected 08/06/1998 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 151 deg. 20' W. Elevation 10 m. Collected along edge of woodland nature trail, Kenai Wildlife Refuge, Soldatna, Alaska. The edge of tall Sitka spruce woodland. Associated plants Vaccinium vitis-ideaus, Black Cottonwood and Devils Club. Pedigree - Open pollenated collection from the wild in Alaska.

PI 608861. Rubus idaeus L.
Wild. Collected 08/10/1998 in Alaska, United States. Latitude 64 deg. 49' 54'' N. Longitude 147 deg. 31' 59'' W. Elevation 30 m. Sled Dog RV Park, Badger Loop Road, on the banks of the Chena River, about 4 miles east of Fairbanks, Alaska. Along river bank. Associated with grasses, ladyfern and Fragaria virginiana. Soil was dark brown, very sandy-loam, very little organic matter.

Unknown source. Received 11/21/1997.

PI 608862 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 608863 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 608864 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 608865 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 608866 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 608867 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 608868 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608869 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608870 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608871 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608872 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608873 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608874 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608875 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608876 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608877 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608878 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608879 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608880 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608881 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608882 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608883 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608884 QUAR. Sorghum bicolor (L.) Moench

Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608885 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608886 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608887 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608888 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608889 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608890 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608891 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608892 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608893 QUAR. Sorghum bicolor (L.) Moench
Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608894 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608895 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 608896 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608897 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608898 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608899 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608900 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608901 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608902 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 608903 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608904 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 608905 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 608906 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608907 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 608908 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

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PI 608910 QUAR. Sorghum bicolor (L.) Moench
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PI 608984 QUAR. Sorghum bicolor (L.) Moench
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PI 608985 QUAR. Sorghum bicolor (L.) Moench
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PI 608987 QUAR. Sorghum bicolor (L.) Moench
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PI 608988 QUAR. Sorghum bicolor (L.) Moench
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Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609068 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609069 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609070 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609071 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609072 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609073 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609074 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609075 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609076 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609077 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609078 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609079 QUAR. Sorghum bicolor (L.) Moench
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PI 609080 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609081 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609082 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 609083 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609084 QUAR. Sorghum bicolor (L.) Moench
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PI 609085 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609086 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609087 QUAR. Sorghum bicolor (L.) Moench
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PI 609088 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609089 QUAR. Sorghum bicolor (L.) Moench
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PI 609090 QUAR. Sorghum bicolor (L.) Moench
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PI 609467 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609468 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609469 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609470 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609471 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609472 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609473 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609474 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609475 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609476 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609477 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609478 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609479 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609480 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609481 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609482 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609483 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609484 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609485 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609486 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609487 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609488 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609489 QUAR. Sorghum bicolor (L.) Moench

Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609490 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609491 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609492 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609493 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609494 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609495 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609496 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609497 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609498 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609499 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609500 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609501 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609502 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609503 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609504 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609505 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609506 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609507 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609508 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609509 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609510 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

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Unknown source. Received 11/21/1997.

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Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

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Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609516 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609517 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

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Unknown source. Received 11/21/1997.

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Unknown source. Received 11/21/1997.

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Unknown source. Received 11/21/1997.

PI 609568 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609569 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

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Cultivated. Collected 1982 in Mali.

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Cultivated. Collected 1982 in Mali.

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Unknown source. Received 11/21/1997.

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Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609653 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609654 QUAR. Sorghum bicolor (L.) Moench

Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609655 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609656 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609657 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609658 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

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PI 609659 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609660 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609661 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609662 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609663 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

Unknown source. Received 11/21/1997.

PI 609664 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

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PI 609665 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 609666 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

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PI 609667 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1982 in Mali.

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PI 609669 QUAR. Sorghum bicolor (L.) Moench
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Collected 1982 in Mali.

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PI 609674 QUAR. Sorghum bicolor (L.) Moench
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PI 609682 QUAR. Sorghum bicolor (L.) Moench
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PI 609838 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 609839 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

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Collected in Mali.

Unknown source. Received 11/21/1997.

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Unknown source. Received 11/21/1997.

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Collected in Mali.

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PI 609847 QUAR. Sorghum bicolor (L.) Moench
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PI 609848 QUAR. Sorghum bicolor (L.) Moench
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PI 610028 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610029 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610030 QUAR. Sorghum bicolor (L.) Moench
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PI 610034 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

Unknown source. Received 11/21/1997.

PI 610035 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610036 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

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PI 610084 QUAR. Sorghum bicolor (L.) Moench
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PI 610087 QUAR. Sorghum bicolor (L.) Moench
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PI 610088 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610089 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610090 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610091 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610092 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610093 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610094 QUAR. Sorghum bicolor (L.) Moench

Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610095 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610096 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610097 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610098 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610099 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610100 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610101 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610102 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610103 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610104 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610105 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610106 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

Unknown source. Received 11/21/1997.

PI 610107 QUAR. Sorghum bicolor (L.) Moench
Cultivated. Collected 1978 in Mali.

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PI 610108 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610109 QUAR. Sorghum bicolor (L.) Moench
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PI 610110 QUAR. Sorghum bicolor (L.) Moench
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PI 610111 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610112 QUAR. Sorghum bicolor (L.) Moench
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PI 610113 QUAR. Sorghum bicolor (L.) Moench
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Unknown source. Received 11/21/1997.

PI 610114 QUAR. Sorghum bicolor (L.) Moench
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PI 610115 QUAR. Sorghum bicolor (L.) Moench
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PI 610117 QUAR. Sorghum bicolor (L.) Moench
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PI 610118 QUAR. Sorghum bicolor (L.) Moench
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PI 610119 QUAR. Sorghum bicolor (L.) Moench
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PI 610120 QUAR. Sorghum bicolor (L.) Moench
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PI 610121 QUAR. Sorghum bicolor (L.) Moench
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PI 610122 QUAR. Sorghum bicolor (L.) Moench
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PI 610123 QUAR. Sorghum bicolor (L.) Moench
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PI 610124 QUAR. Sorghum bicolor (L.) Moench
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PI 610125 QUAR. Sorghum bicolor (L.) Moench
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PI 610126 QUAR. Sorghum bicolor (L.) Moench
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PI 610127 QUAR. Sorghum bicolor (L.) Moench
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PI 610133 QUAR. Sorghum bicolor (L.) Moench
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PI 610134 QUAR. Sorghum bicolor (L.) Moench
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Collected in Mali.

Unknown source. Received 11/21/1997.

PI 610186 QUAR. Sorghum bicolor (L.) Moench
Collected in Mali.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 10/04/1999.

PI 610187. Zea mays L. **subsp. mays**
Cultivar. PVP 9900380.

The following were developed by Cornell Research Foundation, Inc., New York, United States. Received 10/04/1999.

PI 610188. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900386.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 10/04/1999.

PI 610189. Lactuca sativa L.
Cultivar. PVP 9900387.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901, United States; Ronald F. Bara, Rutgers University, New Jersey Agricultural Experiment Station, Cook College, New Brunswick, New Jersey 08903, United States; Dirk A. Smith, New Jersey Agricultural Experiment Station, Plant Science Dept., Cook College, Rutgers Univ., New Brunswick, New Jersey 08903, United States; W.A. Meyer, Rutgers University, Cook College, Plant Sciences Dept., P.O. Box 231, New Brunswick, New Jersey 08903, United States; Timothy M. Ford, Lebanon Seaboard Corporation, P.O. Box 10, Huntsville, Utah 84317, United States. Received 10/04/1999.

PI 610190. Festuca arundinacea Schreb.
Cultivar. CV-82; PVP 9900390. Pedigree - Synthetic cultivar selected from the maternal progenies of 96 clones. Parental germplasm traces to plants selected from old turfs of the United States starting in 1962 and to plants related to Rebel tall fescue. Intercrosses of selected plants were subjected to many cycles of phenotypic and genotypic selection. Attractive, dark green, low-growing, uniform, turf-type tall fescue. Excellent performance in turf trials in New Jersey.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901, United States. Received 10/04/1999.

PI 610191. Lolium perenne L.
Cultivar. PVP 9900391. Pedigree - Selections from old turfs were evaluated for turf performance including stress tolerance and pest resistance. Intercrosses of the best were then subjected to many cycles

of population improvement. Moderately low-growing, turf-type perennial ryegrass with bright, dark green color, and an excellent record of performance in turf trials in New Jersey.

PI 610192. Lolium perenne L.
Cultivar. PVP 9900392. Pedigree - Over 90% of the parental germplasm traces to selections made from old turfs in the United States beginning in 1962. Additional germplasm traces to collections made in Europe. Selections were evaluated for turf performance, seed yield, and stress tolerance followed by many cycles of population improvement. Leafy, persistent, turf-type perennial ryegrass capable of producing a dense fine-textured, medium-low-growing turf with a bright, dark green color. Performed well in N2 turf trials.

PI 610193. Lolium perenne L.
Cultivar. PVP 9900393. Pedigree - Selections from old turfs of the United States and Europe were evaluated for turf performance characteristics and seed yield potential. Intercrosses of best performing selections were then subjected to many cycles of population improvement. Low-growing, turf-type with bright, dark green color. Excellent performance in turf trials in New Jersey producing a dense turf with medium-fine leaves and improved mowing quality.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 10/04/1999.

PI 610194. Gossypium hirsutum L.
Cultivar. PVP 9900394.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 10/04/1999.

PI 610195. Allium cepa L.
Cultivar. PVP 9900395.

The following were developed by Hisparroz, S.A., Spain. Received 10/04/1999.

PI 610196. Oryza sativa L.
Cultivar. PVP 9900396.

The following were developed by Arizona Plant Breeders, Inc., Arizona, United States. Received 10/04/1999.

PI 610197. Pennisetum clandestinum Hochst. ex Chiov.
Cultivar. PVP 9900397.

The following were developed by Seed Source, Inc., United States. Received 10/04/1999.

PI 610198. Gossypium hirsutum L.

Cultivar. PVP 9900398.

The following were developed by Turf Merchants, Inc., United States. Received 10/04/1999.

PI 610199. Festuca arundinacea Schreb.
Cultivar. PVP 9900399.

The following were developed by Resource Seeds, Inc., United States. Received 10/04/1999.

PI 610200. X Triticosecale sp.
Cultivar. PVP 9900400.

PI 610201. X Triticosecale sp.
Cultivar. PVP 9900401.

PI 610202. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900403.

The following were developed by Novartis Seeds, Inc., United States. Received 10/04/1999.

PI 610203. Pisum sativum L.
Cultivar. PVP 9900406.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 10/04/1999.

PI 610204. Lactuca sativa L.
Cultivar. PVP 9900407.

The following were developed by J.R. Simplot Company, United States. Received 10/04/1999.

PI 610205. Poa pratensis L.
Cultivar. PVP 9900408.

The following were developed by Forage Genetics, Inc., Missouri, United States. Received 10/04/1999.

PI 610206. Medicago sativa L.
Cultivar. PVP 9900409.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 10/04/1999.

PI 610207. Medicago sativa L.

Cultivar. PVP 9900410.

PI 610208. Medicago sativa L.
Cultivar. PVP 9900411.

The following were developed by Glenn Page, Green Genes, Inc., 401 Second Street E., Wananmingo, Minnesota 55983, United States. Received 10/04/1999.

PI 610209. Guizotia abyssinica (L. f.) Cass.
Cultivar. PVP 9900412.

The following were developed by Nunes Vegetables, Inc., P.O. Box 673, Salinas, California 93902, United States. Received 10/04/1999.

PI 610210. Apium graveolens var. dulce (Mill.) Pers.
Cultivar. PVP 9900413.

The following were developed by Turf Merchants, Inc., United States. Received 10/04/1999.

PI 610211. Lolium perenne L.
Cultivar. PVP 9900420.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 10/04/1999.

PI 610212. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900428.

PI 610213. Zea mays L. **subsp. mays**
Cultivar. PVP 9900415.

PI 610214. Zea mays L. **subsp. mays**
Cultivar. PVP 9900416.

PI 610215. Zea mays L. **subsp. mays**
Cultivar. PVP 9900417.

PI 610216. Zea mays L. **subsp. mays**
Cultivar. PVP 9900418.

PI 610217. Zea mays L. **subsp. mays**
Cultivar. PVP 9900421.

PI 610218. Zea mays L. **subsp. mays**
Cultivar. PVP 9900422.

PI 610219. Zea mays L. **subsp. mays**
Cultivar. PVP 9900423.

PI 610220. Zea mays L. **subsp. mays**

Cultivar. PVP 9900424.

PI 610221. Zea mays L. **subsp. mays**
Cultivar. PVP 9900425.

PI 610222. Zea mays L. **subsp. mays**
Cultivar. PVP 9900426.

The following were developed by Novartis Seeds, Inc., United States. Received 10/04/1999.

PI 610223. Zea mays L. **subsp. mays**
Cultivar. PVP 9900427.

The following were developed by Chinese Academy of Agricultural Sciences, Inst. of Crop Breeding & Cultivation, Beijing, Beijing, China. Donated by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 09/28/1998.

PI 610224. X Triticosecale sp.
Breeding. Forage-type winter triticale.

PI 610225. X Triticosecale sp.
Breeding. Forage-type winter triticale.

PI 610226. X Triticosecale sp.
Breeding. Forage-type winter triticale.

PI 610227. X Triticosecale sp.
Breeding. Forage-type winter triticale.

The following were donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States; Anseng Li, Chinese Academy of Science, Institute of Genetics, Building 917, Beijing, Beijing, China. Received 04/05/1999.

PI 610228. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Developed in China.

PI 610229. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Developed in China.

PI 610230. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Developed in China.

PI 610231. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Developed in China.

PI 610232. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Developed in China.

PI 610233. Hordeum vulgare L. **subsp. vulgare**

Cultivar. Pureline. Developed in China. Early, high yielding.

PI 610234. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. Developed in China.

PI 610235. Hordeum vulgare L. **subsp. vulgare**
Breeding. Developed in China.

PI 610236. Hordeum vulgare L. **subsp. vulgare**
Breeding. Developed in China.

PI 610237. Hordeum vulgare L. **subsp. vulgare**
Breeding. Developed in China.

PI 610238. Hordeum vulgare L. **subsp. vulgare**
Breeding. Developed in China.

The following were developed by M. Ken Aycock, Jr., University of Maryland, Department of Agronomy, College Park, Maryland 20742, United States; Arvydas Grybauskas, University of Maryland, Dept Natural Resource Sciences, 2102 Plant Science Bldg., College Park, Maryland 20742-4452, United States. Received 10/13/1999.

PI 610239. Nicotiana tabacum L.
Breeding. Pureline. GP-53. Pedigree - {[(A16 x A25) x L8] x MD 201]}F15. Maryland type tobacco with resistance to tobacco mosaic virus (TMV) and Race O black shank (Phytophthora parasitica). Similar to cultivars MD 609, MD 872, and MD 201 with a five-year average yield of 2182 kg ha-1, a quality index of 38.7, plant height at maturity of 86.4 cm, and content of total alkaloids and total nitrogen of 2.63 and 3.19%, respectively. Flowers 68 days after transplanting, and produces 23.4 leaves per plant. Leaves long with medium width and pointed tips.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 11/17/1999.

PI 610240. Glycine max (L.) Merr.
Cultivar. PVP 200000030.

PI 610241. Glycine max (L.) Merr.
Cultivar. PVP 200000031.

PI 610242. Glycine max (L.) Merr.
Cultivar. PVP 200000032.

PI 610243. Glycine max (L.) Merr.
Cultivar. PVP 200000033.

PI 610244. Glycine max (L.) Merr.
Cultivar. PVP 200000034.

PI 610245. Glycine max (L.) Merr.
Cultivar. PVP 200000035.

PI 610246. Glycine max (L.) Merr.
Cultivar. PVP 200000036.

PI 610247. Glycine max (L.) Merr.
Cultivar. PVP 200000037.

PI 610248. Glycine max (L.) Merr.
Cultivar. PVP 200000038.

PI 610249. Glycine max (L.) Merr.
Cultivar. PVP 200000039.

PI 610250. Glycine max (L.) Merr.
Cultivar. PVP 200000040.

PI 610251. Glycine max (L.) Merr.
Cultivar. PVP 200000041.

PI 610252. Glycine max (L.) Merr.
Cultivar. PVP 200000042.

PI 610253. Glycine max (L.) Merr.
Cultivar. PVP 200000043.

PI 610254. Glycine max (L.) Merr.
Cultivar. PVP 200000044.

PI 610255. Glycine max (L.) Merr.
Cultivar. PVP 200000045.

PI 610256. Glycine max (L.) Merr.
Cultivar. PVP 200000046.

The following were developed by Harold G. Marshall, USDA-ARS, Pennsylvania State University, Department of Agronomy, University Park, Pennsylvania 16823, United States; Robert W. Gooding, Ohio State University, Ohio Agricultural Research & Development Center, Department of Agronomy, Wooster, Ohio 44691-4096, United States; Larry D. Herald, Ohio State University, Dept. of Horticulture and Crop Science, Ohio Agric. Res. and Development Ctr., Wooster, Ohio 44691, United States. Received 11/01/1999.

PI 610257. Avena sativa L.
Cultivar. Pureline. CV-363. Pedigree - Random/Jaycee//Orbit/Noble. High grain yield potential and improved grain volume weight. Maturity mid-season. More tolerant to Barley Yellow Dwarf Virus than Noble. Resistance to loose smut (Ustalago avenae). Susceptible to prevalent races of crown rust (Puccinia coronata). Juvenile growth habit semiprostrate. Culms medium in diameter, and culm and leaf margins glabrous. Ligules present. Panicles equilateral with ascending branches. Spikelet separation is by fracture, and floret separation is by abscission. Lemmas yellow and glabrous. Basal hairs absent. Secondary floret rachilla segments glabrous and midlong. Seed nonfluorescent under ultraviolet light with fluorescent variants occurring at less than 1.5%.

Awns non-twisted and average 20mm in length when present. Kernels bright yellow, medium size, plump, and finely tapered at tips.

The following were developed by Robert K. Bacon, University of Arkansas, Department of Agronomy, 115 Plant Science Bldg., Fayetteville, Arkansas 72701, United States; John T. Kelly, University of Arkansas, Department of Crop, Soil & Environmental Sciences, 115 Plant Science, Fayetteville, Arkansas 72701, United States. Donated by Robert K. Bacon, University of Arkansas, Department of Agronomy, 115 Plant Science Bldg., Fayetteville, Arkansas 72701, United States. Received 10/26/1999.

PI 610258. Brassica napus L.
Breeding. GP-7. Pedigree - Cobra / Glacier. Winter rapeseed with edible quality oil. Good winterhardiness and good yield potential. Yielded 2583 kg/ha at 7 Midwest locations and 1946 kg/ha at 7 Southeast sites in the 1997-98 National Canola Variety Trial. Although relatively tall (132 cm) did not lodge significantly more than the best entry (12% vs 6%). Shattering slightly more than test mean (8.3% vs 7.3%). High test weight (625 kg/m3) and total oil content approx. 44%. Good resistance to Blackleg disease.

The following were developed by Robert K. Bacon, University of Arkansas, Department of Agronomy, 115 Plant Science Bldg., Fayetteville, Arkansas 72701, United States; John T. Kelly, University of Arkansas, Department of Crop, Soil & Environmental Sciences, 115 Plant Science, Fayetteville, Arkansas 72701, United States. Received 11/04/1999.

PI 610259. Avena sativa L.
Breeding. Population. GP-56. Pedigree - Composite cross. Good winterhardiness and well adapted to Arkansas growing conditions. Contains variation for most traits with plant height ranging from 52-125 cm. Seeds moderately plump with an average 1000-kernel wt. of 29.0 g. Seeds high in protein (15.5%) with varying levels of trichomes.

The following were developed by David A. Van Sanford, University of Kentucky, Department of Agronomy, Ag. Sci. Ctr. N-106K, Lexington, Kentucky 40546-0091, United States; C.R. Tutt, University of Kentucky, Kentucky Agric. Exp. Station, Princeton, Kentucky, United States; C.S. Swanson, University of Kentucky, Kentucky Agric. Exp. Station, Lexington, Kentucky, United States; B. Mijatovic, University of Kentucky, Dept. of Agronomy, Lexington, Kentucky 40546-0091, United States. Received 11/15/1999.

PI 610260. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. CV-884. Pedigree - VA 66-24-10/Bajio 66//Pontiac/3/VA 68-22-7/Coker 747/Ark 39-3//Coker 68-15/VA 72-54-14. White-chaffed, awnletted soft red winter wheat with midlong spikes and intermediate size kernels. Early maturing, with a heading date similar to that of Patterson. Intermediate height, slightly taller than Foster. Winterhardiness similar to Patterson. Grain yield averaged approx. 113% of Clark, and 117% of Ernie. Test weight 747 kg m-3, slightly higher than Madison. Outstanding flour yield. In milling quality analyses in 1996 and 1997, for example, average straight grade flour yield was 72.6%

compard to 69.7% for Caldwell. Moderately resistant to powdery mildew (Erysiphe graminis), Septoria leaf blotch (Septoria tritici), and glume blotch (Stagnospora nodorum). Resistant to some races of leaf rust (Puccinia triticina) and susceptible to barley yellow dwarf virus and to Hessian fly (Mayetiola destructor).

The following were developed by Ron D. Barnett, University of Florida, North Florida Res. & Ed. Center, R.#3, Box 4370, Quincy, Florida 32351-9500, United States. Received 08/16/1999.

PI 610261. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - FL302-H9 backcross line/GA781176 (McNair1003/Coker 762). Soft red winter wheat. Resistant to Biotype L of Hessian fly.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Shivabhai Patel, Seed Merchants & Producers, Gujarat, India. Received 04/15/1986.

PI 610262. Amaranthus blitum L.
Cultivated. Vegetable with black seeds, green leaves and flowers. The RRC type is: horsetooth.

The following were developed by Leonardo Velasco, Instituto de Agricultura Sostenible, Apartado 4084, E-14080, Cordoba, Cordoba 14080, Spain; J. Munoz, Instituto de Agricultural Sostenible, Apartado 4084, Cordoba, Cordoba 14080, Spain; J.M. Fernandez, Institute for Sustainable Agriculture, Alameda del Obispo S/N E=14080, Cordoba, Cordoba, Spain. Received 11/29/1999.

PI 610263. Carthamus tinctorius L.
Genetic. Pureline. GS-1. Pedigree - Developed from the Spanish cv. Rancho by chemical mutagenesis with ethylmethane sulfonate (EMS). Dwarf safflower genetic stock. Plants about 60cm tall compared with about 100cm for Rancho. Produces a large number of heads per plant (96.4) under low plant density (30,000 plants per ha), but not under a higher plant density (214,000 plant per ha produces 12.2 heads per plant). Orange flowers and white seeds. Similar to Rancho for flowering date. Average thousand seed weight of 31.8g, a hull content of 31.5% and a seed oil content of 423 g kg-4, compared with thousand seed weight of 48.2 g, hull content of 40.3% and oil content of 365 g kg-1 for Rancho.

The following were developed by Thomas K. Blake, Montana State University, Department of Plant Sciences, 109 Ag Biosciences, Bozeman, Montana 59717, United States. Received 12/02/1999.

PI 610264. Hordeum vulgare L. **subsp. vulgare**
Cultivar. PVP 200000156. Pedigree - Lewis/Baronesse. Two-rowed white kernel midseason spring barley. Unlike its paternal parent Baronesse, retains sterile lateral florets. Nearly two days later to flower than its maternal parent Lewis. Frequently developes red-tipped awns late in the season, an obvious and distinctive characteristic. Approx. two centimeters shorter than Lewis, with correspondingly greater lodging

resistance.

The following were donated by USDA-ARS/Utah Agric. Exp. Station, Logan, Utah, United States. Received 1961.

PI 610265. Beta vulgaris L.
New CT9 came about by propagation of sublines of curly-top resistant inbred CT9. However, it is believed that out- crosses to other unknown parentage was also involved. The New CT9 is more vigorous than the original. It is therefore propagated more easily and produces equal or superior hybrids to those made with inbred CT9.

PI 610266. Beta vulgaris L.
Is the 4th release of US 22, represents last self-sterile curly-top resist. var. The select. was made by Murphy & Owen from US 22/3. This vigorous var. is yld type, very hi in curly top resistance. Many curly-top resist. monogm lines have been derived by hybridization to this variety. Lit. refer. -- Advances in Agron., Vol VII, 1955. pp. 89-139.

PI 610267. Beta vulgaris L.
SL 742 was one of many lines developed by W. W. Tracy, Jr. It was observed to be very iniform and extremely susceptible to the curly-top disease. It was used extensively at River- side, California by N. J. Giddings and later at the U.S.D.A. Station at Salinas, by N. J. Giddings and later at the U.S.D.A. Station at Salinas, Calif. by C. W. Bennett to differn. diff. cur-top vir. strns. Lit - Giddings, N.J. '46.

The following were donated by USDA, ARS, California Agric. Exp. Station, Davis, California, United States. Received 1978.

PI 610268. Beta vulgaris L. **subsp. vulgaris**
Inbred SLC 101 monogerm is the original monogerm line derived from one monogerm plant found in Oregon in 1947. From this line after hybridization with different multigerm varieties were obtained all self-sterile, self-fertile strains, varieties, commerical hybrids and inbred lines in the USA, Canada, & in many European countries.

The following were donated by USDA, ARS, Colorado Agric. Exp. Station, Fort Collins, Colorado, United States. Received 1971.

PI 610269. Beta vulgaris L. **subsp. vulgaris**
Product of selection in Chile for resistance to yellow wilt. Final report (supplement). CR d1-27(CA) July 1, 1971, issued by the Plant Science Research Div., ARS-USDA, the Beet Sugar Development Foundation, and Industria Azucarera Nacional S.A., pp. 6-9.

PI 610270. Beta vulgaris L. **subsp. vulgaris**
Selection and breeding sugarbeets for resistance to yellow wilt, final report (supplement). CR d1-27(CA) July 1, 1971, issued by the Plant Science Research Div., ARS-USDA, the Beet Sugar Development Foundation, and Industria Azucarera Nacional S.A., pp. 6-9. Prod. of selection in

Chile for resistance to yellow wilt. Product of selection in Chile for resistance to yellow wilt.

The following were donated by Beet Sugar Development Foundation, P.O. Box 538, Fort Collins, Colorado 80521, United States. Received 1972.

PI 610271. Beta vulgaris L. **subsp. vulgaris**
Lit. reference - A Final Report on the Sugar Beets CR d1-27(CA) 7/1/71 (files). Product of selection in Chile for yellow wilt.

PI 610272. Beta vulgaris L. **subsp. vulgaris**
Product of selection in Chile for resistance to yellow wilt. Lit. reference: A final report on the sugar beets CR d1-27 (CA) 7/1/71 (files).

PI 610273. Beta vulgaris L. **subsp. vulgaris**
Lit. reference: A final report on the sugar beets CR d1-27 (files). Product of selection in Chile for resistance to yellow wilt.

PI 610274. Beta vulgaris L.
Seed rec'd at NSSL 1974 with 5 year restriction. Lit. reference -- "Selection and Breeding Sugarbeets for Resistance to Yellow Wilt" (Supplement Report) CR-d1-27 (CA) 7-1-71 (files) Seed requests (during 5-year restriction period) were approved by: Dr. James Fischer, Sec'y-Mgr., Beet Sug. Devlpmt Fndn.

PI 610275. Beta vulgaris L. **subsp. vulgaris**
Product of selection in Chile for resistance to yellow wilt. one cycle of selection for resistance to bolting in the line, RS-2b(A). Lit. reference - "Report-Supplement - Selection & Breeding Sugarbeets for Resistance to Yellow Wilt" CR-d1-27 (CA) 7-1-71 (files).

The following were donated by USDA, ARS, NSSL, National Seed Storage Laboratory, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States. Received 1976.

PI 610276. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill, USDA-ARS. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the ARS-USDA, the Beet Sugar Dev. Found. 39 pp. Prod. of selection & breeding in Chile for resist. to yel. wilt. Contact -- J. S. McFarlane, Res. Ldr, Sugarbeet Production, W. Region, ARS-USDA, P.O. Box 5098, Salinas, CA 93901.

PI 610277. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill, 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the ARS-USDA and the Beet Sugar Development. 39 pp. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Reg., ARS-USDA, P.O. 5098, Salinas, CA 93901. Product of selection & brdg in Chile for resist. to yel. wil.

PI 610278. Beta vulgaris L. **subsp. vulgaris**

Lit. reference - J. O. Gaskill, 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the Ag. Research Service, USDA, and the Beet Sugar Dev. Found. 39 pp. Prod. of select. & brdg in Chile for resist. to yellow wilt. Contact - Dr. J. S. McFarlane, Res. Ldr, Sugarbt Prod., W. Reg., ARS-USDA, Box 5098, Salinas, CA.

PI 610279. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill. 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the ARS-USDA, and the Beet Sugar Development Foundation. 39 pp.

PI 610280. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill. 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the Agricultural Res. Svc, USDA, and the Beet Sugar Development Foundation.. 39 pp. Contact - Dr. J. S. McFarlane, Res. Ldr, Sugarbeet Product. W. Region, ARS-USDA, P.O. 5098, Salinas, CA 93901.

PI 610281. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill, 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the ARS-USDA, and the Beet Sugar Development Foundation. 39 pp. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Region, ARS-USDA, Box 5098, Salinas, CA 93901.

PI 610282. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill. 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the ARS-USDA and the Beet Sugar Development Foundation. 39 pp. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Region, ARS-USDA, Box 5098, Salinas, CA 93901.

PI 610283. Beta vulgaris L. **subsp. vulgaris**
J. O. Gaskill. 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final Report for Cooperative Agreement No. 12-14-100-10,624(34) between the ARS-USDA, and the Beet Sugar Development Foundation. 39 pp. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Region, ARS-USDA, Box 5098, Salinas, CA 9390l.

PI 610284. Beta vulgaris L. **subsp. vulgaris**
Lit. reference - J. O. Gaskill 1974. Selection and breeding sugarbeet for resistance to yellow wilt. Final report for Cooperative Agreement No. 12-14-100-19, 624(34) between the ARS-USDA, and the Beet Sugar Development Foundation. 39 pp. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Region, ARS-USDA, Box 5098, Salinas, CA 9390.

The following were donated by USDA, ARS, Colorado Agric. Exp. Station, Fort Collins, Colorado, United States. Received 1977.

PI 610285. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile Product of selection and breeding in Chile for resistance to yellow wilt. Journal of American Society of Sugar Beet Technol. 19: 25-44. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet nnarr: Production, W. Region, ARS-USDA, Box 5098, Salinas, CA 93901.

PI 610286. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile Production of selection and breeding in Chile for resistance to yellow wilt. Lit. reference: John O. Gaskill and Roberto Ehrenfeld. 1976. Breeding sugarbeet for resistance to yellow wilt. Journal of American Soc. of Sugar Beet Technol. 19: 25-44. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Prod., W. Reg., ARS-USDA, Box 5098, Salinas, CA 93901.

PI 610287. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile. Originated for resistance to yel. wilt. Lit. reference - John O. Gaskill and Roberto Ehrenfeld. 1976. Breeding sugarbeet for resistance to yellow wilt. Journal of American Soc. Sugar Beet Technol. 19: 25-44. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Region, ARS-USDA, P.O. Box 5098,.

PI 610288. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile Product of selection and breeding in Chile for resistance to yellow wilt. Lit. reference - John O. Gaskill & Roberto Ehrenfeld. 1976. Breeding sugarbeet for resist. to yellow wilt. Journal of American Soc. Sugar Beet Technol. 19: 25-44. Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, W. Reg. ARS-USDA, Box 5098, Salinas, CA 93901.

PI 610289. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile Product of selection and breeding in Chile for resistance to yellow wilt. Lit. reference - John O. Gaskill and Roberto Ehrenfeld. Breeding sugarbeet for resistance to yellow wilt. Journal of American Society Sugar Beet Technol. 19: 25-44. Contact - Dr. J. S. McFarlane, Res. Leader, Sugarbeet Production, West. Reg, ARS-USDA, Box 5098, Salinas, CA 9390l.

PI 610290. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile Product of selection and breeding in Chile for resistance to yellow wilt. Lit. reference - John O. Gaskill and Roberto Ehrenfeld. 1976 Contact - Dr. J. S. McFarlane, Research Leader, Sugarbeet Production, Western Region, Agric. Research Service, USDA, P.O. Box 5098, Salinas, California 93901.

PI 610291. Beta vulgaris L. **subsp. vulgaris**
Collected in Argentina. Origin - Argentina Crop year 1977 Selection in Argentina from several Chilean lines. Product of selection and breeding for resistance to yellow wilt. Literature reference: John O. Gaskill, Roberto Ehrenfeld. 1976. Breeding sugarbeet for resistance to yellow wilt. J. Amer. Soc. Sugar Beet Technol. 19:25-44.

PI 610292. Beta vulgaris L. **subsp. vulgaris**

Collected in Chile. Origin - Chile Crop year 1977 Immed. parent 73/5-1-10-L24 Product of selection and breeding for resistance to yellow wilt. Lit. reference - John O. Gaskill and Roberto Ehrenfeld. 1976 Breeding sugarbeet for resistance to yellow wilt. Journal of American Soc. Sugar Beet Technol. 19: 25:44.

PI 610293. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. Origin - Chile Crop year - 1977 Immed. parent 73/5-1-15-T6. Product of selection and breeding for resistance to yellow wilt. Journal Am. Soc. Sugar Beet Technol. 19: 25-44.

The following were donated by USDA, ARS, Plant Science Research Division, Beltsville, Maryland 20705, United States. Received 1978.

PI 610294. Beta vulgaris L. **subsp. vulgaris**
SP 74566-01 is a cytoplasmic male-sterile monogerm line originating from SP 70550-01, the cytoplasmic male-sterile component of US H21. SP 74566-01 is moderately resistant to black root and highly resistant to leaf spot. When crossed with SP 6822-0, our standard multigerm pollinator, the hyb. was about = to US H20 in beet yld. Sucrose % was some- what lower than US H20. Purity was only slightly lower.

The following were donated by USDA, ARS, Colorado Agric. Exp. Station, Fort Collins, Colorado, United States. Received 1978.

PI 610295. Beta vulgaris L. **subsp. vulgaris**
Breeding. GP-47. Registration document CP 47 in Crop Sci., Vol. 18, Nov-Dec 1978. Cytoplasmic male sterile equivalent of FC 506. Diploid (2n = 2X = 18) and flowers after short photothermal induction. High resistance to Cercospora beticola Sacc. (about equal to US 201).

PI 610296. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 73/5-1-23-T4, a product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610297. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 73/5-1-24-L33. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610298. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 74/6-3-46-L4, product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610299. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 74/6-4-47-L7, a product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610300. Beta vulgaris L. **subsp. vulgaris**
SEA increase of 74/6-3-50-L2, a product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

The following were donated by Edward J. Ryder, USDA, ARS, 1636 E. Alisal

Street, Salinas, California 93905, United States. Received 1979.

PI 610301. Beta vulgaris L. **subsp. vulgaris**
Long term inbred (14 generations of selfing) developed from C563. Possesses resistance to bolting and curly top.

PI 610302. Beta vulgaris L. **subsp. vulgaris**
Doubled haploid annual inbred with resistance to curly top. B. L. Hammond. 1966. Homozygous diploid sugar beets. Journal of American Soc. of Sugar Beet Technologists 14: 75-78. Vigorous with 9 chromosomes. Small flowers as compared to those of the diploids. The anthers contained mostly empty pollen grains. Flowers profusely during summer. Vigorous both as to foliage and root growth.

PI 610303. Beta vulgaris L. **subsp. vulgaris**
Monogerm composite that segregates for genetic male steril- ity (a subscript 1 a subscript 1). Moderate resistance to curly top.

The following were donated by J. O. Gaskill, Colorado State University, Crops Research Lab, WR Sugarbeet Production Research, Fort Collins, Colorado 80523, United States. Received 1980.

PI 610304. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610305. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610306. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, marr: for resistance to yellow wilt.

PI 610307. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610308. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610309. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610310. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

PI 610311. Beta vulgaris L. **subsp. vulgaris**
Collected in Chile. A product of selection and breeding sugarbeet, in Chile, for resistance to yellow wilt.

The following were donated by Edward J. Ryder, USDA, ARS, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 1981.

PI 610312. Beta vulgaris L. **subsp. vulgaris**
The cytoplasmic male sterile equivalent (14 backcrosses) of of the 1503 inbred. Possesses resistance to downy mildew and bolting.

PI 610313. Beta vulgaris L. **subsp. vulgaris**
Multigerm inbred susceptible to Alternaria leafspot. Lit: J. S. McFarlane, Roy Bardin and Wm. C. Snyder. 1954. An Alternaria leaf spot of the sugarbeet. American Society of Sugar Beet Technol. Proc. (Pt. 1):241-246.

PI 610314. Beta vulgaris L. **subsp. vulgaris**
The cytoplasmic male sterile equivalent (21st backcross) of the 547 inbred. A multigerm line possessing bolting and curly top resistance used as a component of the US H6 variety. Lit: J. S. McFarlane and I. O. Skoyen. 1964. These new hybrid sugarbeet varieties for early planting. Calif. Agr. 18:2-4.

PI 610315. Beta vulgaris L. **subsp. vulgaris**
The cytoplasmic male sterile equivalent (11th backcross) of the 569 inbred. Possesses resistance to bolting and curly top. Lit: J. S. McFarlane and I. O. Skoyen. 1965. Sugarbeet breeding lines combining resistance to bolting and disease. J. Am. Soc. Sugar Beet Technol. 13:555-562.

PI 610316. Beta vulgaris L. **subsp. vulgaris**
A Mendelian male sterile of the NB1 inbred which combines bolting and curly top resistance. Should segregate approx. 50% aa.

PI 610317. Beta vulgaris L. **subsp. vulgaris**
A Mendelian male sterile of the 564 inbred that segregates approximately 50% aa.

PI 610318. Beta vulgaris L. **subsp. vulgaris**
A Mendelian male sterile produced by crossing 563aa with 566Aa. Should segregate approximately 50% aa.

PI 610319. Beta vulgaris L. **subsp. vulgaris**
A type O selection from the high sugar, multigerm, open- germ, open-pollinated line 366 which is a bolting resistant selection from the commercial variety US 35/2.

PI 610320. Beta vulgaris L. **subsp. vulgaris**
A self-sterile monogerm line possessing moderate curly top and bolting resistance.

PI 610321. Beta vulgaris L. **subsp. vulgaris**
A self-sterile monogerm developed from a cross between the American 955 line and a monogerm (P.I. 254575) from the USSR.

PI 610322. Beta vulgaris L. **subsp. vulgaris**
Self-fertile, multigerm line with homozygous resistance (BmBm) to beet

mosaic virus and moderate to good resistance to virus yellows, curly top, downy mildew, rust, and bolting. This line is uniform, with a dark green, small canopy. Theoretically, about 94% of 717 was derived from beet mosaic virus susceptible, self-sterile C17.

PI 610323. Beta vulgaris L. **subsp. vulgaris**
CMS counterpart of C301.

PI 610324. Beta vulgaris L. **subsp. vulgaris**
Composite of self-fertile, monogerm lines that have been selected from resistance to virus yellows. Composite has the general description of YR/2 S subscript 5(C13, C17 x CTR-S superscript f-mm)mm(symbol description of symbol that follows "mm", i.e., an x surrounded by a circle. Composite was prod. spec. for germplsm preserv. Seed from 228 selfed plants from 28 lines was completed.

PI 610325. Beta vulgaris L. **subsp. vulgaris**
Composite of self-fertile, monogerm lines that have been selected for resist. to virus yellows. Composite has the general description of YR/2 S subscript 5 (C04 x CTR-S superscript f-mm)mm(Symbol description of symbol that follows "mm", i.e., an x surrounded by a circle. Seed from 168 selfed plants from 19 lines was composited.

PI 610326. Beta vulgaris L. **subsp. vulgaris**
Composite of self-fertile, monogerm lines that have been selected for resist. to virus yellows. Composite has the general description of YR S subscript 5(C01, C10, C44 x CTR -S superscript f-mm)mm(Symbol description of symbol that follows the "mm", ie, an x surrounded by a circle. Seed fro 250 selfed plants from 28 lines was composited.

PI 610327. Beta vulgaris L. **subsp. vulgaris**
Composite of self-fertile, monogerm lines that have been selected for resist. to virus yellows. Composite has the gen. description of YR S subscript 5 (CTR-S superscript f-mm x YR-S superscript f-MM)mm(Symbol description follows of the symbol that follows "mm", ie, an x surrounded by a circle. Seed from 270 selfed plants from 37 lines was composited.

PI 610328. Beta vulgaris L. **subsp. vulgaris**

PI 610329. Beta vulgaris L. **subsp. vulgaris**
Composite of self-fertile, monogerm lines that have been selected for resistance to virus yellows. Composite has the general description of YR[(CRT-mmaa x YR-S superscript f-MM) x YR-S superscript f-mm] mm(Symbol description -- since this symbol not avail. for this info. update -- x with a circle surrounding it. This came directly after the "mm". Seed from 193 selfed plants from 23 lines was composited.

PI 610330. Beta vulgaris L. **subsp. vulgaris**
Composite of self-fertile, monogerm lines that have select. for resist. to virus yellows. Composite has the general description of YR/2 (CTR-mmaa x CTR-S superscript f-mm)mm [symbol: x surrounded by a circle]. Seed from 59 selfed plant from 8 lines was composited.

The following were donated by J. C. Theurer, Sugarbeet Investigations, Crops Res. Lab., Utah State Univ., Logan, Utah 84322, United States. Received 1983.

PI 610331. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610332. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610333. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610334. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610335. Beta vulgaris L.

PI 610336. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610337. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610338. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610339. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610340. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610341. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610342. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610343. Beta vulgaris L.

PI 610344. Beta vulgaris L.

PI 610345. Beta vulgaris L.

PI 610346. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610347. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610348. Beta vulgaris L.

PI 610349. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610350. Beta vulgaris L.

PI 610351. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610352. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610353. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610354. Beta vulgaris L.

PI 610355. Beta vulgaris L.

PI 610356. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610357. Beta vulgaris L.

PI 610358. Beta vulgaris L.

PI 610359. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610360. Beta vulgaris L.

PI 610361. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610362. Beta vulgaris L.

PI 610363. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610364. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610365. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610366. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610367. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610368. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610369. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610370. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610371. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610372. Beta vulgaris L.

PI 610373. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610374. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610375. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610376. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610377. Beta vulgaris L.

PI 610378. Beta vulgaris L.

PI 610379. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610380. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610381. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610382. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610383. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610384. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610385. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610386. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610387. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610388. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610389. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610390. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610391. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610392. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610393. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610394. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610395. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610396. Beta vulgaris L. **subsp. vulgaris**
Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

PI 610397. Beta vulgaris L.

The following were donated by Garry A. Smith, USDA, ARS, Crops Research Laboratory, Colorado State University, Fort Collins, Colorado 80523, United States. Received 1984.

PI 610398. Beta vulgaris L.
Collected in China. A 2x, multigerm, open-pollinated, commercial sugarbeet variety provided by the Institute of Plant Germplasm Resources, Chinese Academy of Agricultural Science, Beijing, PRC.

PI 610399. Beta vulgaris L.
Collected in China. A 2x, multigerm, open-pollinated, commercial sugarbeet variety provided by the Institute of Plant Germplasm Resources, Chinese Academy of Agricultural Science, Beijing, PRC.

PI 610400. Beta vulgaris L.
Collected in China. A 2x, multigerm, open-pollinated, commercial sugarbeet variety provided by the Institute of Plant Germplasm Resources, Chinese Academy of Agricultural Science, Beijing. PRC.

The following were donated by Robert T. Lewellen, USDA, ARS, U.S. Agricultural Research Station, 1639 E. Alisal St., Salinas, California 93905, United States. Received 1984.

PI 610401. Beta vulgaris L.
Diploid, multigerm, self-sterile line from Italy with tolerance to rhizomania. Obtained from Dr. Carlo Tomassini, Alba Company, Padova, Italy.

PI 610402. Beta vulgaris L.
Diploid, multigerm, self-sterile line from Italy with tolerance to rhizomania. Obtained from Dr. Carlo Tomassini, Alba Company, Padova, Italy.

PI 610403. Beta vulgaris L. **subsp. vulgaris**
Selected in Chile for resistance to yellow wilt.

PI 610404. Beta vulgaris L. **subsp. vulgaris**
Selection in Chile for resistance to yellow wilt.

PI 610405. Beta vulgaris L. **subsp. vulgaris**
Country of origin is Chile. Selection in Chile for resistance to yellow wilt.

PI 610406. Beta vulgaris L. **subsp. vulgaris**
Country of origin: Chile Selection in Chile for yellow wilt resistance.

PI 610407. Beta vulgaris L. **subsp. vulgaris**
Country of origin: Chile Selection in Chile for resistance to yellow wilt.

PI 610408. Beta vulgaris L. **subsp. vulgaris**
Country of origin: Chile Selection in Chile for yellow wilt resistance.

PI 610409. Beta vulgaris L. **subsp. vulgaris**
Country of origin is Chile. Selection in Chile for resistance to yellow wilt.

PI 610410. Beta vulgaris L. **subsp. vulgaris**
Country of origin is Chile. Selection in Chile for yellow wilt resistance.

PI 610411. Beta vulgaris L. **subsp. vulgaris**
Country of origin: Chile Selection in Chile for yellow wilt resistance.

PI 610412. Beta vulgaris L. **subsp. vulgaris**
Selection in Argentina for resist. to yellow wilt.

PI 610413. Beta vulgaris L. **subsp. vulgaris**
Country of origin is Chile. Selection in Chile for yellow wilt resistance.

PI 610414. Beta vulgaris L. **subsp. vulgaris**
Country of origin: Chile Selection in chile for resistance to yellow

wilt.

The following were donated by Richard Yu, USDA, ARS, Sugerbeet Production Research, 1639 Alisal St., Salinas, California 93905, United States. Received 1985.

PI 610415. Beta vulgaris L.
A lfspot-bk root resist., self-ster., from 02 clone through 3 generations of selection. The 1st 2 select. cycles were primarily for incrsd lf spot resist. & lg root size in com- petition. The 3rd cyc. of select. was for lfspt resistance in Ohio from lns w/high yld & qlty perfor. in Michigan. Roots were selected for size in competition and shape. Breeders' Seed No. 70P23.

PI 610416. Beta vulgaris L.
Leafspot, blackroot resistant, self-sterile, from 02 clone through 3 generations of selection. Roots selected for size in competition and shape; high yield, quality performance. Sugarbeet Investigations, P.O.B. 1633, East Lansing, MI. 48823. (1973).

PI 610417. Beta vulgaris L.
A leaf-spot, blackroot res., self-sterile, from 02 clone through 3 gen. of selection. First 2 sel. cycles primarily for increased leaf-spot res. and large root size in competi- tion. Third cycle for leaf-spot res. in Ohio from lines with high yield and quality perf. in Michigan. Roots selected for size in competition and shape. Breeder's Seed No. 70p23. Sugar Beet Investigations, E. Lansing, MI., 1973.

The following were donated by G. E. Coe, USDA, ARS, Field Crops Lab., Lab. 6B, Bldg. 009, BARC-West, Beltsville, Maryland 20705, United States. Received 1986.

PI 610418. Beta vulgaris L.
This monogm cytopl. male ster. germplsm came from a wild cult. of Beta maritima obtained from England. It is an abund. sd prod. Six cross. to sugarbt & 6 cycles of select. to improve root type and disease resistance to leaf spot caused by Cerco. betic. & to blk root caused by Aphan. coch. It has moder. lf spot resist. w/a rating of 4.0 on a scale of 0-9. Mod. blk spt resist. Both pink & grn hypocotyl clr.

PI 610419. Beta vulgaris L.
This monogerm cytoplasmic male-sterile germplasm has green hypocotyl color and a good leaf spot (Cercospora beticola) resistance rating of 2.5 (on a scale of 0 to 9). It also has good resistance to black root disease (Aphanomyces cochlioides). In some hybrid combinations its sugar yield approached that of MonoHy E4.

PI 610420. Beta vulgaris L.
This monogerm cytoplasmic male-sterile germplasm has excellent resistance to leaf spot disease cause by Cerco- spora beticola with a disease index of 1.75 on a scale of 0 to 9. The hypocotyl color is green. It had a good sugar yield in some hybid combinations.

PI 610421. Beta vulgaris L.
This is a monogerm cytoplasmic male sterile germplasm with good leaf spot (Cercospora beticola) disease resistance index of 2.75 on a scale of 0 to 9. It also has moderate resistance to black root caused by Aphanomyces cochlioides. It has pink hypocotyl color and is a vigorous line.

PI 610422. Beta vulgaris L.
This is a monogerm cytopl. male-sterile germplasm having good resist. to lf spot caused by Cerco. betic. & moderate resistance to blk root caused by Aphan. cochlio. It had a leaf spot rating of 3.0 on a scale of 0 to 9. It contains both pink and green hypocotyl color and has excellent vigor.

The following were donated by Robert T. Lewellen, USDA, ARS, U.S. Agricultural Research Station, 1639 E. Alisal St., Salinas, California 93905, United States. Received 1986.

PI 610423. Beta vulgaris L.
CMS of C310(C5).

PI 610424. Beta vulgaris L.
From the nematode resistance breeding program of J. S. McFarlane, released lines N101, N102, and N103 were increased in bulk without selection. N101, 102 and 103 were released in 1982.

PI 610425. Beta vulgaris L.
N104 and N105 were released in 1982 by J. S. McFarlane.

PI 610426. Beta vulgaris L.
F1 hybrid between MS of NB1 x NB4. This F1 hybrid has been used by University of California for many years for physiological, biochemical, and nutritional research. This F1 hybrid and its parental components were previously placed in storage by J. S. McFarlane, but do not purge the older, original lots until these newer lots are tested for genetic purity.

PI 610427. Beta vulgaris L.
NR1 and NR2 were increased in bulk. Plants from this increase that had a slight Beta procumbens leaf phenotype were selected and threshed separately. This "B.p. type" occurs only in the bolted stage and is not obvious in the vegetative rosette. This trait appears to be linked to NR.

The following were donated by Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 1983.

PI 610428 QUAR. Pennisetum glaucum (L.) R. Br.
Breeding. PL-12.

PI 610429 QUAR. Pennisetum glaucum (L.) R. Br.
Breeding. PL-13.

PI 610430 QUAR. Pennisetum glaucum (L.) R. Br.
Cultivar. CV-95. Collected in Senegal.

The following were developed by DEKALB Genetics Corporation, United States. Received 06/28/1999.

PI 610431. Glycine max (L.) Merr.
Cultivar. PVP 9900278.

PI 610432. Glycine max (L.) Merr.
Cultivar. PVP 9900280.

PI 610433. Glycine max (L.) Merr.
Cultivar. PVP 9900281.

PI 610434. Glycine max (L.) Merr.
Cultivar. PVP 9900282.

PI 610435. Glycine max (L.) Merr.
Cultivar. PVP 9900283.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 06/28/1999.

PI 610436. Glycine max (L.) Merr.
Cultivar. PVP 9900284.

PI 610437. Glycine max (L.) Merr.
Cultivar. PVP 9900285.

PI 610438. Glycine max (L.) Merr.
Cultivar. PVP 9900286.

PI 610439. Glycine max (L.) Merr.
Cultivar. PVP 9900287.

The following were developed by Phytogen Seed Company, LLC, United States. Received 06/28/1999.

PI 610440. Gossypium hirsutum L.
Cultivar. PVP 9900288.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 06/28/1999.

PI 610441. Lactuca sativa L.
Cultivar. PVP 9900289.

The following were developed by Novartis Seeds, Inc., United States. Received 06/28/1999.

PI 610442. Glycine max (L.) Merr.
Cultivar. PVP 9900314.

PI 610443. Glycine max (L.) Merr.
Cultivar. PVP 9900315.

PI 610444. Glycine max (L.) Merr.
Cultivar. PVP 9900316.

PI 610445. Glycine max (L.) Merr.
Cultivar. PVP 9900317.

PI 610446. Glycine max (L.) Merr.
Cultivar. PVP 9900318.

PI 610447. Glycine max (L.) Merr.
Cultivar. PVP 9900319.

The following were developed by Buttonwillow Cotton Research, LLC, United States. Received 06/28/1999.

PI 610448. Gossypium hirsutum L.
Cultivar. PVP 9900321.

PI 610449. Gossypium hirsutum L.
Cultivar. PVP 9900322.

The following were developed by HybriTech Seed International, Inc., A Unit of Monsanto Company, United States. Received 06/28/1999.

PI 610450. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900323.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 06/28/1999.

PI 610451. Allium cepa L.
Cultivar. PVP 9900334.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 06/28/1999.

PI 610452. Arachis hypogaea L.
Cultivar. PVP 9900338.

The following were collected by Charles Tubesing, 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; Kris Bachtell, The Morton Arboretum, 4100 Illinois Route 53, Lisle, Illinois 60532-1293, United States. Donated by Shawn Belt, USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Glenn Dale, Maryland 20769-9157, United States. Received 12/18/1997.

PI 610453. Lespedeza bicolor Turcz.
Wild. Collected 09/10/1997 in Jilin, China. Latitude 41 deg. 31' 35'' N. Longitude 128 deg. 16' 37'' E. Elevation 775 m. Changbai County. Disturbed roadside edge with Corylus heterophylla, Quercus mongolica. Shrub; green to brown fruit.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States. Received 10/07/1998.

PI 610454. Trifolium microcephalum Pursh
Wild. Collected 07/09/1996 in California, United States. Latitude 39 deg. 30' 0'' N. Longitude 123 deg. 30' 0'' W. Along edge of wooded area in roadside rest area approximately 7.8 miles South of Laytonville on US 101 Mendocino Co., CA. Occasional. Small. Upright. Low growing.

PI 610455. Trifolium ciliolatum Benth.
Wild. Collected 07/09/1996 in California, United States. Latitude 39 deg. 30' 0'' N. Longitude 123 deg. 30' 0'' W. Along edge of wooded area in rest area approximately 7.8 miles South of Laytonville on US 101 Mendocino Co., CA. Occasional. Small. Upright. On mature heads the rachis usually extends upward and exposed above the dry florets which tend to deflex downward.

PI 610456. Trifolium willdenovii Spreng.
Wild. Collected 07/09/1996 in California, United States. Latitude 39 deg. 30' 0'' N. Longitude 123 deg. 30' 0'' W. Along edge of wooded area in rest area approximately 7.8 miles South of Laytonville on US 101 Mendocino Co., CA. Rare. Medium sized plant. Upright. On mature dry heads the calyx teeth are prickly and stick fingers when harvesting heads. Calyx tends to be open on dry flowers and seed shatter easily. Long narrow lanceolate leaflets.

PI 610457. Trifolium obtusiflorum Hook. & Arn.
Wild. Collected 07/09/1996 in California, United States. Latitude 39 deg. 40' 0'' N. Longitude 123 deg. 40' 0'' W. Along side of US 101 on road cut bank approximately 7.2 miles North of Laytonville Mendocino Co., CA. Abundant in this one area. Large upright plants. Dense stand growing on road cut bank. On mature dry heads the calyx teeth are very prickly and stick fingers when harvesting heads. Also saw T. microcephalum at this spot.

PI 610458. Trifolium glomeratum L.
Wild. Collected 07/10/1996 in California, United States. Latitude 39 deg. 50' 0'' N. Longitude 123 deg. 50' 0'' W. Passing pull-off along side of CA route 1 about 3.5 to 4 miles W of Leggett traveling toward Rockport, Mendocino Co, CA. Abundant in this one area. Small very low growing plants. Moderate stand of plants in one small area along edge

of roadside pull-off. On mature dry plants the heads are arranged like beads up the stem at the nodes.

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 05/25/1999.

PI 610459. Lespedeza daurica (Laxm.) Schindl.
Wild. Collected 09/06/1998 in Mongolia. Latitude 48 deg. 35' 10'' N. Longitude 110 deg. 41' 42'' E. Elevation 1036 m. Binder Sum, Henti Aimag, east bank of Onon River; Slope eleven percent, Aspect northwest. Terrain and 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. Salix dominated diverse vegetation close to the river.

PI 610460. Lespedeza daurica (Laxm.) Schindl.
Wild. Collected 09/02/1998 in Mongolia. Latitude 49 deg. 36' 25'' N. Longitude 104 deg. 26' 40'' E. Elevation 762 m. Ingettolgoi Sum, Bulgan Aimag, 20 km NE or Khyalganat; Slope one percent, Aspect northeast. Selenge River Valley, forb-grass type, broad bench above river valley, native area adjacent to wheat fields, dry meadow, sandy, light color, brown soil.

PI 610461. Lespedeza daurica (Laxm.) Schindl.
Wild. Collected 09/02/1999 in Mongolia. Latitude 48 deg. 8' 48'' N. Longitude 109 deg. 45' 6'' E. Elevation 1341 m. Omnodelger Sum, Henti Aimag; Slope fifteen percent, Aspect southeast. Moist meadow with wet soils along small river. Site is low yielding and not very productive.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Alberto Salas, International Potato Center, P.O. Box 5969, Lima, Lima, Peru . Received 12/14/1998.

PI 610462. Solanum suaveolens Kunth & C. D. Bouche
Uncertain. Collected 02/26/1998 in Puno, Peru. Latitude 14 deg. 13' 0'' S. Longitude 69 deg. 12' 0'' W. Elevation 1430 m. Providence Sandia, near school building "Centro Base de Education," on southeast outskirts of San Juan de Oro. Growing as a weed along roadside. This member of Solanum sect. Basarthrum is a close non-tuber bearing outgroup of potatoes; white stellate flowers and fruits present.

PI 610463. Solanum lycopersicoides Dunal
Uncertain. Collected 04/05/1998 in Tacna, Peru. Latitude 17 deg. 20' 0'' S. Longitude 70 deg. 14' 0'' W. Elevation 2715 m. Providence Candarave, along Candarave to Tarata road, ca one kilometer west of Aricola. Growing in very dry rocky soil. Corollas yellow, fruits green turning black and yellow.

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States. Received 06/11/1999.

PI 610464. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93272. Winter wheat two gene (Rht1Rht2) semidwarf near-isoline in the soft white winter wheat background of Nugaines (NGN). Rht1 was derived from Chugoku 81 and Rht2 from NGN. Except for plant height, phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, short to midlong; germ midsize; crease midwide; brush short. Compared to NGN, reduced plant height (33%), grain yield (3%), test wt. (3%), kernel wt. (12%), spike no. (9%). Similar to NGN for heading date, kernels/spike and % lodging. Higher (2%) harvest index.

PI 610465. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93273. Winter wheat two gene (Rht1Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81 and Rht2 from NGN. Except for plant height, phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, short to midlong; germ midsize; crease midwide; brush short. Compared to NGN, reduced plant height (36%), grain yield (12%), text wt. (3%0), kernel wt. (2%), spike no. (10%), kernels/spike (10%); heads 1 d later, higher (11%) harvest index and has less lodging (2% vs 7%) than NGN.

PI 610466. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93274. Winter wheat two gene (Rht1Rht2) semidwarf near-isoline in the soft white-winter background of Nugaines (NGN). Rht1 derived from Chugoku 81 and Rht2 from NGN. Except for plant height, phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, short to midlong; germ midsize; crease midwide; brush short. Compared to NGN, reduced plant height (31%), grain yield (7%), test wt. (4%), kernel wt. (8%), spike no. (12%). Heads 1 d later, higher (9%) harvest index and more kernels/spike (18%). Similar to NGN for % lodging.

PI 610467. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93275. Winter wheat one gene (Rht1) semidwarf near-isoline in Nugaines (Soft white winter) background. Rht1 derived on Ghugoku 81. Phenotypically similar to Nugaines (NGN). Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater grain yield (10%), kernel wt. (3%), and kernels/spike (10%). Similar to NGN for plant height, spike no., harvest index and % lodging. Heads 2 d earlier than NGN and has lower test wt. (1%).

PI 610468. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93276. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 was derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared

to NGN, lower spike no. (2%), harvest index (3%), with slightly higher grain yield (1%) and test wt. (1%). Similar to NGN for heading date, kernel wt., kernels/spike and % lodging. Taller (3%) than NGN.

PI 610469. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93277. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to Nugaines (NGN). Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater grain yield (7%), kernels/spike (24%), and harvest index (2%). Lower test wt. (1%), kernel wt. (5%), and spike no. (15%). Similar to NGN for plant height, heading date and % lodgin.

PI 610470. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93278. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize, crease midwide; brush short. Compared to NGN, lower grain yield (3%), kernel wt. (2%), spike no. (11%), and is 1% shorter in height. 13% more kernels/spike than NGN. Similar to NGN for heading date, test wt., harvest index, and % lodging.

PI 610471. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93279. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower test wt. (1%), spike no. (5%), harvest index (4%) and slightly shorter plant height (1%). 4% more kernels/spike and heads 2 d earlier than NGN. Lodging less (3% vs 7%).

PI 610472. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93280. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to Nugaines (NGN). Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater grain yield (2%), kernels/spike (10%), harvest index (2%). Slightly lower test wt. (1%), kernel wt. (1%), and spike no. (4%). Similar to NGN for plant height and % lodging.

PI 610473. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93281. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (1%), test wt. (1%), kernel wt. (6%), spike no. (9%) and 3% shorter height. Greater kernels/spike (15%) and harvest index (8%) than NGN. Heads 2 d earlier than NGN and similar for % lodging.

PI 610474. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93282. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater kernels/spike (3%), harvest index (4%). Similar to NGN for plant height, grain yield, test wt., kernel wt., spike no., and % lodging. Heads 2 d earlier than NGN.

PI 610475. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93284. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater grain yield (8%), kernel wt. (3%), kernels/spike (11%). Lower test wt. (2%), spike no. (5%), and similar to NGN for harvest index. Taller (3%), heads 1 d earlier NGN and sustains more lodging (14% vs. 7%).

PI 610476. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93285. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater grain yield (6%), kernels/spike (17%). Lower test wt. (2%), spike no. (8%), harvest index (5%) and similar kernel wt. Taller (1%), heads 1 d earlier than NGN and sustains more lodging (10% vs 7%).

PI 610477. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93292. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, furiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater kernels/spike (17%), harvest index (5%). Lower grain yield (7%), test wt. (1%), kernel wt. (6%), spike no. (11%) and similar for % lodging. Heads 2 d earlier and is shorter (7%) than NGN>.

PI 610478. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81.5*Nugaines, ARS93294. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (5%), harvest index (5%); greater kernels/spike (4%) and similar for test wt., spike no., kernel wt. and heading date. Taller (4%) and sustains more lodging (14% vs. 7%) than NGN.

PI 610479. Triticum aestivum L., nom. cons. **subsp. aestivum**

Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93296. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater kernels/spike (15%), lower grain yield (4%), kernel wt. (2%), spike no. (5%), and harvest index (4%). Similar test wt. and % lodging. Taller (1%) and heads 1 d later than NGN.

PI 610480. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoki 81/5*Nugaines, ARS93298. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (8%), kernel wt. (12%), spike no. (4%). Greater kernels/spike (14%) and similar test wt. and harvest index. Shorter (5%), head 1 d earlier than NGN and sustains more lodging (13% vs. 7%).

PI 610481. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoki 81/5*Nugaines, ARS93299. Winter wheat one gene (Rht2) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht2 derived from NGN. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, greater kernels/spike (13%), harvest index (2%); lower grain yield (8%), test wt. (1%), kernel wt. (9%), spike no. (12%). Shorter (5%), heads 1 d earlier and sustains more lodging (14% vs. 7%) than NGN.

PI 610482. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93300. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft winter background of Nugaines (NGN). Rht1 derived from Chugoki 81. Phenotypically similar to (NGN). Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong-germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (6%), test wt. (2%), kernel wt. (13%), spike no. (11%). Higher kernels/spike (25%) and similar harvest index. Slightly taller (1%), heads 2 d earlier than NGN and sustains more lodging (12% vs. 7%).

PI 610483. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93303. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Rht1 derived from Chugoku 81. Phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (3%), test wt. (2%), kernel wt. (7%), spike no. (3%). Higher kernels/spike (7%) and similar harvest index and plant height to NGN. Heads 1 d earlier and sustains more lodging (12% vs 7%) than NGN>.

PI 610484. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93305. Winter wheat one gene (Rht1) semidwarf near-isoline in the soft white winter

background of Nugaines (NGN). Rht1 derived from Chugoki 81. Phenotypially similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (8%), test wt. (2%), kernel wt. (8%), spike no. (9%) and similar plant ht., kernels/spike, and % lodging. Higher (3%) harvest index and heads 2 d earlier than NGN.

PI 610485. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93307. Winter wheat non-semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Lacks semidwarf genes Rht2 of NGN and Rht1 of Chugoku 81. Except for taller plant ht., phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (24%), spike no. (13%); harvest index (15%); greater kernels/spike (5%); similar test wt. and kernel wt. Taller (25%), heads 3 d earlier and sustains more lodging (25% vs. 7%) than NGN.

PI 610486. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93308. Winter wheat non-semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Lacks semidwarf genes Rht2 of NGN and Rht1 of Chugoki 81. Except of Taller plant ht., phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (25%), spike no. (10%); harvest index (10%). Higher kernel wt. (3%); similar for test wt. and kernels/spike. Taller (27%), heads 5 d earlier and sustains more lodging (22% vs. 7%) than NGN.

PI 610487. Triticum aestivum L., nom. cons. **subsp. aestivum**
Genetic. Pureline. Pedigree - Chugoku 81/5*Nugaines, ARS93309. Winter wheat non-semidwarf near-isoline in the soft white winter background of Nugaines (NGN). Lacks semidwarf genes Rht2 of NGN and Rht1 of Chugoku 81. Except for taller plant ht., phenotypically similar to NGN. Spikes white, fusiform, awned. Kernels soft, white, elliptical, midlong; germ midsize; crease midwide; brush short. Compared to NGN, lower grain yield (27%), test wt. (3%), kernel wt. (3%), spike no. (14%), kernels/spike (14%), harvest index (23%). Taller (29%), sustains more lodging (30% vs. 7%) than NGN. Similar in heading date.

The following were developed by Robert T. Lewellen, USDA, ARS, U.S. Agricultural Research Station, 1639 E. Alisal St., Salinas, California 93905, United States. Received 06/07/1999.

PI 610488. Beta vulgaris L.
Breeding. GP-212. Pedigree - F1 plants between C37 x Beta vulgaris spp. maritima. Multigerm, self-sterile line derived from composite crosses between C37 sugarbeet and Beta vulgaris ssp. maritima. Bvm is principally from collections made by Dr. D. Doney in France, UK and Ireland, that subsequently were selected for resistance to rhizomania at Salinas and crossed in bulk to C37. The UK accessions were in the PI 518298 - 518372 (WB 620-694) series. Irish accessions were in the PI 518381-PI 518416 (WB 703-738) series. French accessions were in the PI 518598 - 518608 (WB 852-862) series.

PI 610489. Beta vulgaris L.
Breeding. GP-213. Pedigree - Estimated to have approx. 25% Beta vulgaris spp. maritima germplasm, 25% C37, and 50% C69. Multigerm, self-sterile line derived from composite crosses among C37 and C69 sugarbeet and Beta vulgaris ssp. maritima. Bvm mainly from UK, France and Poland. Selected Bvm plants were crossed in bulk to C37 and C69. F1 plants were identified by resistanceto rhizomania. May have rhizomania resistance factor Rz from C69 and/or resistance factors from Bvm. PI contributing plants were PI 518426, 518435 and 518440 (UK); PI 535833, 535835 and 535843 (Poland); PIs 540568, 549575, 540588, 540593, 540596, 549598, 540599, 540600, 540601, 540602, 540603, 540604 and 549605 (France).

PI 610490. Beta vulgaris L.
Breeding. GP-210. Pedigree - BC4 in C37 sugarbeet background. Initial cross used sugarbeet as the female and WB97 as the male. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe polygoni). Resistance to powdery mildew is conditioned by a single dominant factor (Pm) derived from WB97 Beta vulgaris ssp. maritima.

PI 610491. Beta vulgaris L.
Breeding. GP-211. Pedigree - BC4 in a C37 sugarbeet background. Initial cross used sugarbeet as the female and WB242 as the male. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe polygoni). Resistance to powdery mildew is conditioned by a single dominant factor (Pm) derived from WB242 Beta vulgaris ssp. maritima.

The following were developed by David A. Dierig, USDA, ARS, U.S. Water Conservation Laboratory, 4331 E. Broadway, Phoenix, Arizona 85040-8807, United States; Terry A. Coffelt, USDA, ARS, U.S. Water Conservation Laboratory, 4331 E. Broadway Rd., Phoenix, Arizona 85040-8807, United States; L. Lauver, USDA-ARS, U.S. Water Conservation Lab., 4331 E. Broadway Rd., Phoenix, Arizona 85040-8832, United States; P.M. Tomasi, USDA-ARS, U.S. Water Conservation Lab., 4331 E. Broadway Rd., Phoenix, Arizona 85040-8832, United States; W.E. Rayford, USDA-ARS, National Center for Agricultural Utilization, Peoria, Illinois 61604, United States. Received 06/02/1999.

PI 610492. Lesquerella fendleri (A. Gray) S. Watson
Breeding. GP-29. Pedigree - Developed from two single plant selections for yellow seed coat originating from the wild accession PI 311165. Improvements of Lesquerella fendleri are necessary for this potential industrial crop to be successfully grown in cultivation. Many applications of this hydroxy seed-oil require special processing to remove pigmentation from the oil. Seed coat color is associated with the seed-oil pigment. A new germplasm line was developed with yellow seed coat color compared with the normal brown color. This line has less pigmentation in the oil and provides germplasm with high genetic diversity for future improvements.

The following were developed by Margaret E. Smith, Cornell University, Department of Plant Breeding, 252 Emerson Hall, Ithaca, New York 14853-1902,

United States; L. Ericson, Cornell University, Dept. of Plant Breeding and Biometry, 252 Emerson Hall, Ithaca, New York 14853, United States. Received 05/26/1999.

PI 610493. Zea mays L. **subsp. mays**
Breeding. PL-301. Pedigree - Developed by two generations of selfing from an S2 family of the Multiple Borer Resistnat (MBR) population developed by the Int. Maize and Wheat Improvement Ctr. (CIMMYT)>. Source of resistance to both leaf feeding and stalk boring by the European corn borer (Ostrinia nubilalis). Medium height inbred with long semi-upright yellowish-green leaves and good standability. Later flowering at Aurora, NY, with mid-silk a few days later than mid-anthesis. Tassels large and highly-branched with yellow anthers; silks red. Ear placement low and the ear is long shanked and girthy, with large lemon yellow dent kernels and a white cob.

PI 610494. Zea mays L. **subsp. mays**
Breeding. PL-302. Pedigree - Developed by two generations of selfing from an S2 family of the Multiple Borer Resistant (MBR) population developed by the Int. Maize and Wheat Improvement Ctr. (CIMMYT). Source of resistance to both leaf feeding and stalk boring by the European corn borer (Ostrinia nubilalis). Medium-tall inbred with long, stiff, nearly horizontal leaves and good standability. Late flowering with mid-silk slightly later than mid-anthesis at Aurora, NY. Large tassels with 8-12 long branches and yellow anthers; silks red. Nice slightly tapered ears with thick white cobs and 14-16 rows of lemon yellow rounded kernels that shell easily.

The following were developed by An Hang, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 06/18/1999.

PI 610495. Phaseolus vulgaris L.
Cultivar. CV-166; PVP 9900435. Pedigree - X88403 / Revolucion // P86297. Very early small red bean with growth habit varying from upright (Type IIa) to floppy (Type IIIa). Maturing 8 to 10 days earlier than Rufus and NW-63. Yield very comparable to other small red commercially grown in the cool areas where the growing season is short (Northern states and Canada). Good canner like Rufus and NW-63, two commercially grown small red dry beans. Carries the single recessive bc-1(2) gene for resistance to bean common mosaic virus (BCMV). The recessive resistance gene protects plants against systemic infection caused by BCMV from pathogroups I, II, III, and IV of the virus. This gene is also thought to condition tolerance to NL-3 strain of bean common mosaic necrosis virus.

The following were collected by Pietro Perrino, National Research Council, Germplasm Institute, Via G. Amendola, 165/A, Bari, Apulia 70126, Italy.

Donated by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States. Received 10/31/1997.

PI 610496. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610497. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610498. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610499. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610500. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610501. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610502. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610503. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610504. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610505. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610506. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610507. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610508. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610509. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610510. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610511. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610512. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610513. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.

Cultivated. Collected in Italy.

PI 610514. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610515. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610516. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610517. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610518. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610519. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610520. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610521. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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PI 610526. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610527. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610528. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610529. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610530. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610531. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Greece.

PI 610532. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610533. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610534. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610535. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610536. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610537. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610538. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610539. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610540. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610541. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610542. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610543. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610544. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610545. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610546. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610547. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610548. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610549. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610550. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610551. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

PI 610553. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610554. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610555. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610556. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610557. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610558. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610559. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610560. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610561. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610562. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610563. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610564. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610565. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610566. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610567. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610568. Vigna unguiculata (L.) Walp. **subsp. unguiculata**

Cultivated. Collected in Italy.

PI 610569. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610570. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610571. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610572. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610573. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610574. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610575. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610576. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610577. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610578. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610579. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610580. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610581. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610582. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610583. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610584. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610585. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610586. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610587. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610588. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610589. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610590. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610591. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

PI 610593. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610594. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610595. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610596. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610597. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610598. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610599. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610600. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610601. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610602. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610603. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610604. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610605. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610606. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610607. Vigna unguiculata subsp. sesquipedalis (L.) Verdc.
Cultivated. Collected in Italy.

PI 610608. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610609. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610610. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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PI 610614. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
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Cultivated. Collected in Italy.

PI 610624. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

PI 610626. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610627. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

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PI 610633. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

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Cultivated. Collected in Italy.

PI 610639. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610640. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610641. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610642. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610643. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610644. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610645. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610646. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610647. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610648. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610649. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610650. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

PI 610651. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Italy.

The following were collected by P. Barnes-McConnell, Michigan State University, International Agricultural Institute, 200 International Center, East Lansing, Michigan 48824, United States. Donated by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States. Received 04/01/1994.

PI 610652. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Ghana.

PI 610653. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Ghana.

The following were collected by L. Diatloff, Commonwealth Scientific Industrial Research Organization, 306 Carmody Road, St. Lucia, Queensland 4067, Australia. Donated by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States. Received 06/20/1994.

PI 610654. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Australia.

PI 610655. Vigna unguiculata (L.) Walp. **subsp. unguiculata**

Cultivated. Collected in Australia.

The following were donated by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States. Received 08/28/1995.

PI 610656. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Senegal.

The following were collected by Jeff Ehlers, University of California, Riverside, Department of Botany & Plant Sciences-072, Riverside, California 92521-0124, United States. Donated by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States. Received 08/28/1995.

PI 610657. Vigna unguiculata (L.) Walp. **subsp. unguiculata**
Cultivated. Collected in Ghana.

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. Received 06/18/1998.

PI 610658. Beckmannia syzigachne (Steud.) Fernald
Uncertain. Collected 08/26/1996 in Mongolia. Latitude 44 deg. 59' 50'' N. Longitude 96 deg. 48' 50'' E. Elevation 1215 m. Gobi-Altai Aimag, Tsogt Sum, Bayantoorai Bag, experimental farm area 10 km north of the Bag; Slope of three percent, Aspect south. Desert steppe. Low piedmont site with brown fine sandy soils. Crops are being grown under irrigation.

PI 610659. Beckmannia syzigachne (Steud.) Fernald
Uncertain. Collected 09/02/1996 in Mongolia. Latitude 46 deg. 6' 44'' N. Longitude 91 deg. 33' 16'' E. Elevation 1213 m. Khovd Aimag, Bulgan Sum, experimental area about 1 km from the sum center. Slope flat; Aspect flat. 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.

PI 610660. Beckmannia syzigachne (Steud.) Fernald
Uncertain. Collected 08/31/1996 in Mongolia. Latitude 49 deg. 51' 50'' N. Longitude 92 deg. 4' 35'' E. Elevation 1078 m. Uvs Aimag, immediately west of Ulaangom airport runway and between runway and perimeter fence. Aspect is flat. Soils are sand and gravel. Ecological zone: Steppe.

PI 610661. Beckmannia syzigachne (Steud.) Fernald
Uncertain. Collected 09/02/1996 in Mongolia. Latitude 49 deg. 35' 40'' N. Longitude 90 deg. 17' 49'' E. Elevation 1590 m. Bayan - Olgii Aimag, 3 km SE of Nogoonnuur and 14 NW of Achit Nuur in a large, open, flat meadow. Aspect is Southeast with slope **PI 610662. Beckmannia syzigachne** (Steud.) Fernald
Uncertain. Collected 09/06/1996 in Mongolia. Latitude 48 deg. 22' 40''

N. Longitude 91 deg. 39' 47'' E. Elevation 1201 m. Hovd Aimag, 21 km south of Har-Us and 42 km north of Dund-Us (Hovd). Desert steppe. Wet area that is part of Hovd Gol bottom area used for foragae production. There is a small pond and a slough adjacent to collection area. Area is ~ flat and spoils are dark silts.

The following were collected by Beijing Agricultural University, Department of Horticulture, Beijing, Beijing, China. Received 07/06/1939.

PI 610663. Ipomoea aquatica Forssk.
Uncertain. Collected in Beijing, China.

The following were developed by Deborah A. Samac, University of Minnesota, 1991 Upper Buford Circle, 495 Borlang Hall-Dep. of Plant Pathology, St. Paul, Minnesota 55108, United States; Joann Lamb, USDA, ARS, University of Minnesota, Plant Science Research Unit, St. Paul, Minnesota 55108, United States. Received 06/08/1999.

PI 610664. Medicago sativa L. **subsp. sativa**
Breeding. Population. GP-336. Pedigree - Approx. 25% Ineffective Agate (Reg. no. GP-228, PI 536529), 25% Ineffective Saranac (Reg. no. GP-229), PI 536530) and 50% Regen -SY (Reg. no. GP-242, PI 537440). Ineffectively nodulated regenerating alfalfa germplasm developed to permit introduction of new traits into alfalfa by Agrobacterium-mediated transformation and regeneration of transgenic plants in tissue culture in a genetic background that is incapable of utilizing nitrogen (N) from the atmosphere through symbiotic N2-fixation. Ineffective Agate and Ineffective Saranac plants were crossed onto 68 clones of a regenerating genotype Regen-SY to produce the SYN1. All SYN1 progeny of both crosses were effectively nodulated. Approx. 210 SYN1 plants were randomly intercrossed to produce SYN2 seed. The SYN2 progeny segregated 2970 nodulated to 280 (8.6%) ineffectively nodulated plants. Approx. 59% (56/95) of the ineffective plants regenerated from leaf tissue. Plants which regenerated and were ineffectively nodulated were intercrossed to produce SYN3 seed (UMN 3176) for distribution. The SYN3 population had 98% ineffectively nodulated and 55% regenerating plants.

The following were collected by Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States. Developed by University of Arizona, Arizona Agricultural Experiment Station, Tucson, Arizona, United States; USDA, ARS, University of Arizona, Arizona Agr. Exp. Sta., Phoenix, Arizona 85040, United States; USDA, NRCS, Tucson Plant Materials Center, Tucson, Arizona 85705, United States. Received 07/21/1999.

PI 610665. Digitaria californica (Benth.) Henrard
Cultivar. Collected 10/1975 in Arizona, United States. Elevation 2982 m. From a native stand on the Santa Rita Experimental Range, Pima County. Average annual rainfall 11 inches. Mean annual temp. 63 deg. F. Mean winter temp. 50 deg. F and mean summer temp. 76 deg. F. Pedigree - Collected from natural range of adaptation. Released 08/30/1999. Best performing Arizona cottontop accession for stand establishment, vigor,

seed production, forage production, and ability to spread in the 1976 Arid Land Grass Initial Evaluation Planting (IEP) at the Tucson Plant Materials Center where first comparatively evaluated with 22 accessions of Digitaria californica. Also evaluated for ability to become established on retired cropland in 1993 at the Avra Valley Planting Site. Three planting depths were evaluated: 0.25, 0.5, and 1 inch. Showed no significant difference in average number of seedlings emerged per foot at the 0.25 and 0.5 inch planting depths. The 1 inch planting depth showed significantly fewer emerged seedlings in comparison with the 0.25 inch planting depth. Also evaluated in the Southwestern Borderlands Savanna Grassland Ecosystem Restoration Study beginning in 1997. Despite below average summer precipitation, performed well in terms of emergence and establishment in a severely denuded site. Indigenous.

The following were developed by John M. Clarke, Agriculture and Agri-Food Canada, Semiarid Prairie Agricultural Res. Centre, Airport Road, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; Ron M. DePauw, Agriculture and Agri-Food Canada, Semiarid Prairie Agricultural Res. Centre, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; T. N. McCaig, Agriculture Canada, Swift Current Research Station, Swift Current, Saskatchewan S9H 3X2, Canada; R.E. Knox, Agriculture Canada, Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; M.R. Fernandez, Agriculture Canada, Research Station, Swift Current, Saskatchewan, Canada; Grant McLeod, Agriculture and Agri-Food Canada, Semiarid Prairie Agricultural Research Centre, #1, Airport Road, Swift Current, Saskatchewan S9H 3X2, Canada; N. Ames, Agriculture and Agri-Food Canada, Research Branch, Cereal Research Centre, Winnipeg, Manitoba R3T 2M9, Canada; B.A. Marchylo, Grain Research Laboratory, Canadian Grain Commission, 1404-303 Main St., Winnipeg, Manitoba R3C 3G8, Canada. Received 05/27/1999.

PI 610666. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. Pureline. CV-889. Pedigree - Kyle/Westbred 881. Adapted to the durum production area of the southern Canadian prairies. Exhibits high yield with semidwarf stature. Resistant to prevalent races of leaf rust (Puccinia recondita), stem rust (P. graminis), and common bunt (Tilletia laevis and T. caries). Susceptible to loose smut (Ustilago tritici). Excellent end-use quality including very high yellow pigment content and .

The following were developed by John M. Clarke, Agriculture and Agri-Food Canada, Semiarid Prairie Agricultural Res. Centre, Airport Road, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; Ron M. DePauw, Agriculture and Agri-Food Canada, Semiarid Prairie Agricultural Res. Centre, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; T. N. McCaig, Agriculture Canada, Swift Current Research Station, Swift Current, Saskatchewan S9H 3X2, Canada; J. G. McLeod, Agriculture Canada, Swift Current Research Station, P. O. Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; R.E. Knox, Agriculture Canada, Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada; M.R. Fernandez, Agriculture Canada, Research Station, Swift Current, Saskatchewan, Canada; N. Ames, Agriculture and Agri-Food Canada, Research Branch, Cereal Research Centre, Winnipeg, Manitoba R3T 2M9, Canada; B.A. Marchylo, Grain Research Laboratory, Canadian Grain Commission, 1404-303 Main

St., Winnipeg, Manitoba R3C 3G8, Canada. Received 05/27/1999.

PI 610667. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. Pureline. CV-888. Pedigree - Westbred 881/DT367. Adapted to the durum production area of the southern Candian praries. Resistant to prevalent races of leaf rust (Puccinia recondita), stem rust (P. graminis), and common bunt (Tilletia laevis and T. caries). Susceptible to loose smut (Ustilago tritici). Excellent end-use quality, including moderately high yellow pigment content and very high gluten strength.

The following were collected by USDA, NRCS, Rose Lake Plant Materials Center, 7472 Stoll Road, East Lansing, Michigan 48823-9807, United States. Developed by USDA, ARS, Idaho Agr. Exp. Sta., Idaho, United States; USDA, NRCS, Aberdeen Plant Materials Center, P.O. Box 296, Aberdeen, Idaho 83210-0296, United States. Donated by USDA, NRCS, Aberdeen Plant Materials Center, P.O. Box 296, Aberdeen, Idaho 83210-0296, United States. Received 08/06/1999.

PI 610668. Salix pentandra L.
Cultivated. Collected in Michigan, United States. Upper Midwest of U.S. From naturalized stands. Pedigree - Selected from a collection of potential windbreak plants assembled and evaluated at the Aberdeen Plant Materials Center from 1981 through 1996. Selected for beauty, hardiness, appropriate growth form for windbreaks, and natural range of adaptability. 95% survival as compared to an average of 87% survival of 15 "medium to tall tree" accessions. Vigor and uniformity rated above average. No observed problems with insects or diseases which affect the survival or appearance. Moderately dense stem and leaf pattern make this an excellent plant for windbreaks. Recommended for use in interior rows of multiple-row windbreaks, for landscaping, and to provide nesting and roosting habitat for birds. Also works well as a single row or twin-row windbreak in situations where an evergreen is not needed or desired. Range of adaptation very broad because plant is expected to be used under managed conditons where rainfall is high or where water is made available. Tolerant of very cold weather and adapted for use in windbreaks and landscraping in all of the Intermountain West. Expect will also perform well in the norhtern great plains and.

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. Received 07/20/1999.

PI 610669. Phaseolus vulgaris L.
Cultivar. Pureline. CV-165. Pedigree - Derived from cross of commercial black bean Raven with the white mold tolerant navy breeding line N90618 from Michigan State University bean breeding program. Exhibits an upright type-II, indeterminate growth habit averaging 50cm in height

combined with excellent resistance to lodging. Flowers purple and flowers 50 days after planting. Mid-season variety maturing 95 days after planting, ranging from 83 to 98 days depending on season and location. Matures 5 days earlier than Blackhawk and 2 days later than T-39. Resistant to bean common mosaic virus, rust and to races 7, 65 and 73 of anthracnose. Equivalent to T-39 in tolerance to white mold and to Michigan isolates of root rot but susceptible to common blight. Yielded 23 cwt/acre over four years at 18 locations in Michigan and outyielded Raven by 12%. Seed flat, averaging 21 g/100 seed and is similar to T-39 in size, shape and color. In canning trials, exhibited excellent canning quality equivalent to T-39. Released as a pure variety and is uniform and stable within commercially acceptable limits for seed type and purity of black bean cultivars.

The following were developed by George Graef, University of Nebraska, Department of Agronomy, 319 Keim Hall, East Campus, Lincoln, Nebraska 68583-0915, United States; L.L. Korte, Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583-0915, United States; D.M. White, Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583-0915, United States. Received 06/24/1999.

PI 610670. Glycine max (L.) Merr.
Cultivar. Pureline. CV-407. Pedigree - Parker x Asgrow A3935. F5 derived line. Mid-Maturity Group III with indeterminate growth habit, white flowers, tawny pubescence, and brown pods at maturity. Seeds dull yellow with a brown hilum. Matures 3 d earlier than Macon with similar yield, 10 cm taller plant height, similar seed weight and oil content, and 9 g kg-1 higher seed protein content. Susceptible to brown stem rot (Phialophora gregata), and phytophthora rot (Phytophthora sojae). Shows moderate resistance to iron deficiency chlorosis on high pH soils.

PI 610671. Glycine max (L.) Merr.
Cultivar. Pureline. CV-408. Pedigree - Holt x Dairyland DSR304. Mid-Maturity Group III with indeterminate growth habit, white flowers, tawny pubescence and brown pods at maturity. Matures 1.3 d later than Iroquois, with 5% higher yield, similar plant height, seed weight, and seed protein and oil content. Susceptible to brown stem rot (Phialophora gregata), and phytophthora rot (Phytophthora sojae).

The following were donated by Keith F. Schertz, USDA, ARS, P.O. Box DN, Texas A&M University, College Station, Texas 77841, United States. Received 10/06/1993.

PI 610672. Sorghum bicolor (L.) Moench
Cultivated. Collected in Heilongjiang, China. Harbin. Translation: Heilong 11B, maintainer.

PI 610673. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Zhaomeng, Inner Mongolia. Translation: Eight-leaf uniform. Local variety.

PI 610674. Sorghum bicolor (L.) Moench
Cultivated. Collected in Heilongjiang, China. Translation: Big red

grain. Local variety.

PI 610675. Sorghum bicolor (L.) Moench
Cultivated. Collected in Liaoning, China. Kalyuan. Translation: Double-red-heart. Local variety.

PI 610676. Sorghum bicolor (L.) Moench
Cultivated. Collected in Jilin, China. Changchun. Translation: Jump x Double BC16. Improved variety.

PI 610677. Sorghum bicolor (L.) Moench
Cultivated. Collected in Jilin, China. Changchun. Translation: Jump x Martin BC16. Improved variety.

PI 610678. Sorghum bicolor (L.) Moench
Cultivated. Collected in Jilin, China. Changchun. Translation: Martin x Jump BC16. Improved variety.

PI 610679. Sorghum bicolor (L.) Moench
Cultivated. Collected in Jilin, China. Changchun. Translation: Double dwarf. Improved variety.

PI 610680. Sorghum bicolor (L.) Moench
Cultivated. Collected in Jilin, China. Changchun. Translation: Jump-4-1. Improved Variety.

PI 610681. Sorghum bicolor (L.) Moench
Cultivated. Collected in Jilin, China. Changchun. Translation: Martin sorghum.

PI 610682. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Translation: B Protect No. 2. Improved variety, maintainer.

PI 610683. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Improved variety, maintainer.

PI 610684. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Improved variety, restorer.

PI 610685. Sorghum bicolor (L.) Moench
Cultivated. Collected in China.

PI 610686. Sorghum bicolor (L.) Moench
Cultivated. Collected in China.

PI 610687. Sorghum bicolor (L.) Moench
Cultivated. Collected in China.

PI 610688. Sorghum bicolor (L.) Moench
Cultivated. Collected in China.

PI 610689. Sorghum bicolor (L.) Moench
Cultivated. Collected in China.

PI 610690. Sorghum bicolor (L.) Moench
Cultivated. Collected in China.

PI 610691. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ding Xiang. Local variety.

PI 610692. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ping Yao. Local variety.

PI 610693. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping. Local variety.

PI 610694. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Tai Yuan. Local variety.

PI 610695. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Fan Shi. Local variety.

PI 610696. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Zhong Yang. Translation: Big sorghum. Local variety.

PI 610697. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuci. Translation: Man's name. Local variety.

PI 610698. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Wu Tai.

PI 610699. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Yang Zu. Local variety.

PI 610700. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ping Yao. Local variety.

PI 610701. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Yuci. Local variety.

PI 610702. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Tai Yuan. Local variety.

PI 610703. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Xin Xian. Local variety.

PI 610704. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Won Shui. Local variety.

PI 610705. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping.

PI 610706. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Shon Yang. Local variety.

PI 610707. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Xin Xian. Local variety.

PI 610708. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ding Xiang. Local variety.

PI 610709. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Wu Tai. Local variety.

PI 610710. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Hual Rend. Local variety.

PI 610711. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Wu Tai. Local variety.

PI 610712. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Pian Guan. Local variety.

PI 610713. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Xin Xian. Local variety.

PI 610714. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Fen Yang. Local variety.

PI 610715. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Fan Shi. Local variety.

PI 610716. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Zhong Yang. Local variety.

PI 610717. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ling Shi. Local variety.

PI 610718. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping. Local variety.

PI 610719. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ding Xinag. Local variety.

PI 610720. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Wu Tai. Local variety.

PI 610721. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Xin Xian. Local variety.

PI 610722. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ding Xian. Local variety.

PI 610723. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Wu Tai. Local variety.

PI 610724. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Dai Xian. Local variety.

PI 610725. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping. Local variety.

PI 610726. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Pian Guan. Local variety.

PI 610727. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Ping Ding. Translation: White sorghum. Local variety.

PI 610728. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Jie Xiu. Translation: Sorghum.

PI 610729. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Jin Zhong. Local variety.

PI 610730. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Fen Yang. Local variety.

PI 610731. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Zhong Yang. Translation: Sorghum.

PI 610732. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Lan Xian. Translation: Sorghum.

PI 610733. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping. Local variety.

PI 610734. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping. Local variety.

PI 610735. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Wu Zhai. Local variety.

PI 610736. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Jingle. Local variety.

PI 610737. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Wu Tai. Local variety.

PI 610738. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Tai Yuan. Local variety.

PI 610739. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuci. Local variety.

PI 610740. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Ping Yao. Translation: Sorghum.

PI 610741. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Shon Yang. Translation: Sorghum.

PI 610742. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Zao Quan. Local variety.

PI 610743. Sorghum bicolor (L.) Moench

Cultivated. Collected in Shanxi, China. Jie Xiu. Local variety.

PI 610744. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Hun Yuan. Local variety.

PI 610745. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Xin Xian. Local variety.

PI 610746. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Xin Xian. Local variety.

PI 610747. Sorghum bicolor (L.) Moench
Cultivated. Collected in Shanxi, China. Yuan Ping. Local variety.

PI 610748. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Xiang Yuan. Local variety.

PI 610749. Sorghum bicolor (L.) Moench
Cultivated. Collected in China. Qin Yuan. Local variety.

The following were developed by A. Mujeeb-Kazi, International Maize & Wheat Improvement Center, Apartado Postal 6-641, Mexico City, Federal District 06600, Mexico; R.L. Villareal, International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Deleg. Cuauhtemoc, Mexico City, Federal District 06600, Mexico; L.A. Gilchrist, International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Deleg. Cuauhtemoc, Mexico City, Federal District 06600, Mexico; R. Delgado, International Maize and Wheat Improvement Center, Lisboa 27, Apartado Postal 6-641, Mexico City, Federal District 06600, Mexico. Received 07/16/1999.

PI 610750 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-562. Pedigree - Crocl/Ae. tauschii (205)//Kauz. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 142d. Height 90cm. Disease damage 2.1.

PI 610751 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-563. Pedigree - Crocl/Ae. tauschii (205)//Borlaug M95. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 138d. Height 85cm. Disease damage 1.1.

PI 610752 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-564. Pedigree - Crocl/Ae. tauschii (205)//Borlaug M95. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 138d. Height 85cm. Disease damage 1.1.

PI 610753 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-565. Pedigree - Seri M82//Crocl/Ae. tauschii (224). Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 132d. Height 100cm. Disease damage 2.1.

PI 610754 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-566. Pedigree - Crocl/Ae. tauschii (213)//Papago M86. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 138d. Height 100cm. Disease damage 2.1.

PI 610755 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-567. Pedigree - Altar 84/Ae. tauschii (191)//Opata M85. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 80d. Maturity 132d. Height 90cm. Disease damage 2.1.

PI 610756 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-568. Pedigree - Yaco*2//Crocl/Ae. tauschii (205)/3/Yaco. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 132d. Height 95cm. Disease damage 1.1.

PI 610757 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-569. Pedigree - Altar 84/Ae. tauschii (224)//2*Yaco. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 138d. Height 100cm. Disease damage 2.1.

PI 610758 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-570. Pedigree - Papago M86//Crocl/Ae. tauschii (224)/3/2*Borlaug M95. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 88d. Maturity 142d. Height 100cm. Disease damage 2.1.

PI 610759 QUAR. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pureline. GP-571. Pedigree - Altar 84/Ae. tauschii (191)//Yaco/3/Bagula. Septoria leaf blotch resistant bread wheat germplasm. Anthesis 83d. Maturity 138d. Height 95cm. Disease damage 2.1.

The following were developed by A. Mujeeb-Kazi, International Maize & Wheat Improvement Center, Apartado Postal 6-641, Mexico City, Federal District 06600, Mexico; R.L. Villareal, International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Deleg. Cuauhtemoc, Mexico City, Federal District 06600, Mexico; R. Delgado, International Maize and Wheat Improvement Center, Lisboa 27, Apartado Postal 6-641, Mexico City, Federal District 06600, Mexico; M.D.H.M. William, International Maize & Wheat Improvement Center, Lisboa 27, Apartado Postal 6-641, Mexico City, Federal District 06600, Mexico ; V. Rosas, International Maize & Wheat Improvement Center, Lisboa 27, Apartado 6-641, Mexico City, Federal District 06600, Mexico; A. Cortes, International Maize & Wheat Improvement Center, Losboa 27, Apartado Postal 6-641, Mexico City, Federal District 06600, Mexico. Received 07/16/1999.

PI 610760 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-572. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 133d. 1000 kernel weight 46.2g.

PI 610761 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-573. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 83d. Maturity 131d. 1000 kernel weight 46.0g.

PI 610762 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-574. Pedigree - Alter 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 132d. 1000 kernel weight 46.9g.

PI 610763 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-575. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 132d. 1000 kernel weight 49.6g.

PI 610764 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-576. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 83d. Maturity 131 d. 1000 kernel weight 47.5g.

PI 610765 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-577. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 132d. 1000 kernel weight 48.7g.

PI 610766 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-578. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 132d. 1000 kernel weight 47.1g.

PI 610767 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-579. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 132d. 1000 kernel weight 48.4g.

PI 610768 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-580. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 84d. Maturity 132d. 1000 kernel weight 47.3g.

PI 610769 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-581. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 85d. Maturity 132d. 1000 kernel weight 46.0g.

PI 610770 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-582. Pedigree - Altar 84*8/Seri M82. New chromosome 1B derivative durum wheat germplasm. Anthesis 86d. Maturity 133d. 1000 kernel weight 47.3g.

PI 610771 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-583. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 88d. Maturity 137d. 1000 kernel weight 51.4g.

PI 610772 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-584. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 87d. Maturity 134d. 1000 kernel weight 53.4g.

PI 610773 QUAR. Triticum turgidum subsp. durum (Desf.) Husn. Breeding. Pureline. GP-585. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 87d. Maturity 134d. 1000 kernel weight 50.7g.

PI 610774 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-586. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 87d. Maturity 134d. 1000 kernel weight 53.4g.

PI 610775 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-587. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 87d. Maturity 136d. 1000 kernel weight 52.6g.

PI 610776 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-588. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 88d. Maturity 135d. 1000 kernel weight 53.8g.

PI 610777 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-589. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 88d. Maturity 135d. 1000 kernel weight 56.4g.

PI 610778 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-590. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 87d. Maturity 134d. 1000 kernel weight 48.5g.

PI 610779 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-591. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 88d. Maturity 135d. 1000 kernel weight 49.3g.

PI 610780 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-592. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 88d. Maturity 135d. 1000 kernel weight 48.7g.

PI 610781 QUAR. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Pureline. GP-593. Pedigree - Altar 84*8/Seri M82. New chromosome T1BL.1RS substitution derivative durum wheat germplasm. Anthesis 88d. Maturity 135d. 1000 kernel weight 49.5g.

The following were developed by Gerald Seiler, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Received 06/17/1999.

PI 610782. Helianthus annuus L.
Breeding. Population. GP-237. Pedigree - P21*2 (Helianthus annuus)/ GIG-1616 (H. giganteus) F2. Plants mostly branched, plant height 151 cm. Flowering (50%) 75 days after planting, self-compatibility (seed set under bags) 80%, viable pollen staining 90%. 100 seed weight 2.7g, test weight 386 kg/m3, and oil content 314 g/kg. Interspecific hybrid. See pedigree for species.

PI 610783. Helianthus annuus L.

Breeding. Population. GP-238. Pedigree - P21*2 (Helianthus annuus)/ GIG-1616 (H. giganteus) F2. Plants non-branched, plant height 114 cm. Flowering (50%) 68 days after planting, self-compatibility (seed set under bags) 78%, viable pollen staining 97%. 100 seed weight 5.7g, test weight 322 kg/m3, and oil content 378 g/kg. Interspecific hybrid. See pedigree for species.

PI 610784. Helianthus annuus L.
Breeding. Population. GP-239. Pedigree - P21*2 (Helianthus annuus)/ HIR-828 (H. hirsutus) F2. Plants mostly branched, plant height 113 cm. Flowering (50%) 71 days after planting, self-compatibility (seed set under bags) 82%, viable pollen staining 97%. 100 seed weight 8.6 g, test weight 270 kg/m3, and oil content 301 g/kg. Interspecific hybrid. See pedigree for species.

PI 610785. Helianthus annuus L.
Breeding. Population. GP-240. Pedigree - P21*2 (Helianthus annuus)/ HIR-828 (H. hirsutus) F2. Plants mostly non-branched, plant height 130 cm. Flowering (50%) 74 days after planting, self-compatibility (seed set under bags) 55%, viable pollen staining 98%. 100 seed weight 5.5 g, test weight 309 kg/m3, and oil content 393 g/kg. Interspecific hybrid. See pedigree for species.

PI 610786. Helianthus annuus L.
Breeding. Population. GP-241. Pedigree - P21*2 (Helianthus annuus)/ HIR-828 (H. hirsutus) F2. Plants mostly branched, plant height 127cm. Flowering (50%) 71 days after planting, self-compatibility (seed set under bags) 51%, viable pollen staining 95%. 100 seed weight 8.3 g, test weight 342 kg/m3, and oil content 346 g/kg. Interspecific hybrid. See pedigree for species.

PI 610787. Helianthus annuus L.
Breeding. Population. GP-242. Pedigree - P21*2 (Helianthus annuus)/ HIR-828 (H. hirsutus) F2. Plants mostly non-branched, plant height 125 cm. Flowering (50%) 68 days after planting, self-compatibility (seed set under bags) 82%, viable pollen staining 99%. 100 seed weight 7.2 g, test weight 283 kg/m3, and oil content 377 g/kg. Interspecific hybrid. See pedigree for species.

PI 610788. Helianthus annuus L.
Breeding. Population. GP-243. Pedigree - P21*2 (Helianthus annuus)/ STR-1622 (H. strumosus) F2. Plants mostly non-branched, plant height 118 cm. Flowering (50%) 68 days after planting, self-compatibility (seed set under bags) 6%, viable pollen staining 86%. 100 seed weight 9.0 g, test weight 283 kg/m3, and oil content 347 g/kg. Interspecific hybrid. See pedigree for species.

PI 610789. Helianthus annuus L.
Breeding. Population. GP-244. Pedigree - P21*2 (Helianthus annuus)/ STR-1622 (H. strumosus) F2. Plants mostly non-branched, plant height 127cm. Flowering (50%) 67 days after planting, self-compatibility (seed set under bags) 4%, viable pollen staining 98%. 100 seed weight 8.0 g, test weight 322 kg/m3, and oil content 380 g/kg. Interspecific hybrid. See pedigree for species.

PI 610790. Helianthus annuus L.
Breeding. Population. GP-245. Pedigree - P21*2 (Helianthus annuus)/ TUB-825 (H. tuberosus) F2. Plants mostly branched, plant height 113 cm. Flowering (50%) 71 days after planting, self-compatibility (seed set under bags) 88%, viable pollen staining 93%. 100 seed weight 4.80g, test weight 341 kg/m3, and oil content 374 g/kg. Interspecific hybrid. See pedigree for species.

PI 610791. Helianthus annuus L.
Breeding. Population. GP-246. Pedigree - P21*2 (Helianthus annuus)/ TUB-825 (H. tuberosus) F2. Plants mostly non-branched, plant height 126 cm. Flowering (50%) 74 days after planting, self-compatibility (seed set under bags) 93%, viable pollen staining 99%. 100 seed weight 5.3 g, test weight 296 kg/m3, and oil content 375 g/kg. Interspecific hybrid. See pedigree for species.

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 610792. Poa compressa L.
Wild. Collected 09/01/1996 in Albania. Latitude 42 deg. 2' 55'' N. Longitude 19 deg. 58' 40'' E. Elevation 660 m. Along road between Rreshen and Puke, 4-5 km from village of Puke. Scattered among oak, fern, and Juniper shrubs on rocky-stony hillside. Height 40cm. Panicles loose, 7-10cm long. Infrequent.

PI 610793. Lolium perenne L.
Wild. Collected 09/1996 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 40-60cm.

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

PI 610794. Lolium multiflorum Lam.
Wild. Collected in Belgium. Latitude 50 deg. 2' N. Longitude 5 deg. 50' E. Elevation 500 m. Longvilly.

PI 610795. Lolium perenne L.
Wild. Collected in France. Latitude 48 deg. 47' N. Longitude 4 deg. 55' E. Elevation 100 m. Sermaize-L-Baine.

PI 610796. Lolium multiflorum Lam.
Wild. Collected in Italy. Latitude 44 deg. 27' N. Longitude 7 deg. 47' E. Elevation 364 m. Magliano Alpi.

PI 610797. Lolium multiflorum Lam.

Wild. Collected in Italy. Latitude 45 deg. 22' N. Longitude 9 deg. 41' E. Elevation 90 m. Crema.

PI 610798. Lolium multiflorum Lam.
Wild. Collected in Italy. Latitude 45 deg. 30' N. Longitude 9 deg. 22' E. Elevation 100 m. Vignate.

PI 610799. Lolium multiflorum Lam.
Wild. Collected in Italy. Latitude 44 deg. 26' N. Longitude 7 deg. 42' E. Elevation 450 m. Morozzo.

PI 610800. Lolium multiflorum Lam.
Wild. Collected in Italy. Latitude 45 deg. 19' N. Longitude 9 deg. 30' E. Elevation 83 m. Lodi.

PI 610801. Lolium multiflorum Lam.
Wild. Collected in Italy. Latitude 45 deg. 52' N. Longitude 9 deg. 50' E. Elevation 500 m. Gorno.

PI 610802. Lolium perenne L.
Wild. Collected in Norway. Latitude 59 deg. 55' N. Longitude 5 deg. 20' E. Elevation 10 m. Fitjar.

PI 610803. Lolium perenne L.
Wild. Collected in Norway. Latitude 59 deg. 48' N. Longitude 5 deg. 11' E. Elevation 20 m. Bremnes.

PI 610804. Lolium perenne L.
Wild. Collected in Romania. Latitude 46 deg. 56' N. Longitude 26 deg. 56' E. Elevation 350 m. Roman.

PI 610805. Lolium perenne L.
Wild. Collected in Romania. Latitude 47 deg. 9' N. Longitude 27 deg. 38' E. Elevation 150 m. Iasi.

PI 610806. Lolium perenne L.
Wild. Collected in Romania. Latitude 46 deg. 28' N. Longitude 24 deg. 5' E. Elevation 400 m. Ludus.

PI 610807. Lolium perenne L.
Wild. Collected in Romania. Latitude 47 deg. 12' N. Longitude 27 deg. 0' E. Elevation 150 m. Tirgu Frumos.

PI 610808. Festuca pratensis subsp. apennina (De Not.) Hegi
Wild. Collected in Switzerland. Latitude 46 deg. 33' N. Longitude 7 deg. 1' E. Elevation 1600 m. Moleson.

PI 610809. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 7' N. Longitude 7 deg. 45' W. Elevation 750 m. Sandianes.

PI 610810. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 32' N. Longitude 7 deg. 30' W. Elevation 500 m. Monforte De Lemos.

PI 610811. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 32' N. Longitude 8 deg. 6' W. Elevation 740 m. Irijo.

PI 610812. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 32' N. Longitude 8 deg. 6' W. Elevation 680 m. Irijo.

PI 610813. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 15' N. Longitude 8 deg. 13' W. Elevation 450 m. Melon.

PI 610814. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 11' N. Longitude 2 deg. 51' W. Elevation 50 m. Dilwyn.

PI 610815. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 4' N. Longitude 3 deg. 7' W. Elevation 375 m. Hay.

PI 610816. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 7' N. Longitude 4 deg. 5' W. Elevation 100 m. Lampeter.

PI 610817. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 2' N. Longitude 4 deg. 19' W. Elevation 220 m. Llandysul.

PI 610818. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 23' N. Longitude 3 deg. 51' W. Elevation 300 m. Devil's Bridge.

PI 610819. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 4' N. Longitude 3 deg. 7' W. Elevation 400 m. Hay.

PI 610820. Lolium perenne L.
Wild. Collected in Romania. Latitude 45 deg. 51' N. Longitude 25 deg. 48' E. Elevation 600 m. Sfintu Gheorghe.

PI 610821. Lolium perenne L.
Wild. Collected in Switzerland. Latitude 46 deg. 17' N. Longitude 7 deg. 22' E. Elevation 1276 m. Saviese.

PI 610822. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 51' N. Longitude 7 deg. 52' W. Elevation 750 m. Palas De Rey.

PI 610823. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 32' N. Longitude 8 deg. 6' W. Elevation 650 m. Irijo.

PI 610824. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 53 deg. 3' N. Longitude 3 deg. 41' W. Elevation 240 m. Llanrwst.

PI 610825. Lolium perenne L.
Wild. Collected in Switzerland. Latitude 47 deg. 11' N. Longitude 6 deg. 55' E. Elevation 980 m. Les Bois.

PI 610826. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 26' N. Longitude 8 deg. 8' W. Elevation 630 m. Boboras.

PI 610827. Lolium multiflorum Lam.
Wild. Collected in Belgium. Latitude 50 deg. 2' N. Longitude 5 deg. 50' E. Elevation 500 m. Longvilly.

PI 610828. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 9' N. Longitude 3 deg. 24' W. Elevation 150 m. Builth wells.

PI 610829. Lolium perenne L.
Wild. Collected in Wales, United Kingdom. Latitude 52 deg. 29' N. Longitude 4 deg. 3' W. Borth.

PI 610830. Dactylis glomerata L.
Wild. Collected in Spain. Latitude 42 deg. 28' N. Longitude 8 deg. 16' W. Elevation 660 m. Beariz.

PI 610831. Lolium multiflorum Lam.
Wild. Collected in Italy. Latitude 45 deg. 11' N. Longitude 7 deg. 43' E. Leini.

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

PI 610832. Festuca pratensis Huds.
Cultivar.

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 610833. Bromus inermis subsp. pumpellianus (Scribn.) Wagnon
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 17' 29'' N. Longitude 99 deg. 58' 16'' E. Elevation 2439 m. About 115 km SW of Tsetserleg. Steep, rocky east slope, west of Chuluut River Valley. Alpine.

PI 610834. Calamagrostis epigejos (L.) Roth
Wild. Collected 09/1994 in Mongolia. Latitude 48 deg. 43' 41'' N. Longitude 106 deg. 8' 59'' E. Elevation 1273 m. 30 km north of Bornuur along roadside. Mountain steppe.

PI 610835. Poa attenuata subsp. botryoides (Trin. ex Griseb.) Tzvelev
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 4' 6'' N.

Longitude 109 deg. 17' 0'' E. Elevation 1463 m. Near herder winter camp at toe-slope of small range of mountains adjacent to Herlen River. Mountain-grass steppe. Soils shallow, even on toe-slope. Position near camp indicates heavy winter grazing occurs.

PI 610836. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 18' 11'' N. Longitude 113 deg. 1' 55'' E. Elevation 899 m. Southern edge of grass steppe region in Dornod Aimag, eastern Mongolia. Grass steppe. Soils brown, high gravel content, thin, and low fertility. Aspect east, slope 5%.

PI 610837. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 45 deg. 50' 10'' N. Longitude 102 deg. 51' 44'' E. Elevation 1738 m. About 53 km SE of Arvayheer. Grass steppe. 2-5% NE slope. Soil gravelly. Thin stand of grasses.

PI 610838. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 17' 29'' N. Longitude 99 deg. 58' 16'' E. Elevation 2439 m. About 115 km SW of Tsetserleg. Steep, rocky east slope, west of Chuluut River Valley. Alpine.

PI 610839. Festuca rubra L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 17' 29'' N. Longitude 99 deg. 58' 16'' E. Elevation 2439 m. About 115 km SW of Tsetserleg. Steep, rocky east slope, west of Chuluut River Valley. Alpine.

PI 610840. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 43' 51'' N. Longitude 100 deg. 33' 27'' E. Elevation 2134 m. River valley of a tributary of Hanuy River. About 75 km NW of Tsetserleg by air. Mountain steppe. East slope 5%.

PI 610841. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 3' 6'' N. Longitude 106 deg. 5' 16'' E. Elevation 1017 m. About 11 km north of Bayangol. Summer grazing area adjacent to winter wheat field. Mountain steppe. SE slope 3-5%, well drained soil.

PI 610842. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 43' 5'' N. Longitude 105 deg. 17' 24'' E. Elevation 835 m. On Toibiin River about 60 km SW of Dzuunburen by air. Mountain steppe.

PI 610843. Festuca venusta St.-Yves
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 49' 57'' N. Longitude 100 deg. 53' 31'' E. Elevation 1835 m. About 65 km NW of Tsetserleg by air. On left bank of Hanuy River. Mountain steppe. Poorly drained.

PI 610844. Stipa baicalensis Roshev.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 18' 11'' N.

Longitude 113 deg. 1' 55'' E. Elevation 899 m. Southern edge of grass steppe region in Dornod Aimag, eastern Mongolia. Grass steppe. Soils brown, high gravel content, thin, and low fertility. Aspect east, slope 5%.

PI 610845. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 43' 5'' N. Longitude 105 deg. 17' 24'' E. Elevation 835 m. On Toibiin River about 60 km SW of Dzuunburen by air. Mountain steppe.

PI 610846. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 48' 23'' N. Longitude 112 deg. 43' 54'' E. Elevation 625 m. Near Hulunbaer Sum west of Choibalson City and close to Herlen River. Collections made from destabilized dunes at edge of grass steppe and moist meadows along river. Grass steppe (with dunes and marsh).

PI 610847. Bromus inermis Leyss. **subsp. inermis**
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 8' 53'' N. Longitude 106 deg. 1' 56'' E. Elevation 1128 m. 15-20 km north of Bayangol on ridge top surrounded by hay fields. Mountain steppe. North-sloping ridge, slope 1-5%. Well drained, non-rocky soil.

PI 610848. Poa pratensis L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 49' 57'' N. Longitude 100 deg. 53' 31'' E. Elevation 1835 m. About 65 km NW of Tsetserleg by air. On left bank of Hanuy River. Mountain steppe. Poorly drained.

PI 610849. Poa attenuata Trin.
Wild. Collected 09/1994 in Mongolia. Latitude 48 deg. 23' 22'' N. Longitude 101 deg. 14' 29'' E. Elevation 1597 m. About 17 km south of Erdenemandal on Hanuy River. River bank on west side. Mountain steppe. East slope 1-2%. Soil well drained.

PI 610850. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 33' 9'' N. Longitude 105 deg. 9' 51'' E. Elevation 1160 m. In high meadow of Toibiin River tributary, about 80 km SW of Dzuunburen by air. Mountain steppe. Slope 4% north.

PI 610851. Agropyron cristatum var. pectinatum (M. Bieb.) Tzvelev
Wild. Collected 09/1994 in Mongolia. Latitude 45 deg. 35' 36'' N. Longitude 104 deg. 5' 59'' E. Elevation 1479 m. About 22 km NE of Sayhon-Ovaa by air on rolling steppe. Grass steppe. Soil very sandy. 1% W slope.

PI 610852. Alopecurus arundinaceus Poir.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 43' 5'' N. Longitude 105 deg. 17' 24'' E. Elevation 835 m. On Toibiin River about 60 km SW of Dzuunburen by air. Mountain steppe.

PI 610853. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 13' 27'' N. Longitude 112 deg. 58' 57'' E. Elevation 953 m. Herders camp in Dornod

Aimag, along shallow wash. Grass steppe. Soils brown, high gravel content. Aspect east, slope 5%.

PI 610854. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 58' 43'' N. Longitude 105 deg. 41' 57'' E. Elevation 1000 m. About 14 km SW of Dzuunburen by air. In hills south of Selenge River. Site surrounded by hills. Meadow. 5-10% slope creek bottom.

PI 610855. Bromus inermis Leyss. **subsp. inermis**
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 24' 26'' N. Longitude 106 deg. 26' 33'' E. Elevation 1692 m. About 68 km SW of Ulaanbaatar. In dry stream bed 0.5 km from main road on east side. Mountain steppe. 2% W slope.

PI 610856. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 48 deg. 39' 23'' N. Longitude 102 deg. 7' 23'' E. Elevation 1574 m. About 15 km NW of Hayrhan. Open hillside. Mountain steppe. SE slope 3%.

PI 610857. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 23' 7'' N. Longitude 102 deg. 34' 4'' E. Elevation 1530 m. Meadow on east bank of tributary of Hogshin River, 9 km NE of Hotont. Mountain steppe. Soil gravelly. Heavily grazed.

PI 610858. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 48 deg. 56' 0'' 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%.

PI 610859. Trisetum spicatum (L.) K. Richt.
Wild. Collected 09/1994 in Mongolia. Latitude 50 deg. 4' 20'' N. Longitude 106 deg. 5' 27'' E. Elevation 899 m. West of Orhon River and Shaamar, at point where road tops the west tableland. Mountain steppe. Rolling, 2% east slope. Appears burned over.

PI 610860. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 22' 16'' N. Longitude 104 deg. 53' 4'' E. Elevation 1445 m. About 105 km SW of Dzuunburen by air. In abandoned field. Mountain steppe. East slope 2%.

PI 610861. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 50 deg. 7' 11'' N. Longitude 106 deg. 13' 6'' E. Elevation 832 m. About 5 km north of Shaamar and 8 km south of Suhbaatar along west side of highway in meadow. Mountain steppe.

PI 610862. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 24' 26'' N. Longitude 106 deg. 26' 33'' E. Elevation 1692 m. About 68 km SW of Ulaanbaatar. In dry stream bed 0.5 km from main road on east side. Mountain steppe. 2% W slope.

PI 610863. Puccinellia tenuiflora (Griseb.) Scribn. & Merr.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 9' 58'' N. Longitude 105 deg. 4' 41'' E. Elevation 1478 m. About 21 km NE of Erdenedalay. Grass steppe. 2% S slope.

PI 610864. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 58' 43'' N. Longitude 105 deg. 41' 57'' E. Elevation 1000 m. About 14 km SW of Dzuunburen by air. In hills south of Selenge River. Site surrounded by hills. Meadow. 5-10% slope creek bottom.

PI 610865. Bromus inermis Leyss. **subsp. inermis**
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 23' 7'' N. Longitude 102 deg. 34' 4'' E. Elevation 1530 m. Meadow on east bank of tributary of Hogshin River, 9 km NE of Hotont. Mountain steppe. Soil gravelly. Heavily grazed.

PI 610866. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 30' 59'' N. Longitude 100 deg. 41' 22'' E. Elevation 2256 m. Dry creek bottom about 20 km west of Ihtamir on north side of road. Mountain steppe. Dry, gravelly soils. 2% SW slope.

PI 610867. Stipa capillata L.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 8' 53'' N. Longitude 106 deg. 1' 56'' E. Elevation 1128 m. 15-20 km north of Bayangol on ridge top surrounded by hay fields. Mountain steppe. North-sloping ridge, slope 1-5%. Well drained, non-rocky soil.

PI 610868. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 50 deg. 5' 41'' N. Longitude 106 deg. 7' 47'' E. Elevation 840 m. River bottom meadow about 5 km NW of Shaamar on Orhon River. Site about 400 m from south wooded area near slough. Mountain steppe.

PI 610869. Bromus inermis Leyss. **subsp. inermis**
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 50' N. Longitude 118 deg. 40' E. Elevation 457 m. Approximately 30 km from border with Inner Mongolia, extreme northeastern corner of Dornod Aimag. Vast plain to west of Khalkin Gol River. Grass steppe.

PI 610870. Puccinellia tenuiflora (Griseb.) Scribn. & Merr.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 43' 5'' N. Longitude 105 deg. 17' 24'' E. Elevation 835 m. On Toibiin River about 60 km SW of Dzuunburen by air. Mountain steppe.

PI 610871. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 44 deg. 55' 10'' N. Longitude 102 deg. 50' 40'' E. Elevation 1402 m. About 72 km S of Tugrik by air on W side of dry arroyo. Grass steppe. Water course S. Slope 1%. Soil gravelly. Vegetation sparse.

PI 610872. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 37' 23'' N. Longitude 102 deg. 54' 7'' E. Elevation 2180 m. About 40 km N of

Arvayheer by air. Mountain steppe. 2% NE slope. Poorly drained.

PI 610873. Trisetum spicatum (L.) K. Richt.
Wild. Collected 09/1994 in Mongolia. Latitude 48 deg. 35' 32'' N. Longitude 101 deg. 53' 33'' E. Elevation 1458 m. About 5 km SW of Hayrhan in wide valley, midway up west side. Mountain steppe. East slope 2%.

PI 610874. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 9' 58'' N. Longitude 105 deg. 4' 41'' E. Elevation 1478 m. About 21 km NE of Erdenedalay. Grass steppe. 2% S slope.

PI 610875. Stipa capillata L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 12' 0'' N. Longitude 108 deg. 40' 39'' E. Elevation 1448 m. On and surrounding 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 the plowed land has been abandoned to weeds. Soils shallow, gravelly, and obvious low fertility.

PI 610876. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 17' 29'' N. Longitude 99 deg. 58' 16'' E. Elevation 2439 m. About 115 km SW of Tsetserleg. Steep, rocky east slope, west of Chuluut River Valley. Alpine.

PI 610877. Stipa sibirica (L.) Lam.
Wild. 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 610878. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 51' 49'' N. Longitude 114 deg. 34' 1'' E. Elevation 808 m. Central Dornod Aimag, eastern Mongolia. Grass steppe. Soils brown, gravelly, fine silt loams. Aspect southeast, slope 2%.

PI 610879. Stipa baicalensis Roshev.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 51' 49'' N. Longitude 114 deg. 34' 1'' E. Elevation 808 m. Central Dornod Aimag, eastern Mongolia. Grass steppe. Soils brown, gravelly, fine silt loams. Aspect southeast, slope 2%.

PI 610880. Poa attenuata subsp. botryoides (Trin. ex Griseb.) Tzvelev
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 13' 27'' N. Longitude 112 deg. 58' 57'' E. Elevation 953 m. Herders camp in Dornod Aimag, along shallow wash. Grass steppe. Soils brown, high gravel content. Aspect east, slope 5%.

PI 610881. Poa pratensis L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 41' 56'' N. Longitude 100 deg. 23' 41'' E. Elevation 2134 m. About 85 km NW of

Tsetserleg by air. Creek valley of a tributary of Chuluut River. Mountain steppe. SE slope 3-8%. Scattered rock outcrops. Dry site.

PI 610882. Bromus inermis Leyss. **subsp. inermis**
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 30' 20'' N. Longitude 111 deg. 59' 57'' E. Elevation 808 m. Winter camp in low range of mountains south of Herlen River. Appears to be highly productive grass steppe, much of bottomland used for cutting hay. Grass steppe. Soils in bottom deep and fertile. Aspect southeast, slope 5%.

PI 610883. Puccinellia tenuiflora (Griseb.) Scribn. & Merr.
Wild. Collected 09/1994 in Mongolia. Latitude 48 deg. 11' 19'' N. Longitude 101 deg. 5' 25'' E. Elevation 1695 m. About 5 km north of Hanuy, south of Erdenemandal. Edge of wet meadow. Mountain steppe. SE slope 2%.

PI 610884. Poa pratensis L.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 43' 5'' N. Longitude 105 deg. 17' 24'' E. Elevation 835 m. On Toibiin River about 60 km SW of Dzuunburen by air. Mountain steppe.

PI 610885. Poa attenuata subsp. botryoides (Trin. ex Griseb.) Tzvelev
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 12' 38'' N. Longitude 109 deg. 42' 46'' E. Elevation 1387 m. Cut-over hayfield on former state fodder farm in eastern Hentii Aimag. Grass steppe (native hayfield). Brown chestnut soils that reflect greater depth and fertility than surrounding non-harvested rangeland. Aspect southeast, Slope 2%.

PI 610886. Elymus sibiricus L.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 57' 38'' N. Longitude 105 deg. 40' 20'' E. Elevation 920 m. About 18 km SW of Dzuunburen by air. Along margin of abandoned field. Meadow. Westerly slope 0%.

PI 610887. Calamagrostis purpurea (Trin.) Trin.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 43' 5'' N. Longitude 105 deg. 17' 24'' E. Elevation 835 m. On Toibiin River about 60 km SW of Dzuunburen by air. Mountain steppe.

PI 610888. Trisetum spicatum (L.) K. Richt.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 48' 30'' N. Longitude 105 deg. 25' 24'' E. Elevation 895 m. About 44 km SW of Dzuunburen by air and about 5 km south of Selenge River in a creek bottom. Mountain steppe. Slope 3% west.

PI 610889. Elymus dahuricus Turcz. ex Griseb.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 24' 26'' N. Longitude 106 deg. 26' 33'' E. Elevation 1692 m. About 68 km SW of Ulaanbaatar. In dry stream bed 0.5 km from main road on east side. Mountain steppe. 2% W slope.

PI 610890. Stipa capillata L.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 58' 15'' N. Longitude 116 deg. 45' 19'' E. Elevation 595 m. East central Dornod Aimag, eastern Mongolia. Grass steppe. Similar to other recent sites in

same general area. Aspect and slope flat.

PI 610891. Calamagrostis purpurea (Trin.) Trin.
Wild. Collected 09/1994 in Mongolia. Latitude 49 deg. 57' 37'' N. Longitude 105 deg. 40' 20'' E. Elevation 920 m. About 18 km SW of Dzuunburen by air. Along margin of abandoned field. Meadow. Westerly slope 10%.

PI 610892. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 46 deg. 37' 23'' N. Longitude 102 deg. 54' 7'' E. Elevation 2180 m. About 40 km N of Arvayheer by air. Mountain steppe. 2% NE slope. Poorly drained.

PI 610893. Poa attenuata subsp. botryoides (Trin. ex Griseb.) Tzvelev
Wild. 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 610894. Agropyron cristatum (L.) Gaertn.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 12' N. Longitude 108 deg. 40' 39'' E. Elevation 1448 m. On and surrounding 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 has been abandoned to weeds. Soils shallow, gravelly, and of obvious low fertility.

PI 610895. Poa subfastigiata Trin. ex Ledeb.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 13' 47'' N. Longitude 109 deg. 0' 18'' E. Elevation 960 m. Hentii Aimag, approximately 100 km from Tariat Research Station. Edge of plain along Herlen River where mountains meet plain. Grass-mountain steppe. Soils typical of other sites, brown, shallow. Aspect east, slope 20%.

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 610896. Elymus dahuricus subsp. excelsus (Turcz. ex Griseb.) Tzvelev
Wild. Collected 08/08/1993 in Xinjiang, China. Latitude 43 deg. 49' N. Longitude 86 deg. 21' E. Elevation 1510 m. 45km southwest of Dafeng, Xinjiang. Plants located on sidehill associated with Medicago lupulina (very robust but immature.

PI 610897. Elymus gmelinii (Ledeb.) Tzvelev
Wild. Collected 08/20/1993 in Xinjiang, China. Latitude 43 deg. 46' N. Longitude 89 deg. 27' E. Elevation 1300 m. Silty clay, 48km south of Chitai, very dry rolling foot hills used for winter pastures, Xinjiang.

PI 610898. Elymus gmelinii (Ledeb.) Tzvelev
Wild. 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 collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610899. Festuca arundinacea Schreb.
Wild. Collected 07/27/1994 in Morocco. Latitude 31 deg. 16' 8'' N. Longitude 7 deg. 57' 38'' W. Elevation 1160 m. Near Asni, 2 k north of Asni on road S501. Taroudannt-Marrakech. Grazed, hay. Slope 0-5%, aspect NE. 1/4 shade. Soil hydromorphic red sandy loam on calcareous alluviums, pH 9.5-10.0. Rainfall 460 mm. Moist, seasonally flooded, floodplain. Vegetation closed, seasonal broad-leafed herb veg. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco; Nezha Saidi, Morocco. Received 08/19/1994.

PI 610900. Festuca arundinacea Schreb.
Wild. Collected 07/28/1994 in Morocco. Latitude 31 deg. 17' 24'' N. Longitude 7 deg. 22' 58'' W. Elevation 2200 m. Near Taddert, 15 k south of Taddert on road P31, Marrakech-Ouarzazate,. Grazed, hay. Slope 0-5%, aspect NE. Open. Soil gray sandy loam over alluvium schist/granite, hydromorphic, pH 7.0. Rainfall 850 mm. Moist, seasonally flooded, ravine, alluvial fan,stream terrace.Vegetation closed, seasonal broad-leafed herb. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Badia Baya, Morocco. Received 08/19/1994.

PI 610901. Festuca arundinacea Schreb.
Wild. Collected 07/18/1994 in Morocco. Latitude 33 deg. 26' 42'' N. Longitude 5 deg. 19' 59'' W. Elevation 1080 m. Near Azrou, 5 k west of road P21 on road 3383, 13 k southwest of Azrou. Grazed. Slope 0-5%, aspect S. Area open. Soil sand, pH 9.5-10.0, alluvial watercourse on calcareous schist, heavily degraded. Rainfall 700 mm. Seasonally dry, ravine. Veg. closed, seasonal tall grass. Surrounding veg. cereal-pasture agri. Population distribution 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; Mustapha Bounejmate, Institut National de la Recherche Agrono, Programme Fourrages (INRA), B.P. 415, Rabat, Morocco; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610902. Festuca arundinacea Schreb.
Wild. Collected 07/21/1994 in Morocco. Latitude 32 deg. 44' 5'' N. Longitude 5 deg. 10' 40'' W. Elevation 1640 m. Near Boumia, 10 k west of turn off to Boumia on road P33, Zeida-Arhbalou-north of Serdane. Grazed. Slope 0-5%, aspect S. Open. Soil heavy cracking clay on limestone, pH 10. Rainfall 300 mm. Moist, basin. Vegetation closed, seasonal tall grass. Surrounding veg. degraded evergreen open forest with closed lower layers, cereal-range. Population abundant, distribution uniform. Growth habit erect.

PI 610903. Festuca arundinacea Schreb.
Wild. Collected 07/20/1994 in Morocco. Latitude 32 deg. 39' 7'' N. Longitude 4 deg. 45' 45'' W. Elevation 1580 m. Near Midelt, 5 k south of Midelt on road 3424 toward Cirque de Jaffar. Grazed. Slope 6-10%, aspect W. Open. Soil clay-sandy loam from limestone, pH 9.5-10.0. Rainfall 250 mm. Moist-seasonally flooded, basin-irrigation ditch. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen steppe scrub, agri. Population abundance frequent, distribution patchy. Growth habit erect.

PI 610904. Festuca arundinacea Schreb.
Wild. Collected 07/20/1994 in Morocco. Latitude 32 deg. 44' 37'' N. Longitude 4 deg. 54' 40'' W. Elevation 1504 m. Near Zaier, 10 k southeast of Zaier on road P21, Azrou-Midelt. Grazed. Slope 0-5%, aspect N. Open. Soil sand-loam, alluvium with free lime from bedrock, pH 9.5-10.0. Rainfall 250 mm. Moist-seasonally flooded, stream terrace. Vegetation closed,seasonal tall grass.Surrounding veg. evergreen steppe scrub. Population abundance frequent, distribution patchy. Growth habit erect.

PI 610905. Festuca arundinacea Schreb.
Wild. Collected 07/20/1994 in Morocco. Latitude 32 deg. 42' 20'' N. Longitude 4 deg. 46' 47'' W. Elevation 1480 m. Near Midelt, 5 k west of Midelt on road P21, Azrou-Midelt. Grazed, hay. Slope 0-5%, aspect S. Open. Soil sandy loam alluvium limestone derived, pH 9.5-10.0. Rainfall 225 mm. Moist-seasonally flooded, stream terrace-basin. Vegetation closed,seasonal tall grass.Surrounding veg. evergreen steppe scrub. Population abundance frequent, distribution patchy. Growth habit erect.

PI 610906. Festuca arundinacea Schreb.
Wild. 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. Area open. Soil loam, clay, heavy hydromorphic on calcareous limestone type bedrock, pH 9.5-10.0. Moist, ravine. Vegetation closed, evergreen tall grass. Surrounding veg. degraded evergreen forest and scrub. Population abundance frequent, distribution patchy. Growth habit erect.

PI 610907. Festuca arundinacea Schreb.

Wild. Collected 07/21/1994 in Morocco. Latitude 33 deg. 12' 24'' N. Longitude 5 deg. 55' 5'' W. Elevation 1206 m. Near Aguelmouss, 8 k north of Aguelmouss on road 2516R, 40 k southeast of Oulmes. Grazed. Slope 0-5%, aspect SW. Area open. Soil sand-loam on granite, pH 7.5. Rainfall 650 mm. Moist, ravine, 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.

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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610908. Festuca arundinacea Schreb.
Wild. 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 0-5%,aspect W.1/4 shade.Sand in alluvium on sandstone,some schist,pH 9.0. Rainfall 500 mm. Moist-seasonally flooded,stream terrace.Veg. closed,seasonal tall grass.Surrounding veg. 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; Mustapha Bounejmate, Institut National de la Recherche Agrono, Programme Fourrages (INRA), B.P. 415, Rabat, Morocco; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610909. Festuca arundinacea Schreb.
Wild. Collected 07/21/1994 in Morocco. Latitude 32 deg. 41' 4'' N. Longitude 5 deg. 32' 9'' W. Elevation 1680 m. Near El-Kbab, 6 k south of El-Kbab on P33, Zeida-K. Tabla, 48 k south of Khenifra. Grazed, hay. Slope 0-5%, aspect W. Open. Soil hydromorphic loam clay bog on limestone, pH 10+. Rainfall 550 mm. Moist-seasonally flooded, ravine-basin, spring fed. Vegetation closed, seasonal tall grass. Population abundance frequent, distribution patchy. Growth habit erect.

PI 610910. Festuca arundinacea Schreb.
Wild. Collected 07/20/1994 in Morocco. Latitude 33 deg. 7' 34'' N. Longitude 5 deg. 2' 47'' W. Elevation 1903 m. Near Timahdite (Foum-Kheneg), 11 k south of Timahdite on P21, Azro. Grazed. Slope 0-5%, aspect W. Area open. Soil sod meadow loam on calcareous bedrock, basalt rock on top, pH 9.5. Rainfall 400 mm. Moist, seasonally flooded, stream terrace. Vegetation closed, evergreen broad-leafed herb vegetation. 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; Walter Graves, 7665 Volclay Drive, San Diego, California

92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610911. Dactylis glomerata L.
Wild. Collected 07/27/1994 in Morocco. Latitude 30 deg. 49' 8'' N. Longitude 8 deg. 23' 41'' W. Elevation 1240 m. Near Taroudannt, 71 k northeast of Taroudant on road S501, to Marrakech, 19 k northeast of intersection with P32. Grazed, protected. Slope 11-40%, aspect W. 1/4 shade. Soil sandy loam on calcareous rock, pH 9.0. Rainfall 350 mm. Seasonally dry, upper-mid slope. Vegetation closed, evergreen open forest with closed lower layers. 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; Mustapha Bounejmate, Institut National de la Recherche Agrono, Programme Fourrages (INRA), B.P. 415, Rabat, Morocco; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610912. Festuca arundinacea Schreb.
Wild. Collected 07/20/1994 in Morocco. Latitude 33 deg. 14' 19'' N. Longitude 5 deg. 3' 53'' W. Elevation 1810 m. Near Timahdite, north entrance to Timahdite on P21, Azrou-Midelt. Past grazed, now cultivated. Slope 0-5%, aspect N. 1/2 shade. Soil hydromorphic loams on alluvial derived from basalt and calcareous rock, pH 9.5-10.0. Rainfall 500 mm. Moist-seasonally flooded, stream terrace. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610913. Dactylis glomerata L.
Wild. Collected 07/26/1994 in Morocco. Latitude 30 deg. 58' 22'' N. Longitude 8 deg. 46' 19'' W. Elevation 3000 m. Near Bou-Laouane, 55 k south and 1 k to west of road 6404 from Bou-Laouane. Grazed. Slope 11-40%, aspect SE. Area open. Soil rocky sandy loam on schist/shale surface rock. Seasonally dry, ridgetop, upper slope. Vegetation open evergreen steppe scrub. Surrounding veg. seasonal tall grass, range livestock agri. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Badia Baya, Morocco. Received 08/19/1994.

PI 610914. Festuca arundinacea Schreb.

Wild. Collected 07/19/1994 in Morocco. Latitude 33 deg. 33' 3'' N. Longitude 5 deg. 6' 43'' W. Elevation 1500 m. Near Ifrane, 3K from center of Ifrane toward El-Hajeb on road S309. Grazed, settlement. Slop 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 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610915. Festuca arundinacea Schreb.
Wild. Collected 07/27/1994 in Morocco. Latitude 30 deg. 58' 43'' N. Longitude 8 deg. 13' 54'' W. Elevation 1315 m. Near Ijoukak, 8 k south of Ijoukak, on road S501, Taroudannt-Marrakech. Grazed, hay. Slope 0-5%l, aspect NE. Area open. Soil sandy loam on alluvium, red calcareous rock/schist, pH 9.5. Rainfall 250-300 mm. Moist, stream terrace, irrigation ditch. Vegetation closed, seasonal tall grass. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610916. Phalaris aquatica L.
Wild. 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 collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

PI 610917. Phalaris aquatica L.
Wild. Collected 06/29/1994 in Tunisia. Latitude 36 deg. 39' 5'' N. Longitude 8 deg. 41' 20'' E. Elevation 315 m. Near Fernana, 1 k west of Fernana on road to Ain Beith. Grazed. Slope 11-40%, aspect E. Area open. Soil heavy cracking vertisols, pH 9.0-9.5. Rainfall 800+ mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. Population abundance occasional, distribution patchy. Growth habit erect.

PI 610918. Festuca arundinacea Schreb.
Wild. Collected 06/29/1994 in Tunisia. Latitude 36 deg. 39' 5'' N. Longitude 8 deg. 41' 20'' E. Elevation 315 m. Near Fernana, 1 k west of Fernana on road to Ain Beith. Grazed. Slope 11-40%, aspect E. Area open. Soil heay cracking vertisols, pH 9.0-9.5. Rainfall 800+ mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. 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; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610919. Festuca arundinacea Schreb.
Wild. Collected 06/23/1994 in Tunisia. Latitude 36 deg. 56' 40'' N. Longitude 8 deg. 47' 29'' E. Elevation 12 m. Near Tabarka, 1 k east of Tabarka on P7. Past grazed, now settlement. Slope 0-5%, aspect S. Open. Soil loam, heavy alluvium on top of coastal sands. Moist, alluvial fan. Vegetation closed, seasonal tall grass. Dominant herb/grass sp. couch, bermuda. Assoc. sp. Bromus sp., T. frag. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

PI 610920. Festuca arundinacea Schreb.
Wild. Collected 06/27/1994 in Tunisia. Latitude 36 deg. 53' 2'' N. Longitude 9 deg. 35' 35'' E. Elevation 75 m. Near Tahent, 14.5 k east of sidi Nsir on C64. Grazed. Slope 0-5%, aspect S. Open. Soil clay, pH 8.5. Rainfall 500 mm. Moist, ravine. Protected by wheat fields on both sides. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. Dominant herb/grass sp. couch, bermuda. Population abundant, distribution uniform. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610921. Festuca arundinacea Schreb.
Wild. Collected 06/25/1994 in Tunisia. Latitude 37 deg. 13' 27'' N. Longitude 9 deg. 44' 42'' E. Elevation 5 m. Near Bizerye, 11.5 k southwest of Bizerte on P11 Hw. Grazed. Slope 0-5%, aspect S. Area open. Soil heavy clay, pH 9.0. Rainfall 600 mm. Moist, stream terrace, drain into salt lake Ichkeul. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. Population abundance frequent,

distribution patchy. Growth habit erect.

PI 610922. Phalaris aquatica L.
Wild. Collected 06/22/1994 in Tunisia. Latitude 36 deg. 25' 47'' N. Longitude 9 deg. 12' 51'' E. Elevation 510 m. Near Dougga, 1 k east of Dougga 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. Surrounging veg. agriculture, dryland wheat. Population abundance frequent, distribution patchy. Growth habit erect.

PI 610923. Phalaris aquatica L.
Wild. 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 abundance frequent, distribution patchy. Growth habit erect.

PI 610924. Lolium perenne L.
Wild. 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 rare, distribution patchy. Growth habit semi-erect.

PI 610925. Lolium perenne L.
Wild. Collected 06/23/1994 in Tunisia. Latitude 36 deg. 44' 21'' N. Longitude 9 deg. 1' 50'' E. Elevation 189 m. Near Beja, 14 k west of Beja on road C62. Grazed. Slope 0-5%, aspect E. Area open. Soil clay, pH 9.0. Rainfall 625 mm. Seasonally inundated, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. agriculture, dryland wheat. Dominant herb/grass sp. couch, bermuda. Population abundance frequent, distribution patchy. Growth habit semi-erect.

PI 610926. Lolium perenne L.
Wild. Collected 06/24/1994 in Tunisia. Latitude 37 deg. 13' 35'' N. Longitude 9 deg. 41' 52'' E. Elevation 22 m. Near Bizerte, 16 k west of Bizerte on C51. Grazed. Slope 0-5%, aspect S. Area open. Soil loam, heavy, pH 9.0-9.5. Rainfall 600 mm. Seasonally inundated, ravine, salt flat area. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. Population abundance frequent, distribution patchy. Growth habit semi-erect.

PI 610927. Lolium perenne L.
Wild. Collected 06/24/1994 in Tunisia. Latitude 37 deg. 7' 15'' N. Longitude 9 deg. 15' 55'' E. Elevation 99 m. Near Sedjnane, 8 k north of Sedjnane on road 66 to Cap Serrat. Grazed. Slope 0-5%, aspect S. Area open. Soil heavy clay, vertisol, pH 8.5. Rainfall 650 mm. Moist, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. agriculture, dryland grain. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610928. Lolium perenne L.
Wild. Collected 07/07/1994 in Sardinia, Italy. Latitude 40 deg. 6' 13'' N. Longitude 9 deg. 18' 59'' E. Elevation 1040 m. 11 k southeast of Fonni on road S389, Fonni-Lanusei. Grazed. Slope 11-40%, aspect W. 1/2 shade. Soil loam, granitic rock, pH 6.0. Rainfall 1000 mm. Seasonally dry, mid slope. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen open forest with closed lower layers. Population abundance frequent, distribution patchy. Growth habit semi-erect.

PI 610929. Lolium perenne L.
Wild. Collected 07/08/1994 in Sardinia, Italy. Latitude 39 deg. 30' 36'' N. Longitude 8 deg. 32' 46'' E. Elevation 396 m. 6 k south of Arbus, road SSN 126, Iglesias-Guspini. Grazed. Slope 0-5%, aspect E. 1/4 shade. Soil loam, schist-granitic transition zone, pH 6.5. Rainfall 700 mm. Seasonally dry. Vegetation closed, seasonal tall 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Leonardo Sulas, Sardinia, Italy. Received 08/19/1994.

PI 610930. Phalaris aquatica L.
Wild. Collected 07/06/1994 in Sardinia, Italy. Latitude 40 deg. 17' 27'' N. Longitude 8 deg. 56' 46'' E. Elevation 255 m. 16 k east of Macomer on road SS129 to Muoro, 1 k south on dirt road. Grazed. Slope 0-5%, aspect S. Area open. Soil loam, pH 6.5. Seasonally dry, plateau. Vegetation closed, seasonal short grass. Dominant herb/grass sp. annual grasses, Asphodelus microcarpa. Assoc. sp. Serradella, clovers. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

PI 610931. Lolium perenne L.
Wild. Collected 07/05/1994 in Sardinia, Italy. Latitude 40 deg. 56' 44'' N. Longitude 9 deg. 10' 12'' E. Elevation 460 m. Near Luras, 3 k north of Calanglanus, north edge of Luras 1K. Grazed. Slope 6-10%, aspect E. Area open. 1/4 shade. Soil loam, granitic, shallow, pH 6.0-6.5. Rainfall 1150 mm. Seasonally dry, mid slope, pasture. Vegetation closed, seasonal

short grass. Surrounding veg. dryland cereal/forage. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610932. Lolium perenne L.
Wild. 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. Past grazed, now roadway. Slope 11-40%, aspect W. Open. Soil clay. Seasonally dry, lower slope. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat/forage. Dominant tree Olea sp. Dom. shrub Cistus sp. Dom. grass annuals. Population abundance occasional, distribution patchy. Growth habit semi-erect.

PI 610933. Festuca arundinacea Schreb.
Wild. Collected 07/08/1994 in Sardinia, Italy. Latitude 39 deg. 30' 36'' N. Longitude 8 deg. 32' 46'' E. Elevation 396 m. 6 k south of Arbus, road SSN126, Iglesias-Guspini. Grazed. Slope 0-5%, aspect E. 1/4 shade. Soil loam, schist-granitic tran. zone, pH 6.5. Rainfall 700 mm. Moist, seasonally flooded, basin. Vege. closed, seasonal tall grass. Surrounding veg. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

PI 610934. Phalaris aquatica L.
Wild. Collected 07/05/1994 in Sardinia, Italy. Latitude 41 deg. 4' 36'' N. Longitude 9 deg. 12' 55'' E. Elevation 35 m. 26 k northeast of Tempio on road S133 to Bassacutena. Grazed. Slope 0-5%, aspect NE. Open. Soil heavy loam, pH 7.0. Rainfall 900 mm. Seasonally inundated, alluvial fan, spring bog. Vegetation closed, evergreen broad-leafed herb. Surrounding veg. evergreen open forest with closed lower layers. Population abundance rare, 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Leonardo Sulas, Sardinia, Italy. Received 08/19/1994.

PI 610935. Phalaris aquatica L.
Wild. Collected 07/06/1994 in Sardinia, Italy. Latitude 40 deg. 21' 30''

N. Longitude 8 deg. 55' 25'' E. Elevation 960 m. Viua Pierce, 12 k east of Padru Mannu on road to Bolotana, east of S131 Hw. Grazed. Slope 6-10%, aspect NE. Area open. Soil loam, pH 5.5. Rainfall 1000 mm. Seasonally dry, lower slope, pasture. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen forest. Cattle ranch operation. Population abundance rare, 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610936. Dactylis glomerata L.
Wild. Collected 07/27/1994 in Morocco. Latitude 30 deg. 58' 43'' N. Longitude 8 deg. 13' 54'' W. Elevation 1315 m. Near Ijoukak, 8 k south of Ijoukak, on road S501, Taroudannt-Marrakech. Grazed, hay. Slope 0-5%, aspect NE. Area open. Soil sandy loam on alluvium, red calcareous rock-schist, pH 9.5. Rainfall 250-300 mm. Moist, stream terrace, irrigation ditch. Vegetation closed, seasonal tall grass. 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; Mustapha Bounejmate, Institut National de la Recherche Agrono, Programme Fourrages (INRA), B.P. 415, Rabat, Morocco; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610937. Festuca arundinacea Schreb.
Wild. Collected 07/20/1994 in Morocco. Latitude 33 deg. 7' 34'' N. Longitude 5 deg. 2' 47'' W. Elevation 1903 m. Near Timahdite, 20 k south of Timahdite, off P21 3 k to east on S322 at lake Aguelmane. Grazed. Slope 0-5%, aspect S. Area open. Soil sod meadow loam on calcareous bedrock, pH 9.5-10.0. Rainfall 600 mm. Moist, basin, lake-shore. Vegetation closed, seasonal tall grass. Surrounding veg. degraded evergreen forest, range-cereal. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco; Nezha Saidi, Morocco. Received 08/19/1994.

PI 610938. Festuca arundinacea Schreb.
Wild. Collected 07/28/1994 in Morocco. Latitude 31 deg. 20' 4'' N. Longitude 7 deg. 22' 57'' W. Elevation 1775 m. Near Taddert, 2 k south of Taddert on road P31, Marrakech-Ouarzazate. Grazed, hay. Soil gray sandy loam over schist, pH 7.5. Rainfall 800 mm. Moist, stream terrace, meadow. Vegetation closed, seasonal tall grass. Surrounding veg. degraded evergreen open forest with closed lower layers. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

PI 610939. Lolium perenne L.
Wild. Collected 07/05/1994 in Sardinia, Italy. Latitude 40 deg. 56' 12'' N. Longitude 9 deg. 3' 20'' E. Elevation 550 m. Near Aggius, 3 k north of Aggius on road SS127 to Trinita. Grazed. Slope 0-5%, aspect N. Area open. Soil loam, alluvial, pH 5.0. Rainfall 1000 mm. Seasonally dry, alluvial fan. Vegetation closed, seasonal tall grass. Surrounding veg. closed evergreen scrub with scattered trees. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Badia Baya, Morocco. Received 08/19/1994.

PI 610940. Festuca arundinacea Schreb.
Wild. Collected 07/19/1994 in Morocco. Latitude 33 deg. 29' 49'' N. Longitude 5 deg. 10' 1'' W. Elevation 1560 m. Near Ifrane, 8 k southwest of Ifrane on road S322, 3 k west of P24. Grazed. Slope 11-40%, aspect S. Open. Soil hydromorphic loam on "gris" calcareous bedrock, pH 9.5-10.0. Rainfall 1000 mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen forest, pasture-cereal-orchard-mais. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610941. Festuca mairei St.-Yves
Wild. Collected 07/26/1994 in Morocco. Latitude 30 deg. 58' 9'' N. Longitude 8 deg. 45' 17'' W. Elevation 2560 m. Near Bou-Laouane, 55 k south of Bou-Laouane along road 6404 at pass Tizi-N-Tabgourt. Grazed. Slope 11-40%, aspect W. Open. Soil hydromorphic loam on shale bedrock, pH 9.0. Rainfall 600-800 mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. degraded open evergreen dwarf scrub with closed ground cover. 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; Walter Graves, 7665 Volclay Drive, San Diego, California

92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610942. Lolium perenne L.
Wild. Collected 07/07/1994 in Sardinia, Italy. Latitude 39 deg. 55' 26'' N. Longitude 9 deg. 27' 53'' E. Elevation 830 m. 5 k south of Villanova, 1 k west of road S389 on Lake Alto del Flumendosa road. Grazed. Slope 0-5%, aspect S. 1/4 shade. Soil clay, rock schist/shale, pH 6.0. Moist, stream terrace. Vegetation closed, open evergreen scrub with closed ground cover. Surrounding veg. seasonal short grass. 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; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610943. Festuca arundinacea Schreb.
Wild. Collected 06/23/1994 in Tunisia. Latitude 36 deg. 45' 59'' N. Longitude 9 deg. 11' 46'' E. Elevation 170 m. Near Beja, 4.5 k north of Beja on MC52. Grazed.Slope 0-5%,aspect S. Open.Soil clay.Seasonally flooded,stream terrace.Vegetation closed, seasonal tall grass.Surrounding veg. dryland wheat. Dominant herb/grass sp. couch, bermuda. Assoc. sp. Medics, Lotus c., T. fragiferum, clovers. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

PI 610944. Lolium perenne L.
Wild. Collected 06/28/1994 in Tunisia. Latitude 36 deg. 40' 54'' N. Longitude 8 deg. 42' 33'' E. Elevation 400 m. Near Fernana (Gouadia), 3 k northeast of Fernana toward Beni N'tir on C65. Grazed. Slope 11-40%, aspect SE. Area open. Soil loam-clay, pH 8.0. Rainfall 1000+ mm. Moist, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610945. Phalaris aquatica L.
Wild. 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. Area open. 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 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Badia Baya, Morocco. Received 08/19/1994.

PI 610946. Festuca arundinacea Schreb.
Wild. Collected 07/18/1994 in Morocco. Latitude 33 deg. 29' 37'' N. Longitude 5 deg. 15' 49'' W. Elevation 1270 m. Near Azrou, 7 km. northwest of Azrou on road P21, El-Hajeb-Azrou. Grazed. Slope 11-40%, aspect SE. Open. Soil loam on calcareous rock, pH 9.5-10.0. Rainfall 825 mm. Moist, ravine, spring bog. Vegetation closed, seasonal tall grass. Surrounding veg. cereal-pasture-orchard agriculture. Population distribution patchy, abundance frequent. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610947. Festuca sp.
Wild. Collected 07/12/1994 in Morocco. Latitude 34 deg. 56' 11'' N. Longitude 4 deg. 27' 59'' W. Elevation 1506 m. Near Ketama, 13 km. east of Retana on P39 road, Chefchaouen to Al-Hoceima. Grazed.Slope 11-40%, aspect E.Open.Soil clay,heavy/basic, on limestone type rock, pH 9.5-10.0. Rainfall 900 mm.Moist,mid slope,spring bog.Assoc. sp. Juniper sp., Juncus sp. in weep,Lotus c., thistle, clovers,T. stell., T. camp.,Medics-Burr. Population distribution patchy, abundance occasional. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610948. Festuca arundinacea Schreb.
Wild. 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 fo 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 Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria

3300, Australia; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco; Nezha Saidi, Morocco. Received 08/19/1994.

PI 610949. Festuca arundinacea Schreb.
Wild. Collected 07/28/1994 in Morocco. Latitude 31 deg. 33' 4'' N. Longitude 7 deg. 35' 30'' W. Elevation 894 m. Near Taferiate/Ait-Ourir, 9 k east of Ait-Ourir on road P31, Marakech-Ouarzazate. Past grazed, now cultivated/protected. Slope 0-5%, aspect NE. 1/4 shade. Soil red sandy loam on calcareous schist/limestone, pH 9.5-10.0. Rainfall 350 mm.Moist.Vegetation closed,seasonal tall grass.Surrounding veg. degrad. evergreen forest. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610950. Lolium perenne L.
Wild. Collected 06/23/1994 in Tunisia. Latitude 36 deg. 45' 59'' N. Longitude 9 deg. 11' 46'' E. Elevation 170 m. Near Beja, 4.5 k north of Beja on MC52. Grazed.Slope 0-5%,aspect S. Open.Soil clay.Seasonally flooded,stream terrace.Vegetation closed,seasonal tall grass.Surrounding veg. dryland wheat.Dominant herb/grass sp. couch,bermuda. Assoc. sp. Medicagos, Lotus c., T. fragiferum, clovers. Population abundant, 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610951. Festuca arundinacea Schreb.
Wild. 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 onsandstone,shales,some 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.

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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

PI 610952. Festuca arundinacea Schreb.
Wild. Collected 06/29/1994 in Tunisia. Latitude 36 deg. 39' 29'' N. Longitude 8 deg. 36' 39'' E. Elevation 408 m. Near Fernana, 9 k west of

Fernana at Ain Beith village. Grazed. Slope 0-5%, aspect SE. Area open. Soil clay, pH 8.5-9.0. Rainfall 800+ mm. Moist, alluvial fan. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 610953. Festuca arundinacea Schreb.
Wild. 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 0-5%, aspect N. Area open. Soil sandy loam on calcareous schist type rock, pH 9.5. Rainfall 300 mm. Moist, ravine, stream terrace, irrigation ditch. Vegetation closed, seasonal tall grass. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Badia Baya, Morocco. Received 08/19/1994.

PI 610954. Festuca arundinacea Schreb.
Wild. Collected 07/19/1994 in Morocco. Latitude 33 deg. 24' 53'' N. Longitude 5 deg. 10' 47'' W. Elevation 1780 m. Near Azrou, 9 k south on road P21, Azrou-Midelt. Past grazed,now protected forest. Slope 0-5%,aspect N. 1/4 shade.Soil loam,rocky basast on calcareous "gris" bedrock, pH 9.0. Rainfall 900 mm. Seasonally dry, lower slope. Veg. closed, seasonal tall grass. Surrounding veg. evergreen forest. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610955. Phalaris aquatica L.
Wild. 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. Open. Soil heavy clay. Seasonally dry, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat/forage. Dominant tree sp. Olea sp. Dom. shrub cistus sp. Dom. herb/grass annual grasses. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

PI 610956. Festuca arundinacea Schreb.
Wild. Collected 06/27/1994 in Tunisia. Latitude 36 deg. 31' 39'' N. Longitude 8 deg. 57' 19'' E. Elevation 150 m. Near Bou Salem, 10 k southwest of Bou Salem to El-Nerja on C60. Grazed. Slope 0-5%, aspect S. Area open. Soil clay, pH 9.5. Rainfall 425 mm. Moist, floodplain, irrigation zone. Vegetation closed, seasonal tall grass. Surrounding veg. irrigated agri. Dominant herb/grass species 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

PI 610957. Festuca arundinacea Schreb.
Wild. Collected 07/05/1994 in Sardinia, Italy. Latitude 40 deg. 57' 10'' N. Longitude 9 deg. 5' 47'' E. Elevation 315 m. Near Tempio, 11 north on road S133 to Luogosanto. Grazed. Slope 0-5%, aspect E. Area open. Soil loam, pH 5.5. Rainfall 1000 mm. Moist, stream terrace, meadow. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen open forest with closed lower layers, dryland pasture/forage. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610958. Lolium perenne L.
Wild. 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. Area 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 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610959. Phalaris aquatica L.
Wild. Collected in Italy. Latitude 39 deg. 21' 6'' N. Longitude 9 deg.

20' 8'' E. Elevation 592 m. 5 k north of Burcei on road to Pta. Serpeddi mountain, road north of San Priamo, Cagliari road SSN 125, 33 k NE of Cagliari. Grazed. Slope 11-40%, aspect E. Open. Soil loam, stony, granitic mixed rock, pH 6.5-7.0. Rainfall 850 mm. Seasonally dry, upper slope. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen open forest with closed lower layers. 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; Mustapha Bounejmate, Institut National de la Recherche Agrono, Programme Fourrages (INRA), B.P. 415, Rabat, Morocco; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 610960. Festuca arundinacea Schreb.
Wild. Collected 07/21/1994 in Morocco. Latitude 33 deg. 24' 34'' N. Longitude 5 deg. 58' 52'' W. Elevation 1340 m. Near Oulmes, 2 k southeast of Oulmes on road 2516B, Oulmes-Khenifra. Grazed. Slope 11-40%, aspect SW. Area open. Soil loam on shale-schist, pH 6.5. Rainfall 775 mm. Moist, ravine, spring steep. Vegetation closed, seasonal tall grass. Surrounding veg. degraded evergreen open forest with closed lower layers. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Badia Baya, Morocco. Received 08/19/1994.

PI 610961. Festuca arundinacea Schreb.
Wild. Collected 07/19/1994 in Morocco. Latitude 33 deg. 31' 9'' N. Longitude 5 deg. 6' 58'' W. Elevation 1510 m. Near Ifrane, entrance to Ifrane from Azrou on P24. Past grazed, now settlement. Slope 0-5%, aspect W. Area open. Soil rocky loam on limestone type bedrock, pH 9.5-10.0. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen forest, pasture agriculture. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

PI 610962. Lolium perenne L.
Wild. Collected 07/04/1994 in Sardinia, Italy. Latitude 40 deg. 43' 39'' N. Longitude 8 deg. 38' 19'' E. Elevation 320 m. Near Osilo, 8 k east of Sassari on road SS127. Roadway. Slope 11-40%, aspect E. Area open. Soil heavy clay, pH 6.5. Rainfall 540 mm. Seasonally dry, mid slope. Vegetation closed, evergreen broad-leafed herb veg. Surrounding veg.

dryland wheat/forage. Dominant herb/grass sp. T. repens. 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; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

PI 610963. Festuca arundinacea Schreb.
Wild. Collected 06/24/1994 in Tunisia. Latitude 37 deg. 7' 15'' N. Longitude 9 deg. 15' 55'' E. Elevation 99 m. Near Sedjane, 8 k north of Sedjnane on road 66 to Cap Serrat. Grazed. Slope 0-5%, aspect S. Area open. Soil heavy clay, vertisol, pH 8.5. Rainfall 650 mm. Moist, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. agriculture, dryland grain. 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; Walter Graves, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco; Nezha Saidi, Morocco. Received 08/19/1994.

PI 610964. Festuca arundinacea Schreb.
Wild. Collected 07/29/1994 in Morocco. Latitude 31 deg. 24' 17'' N. Longitude 7 deg. 49' 29'' W. Elevation 785 m. Near Dr. Caid Ourika, 1-4 k north of Dr. Caid Ourika on road S513, Marrakech-Setti Fatma. Past grazed, now cultivated/protected. Slope 0-5%, aspect NE. Area open. Soil red loam on alluvium, pH 8.0. Rainfall 350 mm. Moist, irrigation canal. Vegetation closed, seasonal tall grass. Surrounding veg. irrigated agri., olive, cereal. 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, 7665 Volclay Drive, San Diego, California 92119-1219, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

PI 610965. Lolium perenne L.
Wild. Collected 07/05/1994 in Sardinia, Italy. Latitude 40 deg. 58' 3'' N. Longitude 8 deg. 59' 43'' E. Elevation 245 m. Near Trinita, 10 k from Trinita to east toward Aggius on road SP74, 1 k to north on dirt road. Grazed. Slope 11-40%, aspect NE. 1/4 shade. Soil sand, granitic rock. Moist, stream terrace. Vegetation closed, evergreen scrub with scattered trees. Surrounding veg. dryland cereal/forage/pasture. Population abundance occasional, distribution patchy. Growth habit semi-erect.

The following were collected by Walter Graves, 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 610966. Agropyron sp.
Wild. Collected 08/18/1995 in Russian Federation. Latitude 45 deg. 16' N. Longitude 36 deg. 57' E. Elevation 60 m. Mt. Blevaka, 2 km. west of Senah/Fanagaria-Greek ruins, southwest of Temryuk. Area grazed. Slope 6-10%, aspect N. Light open. Soil loam, clay, pH 7.2. Seasonally dry, mid-slope, mud volcano. Vegetation open, evergreen dwarf shrub steppe savanna. Dominant tree species Russian Olive, Hornbeam-Oak. Dominant shrub species Artemisia austriaca. Dominant herb/grass species Festuca sp., Phleum sp., occasional annual Medicagos. Population distribution patchy, abundance frequent. 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 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 610967. Pascopyrum smithii (Rydb.) A. Love
Wild. Collected 1979 in North Dakota, United States. Elevation 790 m. Golden Valley County. LD: NENE36 139N 106W.

PI 610968. Pascopyrum smithii (Rydb.) A. Love
Wild. Collected 1979 in South Dakota, United States. Elevation 608 m. Stanley County. LD: SESE36 7N 28E.

PI 610969. Pascopyrum smithii (Rydb.) A. Love
Wild. Collected 1979 in South Dakota, United States. Elevation 578 m. Potter County. LD: SENE36 119N 73W.

PI 610970. Pascopyrum smithii (Rydb.) A. Love
Wild. Collected 1979 in South Dakota, United States. Elevation 668 m. Corson County. LD: SWSW36 21N 24E.

PI 610971. Pascopyrum smithii (Rydb.) A. Love
Wild. Collected 1979 in North Dakota, United States. Elevation 674 m. Ward County. LD: SWSE28 155N 83W.

The following were donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 12/09/1993.

PI 610972. Pseudoroegneria spicata (Pursh) A. Love
Wild. Collected in Oregon, United States. 7m northwest Brogan on Willow Creek Road, Malheur County.

PI 610973. Pseudoroegneria spicata (Pursh) A. Love
Wild. Collected in Oregon, United States. 5m west Bridgeport, Baker County.

PI 610974. Pseudoroegneria spicata (Pursh) A. Love
Wild. Collected in Oregon, United States. 3m south John Day on highway 395, Grant County.

PI 610975. Pseudoroegneria spicata (Pursh) A. Love
Wild. Collected in Oregon, United States. 11.5m northeast Joseph on highway 82, Wallowa County. Originally mixed with Elymus lanceolatus sp. wawawaiensis.

PI 610976. Pseudoroegneria spicata (Pursh) A. Love
Wild. Collected in Oregon, United States. Pleasant Valley, Baker County.

The following were collected by A.P. Plummer, USDA, Intermountain Forest & Range Exp. Sta., Ephraim, Utah, United States. Donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610977. Leymus triticoides (Buckley) Pilg.
Collected in Utah, United States. Majors flat, San Pete County.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610978. Elymus elymoides (Raf.) Swezey
Collected in Utah, United States. Leamington Canyon, Millard Co.

The following were collected by USDA, SCS, Plant Materials Center, 14119 Broad Street, Brooksville, Florida 34601, United States. Donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610979. Elymus wawawaiensis ined.
Collected in Washington, United States. Yakima County.

The following were collected by Dave Stout, Washington State University, Regional Plant Introduction Station, Johnson Hall, Room 61, Pullman, Washington 99164-6402, United States; A. M. Davis, USDA, ARS, Regional Plant Introduction Station, 59 Johnson Hall, Pullman, Washington 99164-6402, United States. Donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610980. Elymus wawawaiensis ined.
Collected in Washington, United States. Steptoe Canyon road, Whitman County.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610981. Elymus elymoides (Raf.) Swezey
Collected in Alberta, Canada. Latitude 50 deg. 14' 39'' N. Longitude 110 deg. 45' 42'' W. 1 mile South Bow River Highway 36, ranch entrance.

PI 610982. Elymus wawawaiensis ined.
Collected in Washington, United States. Clarkston, Asotin County, between Lewiston, ID and Wawawai Park, WA, north side of Snake River, hillside along road.

The following were collected by Dave Stout, Washington State University, Regional Plant Introduction Station, Johnson Hall, Room 61, Pullman, Washington 99164-6402, United States; A. M. Davis, USDA, ARS, Regional Plant Introduction Station, 59 Johnson Hall, Pullman, Washington 99164-6402, United States. Donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610983. Elymus wawawaiensis ined.
Collected in Washington, United States. North end of new Clarkston bridge on Snake River Road, Whitman County.

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 Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 610984. Elymus wawawaiensis ined.
Collected in Washington, United States. Central Ferry, Garfield County.

The following were collected by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 01/27/1992.

PI 610985. Elymus bakeri (E. E. Nelson) A. Love
Cultivated. Collected 1987 in Colorado, United States. On very steep slope above river, 4 miles up Ouray Road towards Ironton, .8 miles past covered tunnel. Seed Increased: MA-36-51--75 (1990), USDA-ARS, Utah State University, Logan, Utah 84322-6300.

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 610986. Pseudoroegneria spicata (Pursh) A. Love
Collected in Utah, United States. J.C. Smith Ranch near Strevel. Seed

Increased: C-21-66--70 (1991).

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 610987. Agropyron desertorum (Fisch. ex Link) Schult.
Wild. Collected in Kazakhstan. Latitude 46 deg. 27' N. Longitude 57 deg. 30' E. Elevation 150 m. Clay soil, dry drainage area, 221km southwest of Chelkar. Annual precipitation 180mm. Vegetation dominated by Artemisia shrubs and sparse stand of Psathyrostachys juncea.

PI 610988. Elymus sibiricus L.
Wild. Collected in Kazakhstan. Southeast of Baikal, Buryat Autonomous Republic. Wild collection.

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 610989. Elymus macrochaetus (Nevski) Tzvelev
Collected 08/10/1985 in Kazakhstan. In mountains near Alma Ata, Siberia . Spikes green.

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 12/10/1993.

PI 610990. Elymus trachycaulus (Link) Gould ex Shinners
Wild. Collected in Kazakhstan. Southeast of Baikal, Buryat Autonomous Republic. Wild collection.

PI 610991. Elymus sibiricus L.
Wild. Collected in Kazakhstan. Southeast of Baikal, Buryat Autonomous Republic. Wild collection.

PI 610992. Elymus sp.
Wild. Collected in Kazakhstan. Amur Region, Far East of Russia. Wild collection.

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 610993. Stipa capillata L.
Collected 08/12/1989 in Russian Federation. Elevation 1020 m. Growing in thorny shrubs on dry rocky slope. On mountainside opposite Cheketeman camp (located on Ilgumen stream at S side of Cheketeman Pass near the 666km marker on Highway M-52, Gorno Altay A.O.). Siberia. Awns long.

PI 610994. Elymus sibiricus L.
Collected 08/11/1989 in Russian Federation. Elevation 1250 m. Growing among granite boulders and talus. Near 660km marker on Highway M-52 at top of Cheketeman Pass, Gorno Altay A.O. Siberia. Prevalent. Spikes purple.

PI 610995. Elymus pendulinus (Nevski) Tzvelev
Collected 08/16/1989 in Russian Federation. Elevation 950 m. Moist ravine. Near 681km marker on Highway M-52 (15km S of Cheketeman camp) toward Aktash and parallel to Katun River (Gorno Altay A.O.). Siberia.

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 610996. Elymus gmelinii (Ledeb.) Tzvelev
Collected 08/15/1988 in Russian Federation. Meadows, subalpine, near Topuchee Pass, Altai Mountains, east Siberia. Mixed grass/forb, Poa pratensis, Deschamsia.

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 610997. Elymus pendulinus (Nevski) Tzvelev
Collected 08/10/1989 in Russian Federation. Elevation 350 m. Along the Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.). Siberia. Spikes small, slender. Awns long, straight.

PI 610998. Elymus mutabilis (Drobow) Tzvelev
Collected 08/21/1989 in Russian Federation. Elevation 540 m. Moist ravine. Mountainside W of Kamlak Field Station of Central Siberian Botanical Garden (Gorno Altay A.O.) from 540m at bottom to 840m at top. Siberia. Short awned, lightly pigmented.

PI 610999. Elymus mutabilis (Drobow) Tzvelev
Collected 08/15/1989 in Russian Federation. Elevation 1240 m. Between 660 and 661km markers. South side of Cheketeman Pass, Gorno Altay A.O. from summit (660km marker on Highway 52 at 1250m) to Cheketeman camp (666km marker at 960m). Siberia. Spikes purple, erect.

PI 611000. Elymus macrochaetus (Nevski) Tzvelev
Collected 08/05/1989 in Russian Federation. Field plots of O. & A. Agafonov in Central Siberian Botanical Garden, Academy Town, Novosibirsk, RSFSR. Siberia. Culms to 120cm. Spikes unilateral. Glumes large. Lemma awns short.

PI 611001. Elymus dentatus (Hook. f.) Tzvelev
Collected 08/12/1989 in Russian Federation. Elevation 1150 m. Near the 658km marker. 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, 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 611002. Leymus angustus (Trin.) Pilg.
Collected 08/22/1988 in Russian Federation. Along highway, no grazing, Molo-2, 5km southeast of Molodetskoye, Karaganda Region.

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 611003. Stipa capillata L.
Collected 08/08/1989 in Russian Federation. Elevation 250 m. Rocky outcrop next to the Katun River. 79km S of Biysk on Highway M-52. Siberia. Awns very long.

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 611004. Leymus angustus (Trin.) Pilg.
Collected 08/26/1988 in Russian Federation. Sandy, ungrazed area, Lenin State Farm, 6km east of Kruchkovka, Orenburg Region.

PI 611005. Leymus angustus (Trin.) Pilg.
Collected 08/26/1988 in Russian Federation. On bank of Ural River, sandy, Kruch-2, 8 miles east of Kruchkovka, Orenburg Region.

PI 611006. Leymus angustus (Trin.) Pilg.
Collected 08/22/1988 in Russian Federation. Roadside, no grazing, Aktube-2, 18km northwest of Molodetskoye, Karagande Region.

PI 611007. Leymus angustus (Trin.) Pilg.
Collected 08/26/1988 in Russian Federation. On bank of Ural River, sandy, Kruch-2, 8 miles east of Kruchkovka, Orenburg Region.

PI 611008. Leymus angustus (Trin.) Pilg.
Collected 08/26/1988 in Russian Federation. On bank of Ural River, sandy,, Kruch-2, 8 miles east of Kruchkovka, Orenburg Region.

PI 611009. Leymus angustus (Trin.) Pilg.
Collected 08/19/1988 in Russian Federation. 600km northeast of Alma Ata along railroad from Novosibirsk to Alma Ata.

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 611010. Elymus dahuricus Turcz. ex Griseb.
Collected in Russian Federation. Elevation 350 m. Along the Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.). Siberia. Typical.

PI 611011. Elymus dahuricus subsp. excelsus (Turcz. ex Griseb.) Tzvelev
Collected 08/12/1987 in Russian Federation. Primorye Kray, RSFSR. Siberia.

PI 611012. Elymus dahuricus subsp. excelsus (Turcz. ex Griseb.) Tzvelev
Collected 08/08/1989 in Russian Federation. Elevation 200 m. In town square at Troitskoe, a village between Barnaul and Biysk. Spikes very large, unilateral.

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; 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 01/29/1992.

PI 611013. Elymus sibiricus L.
Collected 08/15/1988 in Russian Federation. Altai region, Siberia.

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 611014. Elymus sibiricus L.
Collected 08/13/1989 in Russian Federation. Elevation 950 m. Ungrazed area. A side canyon to left of Highway M-52 at 667km marker between Cheketeman Pass and Aktash, 1km beyond Cheketeman camp, Gorno Altay A.O. Siberia. Spikes large.

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 01/27/1992.

PI 611015. Elymus pendulinus (Nevski) Tzvelev **subsp. pendulinus**
Cultivated. Collected 08/09/1983 in Xinjiang, China. Elevation 416 m. Side canyon off road to Tian Lake. Seed Increased: MB-86-1--10, (1985), USDA-ARS, Utah State University, Logan, Utah 84322-6300.

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 611016. Elymus gmelinii (Ledeb.) Tzvelev
Collected 08/14/1988 in Russian Federation. Along Sema River, Cherga, Altai Region. Salinity tolerant.

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 611017. Aeluropus littoralis (Gouan) Parl.
Wild. Collected 07/21/1992 in Kazakhstan. Latitude 46 deg. 27' N.

Longitude 58 deg. 27' E. Elevation 160 m. Dry alkalai drainage area, 194km south southwest of Chelkar. Annual precipitation 170mm. Vegetation dominated by shrubs (including Tamarix and Salsola spp.), and sparse stand of Psathyrostachys juncea, Agropyron spp., and Festuca spp. Possible turf type for golf course rough - growing in saline area.

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 611018. Elymus gmelinii (Ledeb.) Tzvelev
Collected 08/17/1988 in Russian Federation. 2km northwest of Kamlak, Altai Mountains.

PI 611019. Leymus angustus (Trin.) Pilg.
Collected 08/23/1988 in Russian Federation. Next to Malaya Khobda River, some grazing, Aktu-70, 70km southwest of Aktyubinsk.

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 12/10/1993.

PI 611020. Elymus sibiricus L.
Collected in Kazakhstan. Southeast of Baikal, Buryat Autonomous Republic.

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 611021. Leymus angustus (Trin.) Pilg.
Collected 08/22/1988 in Russian Federation. Along roadside, grazed, Aktube-4, 7km northwest of Molodetskoye.

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; 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 01/29/1992.

PI 611022. Elymus dahuricus subsp. excelsus (Turcz. ex Griseb.) Tzvelev
Collected 08/1988 in Russian Federation. Near Vladyvostok. Central Siberian Botanical Gardens, Academy of Sciences of USSR Siberian Division, Novosibirsk. Agafonov collection.

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 611023. Leymus angustus (Trin.) Pilg.
Collected 08/26/1988 in Russian Federation. On bank of Ural River, sandy, Kruch-2, 8 miles east of Kruchkovka, Orenburg Region.

PI 611024. Elymus gmelinii (Ledeb.) Tzvelev
Collected 08/17/1988 in Russian Federation. Meadow in bottom of valley, 5km south of Cherga, Altai Mountains, Siberia. Mixed grass/forbs.

The following were collected by Melvin D. Rumbaugh, USDA-ARS, Utah State University, Forage & Range Research Lab, 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 01/27/1992.

PI 611025. Elymus dahuricus Turcz. ex Griseb.
Cultivated. Collected 10/17/1985 in Pakistan. Elevation 2736 m. 30 miles NW of Gilgit, Naltar Valley. Seed Increased: MB-89-36--55, (1988), USDA-ARS, Utah State University, Logan, Utah 84322-6300.

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 611026. Leymus angustus (Trin.) Pilg.
Collected 08/19/1988 in Russian Federation. Along railroad from Novosibirsk to Alma Ata, 10km north of Ayaguz.

PI 611027. Leymus angustus (Trin.) Pilg.
Collected 08/19/1988 in Russian Federation. Along railroad from Novosibirsk to Alma Ata, 10km north of Ayaguz.

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 611028. Dactylis glomerata L.
Wild. Collected 09/22/1995 in Russian Federation. Latitude 44 deg. 6' 28'' N. Longitude 40 deg. 1' 6'' E. Elevation 1500 m. Krasnodarskiy kray. Near plateau Lagonaki. Area grazed. Slope 11-40%. Open. Moist, mid-slope. pH 5.6-5.9. Vegetation closed, seasonal tall and short grass. Dominant herb/grass species Calamagrostis aruninacea, Agrostis tenuis, Tussilago farfara. Population distribution uniform, abundance frequent. 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 611029. Dactylis glomerata L.
Wild. Collected 09/21/1995 in Russian Federation. Latitude 44 deg. 8' 6'' N. Longitude 40 deg. 4' 19'' E. Elevation 1230 m. Krasnodarskiy kray. Nearest village Hamyshki. Area cut/grazed. Slope 6-10%. Open. Moist, mid-slope. pH 6.8. Vegetation closed, seasonal short grass. Dominant herb/grass species Brachipodium p., Bromopsis r., Phleum p., Festuca r., Koeleria c., Geranium saguineum, Centaurea leucophilla. Population distribution uniform, 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 611030. Dactylis glomerata L.
Wild. Collected 09/19/1995 in Russian Federation. Latitude 44 deg. 28' 43'' N. Longitude 39 deg. 56' 10'' E. Elevation 200 m. Krasnodarskiy kray. Nearest village Zazulin. Area cut/grazed. Slope 0-5%. Light open. Moist, ridgetop (watershed). pH 5.8. Vegetation closed, seasonal broad-leafed herb vegetation. Dominant herb/grass species Prunella vulgaris, Plantago lanceolata, Daucus carota, Fillipendula vulgaris, Leontodon caucasicus, Molinia caerulea, Dorycnium herbaceum. Population distribution uniform, 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 611031. Dactylis glomerata L.
Wild. Collected 09/19/1995 in Russian Federation. Latitude 44 deg. 28' 43'' N. Longitude 39 deg. 56' 10'' E. Elevation 200 m. Krasnodarskiy kray. Nearest village Zazulin. Area cut/grazed. Slope 0-5%. Light open. Moist, ridgetop (watershed). pH 5.8. Vegetation closed, seasonal broad-leafed herb vegetation. Dominant herb/grass species Prunella vulgaris, Plantago lanceolata, Daucus carota, Fillipendula vulgaris,

Leontodon caucasicus, Molinia caerulea, Dorycnium herbaceum. 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 611032. Dactylis glomerata L.
Wild. Collected 09/24/1995 in Russian Federation. Latitude 44 deg. 20' 56'' N. Longitude 39 deg. 54' 35'' E. Elevation 450 m. Krasnodarskiy kray. Nearest village Krasnly, Dagestan. Area cut/grazed. Slope 0-6%. Open. Moist, ravine. pH 5.8-7.4. Vegetation closed, seasonal short grass and broad-leafed herb vegetation. Dominant herb/grass species Deschampsia c., Inula h., Plantago l., Leontodon caucasicum, Agrimonia e. Population distribution uniform, abundance rare. 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 611033. Dactylis glomerata L.
Wild. Collected 07/12/1995 in Russian Federation. Latitude 44 deg. 49' N. Longitude 37 deg. 39' E. Elevation 300 m. pH 6.9-7.4.

PI 611034. Dactylis glomerata L.
Wild. Collected 10/02/1995 in Russian Federation. Latitude 44 deg. 11' 18'' N. Longitude 39 deg. 27' 20'' E. Elevation 600 m. pH 6.

PI 611035. Dactylis glomerata L.
Wild. Collected 09/22/1995 in Russian Federation. Latitude 44 deg. 3' 48'' N. Longitude 40 deg. 1' E. Elevation 1850 m.

PI 611036. Lolium perenne L.
Wild. Collected 09/05/1995 in Russian Federation. Latitude 44 deg. 10' 2'' N. Longitude 40 deg. 50' 56'' E. Elevation 550 m. Province Maykop, 1.5 km. north of Psebay. Past and current grazing. Slope 0-5%, aspect SW. Light 1/2 shade. Soil loam/sand with gravel, pH 6.7. Site moist, stream terrace. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass and seasonal broad-leafed herb vegetation. Dominant tree species Hornbeam-Oak, Carpinus sp. Dominant shrub species Carpinus sp., Q. petraea, willows, Ribes. Dominant herb/grass species Asperula sp., Festuca d., Erytregia sp, Calamagrostis sp., Lolium p. 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 611037. Dactylis glomerata L.
Wild. Collected 08/21/1995 in Russian Federation. Latitude 44 deg. 33' 30'' N. Longitude 38 deg. 21' 48'' E. Elevation 700 m. Province Novorossiysk, 10 km. north of Michaelovskiperival. Past logged, now grazed. Slope 0-5%, aspect NW. Light open. Soil sandy-clay, pH 4.5-5.5. Seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Quercus sp. Dominant shrub species Carpinus 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. 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 611038. Agropyron sp.
Wild. Collected 07/28/1995 in Russian Federation. Latitude 44 deg. 5' 59'' N. Longitude 43 deg. 12' 43'' E. Elevation 800 m. pH 6.8-6.9.

PI 611039. Agropyron sp.
Wild. Collected 08/20/1995 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, pH 6.8-7.0. Seasonally dry, lower-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, Salvia sp., S. ringens, Sanguisorba minor, Plantago sp. Population abundant. 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 611040. Dactylis glomerata L.
Wild. Collected 09/19/1995 in Russian Federation. Latitude 44 deg. 21' 10'' N. Longitude 39 deg. 51' 57'' E. Elevation 300 m. Krasnodarskiy kray. Nearest village Bezvodnaya. Area cut/grazed. Slope 0-5%. Light open. Moist, ridgetop (watershed). pH 5.8-6.1. Vegetation closed, seasonal short grass. Dominant herb/grass species Dactylis glomerata, Plantago lanceolata, Lotus corniculatus, Elytrigia repens. Population distribution uniform, abundance frequent. 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 611041. Dactylis glomerata L.
Wild. Collected 10/03/1995 in Russian Federation. Latitude 44 deg. 3' 7'' N. Longitude 39 deg. 50' 42'' E. Elevation 1450 m. Krasnodarskiy kray. Nearest village Verhnie Tuby. Slope 6-11%, aspect SW. Open. Moist, upper slope. pH 5.4. Vegetation closed, seasonal tall grass. Dominant herb/grass species Dactylis glomerata, Inula helenium, Cirsium caput-medusae, Geranium sp., Brachypodium silvatica.

. 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 611042. Dactylis glomerata L.
Wild. Collected 09/20/1995 in Russian Federation. Latitude 44 deg. 13' 52'' N. Longitude 40 deg. 4' 41'' E. Elevation 1230 m. Krasnodarskiy kray. Nearest village Temnolesskaya. Area grazed. Slope 0-6%. Light open. Moist, ridgetop. pH 6.2. Vegetation closed, seasonal short grass.

Dominant herb/grass species Brachipodium sp., Plantago lanceolata, Phleum phleoides, Festuca rupicola. Population distribution uniform, 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 611043. Dactylis glomerata L.
Wild. Collected 09/22/1995 in Russian Federation. Latitude 44 deg. 13' 52'' N. Longitude 40 deg. 8' 30'' E. Elevation 830 m. Krasnodarskiy kray. Nearest village Dahovskaia. Area cut/grazed. Slope 0-6%. Open. Moist, ridgetop. pH 7.6. Vegetation closed, seasonal short grass. Dominant herb/grass species Agrostis tenuis, Bromopsis riparia, Plantago lanceolata, Leontodon caucasicum. Population distribution uniform, 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 611044. Lolium perenne L.
Wild. Collected 09/06/1995 in Russian Federation. Latitude 43 deg. 43' 9'' N. Longitude 41 deg. 35' 45'' E. Elevation 1200 m. Province Cherkessk-Karachayeysk Republic, 8 km. south of Marvkha. Past and currently grazed/hayed. Slope 6-10%, aspect SW. Light open. Soil clay, 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 tree species Alnus i., Corealus a. Dominant shrub species Rhododendron sp., Rosa sp., Ribes sp. Dominant herb/grass species Trifolium sp., Lotus c., Achellia sp., dandelion, Descampsia c., Phleum p., Dactylis g., Agrosits sp., Calamagrostis sp. Population distribution patchy, abundance frequent. 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 611045. Dactylis glomerata L.
Wild. Collected 07/10/1995 in Russian Federation. Latitude 45 deg. 12' 30'' N. Longitude 36 deg. 50' E. Elevation 160 m. pH 7.3-7.9.

PI 611046. Festuca pratensis Huds.
Wild. Collected 07/12/1995 in Russian Federation. Latitude 44 deg. 49' N. Longitude 37 deg. 39' E. Elevation 300 m. pH 6.9-7.4.

PI 611047. Dactylis glomerata L.
Wild. Collected 09/18/1995 in Russian Federation. Latitude 44 deg. 16' 38'' N. Longitude 40 deg. 18' 29'' E. Elevation 850 m. Krasnodarskiy kray. Nearest village Hadzoh. Area grazed. Slope 6-10%, aspect E. Open. Moist, upper slope. pH 6.1. Vegetation closed, seasonal broad-leafed herb vegetation. Dominant herb/grass species Leontodon caucasicus, Plantago l., Fillipendula vulgaris, Lotus c., Elytrigia repens. Population distribution uniform, 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 611048. Dactylis glomerata L.
Wild. Collected 09/22/1995 in Russian Federation. Latitude 44 deg. 12' 15'' N. Longitude 40 deg. 5' 37'' E. Elevation 1200 m. Krasnodarskiy kray. Nearest village Dahovskaia. Area cut/grazed. Slope 0-6%. Open. Moist, mid-slope. pH 6.9. Vegetation closed, seasonal short grass. Dominant herb/grass species Agrostis gigantea, Carex melanostachya, Bromopsis riparia, Plantago lanceolata, Betonica o., Leontodon c. Population distribution uniform, 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 611049. Dactylis glomerata L.
Wild. Collected 09/14/1995 in Russian Federation. Latitude 44 deg. 9' 2'' N. Longitude 40 deg. 11' 48'' E. Elevation 1100 m. Krasnodarskiy kray. Nearest village Dachovskaya. Area logged. Slope 6-10%, aspect NE. Light 1/4 shade. Soil loam, pH 5.4-5.6. Moist, upper slope. Vegetation closed, deciduous forest primary, closed scrub with scattered trees. Dominant tree species Carpinus betulus, Quercus robur, Acer campestre. Dominant shrub species Rosa sp., Rubus caesius, Salix caprea, Rhododendron luteum. Dominant herb/grass species Deschampsia caespitosa, Molinia caerulea, Calamagrostis sp., Doricnium graecum, Trifolium medium. Population distribution uniform, 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 611050. Dactylis glomerata L.
Wild. Collected 09/22/1995 in Russian Federation. Latitude 44 deg. 2' 59'' N. Longitude 40 deg. 1' 59'' E. Elevation 1200 m. Krasnodarskiy kray. Plateau Lagonaki. Area grazed. Sope 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 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 611051. Dactylis glomerata L.
Wild. Collected 08/21/1995 in Russian Federation. Latitude 44 deg. 8' 54'' N. Longitude 39 deg. 1' 20'' E. Elevation 15 m. Province Novorossiysk, south of Aguaye on beach. Past logged, now settlement. slope 0-5%, aspect S. Light 1/4 shade. Soil clay, pH 7.5. Seasonally dry, cliff, beach. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen short grass. Dominant tree species Quercus sp, Castanea sp. Dominant shrub species Laurocerasus sp. Dominant herb/grass species Bermuda grass, Trifolium f. Lotus tenuis. Population 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 611052. Dactylis glomerata L.
Wild. Collected 09/21/1995 in Russian Federation. Latitude 44 deg. 10'

12'' N. Longitude 39 deg. 56' 12'' E. Elevation 1320 m. Krasnodarskiy kray. Nearest village Mezmay. Area cut/grazed. Slope 0-6(10)%, aspect NE. Light open. Moist, ridgetop. pH 5.1. Vegetation closed, seasonal tall grass. Dominant herb/grass species Dactylis g., Calamagrostis epigeios, Brachipodium slyvaticm, Elytrigia r., Galega o. Population distribution uniform, abundant. 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 611053. Dactylis glomerata L.
Wild. Collected 09/14/1995 in Russian Federation. Latitude 44 deg. 9' 2'' N. Longitude 40 deg. 11' 48'' E. Elevation 1100 m. Krasnodarskiy kray. Nearest village Dachovskaya. Area logged. Slope 6-10%, aspect NE. Light 1/4 shade. Soil loam, pH 5.4-5.6. Moist, upper slope. Vegetation closed, deciduous forest primary, closed scrub with scattered trees. Dominant tree species Carpinus betulus, Quercus robur, Acer campestre. Dominant shrub species Rosa sp., Rubus caesius, Salix caprea, Rhododendron luteum. Dominant herb/grass species Deschampsia caespitosa, Molina caerulea, Calamagrostis sp., Doricnium graecum, Trifolium medium. Population distribution uniform, abundance occasional. Growth habit erect. Flower gray. 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 611054. Dactylis glomerata L.
Wild. Collected 10/03/1995 in Russian Federation. Latitude 44 deg. 3' 7'' N. Longitude 39 deg. 50' 42'' E. Elevation 1450 m. Krasnodarskiy kray. Nearest village Verhnie Tuby. Slope 6-11%, aspect SW. Open. Moist, upper slope. pH 5.4. Vegetation closed, seasonal tall grass. Dominant herb/grass species Dactylis glomerata, Inula helenium, Cirsium caput-medusae, Geranium sp., Brachypodium silvatica. Population distribution uniform, abundant. Growth habit erect. Extensiver 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 611055. Dactylis glomerata L.
Wild. Collected 09/20/1995 in Russian Federation. Latitude 44 deg. 15' 53'' N. Longitude 40 deg. 5' 15'' E. Elevation 900 m. Krasnodarskiy kray. Nearest village Temnolesskaya. Area logged. Slope 6-10%. 1/4 shade. Moist, mid-slope. pH 5.3. Vegetation closed, deciduous forest primary, closed 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., Dorycnium graecum, Trifolium medium. Population distribution uniform, abundance rare. 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 611056. Dactylis glomerata L.
Wild. Collected 09/18/1995 in Russian Federation. Latitude 44 deg. 22' 15'' N. Longitude 40 deg. 22' 52'' E. Elevation 550 m. pH 3.7-4.1.

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 04/30/1992.

PI 611057. Poa sp.
Cultivated. Collected in Kazakhstan. Among dry rocks on sunny hillside, just above Alma Ata, Butekovke Canyon.

The following were donated by D. Stoyanov, Institute of Introduction & Plant Gen., Sadovo, Plovdiv 4122, Bulgaria. Received 12/26/1990.

PI 611058. Beta vulgaris L.

PI 611059. Beta vulgaris L.

The following were donated by Shu De Lee, Chinese Academy of Agricultural Sciences, 30 Baishigiao Rd., Beijing, Beijing 100094, China. Received 05/09/1991.

PI 611060. Beta vulgaris L.

The following were donated by Alan Whittemore, USDA/ARS, University of Georgia, Regional Plant Introduction Station, Griffin, Georgia 30223-1797, United States. Received 02/28/1992.

PI 611061. Beta vulgaris L.
Collected 07/20/1991 in Kazakhstan. Private vendor, Alma Ata, Kazakh Republic.

The following were donated by Lothar Frese, Federal Center for Breeding, Research on Cultivated Plants (BAZ), Gene Bank, Braunschweig, Lower Saxony D-38116, Germany. Received 01/24/1984.

PI 611062. Beta vulgaris L.
Uncertain. Collected in Greece. Latitude 38 deg. 38' 0'' N. Longitude 22 deg. 43' 0'' E. District: Peloponnese, Loaction: Argos.

The following were donated by Ming H. Yu, USDA, ARS, U.S. Agricultural Research Station, 1636 East Alisal St., Salinas, California 93905, United States. Received 08/20/1985.

PI 611063. Beta patellaris Moq.

PI 611064. Beta patellaris Moq.
Pool of SP60-3036-01. 2n = 54.

The following were collected by D. D. Dolan, USDA, ARS, Regional Plant Introduction Station, New York Agricultural Experiment Sta., Geneva, New York 14456, United States. Received 04/25/1983.

PI 611065. Beta vulgaris L.
Collected 01/30/1963 in United States.

The following were collected by Andres Contreras, Universidad Austral de Chile, Inst. Produccion y Sanidad Vegetal, Casilla 567, Valdivia, Los Lagos, Chile. Received 12/19/1991.

PI 611066. Solanum tuberosum L.
Cultivated. Collected 12/19/1991 in Chile.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia; Maria Luisa Ugarte, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Technologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia. Received 04/21/1993.

PI 611067. Solanum tuberosum subsp. andigena Hawkes
Wild. Collected 03/24/1993 in La Paz, Bolivia. Latitude 15 deg. 32' 0'' S. Longitude 69 deg. 1' 0'' W. Elevation 3585 m. Camacho. From about 20 km N of Escoma, go E at Cruce de Kariguina, then about 7 km to Canchi Tamampayu. Growing in backyard garden. Stems wilted; flowers and fruits gone; tubers at end of long stolons, deep in the ground, with purple skin.

The following were donated by Nelson Estrada-Ramos, PROINPA, Casilla Postal 4285, Cochabamba, Cochabamba, Bolivia. Received 03/11/1994.

PI 611068. Solanum tuberosum L.
Cultivar.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/05/1996.

PI 611069. Solanum tuberosum L.
Breeding. Pedigree - 382171.26(380086.3 x MEX BULK) 7XY.1. Late Blight resistant breeding stock.

The following were donated by M.S. Ramanna, Agricultural University, P.O.B. 386 / 6700 AJ, Lawickse Allee 166, Wageningen, Gelderland, Netherlands.

Received 10/28/1996.

PI 611070. Solanum tuberosum L.
Cultivar. Pedigree - ds1/ds/. (ds1/ds/) 2n-pollen producer.

PI 611071. Solanum tuberosum L.
Cultivar. Pedigree - Ds-1/DS-1.

Unknown source. Received 05/29/1998.

PI 611072. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611073. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611074. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611075. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611076. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611077. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611078. Solanum tuberosum L.
Cultivar.

Unknown source. Received 05/29/1998.

PI 611079. Solanum tuberosum L.
Cultivar.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Andrea Clausen, Estacion Experimental Agropecuaria (EEA), Instituto National de Tecnologia Agrop., Casilla de Correo 276, Balcarce, Buenos Aires 7620, Argentina. Received 07/30/1991.

PI 611080. Solanum microdontum Bitter
Wild. Collected 04/04/1990 in La Rioja, Argentina. Latitude 29 deg. 10' 0'' S. Longitude 67 deg. 39' 0'' W. Elevation 1790 m. Chilecito. 2 km S of Guanchin Viejo, 3 km NW of Guanchin, near roadside, on SW side. In rich, moist, organic soil, growing with Mentha, grasses, by Juglans regia plantation. Flowers gone, said by landowner to have white petals, tubers pink outside and steaked pink inside or white outside.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/05/1996.

PI 611081. Solanum x juzepczukii Bukasov
Cultivar. Quechua names for primitive cultivars from Bolivia. From CIP virus free collection.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Konrad Schuler, Institute for Plant Genetics, IPK, Genbank-Aussenstelle Nord, 0-2551, Gross Lusewitz, Germany; Antonio Rivera-Pena, INIFAP, Programa Nacional de la Papa, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands. Received 11/13/1997.

PI 611082. Solanum x edinense P. Berthault
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 9' 0'' N. Longitude 99 deg. 53' 0'' W. Elevation 2700 m. Growing 50 m downslope and 300 m N of Rt 134, 35.7 km SW of Toluca (by posted road signs), shortly SW of entrance to Meson Viejo. Growing in pine fir woods. Plants to 1.5 m tall, no flowers or fruits present, six tubers collected from one colony of plants.

Unknown source. Received 04/01/1998.

PI 611083. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 611084. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 611085. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 611086. Solanum tuberosum L.
Cultivar.

Unknown source. Received 04/01/1998.

PI 611087. Solanum tuberosum L.
Cultivar.

Unknown source. Received 09/21/1998.

PI 611088. Solanum tuberosum L.
Cultivar.

The following were donated by INIFAP, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico. Received 12/07/1998.

PI 611089. Solanum tuberosum L.
Cultivar.

PI 611090. Solanum tuberosum L.
Cultivar.

PI 611091. Solanum tuberosum L.
Cultivar.

PI 611092. Solanum tuberosum L.
Cultivar.

PI 611093. Solanum tuberosum L.
Cultivar.

PI 611094. Solanum tuberosum L.
Cultivar.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia; Maria Luisa Ugarte, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Technologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba,

Bolivia. Received 04/21/1993.

PI 611095. Solanum tuberosum subsp. andigena Hawkes
Wild. Collected 03/24/1993 in La Paz, Bolivia. Latitude 15 deg. 32' 0'' S. Longitude 69 deg. 2' 0'' W. Elevation 3740 m. Camacho. From 20 km N of Escoma, go east at Cruce de Kariguina, then 3.5 km to Hachatira, a small village. Growing adjacent to and in a vegetable garden. Plants wilted to the ground, stolons long, tubers deep in ground, with skin white speckeled with pink, white flesh, said by owner of property to be wild and a persistent weed in the area.

The following were donated by Gino Aguirre, PROINPA, Programa de Investigacion de la Papa, Casilla 405, Cochabamba, Cochabamba, Bolivia. Received 07/27/1993.

PI 611096. Solanum x ajanhuiri Juz. & Bukasov
Cultivar.

The following were collected by Aaron Rodriguez-Contreras, Universidad de Guadalajara, Instituto de Botanica, Las Agujas, Nextipac, Zapopan, Jalisco CP 45110, Mexico. Received 09/14/1993.

PI 611097. Solanum cardiophyllum subsp. ehrenbergii Bitter
Cultivar. Collected 08/23/1993 in Guanajuato, Mexico. Latitude 21 deg. 23' 0'' N. Longitude 100 deg. 41' 0'' W. Elevation 2060 m. La Purisima, municipality of San Diego de la Union, road from Queretaro city to San Luis Potosi. Mesquite-grassland. Growing along cornfield. Corolla Stellate, white; fruit globose.

The following were donated by Kazuyoshi Hosaka, Experimental Farm, Kobe University, 1348 Uzurano, Kasai, Kobe, Hyogo 675-21, Japan. Received 06/07/1994.

PI 611098. Solanum phureja Juz. & Bukasov
Genetic.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/05/1996.

PI 611099. Solanum tuberosum L.
Breeding. Pedigree - 380474.8 (374080.5 x LT XY BULK)/ BK PRECOZ-84. Late Blight resistant breeding stock.

The following were donated by M.S. Ramanna, Agricultural University, P.O.B. 386 / 6700 AJ, Lawickse Allee 166, Wageningen, Gelderland, Netherlands. Received 10/28/1996.

PI 611100. Solanum tuberosum L.
Genetic. Pedigree - Ds-1/Ds-1. Produces more than 25% 2n pollen, female sterile.

PI 611101. Solanum tuberosum L.
Genetic. Pedigree - Ds-1/DS-1.

PI 611102. Solanum tuberosum L.
Genetic.

The following were donated by Chuck Brown, USDA, ARS, WSU Irrigated Ag. Extension Center, 24106 N. Bunn Road, Prosser, Washington 99350, United States. Received 07/24/1997.

PI 611103. Solanum tuberosum L.
Cultivar.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Konrad Schuler, Institute for Plant Genetics, IPK, Genbank-Aussenstelle Nord, 0-2551, Gross Lusewitz, Germany; Antonio Rivera-Pena, INIFAP, Programa Nacional de la Papa, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands. Received 11/13/1997.

PI 611104. Solanum x edinense P. Berthault
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 10' 0'' N. Longitude 99 deg. 48' W. Elevation 3330 m. On Rt 10 at Loma Alta, 1.3 km S of La Puerta (on Rt 134), on East side of road, in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano. Growing in rich organic soil by roadside, in area of pine and fir woods, adjacent to cultivated potato field, 20 m from S. x edinense collection 670. Stems dead and brown, 12 tubers (red skin, white flesh) collected from two immediately adjacent plants.

PI 611105. Solanum tuberosum L.
Cultivated. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 10' 0'' N. Longitude 99 deg. 48' 0'' W. Elevation 3300 m. On Rt 10 at Loma Alta, 1.2 km S of La Puerta (on Rt 134) on E side of road, in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano. Growing as an advanced cultivar, collected in a cultivated field as a possible parent in adjacent populations of S. x edinense collections 969 and 970. Plants dead to ground, tubers ready to harvest.

PI 611106. Solanum x edinense P. Berthault
Wild. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 10' 0'' N. Longitude 99 deg. 48' 0'' W. Elevation 3330 m. On Rt 10 at Loma Alta, 1.2 km S of La Puerta (on Rt 134), on east side of road, in Parque Nacional Nevado de Toluca, on W-facing lower slopes of volcano. Growing in rich organic soil under shrub, adjacent to cultivated potato field, in area of pine and fir woods, 20 m from S. x ediense collection 969. Stems green but beginning to turn brown, seven tubers (red skin, white flesh) collected from one plant.

PI 611107. Solanum tuberosum L.

Cultivated. Collected 10/20/1997 in Mexico, Mexico. Latitude 19 deg. 4' 0'' N. Longitude 99 deg. 50' 0'' W. Elevation 3120 m. From El Capulin, a small settlement 21.3 km S of La Puerta (on Rt 134), drive 600 m E to a small farm. Growing in a cultivated potato field, in area of pine fir woods. 15 tubers with red skin and white flesh collected from three plants.

The following were donated by INIFAP, Apdo. Postal 31, Suc. "A", Metepec, Mexico, Mexico. Received 12/07/1998.

PI 611108. Solanum tuberosum L.
Cultivar.

PI 611109. Solanum tuberosum L.
Breeding.

PI 611110. Solanum tuberosum L.
Cultivar.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 08/18/1999.

PI 611111. Poa pratensis L.
Cultivar. PVP 9900350.

The following were developed by Todd Pfeiffer, University of Kentucky, Department of Agronomy, N-122 Agricultural Science Building, Lexington, Kentucky 40546-0091, United States; C.R. Tutt, University of Kentucky, Kentucky Agric. Exp. Station, Princeton, Kentucky, United States; D.L. Pilcher, University of Kentucky, Dept. of Agronomy, Lexington, Kentucky 40546, United States; E.C. Lacefield, University of Kentucky, Dept. of Agronomy, Lexington, Kentucky 40546, United States. Received 08/27/1999.

PI 611112. Glycine max (L.) Merr.
Cultivar. Pureline. CV-420; PVP 9900351. Pedigree - Pioneer 9391 x KY84-1616. Indeterminate maturity group IV (relative maturity 4.9). Normal mature height 85 cm, but lodging scores range from 1-2. Flowers purple, tawny pubescence and tan pods. Seeds yellow with black hila and dull seed coat with positive seed peroxidase activity. Seed weight averages 14.5 g 100-1 seeds. Seeds have 410 g kg-1 protein and 210 g kg-1 oil on a dry weight basis. Resistant to southern stem canker (Diaporthe phaseolorum).

The following were developed by Lofts Seed, Inc., United States. Received 08/27/1999.

PI 611113. Lolium perenne L.
Cultivar. PVP 9900352.

The following were developed by North Carolina Agricultural Research Service,

North Carolina, United States. Received 08/27/1999.

PI 611114. Lycopersicon esculentum Mill., nom. cons.
Cultivar. PVP 9900353.

PI 611115. Lycopersicon esculentum Mill., nom. cons.
Cultivar. PVP 9900354.

The following were developed by Novartis Seeds, Inc., United States. Received 08/27/1999.

PI 611116. Zea mays L. **subsp. mays**
Cultivar. PVP 9900355.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 08/27/1999.

PI 611117. Zea mays L. **subsp. mays**
Cultivar. PVP 9900357.

PI 611118. Zea mays L. **subsp. mays**
Cultivar. PVP 9900358.

The following were developed by Ken Amano, Nichino Ryokka Co., Ltd., Yamanashi, Honshu, Japan. Received 08/27/1999.

PI 611119. Lolium perenne L.
Cultivar. PVP 9900360.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 08/27/1999.

PI 611120. Festuca rubra L. **subsp. rubra**
Cultivar. PVP 9900361.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 08/27/1999.

PI 611121. Lolium perenne L.
Cultivar. PVP 9900362.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 08/27/1999.

PI 611122. Zea mays L. **subsp. mays**
Cultivar. PVP 9900363.

PI 611123. Zea mays L. **subsp. mays**
Cultivar. PVP 9900364.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901, United States; Ronald F. Bara, Rutgers University, New Jersey Agricultural Experiment Station, Cook College, New Brunswick, New Jersey 08903, United States; Dirk A. Smith, New Jersey Agricultural Experiment Station, Plant Science Dept., Cook College, Rutgers Univ., New Brunswick, New Jersey 08903, United States; W.A. Meyer, Rutgers University, Cook College, Plant Sciences Dept., P.O. Box 231, New Brunswick, New Jersey 08903, United States; Steve Tubbs, Turf Merchants, Inc., 33390 Tangent Loop, Tangent, Oregon 97389, United States; Rachael Bara, Rutgers University, Cooks College, Plant Science Dept., New Brunswick, New Jersey 08901-8520, United States; Michael Richardson, University of Arkansas, Dept. of Horticulture, 316 Plant Science Bldg., Fayetteville, Arkansas 72701, United States. Received 08/27/1999.

PI 611124. Festuca arundinacea Schreb.
Cultivar. CV-84; PVP 9900368. Pedigree - Selections from old turfs of the United States and populations related to Rebel tall fescue were intercrossed and subjected to many cycles of phenotypic and genotypic selection. Turf-type tall fescue with rich, dark-green color, medium-fine leaf texture, and ability to produce an attractive, medium-dense turf. Performed very well in turf trials established in 1996 and sponsored by the National Turfgrass Evaluation Program. During the 1997 season, tied for first place at the 27 locations. Early spring greenup, good color retention during winter, and improved resistance to large brown patch (Rhizoctonia solani) and leaf spot.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 09/01/1999.

PI 611125. Zea mays L. **subsp. mays**
Cultivar. PVP 9900356.

The following were developed by Cornell University, Department of Plant Breeding & Biometry, Ithaca, New York 14853, United States. Received 09/01/1999.

PI 611126. Phaseolus vulgaris L.
Cultivar. PVP 9900359.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 09/01/1999.

PI 611127. Zea mays L. **subsp. mays**
Cultivar. PVP 9900365.

The following were developed by Golden Seed Company, Inc., United States. Received 09/01/1999.

PI 611128. Zea mays L. **subsp. mays**

Cultivar. PVP 9900369.

PI 611129. Zea mays L. **subsp. mays**
Cultivar. PVP 9900370.

PI 611130. Zea mays L. **subsp. mays**
Cultivar. PVP 9900371.

The following were developed by J.R. Simplot Company, United States. Received 09/01/1999.

PI 611131. Poa pratensis L.
Cultivar. PVP 9900372.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 09/01/1999.

PI 611132. Zea mays L. **subsp. mays**
Cultivar. PVP 9900373.

PI 611133. Zea mays L. **subsp. mays**
Cultivar. PVP 9900374.

PI 611134. Zea mays L. **subsp. mays**
Cultivar. PVP 9900375.

PI 611135. Zea mays L. **subsp. mays**
Cultivar. PVP 9900376.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 09/01/1999.

PI 611136. Gossypium hirsutum L.
Cultivar. PVP 9900377.

The following were developed by Frederic L. Kolb, University of Illinois, Department of Agronomy, W-203 Turner Hall, Urbana, Illinois 61801-4798, United States; N.J. Smith, University of Illinois, Dept. of Crop Sciences, 1102 S. Goodwin Avenue, Urbana, Illinois 61801, United States. Received 08/03/1999.

PI 611137. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. CV-883. Pedigree - IL77-2933(IL70-2255/CI13855//McNair48-23) / IL77-3956(Arthur/Blueboy//TN1571)//Pike/Caldwell. Released 1998. Soft red winter wheat with excellent winter hardiness and high grain volume weight. Adapted to upper midwest of U.S. and is similar to Cardinal in height. Heads several days earlier than Cardinal. Moderately resistant to soil borne wheat mosaic virus and wheat spindle streak mosaic virus, and resistant to some races of leaf rust (Puccinia recondita), but is susceptible to stem rust (Puccinia graminis) and powdery mildew

(Erysiphe graminis). Easily distinguished from many other awned soft red winter wheat varieties by a unique twisting and lengthwise curling of the flag leaves. Coleoptiles white. Stems do not have anthocyanin, but a waxy bloom is present. Stems are glabrous except that a few hairs may be present on the last internode. Glumes long and wide and have oblique shoulders and acuminate beaks. Heads white chaffed, and kernels ovate with rounded checks.

The following were developed by Thomas E. Devine, USDA, ARS, Plant Molecular Biology Lab., Building 006, Room 118, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 07/15/1999.

PI 611138. Glycine max (L.) Merr.
Cultivar. Pedigree - Verde X [{(Wilson 6 X Forrest) X (Perry X (Williams X PI229358))} X Tracy M] Verde X [{(Wilson 6 X Forrest) X (Perry X (Williams X PI229358))} X BSR 201] Verde X [{(Wilson 6 X Forrest) X (Perry X (Williams X PI229358))} X Burlison]. Segregating germplasm population released as source material for development of vegetable type cultivars of superior vigor adapted to a variety of local environmental conditions and maturity rates. Segregates for genes for exceptional vigor, height, and lodging resistance, as well as large seed size, green seed coat and green embryo, and maturity.

The following were developed by James H. Helm, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada. Received 08/06/1999.

PI 611139. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pedigree - CQ-CM/Apan//RM508//DL69/Hyproly. Released 1999. Six-row semi-dwarf barley with better yield than Kasota and Tukwa. Good grain quality (high test weight and kernel weight). Lodging resistance similar to Tukwa. Maturity 5 days later than Kasota and 2 days later than Tukwa. Moderate field resistance to scald and net blotch.

PI 611140. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pedigree - H12-4816/R181//M69.77-SHI.R.KCI.No.87xCEL-5106. Six-row semi-dwarf feed barley wth excellent resistance to lodging and neck break. This is the primary weakness of Falcon under manured production where if not swafthed properly, there is a yield loss due to head cabbage. Under several lodging conditions, yield higher than Falcon. 1 day earlier than Falcon. Resistant to common root rot and stem rust. Moderately susceptible to leaf scald in the field.

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 01/27/1992.

PI 611141. Elymus antiquus (Nevski) Tzvelev
Cultivated. Collected 09/09/1988 in China. Elevation 1079 m. Under poplar trees, S of Nedong 12km, Tibet. Seed Increased: MB-1-2-21--30

(1991), USDA-ARS, Utah State University, Logan, Utah 84322-6300.

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 611142. Elymus glaucissimus (Popov) Tzvelev
Collected 08/10/1985 in Kazakhstan. In mountains near Alma Ata, (or gmelinii), Siberia.

PI 611143. Elymus sp.
Collected in Russian Federation. Elevation 350 m. Along the Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.). Siberia. Like an awned E. trachycaulus. Glumes large.

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

PI 611144. Lolium multiflorum Lam.
Cultivar.

PI 611145. Lolium multiflorum Lam.
Cultivar. Collected in Netherlands.

PI 611146. Lolium multiflorum Lam.
Cultivar.

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 611147. Elymus tschimganicus (Drobow) Tzvelev
Wild. Collected 08/14/1993 in Xinjiang, China. Latitude 44 deg. 45' N. Longitude 81 deg. 9' E. Elevation 2150 m. Hillside, north side of Salimu Lake, just inside the Wenchuan County border, Xinjiang. Plant diversity at this site immense.

PI 611148. Elymus gmelinii (Ledeb.) Tzvelev
Wild. Collected 08/24/1993 in Xinjiang, China. Latitude 43 deg. 48' N. Longitude 87 deg. 51' E. Elevation 1600 m. High winter pasture at Tu Juan south of Xiejago Stud Farm, 90km S & E of Urumqi, lowland seepage, upper sites very dry. Bootom lands clay loam, side hills gravely. Dominant species include Artemisa boralensis, Stipa capillata, Festuca ovina.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range

Research Unit, Utah State University, Logan, Utah 84322-6300, United States. Donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 611149. Pseudoroegneria spicata (Pursh) A. Love
Collected in Washington, United States. 3 miles northwest Colton, Wawawai road, Whitman County.

PI 611150. Pseudoroegneria spicata (Pursh) A. Love
Collected in Idaho, United States. 5 miles north of Lucile, Idaho County.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 1995.

PI 611151. Elymus elymoides (Raf.) Swezey
Collected in Alberta, Canada. Latitude 49 deg. 59' 21'' N. Longitude 112 deg. 30' 27'' W. North Turin, Highway 25 x 521.

PI 611152. Elymus elymoides (Raf.) Swezey
Collected in Alberta, Canada. Latitude 50 deg. 55' 21'' N. Longitude 110 deg. 45' 42'' W. 5 mile north, 1 mile west Highway 886 x Red Deer River.

The following were collected by Walter Graves, 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 611153. Deschampsia cespitosa (L.) P. Beauv.
Wild. Collected 08/31/1995 in Russian Federation. Latitude 44 deg. 3' 5'' N. Longitude 40 deg. 1' 22'' E. Elevation 1900 m. Population distribution uniform, abundance frequent. 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 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 611154. Stipa capillata L.
Wild. Collected 09/1994 in Mongolia. Latitude 45 deg. 58' 9'' N. Longitude 111 deg. 6' 5'' E. Elevation 1079 m. Northern edge of desert steppe ecological zone. Desert steppe. Soils alkaline clay. Aspect

northeast, 3% slope.

PI 611155. Stipa capillata L.
Wild. Collected 09/1994 in Mongolia. Latitude 47 deg. 13' 44'' N. Longitude 117 deg. 21' 56'' E. Elevation 556 m. Eastern Dornod Aimag, eastern Mongolia. Russian-Mongolian winter camp during 1939 battle with invading Japanese. Grass steppe. Combination of uplands, stream bottoms, and swamps. Swamp lowlands alkaline. Uplands typical grass steppe brown, gravelly soils. Aspect southeast, slope 2%.

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 611156. Arrhenatherum elatius (L.) P. Beauv. ex J. Presl & C. Presl
Wild. 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.

PI 611157. Arrhenatherum elatius (L.) P. Beauv. ex J. Presl & C. Presl
Wild. Collected 07/1996 in Bulgaria. Latitude 41 deg. 39' 4'' N. Longitude 24 deg. 33' 51'' E. Elevation 1459 m. Rocky area on side of road near village of village, Gela. north.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611158. X Triticosecale sp.
Breeding.

PI 611159. X Triticosecale sp.
Breeding.

PI 611160. X Triticosecale sp.
Breeding.

PI 611161. X Triticosecale sp.
Breeding.

PI 611162. X Triticosecale sp.
Breeding.

PI 611163. X Triticosecale sp.
Breeding. Pedigree - Bokolo OT.

PI 611164. X Triticosecale sp.
Breeding.

PI 611165. X Triticosecale sp.
Breeding.

PI 611166. X Triticosecale sp.
Breeding.

PI 611167. X Triticosecale sp.
Breeding.

PI 611168. X Triticosecale sp.
Breeding.

PI 611169. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611170. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611171. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611172. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611173. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611174. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611175. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611176. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611177. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611178. X Triticosecale sp.
Breeding.

PI 611179. X Triticosecale sp.
Breeding.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611180. X Triticosecale sp.
Breeding. Pedigree - Stephens/Blanco (not treated).

PI 611181. X Triticosecale sp.
Breeding. Pedigree - Stephens/Blanco (treated).

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611182. X Triticosecale sp.
Breeding.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611183. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611184. X Triticosecale sp.
Breeding.

PI 611185. X Triticosecale sp.
Breeding.

PI 611186. X Triticosecale sp.
Breeding.

PI 611187. X Triticosecale sp.
Breeding.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611188. X Triticosecale sp.
Breeding. Pedigree - B650/WDRP-3 rye.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611189. X Triticosecale sp.
Breeding. Pedigree - CWT 1977/125/5/11 Newton selection.

PI 611190. X Triticosecale sp.
Breeding.

The following were collected by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611191. X Triticosecale sp.
Breeding. Collected in California, United States. Pedigree - IRA/Drira 37.

PI 611192. X Triticosecale sp.
Breeding. Collected in California, United States.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611193. X Triticosecale sp.
Breeding. Pedigree - TJ/Beagle 'S'//16134-35Y-1Y-1M-1Y-3-B-0Y.

PI 611194. X Triticosecale sp.
Breeding. Pedigree - Juanillo/Panther 'S'.

PI 611195. X Triticosecale sp.
Breeding. Pedigree - IRA/Beagle 2.

PI 611196. X Triticosecale sp.
Breeding.

PI 611197. X Triticosecale sp.
Breeding.

PI 611198. X Triticosecale sp.
Breeding. Pedigree - Musala 'S'/Lynx 'X'.

PI 611199. X Triticosecale sp.
Breeding. Pedigree - FS381/FS477/Toro 'S'/M2A/M1A/61270-B-1M-1Y-4M-0Y.

PI 611200. X Triticosecale sp.
Breeding. Pedigree - FW121/PROL/Cinnamon/YO 'R'/23963-100Y-4M-0Y.

PI 611201. X Triticosecale sp.
Breeding. Pedigree - M2A/M1A.

PI 611202. X Triticosecale sp.
Breeding. Pedigree - Tejon/Beagle 'S'/Yoreme/22679-1711.

PI 611203. X Triticosecale sp.
Breeding. Pedigree - Delfin 'S'/15490-24-4B-1N-0M.

The following were donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611204. X Triticosecale sp.
Breeding. Developed in South Africa. Pedigree - T.sphaerococcum/Polko//6TA299/TLC.

PI 611205. X Triticosecale sp.
Breeding. Developed in South Africa. Pedigree - Flamecks 3/Bella//Flameks 3/3/SST 3/Skemer/4/Cape Syn. Rye.

PI 611206. X Triticosecale sp.
Breeding. Developed in South Africa. Pedigree - 7th ITSN-102/bread wheat line.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611207. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo 1524.

PI 611208. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo 1524.

PI 611209. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/PPV-21.

PI 611210. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/PPV-21.

PI 611211. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/PPV-21.

PI 611212. X Triticosecale sp.

Breeding. Pedigree - 6TA-204/PPV-21.

PI 611213. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/PPV-21.

PI 611214. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo 133.

PI 611215. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Bruin 46.

PI 611216. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Bruin 46.

PI 611217. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Bruin 46.

PI 611218. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Bronco 90.

PI 611219. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo T-909.

PI 611220. X Triticosecale sp.
Breeding. Pedigree - Armadillo 1524/6TA-204.

PI 611221. X Triticosecale sp.
Breeding. Pedigree - Armadillo 1524/6TA-204.

PI 611222. X Triticosecale sp.
Breeding. Pedigree - Armadillo 1524/6TA-204.

PI 611223. X Triticosecale sp.
Breeding. Pedigree - Badger 121/6TA-204.

PI 611224. X Triticosecale sp.
Breeding. Pedigree - 6TA-203/X2950-4T.

PI 611225. X Triticosecale sp.
Breeding. Pedigree - 6TA-203/X2950-4T.

PI 611226. X Triticosecale sp.
Breeding. Pedigree - 6TA-204//X2950/GT.

PI 611227. X Triticosecale sp.
Breeding. Pedigree - 6TA-204//X2950/GT.

PI 611228. X Triticosecale sp.
Breeding. Pedigree - X3112-2T/6TA-204.

PI 611229. X Triticosecale sp.
Breeding. Pedigree - X3112-2T/6TA-204.

PI 611230. X Triticosecale sp.
Breeding. Pedigree - X1329-1D-1D/6TA-204.

PI 611231. X Triticosecale sp.
Breeding. Pedigree - X1329-1D-1D/6TA-204.

PI 611232. X Triticosecale sp.
Breeding. Pedigree - PPV 13//Beaver/Armadillo 188.

PI 611233. X Triticosecale sp.
Breeding. Pedigree - Castelporziano/Snoopy.

PI 611234. X Triticosecale sp.
Breeding. Pedigree - D7064/Snoopy S24//6TA-204.

PI 611235. X Triticosecale sp.
Breeding. Pedigree - D7064/Snoopy S24//6TA-204.

PI 611236. X Triticosecale sp.
Breeding. Pedigree - TM/2*TC//Z/BXW/3/PI243741/Snoopy.

PI 611237. X Triticosecale sp.
Breeding. Pedigree - Barrigon Yaqui Enano/5*TC//Snoopy.

PI 611238. X Triticosecale sp.
Breeding. Pedigree - Castelporziano/PI243741//Crane 'S'/Snoopy.

PI 611239. X Triticosecale sp.
Breeding. Pedigree - SO 'S'/CR 'S'/Snoopy.

PI 611240. X Triticosecale sp.
Breeding. Pedigree - Crane (B) 'S'/Snoopy.

PI 611241. X Triticosecale sp.
Breeding. Pedigree - Castelporziano/PI243741//Crane 'S'/Snoopy.

PI 611242. X Triticosecale sp.
Breeding. Pedigree - Quilafen/Snoopy.

PI 611243. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/6TA-204.

PI 611244. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/6TA-204.

PI 611245. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/6TA-204.

PI 611246. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/6TA-204.

PI 611247. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/6TA-204.

PI 611248. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Cinnamon.

PI 611249. X Triticosecale sp.
Breeding. Pedigree - Albatross/Snoopy//6TA-204.

PI 611250. X Triticosecale sp.
Breeding. Pedigree - Albatross/Snoopy//6TA-204.

PI 611251. X Triticosecale sp.
Breeding. Pedigree - Albatross/Snoopy//6TA-204.

PI 611252. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/UC8825.

PI 611253. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Cinnamon.

PI 611254. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Cinnamon.

PI 611255. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/UC8825.

PI 611256. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/UC8825.

PI 611257. X Triticosecale sp.
Breeding. Pedigree - Leeds//PI243741/Snoopy/3/Crane 'S'/Snoopy.

PI 611258. X Triticosecale sp.
Breeding. Pedigree - Inia/Armadillo.

PI 611259. X Triticosecale sp.
Breeding. Pedigree - Inia/Rye*2//Armadillo.

PI 611260. X Triticosecale sp.
Breeding. Pedigree - Maya II/Armadillo 'S'.

PI 611261. X Triticosecale sp.
Breeding. Pedigree - Maya II/Armadillo 'S'.

PI 611262. X Triticosecale sp.
Breeding. Pedigree - UM940 'S'/TCLMY65/PER-DIEDS-CNIT.

PI 611263. X Triticosecale sp.
Breeding. Pedigree - F3 Bulk/Armadillo 'S'.

PI 611264. X Triticosecale sp.
Breeding. Pedigree - UM940 'S'/TEL Bulk//Armadillo.

PI 611265. X Triticosecale sp.
Breeding. Pedigree - UM940'S'/Armadillo 'S'.

PI 611266. X Triticosecale sp.
Breeding. Pedigree - UM940 'S'/Armadillo 'S'.

PI 611267. X Triticosecale sp.

Breeding. Pedigree - M2A/IRA.

PI 611268. X Triticosecale sp.
Breeding. Pedigree - M2A/Camel.

PI 611269. X Triticosecale sp.
Breeding. Pedigree - OCTO/HEXA//IGA.

PI 611270. X Triticosecale sp.
Breeding. Pedigree - Tejon/IRA.

PI 611271. X Triticosecale sp.
Breeding. Pedigree - IA/Koala//Calidad.

PI 611272. X Triticosecale sp.
Breeding. Pedigree - M2A/Beagle.

PI 611273. X Triticosecale sp.
Breeding.

PI 611274. X Triticosecale sp.
Breeding.

PI 611275. X Triticosecale sp.
Breeding.

PI 611276. X Triticosecale sp.
Breeding.

PI 611277. X Triticosecale sp.
Breeding.

PI 611278. X Triticosecale sp.
Cultivar.

PI 611279. X Triticosecale sp.
Breeding.

PI 611280. X Triticosecale sp.
Breeding. Pedigree - Anza/Tcl Morocco.

PI 611281. X Triticosecale sp.
Breeding. Pedigree - G.S.59727/6TA-204.

PI 611282. X Triticosecale sp.
Breeding. Pedigree - Maya/Armadillo.

PI 611283. X Triticosecale sp.
Breeding. Pedigree - JFR/CIMMYT//MEX.BULK.

PI 611284. X Triticosecale sp.
Breeding. Pedigree - FWI121/Prolific.

PI 611285. X Triticosecale sp.
Breeding. Pedigree - Chapala/Snoopy.

PI 611286. X Triticosecale sp.
Breeding. Pedigree - FS/2457.

PI 611287. X Triticosecale sp.
Breeding. Pedigree - Crane/Snoopy.

PI 611288. X Triticosecale sp.
Breeding. Pedigree - Camel/Pato selection//454.

PI 611289. X Triticosecale sp.
Breeding.

PI 611290. X Triticosecale sp.
Breeding.

PI 611291. X Triticosecale sp.
Breeding.

PI 611292. X Triticosecale sp.
Breeding.

PI 611293. X Triticosecale sp.
Breeding.

PI 611294. X Triticosecale sp.
Breeding.

PI 611295. X Triticosecale sp.
Breeding.

PI 611296. X Triticosecale sp.
Breeding. Pedigree - Drira//Kiss/Armadillo 'S'.

PI 611297. X Triticosecale sp.
Cultivar.

PI 611298. X Triticosecale sp.
Breeding.

PI 611299. X Triticosecale sp.
Breeding.

PI 611300. X Triticosecale sp.
Breeding.

PI 611301. X Triticosecale sp.
Breeding.

PI 611302. X Triticosecale sp.
Breeding. Pedigree - M1A/Pitic 62.

PI 611303. X Triticosecale sp.
Breeding. Pedigree - M1A/IRA.

PI 611304. X Triticosecale sp.
Cultivar.

PI 611305. X Triticosecale sp.
Breeding.

PI 611306. X Triticosecale sp.
Cultivar.

PI 611307. X Triticosecale sp.
Breeding. Pedigree - M2A/IRA 15//RM/3/H277.67/2*UM2.

PI 611308. X Triticosecale sp.
Breeding.

PI 611309. X Triticosecale sp.
Breeding.

PI 611310. X Triticosecale sp.
Breeding.

PI 611311. X Triticosecale sp.
Breeding. Pedigree - Camel//CMO/Gallo.

PI 611312. X Triticosecale sp.
Breeding. Pedigree - Drira//Kiss/Armadillo 'S'.

PI 611313. X Triticosecale sp.
Breeding. Pedigree - Drira//Kiss/Armadillo 'S'.

PI 611314. X Triticosecale sp.
Breeding.

PI 611315. X Triticosecale sp.
Breeding. Pedigree - Yecora Rojo Reselection/Wrens//M2A.

PI 611316. X Triticosecale sp.
Breeding. Pedigree - Panda 'R'/Arabian.

PI 611317. X Triticosecale sp.
Breeding. Pedigree - Beagle 'S'/M2A//Cinnamon.

PI 611318. X Triticosecale sp.
Breeding. Pedigree - Drira/FAS204.

PI 611319. X Triticosecale sp.
Breeding.

PI 611320. X Triticosecale sp.
Breeding. Pedigree - M2A/M1A.

PI 611321. X Triticosecale sp.
Breeding. Pedigree - Maya/Armadillo.

PI 611322. X Triticosecale sp.

Breeding. Pedigree - Chapala/Snoopy.

PI 611323. X Triticosecale sp.
Breeding. Pedigree - Inia/Rye*2//Armadillo.

PI 611324. X Triticosecale sp.
Breeding. Pedigree - FENCH/129.

PI 611325. X Triticosecale sp.
Breeding. Pedigree - FENCH/SN220.

PI 611326. X Triticosecale sp.
Breeding. Pedigree - Fench/Siskiyou.

PI 611327. X Triticosecale sp.
Breeding. Pedigree - SN220/113.

PI 611328. X Triticosecale sp.
Breeding. Pedigree - SN249/113.

PI 611329. X Triticosecale sp.
Breeding.

PI 611330. X Triticosecale sp.
Breeding.

PI 611331. X Triticosecale sp.
Breeding.

PI 611332. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/Ciano/3/Beagle/Merino 'S'.

PI 611333. X Triticosecale sp.
Breeding. Pedigree - Beagle 'S'/M2A//Cinnamon.

PI 611334. X Triticosecale sp.
Cultivar.

PI 611335. X Triticosecale sp.
Breeding.

PI 611336. X Triticosecale sp.
Breeding.

PI 611337. X Triticosecale sp.
Breeding. Pedigree - Sunseed/C193-5.

PI 611338. X Triticosecale sp.
Cultivar.

PI 611339. X Triticosecale sp.
Cultivar.

PI 611340. X Triticosecale sp.
Breeding.

PI 611341. X Triticosecale sp.
Breeding.

PI 611342. X Triticosecale sp.
Cultivar.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611343. X Triticosecale sp.
Breeding. Pedigree - B163/A876//B164/A876 Rht3 Mut M6.

PI 611344. X Triticosecale sp.
Breeding. Pedigree - B163/A876//B164/A876 Rht3 Mut M6.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611345. X Triticosecale sp.
Breeding.

PI 611346. X Triticosecale sp.
Breeding.

PI 611347. X Triticosecale sp.
Breeding.

PI 611348. X Triticosecale sp.
Breeding.

PI 611349. X Triticosecale sp.
Breeding.

PI 611350. X Triticosecale sp.
Breeding.

PI 611351. X Triticosecale sp.
Breeding. Pedigree - D7069//PI243741/Sepoy/3/Anza/PI243741/6/Cocorit/UC 90 C3 Triple Dwarf/5/Tobari 66/8156/CC/3/Inia/4/Sepoy.

PI 611352. X Triticosecale sp.
Breeding. Pedigree - Carman/Yogui 'S'.

PI 611353. X Triticosecale sp.
Breeding.

PI 611354. X Triticosecale sp.
Breeding.

PI 611355. X Triticosecale sp.
Breeding.

PI 611356. X Triticosecale sp.
Breeding.

PI 611357. X Triticosecale sp.
Breeding. Pedigree - DF 'S'/Octo Navojoa//Hork 'S'/SPY rye.

PI 611358. X Triticosecale sp.
Breeding. Pedigree - DF 'S'/Octo Navojoa//Hork 'S'/SPY rye.

PI 611359. X Triticosecale sp.
Breeding. Pedigree - Zebu 'S'/FS381//Yogui 'S'.

PI 611360. X Triticosecale sp.
Breeding. Pedigree - Camel 'S'/Pato//Kiss dwarf/3/Beagle 'S'/4/Beagle 'S'/5/Anteater 'S'.

PI 611361. X Triticosecale sp.
Breeding. Pedigree - DUR WT/Balbo//Bok 'S'.

PI 611362. X Triticosecale sp.
Breeding. Pedigree - M2A*2/Cinnamon 'S'//Beagle 'S'/3/Merino 'S'.

PI 611363. X Triticosecale sp.
Breeding. Pedigree - TA76/163B//Lynx 'S'.

PI 611364. X Triticosecale sp.
Breeding.

PI 611365. X Triticosecale sp.
Breeding.

PI 611366. X Triticosecale sp.
Breeding.

PI 611367. X Triticosecale sp.
Breeding. Pedigree - Bok 'S'/Glenlea.

PI 611368. X Triticosecale sp.
Breeding. Pedigree - M2A/RM 'S'//Tigre 'S'/3/Tapir 'S'//PND 'S'/RM 'S".

PI 611369. X Triticosecale sp.
Breeding. Pedigree - Tapir 'S'/Toro 'S'//Toro 'S'/Liebre 'S'.

PI 611370. X Triticosecale sp.
Breeding. Pedigree - TCL95/M2A//M2A/3/Echidna 'S'.

PI 611371. X Triticosecale sp.
Breeding. Pedigree - PFT7717/M2A/Bunny 'S'/3/Bok 'S'/Lemming 'S'.

PI 611372. X Triticosecale sp.
Breeding. Pedigree - Lechon 'S'//Lemming 'S'/3/Tapir 'S'//Panda 'S'/RM 'S'.

PI 611373. X Triticosecale sp.
Breeding. Pedigree - Tapir 'S'/4/E3/Armadillo 'S'//M2A/3/Addax 'S'.

PI 611374. X Triticosecale sp.
Breeding. Pedigree - IRA/IGA//IRA/Panda 'R'/RM.

PI 611375. X Triticosecale sp.
Breeding. Pedigree - Panda 'S'/Yoreme//Panther 'S'/3/Lemming 'S'/Toro 'S'.

PI 611376. X Triticosecale sp.
Breeding. Pedigree - Mouse 'S'3/KSK46//PEL72380/Arthur 71/4/Topo 123.

PI 611377. X Triticosecale sp.
Breeding. Pedigree - M2A//Zezontli 'S'/Sajame 'S'.

PI 611378. X Triticosecale sp.
Breeding. Pedigree - Lechon 'S'/Parula 'S'.

PI 611379. X Triticosecale sp.
Breeding. Pedigree - Mochis 'S'//Ciano 'S'/Gallo/3/PI265466/4/Panda 'S'/RM 'S'/5/Panda 'S'/Arabian//IA/Addax 'S'.

PI 611380. X Triticosecale sp.
Breeding. Pedigree - Lechon 'S'//Panda 'S'/Mastiff 'S'.

PI 611381. X Triticosecale sp.
Breeding. Pedigree - IA/BUSH//Tesmo 'S'.

PI 611382. X Triticosecale sp.
Breeding. Pedigree - Panda 'S'/Mapache 'S'//Pantera 1.

PI 611383. X Triticosecale sp.
Breeding. Pedigree - Panda 'S'/Bacum 'S'//Alamo S83.

PI 611384. X Triticosecale sp.
Breeding. Pedigree - Tapir 'S'/PFT7717.

PI 611385. X Triticosecale sp.
Breeding. Pedigree - Anza/PI243741//USA IVS.718/SPY.

PI 611386. X Triticosecale sp.
Breeding. Pedigree - Yoreme 75//IA/BUSH/3/Mono 'S'.

PI 611387. X Triticosecale sp.
Breeding. Pedigree - IRA/Nuri 'S'//M2A/3/Tapir 'S'.

PI 611388. X Triticosecale sp.
Breeding. Pedigree - Panther 'S'/3/M2A/Lince 'S'//M2A/4/Lemming 'S'/Teddy 'S".

PI 611389. X Triticosecale sp.
Breeding. Pedigree - Tigre 'S'/4/Armadillo 'S' 105/Beagle 'S'//2*M2A/3/Yoreme 75/5/Lemming 'S'/3/Arabian 'S'/M1A//M2A.

PI 611390. X Triticosecale sp.
Breeding. Pedigree - Mouse 'S'/SPO 'S'/3/Tapir 'S'//Panda 'S'/Arabian 'S'.

PI 611391. X Triticosecale sp.
Breeding. Pedigree - Chorizo 'S'/POL 'S'/5/E3/Armadillo 'S"//M2A/3/Addax 'S'/4/Panda 'S'/Yoreme.

PI 611392. X Triticosecale sp.
Breeding. Pedigree - Panda 'S'/Castor 'S'//Quokka 'S'/3/Toro 'S'//Panda 'S'/Arabian 'S'.

PI 611393. X Triticosecale sp.
Breeding. Pedigree - Tapir 'S'/Toro 'S'.

PI 611394. X Triticosecale sp.
Breeding. Pedigree - POL 'S'//Panda 'S'/Mapache 'S".

PI 611395. X Triticosecale sp.
Breeding. Pedigree - Tapir 'S'/Grizzly 'S'.

PI 611396. X Triticosecale sp.
Breeding. Pedigree - 1323.E1.E1.E6.EB/PFT7717.

PI 611397. X Triticosecale sp.
Breeding. Pedigree - PFT7717/5/Huelquen//II50.72/N10/3/Bolillo 'S'/4/Maya 'S'/Utique 'S'.

PI 611398. X Triticosecale sp.
Breeding. Pedigree - Coorong//AU/DDVE 'S'.

PI 611399. X Triticosecale sp.
Breeding. Pedigree - T107.18/M2A/Mapache 'S'/3/Pewee 'S'.

PI 611400. X Triticosecale sp.
Breeding. Pedigree - Musala 'S'/BTA 'S'.

PI 611401. X Triticosecale sp.
Breeding.

PI 611402. X Triticosecale sp.
Breeding.

PI 611403. X Triticosecale sp.
Breeding. Pedigree - Hare 'S'/2*Musala 'S'.

PI 611404. X Triticosecale sp.
Breeding. Pedigree - ME2A*2/Beagle 'S'//Panda 'S' 203.

PI 611405. X Triticosecale sp.
Breeding. Pedigree - Beagle 'S'/Addax 'S'.

PI 611406. X Triticosecale sp.
Breeding. Pedigree - Puma 'S'/Alamo 'S' 83.

PI 611407. X Triticosecale sp.
Breeding.

PI 611408. X Triticosecale sp.
Breeding. Pedigree - Lechon 'S'/Teddy 'S'.

PI 611409. X Triticosecale sp.
Breeding. Pedigree - Panda 'S'/RM 'S'/3/Yoreme 75//IRA/Camel 'S'.

The following were developed by Don F. Salmon, Alberta Agriculture, Field Crop Research Centre, 5030-50 Street, Lacombe, Alberta T4L 1W8, Canada. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611410. X Triticosecale sp.
Breeding.

PI 611411. X Triticosecale sp.
Breeding.

PI 611412. X Triticosecale sp.
Breeding.

PI 611413. X Triticosecale sp.
Breeding.

PI 611414. X Triticosecale sp.
Breeding.

PI 611415. X Triticosecale sp.
Breeding.

The following were developed by Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611416. X Triticosecale sp.
Breeding. Pedigree - 72A15/2D142-1.

PI 611417. X Triticosecale sp.
Breeding. Pedigree - 6T15/UC90 C2 (547-7).

PI 611418. X Triticosecale sp.
Breeding. Pedigree - ISN49/Toluca.

PI 611419. X Triticosecale sp.

Breeding. Pedigree - Stewart 63/Prolific (70-1).

PI 611420. X Triticosecale sp.
Breeding. Pedigree - Stewart 63/Prolific (348-6).

PI 611421. X Triticosecale sp.
Breeding. Pedigree - Tetra Thatcher/2D-289 (381-3).

PI 611422. X Triticosecale sp.
Breeding. Pedigree - Tetra Prelude/2D-289 (1008-3).

PI 611423. X Triticosecale sp.
Breeding. Pedigree - Jori/Snoopy.

PI 611424. X Triticosecale sp.
Breeding. Pedigree - 4B-289/UC-90 (P.Kraker).

PI 611425. X Triticosecale sp.
Breeding. Pedigree - 1036/WRC (1482, J.Thomas).

The following were donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 611426. X Triticosecale sp.
Breeding. Developed in Australia. Pedigree - K875/Snoopy.

PI 611427. X Triticosecale sp.
Breeding. Developed in Australia.

PI 611428. X Triticosecale sp.
Breeding. Developed in Australia.

PI 611429. X Triticosecale sp.
Breeding. Developed in Australia.

PI 611430. X Triticosecale sp.
Breeding. Developed in Australia.

PI 611431. X Triticosecale sp.
Breeding. Developed in Australia.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 611432. X Triticosecale sp.

Breeding. Pedigree - TsTs 3D/Blanco.

PI 611433. X Triticosecale sp.
Breeding. Pedigree - Daws/Snoopy.

PI 611434. X Triticosecale sp.
Breeding. Pedigree - Chinese Spring/Kodiak.

PI 611435. X Triticosecale sp.
Breeding. Pedigree - Daws/rye.

PI 611436. X Triticosecale sp.
Breeding. Pedigree - Pitic 62/Kodiak.

PI 611437. X Triticosecale sp.
Breeding. Pedigree - M80-208-3/M80-209-1.

PI 611438. X Triticosecale sp.
Breeding. Pedigree - H80-5-3/H80-5-8.

PI 611439. X Triticosecale sp.
Breeding. Pedigree - H80-39-6/H80-6-1.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611440. X Triticosecale sp.
Breeding.

PI 611441. X Triticosecale sp.
Breeding.

PI 611442. X Triticosecale sp.
Breeding. Pedigree - M2A/Camel.

PI 611443. X Triticosecale sp.
Breeding. Pedigree - M2A/IRA.

PI 611444. X Triticosecale sp.
Breeding. Pedigree - M1//Inia/Turkey 60.

PI 611445. X Triticosecale sp.
Breeding. Pedigree - IGA/IRA.

PI 611446. X Triticosecale sp.
Breeding.

PI 611447. X Triticosecale sp.
Breeding.

PI 611448. X Triticosecale sp.

Breeding.

PI 611449. X Triticosecale sp.
Breeding. Pedigree - Bush/Cinnamon.

PI 611450. X Triticosecale sp.
Breeding. Pedigree - TCL E2/Armadillo 'S'//TCL E3/2*Armadillo 'S'.

PI 611451. X Triticosecale sp.
Cultivar.

PI 611452. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Bronco 90.

PI 611453. X Triticosecale sp.
Breeding.

PI 611454. X Triticosecale sp.
Breeding.

PI 611455. X Triticosecale sp.
Breeding. Pedigree - IRA/Camel.

PI 611456. X Triticosecale sp.
Breeding. Pedigree - M2A/IGA//IA/Koala.

PI 611457. X Triticosecale sp.
Breeding. Pedigree - FW121/Prol//Cinnamon/3/Camel.

PI 611458. X Triticosecale sp.
Breeding.

PI 611459. X Triticosecale sp.
Breeding. Pedigree - 8A-95 Rosner//Hari/Armadillo.

PI 611460. X Triticosecale sp.
Breeding. Pedigree - M2A/IRA.

PI 611461. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/Potam 70//IA.

PI 611462. X Triticosecale sp.
Breeding. Pedigree - Drira/IA.

PI 611463. X Triticosecale sp.
Breeding.

PI 611464. X Triticosecale sp.
Breeding. Pedigree - IA/Bulk E2.

PI 611465. X Triticosecale sp.
Breeding.

PI 611466. X Triticosecale sp.
Breeding.

PI 611467. X Triticosecale sp.
Breeding. Pedigree - Beagle 'S'/3/Beagle 'S'//ITA/Leo.

PI 611468. X Triticosecale sp.
Breeding. Pedigree - Beagle 'S'/Penjamo 62//Navojoa 'S'.

PI 611469. X Triticosecale sp.
Breeding. Pedigree - Camel/Kalyansona//Kalyansona.

The following were collected by P. Hanelt, Institut fur Pflanzengenetik, und Kulturpflanzenforschung, Correnssstrape 3, Gatersleben, Saxony-Anhalt D-06466, Germany; J. Kruse, Botanical Institute, Tbilisi, Georgia. Received 12/24/1991.

PI 611470. Triticum aestivum subsp. macha (Dekapr. & A. M. Menabde) Mackey
Landrace. Collected 07/26/1982 in Georgia. Elevation 500 m. Cchuteli, east of Cageri, Rayon Cageri, Lecchuai; college experimental field.

The following were developed by Agricultural Research Institute, Martonvasar, Fejer, Hungary. Donated by Institute for Plant Production & Qualification, Research Centre for Agrobotany, Tapioszele, Pest H-2766, Hungary. Received 10/26/1995.

PI 611471. Hordeum vulgare L. **subsp. vulgare**
Cultivar.

PI 611472. Hordeum vulgare L. **subsp. vulgare**
Cultivar.

PI 611473. Hordeum vulgare L. **subsp. vulgare**
Cultivar.

The following were donated by Institute for Plant Production & Qualification, Research Centre for Agrobotany, Tapioszele, Pest H-2766, Hungary. Received 10/26/1995.

PI 611474. Avena sativa L.
Landrace. Collected in Hungary.

The following were developed by Chinese Academy of Agricultural Sciences, Inst. of Crop Breeding & Cultivation, Beijing, Beijing, China. Donated by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 09/28/1998.

PI 611475. X Triticosecale sp.
Breeding. Forage-type spring triticale.

The following were collected by Chinese Academy of Agricultural Sciences, Institute of Crop Germplasm Resources, Crop Introduction Laboratory, Beijing,

Beijing 100081, China. Donated by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 09/21/1998.

PI 611476. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Collected in China. Tolerant to scab.

PI 611477. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Collected in China. Tolerant to scab.

The following were collected by Korean Academy of Agricultural Sciences, Pyongyang, Pyongyang, Korea, North. Donated by Randy Ireson, American Friends Service Committee, 388 Browning Av. SE, Salem, Oregon 97302, United States. Received 05/26/1998.

PI 611478. Hordeum vulgare L. **subsp. vulgare**
Cultivated. Collected in Korea, North.

PI 611479. Hordeum vulgare L. **subsp. vulgare**
Cultivated. Collected in Korea, North.

PI 611480. Hordeum vulgare L. **subsp. vulgare**
Cultivated. Collected in Korea, North.

PI 611481. Hordeum vulgare L. **subsp. vulgare**
Cultivated. Collected in Korea, North.

The following were developed by Zhejiang Agricultural University, Hangzhou, Zhejiang, China. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States. Received 09/21/1998.

PI 611482. Hordeum vulgare L. **subsp. vulgare**
Breeding.

The following were collected by Zhejiang Agricultural University, Hangzhou, Zhejiang, China. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States. Received 09/21/1998.

PI 611483. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Collected in Zhejiang, China. Scab tolerant.

PI 611484. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Collected in Zhejiang, China. Scab tolerant.

PI 611485. Hordeum vulgare L. **subsp. vulgare**
Landrace. Collected in Zhejiang, China.

PI 611486. Hordeum vulgare L. **subsp. vulgare**
Landrace. Collected in Zhejiang, China.

PI 611487. Hordeum vulgare L. **subsp. vulgare**
Landrace. Collected in Zhejiang, China.

PI 611488. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Collected in Zhejiang, China. Yellow mosaic virus resistant.

The following were developed by Zhejiang Agricultural University, Hangzhou, Zhejiang, China. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States. Received 09/21/1998.

PI 611489. Hordeum vulgare L. **subsp. vulgare**
Cultivar.

The following were collected by Zhejiang Agricultural University, Hangzhou, Zhejiang, China. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States. Received 09/21/1998.

PI 611490. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Collected in Zhejiang, China. Scab tolerant.

PI 611491. Hordeum vulgare L. **subsp. vulgare**
Landrace. Collected in Zhejiang, China.

The following were developed by Zhejiang Agricultural University, Hangzhou, Zhejiang, China. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States. Received 09/21/1998.

PI 611492. Hordeum vulgare L. **subsp. vulgare**
Breeding.

The following were collected by Zhejiang Agricultural University, Hangzhou, Zhejiang, China. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States. Received 09/21/1998.

PI 611493. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Collected in Zhejiang, China.

PI 611494. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Collected in Zhejiang, China. Collected in Japan.

The following were collected by Korean Academy of Agricultural Sciences, Pyongyang, Pyongyang, Korea, North. Donated by Randy Ireson, American Friends Service Committee, 388 Browning Av. SE, Salem, Oregon 97302, United States. Received 11/09/1998.

PI 611495. Hordeum vulgare L. **subsp. vulgare**

Cultivated. Collected in Korea, North.

PI 611496. Hordeum vulgare L. **subsp. vulgare**
Cultivated. Collected in Korea, North.

The following were donated by Andrey A. Pomortsev, Russian Academy of Sciences, N.I. Vavilov Institute of General Genetics, Gubkin Str. 3, Moscow, Moscow 117809, Russian Federation. Received 03/03/1999.

PI 611497. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611498. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Former Soviet Union.

PI 611499. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Azerbaijan.

PI 611500. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611501. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611502. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611503. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Georgia.

PI 611504. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Uzbekistan.

PI 611505. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611506. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611507. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611508. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Latvia.

PI 611509. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611510. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611511. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611512. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611513. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611514. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611515. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611516. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611517. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611518. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Azerbaijan.

PI 611519. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611520. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Tajikistan.

PI 611521. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Tajikistan.

PI 611522. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Tajikistan.

PI 611523. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Lithuania.

PI 611524. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611525. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Latvia.

PI 611526. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611527. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611528. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611529. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611530. Hordeum vulgare L. **subsp. vulgare**

Cultivar. Developed in Ukraine.

PI 611531. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611532. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611533. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611534. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Belarus.

PI 611535. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611536. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Estonia.

PI 611537. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611538. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611539. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Belarus.

PI 611540. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611541. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611542. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611543. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611544. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611545. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611546. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Belarus.

PI 611547. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Armenia.

PI 611548. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611549. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611550. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Estonia.

PI 611551. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611552. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Kyrgyzstan.

PI 611553. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611554. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611555. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611556. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611557. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Uzbekistan.

PI 611558. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Uzbekistan.

PI 611559. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Uzbekistan.

PI 611560. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611561. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611562. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611563. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611564. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611565. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611566. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611567. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611568. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611569. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611570. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611571. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611572. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611573. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611574. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611575. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611576. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611577. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611578. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611579. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611580. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Latvia.

PI 611581. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611582. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611583. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611584. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Former Soviet Union.

PI 611585. Hordeum vulgare L. **subsp. vulgare**

Cultivar. Developed in Russian Federation.

PI 611586. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611587. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611588. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611589. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611590. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611591. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Uzbekistan.

PI 611592. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Tajikistan.

PI 611593. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611594. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Kazakhstan.

PI 611595. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611596. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611597. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611598. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

PI 611599. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Russian Federation.

PI 611600. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Estonia.

PI 611601. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Developed in Ukraine.

The following were collected by Chinese Academy of Agricultural Sciences, Institute of Crop Germplasm Resources, Crop Introduction Laboratory, Beijing, Beijing 100081, China. Donated by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United

States. Received 04/30/1996.

PI 611602. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Collected in China. High protein.

PI 611603. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Collected in China. High yield.

PI 611604. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Collected in China. High yield.

PI 611605. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Collected in China. Early maturity.

PI 611606. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Collected in China. Early maturity.

The following were developed by Siberian Sci. Res. Inst. of Plant Production, Novosibirskiy Rajon, Krasnoodsk, Novosibirsk 633128, Russian Federation. Donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611607. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Pureline.

The following were developed by K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Moscow 127550, Russian Federation. Donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611608. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Pureline.

The following were donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611609. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Pureline. Developed in Russian Federation. Agricultural institute of central Nechernosemnyi region.

PI 611610. Triticum aestivum L., nom. cons. **subsp. aestivum** Cultivar. Pureline. Developed in Russian Federation. Agricultural institute of central Nechernosemnyi region.

The following were developed by K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Moscow 127550, Russian Federation. Donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya

ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611611. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Pedigree - Buryatskaya 79/Mironovskaya Yarovaya. Released 1988.

The following were donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611612. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Developed in Russian Federation. Kinel'skaya breeding station.

PI 611613. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline. Developed in Russian Federation. Agricultural institute of central Nechernosemnyi region.

The following were developed by Moscow Botanic Garden, Ministry of Agriculture, State Plant Quarantine & Inspection, Moscow, Moscow, Russian Federation. Donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611614. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline.

The following were developed by Viatka Regional Experiment Station, Viatka, Kirov, Russian Federation. Donated by Tatiana Danilova, K. Timiryazev Agricultural Academy, Dept. of Plant Breeding & Seed Growing, Timiryazevskaya ul., 49, Moscow, Russian Federation. Received 04/09/1999.

PI 611615. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. Pureline.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; G. Ray Smith, Texas A&M University, Research & Extension Center, P.O. Box E, Overton, Texas 75684, United States. Received 05/10/1993.

PI 611616. Trifolium alpestre L.
Wild. Collected 07/22/1990 in Bulgaria. Latitude 41 deg. 55' N. Longitude 24 deg. 10' E. Elevation 1150 m. Near Tennis courts at Orbita Tourist Resort 8 km W of Batak, Bulgaria. Thin mountain valley soil, grasses, sloping. Frequency of sample: Rarely seen Comments: Highest altitude for T. alpestre collected to date in Bulgaria.

PI 611617. Trifolium montanum L.
Wild. Collected 07/25/1990 in Bulgaria. Latitude 41 deg. 55' N. Longitude 24 deg. 25' E. Elevation 970 m. 5 km S of Batak on road from

Batak to Fotinovo, Bulgaria. Rocky mountain road cut, mixed forbes, mountainous. Frequency of sample: Rarely seen Comments: We looked for seed, couldn't find any, but pulled all heads, put a head and leaf in envelope.

PI 611618. Trifolium fragiferum L.
Wild. Collected in Bulgaria. Latitude 42 deg. 15' N. Longitude 27 deg. 45' E. Elevation 270 m. 5 km S of Izgrev, by spring on road, from Malko Tarnovo to Micurin, Bulgaria. Hilly area, thin brown loam, mixed grassea by spring, sloping. Frequency of sample: Occasionally Comments: Only growing in wet area near mountain springs.

PI 611619. Trifolium pratense L.
Wild. Collected 07/22/1990 in Bulgaria. Latitude 42 deg. 0' N. Longitude 27 deg. 30' E. Elevation 430 m. Hillside across the road from motel on outskirts of Malko Tarnovo, Bulgaria. Limestone based brown clay loam, mountain meadow on edge of oak wood, steep slope. Frequency of sample: Rare Comments: An open high meadow with steep slope. Areas of meadow are solid stand of T. medium. Also in meadow were T. pratense, T. heldreichianum, and T. ochroleucum.

PI 611620. Trifolium ochroleucum Huds.
Wild. Collected 07/22/1990 in Bulgaria. Latitude 42 deg. 0' N. Longitude 27 deg. 30' E. Elevation 430 m. Hillside across the road from motel on outskirts of Malko Tarnovo, Bulgaria. Limestone based brown clay loam, mountian meadow on edge of oak wood, steep slope. Frequency of sample: Frequently seen Comments: An open high meadow. Areas of meadow are solid stand of T. medium. Also in meadow were T. pratense, T. heldreichianum, and T. ochroleucum.

PI 611621. Trifolium ochroleucum Huds.
Wild. Collected 07/22/1990 in Bulgaria. Latitude 42 deg. 10' N. Longitude 27 deg. 25' E. Elevation 250 m. About 3 km NW of Varovnik on road to Malko Tarnovo, Bulgaria. Rocky clay, mixed grasses and edge of oak scrub, mountain slopes. Frequency of sample: Frequently seen Comments: none.

PI 611622. Trifolium repens L.
Wild. Collected 07/20/1990 in Burgas, Bulgaria. Latitude 42 deg. 0' N. Longitude 26 deg. 15' E. Elevation 400 m. 5 km S of Driptcheve on road to Toplovograd, Burgas, Bulgaria. Granite rock and clay, mixed grass, scrub, medium slope. Frequency of sample: Rarely seen Comments: none.

PI 611623. Trifolium heldreichianum (Gibelli & Belli) Hausskn.
Wild. Collected 07/19/1990 in Khaskovo, Bulgaria. Latitude 41 deg. 40' N. Longitude 26 deg. 0' E. Elevation 350 m. 2 km SE of Dubovec on road from Ivaylovgrad to Malk Gradiste, Khaskovo, Bulgaria. Cracking clay, edge of oak scrub, rolling hills but flat area. Frequency of sample: Occasionally seen. Comments: Only one nice large plant. An unusual site. Near the road were annuals T. echinatum, T. diffusum, T. vesiculom, but within 20 meters along edge of wooded area [were] perennials of [T.] alpestre, heldreichianum, and ochroleucum.

PI 611624. Trifolium alpestre L.
Wild. Collected 07/18/1990 in Khaskovo, Bulgaria. Latitude 41 deg. 35'

N. Longitude 25 deg. 50' E. Elevation 710 m. Along road from Momchilgrad to Ivaylovgrad, Khaskovo, Bulgaria. Flat and some slope, mixed forbes and grasses, edge of woodland. Frequency of sample: Occasionally seen Comments: none.

PI 611625. Trifolium repens L.
Breeding. Collected 07/16/1990 in Bulgaria. Comments: Pubescent T. repens collected from J. Guteva's plot area.

PI 611626. Trifolium alpestre L.
Wild. Collected 07/16/1990 in Plovdiv, Bulgaria. Latitude 41 deg. 55' N. Longitude 24 deg. 50' E. Elevation 1000 m. 9-10 km south of Asenovgrad, Plovdiv, Bulgaria. Rocky thin soil, mixed shrubs, moutainous, 5-10% slope. Frequency of sample: Occasionally seen Comments: Growing near clumps of shrubs or along edge of treeline.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Gary A. Pederson, USDA, ARS, Waste Management and Forage, Research Unit, Mississippi State, Mississippi 39762-5367, United States. Received 11/29/1993.

PI 611627. Trifolium alpestre L.
Wild. Collected 01/08/1993 in Plovdiv, Bulgaria. Latitude 42 deg. 4' N. Longitude 24 deg. 14' E. Elevation 600 m. 7-8 km north of Bratsigovo, Plovdiv, Bulgaria. Growing along the edge of and under scrub oaks, hilly, Ph 6.75, 53% sand, 40% silt, 7% clay, sandy loam-loam. Frequency of sample: Frequently seen.

PI 611628. Trifolium alpestre L.
Wild. Collected 08/09/1993 in Sofia, Bulgaria. Latitude 42 deg. 14' N. Longitude 22 deg. 39' E. Elevation 1260 m. 5-8 km northwest of Boboshevo, Sofia, Bulgaria. Edge of forest along road bank, mountainous, Ph 6.08, 50% sand, 27% silt, 23% clay, sandy clay loam-loam. Frequency of sample: Frequently seen Comments: none.

PI 611629. Trifolium alpestre L.
Wild. Collected 08/11/1993 in Sofia, Bulgaria. Latitude 42 deg. 38' N. Longitude 23 deg. 14' E. Elevation 1380 m. Near Hotel Kopitoto on Mt. Vitosha overlooking Sophia, Sofia, Bulgaria. Open meadow with grasses, mountainous, Ph 5.80, 67% sand, 23% silt, 10% clay, sandy loam. Frequency of sample: Frequently seen Comments: none.

PI 611630. Trifolium caucasicum Tausch
Wild. Collected 08/05/1993 in Sofia, Bulgaria. Latitude 41 deg. 22' N. Longitude 23 deg. 11' E. Elevation 760 m. 5 km southwest of Petric at Belitsa tourist complex, Sofia, Bulgaria. Chestnut woodland, mountainous, Ph 6.96, 50% sand, 33% silt, 17% clay, loam. Frequency of sample: Rarely seen Comments: Similar to T. ochroleucum with very long calyx tooth.

PI 611631. Trifolium hybridum L.
Uncertain. Collected 08/04/1993 in Bulgaria. Latitude 41 deg. 59' N. Longitude 23 deg. 31' E. Elevation 1050 m. 7 km northwest of Belica,

Bulgaria. In wood behind monument, oak scrub, in gully on mountainside Ph 5.80, 47% sand, 40% silt, 13% clay, loam. Frequency of sample: Frequently seen Comments: none.

PI 611632. Trifolium medium L.
Uncertain. Collected 08/02/1993 in Bulgaria. Latitude 41 deg. 39' N. Longitude 24 deg. 41' E. Elevation 1570 m. Near Pamporovo tourist complex near Pamporovo, Bulgaria. Bus station, trees, grasses, forbes, sloping hillside, Ph 8.37, 33% sand, 27% silt, 40% clay, clay loam-clay. Frequency of sample: Abundant Comments: Several plants with large leaves and very pubescent.

PI 611633. Trifolium montanum L.
Wild. Collected 08/04/1993 in Plovdiv, Bulgaria. Latitude 42 deg. 2' N. Longitude 23 deg. 54' E. Elevation 1140 m. 8-10 km west of Velingrad on road to Jundola, Plovdiv, Bulgaria. Grasses and forbes, open mountain meadows, Ph 5.91, 50% sand 15% silt, 35% clay, sandy clay loam. Frequency of sample: Occasionally seen Comments: none.

PI 611634. Trifolium ochroleucum Huds.
Wild. Collected 08/02/1993 in Plovdiv, Bulgaria. Latitude 41 deg. 59' N. Longitude 24 deg. 51' E. Elevation 736 m. 9-10 km south of Asenovgrad near Backovski, Plovdiv, Bulgaria. Shrubby high plateau with grasses and forbes, sloping, Ph 6.85, 37% sand, 26% silt, 37% clay, clay loam. Frequency of sample: Occasionally seen Comments: Yellow seed.

PI 611635. Trifolium pannonicum Jacq.
Wild. Collected 08/02/1993 in Bulgaria. Latitude 41 deg. 39' N. Longitude 24 deg. 42' E. Elevation 1540 m. Pamporovo Ski Resort near Pamporovo, Bulgaria. Grasses and legumes surrounded by forest, mountain meadow, Ph 5.95, 67% sand, 27% silt, 6% clay, sandy loam. Frequency of sample: Frequently seen Comments: Heads on pedunlce.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Gary A. Pederson, USDA, ARS, Waste Management and Forage, Research Unit, Mississippi State, Mississippi 39762-5367, United States; Yana K. Guteva, Institute of Introduction and Plant Genetic Resources, Sadovo, Plovdiv 4122, Bulgaria. Received 11/29/1993.

PI 611636. Trifolium badium Schreb.
Wild. Collected 11/08/1993 in Bulgaria. Elevation 1350 m. West of Beglika-Tochkov Tchark in Rhodope mountains, Bulgaria. Mountains. Frequency of sample: unknown Comments: Few seeds.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States. Received 12/20/1993.

PI 611637. Trifolium fragiferum L.
Uncertain. Collected 07/17/1990 in Bulgaria. Latitude 42 deg. 0' N. Longitude 25 deg. 20' E. Elevation 260 m. Along road from Sadovo to Kardzali, Bulgaria. Sloping open field clay, some rocks, mixed grasses.

Frequency of sample: Frequent Comments: 93-24B was combined with 93-23 (both numbers were T. pratense collected at the same site).

The following were collected by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States; Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Bill Harnach, Box 28, Scattley, California, United States. Received 02/12/1996.

PI 611638. Trifolium beckwithii W. H. Brewer ex S. Watson
Wild. Population. Collected 06/26/1995 in California, United States. Latitude 39 deg. 40' N. Longitude 120 deg. 25' W. Elevation 1500 m. Located approximately 56 km North of Truckee, CA off of Highway 89, on Calpine Rd., in Sierra Valley. Calpine Quad Map (T21 N, R 14 E SW 1/4 of SW 1/4 sec. 16). A very common clover of wet areas in the Sierra Valley. Locally abundant along streams and in vernal areas. Collection made from a sand bar area on an intermittent stream (Collector notes).Soil: Lakebed deposits; Drainage (1-well, 4-poor):3. Flower Color: corolla light pink to purple; Relative abundance: abundant.

PI 611639. Trifolium lemmonii S. Watson
Wild. Population. Collected 07/15/1995 in California, United States. Latitude 39 deg. 38' N. Longitude 120 deg. 26' W. Elevation 1524 m. Located approximately 48 km North of Truckee, CA, off of Highway 89, in Sierra Valley. Semi-open areas in stands of Jeffery pine (Pinus jefferyi) with sagebrush (Artemisia tridentata). Soil: lakebed deposits derived from granitic and volcanic rocks; Drainage (1-well,4-poor):3. Flower Color: corolla whte or lit pink, 5 foliate lvs make id ea ; Rel. abundance: occasional; Collector Note: At one time species considered rare in California, but now listed as uncommon. Herbarium speciman available upon request from Bill Harnach.

PI 611640. Trifolium longipes subsp. hansenii (Greene) J. M. Gillett
Wild. Population. Collected 07/15/1995 in California, United States. Latitude 39 deg. 40' N. Longitude 120 deg. 25' W. Elevation 1500 m. Located approximately 56 km North of Truckee, CA off of Highway 89, on Calpine Rd., in Sierra Valley. Calpine Quad Map (T21 N, R 14 E SW 1/4 of SW 1/4 sec. 16). In Sierra Valley, commonly found in the vernally mesic sagebrush flats and in open areas within stands of Jeffery pine (Collector notes). Soil: lakebed deposits; Drainage (1-well, 4-poor): 3. Flower Color: corolla white; Relative abundance: frequent.

The following were collected by Stephanie Greene, USDA, ARS, Irrigated Agricultural Research, and Education Center, Prosser, Washington 99350-9687, United States. Received 08/15/1995.

PI 611641. Trifolium thompsonii C. V. Morton
Wild. Population. Collected 07/28/1995 in Washington, United States. Latitude 47 deg. 34' 52'' N. Longitude 120 deg. 17' 57'' W. Elevation 1000 m. From Wenatchee, 14.5 km N on Rt 97N, turn left on Swakane Valley Road, stay on N fork of road for 4-5 km. Take right turn (at hay barn), travel approx. 5.0 km, site on both sides of road. Rocky Reach Dam Quad

Map (T 24 N, R 20 E, Sec 11). Physical site: NE facing upper-slope, 11-40% slope, 1/4 shade, seasonally dry, burned in 1988, currently not grazed or logged, loam soil. Flower Color: maroon; Distribution patchy, although within patches, population abundance was frequent; Habit: upright; Area sampled: 15,000 sq. m.; Collector note: 2 flowers were sampled from each plant.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Renee Denton, USDA FS, Forest Science Laboratory, 2081 E. Sierra Avenue, Fresno, California 93710, United States. Received 08/30/1995.

PI 611642. Trifolium bolanderi A. Gray
Wild. Population. Collected 08/30/1995 in California, United States. Latitude 37 deg. 31' N. Longitude 119 deg. 16' W. Elevation 2130 m. T05S R25E, Section 6; Shuteye Peak NE USGS 7.5 quadrangle map, Sierra National Forest, Madera County, California. Relative Abundance: frequent; Associated Species: clover meadow. Relative Abundance: frequent.

PI 611643. Trifolium bolanderi A. Gray
Wild. Population. Collected 08/30/1995 in California, United States. Latitude 37 deg. 29' N. Longitude 119 deg. 19' W. Elevation 2110 m. T05S R24E, Section 15 & 22; Shuteye Peak NE USGS 7.5.quadrangle map, Jackass Area Meadow, Sierra National Forest, Madera County, California.

PI 611644. Trifolium bolanderi A. Gray
Wild. Population. Collected 09/02/1995 in California, United States. Latitude 37 deg. 25' N. Longitude 119 deg. 29' W. Elevation 2220 m. T06S R23E, Section 8 & 9; Shuteye Peak NW USGS 7.5 quadrangle map, Cold Springs Meadow and Summit, Sierra National Forest, Madera County, California. Collector Notes: Species spread over 10 acres. Relative Abundance: frequent.

PI 611645. Trifolium bolanderi A. Gray
Wild. Population. Collected 08/30/1995 in California, United States. Latitude 37 deg. 38' N. Longitude 119 deg. 26' W. Elevation 2100 m. T05S R23E, Section 26; Shuteye Peak NW USGS 7.5 quadrangle map, Muggler FFA Camp, Sierra National Forest, Madera County, California. Relative Abundance: frequent. Relative Abundance: frequent.

PI 611646. Trifolium bolanderi A. Gray
Wild. Population. Collected 08/15/1995 in California, United States. Latitude 37 deg. N. Longitude 119 deg. 1' W. Elevation 2130 m. T11S R27E, Section 4; Huntington Lake SE USGS 7.5 quadrangle map, Tale & Tule Corrall Meadow and Powderline Meadow, Sierra National Forest, Fresno County, California. Relative Abundance: frequent. Relative Abundance: frequent.

PI 611647. Trifolium bolanderi A. Gray
Wild. Population. Collected 08/15/1995 in California, United States. Latitude 37 deg. N. Longitude 119 deg. 2' W. Elevation 2130 m. T11S R27E, Section 5; Huntington Lake SE USGS 7.5 quadrangle map, House

Meadow, Sierra National Forest, Fresno County, California. Relative Abundance: frequent.

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 611648. Trifolium diffusum Ehrh.
Wild. Collected 08/18/1995 in Russian Federation. Latitude 45 deg. 16' 43'' N. Longitude 36 deg. 57' 57'' E. Elevation 10 m. Province Temrjuk/Novorossiysk, village Senah/Fanagaria, Greek ruins. Southwest of Temrjuk. Past settlement, now grazed. Slope 0-5%, aspect NE. Light open. Soil sand, transition vertisols, heavy clays, pH 7.6. Seasonally dry, beach terrace, mud volcanic foot slopes. Vegetation open, evergreen dwarf shrub steppe savanna. Variable site, from sea level/terraces to mud volcano, 1-2 km2 area. Species collected earlier at site 7. Plants look similar to T. lappaceum. Site defined at beach location (terrace). Visited earlier by Russian team. 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 chicory, and mustard. Population distribution patchy, abundance occasional. Growth habit erect. No flower, heads dry. 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 611649. Trifolium caucasicum Tausch
Wild. Collected 11/07/1995 in Russian Federation. Latitude 45 deg. 15' 30'' N. Longitude 37 deg. 13' 0'' E. Elevation 116 m. Province Temrjuk/Novorossiysk, village Starotitaroskiya. Southwest of Temrjuk, 15 km. Past and current grazing. Slope 6-10%, aspect SE. Open light.Soil loam, colluvial clays, colluvial sediments, pH 5.6-5.8 (0-30cm), 4.1-4.0 (30-100 cm). Seasonally dry, upper slope. Vegetation open,evergreen dwarf scrub with scattered trees. Dominant tree species Hornbeam-Oak. Dominant shrub species Artemisia a., Rosacae. Dominant herb/grass species Phragmites, Aster sp., Elytrigia sp., Festuca sp., Lotus corniculatus, T. campestre. Population distribution patchy, abundance occasional. Growth habit erect. Dry heads. 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 611650. Trifolium alpestre L.
Wild. Collected 07/19/1995 in Russian Federation. Latitude 44 deg. 24' 13'' N. Longitude 40 deg. 33' 2'' E. Elevation 671 m. Province Maykop. 1 km south of village of Benokovo. Past and current grazing. Slope 0-5%, aspect flat. Light open. Soil clay, colluvial clays, pH 5.5-6.0-7.4, increases with depth. Seasonally dry, ridgetop. Vegetation closed, evergreen short grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species Carpinus c., Q. petraea. Dominant herb/grass species

Asperula sp. Festuca d. Population distribution patchy, abundance occasional. Growth habit semi-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 611651. Trifolium montanum L.
Wild. Collected 07/21/1995 in Russian Federation. Latitude 44 deg. 12' 20'' N. Longitude 40 deg. 37' 12'' E. Elevation 840 m. Province Maykop, 5 km. south of Bagovskaya. Area grazed. Slope 41-60%, aspect SE. Light open. Soil highly organic sod, pH 5.3-7.5. Moist to seasonally dry, lower-upper slope. Vegetation closed, evergreen short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species Carpinus c., Q. petraea. Population distribution patchy, abundance frequent. 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 611652. Trifolium alpestre L.
Wild. Collected 07/22/1995 in Russian Federation. Latitude 44 deg. 9' 32'' N. Longitude 40 deg. 49' 24'' E. Elevation 701 m. Province Maykop, 1 km south of Psebay. Past and current grazing.Slope 11-40%,aspect S.Light open.Soil loam,gravel,pH 5.8-6.3,parent rock glacial.Seasonally dry,upper slope. Vegetation closed, evergreen short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Quercus sp., Q. robur. Dominant shrub species Carpinus c., Q. petraea. Dominant herb/grass species Asperula sp, Festuca sp. Population distribution patchy, abundance frequent. Growth habit prostrate. Flower purple. 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 611653. Trifolium caucasicum Tausch
Wild. Collected 08/10/1995 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 5.0-5.5. Seasonally dry, mid slope. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Faus sp. and Quercus sp. Dominant shrub species Ribes sp., Prunus sp., Caprinus sp., Crataegus 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 611654. Trifolium caucasicum Tausch
Wild. 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 abundance frequent. Growth habit erect. Flower cream. 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 611655. Trifolium alpestre L.
Wild. 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 frequent. Growth habit erect. Flower purple. 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 611656. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 15' 18'' N. Longitude 81 deg. 7' 56'' E. Elevation 2190 m. Hongnahai Village, 8 km north of Zhaosu County. High mountain meadow, moderately rolling landscape, silt loam soil, native grassland cut for hay and grazed during winter, dense vegetation cover. Slope is 2% with a southeast aspect.

PI 611657. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 12' 39'' N. Longitude 81 deg. 6' 8'' E. Elevation 2220 m. 6 km north of Zhaosu County. Winter pasture of Hong Ta Farm located along pasture road on a disturbed site. Clay loam soil. Not saline. Will be cut for hay and grazed in winter. Slope is 1% with south aspect.

PI 611658. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 8' 30'' N. Longitude 80 deg. 50' 53'' E. Elevation 2160 m. 16 km north of Farm No. 77, 38 km west of Zhaosu County. Mountain meadow, single cutting of hay and not grazed in winter. Silt loam soil. High frequency of forbs. Trifolium repens along roadway. Slope is 5% with north aspect.

PI 611659. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 9' 24'' N. Longitude 80 deg. 51' 8'' E. Elevation 1830 m. 20 km north of Farm No. 77, 38 km west of Zhaosu County. Mountain meadow, flat area, 100 m from stream and along a roadway. Single cutting of hay and not grazed in winter. Slope is 1% with southeast aspect.

PI 611660. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 42 deg. 59' 58'' N. Longitude 81 deg. 6' 39'' E. Elevation 1650 m. 10 km south of Zhaosu County. Meadow on valley floor. Silt loam soil. Grazed very lightly. Cut for hay. Slope is 1% with north aspect.

PI 611661. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 42 deg. 44' 36'' N. Longitude 81 deg. 2' 14'' E. Elevation 1980 m. 45 km south of Zhaosu County. Ungrazed meadow, will be cut for hay; near road. Dry site with silt loam soil. Slope is 1% with southwest aspect.

PI 611662. Trifolium repens L.
Wild. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 27' 28'' N. Longitude 81 deg. 5' 31'' E. Elevation 2160 m. 58 km south of Yili City. Hillside with lush vegetation, moderately grazed, will be cut for hay. Silt loam soil. Slope is 25% with north aspect.

The following were collected by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States; Leonard Lauriault, Agriculture Science Center, 6502 Quay Road, AM.5, Tucumcari, New Mexico 88401, United States. Received 11/1997.

PI 611663. Trifolium brandegei S. Watson
Wild. Collected 08/04/1997 in New Mexico, United States. Elevation 3500 m. Taos County. Near Taos Ski Area, 15-20 miles north of Santa Fe. T-2TN, R-14E Section 18. Along rocky trail to Williams Lake. In Shady to open locations, spruce-fir zone, associated vegetation: Pedicularis racemosa, Mertensia franciscana, Lonicera involvcrata, Swertia radiatea,Fragaria americana. Stoney sand, good drainage. Low growing but upright. Red flower. Scattered population.

The following were collected by Stephanie Greene, USDA, ARS, Irrigated Agricultural Research, and Education Center, Prosser, Washington 99350-9687, United States; Marina Gritsenko, USDA, ARS, Washington State University, Route 2, Box 2953A, Prosser, Washington 99350-9687, United States; Andrew Bell, USDA-ARS, Washington State University, 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 09/29/1998.

PI 611664. Trifolium eriocephalum Nutt.
Wild. Collected 08/12/1998 in Oregon, United States. Latitude 45 deg. 26' 27'' N. Longitude 118 deg. 13' 40'' E. Elevation 1250 m. 20.8 km north of La Grande, Oregon, east on Forest Service Primary Route 31, approximately 11.2 km, at intersection of Forest Service Secondary Route

3109. Formerly logged/cleared and grazed. Slope 0-5%, aspect: north, 1/2 shade. Seasonally dry ridgetop. Patchy population distribution but frequent. Erect growth. Along forest grass edge.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611665. X Triticosecale sp.
Breeding.

PI 611666. X Triticosecale sp.
Breeding.

PI 611667. X Triticosecale sp.
Breeding.

PI 611668. X Triticosecale sp.
Breeding.

PI 611669. X Triticosecale sp.
Breeding.

PI 611670. X Triticosecale sp.
Breeding.

PI 611671. X Triticosecale sp.
Breeding.

PI 611672. X Triticosecale sp.
Breeding.

PI 611673. X Triticosecale sp.
Breeding.

PI 611674. X Triticosecale sp.
Breeding.

PI 611675. X Triticosecale sp.
Breeding.

PI 611676. X Triticosecale sp.
Breeding.

PI 611677. X Triticosecale sp.
Breeding.

PI 611678. X Triticosecale sp.
Breeding.

PI 611679. X Triticosecale sp.
Breeding.

PI 611680. X Triticosecale sp.
Breeding.

PI 611681. X Triticosecale sp.
Breeding.

PI 611682. X Triticosecale sp.
Breeding.

PI 611683. X Triticosecale sp.
Breeding.

PI 611684. X Triticosecale sp.
Breeding.

PI 611685. X Triticosecale sp.
Breeding.

PI 611686. X Triticosecale sp.
Breeding.

PI 611687. X Triticosecale sp.
Breeding.

PI 611688. X Triticosecale sp.
Breeding.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611689. X Triticosecale sp.
Breeding.

PI 611690. X Triticosecale sp.
Breeding.

PI 611691. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611692. X Triticosecale sp.
Breeding.

PI 611693. X Triticosecale sp.
Breeding. Pedigree - selection from Cobra.

PI 611694. X Triticosecale sp.
Breeding.

PI 611695. X Triticosecale sp.
Breeding.

PI 611696. X Triticosecale sp.
Breeding.

The following were developed by Tadeusz Wolski, Plant Breeders "Danko", Laski, Radom, Poland. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611697. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611698. X Triticosecale sp.
Breeding.

PI 611699. X Triticosecale sp.
Breeding.

PI 611700. X Triticosecale sp.
Breeding.

PI 611701. X Triticosecale sp.
Breeding.

PI 611702. X Triticosecale sp.
Breeding.

PI 611703. X Triticosecale sp.
Breeding.

PI 611704. X Triticosecale sp.
Breeding.

PI 611705. X Triticosecale sp.
Breeding.

PI 611706. X Triticosecale sp.

Breeding.

PI 611707. X Triticosecale sp.
Breeding.

PI 611708. X Triticosecale sp.
Breeding.

PI 611709. X Triticosecale sp.
Breeding. Pedigree - selection from Newton.

PI 611710. X Triticosecale sp.
Breeding.

The following were developed by Tadeusz Wolski, Plant Breeders "Danko", Laski, Radom, Poland. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611711. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611712. X Triticosecale sp.
Breeding.

PI 611713. X Triticosecale sp.
Breeding.

PI 611714. X Triticosecale sp.
Breeding. Pedigree - B631G//BF866/AD206.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611715. X Triticosecale sp.
Breeding. Pedigree - B2191/A876/WDRP-3Rye.

PI 611716. X Triticosecale sp.
Breeding. Pedigree - Davis/Snoopy//A876/3/TKdw.rye.

PI 611717. X Triticosecale sp.
Breeding. Pedigree - EMS A876/Madeg.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611718. X Triticosecale sp.
Breeding.

PI 611719. X Triticosecale sp.
Breeding.

PI 611720. X Triticosecale sp.
Breeding.

PI 611721. X Triticosecale sp.
Breeding.

PI 611722. X Triticosecale sp.
Breeding.

The following were developed by Val T. Sapra, Alabama Agric. & Mechanical Univ., Dept of Plant & Soil Science, P.O. Box 67, Normal, Alabama 35762, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611723. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611724. X Triticosecale sp.
Breeding.

The following were developed by Tadeusz Wolski, Plant Breeders "Danko", Laski, Radom, Poland. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611725. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611726. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611727. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611728. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611729. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611730. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611731. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611732. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611733. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611734. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611735. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611736. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611737. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611738. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611739. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611740. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611741. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611742. X Triticosecale sp.
Breeding. Pedigree - Composite 8x/6x.

PI 611743. X Triticosecale sp.
Breeding.

PI 611744. X Triticosecale sp.
Breeding. Pedigree - selection from Cobra.

PI 611745. X Triticosecale sp.
Breeding.

PI 611746. X Triticosecale sp.
Breeding.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611747. X Triticosecale sp.
Breeding. Pedigree - Druchamp/Blanco.

PI 611748. X Triticosecale sp.
Breeding. Pedigree - Chinese Spring/Kodiak.

The following were developed by Tadeusz Wolski, Plant Breeders "Danko", Laski, Radom, Poland. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611749. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611750. X Triticosecale sp.
Breeding.

PI 611751. X Triticosecale sp.
Breeding. Pedigree - selection from Clervid.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611752. X Triticosecale sp.
Breeding.

PI 611753. X Triticosecale sp.
Breeding.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611754. X Triticosecale sp.
Breeding. Pedigree - selection from Calm.

PI 611755. X Triticosecale sp.
Breeding. Pedigree - selection from Calm.

PI 611756. X Triticosecale sp.
Breeding.

PI 611757. X Triticosecale sp.
Breeding.

PI 611758. X Triticosecale sp.
Breeding.

PI 611759. X Triticosecale sp.
Breeding.

PI 611760. X Triticosecale sp.
Breeding.

PI 611761. X Triticosecale sp.
Breeding.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611762. X Triticosecale sp.

Breeding. Pedigree - Atlas/Cougar.

PI 611763. X Triticosecale sp.
Breeding. Pedigree - Early Blackhull/Daak Zlote.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611764. X Triticosecale sp.
Breeding.

PI 611765. X Triticosecale sp.
Breeding.

PI 611766. X Triticosecale sp.
Breeding. Pedigree - 6TA876 EMS.

PI 611767. X Triticosecale sp.
Breeding. Pedigree - 6TA876 EMS.

PI 611768. X Triticosecale sp.
Breeding. Pedigree - 6TA876 EMS.

The following were donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611769. X Triticosecale sp.
Cultivar. Developed in China.

PI 611770. X Triticosecale sp.
Cultivar. Developed in China.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611771. X Triticosecale sp.
Breeding.

PI 611772. X Triticosecale sp.
Breeding. Pedigree - selection from Tomzsi.

PI 611773. X Triticosecale sp.
Breeding. Pedigree - selection from Tomzsi.

PI 611774. X Triticosecale sp.
Breeding. Pedigree - selection from Tomzsi.

PI 611775. X Triticosecale sp.
Breeding. Pedigree - selection from Tomzsi.

PI 611776. X Triticosecale sp.
Breeding. Pedigree - selection from Tomzsi.

PI 611777. X Triticosecale sp.
Breeding. Pedigree - selection from Tomzsi.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611778. X Triticosecale sp.
Breeding. Pedigree - B650/WDRP-3rye.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611779. X Triticosecale sp.
Breeding.

PI 611780. X Triticosecale sp.
Breeding.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 611781. X Triticosecale sp.
Breeding. Pedigree - Beagle//M2A/Camel//37262-2-3812.

PI 611782. X Triticosecale sp.
Breeding. Pedigree - Flamecks 2/Chinese Spring//Cape rye.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic

Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611783. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo 1524.

PI 611784. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/PPV-21.

PI 611785. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/PPV-21.

PI 611786. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo 133.

PI 611787. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Armadillo T-909.

PI 611788. X Triticosecale sp.
Breeding. Pedigree - Armadillo 1524/6TA-204.

PI 611789. X Triticosecale sp.
Breeding. Pedigree - Ganso 'S'/Durumbuck//Tremez Molle Enano//TME-TC/LAK/3/Snoopy.

PI 611790. X Triticosecale sp.
Breeding. Pedigree - Leeds//PI243741/Snoopy.

PI 611791. X Triticosecale sp.
Breeding. Pedigree - Cinnamon/6TA-204.

PI 611792. X Triticosecale sp.
Breeding. Pedigree - 6TA-204/Cinnamon.

PI 611793. X Triticosecale sp.
Breeding. Pedigree - UC8825//Quilafen/Snoopy.

PI 611794. X Triticosecale sp.
Breeding. Pedigree - UM 940 'S'/2*Armadillo 'S'.

PI 611795. X Triticosecale sp.
Breeding. Pedigree - UM 940 'S'/3/Armadillo 'S'//TCLMY64/UM 940.

PI 611796. X Triticosecale sp.
Breeding. Pedigree - UM 940 'S"/TELLERE-PET-PER-DISCDS-CRIT//Armadillo 'S'.

PI 611797. X Triticosecale sp.
Breeding. Pedigree - GS59727/6TA-204.

PI 611798. X Triticosecale sp.
Breeding. Pedigree - M2A/Armadillo 'S'//Beagle.

PI 611799. X Triticosecale sp.
Breeding. Pedigree - TCL4 Winter/42.

PI 611800. X Triticosecale sp.
Breeding. Pedigree - TCL4 Winter/SN220.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611801. X Triticosecale sp.
Breeding. Pedigree - B163/A876//B164/A876 Rht3 MUT M6; selection from M83-6039.

PI 611802. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039; B163/A876//B164/A876 Rht3 MUT M6.

PI 611803. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039; B163/A876//B164/A876 Rht3 MUT M6.

PI 611804. X Triticosecale sp.
Breeding. Pedigree - EMS M86-6039; B163/A876//B164/A876 Rht3 MUT M6.

PI 611805. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039; B163/A876//B164/A876 Rht3 MUT M6.

PI 611806. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039; B163/A876//B164/A876.

PI 611807. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126; A876//B163/A876 Parent Trtd W/EMS M2.

PI 611808. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611809. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611810. X Triticosecale sp.
Breeding. Pedigree - selection from B86-1968; A876/B164//M75-8064.

PI 611811. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039; selection from B86-2621.

PI 611812. X Triticosecale sp.
Breeding. Pedigree - selection from M86-7724; B164/YT75229//Dwf Madeg rye CT4191.79.

PI 611813. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039; selection from M86-7610.

PI 611814. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126; selection from M86-7633.

PI 611815. X Triticosecale sp.
Breeding. Pedigree - selection from B86-3335.

PI 611816. X Triticosecale sp.
Breeding. Pedigree - selection from M83-6039; no EMS.

PI 611817. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611818. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611819. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611820. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611821. X Triticosecale sp.
Breeding. Pedigree - selection from M83-6126; no EMS.

PI 611822. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611823. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611824. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611825. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611826. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611827. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611828. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611829. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611830. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611831. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611832. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6126.

PI 611833. X Triticosecale sp.

Breeding. Pedigree - EMS M83-6126.

PI 611834. X Triticosecale sp.
Breeding. Pedigree - selection from M83-6039; no EMS.

PI 611835. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611836. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611837. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611838. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611839. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611840. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611841. X Triticosecale sp.
Breeding. Pedigree - EMS M83-6039.

PI 611842. X Triticosecale sp.
Breeding. Pedigree - Daws/Antelope//A876/3/Lasko/4/Daws/SPY//A876.

PI 611843. X Triticosecale sp.
Breeding. Pedigree - LT902.80/3/B163/A876//B164/A876.

PI 611844. X Triticosecale sp.
Breeding. Pedigree - Elliolt-16/VT15229/3/Daws/SPY//B164.

PI 611845. X Triticosecale sp.
Breeding. Pedigree - A876//B163/A876/3/Daws/Antelope//A876.

PI 611846. X Triticosecale sp.
Breeding. Pedigree - 274/320/3/B163/A876//B164/A876 F5.

PI 611847. X Triticosecale sp.
Breeding. Pedigree - Daws/SPY/3/B219/A876//LT944.79.

PI 611848. X Triticosecale sp.
Breeding. Pedigree - Daws/SPY/3/B219/A876//LT944.79.

PI 611849. X Triticosecale sp.
Breeding. Pedigree - Daws/Snoopy//VT75229.

The following were developed by K.D. Krolow, Institut fur Angewandte Genetik, Albrecht-Thaer Weg G, Berlin, Berlin, Germany. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States;

Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 611850. X Triticosecale sp.
Breeding. Pedigree - New york 01/Brandt's Marienroggen.

The following were developed by V.E. Pissarev, Agricultural Research Institute, Central District, Nemchinovska, Moscow, Russian Federation. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 611851. X Triticosecale sp.
Breeding. Pedigree - T.durum/spring Petkus rye.

The following were developed by Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611852. X Triticosecale sp.
Breeding. Pedigree - Stewart 63/Prolific.

PI 611853. X Triticosecale sp.
Breeding. Pedigree - 72ISN87/Centeno.

PI 611854. X Triticosecale sp.
Breeding. Pedigree - 72Q12/2D79-4 C1.

PI 611855. X Triticosecale sp.
Breeding. Pedigree - IDSN87/2D142-1.

PI 611856. X Triticosecale sp.
Breeding. Pedigree - 6B734/LTR C2 (591-1).

PI 611857. X Triticosecale sp.
Breeding. Pedigree - 8B463/UC90 (675-16).

PI 611858. X Triticosecale sp.
Breeding. Pedigree - Stewart 63/Prolific (378-5).

PI 611859. X Triticosecale sp.
Breeding. Pedigree - Stewart 63/2D-289 (130-1).

PI 611860. X Triticosecale sp.
Breeding. Pedigree - Stewart 63/2D-289 (326-5).

The following were donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l

Resources, Davis, California 95616-8602, United States; Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 611861. X Triticosecale sp.
Cultivar. Developed in Romania.

The following were developed by Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611862. X Triticosecale sp.
Breeding. Pedigree - 2038/WRC 1483.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; Edward N. Larter, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 611863. X Triticosecale sp.
Breeding. Pedigree - TsTs3D/Blanco.

PI 611864. X Triticosecale sp.
Breeding. Pedigree - TsTs3D/Blanco.

PI 611865. X Triticosecale sp.
Breeding. Pedigree - Chinese Spring/Kodiak.

PI 611866. X Triticosecale sp.
Breeding. Pedigree - Daws/Blanco.

PI 611867. X Triticosecale sp.
Breeding. Pedigree - Atlas 66/R1443.

PI 611868. X Triticosecale sp.
Breeding. Pedigree - H80-5-5/H80-5-3.

The following were developed by International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600, Mexico. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 611869. X Triticosecale sp.
Breeding. Pedigree - 2*Koala.

PI 611870. X Triticosecale sp.

Breeding.

PI 611871. X Triticosecale sp.
Breeding.

PI 611872. X Triticosecale sp.
Breeding. Pedigree - IRA/M2A 200.

PI 611873. X Triticosecale sp.
Breeding. Pedigree - 8A95/Rosner//HARI/Armadillo.

PI 611874. X Triticosecale sp.
Breeding.

PI 611875. X Triticosecale sp.
Breeding. Pedigree - M2A/Cinnamon.

PI 611876. X Triticosecale sp.
Breeding.

The following were developed by Barry M. Cunfer, University of Georgia, Dept. of Plant Pathology, Georgia Station, Griffin, Georgia 30223-1797, United States. Received 10/26/1999.

PI 611877. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - IPM2093/FL74265 = Novi Sad 138/VPM/Moisson/4/Predgozaia 2/3/Blueboy II/Coker 68-8//Fulbarn. Resistant to Stagonospora nodorum (Septoria nodorum). Resistant to powdery mildew (seedling and adult, Georgia isolates). Resistant to leaf rust (seedling and adult, Georgia isolates, and adult in Colonia, Uruguay). Postulated leaf rust resistance genes Lr17, Lr26, plus others. Resistant to Biotypes E and O of Hessian fly. Resistant to stripe rust (adult plant response in Colonia, Uruguay).

PI 611878. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - Hunter/FL74265//IN71761/Coker 80-13 ; FL74265 = Predgozaia 2/3/Blueboy II/Coker 68-8//Fulbarn. Resistant to Stagonospora nodorum (Septoria nodorum). Resistant to powdery mildew (seedling and adult, Georgia isolates). Resistant to leaf rust (seedling and adult, Georgia isolates). Moderately resistant to Biotypes E and O of Hessian fly.

PI 611879. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - Hunter/2*GA74-33 = Hunter//2*(Holley/McNair 701). Resistant to Stagonospora nodorum (Septoria nodorum). Resistant to all current races of powdery mildew except cultures with virulence to pm1 and pm8. Resistant to leaf rust (seedling and adult, Georgia isolates, adult plant response in Colonia, Uruguay). Postulated leaf rust resistance genes Lr10, Lr26, plus others. Resistant to Biotypes E and O of Hessian fly. Resistant to stripe rust (adult plant response in Colonia, Uruguay).

PI 611880. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - P9323/Georgia 100 = P9323/3/Omega

78/Stacy//Stacy/Tyler. Resistant to Stagonospora nodorum (Septoria nodorum). Resistant to leaf rust (seedling and adult, Georgia isolates). Postulated leaf rust resistance genes Lr10, Lr26, plus others. Moderately resistant to Biotypes E and O of Hessian fly.

The following were developed by Robert K. Bacon, University of Arkansas, Department of Agronomy, 115 Plant Science Bldg., Fayetteville, Arkansas 72701, United States. Received 08/16/1999.

PI 611881. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - Pioneer 2550/Keiser. Soft red winter wheat. Broad adaptation in soft red winter wheat region.

PI 611882. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - FL302//Coker 833/Hunter. Soft red winter wheat. Resistance to leaf rust, Septoria tritici, and soil borne virus.

The following were developed by William J. Sando, USDA-BPI, Division of Cereal Crops & Diseases, Washington, District of Columbia, United States. Received 03/01/1998.

PI 611883. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611884. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Rising Sun/Purplestraw/Leapland. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611885. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611886. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611887. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet . One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum,

Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611888. X Elytricum sp.
Breeding. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Purplestraw. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611889. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611890. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum = Wa109-4(38)-3-10. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611891. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude/Forward. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611892. X Elytricum sp.
Breeding. Pedigree - Sol/Agropyron elongatum -L5-10-8-4-8-13//Leapland. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611893. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611894. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611895. X Elytricum sp.
Breeding. Pedigree - Redhart 5//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611896. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Lutescens & Hostianum Kan/Carala. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611897. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum OB20(44)//Nittany/Malakof. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611898. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611899. X Elytricum sp.
Breeding. Pedigree - T.vulgare Cage 73B(35)//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611900. X Elytricum sp.
Breeding. Pedigree - T.vulgare Sac 75B(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611901. X Elytritilops sp.
Breeding. Pedigree - Arlando/T.timopheevii//Hope/Baart//T.vulgare/Agropyron elongatum Suneson//Aegilops crassa. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611902. X Elytricum sp.
Breeding. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Premier/Redhart 5. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611903. X Elytriticale sp.
Breeding. Pedigree - T.vulgare/Webster R.R.147(38)//Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and

inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611904. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum P315(50)//T.vulgare. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611905. X Elytriticale sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//R.R.209(34) T.vulgare/Comet/Red Rock//Chinese/rye//Chinese. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611906. X Elytriticale sp.
Breeding. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Meister wheat-rye amphiploid. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611907. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie/Minturki. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611908. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie/Minturki. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611909. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese/Wa.113-4 etc//T.vulgare/Agropyron elongatum//Wa.112-2 etc//T.vulgare/Agropyron elongatum. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611910. X Elytricum sp.
Breeding. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Carala. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611911. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2. One of a series of

selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611912. X Elytricum sp.
Breeding. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611913. X Elytricum sp.
Breeding. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611914. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Comet/Red Rock/Carala. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611915. X Elytricum sp.
Breeding. Pedigree - T.civcerstormum//Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611916. Triticum hybrid
Breeding. Pedigree - Fulhio/Yaroslav emmer//Leapland/Minhardi. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611917. Triticum hybrid
Breeding. Pedigree - Fulhio/Yaroslav emmer//Arlando/Pilot. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611918. X Elytricum sp.
Breeding. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611919. X Elytritilops sp.
Breeding. Pedigree - T.vulgare Mck49-6025/Agropyron elongatum//Aegilops ventricosa/T.turgidum Alaska 40309 amphidiploid. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611920. X Elytricum sp.
Breeding. Pedigree - Butler/Redhart 5//wheat/Agropyron elongatum Sac33(51). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611921. X Elytricum sp.
Breeding. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Harvest Queen. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611922. X Elytricum sp.
Breeding. Pedigree - T.vulgare//Sol/Agropyron elongatum//Leapland/Michigan Amber/Fulhio. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611923. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)//Sando R.R.3741(47)//Reliance/Mercury//Valley. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611924. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum Sando Sac37-2(51)//Nebred. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611925. X Elytricum sp.
Breeding. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)V//Pawnee. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611926. X Elytriticale sp.
Breeding. Pedigree - Chinese/rye//Chinese//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611927. X Elytricum sp.
Breeding. Pedigree - Quano//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611928. X Elytricum sp.
Breeding. Pedigree - Blackhull//T.vulgare/Agropyron elongatum Mck6586VR//Sando timopheevii hybrid//Reliance/Mercury//Steinwedel. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611929. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611930. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611931. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Carala. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611932. X Elytricum sp.
Breeding. Pedigree - Sando46(51) T.vulgare/Agropyron elongatum Suneson 118cVR//White Wonder. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611933. X Elytricum sp.
Breeding. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2/3/Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2 P16-1(53). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611934. X Elytricum sp.
Breeding. Pedigree - Carala/bearded T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Redhart 5 P32-2(53). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611935. X Elytricum sp.
Breeding. Pedigree - Sanford//T.vulgare/Agropyron elongatum Mck49-6115VR//Kenya PI177180 P39-1(53). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and

inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611936. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - Arlando/Frondoso P142-1(53). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611937. X Elytricum sp.
Breeding. Pedigree - Harvest Queen//Chinese/Agropyron elongatum//RR209(34)/Comet//Hussar/Leapland P160-1(53). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611938. X Elytriticale sp.
Breeding. Pedigree - Bledsoe/rye amphidiploid(56)//H.N. vulgare P542(50) Br122(56). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611939. X Elytriticale sp.
Breeding. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Meister amphidiploid wheat/rye(56) Br215(56). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611940. X Elytricum sp.
Breeding. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Michigan Amber//Harvest Queen P18-2(54). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611941. X Elytricum sp.
Breeding. Pedigree - Carala/T.vulgare Ab52(38)/T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Redhart P170-2(54). One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

PI 611942. Triticum aestivum L., nom. cons. **subsp. aestivum**
Breeding. Pedigree - GK fr. Cross 39333= Baart/61WHGK T.vulgare//Valley. One of a series of selections (PI 604860-605350; 611883-611942) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Winter habit.

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 611943. Malus orientalis Uglitzk.
Wild. Collected 09/15/1999 in Artvin, Turkey. Latitude 41 deg. 17' 33'' N. Longitude 41 deg. 30' 37'' E. Elevation 750 m. Village of Murgul.

PI 611944. Malus orientalis Uglitzk.
Wild. Collected 09/16/1999 in Artvin, Turkey. Latitude 41 deg. 13' 8'' N. Longitude 42 deg. 22' 53'' E. Elevation 1470 m. Village of Savsat.

PI 611945. Malus orientalis Uglitzk.
Wild. Collected 09/16/1999 in Artvin, Turkey. Latitude 40 deg. 13' 8'' N. Longitude 42 deg. 22' 53'' E. Elevation 1470 m. Village of Savsat.

PI 611946. Malus orientalis Uglitzk.
Wild. Collected 09/16/1999 in Artvin, Turkey. Latitude 40 deg. 13' 8'' N. Longitude 42 deg. 22' 53'' E. Elevation 1470 m. Village of Savsat.

PI 611947. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 23' 26'' N. Longitude 40 deg. 32' 25'' E. Elevation 1380 m. Village of Camlikoz.

PI 611948. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 23' 26'' N. Longitude 40 deg. 32' 25'' E. Elevation 1380 m. Village of Camlikoz.

PI 611949. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 25' 23'' N. Longitude 40 deg. 27' 53'' E. Elevation 1580 m. Village of Yazurdu.

PI 611950. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 25' 23'' N. Longitude 40 deg. 27' 53'' E. Elevation 1580 m. Village of Yazurdu.

PI 611951. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 25' 23'' N. Longitude 40 deg. 27' 53'' E. Elevation 1580 m. Village of Yazurdu.

PI 611952. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 25' 23'' N. Longitude 40 deg. 27' 53'' E. Elevation 1570 m. Village of Yazurdu.

PI 611953. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 25' 23'' N. Longitude 40 deg. 27' 53'' E. Elevation 1570 m. Village of Yazurdu.

PI 611954. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 25' 23'' N. Longitude 40 deg. 27' 53'' E. Elevation 1570 m. Village of Yazurdu.

PI 611955. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 26' 42'' N. Longitude 40 deg. 27' 39'' E. Elevation 1700 m. Village of Yazurdu.

PI 611956. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 20' 39'' N. Longitude 40 deg. 24' 12'' E. Elevation 1730 m. Village of Dagtoria.

PI 611957. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 20' 39'' N. Longitude 40 deg. 24' 12'' E. Elevation 1730 m. Village of Dagtoria.

PI 611958. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 20' 39'' N. Longitude 40 deg. 24' 12'' E. Elevation 1730 m. Village of Dagtoria.

PI 611959. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 20' 39'' N. Longitude 40 deg. 24' 12'' E. Elevation 1730 m. Village of Dagtoria.

PI 611960. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 20' 39'' N. Longitude 40 deg. 24' 12'' E. Elevation 1650 m. Village of Dagtoria.

PI 611961. Malus orientalis Uglitzk.
Wild. Collected 09/18/1999 in Bayburt, Turkey. Latitude 40 deg. 20' 39'' N. Longitude 40 deg. 24' 12'' E. Elevation 1650 m. Village of Dagtoria.

PI 611962. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey. Latitude 40 deg. 27' 59'' N. Longitude 40 deg. 2' 44'' E. Elevation 1770 m. Village of Sorkunlu.

PI 611963. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey. Latitude 40 deg. 27' 54'' N. Longitude 40 deg. 1' 45'' E. Elevation 1950 m. Village of Sorkunlu.

PI 611964. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey. Latitude 40 deg. 27' 54'' N. Longitude 40 deg. 1' 45'' E. Elevation 1930 m. Village of Sorkunlu.

PI 611965. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey. Latitude 40 deg. 27' 54'' N. Longitude 40 deg. 1' 45'' E. Elevation 1690 m. Village of Sorkunlu.

PI 611966. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey. Latitude 40 deg. 27' 54'' N. Longitude 40 deg. 1' 45'' E. Elevation 1950 m. Village of Sorkunlu.

PI 611967. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey.

PI 611968. Malus orientalis Uglitzk.
Wild. Collected 09/19/1999 in Gumushane, Turkey. Latitude 40 deg. 12' 33'' N. Longitude 39 deg. 10' 14'' E. Elevation 1470 m. Village of Alacahan.

PI 611969. Malus orientalis Uglitzk.

Wild. Collected 09/21/1999 in Tokat, Turkey. Latitude 40 deg. 32' 53'' N. Longitude 36 deg. 37' 42'' E. Elevation 1030 m. Village of Avlunar.

PI 611970. Malus orientalis Uglitzk.
Wild. Collected 09/22/1999 in Tokat, Turkey. Latitude 40 deg. 14' 40'' N. Longitude 36 deg. 25' 29'' E. Elevation 1320 m. Village of Alan.

PI 611971. Malus orientalis Uglitzk.
Wild. Collected 09/22/1999 in Tokat, Turkey. Latitude 40 deg. 14' 40'' N. Longitude 36 deg. 25' 29'' E. Elevation 1320 m. Village of Alan.

PI 611972. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611973. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611974. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611975. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611976. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611977. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611978. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611979. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611980. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 56' 3'' N. Longitude 35 deg. 23' 6'' E. Elevation 1320 m. Village of Merzifon.

PI 611981. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 55' 0'' N. Longitude 35 deg. 21' 27'' E. Elevation 1300 m. Village of Merzifon.

PI 611982. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 55' 0'' N. Longitude 35 deg. 21' 27'' E. Elevation 1300 m. Village of Merzifon.

PI 611983. Malus orientalis Uglitzk.
Wild. Collected 09/23/1999 in Amasya, Turkey. Latitude 40 deg. 55' 0'' N. Longitude 35 deg. 21' 27'' E. Elevation 1300 m. Village of Merzifon.

PI 611984. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 34'' N. Longitude 33 deg. 35' 9'' E. Elevation 1120 m. Village of Agli.

PI 611985. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 50'' N. Longitude 33 deg. 21' 2'' E. Elevation 1180 m. Village of Dana Koy.

PI 611986. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 42' 22'' N. Longitude 33 deg. 27' 15'' E. Elevation 1080 m. Village of Sabuncular.

PI 611987. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 41' 48'' N. Longitude 33 deg. 31' 57'' E. Elevation 1140 m. Village of Yamacik.

PI 611988. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 5'' N. Longitude 33 deg. 6' 57'' E. Elevation 750 m. Village of Yeni Ilica.

PI 611989. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 5'' N. Longitude 33 deg. 6' 57'' E. Elevation 750 m. Village of Yeni Ilica.

PI 611990. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 5'' N. Longitude 33 deg. 6' 57'' E. Elevation 750 m. Village of Yeni Ilica.

PI 611991. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 5'' N. Longitude 33 deg. 6' 57'' E. Elevation 750 m. Village of Yeni Ilica.

PI 611992. Malus orientalis Uglitzk.
Wild. Collected 09/24/1999 in Kastamonu, Turkey. Latitude 41 deg. 39' 5'' N. Longitude 33 deg. 6' 57'' E. Elevation 750 m. Village of Yeni Ilica.

PI 611993. Malus orientalis Uglitzk.
Wild. Collected 09/25/1999 in Kastamonu, Turkey. Latitude 41 deg. 45' 4'' N. Longitude 33 deg. 41' 34'' E. Elevation 1080 m. Village of Camil Koyu.

PI 611994. Malus orientalis Uglitzk.
Wild. Collected 09/25/1999 in Kastamonu, Turkey. Latitude 41 deg. 45'

23'' N. Longitude 33 deg. 41' 34'' E. Elevation 1080 m. Village of Camil Koyu.

PI 611995. Malus orientalis Uglitzk.
Wild. Collected 09/25/1999 in Kastamonu, Turkey. Latitude 41 deg. 47' 23'' N. Longitude 33 deg. 39' 51'' E. Elevation 1040 m. Village of Catak .

PI 611996. Malus orientalis Uglitzk.
Wild. Collected 09/25/1999 in Kastamonu, Turkey. Latitude 41 deg. 49' 8'' N. Longitude 33 deg. 40' 39'' E. Elevation 990 m. Village of Karaman .

The following were donated by Jerzy Puchalski, Polish Academy of Sciences, Botanical Garden, Center for Biological Diversity Conservation, Warsaw, Warszawa 02-973, Poland. Received 06/14/1999.

PI 611997. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 611998. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 611999. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612000. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612001. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612002. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612003. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612004. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612005. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612006. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612007. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612008. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612009. Secale cereale L. **subsp. cereale**

Landrace. Collected in Turkey.

PI 612010. Secale cereale L. **subsp. cereale**
Landrace. Collected in Portugal.

PI 612011. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612012. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612013. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612014. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612015. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612016. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612017. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612018. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612019. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612020. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612021. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612022. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612023. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612024. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612025. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612026. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612027. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612028. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612029. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612030. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612031. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612032. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612033. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612034. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612035. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612036. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612037. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612038. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612039. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612040. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612041. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612042. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612043. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612044. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612045. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612046. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612047. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612048. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612049. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612050. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612051. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612052. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612053. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612054. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612055. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612056. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612057. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612058. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612059. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612060. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612061. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612062. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612063. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612064. Secale cereale L. **subsp. cereale**

Landrace. Collected in Turkey.

PI 612065. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612066. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612067. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612068. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612069. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612070. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612071. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612072. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612073. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612074. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612075. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612076. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612077. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612078. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612079. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612080. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612081. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612082. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612083. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612084. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612085. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612086. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612087. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612088. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612089. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612090. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612091. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612092. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612093. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612094. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612095. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612096. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612097. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612098. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612099. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612100. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612101. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612102. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612103. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612104. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612105. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612106. Secale cereale L. **subsp. cereale**
Landrace. Collected in Portugal.

PI 612107. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612108. Secale cereale L. **subsp. cereale**
Landrace. Collected in Portugal.

PI 612109. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612110. Secale cereale L. **subsp. cereale**
Landrace. Collected in Portugal.

PI 612111. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612112. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612113. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

PI 612114. Secale cereale L. **subsp. cereale**
Landrace. Collected in Turkey.

The following were developed by Novartis Seeds, Inc., United States. Received 11/23/1999.

PI 612115. Pisum sativum L.
Cultivar. PVP 200000001.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 11/23/1999.

PI 612116. Zea mays L. **subsp. mays**
Cultivar. PVP 200000002.

PI 612117. Zea mays L. **subsp. mays**
Cultivar. PVP 200000003.

The following were developed by Pioneer Hi-Bred International, Inc., Vernon, Texas 76384, United States. Received 11/23/1999.

PI 612118. Brassica napus L.
Cultivar. PVP 200000004.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 11/23/1999.

PI 612119. Brassica napus L.
Cultivar. PVP 200000005.

PI 612120. Brassica napus L.
Cultivar. PVP 200000006.

PI 612121. Brassica napus L.
Cultivar. PVP 200000007.

PI 612122. Brassica napus L.
Cultivar. PVP 200000008.

PI 612123. Brassica napus L.
Cultivar. PVP 200000009.

PI 612124. Brassica napus L.
Cultivar. PVP 200000010.

The following were developed by Abbott & Cobb, Inc., United States. Received 11/23/1999.

PI 612125. Cucumis melo L.
Cultivar. PVP 200000012.

The following were developed by Central Valley Seeds, Inc., United States. Received 11/23/1999.

PI 612126. Lactuca sativa L.
Cultivar. PVP 200000013.

The following were developed by Peterson AgriBioTech, United States. Received 11/23/1999.

PI 612127. Medicago sativa L.
Cultivar. PVP 200000014.

The following were developed by Cargill, Inc., Minneapolis, Minnesota 55440, United States. Received 11/23/1999.

PI 612128. Brassica napus L.
Cultivar. PVP 200000015.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 11/23/1999.

PI 612129. Lactuca sativa L.
Cultivar. PVP 200000016.

The following were developed by Rijk Zwaan Zaadteelt en Zaadhandel B.V., Meo Voto Beheer BV, De Lier, South Holland, Netherlands. Received 11/23/1999.

PI 612130. Lactuca sativa L.
Cultivar. PVP 200000017.

PI 612131. Lactuca sativa L.
Cultivar. PVP 200000018.

The following were developed by Mission Ranches, United States. Received 11/23/1999.

PI 612132. Lactuca sativa L.
Cultivar. PVP 200000019.

PI 612133. Lactuca sativa L.
Cultivar. PVP 200000020.

PI 612134. Lactuca sativa L.
Cultivar. PVP 200000021.

PI 612135. Lactuca sativa L.
Cultivar. PVP 200000022.

The following were developed by Novartis Seeds, Inc., United States. Received 11/23/1999.

PI 612136. Pisum sativum L.
Cultivar. PVP 200000023.

PI 612137. Pisum sativum L.
Cultivar. PVP 200000024.

The following were developed by Takii & Company, LTD., Seed Growers and Merchants, P.O. Box 7, Kyoto Central, 180 Umekoji-i, Kyoto, Kyoto, Japan. Received 11/23/1999.

PI 612138. Erysimum cheiri (L.) Crantz

Cultivar. PVP 200000026.

PI 612139. Erysimum cheiri (L.) Crantz
Cultivar. PVP 200000027.

PI 612140. Erysimum cheiri (L.) Crantz
Cultivar. PVP 200000028.

PI 612141. Erysimum cheiri (L.) Crantz
Cultivar. PVP 200000029.

The following were developed by University of California, California Agr. Exp. Sta., Davis, California 95616, United States. Received 11/23/1999.

PI 612142. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 200000047.

The following were developed by Novartis Seeds, Inc., United States. Received 11/23/1999.

PI 612143. Phaseolus vulgaris L.
Cultivar. PVP 200000048.

PI 612144. Phaseolus vulgaris L.
Cultivar. PVP 200000049.

The following were donated by Seed Research Specialists, California, United States. Received 1962.

PI 612145. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus**
Cultivar.

The following were developed by USDA-ARS. Received 11/23/1999.

PI 612146. Glycine max (L.) Merr.
Cultivar. PVP 200000051.

The following were developed by Johnny's Selected Seeds, Foss Hill Road, Albion, Maine 04910, United States. Received 11/23/1999.

PI 612147. Beta vulgaris L.
Cultivar. PVP 200000052.

The following were developed by Novartis Seeds, Inc., United States. Received 11/23/1999.

PI 612148. Pisum sativum L.
Cultivar. PVP 200000053.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 11/23/1999.

PI 612149. Helianthus annuus L.
Cultivar. PVP 9900333.

The following were developed by Rijk Zwaan Zaadteelt en Zaadhandel B.V., Meo Voto Beheer BV, De Lier, South Holland, Netherlands. Received 11/23/1999.

PI 612150. Lactuca sativa L.
Cultivar. PVP 9900343.

The following were developed by Novartis Seeds, Inc., United States. Received 11/23/1999.

PI 612151. Cucumis melo L.
Cultivar. PVP 9900344.

PI 612152. Cucumis melo L.
Cultivar. PVP 9900345.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 11/23/1999.

PI 612153. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900346.

PI 612154. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. PVP 9900347.

The following were developed by Paragon Seed, Inc., United States. Received 11/23/1999.

PI 612155. Lactuca sativa L.
Cultivar. PVP 9900348.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 11/23/1999.

PI 612156. Gossypium hirsutum L.
Cultivar. PVP 9900349.

The following were developed by University of Georgia Research Foundation, Inc., Georgia, United States. Received 11/23/1999.

PI 612157. Glycine max (L.) Merr.
Cultivar. PVP 9900378.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 11/23/1999.

PI 612158. Zea mays L. **subsp. mays**
Cultivar. PVP 9900379.

PI 612159. Zea mays L. **subsp. mays**
Cultivar. PVP 9900381.

PI 612160. Zea mays L. **subsp. mays**
Cultivar. PVP 9900382.

PI 612161. Zea mays L. **subsp. mays**
Cultivar. PVP 9900383.

PI 612162. Zea mays L. **subsp. mays**
Cultivar. PVP 9900384.

PI 612163. Zea mays L. **subsp. mays**
Cultivar. PVP 9900385.

The following were developed by Novartis Seeds, Inc., United States. Received 11/23/1999.

PI 612164. Pisum sativum L.
Cultivar. PVP 9900429.

PI 612165. Pisum sativum L.
Cultivar. PVP 9900430.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 11/23/1999.

PI 612166. Zea mays L. **subsp. mays**
Cultivar. PVP 9900432.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 11/23/1999.

PI 612167. Phaseolus vulgaris L.
Cultivar. PVP 9900433.

PI 612168. Phaseolus vulgaris L.
Cultivar. PVP 9900434.

The following were collected by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China; Hongliang L. Sun, Chinese Academy of Agricultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China. Donated by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building

21, 30 Baishigiao Road, Beijing, Beijing 100081, China. Received 08/18/1999.

PI 612169. Amaranthus cruentus L.
Cultivated. Collected 08/1999 in Xizang, China. Lasa area. Pedigree - Possibly the same as Tibet 050 (PI 590992). Light colored grain.

PI 612170. Amaranthus cruentus L.
Cultivated. Collected 08/1999 in Hubei, China. Black grain, and forage production.

PI 612171. Amaranthus cruentus L.
Cultivated. Collected 08/1999 in Hubei, China. Light colored grain, medium growth period (112 days), fairly high plant stature (214 cm), medium inflorescence length (68.0 cm), low branch number (19.4), quite leafy (44.4 leaves), high biomass weight (964 g/plant), large seed size (0.67 g/1000 grains), and very high grain yield (49.2 g/plant). Recommended to be used as grain/forage due to its high grain yield and biomass weight.

The following were donated by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China. Received 08/18/1999.

PI 612172. Amaranthus cruentus L.
Cultivated. Collected 08/1999 in Jiangxi, China. Wanan County. Black grain.

The following were developed by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China; Hongliang L. Sun, Chinese Academy of Agricultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China; Yunsheng Li, Chifeng Institute of Agricultural Sciences, Chifeng, Nei Monggol 024031, China. Donated by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China. Received 08/18/1999.

PI 612173. Amaranthus hypochondriacus L.
Breeding. Pedigree - A. hybridus X A. hypochondriacus RRC 1023. Light colored grain.

PI 612174. Amaranthus hypochondriacus L.
Breeding. Pedigree - Amaranthus hybridus X A. hypochondriacus RRC 1024. Yellow grain.

PI 612175. Amaranthus hypochondriacus L.
Breeding. Pedigree - A. hybridus X A. hypochondriacus RRC 1023, or A. hybridus X Nonglu amaranth (a local Chifeng, Inner Mongolia type with green infl. and light colored grain). Black grain.

The following were collected by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China; Hongliang L. Sun, Chinese Academy of Agricultural Sciences,

501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China. Donated by Shaoxian X. Yue, Chinese Academy of Agicultural Sciences, 501, Building 21, 30 Baishigiao Road, Beijing, Beijing 100081, China. Received 08/18/1999.

PI 612176. Amaranthus hypochondriacus L.
Cultivated. Collected 08/1999 in Finland. Black grain.

PI 612177. Amaranthus hypochondriacus L.
Cultivated. Collected 08/1999 in Sichuan, China. Lianshan area. Black grain.

The following were collected by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Donated by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Received 11/30/1999.

PI 612178. Glycine canescens F. J. Herm.
Wild. Collected 08/22/1996 in Northern Territory, Australia. Latitude 25 deg. 58' S. Longitude 133 deg. 7' E. Elevation 560 m. Mt. Sir Henry, 9.7 km west of Stuart Highway.

PI 612179. Glycine canescens F. J. Herm.
Wild. Collected 08/23/1996 in Northern Territory, Australia. Latitude 25 deg. 52' S. Longitude 133 deg. 23' E. Elevation 520 m. 9.2 km east of Kulgera towards Finke.

PI 612180. Glycine canescens F. J. Herm.
Wild. Collected 08/23/1996 in Northern Territory, Australia. Latitude 25 deg. 59' S. Longitude 133 deg. 47' E. Elevation 470 m. 58 km south of Kulgera, 2 km north of SA/NT border and Tieyon Station.

PI 612181. Glycine canescens F. J. Herm.
Wild. Collected 08/23/1996 in Northern Territory, Australia. Latitude 25 deg. 53' S. Longitude 133 deg. 36' E. Elevation 465 m. 38 km E of Kulgera 26.4 km N of SA/NT border, second arm of Hamilton River.

PI 612182. Glycine canescens F. J. Herm.
Wild. Collected 08/24/1996 in Northern Territory, Australia. Latitude 23 deg. 41' S. Longitude 133 deg. 43' E. Elevation 600 m. Simpsons Gap, on bank of creek near car park. Bank of creek.

PI 612183. Glycine canescens F. J. Herm.
Wild. Collected 08/24/1996 in Northern Territory, Australia. Latitude 23 deg. 49' S. Longitude 133 deg. 24' E. Elevation 650 m. Hugh River, 8 km west of Alice Springs along Namajira Drive.

PI 612184. Glycine canescens F. J. Herm.
Wild. Collected 08/24/1996 in Northern Territory, Australia. Latitude 23 deg. 47' S. Longitude 133 deg. 4' E. Elevation 650 m. Ellery Creek Big

Hole, 2 km north of Namajira Drive.

PI 612185. Glycine canescens F. J. Herm.
Wild. Collected 08/24/1996 in Northern Territory, Australia. Latitude 23 deg. 46' S. Longitude 132 deg. 59' E. Elevation 750 m. Serpentine Gorge, right in gorge and along walking track.

PI 612186. Glycine canescens F. J. Herm.
Wild. Collected 08/24/1996 in Northern Territory, Australia. Latitude 23 deg. 38' S. Longitude 132 deg. 43' E. Elevation 700 m. Ormiston Gorge.

PI 612187. Glycine canescens F. J. Herm.
Wild. Collected 08/25/1996 in Northern Territory, Australia. Latitude 23 deg. 41' S. Longitude 132 deg. 40' E. Elevation 630 m. Glen Helen Gorge, along creek bank and west slope near Gorge. Along creek bank and west slope.

PI 612188. Glycine canescens F. J. Herm.
Wild. Collected 08/25/1996 in Northern Territory, Australia. Latitude 23 deg. 34' S. Longitude 132 deg. 31' E. Elevation 700 m. Red Bank Gorge.

PI 612189. Glycine canescens F. J. Herm.
Wild. Collected 08/25/1996 in Northern Territory, Australia. Latitude 24 deg. 3' S. Longitude 132 deg. 43' E. Elevation 600 m. Cycad Amphitheatre, Palm Valley.

PI 612190. Glycine canescens F. J. Herm.
Wild. Collected 08/26/1996 in Northern Territory, Australia. Latitude 23 deg. 44' S. Longitude 133 deg. 57' E. Elevation 580 m. Emily Gap, growing along Emily Creek 100m south of Gap. Growing along creek.

PI 612191. Glycine canescens F. J. Herm.
Wild. Collected 08/27/1996 in Northern Territory, Australia. Latitude 24 deg. 38' S. Longitude 132 deg. 19' E. Elevation 540 m. 2 km Southwest of Wallara Ranch, 95.5 km west of Stuart Highway.

PI 612192. Glycine canescens F. J. Herm.
Wild. Collected 08/27/1996 in Northern Territory, Australia. Latitude 24 deg. 21' S. Longitude 131 deg. 41' E. Elevation 700 m. Kathleen Springs 23.3 km east of Kings Canyon Resort.

PI 612193. Glycine canescens F. J. Herm.
Wild. Collected 08/28/1996 in Northern Territory, Australia. Latitude 24 deg. 15' S. Longitude 131 deg. 30' E. Elevation 660 m. 700m along Kings Creek walk, 10 km east of Kings Canyon Resort.

PI 612194. Glycine canescens F. J. Herm.
Wild. Collected 08/28/1996 in Northern Territory, Australia. Latitude 24 deg. 24' S. Longitude 131 deg. 47' E. Elevation 640 m. Stokes Creek, 42 km east of Kings Canyon Resort.

PI 612195. Glycine canescens F. J. Herm.
Wild. Collected 08/29/1996 in Northern Territory, Australia. Latitude 23 deg. 40' S. Longitude 133 deg. 32' E. Elevation 720 m. Fish Hole Water, Jay Creek, plants found on way in and at the hole.

PI 612196. Glycine canescens F. J. Herm.
Wild. Collected 08/29/1996 in Northern Territory, Australia. Latitude 23 deg. 36' S. Longitude 133 deg. 34' E. Elevation 720 m. Hamilton Downs, 12.8 km from Tanami Track.

PI 612197. Glycine falcata Benth.
Wild. Collected 08/29/1996 in Northern Territory, Australia. Latitude 23 deg. 25' S. Longitude 133 deg. 13' E. Elevation 640 m. Amburla Creek, Tanami Track, 69.2 km west of Stuart Highway.

PI 612198. Glycine canescens F. J. Herm.
Wild. Collected 08/29/1996 in Northern Territory, Australia. Latitude 23 deg. 25' S. Longitude 133 deg. 13' E. Elevation 640 m. Amburla Creek, Tanami Track, 69.2 km west of Stuart Highway.

PI 612199. Glycine canescens F. J. Herm.
Wild. Collected 08/30/1996 in Northern Territory, Australia. Latitude 23 deg. 47' S. Longitude 133 deg. 54' E. Elevation 530 m. Colonel Rose Drive, 2.8 km from Stuart Highway.

PI 612200. Glycine canescens F. J. Herm.
Wild. Collected 08/30/1996 in Northern Territory, Australia. Latitude 23 deg. 38' S. Longitude 133 deg. 53' E. Elevation 700 m. Greiss Bluff, 1 km ENE of Wigley Waterhole.

PI 612201. Glycine canescens F. J. Herm.
Wild. Collected 08/30/1996 in Northern Territory, Australia. Latitude 23 deg. 33' S. Longitude 133 deg. 46' E. Elevation 750 m. 0.6 km south of Tanami Track, 0.5 km north of Mt. Forster.

PI 612202. Glycine canescens F. J. Herm.
Wild. Collected 08/31/1996 in Northern Territory, Australia. Latitude 23 deg. 14' S. Longitude 134 deg. 1' E. Elevation 760 m. Harry Creek, south of Utnalenama Range.

PI 612203. Glycine canescens F. J. Herm.
Wild. Collected 08/31/1996 in Northern Territory, Australia. Latitude 23 deg. 17' S. Longitude 134 deg. 24' E. Elevation 680 m. Depot Creek, 1.8 km from 'The Garden Gate', 69.1 km east of Stuart Highway.

PI 612204. Glycine canescens F. J. Herm.
Wild. Collected 08/31/1996 in Northern Territory, Australia. Latitude 23 deg. 23' S. Longitude 134 deg. 45' E. Elevation 600 m. Hale River, 'Claraville Station', Arltunga Road.

PI 612205. Glycine canescens F. J. Herm.
Wild. Collected 08/31/1996 in Northern Territory, Australia. Latitude 23 deg. 28' S. Longitude 134 deg. 43' E. Elevation 650 m. 2 km SE of Arltunga Bore on track to Ruby Gap and "Atnarpa Station".

PI 612206. Glycine canescens F. J. Herm.
Wild. Collected 08/31/1996 in Northern Territory, Australia. Latitude 23 deg. 30' S. Longitude 134 deg. 36' E. Elevation 710 m. South edge of Paddy's Plain on Arltunga Road, 13 km SW of Arltunga Bore.

PI 612207. Glycine canescens F. J. Herm.
Wild. Collected 09/01/1996 in Northern Territory, Australia. Latitude 23 deg. 38' S. Longitude 134 deg. 28' E. Elevation 490 m. N'Dhala Gorge, 12.5 km SW of Ross River Homestead.

PI 612208. Glycine canescens F. J. Herm.
Wild. Collected 09/01/1996 in Northern Territory, Australia. Latitude 23 deg. 31' S. Longitude 134 deg. 24' E. Elevation 560 m. Trephina Gorge, both ends.

PI 612209. Glycine canescens F. J. Herm.
Wild. Collected 09/01/1996 in Northern Territory, Australia. Latitude 23 deg. 41' S. Longitude 134 deg. 15' E. Elevation 550 m. 3 km east of Corook Rock, Ross Highway, 54 km east of Alice Springs.

PI 612210. Glycine canescens F. J. Herm.
Wild. Collected 09/03/1996 in Northern Territory, Australia. Latitude 22 deg. 28' S. Longitude 133 deg. 16' E. Elevation 650 m. Woodforde River, 8.7 km west of Stuart Highway on road to 'Pine Hill Station.

PI 612211. Glycine canescens F. J. Herm.
Wild. Collected 09/03/1996 in Northern Territory, Australia. Latitude 22 deg. 28' S. Longitude 133 deg. 4' E. Elevation 600 m. Hanson River, 30 km west on Stuart Highway, 2 km east of 'Pine Hill Station'.

PI 612212. Glycine canescens F. J. Herm.
Wild. Collected 09/04/1996 in Northern Territory, Australia. Latitude 21 deg. 45' S. Longitude 133 deg. 41' E. Elevation 490 m. 6.9 km south of "Stirling Station" turn on Stuart Highway.

PI 612213. Glycine canescens F. J. Herm.
Wild. Collected 09/05/1996 in Northern Territory, Australia. Latitude 20 deg. 31' S. Longitude 134 deg. 37' E. Elevation 450 m. Kurundi Creek, 43.5 km east of Stuart Highway towards 'Kurundi Station'.

PI 612214. Glycine canescens F. J. Herm.
Wild. Collected 09/05/1996 in Northern Territory, Australia. Latitude 20 deg. 31' S. Longitude 134 deg. 40' E. Elevation 420 m. 'Kurundi Station, 50 km east of Stuart Highway.

PI 612215. Glycine canescens F. J. Herm.
Wild. Collected 09/06/1996 in Northern Territory, Australia. Latitude 22 deg. 16' S. Longitude 134 deg. 27' E. Elevation 570 m. Apron of Mt. Skinner, Bangtail Bore, 6.2 km southwest of Utopia H/S.

PI 612216. Glycine canescens F. J. Herm.
Wild. Collected 09/07/1996 in Northern Territory, Australia. Latitude 22 deg. 58' S. Longitude 134 deg. 14' E. Elevation 690 m. Gillen Creek, Alcoota station, 42 km from Plenty Highway from Sandover turnoff.

PI 612217. Glycine canescens F. J. Herm.
Wild. Collected 09/07/1996 in Northern Territory, Australia. Latitude 22 deg. 52' S. Longitude 134 deg. 27' E. Elevation 660 m. Ongewa Creek, Alcoota Station, 20 km north of Plenty Highway.

PI 612218. Glycine canescens F. J. Herm.
Wild. Collected 09/07/1996 in Northern Territory, Australia. Latitude 23 deg. 0' S. Longitude 134 deg. 21' E. Elevation 680 m. Annamurra Creek, Alcoota Station, Plenty Highway, 83.8 km from Sandover turnoff.

PI 612219. Glycine canescens F. J. Herm.
Wild. Collected 09/08/1996 in Northern Territory, Australia. Latitude 22 deg. 57' S. Longitude 135 deg. 1' E. Elevation 560 m. Eastern Chief Creek, Plenty Highway, 11 km east of Harts Range.

PI 612220. Glycine canescens F. J. Herm.
Wild. Collected 09/08/1996 in Northern Territory, Australia. Latitude 22 deg. 59' S. Longitude 134 deg. 53' E. Elevation 580 m. Ulgarna Creek, Plenty Highway, 3.5 km west of Harts Range Police Station.

PI 612221. Glycine canescens F. J. Herm.
Wild. Collected 09/08/1996 in Northern Territory, Australia. Latitude 23 deg. 2' S. Longitude 134 deg. 34' E. Elevation 670 m. 11.5 km west of Mt. Riddock Station Gate, Plenty Highway.

PI 612222. Glycine canescens F. J. Herm.
Wild. Collected 09/08/1996 in Northern Territory, Australia. Latitude 22 deg. 58' S. Longitude 134 deg. 4' E. Elevation 680 m. Mueller Creek, Plenty Highway, 51 km east of Stuart Highway.

The following were collected by P.K. Latz, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Received 11/30/1999.

PI 612223. Glycine canescens F. J. Herm.
Wild. Collected 05/18/1996 in Northern Territory, Australia. Latitude 21 deg. 26' S. Longitude 133 deg. 44' E. Stirling Swamp.

The following were collected by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Donated by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Received 11/30/1999.

PI 612224. Glycine sp.
Wild. Collected 08/24/1996 in Northern Territory, Australia. Latitude 23 deg. 43' S. Longitude 133 deg. 28' E. Elevation 700 m. Standley Chasm between car park and Chasm.

The following were collected by T.S. Henshall. Donated by J. Grace, CSIRO,

Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Received 11/30/1999.

PI 612225. Glycine tomentella Hayata
Wild. Collected 09/20/1978 in Northern Territory, Australia. Latitude 19 deg. 18' S. Longitude 129 deg. 36' E. Supplejack Station, 40 km west of Homestead.

The following were collected by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; L. Craven, CSIRO, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Donated by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Received 11/30/1999.

PI 612226. Glycine falcata Benth.
Wild. Collected 05/17/1987 in Queensland, Australia. Latitude 20 deg. 44' S. Longitude 143 deg. 1' E. Elevation 210 m. 13.1 km west of Richmond, north side of railway line.

PI 612227. Glycine falcata Benth.
Wild. Collected 05/17/1987 in Queensland, Australia. Latitude 20 deg. 44' S. Longitude 142 deg. 40' E. Elevation 160 m. 50.4 km west of Richmond near Maxwelton.

PI 612228. Glycine falcata Benth.
Wild. Collected 05/17/1987 in Queensland, Australia. Latitude 20 deg. 39' S. Longitude 141 deg. 51' E. Elevation 130 m. 11.6 km east of Julia Creek.

PI 612229. Glycine falcata Benth.
Wild. Collected 05/17/1987 in Queensland, Australia. Latitude 20 deg. 40' S. Longitude 141 deg. 29' E. Elevation 123 m. 28.1 km west of Julia Creek.

PI 612230. Glycine falcata Benth.
Wild. Collected 05/17/1987 in Queensland, Australia. Latitude 20 deg. 40' S. Longitude 140 deg. 53' E. Elevation 150 m. 40.2 km east of Cloncurry.

PI 612231. Glycine falcata Benth.
Wild. Collected 05/18/1987 in Queensland, Australia. Latitude 21 deg. 12' S. Longitude 140 deg. 14' E. Elevation 300 m. 72.1 km SW of Cloncurry, 1.3 km north of Devoncourt.

PI 612232. Glycine falcata Benth.
Wild. Collected 05/18/1987 in Queensland, Australia. Latitude 21 deg. 21' S. Longitude 137 deg. 59' E. Elevation 340 m. 97.5 km SW of Cloncurry towards Duchess.

PI 612233. Glycine falcata Benth.
Wild. Collected 05/19/1987 in Queensland, Australia. Latitude 20 deg. 12' S. Longitude 138 deg. 54' E. Elevation 293 m. 86.5 km west of Mt. Isa.

PI 612234. Glycine falcata Benth.
Wild. Collected 05/20/1987 in Queensland, Australia. Latitude 19 deg. 37' S. Longitude 138 deg. 38' E. Elevation 264 m. Douglas Creek, 2 km south of Undilla, near Camooweal.

PI 612235. Glycine falcata Benth.
Wild. Collected 05/21/1987 in Queensland, Australia. Latitude 18 deg. 43' S. Longitude 138 deg. 31' E. Elevation 136 m. 3.3 km from Adele's Grove, on Lawn Hill National Park Road.

PI 612236. Glycine falcata Benth.
Wild. Collected 05/22/1987 in Northern Territory, Australia. Latitude 19 deg. 55' S. Longitude 137 deg. 59' E. Elevation 240 m. 31.1 km west of Camooweal, just in Northern Territory.

PI 612237. Glycine falcata Benth.
Wild. Collected 05/22/1987 in Northern Territory, Australia. Latitude 19 deg. 20' S. Longitude 136 deg. 3' E. Elevation 230 m. 51.7 km north of Barkly Roadhouse, 2.2 km south of Alroy turn.

PI 612238. Glycine falcata Benth.
Wild. Collected 05/23/1987 in Northern Territory, Australia. Latitude 17 deg. 33' S. Longitude 133 deg. 34' E. Elevation 210 m. Northern end of Airstrip, Elliott.

PI 612239. Glycine falcata Benth.
Wild. Collected 05/23/1987 in Northern Territory, Australia. Latitude 17 deg. 17' S. Longitude 133 deg. 27' E. Elevation 210 m. 16.3 km north of Newcastle Waters turn.

The following were collected by Asian Vegetable Research and Development Center, P.O. Box 42, Shanhua, Tainan, Taiwan. Received 11/30/1999.

PI 612240. Glycine tomentella Hayata
Wild. Collected in Taiwan.

PI 612241. Glycine tomentella Hayata
Wild. Collected in Taiwan.

The following were developed by C.D. Hanbury, Agriculture Western Australia, 3 Baron-Hay Court, South Perth, Western Australia 6151, Australia; K.H.M. Siddique, Agriculture Western Australia, Plant Research and Development Service, 3 Baron-Way Court, South Perth, Western Australia 6151, Australia. Received 11/08/1999.

PI 612242. Lathyrus cicera L.
Cultivar. Pureline. CV-175. Pedigree - Selection from IFLA 1279 from ICARDA, Aleppo. Syria. Yields on average 5% more than Lath-BC in 15

trial sites across southern Australia. At dry sites within Western Australia, average yield equivalent to or greater than Pisum sativum cv. Dundale. Flowers 4-6 days earlier than Lath-BC and about 20 days later than Dundale. Finishes flowering before Dundale and has rapid seed filling. Maturity reached at approx. same time as Dundale. Not susceptible to black spot disease (Mycosphaerella pinoides). Bean Yellow Mosaic Virus has been observed to infect but no other diseases have been recorded in Australia. The ODAP concentration in the seed has been shown to be consistently very low (0.09%), in comparison to Lath-BC (0.16%). Average seed weight 66 mg, compared to 55 mg for Lath-BC. Protein levels approx. 27% with lysine content 6.1% g/16g N. Feeding studies with grain show that pigs have equivalent growth to a standard soybean based diet. Preliminary work with poultry, sheep and cattle indicate good performance as a protein source.

The following were developed by K.H.M. Siddique, Agriculture Western Australia, Plant Research and Development Service, 3 Baron-Way Court, South Perth, Western Australia 6151, Australia. Received 11/08/1999.

PI 612243. Lens culinaris Medik.
Cultivar. Pureline. CV-10. Pedigree - Derived from propagation of a single plant from accession ILL590 from ICARDA, Aleppo, Syria. ILL 590 is a selection from PI 339319 collected near Yowk Kirko, Turkey. Outyielded current cultivars in many low rainfall areas (<350 mm) with terminal stress in southern Australia. On average, produces 10% less yield than Digger in Western Australia, but 10% greater yield at sites with low yield potential. Grows tallthan Digger and Northfield, and flowers earlier than all cultivars tested in the trials (flowering begins about 86 days after sowing compared to 93 days for Digger). Slightly more susceptible to Ascochyta blight (Ascochyta lentis) than Digger. Plants erect and compact with a slender stem. Anthocyanin pigmentation in the stem is absent/weak. Leaflets long (20 mm), yellow green (light) in color, and alternate with an elongated oval shape. Approx. 11.9 leaflets/leaf. Rachis length long (40mm) with long tendrils (29mm). Usually three flowers/peduncle that are white with blue viens. Pods bivalve, rhomboid with two ovules. Seed biconvex, plain, with uniform reddish-brown testa and red cotyledons. Seed quality similar to Digger, but.

The following were developed by Tanveer N. Khan, Department of Agriculture, Division of Plant Industries, Crop Industries Branch, South Perth, Western Australia 6151, Australia; K.H.M. Siddique, Agriculture Western Australia, Plant Research and Development Service, 3 Baron-Way Court, South Perth, Western Australia 6151, Australia. Received 11/08/1999.

PI 612244. Cicer arietinum L.
Cultivar. Pureline. CV-176. Pedigree - ICCX 770004-BP-4P-1P-1P-1P-BP. Produces 10-15% greater seed yield than Tyson. Best seed quality among all commercial cultivars in Australia. Plant has early branch habit, semi-erect and medium in height (641 mm). Primary branches erect and average about four/plant. Stem woody and anthocyanin pigmentation is absent to weak. Leaves large (15 mm long by 8 mm wide) and light/medium green in color. Plant produces purplish pink (0.2% white) flowers and

medium/long peduncle. Pods medium/large, short beak, medium green in color, and average 1.70 ovules/pod. Seeds medium/large (17 to 20 g/100 seeds), have an angular shape and medium ribbing. Seed color at ripening light green, and the coat color at maturity is light yellow fading to cream/yellow with age. Flowers approx. 92 days after sowing in Western Australia compared to 107 and 109 days for Tyson and Dooen, respectively. Some resistance to Fusarium wilt, but is moderately susceptible to Ascochyta blight (Ascochyta rabiei).

The following were developed by K.H.M. Siddique, Agriculture Western Australia, Plant Research and Development Service, 3 Baron-Way Court, South Perth, Western Australia 6151, Australia. Received 11/08/1999.

PI 612245. Lens culinaris Medik.
Cultivar. Pureline. CV-11. Pedigree - Derived from propagation of single plant selection from accession ILL7200 from ICARDA, Aleppo, Syria. Outyielded all current cultivars at most locations in southern Australia. Flowers earlier than all cvs. tested in the trials, beginning at about 90 days after sowing, compared to 93 days for Digger. On average, produces 10-15% greater yield than Digger in Western Australia. Similar height and quality to Digger. Shows moderate field resistance to fungal diseases (Ascochyta lentis) which is similar to Digger. Plant type erect, tall and compact with a slender stem. Stem anthocyanins absent or weak. Leaflets medium green, medium length (13.5mm), alternate and have oval shape. Approx. 13.4 leaflets per leaf. Rachis length medium (34mm) and tendril length short-medium (13.5mm). Usually three flowers per peduncle that are white with purple veins. Pods bivalve, rhomboid with two ovules. Seed biconvex with uniform reddish-brown testa, red cotyledons, and a large seed size (3.92 g/100 seeds).

The following were developed by Tanveer N. Khan, Department of Agriculture, Division of Plant Industries, Crop Industries Branch, South Perth, Western Australia 6151, Australia; K.H.M. Siddique, Agriculture Western Australia, Plant Research and Development Service, 3 Baron-Way Court, South Perth, Western Australia 6151, Australia. Received 11/08/1999.

PI 612246. Cicer arietinum L.
Cultivar. Pureline. CV-177. Pedigree - Single plant selection from accession ICC 14880 from ICRISAT, Hyderabad India. Yields greater than Tyson (10-15%) in the medium (350-450mm) and low rainfall (<350mm) areas of Western Australia, with a greater yield potential in areas of medium rainfall. Plant has early branch habit, is semi-erect and medium to tall in height(665mm). Primary branches erect and average about four per plant. Stem woody and the anthocyanin pigmentation absent to weak. Leaves large (23 mm long by 7.5 mm wide) and light/medium green in color. Plant produces purplish pink (0.7%) white) flowers and medium/long peduncle. Pods medium/large, short beak, medium green color, average 1.55 ovules per pod. Seeds medium/large (17 to 20g/100 seeds), have an angular shape and medium ribbing. Seed color at ripening dark green, and coat color at maturity dark beige. Intensity of color fades with age. Starts to flower approx. 95 days after sowing in WA compared to 107 and 109 days for Tyson and Dooen, respectively. Susceptible to Ascochyta blight (Ascochyta rabiei).

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 05/18/1989.

PI 612247. Lens culinaris Medik. **subsp. culinaris**
Collected 04/19/1989 in Morocco. Latitude 34 deg. 5' N. Longitude 4 deg. 57' W. Market place in city of Fes. Seed small.

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 612248. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 06/05/1989 in Mardin, Turkey. Latitude 37 deg. 33' N. Longitude 41 deg. 1' E. Elevation 1050 m. Scattered oak scrub. Thin rocky soil. Rocky limestone. W and N facing slopes. 5.8km E of Dereici on road from Savur to Midyat. Cotyledon small, red. Mottled variable. Population sampled.

PI 612249. Lens culinaris subsp. orientalis (Boiss.) Ponert
Wild. Collected 06/15/1989 in Malatya, Turkey. Latitude 38 deg. 23' N. Longitude 37 deg. 36' E. Elevation 1710 m. Plants occasional among rocks. Steep rocky slopes (40% slope). Malatya-Kayseri road, 73km from Matalya, just before village of Yukariulupinar. Seeds sieved from soil.

The following were donated by Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria. Received 12/11/1991.

PI 612250. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - F3 generation of IWS accession numbers 337/HC1414. Red chief/Naslada.

PI 612251. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - F4 generation of IWS accession numbers HC1414/610/81. Naslada/Russian Line.

PI 612252. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - F5 generation of IWS accession numbers 48/HC972. Obr.chiflik7/Jana.

PI 612253. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - F6 generation of IWS accession numbers 337/23a. Red chief/Line 23a.

PI 612254. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - F7 generation of IWS accession numbers

HC1414/972. Naslada/Jana.

PI 612255. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - 1121 Chile/Precoz, F2 generation. Seeds were produced in the greenhouse.

PI 612256. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - Mizia/Red Chief, F4 generation. Seeds were produced in the field.

PI 612257. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Pedigree - Naslada/Tadj.95/50Gy, F7 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 612258. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 07/02/1992 in Russian Federation. Tadzhikskaja.

PI 612259. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 07/02/1992 in Bulgaria. Afghanistan-1, Institute for Introduction/Sadovo.

PI 612260. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 07/02/1992 in Czechoslovakia. Ozima ruzova.

PI 612261. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 07/02/1992 in Russian Federation. Azerbaydzhan.

PI 612262. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 07/02/1992 in Bulgaria. Obrastzov chiflik-7.

PI 612263. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Collected 07/02/1992 in Czechoslovakia. Ocula.

The following were donated by Ludmila Krokhmal, Kharkov Agrarian University, Kharkov, Kharkiv, Ukraine. Received 01/30/1993.

PI 612264. Lens culinaris Medik. **subsp. culinaris**
Large seeded lentil introduced into the Ukraine from Czechoslovakia.

The following were collected by Mohammad El Hadi, Washington State University, Crops and Soils Dept., Johnson Hall, Pullman, Washington 99164, United States. Received 05/21/1993.

PI 612265. Lens culinaris Medik. **subsp. culinaris**
Collected 04/29/1993 in Morocco. Latitude 31 deg. 30' N. Longitude 8 deg. 5' W. Market place, Marrakech.

The following were donated by Institute of Introduction and Plant Genetic Resources, K. Malkov Agric. Exp. Stat., Sadovo, Plovdiv 4122, Bulgaria. Received 01/01/1987.

PI 612266. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612267. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612268. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612269. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612270. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612271. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612272. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612273. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

PI 612274. Lens culinaris Medik. **subsp. culinaris**
Cultivar.

The following were donated by V.E. Wilson, Agricultural Research Service -- USDA, Western Regional PI Station, Washington State University, Pullman, Washington 99164, United States. Received 01/01/1976.

PI 612275. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Aleppo.

PI 612276. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Aleppo.

PI 612277. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Sulmiah.

PI 612278. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Reeha.

PI 612279. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Edlab.

PI 612280. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. El-Sueyda.

PI 612281. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Huran.

PI 612282. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Harem.

PI 612283. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. El-Ghab.

PI 612284. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Safeeta.

PI 612285. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Homs.

PI 612286. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria. Dooma.

PI 612287. Lens culinaris Medik. **subsp. culinaris**
Collected in Syria.

The following were donated by K.H. Evans, USDA Regional Pulse Improvement Project, Tehran, Tehran, Iran. Received 03/01/1979.

PI 612288. Lens culinaris Medik. **subsp. culinaris**
Collected in Chile.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Brett K. Kaiser, Calle Marquede Viana, 24, 5a, Madrid, Madrid, Spain. Received 05/16/1994.

PI 612289. Lens culinaris Medik. **subsp. culinaris**
Collected 03/29/1994 in Spain. Purchased in Central Market (Mercado de Abastos) in Zamora, Salamanca Province. Seed originally came from Armuna area, Salamanca Province.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy . Received 05/27/1994.

PI 612290. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

PI 612291. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

PI 612292. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

PI 612293. Lens culinaris Medik. **subsp. culinaris**

Collected in Pakistan.

PI 612294. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

PI 612295. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

PI 612296. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

PI 612297. Lens culinaris Medik. **subsp. culinaris**
Collected in Pakistan.

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. Donated by Ismail Kusmenoglu, Central Research Inst. of Field Crops, Ministry of Agriculture, P.O. Box 226, Ulus, Ankara 06042, Turkey. Received 1994.

PI 612298. Lens culinaris Medik. **subsp. culinaris**
Collected 06/1994 in Turkey. A large red cotyledon line developed by the Transitional Zone Research Institute, Eskisehir, Turkey.

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. Received 1994.

PI 612299. Lens culinaris Medik. **subsp. culinaris**
Collected 06/02/1994 in Turkey. Elevation 690 m. In farmer's field about 6-7 km NW of the village of Karacoli near Diyarbakir.

PI 612300. Lens culinaris Medik. **subsp. culinaris**
Collected 06/02/1994 in Turkey. Elevation 690 m. In farmer's field about 6-7 km NW of the village of Karacoli near Diyarbakir.

PI 612301. Lens culinaris Medik. **subsp. culinaris**
Collected 05/20/1995 in Jordan. Elevation 700 m. National Center for Agricultural Research and Technology Transfer Regional Center at Mushaqar. Yellow cotyledon cultivar.

PI 612302. Lens culinaris Medik. **subsp. culinaris**
Collected 05/21/1995 in Jordan. Elevation 520 m. Collected seed from the Ministry of Agriculture Research Station at Maru (near Irbid), Jordan. Yellow cotyledone type.

PI 612303. Lens culinaris Medik. **subsp. culinaris**
Collected 05/21/1995 in Jordan. Elevation 520 m. Collected seed from the Ministry of Agriculture Research Station at Maru (near Irbid),

Jordan. Red cotyledon type.

The following were donated by Institute of Introduction and Plant Genetic Resources, K. Malkov Agric. Exp. Stat., Sadovo, Plovdiv 4122, Bulgaria. Received 1995.

PI 612304. Lens culinaris Medik. **subsp. culinaris**

PI 612305. Lens culinaris Medik. **subsp. culinaris**

PI 612306. Lens culinaris Medik. **subsp. culinaris**

PI 612307. Lens culinaris Medik. **subsp. culinaris**

The following were developed by Dept. of Scientific & Industrial Res., Crops Research Division, Christchurch, South Island, New Zealand. Donated by Harold Blain, Washington/Idaho Dry Pea, and Lentil Commission, Moscow, Idaho 83843, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States. Received 1995.

PI 612308. Lens culinaris Medik. **subsp. culinaris**
Cultivated. Red cotyledon.

The following were collected by Higmet Demiri, Agricultural Research Institute, Lushnja, Albania. Donated by George A. White, USDA-ARS, Beltsville Agricultural Research Ctr., Bldg. 001, 3rd Floor, Barc-West, Beltsville, Maryland 20705, United States. Received 11/1994.

PI 612309. Lens culinaris Medik. **subsp. culinaris**
Collected 11/1994 in Albania. Latitude 19 deg. 41' 2'' N. Longitude 40 deg. 56' 57'' E. Elevation 18 m. From city of Lushnje.

The following were donated by National Agricultural Research Centre, Pakistan Agricultural Research Council, P.O. National Health Laboratories, Islamabad, Pakistan; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 02/10/1997.

PI 612310. Lens culinaris Medik. **subsp. culinaris**
Cultivated. It is a small seeded type with orange cotyledons. From lentil line Number 6.

PI 612311. Lens culinaris Medik. **subsp. culinaris**
Cultivated. It is a small seeded type with orange cotyledons. From lentil line Number 17.

The following were donated by Adrian Russell, Crop & Food Research, Lincoln, Private Bag 4704, Christchurch, South Island, New Zealand; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/1997.

PI 612312. Lens culinaris Medik. **subsp. culinaris**
Cultivated.

The following were collected by Luigi Guarino, IBPGR, c/o Agric. Research Institute, P.O. Box 2016, Nicosia, Cyprus. Donated by Paul Quek, International Plant Genetics Resources Institute, Regional Office for Asia, the Pacific and Oceania, c/o IDRC, 7th Storey, RELC Building, Singapore. Received 11/21/1994.

PI 612313. Lens culinaris Medik. **subsp. culinaris**
Collected 11/1994 in Saudi Arabia.

PI 612314. Lens culinaris Medik. **subsp. culinaris**
Collected 11/1994 in Saudi Arabia.

PI 612315. Lens culinaris Medik. **subsp. culinaris**
Collected 11/1994 in Saudi Arabia.

The following were collected by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States; J. Scott Cameron, Washington State University, Research & Extension Unit, 1919 NE 78th St., Vancouver, Washington 98665, United States; Arturo Lavin, Instituto de Investiguaciones Agropecuarias, Subestacion Experimental Cauquenes, Camino A Parral-KM 3,5, Caquenes, Chile. Developed by Washington State University, SW Washington Research Unit, 1919 NE 78th St., Vancouver, Washington 98665, United States. Donated by J. Scott Cameron, Washington State University, Research & Extension Unit, 1919 NE 78th St., Vancouver, Washington 98665, United States. Received 02/25/1992.

PI 612316. Fragaria chiloensis f. patagonica Staudt
Breeding. Collected 1992 in Los Lagos, Chile. Latitude 41 deg. 50' S. Longitude 73 deg. 38' W. Elevation 0 m. Mar Brava. Pedigree - collected from the wild in Chile. Additional collection information forthcoming.

PI 612317. Fragaria chiloensis f. patagonica Staudt
Breeding. Collected 1992 in Aisen, Chile. Latitude 44 deg. 39' S. Longitude 71 deg. 42' W. Elevation 0 m. La Tapera. Pedigree - collected from the wild in Chile. Additional collection information forthcoming.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Hancock. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 04/23/1996.

PI 612318. Fragaria chiloensis (L.) Mill.
Wild. Collected 04/01/1996 in Ecuador. Latitude 1 deg. 17' S. Longitude 78 deg. 38' W. Huachi, Ecuador; Production fields, Field1. Volcanic ash, very dry - as Popenoe 1921 described. Pedigree - collected from the wild in Tungurahua, Ecuador.

The following were collected by Jerry A. Payne, Wildlife Biology Department, Rt. 5, Box 180, Forsyth, Georgia 31029, United States. Donated by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States. Received 11/15/1995.

PI 612319. Fragaria virginiana Mill.
Wild. Collected 09/12/1995 in Georgia, United States. Pedigree - collected from the wild in Georgia.

PI 612320. Fragaria virginiana Mill.
Wild. Collected 09/12/1995 in Georgia, United States. Pedigree - collected from the wild in Georgia.

The following were collected by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States; Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States; Jerry A. Payne, Wildlife Biology Department, Rt. 5, Box 180, Forsyth, Georgia 31029, United States. Donated by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States. Received 08/29/1996.

PI 612321. Fragaria virginiana Mill.
Wild. Collected 07/10/1996 in Alabama, United States. Latitude 32 deg. 32' 21'' N. Longitude 85 deg. 28' 26'' W. County road 159, 0.5 mile north of county road 010, just south of Martin Marietta quarry, Lee county. Mixed open woodland and roadsides. Sandy loan surface soil. Fragaria virginia abundant V. stamineum scattered. Longleaf pine, P. teada on site, along with scattered J. virginiana. Cratageus uniflora was the only hawthorn present. Pedigree - collected from the wild in Alabama. USDA Sponsored plant collecting expedition, 1996.

PI 612322. Fragaria virginiana Mill.
Wild. Collected 07/10/1996 in Alabama, United States. Latitude 33 deg. 0' 32'' N. Longitude 85 deg. 21' 54'' W. Along U.S. 431, 0.9 mile north of Lafayette, Chambers county , Alabama. Roadsides and woods edge. Site very dry at present and plants wilted. Pedigree - collected from the wild in Alabama. USDA Sponsored plant collecting expedition, 1996.

PI 612323. Fragaria virginiana Mill.
Wild. Collected 07/14/1996 in Alabama, United States. Latitude 32 deg. 43' 55'' N. Longitude 87 deg. 59' 44'' W. On the right side of the road for about 200 yards up county road 148. County road 148 turns left off of highway 20, 2.3 miles east of Boligee, Greene county, Alabama. Roadside and ditch. One shrubby form of fragrant sumac noted also.

Pedigree - collected from the wild in Alabama. USDA Sponsored plant collecting expedition, 1996.

PI 612324. Fragaria virginiana Mill.
Wild. Collected 07/21/1996 in South Carolina, United States. Latitude 34 deg. 40' 51'' N. Longitude 81 deg. 14' 47'' W. Trail to Caney Creek Falls in Chester State Park. The park is on SC 72, just west of Chester, Chester county, South Carolina. Heavy shade in the last low area along trail before reaching the dam of the lake. The site has year round moisture. Vaccinium arboreum (sparkleberry), Viburnum prunifolium (black haw), Rosa carolina and Rhus aromatica. Pedigree - collected from the wild in South Carolina. USDA Sponsored plant collecting expedition, 1996.

The following were collected by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States. Received 06/27/1996.

PI 612325. Fragaria virginiana Mill.
Wild. Collected 05/14/1996 in North Carolina, United States. Latitude 34 deg. 56' 29'' N. Longitude 77 deg. 14' 21'' W. Roadside on the right, headed north on highway US 17; 1.3 miles south of Chadwick, Jones county, North Carolina. Scattered near woods edge and in disturbed roadside. Primarily pine overstory. Pedigree - collected from the wild in North Carolina. USDA Sponsored plant collecting expedition, 1996.

The following were developed by C.L. Roberts, New Mexico State University, Department of Agronomy and Horticulture, Las Cruces, New Mexico 88003, United States; Roy G. Cantrell, New Mexico State University, Agronomy and Horticulture Dept., P.O. Box 30003, Las Cruces, New Mexico 88003, United States; C. Waddell, New Mexico State University, Dept. of Agronomy and Horticulture, Las Cruces, New Mexico 88003-8003, United States. Received 11/19/1999.

PI 612326. Gossypium hirsutum L.
Cultivar. Pureline. CV-115; PVP 200000181. Pedigree - B742/E1141. Growth habit indeterminate and foliage dense. Plant height at maturity approx. 105 cm. Bolls ovate and averaged 2.6 g of lint. Fiber length excellent, averaging 31 mm for 2.5% span length. Tolerance to Verticillium wilt (Verticillium dahliae) high. Resistant to races 1, 2, and 10 of bacterial blight (Xanthomonas campestris) based on artificial field inoculation experiments. Lint percent averaged 40.2% in hand-picked samples.

The following were developed by Dick Davis, New Mexico State University, Dept of Agronomy, P.O. Box 30003, Las Cruces, New Mexico 88003-0003, United States ; Roy G. Cantrell, New Mexico State University, Agronomy and Horticulture Dept., P.O. Box 30003, Las Cruces, New Mexico 88003, United States. Received 11/29/1999.

PI 612327. Gossypium hirsutum L.
Genetic. Pureline. GS-1. Pedigree - H12156/2/77-505/Russian 5904. Inbred

line derived from a Gossypium hirsutum X G. barbadense complex hybrid population. Introgression from G. hirsutum and G. barbadense was deliberate with the goal of achieving maximum stabilized expression of combinations of traits from both parental species. Approx. 63 percent of the genome sampled with DNA markers were similar to G. hirsutum and 37% similar to G. barbadense. Cream petals, yellow pollen, and no petal spot characterize the flowers. The pistil length approx. 3.6 mm. Bolls elongated with an average of 3.3 locules and a dimpled surface. Calyx tooth shape acuminate to obtuse and similar to typical G. hirsutum. Ginned seed fuzzy. Fiber length, measured by 2.5% span length on the Uster Fibrograph 730 averaged 33.1 mm. Fiber strength, as measured by a 3.2-mm gauge stelometer, averaged 234.4 kN m kg-1.

The following were donated by Bundesanstalt fur Zuchtungsforschung, an Kulturpflanzan (BAZ) - Genebank, Bundesallee 50, Braunschweig, Lower Saxony D-38116, Germany. Received 12/10/1999.

PI 612328. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612329. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612330. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612331. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612332. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612333. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Germany. Garden Beet.

PI 612334. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Sweden. Garden Beet.

PI 612335. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Germany. Garden Beet.

PI 612336. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Canada. Garden Beet.

PI 612337. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612338. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Denmark. Garden Beet.

PI 612339. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612340. Beta vulgaris L. **subsp. vulgaris**

Cultivar. Developed in Netherlands. Garden Beet.

PI 612341. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Netherlands. Garden Beet.

PI 612342. Beta vulgaris L. **subsp. vulgaris**
Cultivar. Developed in Germany. Garden Beet.

The following were developed by Maurice Snook, USDA-ARS, Tobacco Quality and Safety Lab, P.O. Box 5677, Richard Russell Research Cntr, Athens, Georgia 30605, United States; Neil W. Widstrom, USDA, ARS, Insect Biology & Population Mgmt. Res. Lab, Coastal Plains Experiment Station, Tifton, Georgia 31793-0748, United States; Brian T. Scully, University of Florida, Everglades Experiment Center, P.O. Box 8003, Belle Glade, Florida 33430, United States; Greg Nuessly, University of Florida, Everglades REC, 3200 E. Palm Beach Rd., Bell Glade, Florida 33430, United States; R. Beiriger, Everglades Research and Education Center, EFAS, University of Florida, 3200 Old Palm Beach Rd., Belle Grande, Florida 33430-8003, United States. Donated by Brian T. Scully, University of Florida, Everglades Experiment Center, P.O. Box 8003, Belle Glade, Florida 33430, United States. Received 10/26/1999.

PI 612343. Zea mays L. **subsp. mays**
Breeding. Population. GP-361. Pedigree - Developed from simple backcross procedure for a recessive gene. Zapalote Chico 2451 was the recurrent parent for the backcross. Sweet corn population developed to have improved resistance to the fall armyworm (Spodoptera frugiperda). The sh2 and a1 genes at positions 149.2 and 149.0 on 3L were introgressed into Zapalote Chico 2451 from Tifton, GA. Resistance based on chemical antibiosis and conferred by the flavone glycoside maysin and its chemical analogues. Maysin is primarily expressed in emerging silk and specifically conveys resistance to Lepidoptera insects entering through the silk channel. Maysin levels in the fresh silk averages 0.97%, and exceeded the 0.2% level commonly considered adequate for resistance.

The following were developed by Richard L. Bernard, USDA-ARS, University of Illinois, Department of Agronomy, Urbana, Illinois 61801, United States. Donated by Cecil Nickels, University of Illinois, Dept. of Agronomy, Urbana, Illinois 61801, United States. Received 01/21/2000.

PI 612344. Glycine max (L.) Merr.
Breeding. Pedigree - Beeson X (Clark 2 X PI 84946-2). Brown Stem Rot resistant (Rbs1).

The following were developed by Levelland Delinting, Inc., United States. Received 12/14/1999.

PI 612345. Gossypium hirsutum L.
Cultivar. PVP 200000054.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 12/14/1999.

PI 612346. Lactuca sativa L.
Cultivar. PVP 200000055.

PI 612347. Lactuca sativa L.
Cultivar. PVP 200000056.

The following were developed by Novartis Seeds, Inc., United States. Received 12/14/1999.

PI 612348. Phaseolus vulgaris L.
Cultivar. PVP 200000057.

The following were developed by Pogue Seed Company, Inc., United States. Received 12/14/1999.

PI 612349. Cenchrus ciliaris L.
Cultivar. PVP 200000058.

PI 612350. Cenchrus ciliaris L.
Cultivar. PVP 200000059.

PI 612351. Cenchrus ciliaris L.
Cultivar. PVP 200000060.

PI 612352. Cenchrus ciliaris L.
Cultivar. PVP 200000062.

The following were developed by Jarit (Aust) Pty. Ltd., Australia. Received 12/14/1999.

PI 612353. Allium cepa L.
Cultivar. PVP 200000063.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 12/14/1999.

PI 612354. Medicago polymorpha L.
Cultivar. PVP 200000064.

The following were developed by Johnston Seed Company, United States. Received 12/14/1999.

PI 612355. Cynodon dactylon (L.) Pers.
Cultivar. PVP 200000065.

The following were developed by Phytogen Seed Company, LLC, United States. Received 12/14/1999.

PI 612356. Gossypium hirsutum L.
Cultivar. PVP 9900288.

The following were developed by Novartis Seeds, Inc., United States. Received 12/14/1999.

PI 612357. Zea mays L. **subsp. mays**
Cultivar. PVP 9900405.

The following were donated by James N. Cummins, New York State Agric. Exp. Station, Department of Horticultural Sciences, Geneva, New York 14456-0462, United States. Received 06/09/1988.

PI 612358. Malus domestica Borkh.
Uncertain.

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 612359. Malus orientalis Uglitzk.
Wild. 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 612360. Malus orientalis Uglitzk.
Wild. 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 612361. Malus orientalis Uglitzk.
Wild. 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 612362. Malus orientalis Uglitzk.
Wild. 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 612363. Malus orientalis Uglitzk.
Wild. 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 612364. Malus orientalis Uglitzk.
Wild. 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 612365. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. 3 km. southwest of Shuntuk, 1 km. from nearest commercial apples. Slight NW facing slope along the edge of an open field. Trees were 35 to 80 years old. The population covered about 1 km. Associated species: Cornus mas, Pyurs sylvestris, Crataegus monogyna, Prunus spinosa. Rainfall: 800-1000 mm. annually. Leaves and seeds collected.

PI 612366. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. 3 km. southwest of Shuntuk, 1 km. from nearest commercial apples. Slight NW facing slope along the edge of an open field. Trees were 35 to 80 years old. The population covered about 1 km. Associated species: Cornus mas, Pyurs sylvestris, Crataegus monogyna, Prunus spinosa. Rainfall: 800-1000 mm. annually. Leaves and seeds collected.

PI 612367. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. Leaves and seeds collected.

PI 612368. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. Leaves and seeds collected.

PI 612369. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. Leaves and seeds collected.

PI 612370. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. Leaves and seeds collected.

PI 612371. Malus orientalis Uglitzk.

Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. Leaves and seeds collected.

PI 612372. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' 0'' E. Elevation 400 m. Leaves and seeds collected.

PI 612373. Malus orientalis Uglitzk.
Wild. 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 612374. Malus orientalis Uglitzk.
Wild. 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 612375. Malus orientalis Uglitzk.
Wild. 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 612376. Malus orientalis Uglitzk.
Wild. 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 612377. Malus orientalis Uglitzk.
Wild. 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 612378. Malus orientalis Uglitzk.
Wild. 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 612379. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' 0'' 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 612380. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' 0'' 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 612381. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' 0'' 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 612382. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' 0'' 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 612383. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' 0'' 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 612384. Malus orientalis Uglitzk.
Wild. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' 0'' 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 612385. Malus orientalis Uglitzk.
Wild. 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.

PI 612386. Malus orientalis Uglitzk.
Wild. 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.

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