United States
Department of
Agriculture

Agricultural
Research
Service

Plant Inventory No. 211

Plant Materials Introduced 2002 (Nos. 628614 to 632416)

Forward

Norris, R.A., ed. 2002. Plant Inventory No. 211. Plant Materials Introduced January 1 to December 31, 2002, Nos. 628614 to 632416. 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 2002. It is not a listing of plant material for distribution.

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

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

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

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

Unknown source. Received 01/02/2002.

PI 628614. Cucurbita maxima Duchesne
Uncertain. 5050. Split from PI 135375 because of different species identification.

The following were collected by E.E. Smith, USDA-ARS, New Crops Research Branch, Plant Industry Station, Beltsville, Maryland 20705-2350, United States. Donated by USDA, ARS, NERPIS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 01/02/2002.

PI 628615. Cucurbita maxima Duchesne
Uncertain. Selection of PI 221923. Collected 07/1954 in Paktia, Afghanistan. Latitude 33 deg. 36' N. Longitude 69 deg. 13' E. Market, Gardez. Split from PI 265560 because of different species identification.

The following were collected by John Harlan, 1350 Harlan Lane, Combine, Texas 75159, United States. Received 01/02/2002.

PI 628616. Cucurbita maxima Duchesne
Uncertain. 1868. Collected 04/04/1961 in Harer, Ethiopia. Latitude 9 deg. 19' N. Longitude 42 deg. 7' E. Market, Harar. Split from PI 273651 because of different species identification.

PI 628617. Cucurbita maxima Duchesne
Uncertain. 2121. Collected 04/04/1961 in Eritrea. Asmara spice market. Split from PI 273655 because of different species identification.

PI 628618. Cucurbita maxima Duchesne
Uncertain. 2122. Collected 04/04/1961 in Eritrea. Asmara spice market. Split from PI 273656 because of different species identification.

The following were developed by Lynn Hartweck, University of Wisconsin, Agronomy Department, 1575 Linden Drive, Madison, Wisconsin 53706, United States; Ken Kmiecik, Asgrow/Seminis, 7202 Portage Road, Deforest, Wisconsin 53532, United States; Thomas C. Osborn, University of Wisconsin, Department of Agronomy, 1575 Linden Drive, Madison, Wisconsin 53706, United States; R.H. Harmsen, University of Wisconsin, Dept. of Horticulture, Madison, Wisconsin 53706, United States; R.D. Vogelzang, University of Wisconsin, Department of Agronomy, 1575 Linden Drive, Madison, Wisconsin 53706, United States; F.A. Bliss, Semiis Veg. Seeds Inc., 37437 Highway 16, Woodland, California 95695, United States. Received 12/18/2001.

PI 628619. Phaseolus vulgaris L.
Genetic. SARC1. GS-10. Pedigree - Developed by crossing wild bean line G12882 to Sanilac, backcrossing the F1 for two generations to Sanilac and then selfing for seven generations. Navy bean type with a predicted 87.5% of its genotype from Sanilac. Selected for the presence of arcelin-1 seed protein due to homozygosity for Arl1 allele derived from

the G12882 donor parent. High resistance to the Mexican bean weevil Zabrotes subfasciantus and low levels of resistance to the bean weevil Acanthoscelides obtectus due to the presence of arcelin-1.

PI 628620. Phaseolus vulgaris L.
Genetic. SARC2. GS-11. Pedigree - Developed by crossing wild bean line G12866 to Sanilac, backcrossing the F1 for two generations to Sanilac and then selfing for three generations. Navy bean type with a predicted 87.5% of its genotype from Sanilac. Selected for the presence of arcelin-2 seed protein due to homozygosity for Arl2 allele derived from the G12866 donor parent. Moderate resistance to the Mexican bean weevil Zabrotes subfasciantus and low levels of resistance to the bean weevil Acanthoscelides obtectus due to the presence of arcelin-2.

PI 628621. Phaseolus vulgaris L.
Genetic. SARC3. GS-12. Pedigree - Developed by crossing wild bean line G12949 to Sanilac, backcrossing the F1 for two generations to Sanilac and then selfing for three generations. Navy bean type with a predicted 87.5% of its genotype from Sanilac. Selected for the presence of arcelin-3 seed protein due to homozygosity for Arl3 allele derived from the G12891 donor parent. Not tested for resistance to the Mexican bean weevil Zabrotes subfasciatus or the bean weevil Acanthoscelides obtectus, but arcelin-3 is related to arcelin-4 which confers a low level of resistance to these insects.

PI 628622. Phaseolus vulgaris L.
Genetic. SARC4. GS-13. Pedigree - Developed by crossing wild bean line G12949 to Sanilac, backcrossing the F1 for two generations to Sanilac and then selfing for three generations. Navy bean type with a predicted 87.5% of its genotype from Sanilac. Selected for the presence of arcelin-4 seed protein due to homozygosity for Arl4 allele derived from the G12949 donor parent. Low levels of resistance to the Mexican bean weevil Zabrotes subfasciatus and the bean weevil Acanthoscelides obtectus due to the presence of arcelin-4.

PI 628623. Phaseolus vulgaris L.
Genetic. PARC1. GS-14. Pedigree - Developed by crossing wild bean line G12882 to Sanilac, crossing the F1 to Porrillo 70, backcrossing one generation to Porrillo 70 and then selfing for six generations. Black seed type with a predicted 75% of its genotype from Porrillo 70. Selected for the presence of arcelin-1 seed protein due to homozygosity for Arl1 allele derived from the G12882 donor parent. High levels of resistance to the Mexican bean weevil Zabrotes subfasciatus and low levels of resistance to the bean weevil Acanthoscelides obtectus due to the presence of arcelin-1.

PI 628624. Phaseolus vulgaris L.
Genetic. PARC2. GS-15. Pedigree - Developed by crossing wild bean line G12866 to Sanilac, crossing the F1 to Porrillo 70, backcrossing one generation to Porrillo 70 and then selfing for six generations. Black seed type with a predicted 75% of its genotype from Porrillo 70. Selected for the presence of arcelin-2 seed protein due to homozygosity for Arl2 allele derived from the G12866 donor parent. Moderate resistance to the Mexican bean weevil Zabrotes subfasciatus and low levels of resistance to the the bean weevil Acanthoscelides obtectus due to the presence of arcelin-2.

PI 628625. Phaseolus vulgaris L.
Genetic. PARC3. GS-16. Pedigree - Developed by crossing wild bean line G12922 to Sanilac, crossing the F1 to Porrillo 70, backcrossing one generation to Porrillo 70 and then selfing for six generations. Black seed type with a predicted 75% of its genotype from Porrillo 70. Selected for the presence of arcelin-3 seed protein due to homozygosity for Arl3 allele derived from the G12922 donor parent. Low levels of resistance to the Mexican bean weevil Zabrotes subfasciatus and the bean weevil Acanthoscelides obtectus due to the presence of arcelin-3.

PI 628626. Phaseolus vulgaris L.
Genetic. PARC4. GS-17. Pedigree - Developed by crossing wild bean line G12949 to Sanilac, crossing the F1 to Porrillo 70, backcrossing one generation to Porrillo 70 and then selfing for six generations. Black seed type with a predicted 75% of its genotype from Porrillo 70. Selected for the presence of arcelin-3 seed protein due to homozygosity for Ar13 allele derived from the G12949 donor parent. Low levels of resistance to the Mexican bean weevil Zabrotes subfasciatus and the bean weevil Acanthoscelides obtectus due to the presence of arcelin-3.

PI 628627. Phaseolus vulgaris L.
Genetic. SMARC1-PN1. GS-18. Pedigree - Developed by crossing SARC1 to MB11-29, crossing the F1 to L12-56 and selfing for four generations. Navy bean type with a predicted 83.6% of its genotype from Sanilac. Selected for the presence of arcelin-1 seed protein due to homozygosity for Arl1 allele derived from the SARC1 parent and the absence of phaseolin seed protein due to homozygosity for the recessive phs allele derived from MB11-29. High levels of resistance to the Mexican bean weevil Zabrotes subfasciatus and moderate resistance to the bean weevil Acanthoscelides obtectus due to the presence of arcelin-1 and absence of phaseolin.

PI 628628. Phaseolus vulgaris L.
Genetic. SMARC2-PN1. GS-19. Pedigree - Developed by crossing SARC2 to MB11-29, crossing the F1 to L12-56 and then selfing for four generations. Navy bean type with a predicted 83.6% of its genotype from Sanilac. Selected for the presence of arcelin-2 seed protein due to homozygosity for Arl2 allele derived from the SARC2 parent and the absence of phaseolin seed protein due to homozygosity for the the recessive phs allele derived from BM11-29. Low resistance to Mexican bean weevil Zabrotes subfasciatus and low levels of resistance to the bean weevil Acanthoscelides obtectus due to the presence of arcelin-2 and absence of phaseolin.

PI 628629. Phaseolus vulgaris L.
Genetic. SMARC4-PN1. GS-20. Pedigree - Developed by crossing SARC4 to MB11-29, crossing the F1 to L12-56, and then selfing for four generations. Navy bean type with a predicted 83.6% of its genotype from Sanilac. Selected for the presence of arcelin-4 seed protein due to homozygosity for Arl4 allele derived from the SARC4 parent and the absence of phaseolin seed protein due to homozygosity for the recessive phs allele derived from MB11-29. Low levels of resistance to the Mexican bean weevil Zabrotes subfasciatus and the bean weevil Acanthoscelides obtectus due to the presence of arcelin-4 and absence of phaseolin.

PI 628630. Phaseolus vulgaris L.
Genetic. SMARC1N-PN1. GS-21. Pedigree - Developed by crossing SARC1 to

MB11-29, crossing the F1 to L12-56 and then selfing for four generaqtions. Navy bean type with a predicted 83.6% of its genotype from Sanilac. Selected for the absence of arcelin and phytohemagglutinin seed proteins due to homozygosity for linked recessive arl and lec alleles derived from the L12-56 parent and the absence of phaseol in seed protein due to homozygosity for the recessive phs allele derived from MB11-29. This line was used as a susceptible control in tests of arcelin-containing lines for resistance to the Mexican bean weevil Zabrotes subfasciatus and the bean weevil Acanthoscelides obtectus.

PI 628631. Phaseolus vulgaris L.
Genetic. L12-56. GS-22. Pedigree - Developed by crossing Great Northern 1140 to Sanilac, backcrossing the F1 for two generations to Sanilac and then selfing for three generations. Navy bean type with a predicted 87.5% of its genotype from Sanilac. Selected for the absence of phytohemagglutinin seed protein due to homozygosity for the recessive lec allele derived from the Great Northern 1140 donor parent. This line used as a susceptible control in tests of arcelin-containing lines for resistance to the Mexican bean weevil Zabrotes subfasciatus and the bean weevil Acanthoscelides obtectus.

The following were developed by Andrew A. Hopkins, Samuel Roberts Noble Foundation, Inc., P.O. Box 2180, 2510 Sam Noble Parkway, Ardmore, Oklahoma 73402, United States; Limei Yun, The Samuel Roberts Noble Foundation, 2510 Sam Noble Parkway, Ardmore, Oklahoma 73401, United States; D.W. Walker, Samuel Roberts Noble Foundation, Forage Biotechnology Group, 2510 Sam Noble Parkway, Ardmore, Oklahoma 73401, United States. Received 12/27/2001.

PI 628632. Silphium laciniatum L.
Breeding. NF-1. GP-5. Pedigree - Seed of PI 441269, seed collected from 4 sites (OKWS-1, OKWS-2, OKWS-3 and OKWS-5) in southern Oklahoma, and plants collected from OKWS1 were used to establish a polycross isolation. Seed harvested in 2000 and 2001 was bulked. Seed from R6P1, a plant present in the polycross nursery expressing the profuse ligule trait, was not included in NF-1. Seed was produced from the following number of genotypes: OKWS-1(19), OKWS-2(15), OKWS-3(10), OKWS-5(9), and PI 411269(4). The original accessions comprising NF-1 were evaluated in 2000 and 2001 at Ardmore, OK (34 ll N, 97 05 W) for height, defined as the length of the tallest flowering stalk, and first bloom date. Chromosome number 2n=2X=14; one hundred achene (seed bearing structure) weight averages 3.25 g.

PI 628633. Silphium laciniatum L.
Breeding. NF-1 Profuse Ligule. GP-6. Pedigree - Consists of half-sib seed harvested from a single genotype (R6P1) expressing the profuse ligule trait. This genotype originated from seed collected from asite (OKWS-1) in southern Oklahoma. R6P1 wsas grown in the same nursery as those plants used toproduce NF-1 compass plant; seed was harvested from R6P1 in 2000 and 2001 and bulked to comprise NF-1 Profuse Ligule. Attempts were not made to prevent pollination between R6P1 and other plants in the nursery. The parent plant (R6P1) produces a profuse amount of ligules, whereby petals, in addition to being produced by ray flowers on the periphery of the blossom, are also present on a substantial portion of disk flowers in the interior of blossom. This results in a far greater number of petals per blossom than is commonly found in compass plant, with mature achene production from both ray and disk

flowers. All blossoms on R6P1 expressed the profuse ligule trait; both staminate and pistilate disk flowers were present. Anthers from staminate disk flowers of R6P1 were less well developed than those of other compass plant genotypes. First bloom date and plant height of R6P1 average approx. late June at Ardmore, OK and 17 cm, respectively. Inheritence of the profuse ligule trait is unknown. Progeny of R6P1 have not been evaluated for this trait. Chromosome number is 2n=2X=14; one hundred achene weight averages 2.54 g.

The following were developed by F.M. Bourland, University of Arkansas, Dept. of Agronomy, PTSC 115, Fayetteville, Arkansas 72701, United States; N.R. Benson, Northeast Research & Extension Center, P.O. Box 48, Keiser, Arkansas 72351, United States. Received 12/18/2001.

PI 628634. Gossypium hirsutum L.
Breeding. Arkot 8606; 8606-50. GP-740. Pedigree - DES 119 / Miscot 7813. Morphological traits are similar to Stoneville 474 and DES 119 except for slightly less dense leaf pubescence and is usually 10-20% shorter in height. Although matures earlier than DES 119, lint yields of the two lines are similar. Fiber properties similar to those of Stoneville 474. Resistant to all U.S. races of Xanthomonas campestris pv. malvacearum, the casual agent of bacterial blight. Resistance to fusarium wilt (Fusarium oxysporum) equal to known resistant check. Yielded more and had less relative injury than Stoneville 474 in the presence of intense thrips (Frankliniella spp.) pressure.

PI 628635. Gossypium hirsutum L.
Breeding. Arkot 8710; 8710-45-17. GP-741. Pedigree - Deltapine 50 / Miscot T8-27 // Des 237-7 / Miscot 7824. Morphological traits similar to Stoneville 474 except slightly less dense leaf pubescence and is approx. 15% shorter in height. Lint yields equal to Stoneville 474. Compared to fiber properties of Stoneville 474, fiber slightly longer, similar strength and slighter lower micronaire values. Resistant to all U.S. races of Xanthomonas campestris pv. malvacearum, the casual agent of bacterial blight. Yielded more and had less relative injury than Stoneville 474 in the presence of intense thrips (Frankliniella spp.) pressure.

PI 628636. Gossypium hirsutum L.
Breeding. Arkot 8717; 8717-17-12. GP-742. Pedigree - DES 119 / Miscot 7803-52 // Miscot T8-27 / 8007-6. Morphological traits similar to Stoneville 474 except slighly less dense leaf pubescence and is approx. 15% shorter in height. Lint yields approx. 5% lower than Stoneville 474. Compared to fiber properties of Stoneville 474, fiber is approx. 5% longer, approx. 75 stronger and similar micronaire values. Resistant to all U.S. races of Xanthomonas campestris pv. malvacearum, the casual agent of bacterial blight. Yielded more and had less relative injury than Stoneville 474 in the presence of intense thrips (Frankliniella spp.) pressure.

PI 628637. Gossypium hirsutum L.
Breeding. Arkot 8727; 8727-21-10-02. GP-743. Pedigree - LA HG-063 // DES 119 / Miscot 7803-52. Morphological traits similar to Stoneville 474 except slightly less dense leaf pubescence and possesses a glanding characteristic. The high glanding charactertistic is identified by the presence of gossypol gland on the calyx lobes. Lint yields and maturity

similar to Stoneville 474. Fiber properties superior (6% longer, 7% stronger, and 6% lower in micronaire) to the fiber properties of Stoneville 474. Resistant to all U.S. races of Xanthomonas camprestrsi pv. malvacearum, the casual agent of bacterial blight. Yielded more and had less relative injury than Stoneville 474 in the presence of intense thrips (Frankliniella spp.) pressure.

PI 628638. Gossypium hirsutum L.
Breeding. Arkot 8918; 8918-01-18. GP-744. Pedigree - H1330 // (Delcot 311 / Auburn 623 RNR) / Delcot 311. Morphological traits similar to Stoneville 474 except slightly less dense leaf pubescence and is usually 10-20% shorter in height. Lint yields averaged 9% less than Stoneville 474. Compared to fiber presence of Stoneville 474, the fiber is slightly longer, 10% stronger, and has similar micronaire values. Resistance to all U.S. races Xanthomonas campestris pv. malvacearum, the casual agent of bacterial blight. Yielded more and had less relative injury than Stoneville 474 in the presence of intense thrips (Frankliniella spp.) pressure.

PI 628639. Gossypium hirsutum L.
Breeding. Arkot 9103; 9103-38-01. GP-745. Pedigree - H1330 // DES 237-7 / Miscot 7824. Morphological traits similar to Stoneville 474 except slightly less dense leaf pubescence and is approx. 10% shorter in height. Lint yields equal to Stoneville 474. Compared to fiber properties of Stoneville 474, fiber is slightly longer, 9% stronger, and approx. 10% lower micronaire values. Resistant to all U.S. races of Xanthomonas campestris pv. malvacearum, the casual agent of bacterial blight. Yielded more and had less relative injury than Stoneville 474 in the presence of intense thrips (Frankliniella spp.) pressure.

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States; J.A. Anderson, University of Minnesota, Department of Agronomy & Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States; Kimberly Garland Campbell, USDA, ARS, Washington State University, P.O. Box 646420, Pullman, Washington 99164-6420, United States. Received 01/04/2002.

PI 628640. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "FINCH"; A96118; WA7853; NSGC 8786. CV-966; PVP 200300327. Pedigree - Dusty//WA7164 (VPM1/Moisson 951//Yamhill/Hyslop)/Dusty. Released 2001. Soft white winter wheat. Fusiform lax spikes; white kernels, glumes and straw; awned; late-season maturity for Washington. Adapted to wide range of production conditions in Eastern Washington and Oregon and Northern Idaho. Possesses Pch1 gene, derived from VPM, which confers resistance to strawbreaker foot rot ((causal agent Tapesia yallundae Wallwork & Spooner = Pseudocercosporella herpotrichoides (Fron) Deighton). Demonstrated resistance to stripe rust (caused by Puccinia striiformis Westend. f.sp. tritici) and to powdery mildew (caused by Erysiphe graminis DC. f.sp. tritici Em.Marchal). Does not possess the Lr37, Sr38, Yr17 gene complex on 2AS derived from VPM (Bariana & McIntosh, 1993). Yield potential is better than or equal to Eltan, Madsen, and Stephens. Test weight is superior to Eltan, Madsen, and Stephens. Confectionary milling and baking quality are excellent. Flour yield and break flour yield are higher than Eltan, Madsen, and Stephens. Flour as is higher than.

PI 628641. Triticum aestivum subsp. compactum (Host) Mackey
Cultivar. Pureline. "CHUKAR"; A9623; WA7855; NSGC 8787. CV-967; PVP 200300326. Pedigree - WA7665/Rulo WA7665 = Tyee//Capelle Desprez/Tres. Released 2001. Soft white winter club wheat with white-chaffed, dense clavate heads with tip awns. Medium, smooth, and elliptical kernels with asymmetrical sides and rounded cheeks, between 32 and 35g per thousand seeds. Oval germ. Brush is short, not collared. Late-season maturity for Washington. Adapted to a wide range of production conditions in Eastern Washington and Oregon and Northern Idaho. Possesses Pch1 gene which confers resistance to strawbreaker foot rot ((causal agent Tapesia yallundae Wallwork & Spooner = Pseudocercosporella herpotrichoides (Fron) Deighton). Demonstrated resistance to stripe rust (caused by Puccinia striiformis Westend. f.sp. tritici) and to powdery mildew (caused by Erysiphe graminis DC. f.sp. tritici Em.Marchal). Does not possess the Lr37, Sr38, Yr17 gene complex on 2AS derived from VPM (Bariana & McIntosh, 1993). Yield potential better than or equal to Coda, Hiller, and Madsen. Test weight superior to Hiller. Excellent confectionary milling.

The following were developed by Adam J. Lukaszewski, University of California, Dept. of Botany & Plant Science, Riverside, California 92521-0124, United States; W. Brzezinski, Research Center for Cultivar Testing, 63-022 Slupia Wielka, Poland. Received 12/20/2001.

PI 628642. Secale cereale L. **subsp. cereale**
Breeding. Population. UCRR1-2001; HMA510. GP-3. Pedigree - Rhino/Snoopy//5*Dankowskie Zlote/3/3*Motto/4/2*Amilo. A population of winter diploid rye, homozygous for an introgression of a fragment of wheat chromosome 1DL to the corresponding homoeologous segment of 1RL. The introgressed wheat segment contains locus Glu-D1 with allele d, encoding high molecular weight glutenin subunits 5+10. The introgression removes rye's locus Sec-3, encoding secalins. The introgression does not affect plant morphology or fertility but may lower test weight. The introgression increases the SDS-sedimentation volume by about 75% and improves loaf volume in tests performed using protocols for wheat-rye blends. Parameters of breadmaking quality tested using procedures for rye flour are not affected by the introgression.

PI 628643. Secale cereale L. **subsp. cereale**
Breeding. Population. UCRR2-2001; H510. GP-4. Pedigree - Rhino/Snoopy//5*Dankowskie Zlote. A population of winter diploid rye, homozygous for an introgression of a fragment of wheat chromosome 1DL to the corresponding homoeologous segment of 1RL. The introgressed wheat segment contains locus Glu-D1 with allele d, encoding high molecular weight glutenin subunits 5+10. The introgression removes rye's locus Sec-3, encoding secalins. The introgression does not affect plant morphology or fertility but may lower test weight. The introgression increases the SDS-sedimentation volume by about 75% and improves loaf volume in tests performed using protocols for wheat-rye blends. Parameters of breadmaking quality tested using procedures for rye flour are not affected by the introgression.

The following were developed by Adam J. Lukaszewski, University of California, Dept. of Botany & Plant Science, Riverside, California 92521-0124, United States. Received 12/20/2001.

PI 628644. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. UCRBW01-1; Pavon MA1. GP-732. Pedigree - Genaro T81/7*Pavon F76//Pavon ph1b/3/4*Pavon F76. A line of hard white spring bread wheat cv. Pavon with a wheat-rye translocation chromosome 1RS.1BL engineered by induced homoeologeous translocation to remedy the breadmaking quality defect. The engineered rye chromosome arm 1RS has two intercalary inserts from chromosome arm 1BS of Pavon. The distal insert introduces wheat storage protein loci Gli-B1 and Glu-B3; the proximal insert removes rye locus Sec-1.

PI 628645. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. UCRBW01-2; Pavon MA2. GP-733. Pedigree - Genaro T81/7*Pavon F76//Pavon ph1b/3/4*Pavon F76. A line of hard white spring bread wheat cv. Pavon with a wheat-rye translocation chromosome 1RS.1BL engineered by induced homoeologeous translocation to remedy the breadmaking quality defect. The engineered rye chromosome arm 1RS has two intercalary inserts from chromosome arm 1BS of Pavon. The distal insert introduces wheat storage protein loci Gli-B1 and Glu-B3; the proximal insert removes rye locus Sec-1.

PI 628646. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. UCRBW01-3; Pavon Tel. GP-734. Pedigree - Genaro T81/7*Pavon F76//Pavon ph1b/3/4*Pavon F76. A line of hard white spring wheat cv. Pavon with a wheat-rye translocation chromosome 1RS.1BL engineered by induced homoeologous translocation to remedy the breadmaking quality defect. The engineered rye chromosome arm 1RS has two inserts from chromosome arm 1BS of Pavon. The terminal insert introduces wheat storage protein loci Gli-B1 and Glu-B3; the proximal intercalary insert removes rye locus Sec-1.

PI 628647. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. UCRBW01-4; Pavon Te2. GP-735. Pedigree - Genaro T81/7*Pavon F76//Pavon ph1b/3/4*Pavon F76. A line of hard white spring wheat cv. Pavon with a wheat-rye translocation chromosome 1RS.1BL engineered by induced homoeologous translocation to remedy the breadmaking quality defect. The engineered rye chromosome arm 1RS has two inserts from chromosome arm 1BS of Pavon. The terminal insert introduces wheat storage protein loci Gli-B1 and Glu-B3; the proximal intercalary insert removes rye locus Sec-1.

PI 628648. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. UCRBW01-5; Pavon 1BS. GP-736. Pedigree - Genaro T81/7*Pavon F76//Pavon ph1b/3/4*Pavon F76. A line of hard white spring wheat cv. Pavon with an interstitial transfer to chromosome arm 1BS of a segment of rye chromosome arm 1RS that contains disease resistance loci Pm8, Lr16, Yr9 and Sr31.

PI 628649. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. UCRBW01-6; Pavon 1BS. GP-737. Pedigree - Genaro T81/7*Pavon F76//Pavon ph1b/3/4*Pavon F76. A line of hard white spring wheat cv. Pavon with an interstitial transfer to chromosome arm 1BS of a segment of rye chromosome arm 1RS that contains disease resistance loci Pm8, Lr16, Yr9 and Sr31.

PI 628650. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Population. UCRD01-1; WB881/1A.1D5+10-2. GP-738. Pedigree -

Rhino 1A.1D5+10-2/Monroe//4*WB881. A line of durum wheat with a translocation of a segment of chromosome 1DL from breadwheat to chromosome 1A. The translocated segment carries locus Glu-D1 encoding high molecular weight glutenin subunits 5+10. The translocation significantly improves the parameters of breadmaking quality of durum wheat.

PI 628651. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Population. UCRD01-2; WB881/1A.1D5+10-4. GP-739. Pedigree - Rhino 1A.1D5+10-4/Monroe//3*WB881. A line of durum wheat with a translocation of a segment of chromosome 1DL from breadwheat to chromosome 1A. The translocated segment carries locus Glu-D1 encoding high molecular weight glutenin subunits 5+10. The translocation significantly improves the parameters of breadmaking quality of durum wheat.

PI 628652. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Population. UCRD01-3; WB881/1B.1D5+10-5. GP-740. Pedigree - Rhino 1A.1D5+10-5/Monroe//3*WB881. A line of durum wheat with a translocation of a segment of chromosome 1DL from breadwheat to chromosome 1BL. The translocated segment carries locus Glu-D1 encoding high molecular weight glutenin subunits 5+10 and it replaces the corresponding segment of 1BL with the Glu-B1 locus. The translocation significantly improves the parameters of breadmaking quality of durum wheat.

PI 628653. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Population. UCRD01-4; WB881/1A.1D5+10-6. GP-741. Pedigree - Rhino 1A.1D5+10-6/Monroe//3*WB881. A line of durum wheat with a translocation of a segment of chromosome 1DL from breadwheat to chromosome 1AL. The translocated segment carries locus Glu-D1 encoding high molecular weight glutenin subunits 5+10. The translocation significantly improves the parameters of breadmaking quality of durum wheat.

PI 628654. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Population. UCRD01-5; UB881/1A.1D2+12-2. GP-742. Pedigree - Rhino 1A.1D2+12-2/3*WB881. A line of durum wheat with a translocation of a segment of chromosome 1DL from breadwheat to chromosome 1AL. The translocated segment carries locus Glu-D1 encoding high molecular weight glutenin subunits 2+12. The translocation significantly improves the parameters of breadmaking quality of durum wheat.

PI 628655. Triticum turgidum subsp. durum (Desf.) Husn.
Breeding. Population. UCRD01-6; WB881/1B.1D2+12-5. GP-743. Pedigree - Rhino 1A.1D2+12-5/3*WB881. A line of durum wheat with a translocation of a segment of chromosome 1DL from breadwheat to chromosome 1BL. The translocated segment carries locus Glu-D1 encoding high molecular weight glutenin subunits 2+12 and it replaces the corresponding segment on 1BL with locus Glu-B1. The translocation significantly improves the parameters of breadmaking quality of durum wheat.

PI 628656. X Triticosecale sp.
Breeding. Pureline. UCRTCL1-2001; Presto 1R.1D5+10-2. GP-15. Pedigree - Rhino 1R.1D5+10-2/9*Presto/. A line of hexaploid winter triticale Presto with an engineered rye chromosome 1R that has an intercalary insert of 1DL in its long arm. This insert introduces wheat locus Glu-D1 encoding

high molecular weight glutenin subunits 5+10 and replaces a corresponding rye segment with secalin locus Sec-3. This translocated chromosome 1R improves breadmaking quality of triticale up to 200% depending on the background.

PI 628657. X Triticosecale sp.
Breeding. Pureline. UCRTCL2-2001; Presto Valdy. GP-16. Pedigree - Rhino 1R.1D5+10-2/5*Presto//WR4/3/*6Presto. A line of hexaploid winter triticale Presto with an engineered rye chromosome 1R Valdy. Chromosome Valdy has an intercalary insert of 1DL in its long arm that introduces wheat locus Glu-D1 encoding high molecular weight glutenin subunits 5+10, replacing a corresponding rye segment with secalin locus Sec-3. On the short arm chromosome Valdy carries translocation WR-4 that introduces a segment of wheat chromosome 1DS with the Gli-D1 and Glu-D3 loci present. Sec-1 locus of rye remains. This translocated chromosome 1R improves breadmaking quality of triticale by up to 256%, depending on the background.

PI 628658. X Triticosecale sp.
Breeding. Pureline. UCRTCL3-2001; Presto Valdy 5+10iv. GP-17. Pedigree - Rhino 1R.1D5+10-2/5*Presto//WR4/3/*4Presto/3/Rhino 1A.1D5+10-4/3*Presto. A line of hexaploid winter triticale Presto with cytogenetically engineered chromosomes 1A and 1R. Chromosome 1R is the translocation Valdy, with a intercalary segment of 1DL 1A and 1R. Chromosome 1R is the translocation Valdy, with a intercalary segment of 1DL on the long arm and translocaton QR4 on the short arm. The 1DL segment introduces wheat locus Glu-D1 and removes rye locus Sec-3; WR4 introduces wheat loci Glu-D1 and Glu-D3; rye locus Sec-1 remains. Chromosome 1A has in its long arm an intercalary insert from chromosome 1DL that carries locus Glu-D1 and replaces Glu-A1. This line has four doses of Glu-D1 (on 1A and 1R) which in both cases encodes high molecular weight glutenin subunits 5+10. The translocations significantly improves breadmaking quality of triticale.

The following were developed by Asgrow Seed Company LLC, United States. Received 01/16/2002.

PI 628659 PVPO. Glycine max (L.) Merr.
Cultivar. "SN79553". PVP 200200034.

PI 628660 PVPO. Glycine max (L.) Merr.
Cultivar. "02324990". PVP 200200035.

PI 628661. Glycine max (L.) Merr.
Cultivar. "SN79794". PVP 200200036.

PI 628662 PVPO. Glycine max (L.) Merr.
Cultivar. "SY32157". PVP 200200037.

PI 628663 PVPO. Glycine max (L.) Merr.
Cultivar. "SN79624". PVP 200200038.

PI 628664 PVPO. Glycine max (L.) Merr.
Cultivar. "SN79628". PVP 200200039.

PI 628665 PVPO. Glycine max (L.) Merr.

Cultivar. "SE80014". PVP 200200040.

PI 628666 PVPO. Glycine max (L.) Merr.
Cultivar. "SN79582". PVP 200200041.

PI 628667. Glycine max (L.) Merr.
Cultivar. "SN79591". PVP 200200042.

PI 628668 PVPO. Glycine max (L.) Merr.
Cultivar. "SN79596". PVP 200200043.

PI 628669. Glycine max (L.) Merr.
Cultivar. "SN79557". PVP 200200044.

The following were developed by HZPC Holland B.V., Netherlands. Received 01/17/2001.

PI 628670 PVPO. Solanum tuberosum L.
Cultivar. "INNOVATOR". PVP 9900179.

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

PI 628671. Agropyron cristatum (L.) Gaertn.
Wild. 98HT-54; W6 21176. Collected 09/1998 in Mongolia. Latitude 48 deg. 9' 35'' N. Longitude 109 deg. 25' 14'' E. Elevation 1524 m. Omnodelger Sum, Henti Aimag. Moderate slope with south aspect. Scattered Larix trees occur on the higher elevations of the grassland. Soil is very gravelly and is formed from eroded granitic rock. Fire occurred at site about two years ago. Associated vegetation:Open grassland vegetation dominated by Stipa, Poa, and forbs. Forest vegetation is dominated by Larix and Populus. Trisetum, Astragalus, and Hedysarum are common in understory.

PI 628672. Agropyron cristatum (L.) Gaertn.
Wild. 98HT-69; W6 21186. Collected 09/1998 in Mongolia. Latitude 48 deg. 10' 53'' N. Longitude 109 deg. 27' 39'' E. Elevation 1524 m. Omnodelger Sum, Henti Aimag. Steep slope with scattered Pinus and Larix trees present. Soils are gravelly and were formed from eroded granitic rock. Associated vegetation:Meadow with forbs and a few scattered shrubs.

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 01/21/1992.

PI 628673. Elymus dahuricus Turcz. ex Griseb.

Wild. X910034; KJ-307; W6 21655. Collected 08/27/1991 in Xinjiang, China . Latitude 38 deg. 24' N. Longitude 77 deg. 16' E. Elevation 1200 m. 1 km south of Shache.

PI 628674. Elymus dahuricus Turcz. ex Griseb.
Wild. X910045; KJ-308; W6 21656. Collected 08/29/1991 in Xinjiang, China . Latitude 37 deg. 7' N. Longitude 79 deg. 45' E. Elevation 1585 m. Bageqi Town, Kasipi Village, 15 km west of Hotien County.

PI 628675. Elymus nutans Griseb.
Wild. X910050; KJ-309; W6 21657. Collected 08/30/1991 in Xinjiang, China . Latitude 36 deg. 15' N. Longitude 79 deg. 59' E. Elevation 3300 m. South of Pixa Village, Hotien Prefecture.

PI 628676. Elymus dahuricus Turcz. ex Griseb.
Wild. X910070; KJ-314; W6 21659. Collected 09/02/1991 in China. Latitude 41 deg. 14' N. Longitude 80 deg. 14' E. Elevation 1080 m. Kekeya shelter belt forest, 8 km north of Aksu.

PI 628677. Elymus sibiricus L.
Wild. X910077; KJ-317; W6 21662. Collected 09/04/1991 in China. Latitude 43 deg. 18' N. Longitude 86 deg. 40' E. Elevation 1189 m. No. 24 Farm, 40 km NE of Yanqi County, between Korla and Urumqi.

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

PI 628678. Agropyron cristatum (L.) Gaertn.
Wild. UKR-99-077; W6 21752. . Collected 07/30/1999 in Krym, Ukraine. Latitude 44 deg. 30' 55'' N. Longitude 33 deg. 33' 23'' E. Elevation 260 m. On road to Sevastopol. South slope, rocky, very dry.

PI 628679. Agropyron desertorum (Fisch. ex Link) Schult.
Wild. UKR-99-194; W6 21835. . Collected 08/01/1999 in Krym, Ukraine. Latitude 44 deg. 55' 33'' N. Longitude 35 deg. 14' E. Elevation 350 m. In military/nature reserve between Koktebel' and Kurorne and south of road A-294. North slope, moderately steep, rocky, dry, mixed forest and grassland.

PI 628680. Agropyron desertorum (Fisch. ex Link) Schult.
Wild. UKR-99-259; W6 21886. . Collected 08/03/1999 in Krym, Ukraine. Latitude 45 deg. 28' 18'' N. Longitude 35 deg. 51' 18'' E. Elevation 20 m. Above Azov Sea and near Mysove on small peninsula. North slope, moderately steep, on cliff.

PI 628681. Agropyron desertorum (Fisch. ex Link) Schult.
Wild. UKR-99-236; W6 21868. . Collected 08/03/1999 in Krym, Ukraine. Latitude 45 deg. 25' 30'' N. Longitude 36 deg. 28' 19'' E. Elevation 80 m. North of Kerch. Nearly flat to rolling hills, open, mud volcano area,

salty with pH approximatel.

PI 628682. Agropyron desertorum (Fisch. ex Link) Schult.
Wild. UKR-99-216; W6 21851. . Collected 08/01/1999 in Krym, Ukraine. Latitude 44 deg. 55' 12'' N. Longitude 35 deg. 13' 37'' E. Elevation 230 m. Along trail in military/nature reserve between Koktebel' and Kurortne and south of road A-294. South slope, very sleep, scrub and grassland.

PI 628683. Agropyron cristatum (L.) Gaertn.
Wild. UKR-99-071; W6 21749. . Collected 07/30/1999 in Krym, Ukraine. Latitude 44 deg. 32' 18'' N. Longitude 33 deg. 35' 59'' E. Elevation 190 m. Along road A-294 to Sevastopol. Flat disturbed site.

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

PI 628684. Elymus elymoides (Raf.) Swezey **subsp. elymoides**
Wild. T-1174; W6 20988. Collected in Idaho, United States. Latitude 43 deg. 11' N. Longitude 115 deg. 46' W. Old highway 30 1.4 miles west of western Mountain Home, ID I-84 exit in Elmore County.

PI 628685. Elymus elymoides (Raf.) Swezey **subsp. elymoides**
Wild. T-1191; W6 20990. Collected in Colorado, United States. Latitude 40 deg. 56' N. Longitude 108 deg. 46' W. Junction of County Road 10 and County Road 63 in Moffat County.

PI 628686. Elymus elymoides (Raf.) Swezey **subsp. elymoides**
Wild. T-1193; W6 20992. Collected in Wyoming, United States. Latitude 41 deg. 47' N. Longitude 109 deg. W. West edge of Superior in Sweetwater County.

PI 628687. Elymus elymoides (Raf.) Swezey **subsp. elymoides**
Wild. T-1198; W6 20993. Collected in Utah, United States. Latitude 41 deg. 47' N. Longitude 111 deg. 12' W. 8 miles northwest of Laketown on Highway 30 in Rich County.

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

PI 628688. Elymus elymoides subsp. brevifolius (J. G. Sm.) Barkworth
Wild. 9026083; Acc:1130; W6 20996. Collected in Wyoming, United States. Elevation 1414 m. E Savageton in Campbell County. T45N R74W. Received as: Elymus elymoides var. longifolium.

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

PI 628689. Agropyron cristatum (L.) Gaertn.
Wild. 98HT-277; W6 21350. Collected 09/1998 in Mongolia. Latitude 48 deg. 40' 32'' N. Longitude 111 deg. 10' 6'' E. Elevation 1036 m. Bajnadarga Sum, Henti Aimag. Near a small stream tributary about 200 m W of Onon River. Associated vegetation:Typical grass steppe site dominated by genera of Elymus, Agropyron, and Medicago.

PI 628690. Agropyron cristatum (L.) Gaertn.
Wild. 98HV-81; W6 21462. Collected 09/1998 in Mongolia. Latitude 50 deg. 6' 43'' N. Longitude 105 deg. 31' 52'' E. Elevation 823 m. Tsagaanuur Sum, Selenge Aimag, 51 km west of Shaamar. Forb-Koeloria-Stipa type, brown soil, rolling foothills above wheat land. Associated vegetation:Stipa grandis (dominant), Stipa krylovii, Koeleria macrantha, Bupluerum bicaule (B. scorfonerifolium), Heteropappus biennis.

PI 628691. Agropyron cristatum (L.) Gaertn.
Wild. 98HT-133; W6 21233. Collected 09/1998 in Mongolia. Latitude 48 deg. 37' 36'' N. Longitude 110 deg. 5' 19'' E. Elevation 1219 m. Batchirrit Sum, Henti Aimag. East of a small lake with soils sandy and gravelly. Associated vegetation:Grass steppe dominated by Artemisia, Agropyron, Carex, and forbs.

The following were collected by Melvin D. Rumbaugh, USDA-ARS, Utah State University, Forage & Range Research Lab, Logan, Utah 84322-6300, United States; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 09/01/1988.

PI 628692. Stipa sp.
Wild. GR 452; W6 3072. Collected 07/14/1983 in Morocco. Road P39 east of Bub-Berred.

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

PI 628693. Lolium perenne L.
Wild. ABY-BA 9076.81; W6 9285. Collected in France. Latitude 47 deg. 33' N. Longitude 4 deg. 28' E. Elevation 250 m. Les Laumes.

The following were donated by I.C.C.P.T., Research Institute for Cereals, & Industrial Crops, Fundulea, Calarasi, Romania. Received 02/18/1992.

PI 628694. Lolium hybrid
Cultivated. W6 10030; LUKY.

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 628695. Phleum phleoides (L.) H. Karst.
Wild. X93073; W6 12989. Collected 08/10/1993 in Xinjiang, China.

Latitude 44 deg. 0' N. Longitude 85 deg. 57' E. Elevation 1220 m. Zinichuan Stud Farm, Xinjiang.

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 628696. Agropyron cristatum (L.) Gaertn.
Wild. JA-3; VIR U-0134808; W6 13278. Collected in Kazakhstan. Latitude 48 deg. 10' N. Longitude 60 deg. 14' E. Elevation 230 m. Dry gully with better moisture than surrounding area, 60km east northeast of Chelkar. Annual precipitation 150mm. Dominant vegetation - Agropyron cristatum, Elytrigia repens, Medicago sativa, and shrubs (Artemisia terrae-albae). Poa bulbosa in surrounding area (more droughty).

PI 628697. Agropyron desertorum (Fisch. ex Link) Schult.
Wild. JA-23; VIR U-0134835; W6 13298. Collected in Kazakhstan. Latitude 47 deg. 29' N. Longitude 58 deg. 15' E. Elevation 200 m. Clay soil along dry creek bed, 105km west-southwest of Chelkar. Annual precipitation 200mm. Vegetation - Bromus inermis, Leymus angustus, Elytrigia repens, Agropyron cristatum and Psathyrostachys juncea in better moisture aeras, Artemisia terrae-albae, Kochia prostrata, and tall shrubs.

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

PI 628698. Elymus nutans Griseb.
Wild. D-3386; MB-58-61-70 1992; W6 14247. Collected 09/23/1983 in China. Elevation 2860 m. Jin Qiang He, Tian Zhu County, Gansu Province.

PI 628699. Elymus sibiricus L.
Wild. D-4233; MB-90-71-80 1991; W6 14293. Collected 09/14/1989 in Russian Federation. Sovetskaya Gavan cirt on the Pacific Coast of Soviet Far East.

PI 628700. Elymus dahuricus Turcz. ex Griseb.
Wild. D-4256; MB-87-1-10 1991; W6 14294. Collected 10/02/1989 in Russian Federation. Mixed forest at Muraveika village near Vladivostock, Soviet Far East.

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

PI 628701. Elymus dentatus (Hook. f.) Tzvelev

Wild. DJ-3920; MB-113-31-50 1991; W6 14381. Collected 08/12/1989 in Russian Federation. Elevation 160 m. Between 659 and 658km markers, north side of Cheketeman Pass, Gorno Altay A.O., from the summit (660km marker on highway M-52 at 1250m elev.) to its base (656km marker and 1010m elev.). Spikes densely purple.

PI 628702. Elymus dentatus (Hook. f.) Tzvelev
Wild. DJ-3922; MB-113-51-70 1991; W6 14383. Collected 08/12/1989 in Russian Federation. Elevation 1150 m. Near the 658km marker, north side of Cheketeman Pass, Gorno Altay A.O., from summit (660km marker on highway M-52 at 1250m elev.) to its base (656km marker and 1010m elev.). Spikes large, erect, purplish.

PI 628703. Elymus mutabilis (Drobow) Tzvelev
Wild. DJ-3980; MB-114-71-80 1991; W6 14401. Collected 08/15/1989 in Russian Federation. Elevation 1240 m. South side of Cheketeman Pass, Gorno Altay A.O. from the summit (660km marker on highway 52 at 1250m elev.) to the Cheketeman camp (666km marker at 960m elev.). Between 660 and 661km markers. Spikes erect, purple.

PI 628704. Elymus mutabilis (Drobow) Tzvelev
Wild. DJ-3981; MB-113-1-10 1991; W6 14402. Collected 08/15/1989 in Russian Federation. Elevation 1240 m. South side of Cheketeman Pass, Gorno Altay A.O. from the summit (660km marker on highway 52 at 1250m elev.) to the Cheketeman Camp (666km marker at 960m elev.). Between 660 and 661km markers. Spikes long, arched, lightly pigmented.

PI 628705. Elymus mutabilis (Drobow) Tzvelev
Wild. DJ-4020; MB-115-71-80 1991; W6 14407. Collected 08/18/1989 in Russian Federation. Elevation 1480 m. On secondary gravel road at top of Yabagon pass about 55km wst of Tuetka, Gorno Altay A.O. Spikes slender. Awns short.

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

PI 628706. Elymus sibiricus L.
Wild. D-4236; MB-91-61-80 1991; W6 14452. Collected 09/15/1989 in Russian Federation. Along the Koppi River among rocks near Sovetskay Gava, Soviet Far East.

The following were collected by Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria; 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 09/1995.

PI 628707. Lolium sp.
Wild. B94-24; W6 16405. Collected 09/21/1994 in Bulgaria. Elevation 0 m. Collected in open area at the Windmill restaurant at Sunny Beach along

the Black Sea coast.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 06/30/1995.

PI 628708. Lolium sp.
Wild. W6 17191. Collected 06/23/1995 in Bulgaria. Elevation 450 m. Collected along roadside at Pavel Banya near the gas station. Long spike.

PI 628709. Lolium sp.
Wild. W6 17198. Collected 06/23/1995 in Bulgaria. Elevation 5 m. Collected at Ravda on Black Sea between Burgas and Varna.

PI 628710. Arrhenatherum elatius (L.) P. Beauv. ex J. Presl & C. Presl
Wild. W6 17224. Collected 06/25/1995 in Bulgaria. Collected on edge of field above a stream about 20 km north of Varna on the Varna to Dobrich road. Tall plant up to 1 meter or more. French ryegrass?.

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

PI 628711. Phleum phleoides (L.) H. Karst.
Wild. 0026; VIR 191; US 26; W6 17828. Collected 08/31/1995 in Russian Federation. Latitude 44 deg. 3' 5'' N. Longitude 40 deg. 1' 22'' E. Elevation 1900 m. Population distribution patchy, abundance occasional. Growth habit erect. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were collected by 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 628712. Agropyron cristatum (L.) Gaertn.
Wild. W94117; W6 18262. 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.

The following were collected by Jerrold I. Davis, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462

Mann Library, Ithaca, New York 14853-4301, United States. Received 02/10/1997.

PI 628713. Puccinellia intermedia (Schur) Janch.
Wild. 4033; W6 19181. Collected 07/08/1993 in Kocaeli, Turkey. Latitude 40 deg. 45' N. Longitude 29 deg. 59' E. Elevation 0 m. South of Izmit on road to Bursa, easternmost tip of Sea of Marmara, Izmit Korfezi, near shore. Low coastal, saline marshes, with Scirpus, Typha, Limonium, Juncus sparteum, Atriplex.

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

PI 628714. Poa pratensis L.
Wild. 4058; W6 19187. Collected 07/12/1993 in Corum, Turkey. Latitude 40 deg. 10' N. Longitude 35 deg. 5' E. Elevation 945 m. Karadag, 32 km southeast of Corum on Route. 19-27 toward Ortakoy. North facing, 15% slope, dominated by Quercus petraea (90% cover) thicket, with sparse understory of grasses. Limestone substrate. Along roadsides.

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

PI 628715. Puccinellia intermedia (Schur) Janch.
Wild. 4087; W6 19195. Collected 07/16/1993 in Ankara, Turkey. Latitude 38 deg. 45' N. Longitude 33 deg. 33' E. Elevation 905 m. 50 km north of Aksaray, near junction of Routes 300 and E90, on Route E90 toward Ankara, shore of Tuz Golu. Shores of vast shallow very saline lake surrounded by steppe. Heavy clay soils. On upper shores of lake, in heavy , dry clay.

PI 628716. Alopecurus arundinaceus Poir.
Wild. 4161; W6 19227. Collected 07/23/1993 in Ankara, Turkey. Latitude 39 deg. 33' N. Longitude 32 deg. 43' E. Elevation 1067 m. East of Oyaca, about 35 km east-northeast of Haymana on Route 260 to Ankara. Shallow draw in somewhat gypseous steppe, in breaks of low hills of Central Anatolian Basin. Somewhat saline, clay loam soils. In seep.

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 628717. Lolium perenne L.

Wild. B96-344; W6 19484. Collected 07/1996 in Bulgaria. Latitude 42 deg. 40' 9'' N. Longitude 24 deg. 7' 49'' E. Elevation 502 m. In wet meadow near stream. east.

PI 628718. Lolium sp.
Wild. B96-33; W6 19267. Collected 07/1996 in Bulgaria. Latitude 42 deg. 45' 20'' N. Longitude 27 deg. 45' 59'' E. Elevation 365 m. Oak woodland. Very dry soil. East exposure.

PI 628719. Phleum phleoides (L.) H. Karst.
Wild. B96-240; W6 19409. Collected 07/1996 in Bulgaria. Latitude 41 deg. 34' 19'' N. Longitude 25 deg. 11' 4'' E. Elevation 935 m. Steep rocky slope. east.

PI 628720. Agrostis capillaris L.
Wild. B96-258; W6 19421. Collected 07/1996 in Bulgaria. Latitude 42 deg. 44' 15'' N. Longitude 24 deg. 37' 10'' E. Elevation 1064 m. Balkan Mountains. Steep rocky bank. Trifolium, Lotus, Fagus.

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

PI 628721. Elymus dahuricus Turcz. ex Griseb.
Wild. 96S-180; W6 19677. Collected 09/1996 in Mongolia. Latitude 49 deg. 23' 7'' N. Longitude 102 deg. 47' 43'' E. Elevation 1090 m. Bulgan Aimag, Kutag-Ondor Sum, located 6 km east of sum center. 5% north slope. Ecotone between Larch forest and steppe grassland. Forb species dominate over grass species, and the site productivity is high. DOMINANT VEG: Larix\ Potentilla tanacetifolia + Sanguisorba officinalis\ Elymus dahuricus, Allium spp., Thalictrum simplex, Agropyron cristatum, Stipa sibirica.

PI 628722. Stipa capillata L.
Wild. 96N-207; W6 19699. Collected 08/1996 in Mongolia. Latitude 48 deg. 46' 35'' N. Longitude 97 deg. 42' 18'' E. Elevation 1841 m. Undisturbed steppe with slight south aspect. Sandy soils with some gravel. South aspect with 1% slope, sandy soil. DOMINANT VEG: Stipa capillata, Agropyron cristatum, Thermompsis dahurica, Carex duriscula, Poa attenuatta, Artemisia commutata ECOLOGICAL ZONE: Steppe.

PI 628723. Stipa capillata L.
Wild. 96N-234; W6 19725. Collected 08/1996 in Mongolia. Latitude 48 deg. 56' 2'' N. Longitude 95 deg. 33' 18'' E. Elevation 1694 m. Wide valley floor that has a uniform southwest slope of less than 1%. Soils are sandy, gravelly. Changing from forest steppe to dry steppe. DOMINANT VEG: Cleistogenes squarrosa, Stipa capillata, Artemisia adamsii, Agropyron cristatum, Caragana stenophylla, Potentilla acaulis ECOLOGICAL ZONE: Steppe.

PI 628724. Elymus gmelinii (Ledeb.) Tzvelev
Wild. 96S-58; W6 19593. Collected 08/1996 in Mongolia. Latitude 45 deg. 31' 39'' N. Longitude 94 deg. 37' 57'' E. Elevation 2115 m. Gobi-Altai Aimag, Bugat Sum, on and near Lamin ekh Mountain about 100 km from sum center. 5% to 30% south slope. Lower elevation of a mountain range in

the desert steppe. Mountain slopes are south facing and comprised of granodiorite materials including quartzite and quartz. DOMINANT VEG: Allium altaicum + Arenaria capillaris/Stipa glareosa.

PI 628725. Poa nemoralis L.
Wild. 96S-153; W6 19659. Collected 09/1996 in Mongolia. Latitude 49 deg. 28' 58'' N. Longitude 97 deg. 21' 35'' E. Elevation 1815 m. Khovsgol Aimag, Tsetserleg Sum, located 20 km west of sum center. 6% north slope. Low mountain slope with open grasslands mixed with dense stands of Larch. Soils are very gravelly brown loamy soils with a darker surface horizon darker under the forest canopy. DOMINANT VEG: Larix\ Potentilla tanacetifolia\Elymus dahuricus, Carex spp., Bromus inermis, Caragana spp.

PI 628726. Elymus sibiricus L.
Wild. 96S-105; W6 19624. Collected 09/1996 in Mongolia. Latitude 48 deg. 10' N. Longitude 91 deg. 45' 21'' E. Elevation 1335 m. Khovd Aimag, Buyant Sum, experimental area about 10 km north of the aimag center. 0% slope. Wide valley bottom that is currently being used for growing vegetables and making hay. Soils are alluvial and are coarse brown sandy loams. DOMINANT VEG: Vegetables and annual grasses.

PI 628727. Alopecurus arundinaceus Poir.
Wild. 96N-353; W6 19824. Collected 09/1996 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). Wet area that is part of Hovd Gol bottom area used for forage production. There is a small pond and a slough adjacent to collection area. Area is mostly flat and spoils are dark silts. DOMINANT VEG: Agrostis clavata, Carex caespitosa, Carex obicularis, Juncus articulatus, Potentilla anserina, Ranunculus acer, Ranunculus repens, Juncus gerardii ECOLOGICAL ZONE: Desert steppe.

PI 628728. Alopecurus arundinaceus Poir.
Wild. 96N-296; W6 19778. Collected 08/1996 in Mongolia. Latitude 49 deg. 46' 40'' N. Longitude 91 deg. 53' 52'' E. Elevation 1463 m. Uvs Aimag, in the city park in Harhiraa, sum center for Tarialan. 1% east slope. Gravelly, sandy soil. DOMINANT VEG: Medicago falcata, Bromus inermis, Agrostis clavata ECOLOGICAL ZONE: Steppe.

The following were collected by Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria; 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 07/1997.

PI 628729. Lolium sp.
Wild. B97-8; W6 20000. Collected 06/1997 in Bulgaria. Latitude 43 deg. 13' 27'' N. Longitude 27 deg. 57' 40'' E. Elevation 122 m. In city of Varna on the Black Sea Coast. Collected in an open lot in the city.

PI 628730. Lolium sp.
Wild. B97-40; W6 20022. Collected 06/21/1997 in Bulgaria. Latitude 42 deg. 48' 45'' N. Longitude 27 deg. 52' 32'' E. Elevation 46 m. Near

village of Obzor near the Black Sea. Collected on the roadside.

PI 628731. Lolium sp.
Wild. B97-70; W6 20046. Collected 06/1997 in Bulgaria. Latitude 43 deg. 21' 43'' N. Longitude 28 deg. 27' 46'' E. Elevation 46 m. At the Kaliakra Monument along the Black Sea. Open areas near drop off to Black Sea.

PI 628732. Lolium sp.
Wild. B97-86; W6 20058. Collected 06/1997 in Bulgaria. Latitude 43 deg. 22' 25'' N. Longitude 28 deg. 5' 2'' E. Elevation 61 m. Collected in the vicinity of the IWS 'Dobroudja' guest house in Albena, Bulgaria. Near the Black Sea.

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 628733. Elymus dahuricus Turcz. ex Griseb.
Wild. X97-017; W6 20213. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 37' 7'' N. Longitude 81 deg. 49' 50'' E. Elevation 720 m. 5 km east of Yemadu Bridge, Xinjiang. Hillside going down into a drainage area and near edge of drainage area. Sandy loam soil. Slope is 30% going down into drainage area.

PI 628734. Elymus dahuricus Turcz. ex Griseb.
Wild. X97-059; W6 20240. 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, Xinjiang. Meadow on valley floor. Silt loam soil. Grazed very lightly. Cut for hay. Slope is 1% with north aspect.

PI 628735. Elymus dahuricus Turcz. ex Griseb.
Wild. X97-087; W6 20257. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 2' 30'' N. Longitude 80 deg. 58' 58'' E. Elevation 1560 m. 20 km west of Zhaosu County, Xinjiang. Ungrazed meadow, will be cut for hay. Silt loam soil, low area surrounded by hills that would catch snow and spring runoff. No slope.

PI 628736. Elymus dahuricus Turcz. ex Griseb.
Wild. X97-098; W6 20263. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 9' 52'' N. Longitude 81 deg. 37' 12'' E. Elevation 1320 m. 40 km east Zhaosu County, Xinjiang. Ungrazed meadow that will be cut for hay. Lush vegetation, silt loam soil. Slope is 2% with southwest aspect. Near Suasu River.

PI 628737. Elymus dahuricus Turcz. ex Griseb.
Wild. X97-102; W6 20266. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 20' 31'' N. Longitude 81 deg. 49' 1'' E. Elevation 1710 m. 20 km north of Tekes County, Xinjiang. Ungrazed hillside with failed evergreen tree planting on pass through mountains. Silt loam soil. Moderately

dense vegetation with a high proportion of forbs. Slope is 20% with north to northwest aspect.

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

PI 628738. Phleum pratense L.
Uncertain. W36; W6 20481. Collected 08/1997 in Washington, United States . Latitude 47 deg. 54' 53'' N. Longitude 124 deg. 32' 31'' W. Elevation 10 m. 5 miles along Route 110 from Forks toward Mora. Roadway, sand, moist.

PI 628739. Phleum pratense L.
Wild. W43; W6 20485. Collected 08/1997 in Washington, United States. Latitude 48 deg. 10' 59'' N. Longitude 124 deg. 13' 2'' W. Elevation 50 m. Highway 113, 8 miles north of Sappho. Grassy clearing in logged forest. Loam, 0-5%, open, moist.

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

PI 628740. Nassella viridula (Trin.) Barkworth
Wild. T-861; W6 20879. Collected in New Mexico, United States. Latitude 36 deg. 38' N. Longitude 106 deg. 32' W. Rio Arriba County, 8 miles north of town of Cebolla.

PI 628741. Nassella viridula (Trin.) Barkworth
Wild. T-874; W6 20883. Collected in Colorado, United States. Latitude 37 deg. 45' N. Longitude 104 deg. 28' W. 20 miles northeast of town of Walsenburg on Highway 10 in Huerfano County.

PI 628742. Pseudoroegneria spicata (Pursh) A. Love
Wild. Acc:154; 9040434; W6 20905. Collected in Oregon, United States. Wallowa County.

PI 628743. Pseudoroegneria spicata (Pursh) A. Love
Wild. T-909; W6 20909. Collected in Alberta, Canada. Latitude 49 deg. 48' N. Longitude 114 deg. 9' W. Oldman River bridge at Highway 22 and Highway 517 junction.

PI 628744. Pseudoroegneria spicata (Pursh) A. Love
Wild. T-911; W6 20910. Collected in Alberta, Canada. Latitude 49 deg. 36' N. Longitude 114 deg. 24' W. Frank Slide Interpretive Site; Highway 3.

PI 628745. Pseudoroegneria spicata (Pursh) A. Love
Wild. Acc:1157; B53; W6 20914. Collected in Washington, United States. Town of Anatone in Asotin County.

PI 628746. Elymus multisetus (J. G. Sm.) Burtt Davy
Wild. T-1214; W6 20976. Collected in Idaho, United States. Latitude 43

deg. 28' N. Longitude 116 deg. 3' W. Black's Creek Road 2 miles north of I-80 in Ada County.

PI 628747. Elymus elymoides (Raf.) Swezey **subsp. elymoides**
Wild. T-1173; W6 20987. Collected in Idaho, United States. Latitude 43 deg. 2' N. Longitude 115 deg. 34' W. I-84 9.5 miles east of Mountain Home, ID exit between mile markers 104 and 105 in Elmore County.

The following were developed by Soon Jai Park, Agriculture and Agri-Food Canada, Harrow Research Station, 2585 County Road 20, Harrow, Ontario N0R 1G0, Canada; F. Kiehn, Agriculture and Agri-Food Canada, Research Centre, Unit 100 - 101 Route 100, Morden, Manitoba R6M 1Y5, Canada; T. Ruper, Agriculture and Agri-Food Canada, Greenhouse and Processing Crops Research Centre, Harrow, Ontario NOR 1GO, Canada. Received 12/20/2001.

PI 628748. Phaseolus vulgaris L.
Cultivar. "AC Pintoba". CV-200. Pedigree - Sierra / Fiesta. Out-yielded the check cv. Othello by about 385 kg per ha in an average of 16 cooperative cv. trials in 1993-1995 or it yielded about 41 and 10% more beans than Othello in dry and irrigated production fields, respectively. About 7 days later maturing than the check cv. Similar seed mass to Othello, weighing appox. 338 g per 1000 seeds. Taller than Othello but has less lodging than the check variety. Similary acceptable canning quality as the standard pinto variety Othello. Indeterminate growth with short vine, upright plant with narrow canopy. Seedling has green hypocotyl and produces white flowers. Pod has dark brown streaks on light background when ripe. Seeds brown irregular variegation on light brown solid background with pale yellow hilum ring and shiny lustre.

The following were developed by Ming H. Yu, USDA, ARS, U.S. Agricultural Research Station, 1636 East Alisal St., Salinas, California 93905, United States. Received 12/21/2001.

PI 628749. Beta vulgaris L. **subsp. vulgaris**
Breeding. M1-3. GP-221. Pedigree - M1-2 (PI 614899, Beta vulgaris ssp. maritima) / C37, C69, and C78 (recurrent sugarbeet parents viz. lines). Multigerm, biennial, self-incompatiable sugarbeet germplasm that varies in plant type and pigmentation. Approx. 80% of plants show hypocotyl colors at seedling stage. Size and conformation of taproots is not as uniform as its recurrent parents. However, intensity of the sprangled root growth habits of M1-2 is greatly decreased. Highly resistant, if not immune, to multiple species of root-knot nematode (Meloidogyne spp., including M. incognita, M. javanica, M. arenaria, M. hapla, M. chitwoodi, and M. fallax. Will be useful for sugarbeet root-knot nematode resistance breeding.

The following were developed by Robert T. Lewellen, USDA, ARS, Crop Improvement and Protection Research, 1639 E. Alisal St., Salinas, California 93905, United States. Received 01/10/2002.

PI 628750. Beta vulgaris L. **subsp. vulgaris**
Breeding. C67/2; Y167. GP-229. Pedigree - The Bvm germplasm was derived from R322Y3%, a component of C51(PI 593694), that had been selected for combined resistance to rhizomania, virus yellows, and agronomic traits.

The sugarbeet germplasm was largely from C37 (PI 590715), C78 (PI 593671), C80 (PI 593672), and C82 (PI 593675). Released previously as C67 (PI 599340) in 1998. Since that release, this breeding line has undergone two additional cycles of recurrent phenotypic selection. In both cycles, emphasis was placed on selecting mother roots for sucrose concentration, size, and conformation from field plants grown under rhizomania conditions, inoculated with virus yellows and sugarbeet Erwinia, and naturally infected with powdery mildew. Plants that bolted before harvest were eliminated. About 10% germplasm from B. vulgaris subsp. maritima (Bvm). Resistance to rhizomania is conditioned by both Rz and factor(s) from C51 (Bvm) that gives a high level of resistance under high temperature conditions.

PI 628751. Beta vulgaris L. **subsp. vulgaris**
Breeding. C69/2; Y169. GP-230. Released previously as C69 (PI 599341) in 1998. Since then, this breeding line has undergone two additional cycles of recurrent phenotypic selection. In both cycles, emphasis was placed on selecting mother roots for sucrose concentration, size, and conformation from field plants grown under rhizomania conditions, inoculated with virus
yellows and sugarbeet Erwinia, and naturally infected with powdery mildew. Predominately the germplasm of C31/6 (PI 590799) with smaller amounts from C37, C46/2 (PI 590800), C39 (PI 583373), C64, and other sources. Moderately resistant to virus yellows, bolting, powdery mildew, and Erwinia. Moderately susceptible to curly top.

PI 628752. Beta vulgaris L. **subsp. vulgaris**
Breeding. C78/3; R578; R578%; R778; R778%; R978; R578/2; R178. GP-231. Released previously as C78/2 (PI 593695) in 1996 and C78 (PI 593671) in 1994. Since being released as C78/2, this breeding line has undergone three additional cycles of recurrent phenotypic selection. In each cycle, emphasis was placed on selecting mother roots for sucrose concentration, size, and conformation from field plants grown under rhizomania conditions, inoculated with virus yellows, bolting, powdery mildew, Erwinia, and curly top. Although handled as if completely self-sterile, recent use of progenitors as a recurrent parent in backcrossing programs has shown that some plants express various degrees of self-fertility.

PI 628753. Beta vulgaris L. **subsp. vulgaris**
Breeding. C80/2; R180. GP-232. Released previously as C80 (PI 593672), C80NB (PI 593673), and C80NB-45 (PI 593674) in 1994. These sublines were recombined to produce this line. This breeding line has undergone four additional cycles of recurrent phenotypic selection. The first of these four cycles was for resistance to rhizomania in 4-month old plants within C80, C80NB, and C80-45. Selected plants from these lines were recombined into one population. In each of the next three cycles, emphasis was placed on selecting mother roots for sucrose concentration, size, and conformation from field plants grown under rhizomania conditions, inoculated with virus yellows.

PI 628754. Beta vulgaris L. **subsp. vulgaris**
Breeding. C869; 1869. GP-226. Pedigree - Initial development up to 1995 was complex, circuitous, and involved developing and recombining subpopulations and selected progeny lines from various cycles of development and selection. Collectively, comprises about 44% of germplasm from C790 (PI 515964) through C890 (PI 593700); 12.5% from

C310 (C6) (PI 590873); 12.5% from curly top and Erwinia resistant monogerm inbred C546 (PI 590649); and about 31% from the original source of Rz. Monogerm, O-type, self-fertile, genetic-male-sterile facilitated, random mated population. Segregates for resistance to rhizomania conditioned by the Rz allele. Mostly red hypocotyls. Moderately resistant to curly top and has genetic variability for high levels of resistance. Wide variability for reaction to bolting, Erwinia, and powdery mildew. Is an N-type for sucrose concentration with average sugar yield combining ability. Moderately based population with good monogerm and O-type traits. Good plant vigor and seed yield potential. 600 plants from 24 selfed families that appeared to be O-type and have resistance to rhizomania were recombined through their genetic male sterile segregants.

PI 628755. Beta vulgaris L. **subsp. vulgaris**
Breeding. C869CMS; 1869CMS; 1869HO; C869HO. GP-227. Pedigree - Cytoplasmic male sterile counterpart of C896 (PI 628754). Useful to quickly develop CMS equivalents of any lines extracted or developed from C869. It may also be useful as a monogerm, CMS tester to evaluate multigerm lines for general combining ability. Also useful as source of resistance to rhizomania, curly top, and other diseases in a monogerm, O-type background.

PI 628756. Beta vulgaris L. **subsp. vulgaris**
Breeding. C927-4; 1927-4A; 1927-4. GP-233. Pedigree - Derived from a population cross between population (C918 (PI 578079) and population 921. Pop. C918 is a multigerm, self-fertile, genetic-male-sterile facilated, random-mated population. Pop. 921 was developed from crosses between pop. C918 and linesR322Y3 and R322R4. Lines R322Y3 and R322R4 are similar to C51 (PI 593694) (improved C50, PI 538251) that was developed from composite crosses between sugarbeet and Bvm. Theoretically, about 12% would be from Bvm. Narrowly based, self-fertile, multigerm, sugarbeet line with high resistance to rhizomania. Resistance to rhizomania is conditioned by Rz and factors from B. vulgaris subsp. maritima. Segregates for hypocotyl color and genetic male sterility. Produces hybrids with intermediate sucrose content and high sugar yield. Hybrids perform relatively best when grown under rhizomania conditions. Source for the Rz allele for resistance to rhizomania. From C51, additional factors for resistance occur that condition improved resistance and survivability of plants under the combined effects of severe rhizomania and high temperature stress. Possesses this type of resistance to rhizomania.

PI 628757. Beta vulgaris L. **subsp. vulgaris**
Breeding. C929-62; 1929-62A; 1929-62. GP-234. Pedigree - Derived from a population cross between genetic-male-sterile plants from population C918 and C76-89-18 (PI 593699), Line C76-89-18 was advanced from one full-sib progeny that is susceptible to rhizomania but has high sugar yield combining ability and resistance to virus yellows, Erwinia, and bolting. Selected from C31/6 (PI 590799) type germplasm. Narrowly based, self-fertile, multigerm, sugarbeet line with high sugar yield combining ability. Red hypocotyls and segregates for genetic male sterility. In tests at Salinas and Brawley, appears to be resistant to powdery mildew, Erwinia, and bolting. Moderately susceptible to curly top and segregates for resistance to rhizomania. Produces hybrids with intermediate sucrose content and high sugar yield. Moderately resistant to virus yellows.

PI 628758. Beta vulgaris L. **subsp. vulgaris**
Breeding. C930-19; 1930-19. GP-235. Pedigree - Derived from a population cross made in 1955 between population C918 and breeding line C78 (PI 593671). C78 is a rhizomania resistant version of C46/2 (PI 590800). C46/2 has moderate curly top resistance and has been an important source of pollinators used commercially in California. Narrowly based, self-fertile, multigerm sugarbeet line with high resistance to bolting. Segregates for hypocotyls color and genetic male sterilty. Appears to be resistant to Erwinia and moderately resistant to curly top and powdery mildew. Segregates for resistance to rhizomania. In tests at Salinas and Brawley, hybrids had moderate to high sucrose content and sugar yield combining ability. Over wintered stecklings from Oregon of 8930-19 were transplanted into a field isolation plot at Salinas. In the absence of an artificially extended photoperiod, stecklings of 8930-19 were very slow to bolt and some plants did not flower. During seed harvest, these non-flowering plants were saved, regrown in the greenhouse, and vernalized in a cold room for 140 days, then replanted into a greenhouse isolation chamber with a 24-hour photoperiod. Under these conditions, this nonbolting selection from line 8930-19 produced seed.

PI 628759. Beta vulgaris L. **subsp. vulgaris**
Breeding. C930-35; 1930-35A; 1930-35. GP-236. Pedigree - Derived from a population cross made in 1996 between genetic-male-sterile plants from one component of pop. CZ25 (PI 599343) and breeding line C78. This component of CZ25 was a multigerm, self-fertile, genetic-male-sterile facilitated, random-mated population. It was developed from crosses between breeding sources similar to C918 and high sucrose accessions from Poland. About 25% of the germplasm would be Polish. The Polish germplasm was from 2n=2x=18 chromosome, multigerm, self-incompatible, ty . Narrowly based, self-fertile, multigerm sugarbeet line with high sucrose concentration. Green hypocotyls and segregates for genetic male sterility. In tests at Salinas and Brawley, appears to be moderately resistant to curly top, Erwinia, powdery mildew, and bolting. Segregates for resistance to rhizomania. A composite of nine Polish accessions were crossed to genetic-male-sterile plants from a progenitor of population C918 to ultimately produce pop. CZ25. From the F1 pop. hybrid between CZ25 and C78, individual S0 plants were selected for resistance to rhizomania and were selfed in bags to produce S1 progenies. These S1 progenies were evaluated at Salinas for components of sugar yield and resistance to bolting, rhizomania, and powdery mildew. On the basis of these tests, S1 progenies were selected, increased, and testcrossed. Line 9930-35 was selected.

PI 628760. Beta vulgaris L. **subsp. vulgaris**
Breeding. B.v.m (Pisa, It.); 01-Bvm(Pisa). Pedigree - B. vulgaris subsp. maritime collected by M. DeBiaggi near Pisa, Italy in about 1998. Originally from 3 seed bearing plants. Increase of B.v. subsp. maritima accession. Annual, susceptible to rhizomania, multigerm, red hypocotyls.

The following were developed by Wanda W. Collins, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States; Kenneth V. Pecota, North Carolina State University, Department of Horticultural Sciences, Room 214, Kilgore Hall, Raleigh, North Carolina 27695-7609, United States; G.Craig Yencho, North Carolina State University, Department of Horticultural Science, Vernon G. James Research & Extension Ctr., Plymouth, North Carolina 27962, United

States. Received 12/10/2001.

PI 628761. Ipomoea batatas (L.) Lam. **var. batatas**
Cultivar. "CAROLINA RUBY"; NC-C75. Pedigree - Originated in 1988 from an open-pollinated polycross breeding nursery in which 25 genotypes were randomly mated. The female parent is Beauregard. Male parent unknown. Released 02/12/1998. Leaves cordate to triangle in shape with no to slight lateral lobes, green with some protruding of abaxial veins in immature leaves. Vines and petioles green with light purple at the apex of the petiole and at the leaf axil. Newly emerging terminal leaves range from slightly to mostly purple. Plants produce a spreading vine, and form storage roots of an open-cluster type, with individual roots being elliptic to round-elliptic in shape. Skin color of roots red to purple-red which lightens during storage. Flesh color uniform dark orange flesh color. Plants produce adequate flowers and set seed readily. Flowers rounded, white limb with a purple throat, 4.4 cm in length and 3.5 in width. Outer two sepals at the base of the flower shorter than the inner sepals. Sepal shape ranges from elliptic to obovate, with the apex of the outer sepals being acute in shape and the inner sepals being obtuse; pubescence is absent and they are green in color. Slightly exerted stigma is white,.

The following were developed by Johnnie Jenkins, USDA, ARS, Crop Sci. Res. Lab., P.O. Box 5367, Mississippi State, Mississippi 39760, United States; Jack McCarty, Mississippi State University, Dept. of Crop Science, P.O. Box 5367, Mississippi State, Mississippi 39762, United States. Received 01/17/2002.

PI 628762. Gossypium hirsutum L.
Breeding. M-9644-0027. GP-746. Pedigree - T-0027 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0027.

PI 628763. Gossypium hirsutum L.
Breeding. M-9644-0029. GP-747. Pedigree - T-0029 / Deltapine 16. Day-neutral germplasm line developed fromthe photoperiodic primitive race stock T-0029.

PI 628764. Gossypium hirsutum L.
Breeding. M-9644-0073. GP-748. Pedigree - T-0073 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0073.

PI 628765. Gossypium hirsutum L.
Breeding. M-9644-0083. GP-749. Pedigree - T-0083 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0083.

PI 628766. Gossypium hirsutum L.
Breeding. M-9644-0089. GP-750. Pedigree - T-0089 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0089.

PI 628767. Gossypium hirsutum L.
Breeding. M-9644-0116. GP-751. Pedigree - T-0116 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive

race stock T-0116.

PI 628768. Gossypium hirsutum L.
Breeding. M-9644-0188. GP-752. Pedigree - T-0188 / Deltapine 16. Day-neutral germplasm developed from the photoperiodic primitive race stock T-0188.

PI 628769. Gossypium hirsutum L.
Breeding. M-9644-0195. GP-753. Pedigree - T-0195 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0195.

PI 628770. Gossypium hirsutum L.
Breeding. M-9644-0199. GP-754. Pedigree - T-0199 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0199.

PI 628771. Gossypium hirsutum L.
Breeding. M-9644-0216. GP-755. Pedigree - T-0216 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0216.

PI 628772. Gossypium hirsutum L.
Breeding. M-9644-0224. GP-756. Pedigree - T-0224 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0224.

PI 628773. Gossypium hirsutum L.
Breeding. M-9644-0235. GP-757. Pedigree - T-0235 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0235.

PI 628774. Gossypium hirsutum L.
Breeding. M-9644-0238. GP-758. Pedigree - T-0238 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0238.

PI 628775. Gossypium hirsutum L.
Breeding. M-9644-0240. GP-759. Pedigree - T-0240 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0240.

PI 628776. Gossypium hirsutum L.
Breeding. M-9644-0242. GP-760. Pedigree - T-0242 / Deltapine 16. Day-neutral germplasm line developed from the primative photoperiodic race stock T-0242.

PI 628777. Gossypium hirsutum L.
Breeding. M-9644-0250. GP-761. Pedigree - T-0250 / Deltapine 16. Day-neutral germplasm line developed from the photoperiodic primitive race stock T-0250.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Jim Loong Hop Seeds. Received 02/20/1981.

PI 628778. Amaranthus blitum L.
Cultivated. RRC 298; RRC 78S-298; Horse Tooth type; Ames 2206. The seeds are black, flowers green, leaves green. The RRC class type is: horsetooth. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were donated by Lehek Telek, TARS-USDA-ARS, % Dr. Antonio Sotomayor, P. O. Box 70, Mayaguez, Puerto Rico; Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Rolf Carlsson, University of Lund, Fack, Lund, Malmohus S-220 07, Sweden; Charles Daloz, Rodale Research Center, RD1, BOX 323, Kutztown, Pennsylvania 19530, United States. Received 03/19/1981.

PI 628779. Amaranthus caudatus L.
Uncertain. "R 130"; 76; RRC 79S-130; RRC 399; Ames 5157; Ames 2251. The seeds are white, flowers orange, leaves green. The RRC class type is: edulis. It is early maturing with more seed procuction than other 'edulis'. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. R130 = RRC 78S-399. Has unknown Lygus resistance.

The following were collected by Gary Nabhan, Native Seeds/SEARCH, 3950 W. New York Drive, Tucson, Arizona 85745, United States; L. Feine-Dudley, Rodale Res. Ctr., Kutztown, Pennsylvania, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 628780. Amaranthus cruentus L.
Landrace. LF/GN 13; RRC 423; Ames 5179. Collected 08/05/1979 in Morelos, Mexico. Latitude 18 deg. 43' N. Longitude 98 deg. 45' W. Elevation 1200 m. Hualzurco area, 1.3 km from Amayuca toward Hualzurco. Field of a forage legume and interplant of tomatillos and beans. The seeds are white, flowers purple-red, leaves rufescent. The RRC class type is: Mexican. The branches are high and there is no lodging. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. . In 2001 David Brenner observed that this is a good example of the unusual A. cruentus type with obtuse inner tepals and U shaped notches between the styles.

PI 628781. Amaranthus cruentus L.
Landrace. LF/GN 33; RRC 444; Ames 5198. Collected 08/06/1979 in Morelos, Mexico. Latitude 18 deg. 43' N. Longitude 98 deg. 45' W. Elevation 1200 m. Near Amayuca. The seeds are white, flowers green, leaves green. The RRC class type is: Mexican. It is all green with a large main head. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. In 2001 David Brenner observed that this is an example of the unusual type with obtuse inner tepals and U shaped notches between the styles.

PI 628782. Amaranthus cruentus L.
Landrace. LF/GN 35; RRC 446; Ames 5200. Collected 08/06/1979 in Morelos, Mexico. Latitude 18 deg. 43' N. Longitude 98 deg. 45' W. Elevation 1200 m. Near Amayuca. The seeds are white, flowers green, leaves green. The RRC class type is: Mexican. It is less branching than most with side branches later than the main stem. Observations from the Rodale

Research Center, 1988 Rodale Amaranth Germplasm Catalog. In 2001 David Brenner observed that this segregates for U shaped notches between styles, and obtuse inner tepals of which are atypical for A. cruentus.

The following were collected by L. Feine-Dudley, Rodale Res. Ctr., Kutztown, Pennsylvania, United States; Jorge Martin del Campo. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 628783. Amaranthus cruentus L.
Landrace. LFD/JMdC 142-1; RRC 776; Ames 5501. Collected 11/06/1981 in Morelos, Mexico. Latitude 18 deg. 42' N. Longitude 98 deg. 46' W. Elevation 1370 m. Jantetelco. Pedigree - A single plant selection at the time of collection. The seeds are white, flowers marbled and red, leaves variegated and green. The RRC class type is: Mexican. The plants were of uniform type with large side branches and lodged, not special. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.. The collectors noted in 1981: 1.5 meters tall, mixed colors in flower head, not branched, large flower head. In 2002 David Brenner observed that this segregates for an unusual A. cruentus type with U shaped notches between the styles and obtuse inner tepals.

The following were collected by Jorge Martin del Campo. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 628784. Amaranthus cruentus L.
Landrace. JMdC 13; RRC 1139; Ames 5638. Collected 09/01/1982 in Puebla, Mexico. Seeds are light tan, flowers red, leaves rufescent. The RRC class type is: unique. The plants are tall and basically unbranched with Mexican grain type flower heads. It matures mid-season and there was some lodging. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

PI 628785. Amaranthus cruentus L.
Landrace. JMdC 14; RRC 1140; Ames 5639. Collected 09/01/1982 in Puebla, Mexico. The seeds are light tan, flowers red, leaves light rufescent. The RRC class type is: Mexican. The plants are very uniform, bushy and early. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by Darlene Foote, c/o U.S. Peace Corps, G.P.O. Box 613, Kathmandu, Nepal. Received 07/08/1992.

PI 628786. Trigonella foenum-graecum L.
Cultivated. PDF 92004; W6 10515. Collected 1992 in Nepal. Latitude 29 deg. 35' N. Longitude 81 deg. 15' E. Elevation 1368 m. Chainpur Village, Bajhang District.

PI 628787. Trigonella foenum-graecum L.
Cultivated. PDF 92009; W6 10516. Collected 1992 in Nepal. Latitude 29 deg. 35' N. Longitude 81 deg. 15' E. Elevation 1338 m. Chainpur Village, Bajhang District. Used as spice, vegetable.

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 628788. Trigonella foenum-graecum L.
Cultivated. PAK 63; W6 12061. Collected 03/29/1986 in Andhra Pradesh, India. Purchased in the Mondha market, Andhra Pradesh.

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 Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria. Received 09/1995.

PI 628789. Trigonella foenum-graecum L.
Uncertain. B94-37; W6 16418. Collected 09/23/1994 in Bulgaria. Elevation 325 m.

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 05/22/1995.

PI 628790. Trigonella foenum-graecum L.
Cultivated. Fennyriek; W6 17077. Collected 05/20/1995 in Jordan. Elevation 700 m. At the farm of Hasan Nabulsi at Hisban (near Mushaqar). Growing under dryland conditions. Being grown commercially.

The following were developed by Marco A. Marchetti, USDA-ARS, Rice Research Station, Texas A&M Experiment Station, Beaumont, Texas 77713, United States; Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States; Robert G. Fjellstrom, USDA, ARS, Rice Research Unit, 1509 Aggie Dr., Beaumont, Texas 77713, United States; Christine Bergman, USDA-ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States; Concetta Bormans, Texas A&M University, Dept of Biochemistry & Biophysics, MS2128, College Station, Texas 77843-2128, United States; W.D. Park, Borlaug Center for Southern Crop Improvement, Dept. of Biochemistry & Biophysics, Texas A&M University, College Station, Texas 77843, United States. Received 01/25/2002.

PI 628791. Oryza sativa L.
Cultivar. "BOLIVAR"; TX 5012. CV-116; PVP 200200095. Pedigree - Gulfmont*2/Te Qing. Released 2001. Early maturing long-grain rice well suited for the parboiling and canning industries. Very early maturing variety that flowers in about 74 days after emergence. Grain size similar to its parent Gulfmont and larger than Dixiebelle which is also used by the processing industry. Semidwarf (95 cm), taller than Dixiebelle by about 7cm. Good resistance to all of the predominant races of blast disease (Pyricularia grisea) that are known to occur in the

U.S. Molecular markers indicate possesses the Pi-b and Pi-kh major blast resistance genes. The level of resistance is such that fungicides will likely not be needed for control of blast in most situations and thus will reduce production costs. Main crop yields are less than Dixiebelle, however ratoon crop potential is superior to most current commercial cvs. Milling yield is also less than Dixiebelle but this is less important to the canning and processing industries where milling occurs after parboiling.

The following were developed by Jerry L. Baker, Samuel Roberts Noble Foundation, Inc., P. O. Box 2180, 2510 Highway 199 East, Ardmore, Oklahoma 73402, United States; W.L. Richardson, Oklahoma State University, Horticulture and Landscape Architecture Dept., Stillwater, Oklahoma 74078, United States; Charles M. Taliaferro, Oklahoma State University, Plant and Soil Science Department, 368 Agricultural Hall, Stillwater, Oklahoma 74078-6028, United States; R.J. Crawford, University of Missouri-Columbia, Southwest Missouri Agricultural Research and Education Ctr., Mt. Vernon, Missouri 65712, United States; J.A. Anderson, Oklahoma State University, Horticulture & Landscape Dept., Stillwater, Oklahoma 74078, United States; S.W. Coleman, USDA-ARS, Subtropical Agric. Res. Stn., Brooksville, Florida 34601, United States; W.A. Phillips, USDA-ARS, Grasslands Research Lab., El Reno, Oklahoma 73403, United States; L.J. Sandage, University of Arkansas, Cooperative Extension Service, Little Rock, Arkansas 72203, United States; J.L. Moyer, Kansas State University, Research and Extension Southeast Area, Chanute, Kansas 66720, United States; T.L. Hansen, University of Missouri Outreach and Extension, Springfield, Missouri 65802, United States; R.L. Kallenbach, University of Columbia, Dept. of Agronomy, Plant Science Unit, Columbia, Missouri 65211, United States. Received 01/08/2002.

PI 628792. Cynodon dactylon (L.) Pers.
Cultivar. "MIDLAND 99"; 74X 21-6. CV-42. Pedigree - PI 269370 / PI 292143 (6-X-820) // A12156 / A10978b-4 (7-X-59). Relatively upright, tall growing (~35 cm), forage-type bermudagrass that combines high forage yield capability, good low temperature tolerance, and disease resistance. Stem diameter, shoot length, and leaf width similar to Midland and Tifton 44, though leaf length tends to be 2 to 4 cm longer. Produces stout rhizomes. Typically produces seed heads later and less prolifically than Midland and Tifton 44. Sets few seed and is asexually propagated. High forage production capability and good freeze tolerance relative to Midland, Tifton 44, and Greenfield standards. Highly resistant to leaf spotting disease (Bipolaris cynodontis). Adapted throughout the southern U.S. where bermudagrass is grown, but is targeted for the northern half of the bermudagrass belt.

The following were collected by A. Trambronelo, Department of Entomology, University of Florida, 3103 McCarty Hall, Gainsville, Florida 32611, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 628793. Amaranthus cruentus L.
Cultivar. "Lenga-lenga"; RRC 685; Ames 5369. Collected 04/01/1981 in Shaba, Zaire. North Shaba Province. The seeds are black, flowers pinkish brown, leaves pinkish green. The RRC class type is unique. 'Lenga-lenga' It is a cultivated vegetable with distinctive elongated leaves. It is unbranched with some seed production in the field in

Pennsylvania, USA. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were donated by Luis Rozas, Tramsa Agro s.a., San Ignacio de Loyola 653, Lima, Lima 18, Peru. Received 08/08/1997.

PI 628794. Amaranthus caudatus L.
Cultivar. Ames 23921. Original seed from a sales sample of food grain grown in Peru. Grain is grown on farmland of irrigated valley floor and exported to Europe and other destinations. The seeds are an attractive bright white.

The following were developed by National Crop Experiment Station, Rural Development Administration, 209 Seodun-Dung, Suwon, Kyonggi 441-100, Korea, South. Donated by Huhn Pal Moon, National Crop Experiment Station, RDA, Rice Breeding Division, Suweon, Kyonggi 441-100, Korea, South; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States. Received 02/08/2002.

PI 628795. Oryza sativa L.
Cultivar. Pureline. "CHUNCHEONGBYEO"; NSGC 8788. Japonica rice, short grain. Grown over 16% of Korea in 1997.

PI 628796. Oryza sativa L.
Cultivar. Pureline. "ILPUMBYEO"; NSGC 8789. Japonica rice, short grain. Excellent palatability, semidwarf, blast susceptible.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628797. Glycine max (L.) Merr.
Cultivated. Pureline. Andrews; SY 111001; SY 315001. Pedigree - Sel in CV "Santa Rosa". Released 1974.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628798. Glycine max (L.) Merr.
Cultivated. Pureline. Bossier; SY 111002.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628799. Glycine max (L.) Merr.
Cultivated. Pureline. BR-2 (Vagem clara); SY 111003; SY 315009. Pedigree - Hill/Hood. Released 1977.

PI 628800. Glycine max (L.) Merr.

Cultivated. Pureline. BR-3; SY 111004; SY 315014. Pedigree - Hampton/Campos Gerais. Released 1977.

PI 628801. Glycine max (L.) Merr.
Cultivated. Pureline. BR-4; SY 111005; SY 315019. Pedigree - Hill/Hood. Released 1979.

PI 628802. Glycine max (L.) Merr.
Cultivated. Pureline. BR-5; SY 111006; SY 315020. Pedigree - Hill/Hood. Released 1980.

PI 628803. Glycine max (L.) Merr.
Cultivated. Pureline. BR-7; SY 111007; SY 315022. Pedigree - Hill/Hardee . Released 1982.

PI 628804. Glycine max (L.) Merr.
Cultivated. Pureline. BR-8 (Pelotas); SY 111008; SY 315023. Pedigree - Bienville/Hampton. Released 1983.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628805. Glycine max (L.) Merr.
Cultivated. Pureline. BR-9 (Savana); SY 111009; SY 315024. Pedigree - Sel(N) in Population LoB 74-21. Released 1983.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628806. Glycine max (L.) Merr.
Cultivated. Pureline. BR-12; SY 111010; SY 315004. Pedigree - Bienville/Hood. Released 1984.

PI 628807. Glycine max (L.) Merr.
Cultivated. Pureline. BR-13 (Maravilha); SY 111011; SY 315005. Pedigree - Bragg(4)/Santa Rosa. Released 1985.

PI 628808. Glycine max (L.) Merr.
Cultivated. Pureline. BR-14 (Modelo); SY 111012; SY 315006. Pedigree - Santa Rosa/Campos Gerais. Released 1985.

PI 628809. Glycine max (L.) Merr.
Cultivated. Pureline. BR-16; SY 111013; SY 315008. Pedigree - D69-B10-M58/Davis. Released 1992.

PI 628810. Glycine max (L.) Merr.
Cultivated. Pureline. BR-27 (Cariri); SY 111014; SY 315012. Pedigree - BR 78-22043//Bragg/IAC 73-2736. Released 1987.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628811. Glycine max (L.) Merr.
Cultivated. Pureline. MT/BR-45 (Paiaguas); SY 111015; SY 315114. Pedigree - Doko/IAC-7. Released 1993.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628812. Glycine max (L.) Merr.
Cultivated. Pureline. MG/BR-46 (Conquista); SY 111016; SY 315104. Pedigree - Lo75-4484/Numbaira Lo75-4484 = late sel Bragg. Released 1995.

PI 628813. Glycine max (L.) Merr.
Cultivated. Pureline. MG/BR-48 (Garimpo RCH); SY 111017; SY 315105. Pedigree - MG/BR-22 (Garimpo)(6)/Dourados. Released 1996.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628814. Glycine max (L.) Merr.
Cultivated. Pureline. Campos Gerais; SY 111018; SY 315025. Pedigree - Arksoy/Ogden. Released 1968.

PI 628815. Glycine max (L.) Merr.
Cultivated. Pureline. CEP 10; SY 111019; SY 315026. Pedigree - IAS-2/Centennial. Released 1983.

PI 628816. Glycine max (L.) Merr.
Cultivated. Pureline. CEP 12 (Cambara); SY 111020; SY 315027. Pedigree - Bragg/Hood. Released 1984.

PI 628817. Glycine max (L.) Merr.
Cultivated. Pureline. CEP-16 (Timbo); SY 111021; SY 315028. Pedigree - IAS-2/Perola'. Released 1986.

PI 628818. Glycine max (L.) Merr.
Cultivated. Pureline. Cobb; SY 111022.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628819. Glycine max (L.) Merr.
Cultivated. Pureline. Coker 136; SY 111023; SY 315030. Pedigree - N59-6800/Co Hampton 266. Released 1978.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628820. Glycine max (L.) Merr.

Cultivated. Pureline. Decada; SY 111024; SY 315031. Pedigree - Multiple cross involving 12 genotypes. Released 1982.

PI 628821. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Cometa; SY 111025; SY 315063. Pedigree - CO 76-647/Williams [Co 76-647 = Dare/R64-502(=lee sib)]. Released 1987.

PI 628822. Glycine max (L.) Merr.
Cultivated. Pureline. FT-3; SY 111026; SY 315053. Pedigree - Sel in CV "Florida". Released 1982.

PI 628823. Glycine max (L.) Merr.
Cultivated. Pureline. FT-4; SY 111027; SY 315054. Pedigree - D65-3076/D64-4636. Released 1982.

PI 628824. Glycine max (L.) Merr.
Cultivated. Pureline. FT-5 (Formosa); SY 111028; SY 315055. Pedigree - PR9510/Santa'ana. Released 1984.

PI 628825. Glycine max (L.) Merr.
Cultivated. Pureline. FT-6 (Veneza); SY 111029; SY 315056. Pedigree - FT9510/Prata. Released 1984.

PI 628826. Glycine max (L.) Merr.
Cultivated. Pureline. FT-7 (Taroba); SY 111030; SY 315057. Pedigree - FT-4/Davis. Released 1984.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628827. Glycine max (L.) Merr.
Cultivated. Pureline. FT-8 (Araucaria); SY 111031; SY 315058. Pedigree - Cobb/Planalto. Released 1984.

PI 628828. Glycine max (L.) Merr.
Cultivated. Pureline. FT-9 (Inae); SY 111032; SY 315059. Pedigree - FT-4/Davis. Released 1984.

PI 628829. Glycine max (L.) Merr.
Cultivated. Pureline. FT-10 (Princesa); SY 111033; SY 315041. Pedigree - FT9510/Sant'ana. Released 1984.

PI 628830. Glycine max (L.) Merr.
Cultivated. Pureline. FT-12 (Nissei); SY 111034; SY 315043. Pedigree - FT9510/Prata. Released 1984.

PI 628831. Glycine max (L.) Merr.
Cultivated. Pureline. FT-13 (Alianca); SY 111035; SY 315044. Pedigree - Davis/FT 216. Released 1984.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628832. Glycine max (L.) Merr.
Cultivated. Pureline. FT-14 (Piracema); SY 111036; SY 315045. Pedigree - FT 9510/Sant'ana. Released 1984.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628833. Glycine max (L.) Merr.
Cultivated. Pureline. FT-15; SY 111037; SY 315046. Pedigree - FT 9510/Sant'ana. Released 1985.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628834. Glycine max (L.) Merr.
Cultivated. Pureline. FT-16; SY 111038; SY 315047. Pedigree - FT440/Campos Gerais. Released 1985.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628835. Glycine max (L.) Merr.
Cultivated. Pureline. FT-17 (Bandeirantes); SY 111039; SY 315048. Pedigree - Sel in CV "FT-2". Released 1985.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628836. Glycine max (L.) Merr.
Cultivated. Pureline. FT-18 (Xavante); SY 111040; SY 315049. Pedigree - FT 9510/Prata. Released 1985.

PI 628837. Glycine max (L.) Merr.
Cultivated. Pureline. FT-20 (Jau); SY 111041; SY 315052. Pedigree - FT-4/Davis. Released 1986.

PI 628838. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Abyara; SY 111042; SY 315060. Pedigree - Uniao/Santana. Released 1988.

PI 628839. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Eureka; SY 111043; SY 315067. Pedigree - Parana x (PI 346,304 x Parana'). Released 1989.

PI 628840. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Guaira; SY 111044; SY 315068. Pedigree - Lancer/Uniao. Released 1988.

PI 628841. Glycine max (L.) Merr.

Cultivated. Pureline. FT-Manaca; SY 111045; SY 315070. Pedigree - FT 907/Lancer. Released 1988.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628842. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-1; SY 111046; SY 315073. Pedigree - Alianca Preta/Palmetto. Released 1965.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628843. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-4; SY 111047; SY 315082. Pedigree - IAC-2/Hardee. Released 1975.

PI 628844. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-5; SY 111048; SY 315083. Pedigree - Sel in Florida "Bulk" 59-1. Released 1975.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628845. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-10; SY 111049; SY 315074. Pedigree - Hardee/Hill. Released 1982.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628846. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-11; SY 111050; SY 315076. Pedigree - Parana'//Davis/IAC73-1364. Released 1984.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628847. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-12; SY 111051; SY 315077. Pedigree - Parana'/IAC 73-231. Released 1984.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628848. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-13; SY 111052; SY 315078. Pedigree - Parana'/IAC 73-231. Released 1985.

PI 628848 A. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-13. Pedigree - Parana'/IAC 73-231. Released 1985.

PI 628848 B. Glycine max (L.) Merr.
Cultivated. Pureline. (IAC-13). Pedigree - Parana'/IAC 73-231. Released 1985.

PI 628849. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-14; SY 111053; SY 315079. Pedigree - Davis/IAC 76-4012. Released 1987.

PI 628850. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-100; SY 111054; SY 315075. Pedigree - IAC78-2318/IAC-12.

PI 628851. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-Foscarin 31; SY 111055; SY 315088. Pedigree - Sel in Hale-7. Released 1981.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628852. Glycine max (L.) Merr.
Cultivated. Pureline. Ipagro-21; SY 111056; SY 315097. Pedigree - Forrest/Hood//Louisiana. Released 1986.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628853. Glycine max (L.) Merr.
Cultivated. Pureline. IAS-1; SY 111057; SY 315089. Pedigree - Jackson/D 49-2491. Released 1973.

PI 628854. Glycine max (L.) Merr.
Cultivated. Pureline. IAS-2; SY 111058; SY 315090. Pedigree - Hill//Roanoke/Ogden. Released 1973.

PI 628855. Glycine max (L.) Merr.
Cultivated. Pureline. IAS-4; SY 111059; SY 315092. Pedigree - Hood/Jackson. Released 1973.

PI 628856. Glycine max (L.) Merr.
Cultivated. Pureline. IAS-5; SY 111060; SY 315093. Pedigree - Hill/D 52-810 (=Roanoke/Ogden). Released 1973.

PI 628857. Glycine max (L.) Merr.
Cultivated. Pureline. Industrial; SY 111061; SY 315094. Pedigree - Mogiana/La 41-1219. Released 1967.

PI 628858. Glycine max (L.) Merr.
Cultivated. Pureline. Invicta; SY 111062; SY 315095. Pedigree - Lancer/Essex. Released 1986.

PI 628859. Glycine max (L.) Merr.
Cultivated. Pureline. Ivai; SY 111063; SY 315098. Pedigree - Majos/Hood. Released 1979.

PI 628860. Glycine max (L.) Merr.
Cultivated. Pureline. Ivora; SY 111064; SY 315099. Pedigree - Davis/Shinanomejiro//Howgyoku/Amarale comum. Released 1980.

PI 628861. Glycine max (L.) Merr.
Cultivated. Pureline. J-200; SY 111065; SY 315100. Pedigree - IAC-2(L-2006)/Vicoja(F 61-2890). Released 1984.

PI 628862. Glycine max (L.) Merr.
Cultivated. Pureline. Lancer; SY 111066; SY 315101. Pedigree - N59-6800/Co Hampton 266 (N59-6800=Parana'). Released 1979.

PI 628863. Glycine max (L.) Merr.
Cultivated. Pureline. LC 72-749; SY 111067; SY 315102. Pedigree - Bienville/Hood. Released 1980.

PI 628864. Glycine max (L.) Merr.
Cultivated. Pureline. Mineira; SY 111068; SY 315106. Pedigree - D 49-772/Improved Pelican. Released 1969.

PI 628865. Glycine max (L.) Merr.
Cultivated. Pureline. Missoes; SY 111069; SY 315107.

PI 628866. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-2 (Iapo); SY 111070; SY 315121. Pedigree - Co Hampton 208/Davis. Released 1982.

PI 628867. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-3 (Primavera); SY 111071; SY 315122. Pedigree - Halesoy/Volstate//Hood/Rhosa. Released 1984.

PI 628868. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-4 (Iguacu); SY 111072; SY 315123. Pedigree - R 70-733-0/Davis. Released 1984.

PI 628869. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-5 (Piquiri); SY 111073; SY 315124. Pedigree - Co 136/Co 156. Released 1984.

PI 628870. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-6; SY 111074; SY 315125. Pedigree - PI230,979/Lee 68//Davis/Bragg/3/Dare/Davis. Released 1987.

PI 628871. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-8; SY 111075; SY 315126. Pedigree - Sel in CV "Parana'". Released 1987.

PI 628872. Glycine max (L.) Merr.

Cultivated. Pureline. Ocepar-9 = SS1; SY 111076; SY 315127. Pedigree - Natural mutation in CV "Parana'". Released 1987.

PI 628873. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-10; SY 111077; SY 315117. Pedigree - Parana'/Uniao. Released 1990.

PI 628874. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-11; SY 111078; SY 315118. Pedigree - Davis/Parana'. Released 1990.

PI 628875. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-13; SY 111079; SY 315119. Pedigree - FT-2/Uniao. Released 1991.

PI 628876. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-14; SY 111080; SY 315120. Pedigree - Davis/Uniao. Released 1991.

PI 628877. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-18; SY 111081; SY 315129. Pedigree - CEPS 77-16/Invicta. Released 1994.

PI 628878. Glycine max (L.) Merr.
Cultivated. Pureline. Pampeira; SY 111082; SY 315130. Pedigree - Sel in CV "Hood". Released 1974.

PI 628879. Glycine max (L.) Merr.
Cultivated. Pureline. Parana; SY 111083; SY 315131. Pedigree - Hill/D 52-810 (=Roanoke/Ogden). Released 1972.

PI 628880. Glycine max (L.) Merr.
Cultivated. Pureline. Paranagoiana; SY 111084; SY 315132. Pedigree - Natural mutation in CV "Parana'". Released 1982.

PI 628881. Glycine max (L.) Merr.
Cultivated. Pureline. Paranaiba; SY 111085; SY 315133. Pedigree - Davis//Davis/IAC 73-1364. Released 1984.

PI 628882. Glycine max (L.) Merr.
Cultivated. Pureline. Perola; SY 111086; SY 315134. Pedigree - Hood/Industrial. Released 1973.

PI 628883. Glycine max (L.) Merr.
Cultivated. Pureline. Planalto; SY 111087; SY 315135. Pedigree - Hood/Kedelee Stb #452. Released 1972.

PI 628884. Glycine max (L.) Merr.
Cultivated. Pureline. Prata; SY 111088; SY 315136. Pedigree - Hood/Hill. Released 1973.

PI 628885. Glycine max (L.) Merr.
Cultivated. Pureline. RS-5 (Esmeralda); SY 111089; SY 315137.

PI 628886. Glycine max (L.) Merr.
Cultivated. Pureline. RS-6 (Guassupi); SY 111090; SY 315138. Pedigree - Ivai/Lee. Released 1989.

PI 628887. Glycine max (L.) Merr.
Cultivated. Pureline. RS-7 (Jacui); SY 111091; SY 315139. Pedigree - Ivora/PI 80837. Released 1989.

PI 628888. Glycine max (L.) Merr.
Cultivated. Pureline. Sant'Ana; SY 111092; SY 315141. Pedigree - D51-5437/D49-2491. Released 1974.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628889. Glycine max (L.) Merr.
Cultivated. Pureline. Santa Rosa; SY 111093; SY 315140. Pedigree - D49-772/La 41-1219. Released 1967.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628890. Glycine max (L.) Merr.
Cultivated. Pureline. Sao Carlos; SY 111094; SY 315142. Pedigree - Sel CV 'Davis'. Released 1985.

PI 628891. Glycine max (L.) Merr.
Cultivated. Pureline. Sao Luiz; SY 111095; SY 315143. Pedigree - Hardee/Semmes. Released 1976.

PI 628892. Glycine max (L.) Merr.
Cultivated. Pureline. Sertaneja; SY 111096; SY 315144. Pedigree - N59-6800/Co Hampton 266. Released 1984.

PI 628893. Glycine max (L.) Merr.
Cultivated. Pureline. Sulina; SY 111097; SY 315145. Pedigree - Sel in CV "Hampton". Released 1976.

PI 628894. Glycine max (L.) Merr.
Cultivated. Pureline. Tiaraju; SY 111098; SY 315146. Pedigree - Industrial/Asomusume. Released 1981.

PI 628895. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-2; SY 111099; SY 315151. Pedigree - Hardee/IAC-2. Released 1977.

PI 628896. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-3; SY 111100; SY 315152. Pedigree - Hardee/Improved Pelican. Released 1979.

PI 628897. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-4; SY 111101; SY 315153. Pedigree - IAC-2/Mineira. Released 1981.

PI 628898. Glycine max (L.) Merr.
Cultivated. Pureline. Uniao; SY 111102; SY 315159. Pedigree -

D65-2874/Hood. Released 1979.

PI 628899. Glycine max (L.) Merr.
Cultivated. Pureline. Vicoja; SY 111103; SY 315160. Pedigree - D49-2491(2)/Improved Pelican. Released 1969.

PI 628900. Glycine max (L.) Merr.
Cultivated. Pureline. IPB 90-77; SY 111104.

PI 628901. Glycine max (L.) Merr.
Cultivated. Pureline. IPB 204-77; SY 111105.

PI 628902. Glycine max (L.) Merr.
Cultivated. Pureline. BR-1; SY 111106; SY 315003. Pedigree - Hill/L356 (Gray pubescent form). Released 1976.

PI 628903. Glycine max (L.) Merr.
Cultivated. Pureline. BR-15 (Mato Grosso); SY 111107; SY 315007. Pedigree - Santo Rosa/LoD-76-761. Released 1985.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628904. Glycine max (L.) Merr.
Cultivated. Pureline. MS BR-17 (Sao Gabriel); SY 111108; SY 315108. Pedigree - Lo76-732/Lo76-736. Released 1987.

PI 628905. Glycine max (L.) Merr.
Cultivated. Pureline. MS BR-18 (Guavira); SY 111109; SY 315109. Pedigree - Sel(N) in CV Vicoia. Released 1987.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628906. Glycine max (L.) Merr.
Cultivated. Pureline. MS BR-19 (Pequi); SY 111110; SY 315110. Pedigree - D69-442//Bragg/Santa Rosa. Released 1987.

PI 628907. Glycine max (L.) Merr.
Cultivated. Pureline. MS BR-20 (Ipe); SY 111111; SY 315111. Pedigree - D69-6344//Bragg/Santa Rosa. Released 1987.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628908. Glycine max (L.) Merr.
Cultivated. Pureline. MS BR-21 (Buriti); SY 111112; SY 315112. Pedigree - Sao Luiz/Davis. Released 1987.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628909. Glycine max (L.) Merr.
Cultivated. Pureline. MG BR-22 (Garimpo); SY 111113; SY 315103. Pedigree - Parana' x Bossier. Released 1987.

PI 628910. Glycine max (L.) Merr.
Cultivated. Pureline. BR-23; SY 111114; SY 315010. Pedigree - Bossier/Parana'. Released 1988.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628911. Glycine max (L.) Merr.
Cultivated. Pureline. BR-24; SY 111115; SY 315011. Pedigree - Parana'/Davis. Released 1988.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628912. Glycine max (L.) Merr.
Cultivated. Pureline. BR-29 (Londrina); SY 111116; SY 315013. Pedigree - Davis/BR-5. Released 1988.

PI 628913. Glycine max (L.) Merr.
Cultivated. Pureline. BR-30; SY 111117; SY 315015. Pedigree - Uniao/2/Lo76-1763. Released 1989.

PI 628914. Glycine max (L.) Merr.
Cultivated. Pureline. BA BR-31; SY 111118; SY 315002.

PI 628915. Glycine max (L.) Merr.
Cultivated. Pureline. MS BR-34 (Empaer 10); SY 111119; SY 315113. Pedigree - D64-4636/IAC-7. Released 1980.

PI 628916. Glycine max (L.) Merr.
Cultivated. Pureline. BR-36; SY 111120; SY 315016. Pedigree - IAS-4/2/BR78-22043(=Bragg(3)/Santa Rosa). Released 1990.

PI 628917. Glycine max (L.) Merr.
Cultivated. Pureline. BR-37; SY 111121; SY 315017. Pedigree - Uniao/2/Lo76-1763(early sel Industrial). Released 1990.

PI 628918. Glycine max (L.) Merr.
Cultivated. Pureline. BR-38; SY 111122; SY 315018. Pedigree - FT-2/Uniao . Released 1990.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628919. Glycine max (L.) Merr.
Cultivated. Pureline. MT/BR-50(Parecis); SY 111123; SY 315115. Pedigree - BR83-9520-1(2)/FT-Estrela. Released 1996.

PI 628920. Glycine max (L.) Merr.
Cultivated. Pureline. CEP-20 (Guajuvira); SY 111124; SY 315029. Pedigree - CTS 132 (La 59-7-21)/Forrest. Released 1988.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628921. Glycine max (L.) Merr.
Cultivated. Pureline. Doko; SY 111125.

PI 628922. Glycine max (L.) Merr.
Cultivated. Pureline. Dourados; SY 111126; SY 315032. Pedigree - Sel in CV "Andrews". Released 1980.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628923. Glycine max (L.) Merr.
Cultivated. Pureline. Embrapa-1 (IAS-5 RC); SY 111127; SY 315033. Pedigree - IAS5(6) x Paranaiba. Released 1991.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628924. Glycine max (L.) Merr.
Cultivated. Pureline. Embrapa-4 (BR-4 RC); SY 111128; SY 315035. Pedigree - BR-4(5) x Paranaiba. Released 1991.

PI 628925. Glycine max (L.) Merr.
Cultivated. Pureline. Embrapa-20 (Doko RC); SY 111129; SY 315034. Pedigree - Doko/4/IAC-7R. Released 1992.

PI 628926. Glycine max (L.) Merr.
Cultivated. Pureline. Emgopa-302; SY 111130; SY 315036. Pedigree - Parana'/Mandarin. Released 1983.

PI 628927. Glycine max (L.) Merr.
Cultivated. Pureline. Emgopa-303; SY 111131; SY 315037. Pedigree - IAC 73-2736-10/IAC-6. Released 1984.

PI 628928. Glycine max (L.) Merr.
Cultivated. Pureline. Emgopa-304 (Campeira); SY 111132; SY 315038. Pedigree - Parana/Mandarin. Released 1987.

PI 628929. Glycine max (L.) Merr.
Cultivated. Pureline. Emgopa-305 (Caraiba); SY 111133; SY 315039. Pedigree - Tropical/Cristalina. Released 1987.

PI 628930. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Cristalina; SY 111134; SY 315065. Pedigree - Sel in CV "UFV-1". Released 1975.

PI 628931. Glycine max (L.) Merr.
Cultivated. Pureline. FT-1; SY 111135; SY 315040. Pedigree - Sel in CV "Sant'ana. Released 1980.

PI 628932. Glycine max (L.) Merr.
Cultivated. Pureline. FT-2; SY 111136; SY 315051. Pedigree - Sel in CV "IAS-5". Released 1981.

PI 628933. Glycine max (L.) Merr.
Cultivated. Pureline. FT-11 (Alvorada); SY 111137; SY 315042. Pedigree - UFV-1/Campos Gerais. Released 1985.

PI 628934. Glycine max (L.) Merr.
Cultivated. Pureline. FT-19 (Macacha); SY 111138; SY 315050. Pedigree - Santa Rosa//Sel.Cajeme/Sao Luiz. Released 1985.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628935. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Seriema; SY 111139; SY 315072. Pedigree - M2/FT-1. Released 1987.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628936. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Estrela; SY 111140; SY 315066. Pedigree - M2/FT-1. Released 1993.

PI 628937. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Jatoba; SY 111141; SY 315069. Pedigree - FT 9510/Santana. Released 1987.

PI 628938. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Canarana; SY 111142; SY 315062. Pedigree - FT-Cristalina x FT-1. Released 1988.

PI 628939. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Bahia; SY 111143; SY 315061. Pedigree - Sel cv Cristalina. Released 1989.

PI 628940. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Cristal; SY 111144; SY 315064. Pedigree - Sel cv Cristalina. Released 1989.

PI 628941. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Iracema; SY 111145. Pedigree - FT 79-2321 x

Emgopa 301. Released 1989.

PI 628942. Glycine max (L.) Merr.
Cultivated. Pureline. FT-Maracaju; SY 111146; SY 315071. Pedigree - FT9510 x Santana. Released 1987.

PI 628943. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-2; SY 111147; SY 315081. Pedigree - La 41-1219/Yelnanda. Released 1967.

PI 628944. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-6; SY 111148; SY 315084. Pedigree - Sel in Bulk RB 72-1. Released 1979.

PI 628945. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-7; SY 111149; SY 315085. Pedigree - Sel in Bulk RB 72-1. Released 1979.

PI 628946. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-8; SY 111150; SY 315086. Pedigree - Bragg//Hill/PI240,664. Released 1980.

PI 628947. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-9; SY 111151; SY 315087. Pedigree - Sel in Population RB 72-1. Released 1981.

PI 628948. Glycine max (L.) Merr.
Cultivated. Pureline. IAC-17; SY 111152; SY 315080. Pedigree - Bulk B-5.

PI 628949. Glycine max (L.) Merr.
Cultivated. Pureline. Ipagro-20; SY 111153; SY 315096. Pedigree - Santa Rosa/Arksoy//Majos/Kanro. Released 1982.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628950. Glycine max (L.) Merr.
Cultivated. Pureline. IAS-3 (Delta); SY 111154; SY 315091. Pedigree - Ogden/CNS. Released 1971.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628951. Glycine max (L.) Merr.
Cultivated. Pureline. Numbaira; SY 111155; SY 315116. Pedigree - Davis/IAC 71-1113. Released 1980.

PI 628952. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-17; SY 111156; SY 315128. Pedigree - SOC81-216/Ocepar 3(Primavera). Released 1994.

PI 628953. Glycine max (L.) Merr.
Cultivated. Pureline. Ocepar-20; SY 111157.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628954. Glycine max (L.) Merr.
Cultivated. Pureline. Timbira; SY 111158; SY 315147. Pedigree - Sel in Population RB 72-1. Released 1982.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628955. Glycine max (L.) Merr.
Cultivated. Pureline. Tropical; SY 111159; SY 315148.

PI 628956. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-1; SY 111160; SY 315150. Pedigree - Natural mutation in CV "Vicoja". Released 1973.

The following were donated by L.A. de Almeida, EMBRAPA, Empresa Brasileira de Pesquisa, Agropecuaria, Londrina, Parana, Brazil; Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628957. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-5; SY 111161; SY 315154. Pedigree - Mineira/UFV-1. Released 1982.

PI 628958. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-7 (Juparana); SY 111162; SY 315155. Pedigree - Hardee/IAC-2//UFV-1. Released 1984.

The following were donated by Howard Gabe, Sygenta Seeds Ltda., Rod. BR 452 - Km 142, Uberlandia, Minas Gerais 38400-974, Brazil. Received 04/20/2001.

PI 628959. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-8 (Monte Rico); SY 111163; SY 315156. Pedigree - IAC-2/Hardee//UFV-1. Released 1984.

PI 628960. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-9 (Sucupira); SY 111164; SY 315157. Pedigree - Natural outcross in CV "UFV-1" (UFV-1/Santa Rosa). Released 1984.

PI 628961. Glycine max (L.) Merr.
Cultivated. Pureline. UFV-Araguaia; SY 111165; SY 315158. Pedigree - Hardee/IAC-2. Released 1981.

PI 628962. Glycine max (L.) Merr.
Cultivated. Pureline. Vila Rica; SY 111166; SY 315161. Pedigree - Sel in CV "Hardee"?. Released 1978.

PI 628963. Glycine max (L.) Merr.

Cultivated. Pureline. La Suprema; SY 111167. Pedigree - FT-Cristalina///Hood//Hill/PI 274,454 (Hood or Hardee?).

PI 628964. Glycine max (L.) Merr.
Cultivated. Pureline. tropical OT; SY 111168.

PI 628965. Glycine max (L.) Merr.
Cultivated. Pureline. UFVITM-1; SY 111169; SY 315149.

PI 628966. Glycine max (L.) Merr.
Cultivated. Pureline. BR-6 (Nova Bragg); SY 111170; SY 315021. Pedigree - Bragg(3)/Santa Rosa. Released 1981.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868, Santa Maria, California 93456, United States. Received 02/14/2002.

PI 628967 PVPO. Lactuca sativa L.
Cultivar. "ENVY". PVP 200200045.

The following were developed by Enza Zaden De Enkhuizer Zaadhandel B.V., Enkhuizen, North Holland, Netherlands. Received 02/14/2002.

PI 628968 PVPO. Lactuca sativa L.
Cultivar. "DURANGO". PVP 200200046.

The following were developed by D&PL Technology Holding Corp., United States. Received 02/14/2002.

PI 628969 PVPO. Gossypium hirsutum L.
Cultivar. "DP 555 BG/RR". PVP 200200047.

The following were developed by Syngenta Seeds, Inc., United States. Received 02/14/2002.

PI 628970 PVPO. Phaseolus vulgaris L.
Cultivar. "SB4087". PVP 200200048.

The following were developed by Pennington Seeds, Inc., United States. Received 02/14/2002.

PI 628971 PVPO. Festuca arundinacea Schreb.
Cultivar. "REBEL EXEDA". PVP 200200058.

The following were developed by University of Arkansas, Arkansas Agr. Exp. Sta., Fayetteville, Arkansas 72701, United States. Received 02/14/2002.

PI 628972 PVPO. Oryza sativa L.
Cultivar. "Ahrent". PVP 200200051.

The following were developed by Turf Merchants, Inc., United States. Received

02/14/2002.

PI 628973 PVPO. Festuca arundinacea Schreb.
Cultivar. "Focus". PVP 200200052.

The following were developed by Bejo Zaden B.V., P.O. Box 50, Trambaan 1, Warmenhuizen, North Holland 1749 ZH, Netherlands. Received 02/14/2002.

PI 628974 PVPO. Allium cepa L. **var. cepa**
Cultivar. "BGS 118". PVP 200200053.

The following were developed by Bejo Zaden B.V., P.O. Box 9, Dorpsstraat 612, Noord-Scharwoude, North Holland 1722 ZG, Netherlands. Received 02/14/2002.

PI 628975 PVPO. Allium cepa L. **var. cepa**
Cultivar. "BGS-117". PVP 200200054.

The following were developed by Stoneville Pedigreed Seed Company, Stoneville, Mississippi, United States. Received 02/14/2002.

PI 628976 PVPO. Gossypium hirsutum L.
Cultivar. "GC-546RR". PVP 200200055.

PI 628977 PVPO. Gossypium hirsutum L.
Cultivar. "ST 580". PVP 200200056.

The following were developed by Pennington Seeds, Inc., United States. Received 02/14/2002.

PI 628978 PVPO. Festuca arundinacea Schreb.
Cultivar. "PROSPECT". PVP 200200057.

The following were developed by Cebeco International Seeds, Inc., P.O. Box 229, Halsey, Oregon 97348-0229, United States. Received 02/14/2002.

PI 628979 PVPO. Lolium perenne L.
Cultivar. "KOKOMO". PVP 200200059.

The following were developed by Kenneth Hignight, Advanta Seeds West, Inc., 33725 Columbus Street S.E., P.O Box 1496, Albany, Oregon 97321-0452, United States; C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, United States; Ronald F. Bara, Rutgers University, New Jersey Agricultural Experiment Station, Cook College, New Brunswick, New Jersey 08903, United States; Steve Tubbs, Turf Merchants, Inc., 33390 Tangent Loop, Tangent, Oregon 97389, United States; Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers University, Cook College, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 02/14/2002.

PI 628980. Lolium perenne L.
Cultivar. "PIZZAZZ". CV-225; PVP 200200060. Pedigree - Advanced-generation synthetic cultivar selected from the half-sib progenies of 31 plants. Turf-type with an attractive dark-green color, fine leaf texture, medium-high shoot density. Excellent turf quality under medium-high maintenace in the NTEP tests established in 1999 (Morris, 2000). Exhibited excellent spring green up, and good resistance to leaf spot (Drechslera siccans), stem rust (Puccinia graminis), crown rust (Puccinia coronata) and dollar spot (Sclerotinia homoeocarpa) in NTEP trials.

The following were developed by Turf Merchants, Inc., United States. Received 02/14/2002.

PI 628981 PVPO. Lolium perenne L.
Cultivar. "PROMISE". PVP 200200061.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 02/14/2002.

PI 628982 PVPO. Zea mays L. **subsp. mays**
Cultivar. "LH255". PVP 200200062.

PI 628983 PVPO. Zea mays L. **subsp. mays**
Cultivar. "LH289". PVP 200200063.

PI 628984 PVPO. Zea mays L. **subsp. mays**
Cultivar. "LH321". PVP 200200064.

PI 628985 PVPO. Zea mays L. **subsp. mays**
Cultivar. "LH322". PVP 200200065.

The following were developed by Minnesota Agricultural Experiment Station, St. Anthony Park, Minnesota, United States. Received 02/14/2002.

PI 628986. Avena sativa L.
Cultivar. "WABASHA". PVP 200200066.

The following were developed by Cebeco Zaden B.V., Rotterdam, South Holland, Netherlands. Received 02/14/2002.

PI 628987 PVPO. Triticum aestivum L.
Cultivar. "RESIDENCE". PVP 200200067.

PI 628988 PVPO. Triticum aestivum L.
Cultivar. "SEMPER". PVP 200200068.

The following were developed by Texas Tech University, Texas, United States. Received 02/14/2002.

PI 628989 PVPO. Gossypium hirsutum L.
Cultivar. "Raider 202". PVP 200200069.

PI 628990 PVPO. Gossypium hirsutum L.
Cultivar. "Raider 271". PVP 200200070.

The following were developed by Syngenta Seeds, Inc., United States. Received 02/14/2002.

PI 628991 PVPO. Zea mays L.
Cultivar. "NP2222". PVP 200200071.

PI 628992 PVPO. Zea mays L.
Cultivar. "NP2316". PVP 200200072.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 02/14/2002.

PI 628993 PVPO. Phaseolus vulgaris L.
Cultivar. "PREAKNESS"; XP 8104098. PVP 200200073.

The following were developed by Pennington Seeds, Inc., United States. Received 02/14/2002.

PI 628994 PVPO. Lolium perenne L.
Cultivar. "INTEGRA". PVP 200200074.

The following were developed by Ampac Seeds, Inc., United States. Received 02/14/2002.

PI 628995 PVPO. Festuca rubra L. **subsp. rubra**
Cultivar. "GIBRALTAR". PVP 200200075.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 02/14/2002.

PI 628996 PVPO. Agrostis capillaris L.
Cultivar. "GLORY". PVP 200200076.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 02/14/2002.

PI 628997 PVPO. Glycine max (L.) Merr.
Cultivar. "91B03". PVP 200200078.

PI 628998 PVPO. Glycine max (L.) Merr.
Cultivar. "91B42". PVP 200200079.

PI 628999 PVPO. Glycine max (L.) Merr.
Cultivar. "92B13". PVP 200200080.

PI 629000 PVPO. Glycine max (L.) Merr.
Cultivar. "92B47". PVP 200200081.

PI 629001 PVPO. Glycine max (L.) Merr.
Cultivar. "93B09". PVP 200200082.

PI 629002 PVPO. Glycine max (L.) Merr.
Cultivar. "93B36". PVP 200200083.

PI 629003 PVPO. Glycine max (L.) Merr.
Cultivar. "93B68". PVP 200200084.

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 02/14/2002.

PI 629004. Glycine max (L.) Merr.
Cultivar. Pureline. "MN0201". CV-458; PVP 200200085. Pedigree - Ozzie x (Maple Ridge x Lakota). Early maturity group O (relative maturity 0.2). Indeterminate growth habit, purple flowers, tawny pubescence and brown pods at maturity. Seeds yellow with yellow hila and a dull seed coat luster. Seeds average about 170 mg in size and have approx. 430 g kg-1 protein and 200 g kg-1 oil on a dry weight basis. Carries the Rpsla gene for resistance to phytophthora root rot (Phytophthora sojae). Very good iron deficiency chlorosis rating.

PI 629005. Glycine max (L.) Merr.
Cultivar. Pureline. "MN0302". CV-459; PVP 200200086. Pedigree - [(Clay x Evans) x Ozzie] x Maple Donovan. Moderately early maturity group O (relative maturity 0.3). Indeterminate growth habit, purple flowers, gray pubescence and tan pods at maturity. Seeds yellow with buff hila and a dull seed coat luster. Seeds average about 155 mg in size and have approx. 405 g kg-1 protein and 210 g kg-1 oil on a day weight basis. Carries the Rpslk gene for resistance to phytophthora root rot (Phytophthora sojae). Very good iron deficiency chlorosis rating.

The following were developed by Ampac Seeds, Inc., United States. Received 02/14/2002.

PI 629006 PVPO. Lolium perenne L.
Cultivar. "AMAZING". PVP 200200087.

The following were developed by Syngenta Seeds, Inc., United States. Received 02/14/2002.

PI 629007 PVPO. Zea mays L.
Cultivar. "NP2276". PVP 200200088.

The following were developed by Steve St. Martin, Ohio State University, Department of Horticulture & Crop Science, 202 Kottman Hall, Columbus, Ohio 43210-1086, United States; R.L. Cooper, USDA-ARS, Ohio State University, 1680 Madison, Wooster, Ohio 44691-4096, United States; Ron Fioritto, Ohio State University, Ohio Agricultural Research & Development Center, Dept. of

Horticulture & Crop Science, Wooster, Ohio 44691, United States; Anne E. Dorrance, Ohio State University, OARDC - Department of Plant Pathology, 1680 Madison Avenue, Wooster, Ohio 44691-4096, United States; S.A. McIntyre, USDA, ARS, Ohio State University, Dept. of Horticulture and Crop Science, Columbus, Ohio 43210-1086, United States; Glenn R. Mills, Ohio State University, 202 Kottman Hall, 2021 Coffey Road, Columbus, Ohio 43210, United States. Received 02/14/2002.

PI 629008. Glycine max (L.) Merr.
Cultivar. "OHIO FG3". CV-454; PVP 200200089. Pedigree - (Hayes x LS301) x Ohio FG1. Large-seeded, yellow-hilum cv. adapted for production of tofu. Flowers purple, gray pubescence, and brown pods. Maturity rating 2.7. Relatively high protein content (about 42%, dry-matter basis). Carries the Rps1k and Rps3 genes for resistance to Phytophthora sojae.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 02/14/2002.

PI 629009 PVPO. Agrostis capillaris L.
Cultivar. "ALISTER". PVP 200200090.

The following were developed by SaKa-Ragis Pflanzenzucht GbR, Hamburg, Germany. Received 02/15/2002.

PI 629010 PVPO. Solanum tuberosum L.
Cultivar. "VELOX". PVP 9900213.

The following were developed by Robert J. Metzger, 2655 NW Highland Dr., #99, Corvallis, Oregon 97330, United States; Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Donated by Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Received 02/21/2002.

PI 629011. X Triticosecale sp.
Cultivar. Pureline. "FORERUNNER"; B; KT982210; Exp. 2210; NSGC 8790. PVP 200400161. Pedigree - KS88032//Heines VII/2*Celia. Forage type triticale. Tall, stiff, hollow stem, facultative, mid-season, neck smooth to sparse pubescence. Spike fusiform, lax, awnleted, nodding. Rachilla pubescent. Glume cream, glabrous, long, narrow, shoulder wanting, beak narrow, acuminate, 0 to 2 cm long cream. Kernel long, brown, soft, narrow, elliptical. Germ mid-size. Crease wide, mid-mid-deep, rounded. Brush short. Susceptible to Tilletia cares. Winter growth semi-prostrate, dark green. Mid-cold hardy.

The following were developed by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1977.

PI 629012. Pisum sativum L.
Cultivar. "MINI 93"; NSL 95164. PVP 7700020.

The following were developed by J. Allen Wrather, University of Missouri-Columbia, Agricultural Research and Extention, Delta Center, P.O. Box 160, Portageville, Missouri 63873, United States; Sam C. Anand,

University of Missouri, Department of Agronomy, 210 Waters Hall, Columbia, Missouri 65211, United States; David A. Sleper, University of Missouri, Department of Agronomy, 271-F Life Sciences Center, Columbia, Missouri 65211, United States; Prakash R. Arelli, University of Missouri-Columbia, Agronomy Department, 117 Curtis Hall, Columbia, Missouri 63873, United States; J. Grover Shannon, University of Missouri - Columbia, Missouri Ag Experiment Station, Delta Research Center, Portageville, Missouri 63873, United States; Lawrence D. Young, USDA, ARS, MSA Crop Genetics & Prod. Res. Unit, P.O. Box 345, Stoneville, Mississippi 38776-0345, United States. Received 02/15/2002.

PI 629013. Glycine max (L.) Merr.
Breeding. S96-2692. GP-277. Pedigree - F4 single plant selection from Manokin x S91-1839. Has value as a parent because of competitive yield potential and resistance to three nematode species. Mid-group V maturity (RM5.5). Flowers white, tawny pubescence and tan pods. Seeds shiny yellow with black hila. Resistant to Races 1,2,3,5 and 14 of soybean cyst nematode (SCN) (Heterodera glycines). Broad resistance to SCN traces to PI 437654 through Hartwig. Also resistant to southern root knot nematode (Meloidogyne incognita) and reniform nematode (Rotylenchulus reniformis).

The following were developed by Kuell Hinson, USDA-ARS, Department of Agronomy IFAS Bldg. 63, University of Florida, Gainesville, Florida 32611, United States; Ronald D. Barnett, University of Florida, North Florida Res. & Ed. Center, 155 Research Road, Quincy, Florida 32351-5677, United States; Ann R. Blount, University of Florida, North Florida Research, & Education Center, Mariana, Florida 32446-7906, United States; R.A. Kinloch, West Florida Res. Educ. Ctr., Jay, Florida 32611, United States. Received 02/20/2002.

PI 629014. Glycine max (L.) Merr.
Breeding. F94-2290 Long Juvenile. GP-281. Pedigree - PI 417479 x F87-4039. Released 07/2001. Released as a forage germplasm because of unique long-juvenile trait, excellent seed quality, and high forage and seed yield in situations of early and late planting, when compared to similar cultivars. Maturity Group VIII.

PI 629015. Glycine max (L.) Merr.
Cultivar. "Hinson Long Juvenile". CV-452; PVP 200400032. Pedigree - Gordon x F85-1138. Released 07/2001. Released as a forage soybean because of unique long-juvenile trait, excellent seed quality, and high forage and seed yield in situations of early and late planting, when compared to cultivars of similar maturity. Maturity Group VII.

The following were donated by Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 02/20/2002.

PI 629016. Oryza sativa L.
Cultivar. Pureline. "ZHE 733". Developed in China. Pedigree - He Zhen Zao/Chi Kuai Ai. Extremely early maturing long grain cv. which flowers approx. 63 days after emergence. Similar in stature to other U.S. semidwarfs and averages about 104 cm in height. Highly susceptible to lodging but has excellent yield potential. Milling quality was observed to be very poor and averaged about 35% whole milling yield. Cooking quality is similar to other indica rices, having high amylose (25%)

content and intermediate gelatinization temperature. Appears to be highly resistant to blast disease (Pyricularia grisea) having a rating of 1 in inoculated field tests using a 1-9 scale. A pubescent cv.

The following were developed by K. B. Singh, Int. Center For Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; M. C. Saxena, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; M. Di Vito, Instituto di Nematologia Agraria, C.N.R., Bari, Apulia 70126, Italy; N. Greco, Instituto di Nematologia Agraria, C.N.R., Bari, Apulia 70126, Italy; R.S. Malhotra, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 02/15/2002.

PI 629017. Cicer arietinum L.
Breeding. ILC 10765. GP-226. Pedigree - ILWC 119 x FLIP 87-69C. Purple flowering with purple tinge on the leaves and stems and are semi-erect. Seeds round and purple. Resistant to Cyst Nematode (Heterodera ciceri) under controlled conditions using Cyst Nematode Isolate From Idleb location in Syria. Seed protein content and seed size are 20.4% and 15.2 g/100 seed, respectively.

PI 629018. Cicer arietinum L.
Breeding. ILC 10766. GP-227. Pedigree - ILWC 119 x FLIP 87-69C. Purple flowering with purple tinge on the leaves and stems and semi-erect. Seeds round and purple. Resistant to Cyst Nematode (Heterodera ciceri) under controlled conditions using Cyst Nematode Isolate From Idleb location in Syria. Seed protein content and seed size 19.3% and 16.9 g/100-seed, respectively.

The following were developed by Germicopa S.A., France. Received 03/01/2002.

PI 629019 PVPO. Solanum tuberosum L.
Cultivar. "SYLVIA". PVP 9900215.

PI 629020 PVPO. Solanum tuberosum L.
Cultivar. "CYNTHIA". PVP 9900218.

PI 629021 PVPO. Solanum tuberosum L.
Cultivar. "SANDY". PVP 9900219.

PI 629022 PVPO. Solanum tuberosum L.
Cultivar. "AMANDINE". PVP 9900220.

PI 629023 PVPO. Solanum tuberosum L.
Cultivar. "MARINE". PVP 9900221.

PI 629024 PVPO. Solanum tuberosum L.
Cultivar. "CHERIE". PVP 200100103.

PI 629025 PVPO. Solanum tuberosum L.
Cultivar. "JULIETTE". PVP 200100104.

PI 629026 PVPO. Solanum tuberosum L.
Cultivar. "DAISY". PVP 200200032.

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 02/21/2002.

PI 629027. Arachis hypogaea L.
Cultivar. "GEORGIA-01R"; GA 942511. CV-70; PVP 200200171. Pedigree - PI 203395 / Georgia Browne. Comparable or better resistance to early and late leafspots (Cercospora arachidicola and Cercosporidium personatum, respectively) and tomato spotted wilt virus (TSWV) as Southern Runner and Florida MDR 98. Produces significantly higher yields and dollar values without pesticides as compared to these other multiple resistant cultivars and when grown with recommended pesticides, found to be comparable to Georgia Green in TSWV resistance, pod yield, total sound mature kernel grade, and dollar value return per hectare. Preliminary field trials also shows moderate resistance to white mold and stem rot (Sclerotium rolfsii), Cylindrocladium black rot (Cylindrocladium parasiticum), leafhoppers (Empoasca fabae) and/or leaf scorch (Leptosphaerulina crassiasca). Spreading runner growth habit, tan testa color, and late maturity similar to Southern Runner, Florida MDR 98, and C-99R. Maturity approx. 2 to 3 weeks later compared to Georgia Green in south Georgia. Foliage dark.

The following were developed by P. Stephen Baenziger, University of Nebraska, Department of Agronomy, 330 Keim Hall, Lincoln, Nebraska 68583-0915, United States; Ken P. Vogel, USDA, ARS, University of Nebraska, Dept. of Agronomy, Lincoln, Nebraska 68583-0937, United States. Received 03/01/2002.

PI 629028. X Triticosecale sp.
Cultivar. Pureline. "NE422T"; NE96T422; NSGC 8791. CV-27; PVP 200200153. Pedigree - Trical/UB-UW26 (Trical is likely Trical 100 developed by Resources Seeds). Released 2001. Winter forage triticale. Released primarily for its superior forage production in rainfed winter cereal production systems in Nebraska. Awned, white-glumed. Moderately resistant to the currently prevalent races of stem rust (most likely containing Sr31) and leaf rust. Moderately resistant to wheat streak mosaic virus.

The following were collected by Janseva Agricultural Material Bhandar, Chipledungha, Pokhra, Pauri Garhwal, India. Donated by USDA, ARS Plant Introduction Station, Industrial Crops Section, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 03/14/1995.

PI 629029. Lycopersicon esculentum Mill.
Cultivated. 7013; "Essalli". Collected 1995 in Uttar Pradesh, India. store. Round tomato.

The following were collected by Nara Pref. Agric. Exp. Station, Nara, Japan. Donated by Takao Oishi, National Inst. of Agrobiological Resources, Dept. of Genetic Resources, NIAR, Kannondai 2-1-2, Tsukuba, Ibaraki 305, Japan. Received 03/20/1996.

PI 629030. Brassica rapa L.
Cultivated. "Bushu Kanna"; Plant Code: 54101027; Variety No. (old) 060005; Acc# 00042023. Collected 1985 in Nara, Japan. Latitude 34 deg.

40' N. Longitude 135 deg. 49' E. Elevation 5000 m.

The following were collected by Sami Doganlar, Izmir Institute of Technology, Department of Molecular Biology, Gulbahce Campus, Urla, Izmir 35437, Turkey. Donated by Charles M. Rick, University of California, Department of Vegetable Crops, Davis, California 95616, United States. Received 11/24/1997.

PI 629031. Lycopersicon sp.
Cultivated. 96L4836; Banadura. Collected 1996 in Icel, Turkey. Latitude 36 deg. 55' N. Longitude 34 deg. 53' E. Elevation 5000 m. Tarsus, Mersin . Resistant to diseases and insects; used for salsa production locally.

PI 629032. Lycopersicon sp.
Cultivated. 96L4837; Cirlavik. Collected 1996 in Adana, Turkey. Latitude 37 deg. 0' N. Longitude 35 deg. 19' E. Elevation 5000 m. Adana. Resistant to diseases and insects.

PI 629033. Lycopersicon esculentum Mill.
Cultivated. 96L4838; Ayas. Collected 1996 in Ankara, Turkey. Latitude 40 deg. 1' N. Longitude 32 deg. 19' E. Elevation 2000 m. Ayas, Ankara. Fresh market tomato.

The following were developed by Lloyd W. Rooney, Texas A&M University, 17360 Coit Road, Dallas, Texas 75252, United States; Fred R. Miller, Jowar Food, Inc., 6417 Zak Road, Bryan, Texas 77808, United States; William L. Rooney, Texas A&M University, Department of Soil and Crop Sciences, Sorghum Breeding and Genetics, College Station, Texas 77843-2474, United States. Received 02/25/2002.

PI 629034. Sorghum bicolor (L.) Moench
Breeding. RTx437; R9019. PL-282. Pedigree - (77CS4 x TX430). Grain with white pericarp (rrYY), thick mesocarp (zz), no testa (b1b1B2B2). Plant color tan (ppqq), light brown glume color, and is awnless (AA). Moderate resistance to insecticide phytotoxicity, but the reaction is difficult to detect due to the tan plant color. Panicles semi-compact, glumes cover approx. 20% of the seed, and the grain is easily threshed from the panicle. Seed and/or grain medium in size. Seed weight average 27.6 g/1000 over four environments. Fully restores fertility to the A1 cytolasmic sterility system, but does not restore fertility to the A2 and A3 cytoplasmic sterility system.

The following were developed by William L. Rooney, Texas A&M University, Department of Soil and Crop Sciences, Sorghum Breeding and Genetics, College Station, Texas 77843-2474, United States. Received 02/25/2002.

PI 629035. Sorghum bicolor (L.) Moench
Breeding. Tx2912. GP-592. Pedigree - (SC326-6 x Tx434). Restores fertility in the A1 cytoplasmic male-sterility system. Reactions in other cytoplasmic male sterility systems is unknown. Grain red, plants purple with resistance to anthracnose (Colletotrichum graminicola).

PI 629036. Sorghum bicolor (L.) Moench
Breeding. Tx2913. GP-593. Pedigree - (Tx2817 x CS3541). Restores fertility in the A1 cytoplasmic male-sterility system. Reactions in

other cytoplasmic male sterility systems unknown. Grain white, plants tan with straw colored glumes and outstanding grain quality.

PI 629037. Sorghum bicolor (L.) Moench
Breeding. Tx2914. GP-594. Pedigree - (Rio x CS3541). Restores fertility in the A1 cytoplasmic male-sterility system. Reactions in other cytoplasmic male sterility systems unknown. Grain white, plants tan with straw colored glumes and outstanding grain quality.

PI 629038. Sorghum bicolor (L.) Moench
Breeding. Tx2915. GP-595. Pedigree - (((SC120 x Tx7000) x Tx430) x SC326-6). Restores fertility in the A1 cytoplasmic male-sterility system. Reactions in other cytoplasmic male sterility systems unknown. Grain red, plants purple and resistance to anthracnose (Colletotrichum graminicola).

PI 629039. Sorghum bicolor (L.) Moench
Breeding. Tx2916. GP-596. Pedigree - ((C.Shallu x Rio) x Tx434). Restores fertility in the A1 cytoplasmic male-sterility system. Reaction in other cytoplasmic male sterility systems unknown. Grain red, plants tan with good general leaf disease resistance.

PI 629040. Sorghum bicolor (L.) Moench
Breeding. Tx2917. GP-597. Pedigree - (Tx2894 x Tx433). Restores fertility in the A1 cytoplasmic male-sterility system. Reaction in other cytoplasmic male sterility systems unknown. Grain red, plants tan with anthracnose resistance, average height, and slightly earlier maturity.

PI 629041. Sorghum bicolor (L.) Moench
Breeding. Tx2918. GP-598. Pedigree - (((SC120 x Tx7000) x Tx7000) x Tx2894). Restores fertility in the A1 cytoplasmic male-sterility system. Reaction in other cytoplasmic male sterility systems unknown. Grain white, plants tan with anthracnose resistance and good grain quality.

PI 629042. Sorghum bicolor (L.) Moench
Breeding. Tx2919. GP-599. Pedigree - ((SC120 x Tx7000) x Tx7000). Restores fertility in the A1 cytoplasmic male-sterility system. Reactions in other cytoplasic male sterilty systems unknown. Grain white, plants tan and have anthracnose resistance and good grain quality.

PI 629043. Sorghum bicolor (L.) Moench
Breeding. Tx2920. GP-600. Pedigree - (77CS4 x Tx430). Restores fertility in the A1 cytoplasmic male-sterility system. Reactions in other cytoplasmic male sterility systems unknown. Grain white, yellow endosperm, plants tan. Susceptible to grain mold.

PI 629044. Sorghum bicolor (L.) Moench
Breeding. A.Tx2921. GP-601cms. Pedigree - (74C5462-1 x BTx615). A-line is male sterile due to presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain white, plants tan with tan to light brown glumes. Susceptible to head smut and grain mold.

PI 629045. Sorghum bicolor (L.) Moench
Breeding. B.Tx2921. GP-601. Pedigree - (74C5462-1 x BTx615). B-line is fertile and maintains sterility in the A-line during seed increase. Grain white, plants tan with tan to light brown glumes. Susceptible to

head smut and grain mold.

PI 629046. Sorghum bicolor (L.) Moench
Breeding. A.Tx2922. GP-602cms. Pedigree - ((BTx378 x SC110-6) x ((BTx378 x SC110-9)*BTx615)). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain red, plants tan with tan glumes. Earlier and taller than BTx2752 and BTx631.

PI 629047. Sorghum bicolor (L.) Moench
Breeding. B.Tx2922. GP-602. Pedigree - ((BTx378 x SC110-6) x ((BTx378 x SC110-9)*BTx615)). B-line is fertile and maintains sterility in the A-line during seed increase. Grain red, plants tan with tan glumes. Earlier and taller than BTx2752 and BTx631.

Unknown source. Received 02/25/2002.

PI 629048. Sorghum bicolor (L.) Moench
Breeding. A.Tx2923. GP-603cms. Developed in United States. Pedigree - ((BTx378 x SC110-6) x BTx623). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain red, plants purple.

The following were developed by William L. Rooney, Texas A&M University, Department of Soil and Crop Sciences, Sorghum Breeding and Genetics, College Station, Texas 77843-2474, United States. Received 02/25/2002.

PI 629049. Sorghum bicolor (L.) Moench
Breeding. B.Tx2923. GP-603. Pedigree - ((BTx378 x SC110-6) x BTx623). B-line is fertile and maintains sterility in the A-line during seed increase. Grain red, plants purple.

PI 629050. Sorghum bicolor (L.) Moench
Breeding. A.Tx2924. GP-604cms. Pedigree - (Btx623 x (BTx378 x SC110-6)). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain red, plants purple with moderate grain mold resistance.

PI 629051. Sorghum bicolor (L.) Moench
Breeding. B.Tx2924. GP-604. Pedigree - (BTx623 x (BTx378 x SC110-6)). B-line is fertile and maintains sterility in the A-line during seed increase. Grain red, plants purple with moderate grain mold resistance.

PI 629052. Sorghum bicolor (L.) Moench
Breeding. A.Tx2925. GP-605cms. Pedigree - (BTx630 x BTx629). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain white, plants tan with light brown glumes. Consistently earlier and shorter than BTx631.

PI 629053. Sorghum bicolor (L.) Moench
Breeding. B.Tx2925. GP-605. Pedigree - (BTx630 x BTx629). B-line is fertile and maintains sterility in the A-line during seed increase. Grain white, plants tan with light brown glumes. Consistently earlier and shorter than BTx631.

PI 629054. Sorghum bicolor (L.) Moench
Breeding. A.Tx2926. GP-606cms. Pedigree - (BTx623 x (BTx378 x SC110-9)). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain red, plants purple. Susceptible to anthracnose and head smut.

PI 629055. Sorghum bicolor (L.) Moench
Breeding. B.Tx2926. GP-606. Pedigree - (BTx623 x (BTx378 x SC110-9)). B-line is fertile and maintains sterility in the A-line during seed increase. Grain red, plants purple. Susceptible to anthracnose and head smut.

Unknown source. Received 02/25/2002.

PI 629056. Sorghum bicolor (L.) Moench
Breeding. A.Tx2927. GP-607cms. Pedigree - (BTx378 x SC110-6) x BTx631). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain red, plants tan with good grain mold resistance.

The following were developed by William L. Rooney, Texas A&M University, Department of Soil and Crop Sciences, Sorghum Breeding and Genetics, College Station, Texas 77843-2474, United States. Received 02/25/2002.

PI 629057. Sorghum bicolor (L.) Moench
Breeding. B.Tx2927. GP-607. Pedigree - (BTx378 x SC110-6) x BTx631). B-line is fertile and maintains sterility in the A-line during seed increase. Grain red, plants tan with good grain mold resistance.

PI 629058. Sorghum bicolor (L.) Moench
Breeding. A.Tx2928. GP-608cms. Pedigree - (RS4906 x BTx399) x RS4906). A-line is male sterile due to the presence of A1 cytoplasm and the absence of a suitable nuclear restoration factor. Grain white, plants tan with a tan glume that fades to straw color. Endosperm light yellow in color.

PI 629059. Sorghum bicolor (L.) Moench
Breeding. B.Tx2928. GP-608. Pedigree - (RS4906 x BTx399) x RS4906). B-line is fertile and maintains sterility in the A-line during seed increase. Grain white, plants tan with a tan glume that fades to straw color. Endosperm light yellow in color.

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; 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; 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; 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 D. 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; Amir Ibrahim, South Dakota State University, Plant Sciences Department, Brookings, South Dakota 57007, United States. Received 04/18/2003.

PI 629060. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "EXPEDITION"; SD97457. CV-947; PVP 200400245. Pedigree - Tomahawk / Bennett. Released 2002. Awned, white-glumed, early maturing, semidwarf hard red winter wheat. Excellent winter survival ability and high yield potential in the South Dakota and the Northern Great Plains region. Moderately resistant to stem rust (Puccinia graminis), moderately susceptible to leaf rust (Puccinia triticina), and susceptible to wheat streak mosaic virus and tan spot (Pyrenophora tritici-repentis). Susceptible to the Great Plains biotype of Hessian fly (Mayetiola destructor). Very good milling quality and fair bread baking quality characteristics.

The following were developed by Harold G. Marshall, Marshall Farm, 1422 E. College Ave., Bellefonte, Pennsylvania 16823, United States. Received 03/08/2002.

PI 629061. Avena sativa L.
Breeding. Pureline. MF8891-2021; NSGC 8792. Pedigree - Penncomp 31 selection. Hulless oat. Tall, late, heavy test weight, short-plump groats with sparse trichomes and high protein.

PI 629062. Avena sativa L.
Breeding. Pureline. MF9016-31; NSGC 8793. Pedigree - Pennline 2005/Otee//Tibor. Hulless oat. Mid-short, mid-early, very stiff, mid-heavy test weight, small groats with mid-high oil.

PI 629063. Avena sativa L.
Breeding. Pureline. MF9016-148; NSGC 8794. Pedigree - PA7527-893/Bates//PA8290-8084. Hulless oat. Heavy waxy bloom, mid-height, very stiff, mid-heavy test weight, plump groats, high oil and protein.

PI 629064. Avena sativa L.
Breeding. Pureline. MF9018-117; NSGC 8795. Pedigree - Pennline 2005/Otee//Tibor. Hulless oat. Mid-height, mid-maturity, very heavy test weight.

PI 629065. Avena sativa L.
Breeding. Pureline. MF9116-31; NSGC 8796. Pedigree - Egdolon 26/Noble//NY OCI-23/PI447276. Hulless oat. Mid-height, mid-late, stiff, very heavy test weight.

PI 629066. Avena sativa L.
Breeding. Pureline. MF9116-150; NSGC 8797. Pedigree - Pennline 2005/Otee//Pennlo. Hulless oat. Semi-dwarf height, mid-maturity, short groats.

PI 629067. Avena sativa L.
Breeding. Pureline. MF9224-82; NSGC 8798. Pedigree - Pennline

2005/Otee//Pennlo. Hulless oat. Very short height, early maturity.

PI 629068. Avena sativa L.
Breeding. Pureline. MF9224-101; NSGC 8799. Pedigree - Pennuda//Pennline 2005/Otee. Hulless oat. Mid-tall, mid-maturity, heavy test weight, light colored groats, heavy wax on sheaths.

PI 629069. Avena sativa L.
Breeding. Pureline. MF9224-106; NSGC 8800. Pedigree - Pennuda/Ogle. Hulless oat. Mid-height, mid-late maturity, stiff, heavy wax on sheaths, large groats.

PI 629070. Avena sativa L.
Breeding. Pureline. MF9224-164; NSGC 8801. Pedigree - AV3336-1-2-1/3/Otee/Noble//IL75-3389 sel. Hulless oat. Short height, mid-early maturity, stiff, large spikelets and mid-large groats.

PI 629071. Avena sativa L.
Breeding. Pureline. MF9224-336; NSGC 8802. Pedigree - Pennuda//Nuprime/Noble. Hulless oat. Mid-height, stiff, mid-early, very heavy test weight, mid-small groats.

PI 629072. Avena sativa L.
Breeding. Pureline. MF9224-310; NSGC 8803. Pedigree - Pennlo//Nuprime/Noble. Hulless oat. Short height, mid-early, very stiff, heavy waxy bloom, mid-small stubby groats.

PI 629073. Avena sativa L.
Breeding. Pureline. MF9224-359; NSGC 8804. Pedigree - Pennuda//Nuprime/Noble. Hulless oat. Mid-height, stiff, mid-early, heavy test weight, mid-large groats.

PI 629074. Avena sativa L.
Breeding. Pureline. MF9226-1151; NSGC 8805. Pedigree - Pennuda/Ogle/3/Ogle//Nuprime/Ogle. Hulless oat. Mid-short height, early maturity, slender light colored groats.

PI 629075. Avena sativa L.
Breeding. Pureline. MF9323-319; NSGC 8806. Pedigree - IL79-4924/Pennuda. Hulless oat. Mid-short, early maturity, very stiff, heavy test weight, large plump groats.

PI 629076. Avena sativa L.
Breeding. Pureline. MF9424-13; NSGC 8807. Pedigree - P8224RC1-30/3/Nuprime/Noble//Sang/MoO6425. Hulless oat. Tall, stiff, mid-late, heavy test weight, slender groats.

PI 629077. Avena sativa L.
Breeding. Pureline. MF9424-15; NSGC 8808. Pedigree - P8224RC1-30/3/Nuprime/Noble//Sang/MoO6425. Hulless oat. Tall, late, stiff, heavy waxy bloom.

PI 629078. Avena sativa L.
Breeding. Pureline. MF9424-62; NSGC 8809. Pedigree - Pennuda//Nuprime/Noble (sib cross). Hulless oat. Mid-height, mid-early, heavy waxy bloom on sheaths, mid-heavy test weight.

PI 629079. Avena sativa L.
Breeding. Pureline. MF9424-64; NSGC 8810. Pedigree - Pennuda//Nuprime/Noble (sib cross). Hulless oat. Mid-height, mid-early, stiff, excellent large groat with very sparse trichomes.

PI 629080. Avena sativa L.
Breeding. Pureline. MF9424-66; NSGC 8811. Pedigree - Pennuda//Nuprime/Noble (sib cross). Hulless oat. Mid-height, early maturity, heavy waxy bloom, heavy test weight, large groats with sparse trichomes.

PI 629081. Avena sativa L.
Breeding. Pureline. MF9424-74; NSGC 8812. Pedigree - SD800287/Pennuda/3/Pennuda//Nuprime/Noble. Hulless oat. Mid-tall, mid-early, stiff, very heavy test weight, excellent large groats.

PI 629082. Avena sativa L.
Breeding. Pureline. MF9521-19; NSGC 8813. Pedigree - IL87-5622/3/Nuprime/Noble/PA2002/Bates. Hulless oat. Mid-short height, mid-late, very stiff, heavy wax on sheath, very heavy test weight, mid-large groats.

PI 629083. Avena sativa L.
Breeding. Pureline. MF9521-79; NSGC 8814. Pedigree - (MF9118-36 = OT239/Pennuda) / (MF9118-39 = SD800287/Pennuda). Hulless oat. Mid-early, heavy test weight, very large groats.

PI 629084. Avena sativa L.
Breeding. Pureline. MF9521-124; NSGC 8815. Pedigree - Penncomp 31 sel.//P76178A4-6-1-6-5/Pennuda. Hulless oat. Mid-tall, late maturity, mid-heavy test weight, very heavy waxy bloom, short plump groats.

PI 629085. Avena sativa L.
Breeding. Pureline. MF9521-196; NSGC 8816. Pedigree - SD800287/Pennuda/3/Pennuda//Nuprime/Noble. Hulless oat. Mid-tall height, mid-maturity, very large groats.

PI 629086. Avena sativa L.
Breeding. Pureline. MF9521-214; NSGC 8817. Pedigree - Nuprime/Noble//PA7323-2002/Bates//IL86-5698. Hulless oat. Mid-height, mid-maturity, good resistance to BYDV, very heavy test weight, large groats.

PI 629087. Avena sativa L.
Breeding. Pureline. MF9521-247; NSGC 8818. Pedigree - Nuprime/Noble//PA7323-2002/Bates/3/PL9010/OA503-1. Hulless oat. Mid-height, early maturity, heavy test weight, moderate waxy bloom, slender mid-sized groats.

PI 629088. Avena sativa L.
Breeding. Pureline. MF9521-281; NSGC 8819. Pedigree - Pennuda//Nuprime/Noble (sib cross). Hulless oat. Mid-short height, mid-early maturity, mid-heavy waxy bloom, large groats.

PI 629089. Avena sativa L.
Breeding. Pureline. MF9521-362; NSGC 8820. Pedigree - Nuprime/Noble//PA2002/Bates/3/PL9010/OA825-1. Hulless oat. Mid-height,

mid-late maturity, heavy waxy bloom, mid-large groats.

PI 629090. Avena sativa L.
Breeding. Pureline. MF9521-462; NSGC 8821. Pedigree - Ogle//Noble/Noble/3/Pennuda. Hulless oat. Mid-height, mid-maturity, moderate resistance to BYDV, mid-sized groats.

PI 629091. Avena sativa L.
Breeding. Pureline. MF9620-64; NSGC 8822. Pedigree - Otee/Noble//Egdolon 23/3/Pennuda. Hulless oat. Mid-tall height, mid-late maturity, mid-sized short groats.

PI 629092. Avena sativa L.
Breeding. Pureline. MF9621-280; NSGC 8823. Pedigree - (MF917-1 = Nuprime/Noble//PA2002/Bates) / AV336-1-2-1. Hulless oat. Short height, mid-maturity, very heavy waxy bloom, excellent large groats.

PI 629093. Avena sativa L.
Breeding. Pureline. MF9714-32; NSGC 8824. Pedigree - MF HiOilN/(9016-148 = PA727-893/Bates//PA8290-8084). Hulless oat. Mid-late, very heavy waxy bloom, excellent large groats.

PI 629094. Avena sativa L.
Breeding. Pureline. MF9714-35; NSGC 8825. Pedigree - MF HiOilN/(9016-148 = PA727-893/Bates//PA8290-8084). Hulless oat. Mid-early, heavy sheath wax, plump very large groats with sparse trichomes.

PI 629095. Avena sativa L.
Breeding. Pureline. MF9714-36; NSGC 8826. Pedigree - MF HiOilN/(9016-148 = PA727-893/Bates//PA8290-8084). Hulless oat. Mid-early, large groats with sparse trichomes.

PI 629096. Avena sativa L.
Breeding. Pureline. MF9715-28; NSGC 8827. Pedigree - Penncomp 31 sel.//P76178A4-6-1-6-5/Pennuda. Hulless oat. Late maturity, mid-heavy test weight, very heavy waxy bloom, excellent plump groats.

PI 629097. Avena sativa L.
Breeding. Pureline. MF9809-19; NSGC 8828. Pedigree - SD800287/Pennuda//(MF9016-25 = Pennline 2005/Otee//Tibor). Hulless oat.

The following were collected by Robert E. Schutzki, Michigan State University, Department of Horticulture, 218 Plant & Soil Sciences Building, East Lansing, Michigan 48824-1325, United States; Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Vasily Yukhnovsky, National Agricultural University of Ukraine, Forestry Department, Str. 15 G. Oborony, Kiev, Kiev 252041, Ukraine; Victor Sviatetsky, National Agricultural University of Ukraine, Forestry Department, Str. 15 G. Oborony, Kiev, Kiev 252041, Ukraine. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 09/29/1999.

PI 629098. Dianthus campestris M. Bieb.
Wild. WSYUS 54; Ames 25509. . Collected 09/15/1999 in Poltava, Ukraine. Latitude 49 deg. 16' 33'' N. Longitude 33 deg. 36' 19'' E. Elevation 80

m. Northwest of Klishchevka, valley of the Ps'ol River. Open meadow/steppe. Full sun, 0-1% slope. Clay loam soil with fair drainage. Plants were relatively abundant. Low herbaceous ground cover. Pink flowers with a ring of dark dots in the middle.

The following were collected by Bernard Riebel, Jardin Botanique Universite Louis Pasteur, 28, Rue Goethe, Strasbourg-Cedex, Bas-Rhin F-67083, France; Christophe Gass, Jardin Botanique Universite Louis Pasteur, 28 Rue Goethe, Strasbourg-Cedex, Bas-Rhin F-67083, France; Frederic Tournay, Jardin Botanique Universite Louis Pasteur, 28 Rue Goethe, Strasbourg-Cedex, Bas-Rhin F-67083, France. Donated by Jardin Botanique Universite Louis Pasteur, 28 Rue Goethe, Strasbourg, Bas-Rhin F-67083, France. Received 05/03/1999.

PI 629099. Leucanthemum vulgare Lam.
Wild. Index Seminum 49; Ames 25258. Collected 1998 in Bas-Rhin, France. Latitude 48 deg. 21' N. Longitude 7 deg. 38' E. Elevation 165 m. Herbsheim.

The following were collected by T. Kubala, Ogrod Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; M. Gorska-Zajaczkowska, Ogrod Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; Aleksander Lukasiewicz, Ogrod Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; A. Smigla-Babula, Ogrod Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; W. Wojtowicz, Ogrod Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland. Donated by Ogrod Botaniczny Uniwersytetu Im. Adama Mickiewicza, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland. Received 06/21/1999.

PI 629100. Leucanthemum vulgare Lam.
Wild. Index Seminum 57; Ames 25380. Collected 06/1999 in Poznan, Poland. Latitude 52 deg. 25' N. Longitude 16 deg. 58' E. Poznan.

The following were donated by Wu Guang Xu, Hubei Agricultural College, Department of Horticulture, Jiangling, Jiangsu, China. Received 02/10/1992.

PI 629101. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus**
Uncertain. Jing Zhou #311 (F1); Grif 1732.

The following were donated by USDA, ARS, National Small Grains Research Facility, National Small Grains Collection, Aberdeen, Idaho 83210, United States. Received 01/1988.

PI 629102. Citrullus lanatus (Thunb.) Matsum. & Nakai
Cultivar. Grif 14358; COBB GEM.

The following were donated by Will Bonsall, Scatterseed Project, 39 Bailey Road, Industry, Maine 04938, United States. Received 05/30/2000.

PI 629103. Citrullus lanatus (Thunb.) Matsum. & Nakai
Uncertain. CL-99-07; Grif 14483. Collected 1999 in Rajasthan, India. From Udaipur.

The following were collected by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Bassam Al-Safadi, Atomic Energy Commission, P.O. Box 6091, Damascus, Syria. Received 10/29/1999.

PI 629104. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus** Landrace. S027; Grif 14510. Collected 07/27/1999 in Syria. Latitude 36 deg. 11' 57'' N. Longitude 37 deg. 9' 10'' E. Bab Alfraj seed market, Aleppo. Solid green exterior, dark red interior.

The following were donated by Todd Wehner, North Carolina State University, Department of Horticultural Science, 222 Kilgore Hall, Raleigh, North Carolina 27695-7609, United States. Received 12/15/2000.

PI 629105. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus** Cultivar. "Cream of Saskatchewan"; Grif 14852.

PI 629106. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus** Cultivar. "Florida Favorite"; Grif 14853.

The following were donated by Seed Research Specialists, California, United States. Received 1961.

PI 629107. Citrullus lanatus (Thunb.) Matsum. & Nakai Cultivar. BLACK DIAMOND YELLOW BELLY.

PI 629108. Citrullus lanatus (Thunb.) Matsum. & Nakai Cultivar. GOLDEN HONEY. yellow fleshed, home garden type. Rind is med. dark green, irregularly striped with darker green. Seeds are brown. Melon is oval in shape with a 12-13 in. length and and avg. of 20 lbs. It has no disease resistance.

The following were donated by Burrell Seed Growers, Colorado, United States. Received 1961.

PI 629109. Citrullus lanatus (Thunb.) Matsum. & Nakai Cultivar. IMPROVED PEACOCK.

The following were donated by Hollar Seeds, Incorporated, Rocky Ford, Colorado, United States. Received 1961.

PI 629110. Citrullus lanatus (Thunb.) Matsum. & Nakai Cultivar. RHODE ISLAND RED. Pedigree - cross between Dixie Queen and Honey Cream. flesh pink, relatively early, medium sized, 8-10 lbs. with striped oval fruit, firm rind, and good quality for a northern type.

The following were donated by Willhite Seed Company, Box 23, Poolville, Texas 76076, United States. Received 1965.

PI 629111. Citrullus lanatus (Thunb.) Matsum. & Nakai Cultivar. ORANGEGLO.

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; Mike Collins, University of Kentucky, Department of Agronomy, N222E Agric. Science Center-North, Lexington, Kentucky 40546-0091, United States. Received 03/06/2002.

PI 629112. Trifolium pratense L.
Cultivar. "FREEDOM!"; 89-L-38-1793. CV-26. Pedigree - Selection from cultivar Kenland for low pubescence. Developed to permit faster drying and reduce dustiness of hay. At Lexington and Princeton respectively, pubescence scores were 3.2 and 2.5 (Freedom!), and 6.3 and 6.5 (Kenland) on a scale of 1 = least to 9 = most pubescence. In 1995 at Lexington, drying rate in the fist day of curing of 22.5%-1 hour compared to Kenland which had a slower rate (D=10.07 of 17.7%). Other differences between Freedom! and Kentland were not significant except, due to reduced pubescence, Freedom! may be slightly more susceptible to insect attack than Kenland.

The following were developed by Solomon Kibite, Agriculture & Agri-Food Canada, Research Centre, 6000 C & E Trail, Lacombe, Alberta T4L 1W1, Canada; J.G. Menzies, Agriculture and Agri-Food Canada, Cereal Research Centre, 195 Dafoe Road, Winnipeg, Manitoba R3T 2M9, Canada. Received 03/12/2002.

PI 629113. Avena sativa L.
Cultivar. Pureline. "AC MORGAN"; OT792; LAO-495-030. CV-369. Pedigree - OT526/OT764. Released 1999. High yielding milling oat. Maturity medium with strong straw, plump kernels, high test weight, high protein content, low hull content and high milling yield. Low oil content, which is a desirable feature in milling oat cv. Recommended for the rust-free areas of western Canada. Resistant to Victoria blight (Bipolaris victoriae). Modertately resistant to races of loose smut (Ustilago avenae) and covered smut strain of barley yellow dwarf virus, which is the most common strain in western Canada, and susceptible to the common races of oat crown (Puccinia coronata) and oat stem rust (P. graminis) currently found in western Canada.

The following were developed by C. James Peterson, Oregon State University, Crop & Soil Science Dept., 107 Crop Science Bldg., Corvallis, Oregon 97331-3002, United States. Received 03/19/2002.

PI 629114. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "TUBBS"; OR939526; NSGC 8829. PVP 200300287. Pedigree - Madsen/Malcolm. Soft white winter wheat. Semidwarf. Resistance to Pseudocercosporella foot rot. Superior yields in trials in Oregon, Washington, and Idaho. Heading date 2 days later than Stephens and 2 days earlier than Weatherford. Intermediate to low stripe rust infection intensities.

The following were developed by Research Corporation Technologies, Inc., United States. Received 1976.

PI 629115. Hordeum vulgare L. **subsp. vulgare**

Cultivar. Pureline. "WAPANA". PVP 7500023.

The following were developed by Western Plant Breeders, Inc., Phoenix, Arizona, United States. Received 1977.

PI 629116. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. "RELIANCE". PVP 7700004.

The following were developed by Germain Seed & Plant Co., Los Angeles, California, United States. Received 1976.

PI 629117. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "W-444". PVP 7600079. Pedigree - Inia 66/3/Sonora 64//Tezanos Pintos Precoz/Yaqui 54.

The following were developed by Pahl Farms, United States. Received 1989.

PI 629118. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "PINNACLE". PVP 9000033. Pedigree - Kodiak Dwarf/Veery 9//Newana. Released 1989.

The following were developed by J.C. Futrell, Futrell Cereals, Inc., P.O. Box 524, Burns, Oregon 97720, United States. Received 1977.

PI 629119. Triticum turgidum subsp. polonicum (L.) Thell.
Cultivar. Pureline. "RF-75". PVP 7600029.

The following were developed by A.J. Rathjen, Waite Agricultural Research Institute, Adelaide, South Australia, Australia. Donated by Australian Winter Cereals Collection, PMB, RMB 944, Tamworth, New South Wales 2340, Australia. Received 08/07/2000.

PI 629120. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "KRICHAUFF"; AUS 27203; NSGC 8689. Pedigree - Wariquam/3/Kloka/Pitic 62//Warimek/Halberd/4/3Ag3Aroona.

The following were donated by F. Cardenas Ramos, Nat. Coordinator of Genetic Resources, Inst. Nac. de Investigaciones Agricolas, Arcos de Belem 79, Mexico City, Federal District, Mexico. Received 06/05/1991.

PI 629121. Zea mays L. **subsp. mays**
Landrace. Population. Aguascalientes 34; NRC 1205; MEX 34 (INIFAP ACC NO); Maiz Pepitillo; CH-87 114#; Ames 15755. Collected 02/04/1952 in Aguascalientes, Mexico. Latitude 21 deg. 51' N. Longitude 102 deg. 43' W. Elevation 1800 m. Temazcal, Calvillo.

PI 629122. Zea mays L. **subsp. mays**
Landrace. Population. Aguascalientes 49; MEX 49 (INIFAP ACC NO); Criollo Temporalero; CH-87 119#; Ames 15756. Collected 01/01/1961 in Aguascalientes, Mexico. Latitude 22 deg. 8' N. Longitude 102 deg. 25' W. Elevation 1880 m. San Jose de Garcia.

PI 629123. Zea mays L. **subsp. mays**
Landrace. Population. Aguascalientes 62; MEX 62 (INIFAP ACC NO); De Cinco Meses; CH-88 157#; Ames 15757. Collected in Aguascalientes, Mexico . Miguel Hidalgo.

PI 629124. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000731; Campeche 68A; MEX 144 (INIFAP ACC NO); Dzit Bacal; CAMP 68A; IG-88/89 93#; Ames 15758. Collected 01/01/1948 in Campeche, Mexico. Latitude 20 deg. 19' N. Longitude 90 deg. 1' W. Elevation 30 m. Calkini.

PI 629125. Zea mays L. **subsp. mays**
Landrace. Population. Campeche 90; NRC 1309; MEX 187 (INIFAP ACC NO); Chac Izim; CAMP 90; IG-88/89 103#; Ames 15759. Collected 01/01/1948 in Campeche, Mexico. Latitude 18 deg. 37' N. Longitude 90 deg. 43' W. Elevation 30 m. Escarcega, Ciudad del Carmen.

PI 629126. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 105A; MEX 337 (INIFAP ACC NO); Zapaluta; IG-84/85 35#; Ames 15760. Collected 01/01/1944 in Chiapas, Mexico. Latitude 15 deg. 20' N. Longitude 92 deg. 40' W. Elevation 100 m. Colonia Hidalgo, Cerca Santiago, Escuintla.

PI 629127. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 273; MEX 507 (INIFAP ACC NO); IG-88/89 41# ; CHIS 273; Ames 15761. Collected in Chiapas, Mexico. Latitude 16 deg. 20' N. Longitude 92 deg. 34' W. Elevation 800 m. Venustiano Carranza.

PI 629128. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 294; MEX 528 (INIFAP ACC NO); Blanco; IG-87/88 102#; Ames 15762. Collected in Chiapas, Mexico. Latitude 16 deg. 7' N. Longitude 92 deg. 3' W. Elevation 1604 m. Ejido Santa Rita, La Trinitaria.

PI 629129. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 354; MEX 588 (INIFAP ACC NO); Hibrido Amarillo; IG-84/85 48#; Ames 15763. Collected 01/01/1972 in Chiapas, Mexico. Latitude 16 deg. 7' N. Longitude 92 deg. 3' W. Elevation 790 m. Finca Santa Ana, La Trinitaria.

PI 629130. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 383; MEX 617 (INIFAP ACC NO); Cuarenteno; IG-84/85 52#; Ames 15764. Collected 01/01/1972 in Chiapas, Mexico. Latitude 15 deg. 42' N. Longitude 92 deg. 6' W. Elevation 700 m. Comalapa, Frontera Comalapa.

PI 629131. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 436; MEX 671 (INIFAP ACC NO); Amarillo; IG-88/89 16#; CHIS 436; Ames 15766. Collected 01/01/1972 in Chiapas, Mexico. Latitude 16 deg. 20' N. Longitude 92 deg. 34' W. Elevation 690 m. Totolapa, Venustiano Carranza.

PI 629132. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 472; MEX 707 (INIFAP ACC NO); Rocamex; IG-88/89 20#; CHIS 472; Ames 15769. Collected 01/01/1972 in Chiapas, Mexico. Latitude 16 deg. 12' N. Longitude 93 deg. 16' W. Elevation 680

m. Colonia El Parral, Villa Corzo.

PI 629133. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 579; MEX 814 (INIFAP ACC NO); Chimbo; IG-84/85 80#; Ames 15772. Collected 01/01/1972 in Chiapas, Mexico. Latitude 16 deg. 53' N. Longitude 92 deg. 55' W. Elevation 970 m. Colonia Francisco Sarabia, Soyalo.

PI 629134. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 619; MEX 854 (INIFAP ACC NO); Amarillo; IG-84/85 85#; Ames 15773. Collected 01/01/1972 in Chiapas, Mexico. Latitude 16 deg. 46' N. Longitude 93 deg. 23' W. Elevation 600 m. Rancho Vistahermosa, Ocozocuautla Espinos.

PI 629135. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 642; MEX 877 (INIFAP ACC NO); Juchi; IG-86/87 51#; Ames 15774. Collected 01/01/1972 in Chiapas, Mexico. Latitude 15 deg. 20' N. Longitude 92 deg. 40' W. Elevation 140 m. Colonia San Felipe Tizapan, Escuintla.

PI 629136. Zea mays L. **subsp. mays**
Landrace. Population. Chiapas 758; MEX 9332 (INIFAP ACC NO); Concordeno; IG-88/89 83#; CHIS 758; Ames 15777. Collected 01/01/1979 in Chiapas, Mexico. Latitude 15 deg. 52' N. Longitude 92 deg. 44' W. Elevation 667 m. Nuevo Guerrero, Angel Albino Corzo.

PI 629137. Zea mays L. **subsp. mays**
Landrace. Population. Chihuahua 47; NRC 1598; MEX 982 (INIFAP ACC NO); Maiz de Chihuahua; B-86 21#; Ames 15778. Collected 02/09/1943 in Chihuahua, Mexico. Latitude 26 deg. 59' N. Longitude 105 deg. 20' W. Elevation 1480 m. Pueblito de Allende, Valle de Allende.

PI 629138. Zea mays L. **subsp. mays**
Landrace. Population. Chihuahua 49; NRC 1600; MEX 984 (INIFAP ACC NO); Carineno; B-89 223#; Ames 15779. Collected 02/09/1943 in Chihuahua, Mexico. Latitude 26 deg. 56' N. Longitude 105 deg. 25' W. Elevation 1480 m. La Laguna, El Pueblito, Valle de Allende.

PI 629139. Zea mays L. **subsp. mays**
Landrace. Population. Chihuahua 105; MEX 1040 (INIFAP ACC NO); B-89 121# ; Ames 15780. Collected in Chihuahua, Mexico. Gran Morelos.

PI 629140. Zea mays L. **subsp. mays**
Landrace. Population. Chihuahua 109; MEX 1043 (INIFAP ACC NO); CH086 30# ; Ames 15781. Collected in Chihuahua, Mexico. Latitude 28 deg. 58' N. Longitude 107 deg. 50' W. Elevation 1800 m. Temosachic.

PI 629141. Zea mays L. **subsp. mays**
Landrace. Population. Chihuahua 270; MEX 1205 (INIFAP ACC NO); Norteno; IG-84/85 97#; Ames 15782. Collected 01/01/1969 in Chihuahua, Mexico. Latitude 28 deg. 50' N. Longitude 105 deg. 52' W. Elevation 1250 m. Villa Aldama.

PI 629142. Zea mays L. **subsp. mays**
Landrace. Population. Chihuahua 287; MEX 1222 (INIFAP ACC NO); Amarillo; B-89 10#; Ames 15783. Collected 01/01/1969 in Chihuahua, Mexico. Latitude 30 deg. 23' N. Longitude 107 deg. 58' W. Elevation 1473 m.

Casas Grandes.

PI 629143. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 2; NRC 1644; MEX 1285 (INIFAP ACC NO); Cana Morada; B-89 299#; Ames 15784. Collected 01/01/1943 in Coahuila, Mexico. Latitude 25 deg. 27' N. Longitude 100 deg. 50' W. Elevation 1707 m. Arteaga.

PI 629144. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 5; NRC 1647; MEX 1288 (INIFAP ACC NO); Blanco; B-89 6#; Ames 15785. Collected 01/01/1944 in Coahuila, Mexico. Latitude 25 deg. 33' N. Longitude 100 deg. 57' W. Elevation 1600 m. Ramos Arizpe.

PI 629145. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 9C; MEX 1293 (INIFAP ACC NO); Maiz Neira; COAH 9C; IG-88/89 11#; Ames 15786. Collected 01/01/1945 in Coahuila, Mexico. Latitude 28 deg. 30' N. Longitude 100 deg. 56' W. Elevation 380 m. Hacienda Patino, Zaragoza.

PI 629146. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 17; NRC 1659; MEX 1301 (INIFAP ACC NO); Miaz Blanco; B-89 110#; Ames 15787. Collected 01/01/1952 in Coahuila, Mexico. Latitude 25 deg. 32' N. Longitude 101 deg. 24' W. Elevation 1700 m. La Rosa, General Cepeda.

PI 629147. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-010454; Coahuila 21; NRC 1663; MEX 1305 (INIFAP ACC NO); Maiz de Allende; B-89 13#; Ames 15788. Collected 01/31/1952 in Coahuila, Mexico. Latitude 25 deg. 27' N. Longitude 102 deg. 11' W. Elevation 1400 m. Ojo de Apolo, Mun. Parras.

PI 629148. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 106; MEX 1389 (INIFAP ACC NO); IG-88/89 95#; COAH 106; Ames 15789. Collected in Coahuila, Mexico. Latitude 28 deg. 30' N. Longitude 100 deg. 56' W. Elevation 355 m. Zaragoza.

PI 629149. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 109; MEX 1392 (INIFAP ACC NO); Amarillo; IG-88/89 96#; COAH 109; Ames 15790. Collected in Coahuila, Mexico. Latitude 28 deg. 14' N. Longitude 100 deg. 44' W. Elevation 300 m. Villa Union.

PI 629150. Zea mays L. **subsp. mays**
Landrace. Population. Coahuila 121; MEX 1404 (INIFAP ACC NO); Costeno Amarillo; IG-84/85 124#; Ames 15791. Collected in Coahuila, Mexico. Latitude 26 deg. 48' N. Longitude 101 deg. 25' W. Elevation 749 m. Castanos.

PI 629151. Zea mays L. **subsp. mays**
Landrace. Population. Colima 26; MEX 1433 (INIFAP ACC NO); IG-84/85 133# ; Ames 15792. Collected 01/01/1953 in Colima, Mexico. Latitude 19 deg. 20' N. Longitude 103 deg. 44' W. Elevation 625 m. Comala.

PI 629152. Zea mays L. **subsp. mays**
Landrace. Population. Colima 37; COLI 37; IG-88/89 14#; Ames 15793. Collected in Colima, Mexico.

PI 629153. Zea mays L. **subsp. mays**
Landrace. Population. Durango 49; MEX 1509 (INIFAP ACC NO); CH-88 130#; Ames 15795. Collected 01/01/1950 in Durango, Mexico. Agustin Castro.

PI 629154. Zea mays L. **subsp. mays**
Landrace. Population. Durango 98; MEX 1558 (INIFAP ACC NO); Hibrido Grande; IG-84/85 136#; Ames 15796. Collected 01/01/1968 in Durango, Mexico. Latitude 22 deg. 30' N. Longitude 104 deg. 30' W. Elevation 510 m. Huazamota, Mezquital. Esta coleccion es igual a Nayarit 285 en CIMMYT. (MEX_ALL DB).

PI 629155. Zea mays L. **subsp. mays**
Landrace. Population. Durango 100; MEX 1560 (INIFAP ACC NO); Bofo Negro; IG-84/85 137#; Ames 15797. Collected 01/01/1968 in Durango, Mexico. Latitude 22 deg. 30' N. Longitude 104 deg. 30' W. Elevation 510 m. Huazamota, Mezquital. Esta coleccion es igual a Nayarit 287 en CIMMYT. (MEX_ALL DB).

PI 629156. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-007242; Durango 120; MEX 1580 (INIFAP ACC NO); Virgen por no Curarse; IG-84/85 144#; Ames 15798. Collected 01/01/1968 in Durango, Mexico. Latitude 24 deg. 38' N. Longitude 106 deg. 23' W. Elevation 500 m. Los Remedios, Mpio. Tamazula. 8-10 hileras rectas, olote rigido grano harinosoredondeado estriado.

PI 629157. Zea mays L. **subsp. mays**
Landrace. Population. Durango 137; CIMMYT-006873; MEX 1597 (INIFAP ACC NO); Amarillo de Ocho; B-89R 194#; Ames 15799. Collected 12/02/1968 in Durango, Mexico. Latitude 25 deg. 8' N. Longitude 106 deg. 31' W. Elevation 1650 m. Rancheria Yerbabuena, Santiago Papasquiaro. Olote blanco flexible pedunculo grueso, 8-10hileras rectas, estrias muy leves una mazorca conglumas muy desarrolladas. (MEX_ALL DB).

PI 629158. Zea mays L. **subsp. mays**
Landrace. Population. Durango 248; MEX 1708 (INIFAP ACC NO); Pinto; B-89R 123#; Ames 15800. Collected 01/11/1974 in Durango, Mexico. Francisco R. Serrano, Panuco de Coronado. Maiz de 4 meses produce de 2 a 3 mazorcas porplanta y alcansa unaaltura de 3 mts. (MEX_ALL DB).

PI 629159. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 6; NRC 1786; MEX 1736 (INIFAP ACC NO); Vaquereno; B-89 285#; Ames 15801. Collected 01/01/1943 in Guanajuato, Mexico. Latitude 20 deg. 57' N. Longitude 101 deg. 25' W. Elevation 1798 m. Silao.

PI 629160. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 15; NRC 1795; MEX 1745 (INIFAP ACC NO); Kansas; B-89 286#; Ames 15802. Collected 01/01/1944 in Guanajuato, Mexico. Latitude 20 deg. 57' N. Longitude 101 deg. 25' W. Elevation 1798 m. Silao.

PI 629161. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000538; Guanajuato 37; NRC 1817; MEX 1770 (INIFAP ACC NO); Liviano; B-89 272#; Ames 15803. Collected 01/01/1945 in Guanajuato, Mexico. Latitude 20 deg. 43' N. Longitude 100 deg. 45' W. Elevation 1828 m. Ejido Delgado, Comonfort.

PI 629162. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 39; NRC 1819; MEX 1772 (INIFAP ACC NO); Criollo; B-89 268#; Ames 15804. Collected 01/01/1945 in Guanajuato, Mexico. Latitude 21 deg. 10' N. Longitude 100 deg. 56' W. Elevation 2011 m. Los Cerrillos, Dolores Hidalgo.

PI 629163. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 53; NRC 1833; MEX 1786 (INIFAP ACC NO); Grueso; B-89 277#; Ames 15805. Collected 01/30/1945 in Guanajuato, Mexico. Latitude 20 deg. 26' N. Longitude 101 deg. 44' W. Elevation 1737 m. Rancho Potrerillo del Rio, Penjamo. Este maiz esta mezclado con maiz mas Dedgado. (MEX_ALL DB).

PI 629164. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 80; NRC 1860; MEX 1815 (INIFAP ACC NO); Maiz de San Luis; B-89 137#; Ames 15806. Collected 01/01/1945 in Guanajuato, Mexico. Latitude 20 deg. 13' N. Longitude 100 deg. 53' W. Elevation 1767 m. Maravatio de Encinas, Salvatierra.

PI 629165. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 87; NRC 1867; MEX 1822 (INIFAP ACC NO); Maiz de San Luis; B-89R 304#; Ames 15807. Collected 01/01/1945 in Guanajuato, Mexico. Latitude 20 deg. 13' N. Longitude 100 deg. 53' W. Elevation 1767 m. Puerta del Monte, Salvatierra.

PI 629166. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-001060; Guanajuato 100; MEX 1836 (INIFAP ACC NO); Dulce; B-89R 301#; Ames 15808. Collected 01/01/1950 in Guanajuato, Mexico.

PI 629167. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-010609; Guanajuato 162; MEX 1893 (INIFAP ACC NO); Pinto; CH-89 32#; Ames 15809. Collected 03/03/1974 in Guanajuato, Mexico. Latitude 21 deg. 28' N. Longitude 100 deg. 52' W. Elevation 2100 m. 7 km San Diego Dolores, San Diego de La Union.

PI 629168. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 193; MEX 1924 (INIFAP ACC NO); B-89 185#; Ames 15810. Collected 04/03/1974 in Guanajuato, Mexico. Latitude 21 deg. 6' N. Longitude 101 deg. 39' W. Elevation 1880 m. San Jose de Los Romeros, Leon.

PI 629169. Zea mays L. **subsp. mays**
Landrace. Population. Guanajuato 321; MEX 2050 (INIFAP ACC NO); Celaya 2 ; B-85 108#; Ames 15811. Collected 12/27/1977 in Guanajuato, Mexico. Latitude 20 deg. 29' N. Longitude 100 deg. 56' W. Ejido Las Fuentes, Cortazar.

PI 629170. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 7; NRC 1885; MEX 2081 (INIFAP ACC NO); Palopense; IG-84/85 81#; Ames 15812. Collected 01/01/1943 in Guerrero, Mexico. Latitude 18 deg. 23' N. Longitude 100 deg. 38' W. Elevation 250 m. Cuadrilla Muera, Ciudad Altamirano.

PI 629171. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 41; NRC 1919; MEX 2115 (INIFAP ACC NO);

Cuarenteno; IG-88/89 87#; Ames 15813. Collected 01/01/1947 in Guerrero, Mexico. Latitude 18 deg. 18' N. Longitude 100 deg. 42' W. Elevation 300 m. Coyuca de Catalan.

PI 629172. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 137; NRC 2628; MEX 2213 (INIFAP ACC NO); Gigante; IG-87/88 41#; Ames 15814. Collected 01/01/1947 in Guerrero, Mexico. Latitude 17 deg. 35' N. Longitude 99 deg. 25' W. Elevation 1300 m. Tixtla.

PI 629173. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000227; Guerrero 145; NRC 2636; MEX 2221 (INIFAP ACC NO); Negro; IG-84/85 173#; Ames 15815. Collected 01/01/1947 in Guerrero, Mexico. Latitude 17 deg. 39' N. Longitude 99 deg. 32' W. Elevation 1200 m. Zumpango del Rio.

PI 629174. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 214; NRC 2705; MEX 2293 (INIFAP ACC NO); Colorado; IG-84/85 182#; Ames 15816. Collected 03/05/1968 in Guerrero, Mexico. Latitude 17 deg. 39' N. Longitude 101 deg. 34' W. Elevation 50 m. Zihuatanejo. Resistente a sequias y vientos. (MEX_ALL DB).

PI 629175. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 220; NRC 2711; MEX 2299 (INIFAP ACC NO); IG-84/85 183#; Ames 15817. Collected in Guerrero, Mexico.

PI 629176. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 256; MEX 2335 (INIFAP ACC NO); Amarillo; IG-84/85 194#; Ames 15818. Collected in Guerrero, Mexico. Latitude 18 deg. 18' N. Longitude 99 deg. 29' W. Elevation 1005 m. Mayanalan, Tepecoacuilco.

PI 629177. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 298; MEX 2377 (INIFAP ACC NO); Amarillo; IG-86/87 83#; Ames 15819. Collected 11/26/1973 in Guerrero, Mexico. Latitude 16 deg. 54' N. Longitude 99 deg. 13' W. La Concordia, Ayutla.

PI 629178. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 302; MEX 2381 (INIFAP ACC NO); Huachinanteco; IG-86/87 86#; Ames 15820. Collected 11/27/1973 in Guerrero, Mexico. Latitude 18 deg. 18' N. Longitude 99 deg. 29' W. Elevation 1000 m. Tuzantla, Tepecoacuilco.

PI 629179. Zea mays L. **subsp. mays**
Landrace. Population. Guerrero 315; MEX 2394 (INIFAP ACC NO); Pepitilla; GUER 315; IG-88/89 18#; Ames 15821. Collected 11/28/1973 in Guerrero, Mexico. Latitude 18 deg. 14' N. Longitude 100 deg. 31' W. Elevation 300 m. Colonia Benito Juarez, Tlapehuala.

PI 629180. Zea mays L. **subsp. mays**
Landrace. Population. Hidalgo 17; NRC 2728; MEX 2478 (INIFAP ACC NO); Llanero; B-89 305#; Ames 15822. Collected 01/01/1944 in Hidalgo, Mexico. Latitude 20 deg. 44' N. Longitude 98 deg. 38' W. Elevation 1700 m. Tianguistengo.

PI 629181. Zea mays L. **subsp. mays**
Landrace. Population. Hidalgo 35; NRC 2746; MEX 2496 (INIFAP ACC NO);

Negro; B-89R 206#; Ames 15823. Collected 02/01/1952 in Hidalgo, Mexico. Elevation 1200 m. Cozapa.

PI 629182. Zea mays L. **subsp. mays**
Landrace. Population. Hidalgo 66; MEX 2527 (INIFAP ACC NO); Pilchipahuak ; B-89R 279#; Ames 15824. Collected 01/01/1968 in Hidalgo, Mexico. Latitude 20 deg. 47' N. Longitude 98 deg. 46' W. Elevation 1650 m. Molango.

PI 629183. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 2; NRC 2769; MEX 2699 (INIFAP ACC NO); Amarillo; B-89R 207#; Ames 15825. Collected 01/01/1943 in Jalisco, Mexico. Latitude 20 deg. 34' N. Longitude 104 deg. 4' W. Elevation 1250 m. San Miguel, Ameca.

PI 629184. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 3; NRC 2770; MEX 2700 (INIFAP ACC NO); Ahumado; B-89 200#; Ames 15826. Collected 01/01/1943 in Jalisco, Mexico. Latitude 20 deg. 34' N. Longitude 104 deg. 4' W. Elevation 1250 m. San Miguel, Ameca.

PI 629185. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-010616; Jalisco 16; NRC 2783; MEX 2713 (INIFAP ACC NO); Amarillo; B-89 293#; Ames 15827. Collected 01/01/1943 in Jalisco, Mexico. Latitude 20 deg. 30' N. Longitude 103 deg. 9' W. Elevation 1646 m. Juanacatlan.

PI 629186. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 27; NRC 2794; MEX 2725 (INIFAP ACC NO); Blanco; B-89R 217#; Ames 15828. Collected 01/01/1944 in Jalisco, Mexico. Latitude 20 deg. 15' N. Longitude 102 deg. 32' W. Elevation 1493 m. Rosaleno, La Barca.

PI 629187. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 34; NRC 2801; MEX 2733 (INIFAP ACC NO); Argentino; B-89R 210#; Ames 15829. Collected 01/01/1944 in Jalisco, Mexico. Latitude 20 deg. 23' N. Longitude 103 deg. 48' W. Elevation 1310 m. Cocula.

PI 629188. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 35B; NRC 2804; MEX 2736 (INIFAP ACC NO); B-89 139#; Ames 15830. Collected 01/01/1944 in Jalisco, Mexico. Latitude 20 deg. 25' N. Longitude 103 deg. 35' W. Elevation 1463 m. Acatlan, Acatlan de Juarez.

PI 629189. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 47; NRC 2816; MEX 2748 (INIFAP ACC NO); Argentino; B-89 235#; Ames 15831. Collected 01/01/1945 in Jalisco, Mexico. Latitude 20 deg. 14' N. Longitude 103 deg. 25' W. Elevation 1554 m. San Pedro Tesistan, Jocotepec.

PI 629190. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 49; NRC 2818; MEX 2750 (INIFAP ACC NO); Tempranillo; B-89 307#; Ames 15832. Collected 01/01/1945 in Jalisco, Mexico. Elevation 1250 m. Buena Vista, Tlamalco.

PI 629191. Zea mays L. **subsp. mays**

Landrace. Population. Jalisco 65; NRC 2836; MEX 2767 (INIFAP ACC NO); Ancho; B-89 146#; Ames 15833. Collected 02/05/1945 in Jalisco, Mexico. Latitude 20 deg. 40' N. Longitude 103 deg. 18' W. Elevation 1615 m. San Nicolas, Tlaquepaque.

PI 629192. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 82; NRC 2853; MEX 2784 (INIFAP ACC NO); Blanco; B-89R 226#; Ames 15834. Collected 01/01/1945 in Jalisco, Mexico. Latitude 20 deg. 1' N. Longitude 103 deg. 30' W. Elevation 1402 m. Atoyac.

PI 629193. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 114; NRC 2885; MEX 2818 (INIFAP ACC NO); Colorado; B-89R 308#; Ames 15835. Collected 01/01/1945 in Jalisco, Mexico. Latitude 20 deg. 49' N. Longitude 102 deg. 44' W. Elevation 1828 m. Rancho del Carrizo, Tepatitlan.

PI 629194. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 127; NRC 2898; MEX 2831 (INIFAP ACC NO); Rojo-Sol; CH-86 79#; Ames 15836. Collected 01/01/1946 in Jalisco, Mexico . Latitude 19 deg. 56' N. Longitude 103 deg. 44' W. Elevation 1800 m. Tapalpa.

PI 629195. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 167B; MEX 2873 (INIFAP ACC NO); B-89 7#; Ames 15837. Collected 01/01/1946 in Jalisco, Mexico. Latitude 20 deg. 30' N. Longitude 103 deg. 9' W. Elevation 1508 m. Juanacatlan.

PI 629196. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 198; NRC 2969; MEX 2908 (INIFAP ACC NO); Amarillo; B-89 197#; Ames 15838. Collected 01/01/1946 in Jalisco, Mexico . Latitude 20 deg. 16' N. Longitude 104 deg. 30' W. Elevation 1645 m. San Jose de Los Andrades.

PI 629197. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-001662; JALI 205; MEX 2916 (INIFAP ACC NO); NRC 2976; Maiz Tempranero; FN87019111; Jalisco 205; B-89 271#; FL87 -7019-111; Ames 15839. Collected 01/01/1952 in Jalisco, Mexico. Latitude 22 deg. 22' N. Longitude 103 deg. 12' W. Elevation 1932 m. El Ramal, Huejucar.

PI 629198. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000331; Jalisco 222; MEX 2933 (INIFAP ACC NO); NRC 2993; Blanco Ancho; B-89 9#; Ames 15840. Collected 01/01/1952 in Jalisco, Mexico. Latitude 20 deg. 14' N. Longitude 103 deg. 33' W. Elevation 1350 m. Zacoalco de Torrez.

PI 629199. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 230; NRC 3001; MEX 2943 (INIFAP ACC NO); B-89 311#; Ames 15841. Collected 01/01/1952 in Jalisco, Mexico. Latitude 21 deg. 11' N. Longitude 102 deg. 51' W. Elevation 1889 m. Yahualica.

PI 629200. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 316; MEX 3031 (INIFAP ACC NO); Pinto; B-89 146#; Ames 15842. Collected in Jalisco, Mexico. Latitude 21 deg. 59' N. Longitude 103 deg. 36' W. Elevation 1760 m. Villa Guerrero.

PI 629201. Zea mays L. **subsp. mays**
Landrace. Population. Jalisco 506; MEX 3221 (INIFAP ACC NO); Amarillo Ocho Hileras; B-88 37#; Ames 15843. Collected 01/01/1977 in Jalisco, Mexico. Latitude 20 deg. 48' N. Longitude 104 deg. 0' W. Elevation 1400 m. La Estancia, Antonio Escobedo.

PI 629202. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-010600; Jalisco 631; MEX 3346 (INIFAP ACC NO); Amarillo Zamorano; B-89 4#; Ames 15844. Collected 01/01/1977 in Jalisco, Mexico. Latitude 20 deg. 49' N. Longitude 102 deg. 44' W. Elevation 2000 m. Campo Agricultura Experimental Altiplano de Jalisco, Tepatitlan.

PI 629203. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 11; NRC 3038; MEX 3408 (INIFAP ACC NO); Mezclado; CH-84 3#; Ames 15845. Collected 01/01/1943 in Mexico, Mexico. Latitude 19 deg. 10' N. Longitude 99 deg. 36' W. Elevation 2774 m. San Andres Ocotlan, Calimaya.

PI 629204. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 75; NRC 3102; MEX 3475 (INIFAP ACC NO); Pepitilla; CH-89 234#; Ames 15846. Collected 01/01/1944 in Mexico, Mexico. Latitude 19 deg. 7' N. Longitude 98 deg. 45' W. Elevation 2550 m. Amecameca.

PI 629205. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 89; NRC 3116; MEX 3489 (INIFAP ACC NO); Criollo; CH-89 12#; Ames 15847. Collected 02/02/1952 in Mexico, Mexico. Latitude 19 deg. 18' N. Longitude 99 deg. 44' W. Elevation 2640 m. Zinacantepec.

PI 629206. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 137; MEX 3537 (INIFAP ACC NO); Amarillo Pinto; CH-89 60#; Ames 15848. Collected 01/01/1952 in Mexico, Mexico. Tlapalamxola.

PI 629207. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 154; MEX 3554 (INIFAP ACC NO); Criollo Amarillo; CH-90 38#; Ames 15849. Collected 01/01/1954 in Mexico, Mexico. Latitude 19 deg. 48' N. Longitude 99 deg. 32' W. Elevation 2600 m. Tuxtepec, Chapa de Mota.

PI 629208. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 263; MEX 3663 (INIFAP ACC NO); Temporal; CH-88 175#; Ames 15850. Collected 01/15/1962 in Mexico, Mexico. Latitude 19 deg. 37' N. Longitude 98 deg. 52' W. Elevation 2240 m. Chipiltepec, Acolman.

PI 629209. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 273; MEX 3673 (INIFAP ACC NO); Abrileno Grande; CH-84 79#; Ames 15851. Collected 01/16/1962 in Mexico, Mexico. Latitude 19 deg. 42' N. Longitude 98 deg. 50' W. Elevation 2320 m. San Martin de Las Piramides.

PI 629210. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 284; MEX 3684 (INIFAP ACC NO); Temporal; CH-90 161#; Ames 15852. Collected 01/18/1962 in Mexico, Mexico. Latitude

19 deg. 46' N. Longitude 99 deg. 5' W. Elevation 2280 m. Santa Ana, Nextlalpan.

PI 629211. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 285; MEX 3685 (INIFAP ACC NO); Colorado; CH-84 82#; Ames 15853. Collected 01/18/1962 in Mexico, Mexico. Latitude 19 deg. 46' N. Longitude 99 deg. 5' W. Elevation 2280 m. Santa Ana, Nextlalpan.

PI 629212. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 304; MEX 3704 (INIFAP ACC NO); Criollo; CH-88 128#; Ames 15854. Collected in Mexico, Mexico. Latitude 19 deg. 31' N. Longitude 98 deg. 52' W. Elevation 2400 m. Tocuila, Texcoco.

PI 629213. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 352; MEX 3752 (INIFAP ACC NO); CH-89 46#; Ames 15855. Collected 01/01/1950 in Mexico, Mexico. Elevation 2200 m. Tenayuca.

PI 629214. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 405; MEX 3805 (INIFAP ACC NO); Del General; CH-88 87#; Ames 15856. Collected in Mexico, Mexico. Latitude 19 deg. 24' N. Longitude 99 deg. 33' W. Elevation 2600 m. Colonia Guadalupe, Villa Cuauhtemoc.

PI 629215. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 425; MEX 3825 (INIFAP ACC NO); Chalqueno; CH-89 47#; MEXI 425; Ames 15857. Collected in Mexico, Mexico. Latitude 19 deg. 16' N. Longitude 99 deg. 32' W. La Bomba, San Mateo Atenco.

PI 629216. Zea mays L. **subsp. mays**
Landrace. Population. Mexico 426; MEX 3827 (INIFAP ACC NO); CH-89 140#; Ames 15858. Collected in Mexico, Mexico. Latitude 19 deg. 16' N. Longitude 99 deg. 32' W. La Bomba, San Mateo Atenco.

PI 629217. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 38A; MEX 4162 (INIFAP ACC NO); Argentino ; B-89 258#; Ames 15859. Collected 01/01/1945 in Michoacan, Mexico. Latitude 20 deg. 9' N. Longitude 102 deg. 45' W. Elevation 1600 m. La Palma, Venustiano Carranza.

PI 629218. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 54; NRC 3202; MEX 4179 (INIFAP ACC NO); Argentino; B-89R 229#; Ames 15860. Collected 02/15/1945 in Michoacan, Mexico. Latitude 20 deg. 20' N. Longitude 102 deg. 18' W. Elevation 1400 m. La Cienaga, Yurecuaro.

PI 629219. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-002236; Michoacan 63; NRC 3211; MEX 4188 (INIFAP ACC NO); Pepitilla; B-88 83#; Ames 15861. Collected 02/12/1945 in Michoacan, Mexico. Latitude 20 deg. 20' N. Longitude 102 deg. 18' W. Elevation 1400 m. La Mula, Yurecuaro. 2.5 a 3.0 mts. de altura, cana gruesa, espigagrande, buena raiz y no se acama. (MEX_ALL DB).

PI 629220. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000172; Michoacan 118; MEX 4243 (INIFAP ACC NO); NRC 3266; B-89 230#; Ames 15862. Collected 01/01/1946 in

Michoacan, Mexico.

PI 629221. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 188; NRC 3336; MEX 4316 (INIFAP ACC NO); B-89 231#; Ames 15863. Collected 01/01/1952 in Michoacan, Mexico. Latitude 20 deg. 3' N. Longitude 102 deg. 43' W. Elevation 1768 m. Sahuayo.

PI 629222. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 191; NRC 3339; MEX 4319 (INIFAP ACC NO); B-89 220#; Ames 15864. Collected 01/01/1952 in Michoacan, Mexico. Latitude 20 deg. 9' N. Longitude 102 deg. 4' W. Elevation 1768 m. Churintzio.

PI 629223. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-005343; Michoacan 203; MEX 4331 (INIFAP ACC NO); NRC 3351; IG-86/87 133#; Ames 15865. Collected 01/01/1952 in Michoacan, Mexico. Latitude 20 deg. 6' N. Longitude 102 deg. 37' W. Elevation 1768 m. Villa Venustiano Carranza.

PI 629224. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 223; MEX 4351 (INIFAP ACC NO); Iio; IG-87/88 1#; Ames 15866. Collected 01/01/1952 in Michoacan, Mexico. Latitude 19 deg. 25' N. Longitude 102 deg. 4' W. Elevation 1611 m. Uruapan.

PI 629225. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 285; MEX 4415 (INIFAP ACC NO); B-89 198# ; Ames 15867. Collected 01/01/1960 in Michoacan, Mexico.

PI 629226. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 286; MEX 4416 (INIFAP ACC NO); B-89 232# ; Ames 15868. Collected 01/01/1960 in Michoacan, Mexico. Latitude 19 deg. 5' N. Longitude 102 deg. 5' W. La Gallina, Gabriel Zamora.

PI 629227. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 288; MEX 4418 (INIFAP ACC NO); B-89 240# ; Ames 15869. Collected 01/01/1960 in Michoacan, Mexico. Zapotiltic.

PI 629228. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-002096; Michoacan 412; MEX 4542 (INIFAP ACC NO); Siguin; B-88 155#; Ames 15870. Collected 01/16/1970 in Michoacan, Mexico. Elevation 1740 m. Rancho Canelo.

PI 629229. Zea mays L. **subsp. mays**
Landrace. Population. Michoacan 419; MEX 4549 (INIFAP ACC NO); Ames 15871. Collected in Michoacan, Mexico. Latitude 19 deg. 12' N. Longitude 101 deg. 42' W. Elevation 1900 m. Tepamal, Ario de Rosales.

PI 629230. Zea mays L. **subsp. mays**
Landrace. Population. Nayarit 58; NRC 3445; MEX 4803 (INIFAP ACC NO); Amarillo; B-88 81#; Ames 15872. Collected 02/07/1953 in Nayarit, Mexico. Latitude 21 deg. 26' N. Longitude 104 deg. 36' W. Elevation 1200 m. San Jose de Mojarras, Santa Maria del Oro.

PI 629231. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-007035; Nayarit 158; MEX 4902 (INIFAP ACC

NO); IG-86/87 157#; Ames 15873. Collected 11/13/1968 in Nayarit, Mexico. Latitude 21 deg. 12' N. Longitude 105 deg. 10' W. Elevation 100 m. Rancho Gomez y Hermanos, Las Varas.

PI 629232. Zea mays L. **subsp. mays**
Landrace. Population. Nayarit 286; MEX 5030 (INIFAP ACC NO); Tabloncillo ; Ames 15874. Collected in Nayarit, Mexico. Esta coleccion se encuentra en CIMMYT pero no es la misma semilla que hay en Inia. (MEX_ALL DB).

PI 629233. Zea mays L. **subsp. mays**
Landrace. Population. Nuevo Leon 56; MEX 5136 (INIFAP ACC NO); Amarillo; Ames 15875. Collected 01/01/1977 in Nuevo Leon, Mexico. Latitude 24 deg. 51' N. Longitude 99 deg. 34' W. Elevation 200 m. Los Hoyos, Linares.

PI 629234. Zea mays L. **subsp. mays**
Landrace. Population. Nuevo Leon 76; MEX 5156 (INIFAP ACC NO); Blanco Grueso; NVOL 76; Ames 15876. Collected 01/01/1977 in Nuevo Leon, Mexico. Latitude 25 deg. 35' N. Longitude 100 deg. 0' W. Elevation 400 m. Las Adjuntas, Cadereyta de Jimenez.

PI 629235. Zea mays L. **subsp. mays**
Landrace. Population. Nuevo Leon 111; MEX 5191 (INIFAP ACC NO); Pilinque ; IG-88/89 49#; NVOL 111; Ames 15877. Collected 01/01/1977 in Nuevo Leon, Mexico. Latitude 24 deg. 51' N. Longitude 99 deg. 34' W. Elevation 200 m. Los Hoyos, Linares.

PI 629236. Zea mays L. **subsp. mays**
Landrace. Population. Oaxaca 102; MEX 5303 (INIFAP ACC NO); B-89R 289#; Ames 15878. Collected 01/01/1950 in Oaxaca, Mexico. Latitude 17 deg. 27' N. Longitude 97 deg. 13' W. Elevation 1645 m. Valle de Nochixtlan, Asuncion Nochixtlan.

PI 629237. Zea mays L. **subsp. mays**
Landrace. Population. Oaxaca 103; NRC 3584; MEX 5304 (INIFAP ACC NO); Zapalote Chico; B-88 161#; Ames 15879. Collected 01/01/1950 in Oaxaca, Mexico. Latitude 16 deg. 20' N. Longitude 95 deg. 14' W. Elevation 45 m. Tehuantepec.

PI 629238. Zea mays L. **subsp. mays**
Landrace. Population. Oaxaca 184; MEX 5386 (INIFAP ACC NO); Andon Pots.; B-88 152#; Ames 15880. Collected 01/22/1961 in Oaxaca, Mexico. Elevation 1600 m. Totontepec (La Nopalera).

PI 629239. Zea mays L. **subsp. mays**
Landrace. Population. Oaxaca 187; MEX 5389 (INIFAP ACC NO); Precoz; B-89 313#; Ames 15881. Collected 01/22/1961 in Oaxaca, Mexico. Elevation 1080 m. Rancho El Pacifico, Totontepec.

PI 629240. Zea mays L. **subsp. mays**
Landrace. Population. Oaxaca 202; MEX 5405 (INIFAP ACC NO); Zapalote; B-89R 296#; Ames 15882. Collected 01/01/1951 in Oaxaca, Mexico. Elevation 100 m. Tapanatepec.

PI 629241. Zea mays L. **subsp. mays**
Landrace. Population. Oaxaca 315; MEX 5519 (INIFAP ACC NO); Azul de Riego; B-89 314#; Ames 15883. Collected 01/01/1970 in Oaxaca, Mexico. Latitude 17 deg. 17' N. Longitude 97 deg. 48' W. Elevation 1700 m. San

Juan Mixtepec.

PI 629242. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 2; NRC 3628; MEX 5768 (INIFAP ACC NO); B-89 238#; Ames 15884. Collected 01/01/1943 in Puebla, Mexico. Latitude 18 deg. 28' N. Longitude 97 deg. 25' W. Elevation 1645 m. Tehuacan.

PI 629243. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 4; NRC 3630; MEX 5770 (INIFAP ACC NO); B-89 12#; Ames 15885. Collected 01/01/1943 in Puebla, Mexico. Latitude 18 deg. 28' N. Longitude 97 deg. 25' W. Elevation 1645 m. Tehuacan.

PI 629244. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 5; NRC 3631; MEX 5771 (INIFAP ACC NO); Blanco de Riego; B-89R 150#; Ames 15886. Collected 01/01/1943 in Puebla, Mexico. Latitude 18 deg. 28' N. Longitude 97 deg. 25' W. Elevation 1645 m. San Lorenzo, Tehuacan.

PI 629245. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 93; NRC 3719; MEX 5860 (INIFAP ACC NO); B-89 261#; Ames 15887. Collected 01/01/1944 in Puebla, Mexico. Latitude 19 deg. 54' N. Longitude 97 deg. 35' W. Elevation 1920 m. Xalacapan.

PI 629246. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000088; Puebla 209; NRC 3835; MEX 5980 (INIFAP ACC NO); Colorado; Ames 15888. Collected 01/31/1952 in Puebla, Mexico. Latitude 18 deg. 17' N. Longitude 97 deg. 18' W. Elevation 1220 m. San Gabriel Chilac. Periodo 135 dias, siembra cualquier mes. (MEX_ALL DB).

PI 629247. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 230; NRC 3856; MEX 6001 (INIFAP ACC NO); Redondo Blanco; B-89 239#; Ames 15889. Collected 01/20/1952 in Puebla, Mexico. Elevation 1250 m. Santiago Matamoros.

PI 629248. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 232; NRC 3858; MEX 6003 (INIFAP ACC NO); Criollo Colorado; B-89 187#; Ames 15890. Collected 01/19/1952 in Puebla, Mexico. Latitude 18 deg. 46' N. Longitude 98 deg. 33' W. Elevation 1600 m. Huaquechula, Atlixco.

PI 629249. Zea mays L. **subsp. mays**
Landrace. Population. Puebla 568; MEX 6328 (INIFAP ACC NO); Chalqueno; CH-88 45#; Ames 15891. Collected 01/01/1972 in Puebla, Mexico. Elevation 2630 m. San Diego Texmelucan.

PI 629250. Zea mays L. **subsp. mays**
Landrace. Population. Queretaro 11; NRC 3875; MEX 6616 (INIFAP ACC NO); Jacal; B-88 46#; Ames 15892. Collected 01/19/1952 in Queretaro, Mexico. Latitude 21 deg. 0' N. Longitude 99 deg. 55' W. Elevation 1850 m. El Jacal, Queretaro.

PI 629251. Zea mays L. **subsp. mays**
Landrace. Population. Queretaro 31; NRC 3895; MEX 6636 (INIFAP ACC NO); De Temporal (Criollo); CH-89 14#; Ames 15893. Collected 01/25/1952 in Queretaro, Mexico. Latitude 20 deg. 31' N. Longitude 99 deg. 53' W. Elevation 1800 m. Tequisquiapan.

PI 629252. Zea mays L. **subsp. mays**
Landrace. Population. Queretaro 72; MEX 6677 (INIFAP ACC NO); Blanco Temporal; B-89 145#; Ames 15894. Collected in Queretaro, Mexico. Latitude 20 deg. 31' N. Longitude 99 deg. 53' W. Elevation 1884 m. San Nicolas, Tequisquiapan.

PI 629253. Zea mays L. **subsp. mays**
Landrace. Population. San Luis Potosi 49; NRC 3979; MEX 6901 (INIFAP ACC NO); Morado; B-89 284#; Ames 15895. Collected 01/13/1952 in San Luis Potosi, Mexico. Latitude 22 deg. 2' N. Longitude 100 deg. 12' W. Elevation 1120 m. San Jose de Gallinas, Ciudad Fernandez.

PI 629254. Zea mays L. **subsp. mays**
Landrace. Population. San Luis Potosi 160; MEX 7012 (INIFAP ACC NO); Blanco Flojo; B-88 118#; Ames 15896. Collected in San Luis Potosi, Mexico. Latitude 22 deg. 0' N. Longitude 99 deg. 34' W. Elevation 1200 m. Ejido La Labor, Cardenas.

PI 629255. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-007186; Sinaloa 78; MEX 7136 (INIFAP ACC NO); Cuarenteno Pinineo; Ames 15897. Collected 01/01/1968 in Sinaloa, Mexico. Latitude 26 deg. 31' N. Longitude 108 deg. 39' W. Elevation 180 m. Las Tunas, El Fuerte.

PI 629256. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-007213; Sinaloa 107; MEX 7165 (INIFAP ACC NO); Miniteno; IG-86/87 230#; Ames 15898. Collected 01/01/1968 in Sinaloa, Mexico. Latitude 26 deg. 43' N. Longitude 108 deg. 20' W. Elevation 450 m. Chicuras, Choix.

PI 629257. Zea mays L. **subsp. mays**
Landrace. Population. Sinaloa 136; MEX 7194 (INIFAP ACC NO); Agareno; IG-88/89 6#; SINA 136; Ames 15899. Collected 01/01/1975 in Sinaloa, Mexico.

PI 629258. Zea mays L. **subsp. mays**
Landrace. Population. Tamaulipas 2A; MEX 7427 (INIFAP ACC NO); Oloton; IG-88/89 51#; TAMA 2A; Ames 15901. Collected 01/01/1943 in Tamaulipas, Mexico. Latitude 23 deg. 18' N. Longitude 99 deg. 1' W. Elevation 300 m. Llera de Canelas.

PI 629259. Zea mays L. **subsp. mays**
Landrace. Population. Tamaulipas 13; NRC 4147; MEX 7438 (INIFAP ACC NO); Oloton; IG-84/85 223#; Ames 15902. Collected 02/05/1953 in Tamaulipas, Mexico. Latitude 24 deg. 5' N. Longitude 99 deg. 8' W. Elevation 336 m. Ursulo Galvan, Nuevo Padilla.

PI 629260. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-000690; Veracruz 180; MEX 8089 (INIFAP ACC NO); Criollo; VERA 180; IG-88/89 61#; Ames 15905. Collected 01/01/1959 in Veracruz, Mexico. Latitude 20 deg. 55' N. Longitude 97 deg. 39' W. Elevation 80 m. Estoro de Idolo, Alamo.

PI 629261. Zea mays L. **subsp. mays**
Landrace. Population. Zacatecas 5A; CH-89 107#; Ames 15906. Collected in Zacatecas, Mexico.

PI 629262. Zea mays L. **subsp. mays**
Landrace. Population. Zacatecas 40; NRC 4525; MEX 8784 (INIFAP ACC NO); Maiz Dulce Amarillo; CH-89 16#; Ames 15907. Collected 01/25/1952 in Zacatecas, Mexico. Latitude 22 deg. 53' N. Longitude 102 deg. 37' W. Elevation 2250 m. San Rafael, Morelos.

PI 629263. Zea mays L. **subsp. mays**
Landrace. Population. Zacatecas 42; NRC 4527; MEX 8786 (INIFAP ACC NO); Pepitillo Olote Grueso; CH-87 166#; Ames 15908. Collected 01/25/1952 in Zacatecas, Mexico. Latitude 22 deg. 57' N. Longitude 102 deg. 42' W. Elevation 2200 m. La Noria Mocha, Calera, Victor Rosales.

PI 629264. Zea mays L. **subsp. mays**
Landrace. Population. Zacatecas 107; MEX 8854 (INIFAP ACC NO); CH-89 134#; Ames 15909. Collected 01/01/1963 in Zacatecas, Mexico. Latitude 23 deg. 38' N. Longitude 103 deg. 39' W. Elevation 2380 m. Sombrerete.

PI 629265. Zea mays L. **subsp. mays**
Landrace. Population. Zacatecas 114; MEX 8861 (INIFAP ACC NO); Criollo de 3 Meses; CH-89 135#; Ames 15910. Collected 01/01/1963 in Zacatecas, Mexico. Latitude 23 deg. 38' N. Longitude 103 deg. 39' W. Elevation 2100 m. Colonia Gonzalez Ortega, Sombrerete.

PI 629266. Zea mays L. **subsp. mays**
Landrace. Population. Zacatecas 147; MEX 8894 (INIFAP ACC NO); Calereno de 3 Meses; B-89 264#; Ames 15911. Collected 01/01/1963 in Zacatecas, Mexico. Latitude 22 deg. 28' N. Longitude 103 deg. 9' W. Elevation 1800 m. Tepetongo.

PI 629267. Zea mays L. **subsp. mays**
Landrace. Population. CIMMYTMA-009110; Zacatecas 214; MEX 8961 (INIFAP ACC NO); Aventurero; Ames 15912. Collected 01/01/1968 in Zacatecas, Mexico. Latitude 23 deg. 15' N. Longitude 103 deg. 47' W. Elevation 1920 m. Jimenez del Teul.

The following were collected by Don LaBonte, Louisiana State University, Department of Horticulture, 137 Julian C. Miller Hall, Baton Rouge, Louisiana 70803, United States. Received 12/18/2001.

PI 629268. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 4. Collected 12/1994 in Papua New Guinea. Elevation 1400 m. Chimbu Province. Tropical region. Leaves hirsute on adaxial side. Some purpling on Adaxial side. Veins somewhat purple on newly opened leaves. Leaves with 0 lobes and cordate shape. Vines hirsute, some purpling. Roots marketable size, but most cracked. Round elliptic to long and irregular. Purple rose skin, white flesh.

PI 629269. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 7. Collected 12/09/1994 in Papua New Guinea. Elevation 1400 m. Chimbu Province. Tropical region. Leaves cordate, moderately lobed, normal size, purple at junction between petioles and blade. Some light purple abaxial veins that fade with age. Vines slight hirsute green vines. Roots tan skin, white flesh, irregular feeder/fleshy roots 3 cm in diameter.

PI 629270. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. NGLU 6-1. Collected 12/07/1994 in Papua New Guinea. Elevation 2200 m. Chimbu Province, Gumine District. Tropical mountainous region. Small leaves, abaxial veins pigmented throughout. Purple cast on Adaxial side on youngest leaves. Cordate with very slight leaf lobing. Veins somewhat purple, lightly hirsute. Roots slightly red skin, few in number, 5 cm wide at most. Some carotenoid pigmentation inside.

PI 629271. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. NG 4A3. Collected 02/07/1993 in Papua New Guinea. Elevation 1300 m. Chimbu Province, Gumine District. Pedigree - Selection from "Wagigi" landrace. No mature leaves for evaluation. Possibly white 2 cm roots. Some red fleshy roots in same plot. These may be escapes from adjacent plots.

PI 629272. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 6B-7. Collected 12/07/1994 in Papua New Guinea. Elevation 2200 m. Chimbu Province, Gumine District. Pedigree - Selection from "Gogigi" cultivar. Leaves cordate with no leaf lobes. Veins are all green. Vines green. Roots short irregular, white skin and flesh 3 cm wide - no yield.

PI 629273. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 10B-8. Collected 12/08/1994 in Papua New Guinea. Elevation 1800 m. West Highland Province, Banz area. Pedigree - Selection from "Markham" landrace. Leaves similar to 6B-7. Cordate with no leaf lobes. Veins are all green. Vines green. No fleshy roots formed. lightly thickened feeder roots white skin and flesh 30 cm long.

PI 629274. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 10B-4. Collected 12/08/1994 in Papua New Guinea. Elevation 1800 m. West Highland Province, Banz area. Pedigree - Selection from "Markham" landrace. Dark green leaves, purple at junction between petiole and leaf. Semi-elliptic in shape, all veins purple pigmented on abaxial surface. Some purpling on adaxial surface. Vines had some purpling at nodes. Light rose feeder roots, 2 cm thick at most, no yield.

PI 629275. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 4A-6. Collected 12/07/1994 in Papua New Guinea. Elevation 1300 m. Chimbu Province, Gumine District. Pedigree - Selection from "Wagigi" cultivar. Leaves cordate with no lobes purpling. Vines green, no purpling. Roots had some round elliptic, white skin and flesh.

PI 629276. Ipomoea batatas (L.) Lam. **var. batatas**
Landrace. 6B-1. Collected 12/07/1994 in Papua New Guinea. Elevation 2200 m. Chimbu Province, Gumine District. Pedigree - Selection from "Bogigi" landrace. Leaves cordate with slight lobes, slightly purple abaxial veins. Thick, hirsute, green vines. Small cracked roots. White skin and flesh. Some long elliptic to irregular - no yield, some 5-6 cm in width.

The following were developed by Robert J. Metzger, 2655 NW Highland Dr., #99, Corvallis, Oregon 97330, United States; Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Received 03/27/2002.

PI 629277. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. KW943683; 3683; NSGC 8830. Pedigree - W301,

PI559718//Stephens/Hohenheimer.

The following were developed by Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Received 03/27/2002.

PI 629278. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. KW940568H; H; NSGC 8831. Pedigree - WKP-2/Hill 81 (WKP-2 selection from Warren K. Pope).

PI 629279. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. KW940568F; F; NSGC 8832. Pedigree - WKP-2/Hill 81 (WKP-2 selection from Warren K. Pope).

PI 629280. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. KW940426pa; NSGC 8833. Pedigree - OR67109 [Hyslop Farm Root Rot Selection (Norin 10/Staring?/] / Froid//Pullman Selection 101/FW71002, E450/Hilgendorf//Arawa/3/Nugaines/SWM78787, unknown Corvallis selection.

PI 629281. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. KW940426pb; NSGC 8834. Pedigree - OR67109 (Hyslop Farm Root Rot Selection (Norin 10/Staring?) / Froid//Pullman Selection 101/FW71002, E450/Hilgendorf//Arawa/3/Nugaines/SWM78787, unknown Corvallis selection.

The following were developed by Robert J. Metzger, 2655 NW Highland Dr., #99, Corvallis, Oregon 97330, United States; Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Received 03/27/2002.

PI 629282. X Triticosecale sp.
Breeding. Pureline. KT982230; 2230; A; NSGC 8835. Pedigree - KS88032//Heines VII/2*Celia.

The following were developed by Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Received 03/27/2002.

PI 629283. X Triticosecale sp.
Breeding. Pureline. KTG06-hr-01; NSGC 8836. Pedigree - B164/Celia//B059/3/OTC.

PI 629284. X Triticosecale sp.
Breeding. Pureline. KTG06-hr-03; NSGC 8837. Pedigree - B164/Celia//B059/3/OTC.

PI 629285. X Triticosecale sp.
Breeding. Pureline. KTG06-hr-04; NSGC 8838. Pedigree - B164/Celia//B059/3/OTC.

PI 629286. X Triticosecale sp.
Breeding. Pureline. KTG06-hr-09; NSGC 8839. Pedigree - B164/Celia//B059/3/OTC.

PI 629287. Hordeum vulgare L. **subsp. vulgare**
Breeding. Pureline. KCEE 9601; NSGC 8840. Pedigree - C4715/Cebda/Tran,

CIMMYT sel./3/border sel. 18.

The following were developed by Larry Robertson, University of Idaho, Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210-0530, United States; Roland F. Line, USDA, ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164, United States; Steven E. Ullrich, Washington State University, Department of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; Darrell M. Wesenberg, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United States; Vadim Jitkov, Washington State University, Dept. of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; Carl E. Muir, Washington State University, Washington Agric. Exp. Station, Dept. of Agronomy & Soils, Pullman, Washington, United States; Patrick E. Reisenauer, Washington State University, Crop & Soil Department, Ag. Research Tech., Pullman, Washington 99164-6420, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164-6430, United States. Received 03/22/2002.

PI 629288. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. "BOB"; WA8682-96. CV-308; PVP 200300082. Pedigree - A308 (Lewis somaclonal line) / Baronesse. Released 2002. Midseason, medium height, two-row, spring, covered, feed barley with lax nodding spikes, rough long awns, and plump white kernels with long rachilla hairs. Mixed deficiens-wild type head types at a ratio of approx. 44% : 56%. Widely adapted across eastern Washington and in general across Idaho and Oregon. Yield was 4585 lb/a or 98% of Baronesse (leading cv in WA) averaged over 26 location-years in eastern Washington.For the same set of tests, yielded 106, 107, 102, and 102% of Harrington, Gallatin, Farmington, and Steptoe, respectively. In the same tests, average test weight and kernel plumpness were 51.9 lb/bu and 90% compared to 50.9 lb/bu and 85% for Baronesse and 49.6 lb/bu and 89% for Harrington. Maturity 1 d later than Baronesse and equal to Harrington. Average plant height of 28 in. and lodging of 7% compared to 27 in. and 18% for Baronesse, 29 in. and 19% for Harrington, and 30 in. and 16% for Gallatin measured over the 26 location-years (2000-2001). Malting.

The following were developed by Herman Gorz, University of Nebraska, Department of Agronomy, 362 Plant Science, East Campus, Lincoln, Nebraska 68583-0937, United States. Received 03/11/2002.

PI 629289. Melilotus albus Medik.
Genetic. N54. GS-25. Pedigree - Homozygous genotype for susceptibility (eeGG) was selected in the F3 generation following a cross of resistant X susceptible parents. The background germplasm is from the breeding nursery of W.K. Smith, but is not known to be from a cultivar. Genetic line with the eeGG genotype that is homozygous for susceptibility to stem canker (or gooseneck) disease (Ascochyta caulicola). Two pairs of interacting genes, E/e and G/g, affect the reaction of sweetclover plants to this disease. The dominant gene for susceptibility, G, is effective only when the epistatic gene E is not present. Also has the CuCubb genotype for coumarin content. Seed should be scarified before planting.

PI 629290. Melilotus albus Medik.

Genetic. N55. GS-26. Pedigree - Homozygous genotype for resistance (EEGG) was selected in the F3 generation following a cross of resistant X susceptible parents. The background germplasm is from the breeding nursery of W.K. Smith, but is not known to be from a cultivar. Genetic line with the EEGG genotype that is homozygous for resistance to stem canker (or gooseneck) disease (Ascochyta caulicola). Two pairs of interacting genes, E/e and G/g affect the reaction of sweetclover plants to this disease. The dominant gene for susceptibility, G, is effective only when the epistatic gene E is not present. Also has the CuCubb genotype for coumarin content. Seed should be scarified before planting.

The following were developed by Steven D. Linscombe, Louisiana State University, LSU Rice Experiment Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Farman Jodari, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States ; Don Groth, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70429-1429, United States; P.K. Bollich, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States ; L.M. White, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; Richard Dunand, Louisiana State University, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Q.R. Chu, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; Xueyan Sha, Louisiana State University, Louisiana Agric. Exp. Station, Rice Research Station, Rayne, Louisiana 70578, United States. Received 03/26/2002.

PI 629291. Oryza sativa L.
Cultivar. Pureline. "DELLMATI"; RU9502171. CV-115. Pedigree - Domsiah//Lemont/Newbonnet/3/Lemont/Della. Released 1999. Aromatic, elongating, very early maturing, and slender long-grain rice. Average lengthwise elongation ratio of cooked kernel 2.16 and average concentration of the primary rice aroma compound, 2 acetyl-1-pyrroline, was 804 ng g-1. Average days from emergence to 50% heading 82, and average plant height 119 cm. Susceptible to physiological disorder straighthead, moderately susceptible to sheath blight (Rhizoctonia solani), and moderately resistant to blast (Pyricularia grisea), leaf smut (Entyloma oryzae), and narrow brown spot (Cercospora janseana). Susceptible to lodging under excessive nitrogen condition. Flag leaf relatively narrow and remains below the panicle at heading. Leaves, lemma, and palea are pubescent. Spikelet straw-colored. Awn up to 1.5 cm can occasionally be found on the tips of panicles. The apiculus is purple, and the grain and vegetation are aromatic. Grain is non-glutinous and displays a light brown pericarp. Average apparent starch amylose content.

The following were developed by Robin L. Cuany, Colorado State University, Department of Agronomy, Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Received 03/14/2002.

PI 629292. Zea mays L. **subsp. mays**
Breeding. Population. ESCT-1. Pedigree - During 1969-1978 several cycles fo recurrent selection were performed at Colorado State University on a germplasm base of U.S., Andean, and European corn and named Cold Tolerant Composite, CTC-1. Phenotypic recurrent selection from 1969-1978 resulted in a new synthetic. Recurrent selection for field

cold-tolerance in early spring plantings and earliness of silking for 4 cycles was followed by 3 cycles of progeny test selection using seedling growth in growth chambers at 10 deg. C (4.5 deg.-15.5 deg. daily range). Some of the latter tests were for general combining ability for cold-tolerance in diallele and topcrosses, including the use of the Swiss variety Rheintaler. Some of these topcrosses were incorporated into the breeding pool, and the result of this recombination became ESCT-1 (E=Colorado, S=Synthetic, CT=Cold Tolerant). The Syn 1 generation was produced in 1978 and Syn 2 in 1979. This synthetic is about 80 day relative maturity and has some susceptibility to lodging.

PI 629293. Zea mays L. **subsp. mays**
Breeding. Population. ESCT-1A-C2. Pedigree - During 1969-1986 several cycles of recurrent selection were performed on a germplasm base (U.S., Andean, and European) and named Cold Tolerant Composite, CTC-1. Phenotypic recurrent selection for field cold-tolerance in early spring plantings and early silking for 4 cycles was followed by 3 cycles of progeny test selection using seedlings in growth chambers at 4.5 deg-15.5 deg daily range. Some tests were for general combining ability for cold-tolerance in diallele, and topcrosses to the Swiss v. Mass selection among the Syn1 plants in summer of 1979 led to three sub-populations: early maturing large-eared (1A), late maturing large-eared (1C), and an intermediate group (1B), which was later discarded. Over 70 ear-row progenies of each sub-population, seeded 4/22/80, experienced four weeks of cool (7-15 deg C) moist conditions, ideal for cold tolerance selection. Data were gathered on emergence, seedling growth, and later on silk-date. On these criteria 30 progenies were selected in 1A and 30 in 1C for sib-pollination and crossing to testers. Yield and maturity data were taken, and a second phase of selection was based on this and on germination tests of testcross seed on moist blotters at 10 deg.C. Thus 20 families were selected in each sub-population for 1981 summer recombination, as ESCT-1A-C1 and ESCT-1C-C1, to complete the first cycle. Plantings in April in Fort Collins and May in Center (San Luis Valley) in 1982 had equivalent maximum and minimum air.

PI 629294. Zea mays L. **subsp. mays**
Breeding. Population. ESCT-1C-C2. Pedigree - During 1969-1978 several cycles fo recurrent selection were performed on a germplasm base (U.S., Andean, and European) and named Cold Tolerant Composite, CTC-1. Phenotypic recurrent selection for field cold-tolerance in early spring plantings and early silking for 4 cycles was followed by 3 cycles of progeny test selection using seedlings in growth chambers at 4.5 deg-15.5 deg daily range. Some tests were for general combining ability for cold-tolerance in diallele, and topcrosse. Mass selection among the Syn1 plants in summer of 1979 led to three sub-populations: early maturing large-eared (1A), late maturing large-eared (1C), and an intermediate group (1B), which was later discarded. Over 70 ear-row progenies of each sub-population, seeded 4/22/80, experienced four weeks of cool (7-15 deg C) moist conditions, ideal for cold tolerance selection. Data were gathered on emergence, seedling growth, and later on silk-date. On these criteria 30 progenies were selected in 1A and 30 in 1C for sib-pollination and crossing to testers. Yield and maturity data were taken, and a second phase of selection was based on this and on germination tests of testcross seed on moist blotters at 10 deg. C. Thus 20 families were selected in each sub-population for 1981

summer recombination, as ESCT-1A-C1 and ESCT-1C-C1, to complete the first cycle. Plantings in April in Fort Collins and May in Center (San Luis Valley) in 1982 had equivalent maximum and minimum.

The following were donated by Agway Seed Co., P.O. Box 1333, Syracuse, New York 13201, United States. Received 1971.

PI 629295. Pisum sativum L.
Cultivar. "DWARF WHITE SUGAR"; B-899; NSL 80280. Pedigree - Derived from a stock from Lancaster County, Pennsylvania. 50 days to maturity. Early. Vines 30" height. Pods 2" -2- 1/2". Cultivated.

The following were collected by Elizabeth Dickson, Cornell Univ., L.H. Bailey Hortorium, Ithaca, New York 14853, United States; Herb S. Aldwinckle, Cornell University, New York State Agric. Exp. Station, Department of Plant Pathology, Geneva, New York 14456-0462, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/10/1989.

PI 629296. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-28-04; GMAL 3295 .h SG. Collected 09/07/1989 in Uzbekistan . Elevation 1590 m. Reached from Tashkent by skilift. North slope and ravines dominated by Juniperus, Rosa, Acer siminovii, Malus spp., Amygdalus petunnikowii, and Prunus divaricata. Grazed by cattle. Tree to 4 m tall, 4 cm DBH. Fruits yellow.

PI 629297. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-24-09; GMAL 3275 .d SG. Collected 09/05/1989 in Uzbekistan . Elevation 1460 m. Steep slopes in ravine along stream. Igneous rocks. Scrubby vegetation of Crataegus, Acer, Amygdalus, and Microcerasus. Tree to 4.0 m tall, 12 cm DBH. Not cultivated.

PI 629298. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-29; GMAL 3343 .c SG. Collected 09/10/1989 in Uzbekistan .

PI 629299. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-23; GMAL 3338 .c SG. Collected 09/10/1989 in Kazakhstan .

PI 629300. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-29-04; GMAL 3300 .a SG. Collected 09/07/1989 in Uzbekistan . Elevation 1590 m. Reached from Tashkent by skilift. North slope and ravines dominated by Juniperus, Rosa, Acer siminovii, Malus spp., Amygdalus petunnikowii, Prunus divaricata and Lonicera. Grazed by cattle. Tree 4 m tall, 8 cm DBH.

PI 629301. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-17; GMAL 3332 .c SG. Collected 09/10/1989 in Kazakhstan .

PI 629302. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-30-05; GMAL 3306 .a SG. Collected 09/07/1989 in Uzbekistan . Elevation 1580 m. Reached from Tashkent by skilift. North slope and

ravines dominated by Juniperus, Rosa, Acer siminovii, Malus spp., Amygdalus petunnikowii, Prunus divaricata and Lonicera. Grazed by cattle. Grove of old mature apple trees. Tree to 9 m tall, 15 cm DBH. Fruit tenacious.

PI 629303. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-23-03; GMAL 3266 .b SG. Collected 09/05/1989 in Uzbekistan . Elevation 1630 m. Loose white rocky soil. Calcareous. Open scrub and herbaceous vegetation. Tree to 3.0 m. Fruits reddish, excellent tasting, Delicious type.

PI 629304. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-31; GMAL 3345 .f SG. Collected 09/10/1989 in Kazakhstan .

PI 629305. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-03; GMAL 3319 .c SG. Collected 09/10/1989 in Kazakhstan .

PI 629306. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-12; GMAL 3328 .g SG. Collected 09/10/1989 in Kazakhstan .

PI 629307. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-09; GMAL 3325 .h SG. Collected 09/10/1989 in Kazakhstan .

PI 629308. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-32-30; GMAL 3344 .a SG. Collected 09/10/1989 in Kazakhstan .

PI 629309. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-27-01; GMAL 3287 .j SG. Collected 09/07/1989 in Uzbekistan . Elevation 1490 m. Reached from Tashkent by skilift. North slope and ravines dominated by Juniperus, Rosa, Acer siminovii, Malus spp., Amygdalus petunnikowii, and Prunus divaricata. Grazed by cattle. Tree to 4 m tall, 8 cm DBH.

PI 629310. Malus sieversii (Ledeb.) M. Roem.
Cultivated. USSR-89-25-02; GMAL 3280 .g SG. Collected 09/06/1989 in Uzbekistan. Elevation 1100 m. NW of Lake. Area where cultivated apples have been grafted onto apparently wild rootstalks. Many diverse cultivars present, some apparently escaping.

PI 629311. Malus sieversii (Ledeb.) M. Roem.
Cultivated. USSR-89-25-02; GMAL 3280 .h SG. Collected 09/06/1989 in Uzbekistan. Elevation 1100 m. NW of Lake. Area where cultivated apples have been grafted onto apparently wild rootstalks. Many diverse cultivars present, some apparently escaping.

PI 629312. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-06-03; Sperling 6987, Herb. no.; GMAL 3244 .j SG. Collected 08/31/1989 in Tajikistan. Elevation 1490 m. 35 km north of Dushanbe. Village of Gazni in Gazni valley. Oktjabski district. Steep ravine at edge of stream. Fine clay soil. Growing with Juglans regia.

PI 629313. Malus sieversii (Ledeb.) M. Roem.

Wild. USSR-89-32-25; GMAL 3339 .i SG. Collected 09/10/1989 in Kazakhstan .

PI 629314. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-08-03; GMAL 3256 .c SG. Collected 08/31/1989 in Tajikistan . Elevation 1860 m. 35 km north of Dushanbe. Village of Gazni in Gazni valley. Oktjabski district. Slopes at edge of ridge and meadow at head of valley.

PI 629315. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-07-06; GMAL 3252 .a SG. Collected 08/31/1989 in Tajikistan . 35 km north of Dushanbe. Village of Gazni in Gazni valley. Oktjabski district. Steep slope at edge of ravine along stream. Trees growing in fine clay soil with metamorphic gravel on surface. Trees 8-10 m tall.

PI 629316. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-07-06; GMAL 3252 .j SG. Collected 08/31/1989 in Tajikistan . 35 km north of Dushanbe. Village of Gazni in Gazni valley. Oktjabski district. Steep slope at edge of ravine along stream. Trees growing in fine clay soil with metamorphic gravel on surface. Trees 8-10 m tall.

PI 629317. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-35-01; GMAL 3360 .d SG. Collected 1989 in Kazakhstan.

PI 629318. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-35-01; GMAL 3360 .f SG. Collected 1989 in Kazakhstan.

PI 629319. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-35-01; GMAL 3360 .j SG. Collected 1989 in Kazakhstan.

PI 629320. Malus sieversii (Ledeb.) M. Roem.
Wild. USSR-89-34-02; Sperling 7037, Herb. no.; GMAL 3350 .e SG. Collected 09/12/1989 in Kazakhstan. Elevation 1550 m. Soldatsky area. Steep SW facing slope (45% slope). Dominated by wild Malus and Crataegus spp.

Unknown source. Received 2000.

PI 629321. Gossypium arboreum L.
"A4".

Unknown source. Received 2000.

PI 629322. Gossypium arboreum L.
"A14".

Unknown source. Received 2000.

PI 629323. Gossypium arboreum L.
"A17-5-7".

Unknown source. Received 2000.

PI 629324. Gossypium arboreum L.
"AC48".

Unknown source. Received 1995.

PI 629325. Gossypium arboreum L.
"AC546".

Unknown source. Received 2000.

PI 629326. Gossypium arboreum L.
"AC727".

Unknown source. Received 2000.

PI 629327. Gossypium arboreum L.
"AC733".

Unknown source. Received 2000.

PI 629328. Gossypium arboreum L.
"AKH4".

Unknown source. Received 2000.

PI 629329. Gossypium arboreum L.
"AC617".

Unknown source. Received 2000.

PI 629330. Gossypium arboreum L.
"CC-2-1-11-15".

Unknown source. Received 2000.

PI 629331. Gossypium arboreum L.
"0411".

Unknown source. Received 2000.

PI 629332. Gossypium arboreum L.
"G 2".

Unknown source. Received 2000.

PI 629333. Gossypium arboreum L.
"GAO CB-3".

Unknown source. Received 2000.

PI 629334. Gossypium arboreum L.
"G 875".

Unknown source. Received 2000.

PI 629335. Gossypium arboreum L.
"H 73".

Unknown source. Received 2000.

PI 629336. Gossypium arboreum L.
"H 76".

Unknown source. Received 2000.

PI 629337. Gossypium arboreum L.
"H 380".

Unknown source. Received 2000.

PI 629338. Gossypium arboreum L.
"A".

Unknown source. Received 2000.

PI 629339. Gossypium arboreum L.
"ARBOREUM (KANPUR)".

Unknown source. Received 2000.

PI 629340. Gossypium arboreum L.
"A21".

Unknown source. Received 2000.

PI 629341. Gossypium arboreum L.
"A27".

Unknown source. Received 2000.

PI 629342. Gossypium arboreum L.
"A32".

Unknown source. Received 2000.

PI 629343. Gossypium arboreum L.
"A33".

Unknown source. Received 2000.

PI 629344. Gossypium arboreum L.
"A41".

Unknown source. Received 2000.

PI 629345. Gossypium arboreum L.
"A216".

Unknown source. Received 2000.

PI 629346. Gossypium arboreum L.
"ABUHARIA".

Unknown source. Received 2000.

PI 629347. Gossypium arboreum L.
"AC1".

Unknown source. Received 2000.

PI 629348. Gossypium arboreum L.
"AC2".

Unknown source. Received 2000.

PI 629349. Gossypium arboreum L.
"AC3".

Unknown source. Received 2000.

PI 629350. Gossypium arboreum L.
"AC4".

Unknown source. Received 2000.

PI 629351. Gossypium arboreum L.
"AC5".

Unknown source. Received 2000.

PI 629352. Gossypium arboreum L.
"AC6".

Unknown source. Received 2000.

PI 629353. Gossypium arboreum L.
"AC7".

Unknown source. Received 2000.

PI 629354. Gossypium arboreum L.
"AC8".

Unknown source. Received 2000.

PI 629355. Gossypium arboreum L.
"AC10".

Unknown source. Received 2000.

PI 629356. Gossypium arboreum L.
"AC11".

Unknown source. Received 2000.

PI 629357. Gossypium arboreum L.
"AC12".

Unknown source. Received 2000.

PI 629358. Gossypium arboreum L.
"AC14".

Unknown source. Received 2000.

PI 629359. Gossypium arboreum L.
"AC15".

Unknown source. Received 2000.

PI 629360. Gossypium arboreum L.
"AC16".

Unknown source. Received 2000.

PI 629361. Gossypium arboreum L.
"AC17".

Unknown source. Received 2000.

PI 629362. Gossypium arboreum L.
"AC18".

Unknown source. Received 2000.

PI 629363. Gossypium arboreum L.
"AC20".

Unknown source. Received 2000.

PI 629364. Gossypium arboreum L.
"AC21".

Unknown source. Received 2000.

PI 629365. Gossypium arboreum L.
"AC22".

Unknown source. Received 2000.

PI 629366. Gossypium arboreum L.
"AC23".

Unknown source. Received 2000.

PI 629367. Gossypium arboreum L.
"AC25".

Unknown source. Received 2000.

PI 629368. Gossypium arboreum L.
"AC26".

Unknown source. Received 2000.

PI 629369. Gossypium arboreum L.
"AC27".

Unknown source. Received 2000.

PI 629370. Gossypium arboreum L.
"AC28".

Unknown source. Received 2000.

PI 629371. Gossypium arboreum L.
"AC29".

Unknown source. Received 2000.

PI 629372. Gossypium arboreum L.
"AC31".

Unknown source. Received 2000.

PI 629373. Gossypium arboreum L.
"AC38".

Unknown source. Received 2000.

PI 629374. Gossypium arboreum L.
"AC39".

Unknown source. Received 2000.

PI 629375. Gossypium arboreum L.
"AC40".

Unknown source. Received 2000.

PI 629376. Gossypium arboreum L.
"AC41".

Unknown source. Received 2000.

PI 629377. Gossypium arboreum L.
"AC42".

Unknown source. Received 2000.

PI 629378. Gossypium arboreum L.
"AC43".

Unknown source. Received 2000.

PI 629379. Gossypium arboreum L.
"AC45".

Unknown source. Received 2000.

PI 629380. Gossypium arboreum L.
"AC46".

Unknown source. Received 2000.

PI 629381. Gossypium arboreum L.
"AC47".

Unknown source. Received 2000.

PI 629382. Gossypium arboreum L.
"AC50".

Unknown source. Received 2000.

PI 629383. Gossypium arboreum L.
"AC51".

Unknown source. Received 2000.

PI 629384. Gossypium arboreum L.
"AC53".

Unknown source. Received 2000.

PI 629385. Gossypium arboreum L.
"AC60".

Unknown source. Received 2000.

PI 629386. Gossypium arboreum L.
"AC61".

Unknown source. Received 2000.

PI 629387. Gossypium arboreum L.
"AC62".

Unknown source. Received 2000.

PI 629388. Gossypium arboreum L.
"AC63".

Unknown source. Received 2000.

PI 629389. Gossypium arboreum L.
"0412".

Unknown source. Received 2000.

PI 629390. Gossypium arboreum L.
"AC67".

Unknown source. Received 2000.

PI 629391. Gossypium arboreum L.
"AC69".

Unknown source. Received 2000.

PI 629392. Gossypium arboreum L.

Unknown source. Received 2000.

PI 629393. Gossypium arboreum L.
"AC418".

Unknown source. Received 2000.

PI 629394. Gossypium arboreum L.
"AC443".

Unknown source. Received 2000.

PI 629395. Gossypium arboreum L.
"AC514".

Unknown source. Received 2000.

PI 629396. Gossypium arboreum L.
"AC516".

Unknown source. Received 2000.

PI 629397. Gossypium arboreum L.
"AC540".

Unknown source. Received 2000.

PI 629398. Gossypium arboreum L.
"AC541".

Unknown source. Received 2000.

PI 629399. Gossypium arboreum L.
"AC542".

Unknown source. Received 2000.

PI 629400. Gossypium arboreum L.
"AC544".

Unknown source. Received 2000.

PI 629401. Gossypium arboreum L.
"AC567".

Unknown source. Received 2000.

PI 629402. Gossypium arboreum L.
"AC570".

Unknown source. Received 2000.

PI 629403. Gossypium arboreum L.
"AC619".

Unknown source. Received 2000.

PI 629404. Gossypium arboreum L.
"AC620".

Unknown source. Received 2000.

PI 629405. Gossypium arboreum L.
"AC621".

Unknown source. Received 2000.

PI 629406. Gossypium arboreum L.
"AC623".

Unknown source. Received 2000.

PI 629407. Gossypium arboreum L.
"AC624".

Unknown source. Received 2000.

PI 629408. Gossypium arboreum L.
"AC625".

Unknown source. Received 2000.

PI 629409. Gossypium arboreum L.
"AC626".

Unknown source. Received 2000.

PI 629410. Gossypium arboreum L.
"AC628".

Unknown source. Received 2000.

PI 629411. Gossypium arboreum L.
"AC629".

Unknown source. Received 2000.

PI 629412. Gossypium arboreum L.
"AC630".

Unknown source. Received 2000.

PI 629413. Gossypium arboreum L.
"AC654".

Unknown source. Received 2000.

PI 629414. Gossypium arboreum L.
"AC655".

Unknown source. Received 2000.

PI 629415. Gossypium arboreum L.
"AC656".

Unknown source. Received 2000.

PI 629416. Gossypium arboreum L.
"AC729".

Unknown source. Received 2000.

PI 629417. Gossypium arboreum L.
"AC730".

Unknown source. Received 2000.

PI 629418. Gossypium arboreum L.
"AC732".

Unknown source. Received 2000.

PI 629419. Gossypium arboreum L.
"AC736".

Unknown source. Received 2000.

PI 629420. Gossypium arboreum L.
"AKH214".

Unknown source. Received 2000.

PI 629421. Gossypium arboreum L.
"AKH235".

Unknown source. Received 2000.

PI 629422. Gossypium arboreum L.
"AKH407".

Unknown source. Received 2000.

PI 629423. Gossypium arboreum L.
"AKH442".

Unknown source. Received 2000.

PI 629424. Gossypium arboreum L.
"ARVENSIS".

Unknown source. Received 2000.

PI 629425. Gossypium arboreum L.
"ADONICUM".

Unknown source. Received 2000.

PI 629426. Gossypium arboreum L.
"0414".

Unknown source. Received 2000.

PI 629427. Gossypium arboreum L.
"B-3".

Unknown source. Received 2000.

PI 629428. Gossypium arboreum L.
"B-4".

Unknown source. Received 2000.

PI 629429. Gossypium arboreum L.
"B-5".

Unknown source. Received 2000.

PI 629430. Gossypium arboreum L.
"B-8".

Unknown source. Received 2000.

PI 629431. Gossypium arboreum L.
"B10-24-A-84".

Unknown source. Received 2000.

PI 629432. Gossypium arboreum L.
"B-11".

Unknown source. Received 2000.

PI 629433. Gossypium arboreum L.
"B-11A".

Unknown source. Received 2000.

PI 629434. Gossypium arboreum L.
"B-11-56-851".

Unknown source. Received 2000.

PI 629435. Gossypium arboreum L.
"B-12A".

Unknown source. Received 2000.

PI 629436. Gossypium arboreum L.
"B-15-3-0".

Unknown source. Received 2000.

PI 629437. Gossypium arboreum L.
"B-32-48".

Unknown source. Received 2000.

PI 629438. Gossypium arboreum L.
"B A-1-W".

Unknown source. Received 2000.

PI 629439. Gossypium arboreum L.
"B A-2-W".

Unknown source. Received 2000.

PI 629440. Gossypium arboreum L.
"B A 15-W".

Unknown source. Received 2000.

PI 629441. Gossypium arboreum L.
"B A 15-23-4".

Unknown source. Received 2000.

PI 629442. Gossypium arboreum L.
"BADNAPUR".

Unknown source. Received 2000.

PI 629443. Gossypium arboreum L.
"BANI 306".

Unknown source. Received 2000.

PI 629444. Gossypium arboreum L.
"BANILLA".

Unknown source. Received 2000.

PI 629445. Gossypium arboreum L.
"BANILLA FAINT SPOT".

Unknown source. Received 2000.

PI 629446. Gossypium arboreum L.
"BDN-57".

Unknown source. Received 2000.

PI 629447. Gossypium arboreum L.
"BDN-590".

Unknown source. Received 2000.

PI 629448. Gossypium arboreum L.
"BDN-5628".

Unknown source. Received 2000.

PI 629449. Gossypium arboreum L.
"BDN-5900".

Unknown source. Received 2000.

PI 629450. Gossypium arboreum L.
"BDN-6323".

Unknown source. Received 2000.

PI 629451. Gossypium arboreum L.
"BDN-6377".

Unknown source. Received 2000.

PI 629452. Gossypium arboreum L.
"BDN-6498".

Unknown source. Received 2000.

PI 629453. Gossypium arboreum L.
"BDN-6517".

Unknown source. Received 2000.

PI 629454. Gossypium arboreum L.
"BDN-6529".

Unknown source. Received 2000.

PI 629455. Gossypium arboreum L.
"BISNOOR".

Unknown source. Received 2000.

PI 629456. Gossypium arboreum L.
"BJ-6".

Unknown source. Received 2000.

PI 629457. Gossypium arboreum L.
"BURI-306".

Unknown source. Received 2000.

PI 629458. Gossypium arboreum L.
"BURMA SILK".

Unknown source. Received 2000.

PI 629459. Gossypium arboreum L.
"BURMA C-19".

Unknown source. Received 2000.

PI 629460. Gossypium arboreum L.
"C-1".

Unknown source. Received 2000.

PI 629461. Gossypium arboreum L.
"C-35-E".

Unknown source. Received 2000.

PI 629462. Gossypium arboreum L.
"C 402 W".

Unknown source. Received 2000.

PI 629463. Gossypium arboreum L.
"C 520".

Unknown source. Received 2000.

PI 629464. Gossypium arboreum L.
"CC-1-1-109".

Unknown source. Received 2000.

PI 629465. Gossypium arboreum L.
"CC-1-1-2-23".

Unknown source. Received 2000.

PI 629466. Gossypium arboreum L.
"CC-1-1-3-2".

Unknown source. Received 2000.

PI 629467. Gossypium arboreum L.
"CC-1-1-3-4".

Unknown source. Received 2000.

PI 629468. Gossypium arboreum L.
"CC-1-1-3-33".

Unknown source. Received 2000.

PI 629469. Gossypium arboreum L.
"CC-1-1-3-41".

Unknown source. Received 2000.

PI 629470. Gossypium arboreum L.
"CC-1-1-3-BK-1".

Unknown source. Received 2000.

PI 629471. Gossypium arboreum L.
"CERNUUM".

Unknown source. Received 2000.

PI 629472. Gossypium arboreum L.
"CH 109".

Unknown source. Received 2000.

PI 629473. Gossypium arboreum L.
"CHINESE BROAD LOBE".

Unknown source. Received 2000.

PI 629474. Gossypium arboreum L.
"CHINESE NARROW LOBE".

Unknown source. Received 2000.

PI 629475. Gossypium arboreum L.
"CHINESE NEW MILLION".

Unknown source. Received 2000.

PI 629476. Gossypium arboreum L.
"CHINESE SPOTLESS".

Unknown source. Received 2000.

PI 629477. Gossypium arboreum L.
"CITRAL ARBOREUM".

Unknown source. Received 2000.

PI 629478. Gossypium arboreum L.
"C-INDORE".

Unknown source. Received 2000.

PI 629479. Gossypium arboreum L.
"CJ 73".

Unknown source. Received 2000.

PI 629480. Gossypium arboreum L.
"CJ 2164".

Unknown source. Received 2001.

PI 629481. Gossypium arboreum L.
"CJ 45".

Unknown source. Received 2000.

PI 629482. Gossypium arboreum L.
"COCANADA-1".

Unknown source. Received 2000.

PI 629483. Gossypium arboreum L.
"COCANADA-2".

Unknown source. Received 2000.

PI 629484. Gossypium arboreum L.
"COCANADA-5".

Unknown source. Received 2000.

PI 629485. Gossypium arboreum L.
"COCANADA-20".

Unknown source. Received 2000.

PI 629486. Gossypium arboreum L.
"COCANADA WHITE".

Unknown source. Received 2000.

PI 629487. Gossypium arboreum L.
"COMILLA".

Unknown source. Received 2000.

PI 629488. Gossypium arboreum L.
"D 44-20".

Unknown source. Received 2000.

PI 629489. Gossypium arboreum L.
"D 46-5".

Unknown source. Received 2000.

PI 629490. Gossypium arboreum L.
"D 46-46".

Unknown source. Received 2000.

PI 629491. Gossypium arboreum L.
"D 48-154".

Unknown source. Received 2000.

PI 629492. Gossypium arboreum L.
"D C-2".

Unknown source. Received 2000.

PI 629493. Gossypium arboreum L.
"D C-3".

Unknown source. Received 2000.

PI 629494. Gossypium arboreum L.
"D C 93".

Unknown source. Received 2000.

PI 629495. Gossypium arboreum L.
"D C 98".

Unknown source. Received 2000.

PI 629496. Gossypium arboreum L.
"DHAR 43".

Unknown source. Received 2000.

PI 629497. Gossypium arboreum L.
"DHULIA 215".

Unknown source. Received 2000.

PI 629498. Gossypium arboreum L.
"DHULIA 2-1-5".

Unknown source. Received 2000.

PI 629499. Gossypium arboreum L.
"EB 31".

Unknown source. Received 2000.

PI 629500. Gossypium arboreum L.
"G 6".

Unknown source. Received 2000.

PI 629501. Gossypium arboreum L.
"G 8".

Unknown source. Received 2000.

PI 629502. Gossypium arboreum L.
"GAORANI CB-1".

Unknown source. Received 2000.

PI 629503. Gossypium arboreum L.
"GAO CB-5".

Unknown source. Received 2000.

PI 629504. Gossypium arboreum L.
"GAO CB-8".

Unknown source. Received 2000.

PI 629505. Gossypium arboreum L.
"GAO CB-9".

Unknown source. Received 2000.

PI 629506. Gossypium arboreum L.
"GAO 16-CB-1".

Unknown source. Received 2000.

PI 629507. Gossypium arboreum L.
"GAO 16-CB-II".

Unknown source. Received 2000.

PI 629508. Gossypium arboreum L.
"GAO 16-CB-IV".

Unknown source. Received 2000.

PI 629509. Gossypium arboreum L.
"GAO 16-CB-7".

Unknown source. Received 2000.

PI 629510. Gossypium arboreum L.
"GAO 16-CB-9".

Unknown source. Received 2000.

PI 629511. Gossypium arboreum L.
"GAO 4-M-19".

Unknown source. Received 2000.

PI 629512. Gossypium arboreum L.
"GAO 18".

Unknown source. Received 2000.

PI 629513. Gossypium arboreum L.
"GAO 20".

Unknown source. Received 2000.

PI 629514. Gossypium arboreum L.
"G 112".

Unknown source. Received 2000.

PI 629515. Gossypium arboreum L.
"G 22".

Unknown source. Received 2000.

PI 629516. Gossypium arboreum L.
"G 27".

Unknown source. Received 2000.

PI 629517. Gossypium arboreum L.
"G 27-51".

Unknown source. Received 2000.

PI 629518. Gossypium arboreum L.
"G 29".

Unknown source. Received 2000.

PI 629519. Gossypium arboreum L.
"G 33".

Unknown source. Received 2000.

PI 629520. Gossypium arboreum L.
"G 45-1".

Unknown source. Received 2000.

PI 629521. Gossypium arboreum L.
"G 47".

Unknown source. Received 2000.

PI 629522. Gossypium arboreum L.
"G 53".

Unknown source. Received 2000.

PI 629523. Gossypium arboreum L.
"G 54-1".

Unknown source. Received 2000.

PI 629524. Gossypium arboreum L.
"G 63".

Unknown source. Received 2000.

PI 629525. Gossypium arboreum L.
"G 67".

Unknown source. Received 2000.

PI 629526. Gossypium arboreum L.
"G 113".

Unknown source. Received 2000.

PI 629527. Gossypium arboreum L.
"G 135-49".

Unknown source. Received 2000.

PI 629528. Gossypium arboreum L.
"G 135-49W".

Unknown source. Received 2000.

PI 629529. Gossypium arboreum L.
"G 35-494".

Unknown source. Received 2000.

PI 629530. Gossypium arboreum L.
"G 142".

Unknown source. Received 2000.

PI 629531. Gossypium arboreum L.
"GAO 145-B-5".

Unknown source. Received 2000.

PI 629532. Gossypium arboreum L.
"G 153".

Unknown source. Received 2000.

PI 629533. Gossypium arboreum L.
"G 166".

Unknown source. Received 2000.

PI 629534. Gossypium arboreum L.
"G 845".

Unknown source. Received 2000.

PI 629535. Gossypium arboreum L.
"G 2751".

Unknown source. Received 2000.

PI 629536. Gossypium arboreum L.
"GARRO HILL (YF)".

Unknown source. Received 2000.

PI 629537. Gossypium arboreum L.
"GARRO HILL (YF)".

Unknown source. Received 2000.

PI 629538. Gossypium arboreum L.
"GARRO HILL (RF)".

Unknown source. Received 2000.

PI 629539. Gossypium arboreum L.
"GIANT SPOT".

Unknown source. Received 2000.

PI 629540. Gossypium arboreum L.
"H2WR".

Unknown source. Received 2000.

PI 629541. Gossypium arboreum L.
"H 4".

Unknown source. Received 2000.

PI 629542. Gossypium arboreum L.
"H4-B-5".

Unknown source. Received 2000.

PI 629543. Gossypium arboreum L.
"H 7".

Unknown source. Received 2000.

PI 629544. Gossypium arboreum L.
"H 9".

Unknown source. Received 2000.

PI 629545. Gossypium arboreum L.
"H 11-54-31-22".

Unknown source. Received 2000.

PI 629546. Gossypium arboreum L.
"H 42".

Unknown source. Received 2000.

PI 629547. Gossypium arboreum L.
"H 44".

Unknown source. Received 2000.

PI 629548. Gossypium arboreum L.
"H 46".

Unknown source. Received 2000.

PI 629549. Gossypium arboreum L.
"H 47".

Unknown source. Received 2000.

PI 629550. Gossypium arboreum L.
"H 49".

Unknown source. Received 2000.

PI 629551. Gossypium arboreum L.
"H 52-473".

Unknown source. Received 2000.

PI 629552. Gossypium arboreum L.
"H 53-519".

Unknown source. Received 2000.

PI 629553. Gossypium arboreum L.
"H 58-940".

Unknown source. Received 2000.

PI 629554. Gossypium arboreum L.
"H 83".

Unknown source. Received 2000.

PI 629555. Gossypium arboreum L.
"H 84".

Unknown source. Received 2000.

PI 629556. Gossypium arboreum L.
"H 86".

Unknown source. Received 2000.

PI 629557. Gossypium arboreum L.
"H 89".

Unknown source. Received 2000.

PI 629558. Gossypium arboreum L.
"H 94".

Unknown source. Received 2000.

PI 629559. Gossypium arboreum L.
"H 106".

Unknown source. Received 2000.

PI 629560. Gossypium arboreum L.
"H 134".

Unknown source. Received 2000.

PI 629561. Gossypium arboreum L.
"H 151".

Unknown source. Received 2000.

PI 629562. Gossypium arboreum L.
"H 190".

Unknown source. Received 2000.

PI 629563. Gossypium arboreum L.
"H 214".

Unknown source. Received 2000.

PI 629564. Gossypium arboreum L.
"H 233".

Unknown source. Received 2000.

PI 629565. Gossypium arboreum L.
"H 240".

Unknown source. Received 2000.

PI 629566. Gossypium arboreum L.
"H 242".

Unknown source. Received 2000.

PI 629567. Gossypium arboreum L.
"H 248".

Unknown source. Received 2000.

PI 629568. Gossypium arboreum L.
"H 304".

Unknown source. Received 2002.

PI 629569. Gossypium arboreum L.
"H 318".

Unknown source. Received 2000.

PI 629570. Gossypium arboreum L.
"H 368".

Unknown source. Received 2000.

PI 629571. Gossypium arboreum L.
"H 407".

Unknown source. Received 2000.

PI 629572. Gossypium arboreum L.
"DESI 8".

Unknown source. Received 2000.

PI 629573. Gossypium arboreum L.
"DESI 10".

Unknown source. Received 2000.

PI 629574. Gossypium arboreum L.
"DESI 10".

Unknown source. Received 2000.

PI 629575. Gossypium arboreum L.
"DESI 10".

Unknown source. Received 2000.

PI 629576. Gossypium arboreum L.
"DESI 6".

Unknown source. Received 2000.

PI 629577. Gossypium arboreum L.
"AKA 61".

Unknown source. Received 2000.

PI 629578. Gossypium arboreum L.
"AKA 62".

Unknown source. Received 2000.

PI 629579. Gossypium arboreum L.
"AKA 12".

Unknown source. Received 2000.

PI 629580. Gossypium arboreum L.
"AKA 13".

Unknown source. Received 2000.

PI 629581. Gossypium arboreum L.
"AKA 13".

Unknown source. Received 2000.

PI 629582. Gossypium arboreum L.
"AKA 14".

Unknown source. Received 2000.

PI 629583. Gossypium arboreum L.
"AKA 60".

Unknown source. Received 2000.

PI 629584. Gossypium arboreum L.
"AKA 60".

Unknown source. Received 2000.

PI 629585. Gossypium arboreum L.
"AKA 580".

Unknown source. Received 2000.

PI 629586. Gossypium arboreum L.
"AKA 592".

Unknown source. Received 2000.

PI 629587. Gossypium arboreum L.
"AKA 592".

Unknown source. Received 2000.

PI 629588. Gossypium arboreum L.
"AKA 607".

Unknown source. Received 2000.

PI 629589. Gossypium arboreum L.
"ALA 497".

Unknown source. Received 2000.

PI 629590. Gossypium arboreum L.
7286.

Unknown source. Received 2000.

PI 629591. Gossypium arboreum L.
"78/1A".

Unknown source. Received 2000.

PI 629592. Gossypium arboreum L.
"DH2".

Unknown source. Received 2000.

PI 629593. Gossypium arboreum L.
"DH2".

Unknown source. Received 2000.

PI 629594. Gossypium arboreum L.
"AKH 28".

Unknown source. Received 2000.

PI 629595. Gossypium arboreum L.
"JLH 2".

Unknown source. Received 2000.

PI 629596. Gossypium arboreum L.
"JLH 26".

Unknown source. Received 2000.

PI 629597. Gossypium arboreum L.
"78/1A-1".

Unknown source. Received 2000.

PI 629598. Gossypium arboreum L.
"ROSI-1".

Unknown source. Received 2000.

PI 629599. Gossypium arboreum L.
"AKA 5".

Unknown source. Received 2000.

PI 629600. Gossypium arboreum L.
"AK 590".

Unknown source. Received 2000.

PI 629601. Gossypium arboreum L.
"AK 590".

Unknown source. Received 2000.

PI 629602. Gossypium arboreum L.
"AK 606".

Unknown source. Received 2000.

PI 629603. Gossypium arboreum L.
"AK 606".

Unknown source. Received 2000.

PI 629604. Gossypium arboreum L.
"AK 606".

Unknown source. Received 2000.

PI 629605. Gossypium arboreum L.
"EKNATH (PA 32)".

Unknown source. Received 2000.

PI 629606. Gossypium arboreum L.
"NA 78".

Unknown source. Received 2000.

PI 629607. Gossypium arboreum L.
"DDH 2 (SEL.)".

Unknown source. Received 2000.

PI 629608. Gossypium arboreum L.
"GDH 22 (SEL.)".

Unknown source. Received 2000.

PI 629609. Gossypium arboreum L.
"GDH 22 (SEL.)".

Unknown source. Received 2000.

PI 629610. Gossypium arboreum L.
"AC 3384".

Unknown source. Received 2000.

PI 629611. Gossypium arboreum L.
"AC 3340".

Unknown source. Received 2000.

PI 629612. Gossypium arboreum L.
"AC 3644".

Unknown source. Received 2000.

PI 629613. Gossypium arboreum L.
"AC 3545".

Unknown source. Received 2000.

PI 629614. Gossypium arboreum L.
"AC 3547".

Unknown source. Received 2000.

PI 629615. Gossypium arboreum L.
"AC 3290".

Unknown source. Received 2000.

PI 629616. Gossypium arboreum L.
"AC 3495 B".

Unknown source. Received 2000.

PI 629617. Gossypium arboreum L.
"AC 3479".

Unknown source. Received 2000.

PI 629618. Gossypium arboreum L.
"AC 3582".

Unknown source. Received 2000.

PI 629619. Gossypium arboreum L.
"AC 3370 B".

Unknown source. Received 2000.

PI 629620. Gossypium arboreum L.
"AC 3370 B".

Unknown source. Received 2000.

PI 629621. Gossypium arboreum L.
"AC 3370 B".

Unknown source. Received 2000.

PI 629622. Gossypium arboreum L.
"AC 3302".

Unknown source. Received 2000.

PI 629623. Gossypium arboreum L.
"AC 3302".

Unknown source. Received 2000.

PI 629624. Gossypium arboreum L.
"AC 3528".

Unknown source. Received 2000.

PI 629625. Gossypium arboreum L.
"AC 3528".

Unknown source. Received 2000.

PI 629626. Gossypium arboreum L.
"AC 3265".

Unknown source. Received 2000.

PI 629627. Gossypium arboreum L.
"AC 3649".

Unknown source. Received 2000.

PI 629628. Gossypium arboreum L.
"AC 3377".

Unknown source. Received 2000.

PI 629629. Gossypium arboreum L.
"AC 3619".

Unknown source. Received 2000.

PI 629630. Gossypium arboreum L.
"AC 3268".

Unknown source. Received 2000.

PI 629631. Gossypium arboreum L.
"AC 3092".

Unknown source. Received 2000.

PI 629632. Gossypium arboreum L.
"AC 3092".

Unknown source. Received 2000.

PI 629633. Gossypium arboreum L.
"AC 3067".

Unknown source. Received 2000.

PI 629634. Gossypium arboreum L.
"AC 3083".

Unknown source. Received 2000.

PI 629635. Gossypium arboreum L.
"AC 3049".

Unknown source. Received 2000.

PI 629636. Gossypium arboreum L.
"AC 3367".

Unknown source. Received 2000.

PI 629637. Gossypium arboreum L.
"AC 3367".

Unknown source. Received 2000.

PI 629638. Gossypium arboreum L.
"AC 3367".

Unknown source. Received 2000.

PI 629639. Gossypium arboreum L.
"AC 3229".

Unknown source. Received 2000.

PI 629640. Gossypium arboreum L.
"AC 3229".

Unknown source. Received 2000.

PI 629641. Gossypium arboreum L.
"AC 3581".

Unknown source. Received 2000.

PI 629642. Gossypium arboreum L.
"AC 3581".

Unknown source. Received 2000.

PI 629643. Gossypium arboreum L.
"AC 3581".

Unknown source. Received 2000.

PI 629644. Gossypium arboreum L.
"AC 3537".

Unknown source. Received 2000.

PI 629645. Gossypium arboreum L.
7410.

Unknown source. Received 2000.

PI 629646. Gossypium arboreum L.
"AC 3533".

Unknown source. Received 2000.

PI 629647. Gossypium arboreum L.
"AC 3516".

Unknown source. Received 2000.

PI 629648. Gossypium arboreum L.
"AC 3352".

Unknown source. Received 2000.

PI 629649. Gossypium arboreum L.
"AC 3366".

Unknown source. Received 2000.

PI 629650. Gossypium arboreum L.
"AC 3351".

Unknown source. Received 2000.

PI 629651. Gossypium arboreum L.
"AC 3216".

Unknown source. Received 2000.

PI 629652. Gossypium arboreum L.
"AC 3736 B".

Unknown source. Received 2000.

PI 629653. Gossypium arboreum L.
"AC 3736 B".

Unknown source. Received 2000.

PI 629654. Gossypium arboreum L.
"AC 3189".

Unknown source. Received 2000.

PI 629655. Gossypium arboreum L.
"AC 3688".

Unknown source. Received 2000.

PI 629656. Gossypium arboreum L.
"AC 3169".

Unknown source. Received 2000.

PI 629657. Gossypium arboreum L.
"AC 3146".

Unknown source. Received 2000.

PI 629658. Gossypium arboreum L.
"AC 3208".

Unknown source. Received 2000.

PI 629659. Gossypium arboreum L.
"0441".

Unknown source. Received 2000.

PI 629660. Gossypium arboreum L.
"AC 3250".

Unknown source. Received 2000.

PI 629661. Gossypium arboreum L.
"AC 3250".

Unknown source. Received 2000.

PI 629662. Gossypium arboreum L.
"AC 3525".

Unknown source. Received 2000.

PI 629663. Gossypium arboreum L.
"AC 3525".

Unknown source. Received 2000.

PI 629664. Gossypium arboreum L.
"AC 3110".

Unknown source. Received 2000.

PI 629665. Gossypium arboreum L.
"AC 3174".

Unknown source. Received 2000.

PI 629666. Gossypium arboreum L.
"AC 3445".

Unknown source. Received 2000.

PI 629667. Gossypium arboreum L.
"AC 3675".

Unknown source. Received 2000.

PI 629668. Gossypium arboreum L.
"AC 3102".

Unknown source. Received 2000.

PI 629669. Gossypium arboreum L.
"AC 3420".

Unknown source. Received 2000.

PI 629670. Gossypium arboreum L.
"AC 3156".

Unknown source. Received 2000.

PI 629671. Gossypium arboreum L.
"AC 3274".

Unknown source. Received 2000.

PI 629672. Gossypium arboreum L.
"AC 3342".

Unknown source. Received 2000.

PI 629673. Gossypium arboreum L.
"AC 3659".

Unknown source. Received 2000.

PI 629674. Gossypium arboreum L.
"AC 3113".

Unknown source. Received 2000.

PI 629675. Gossypium arboreum L.
7510 Y.

Unknown source. Received 2000.

PI 629676. Gossypium arboreum L.
"AC 3658".

Unknown source. Received 2000.

PI 629677. Gossypium arboreum L.
"AC 3336".

Unknown source. Received 2000.

PI 629678. Gossypium arboreum L.
"AC 3127".

Unknown source. Received 2000.

PI 629679. Gossypium arboreum L.

Unknown source. Received 2000.

PI 629680. Gossypium arboreum L.
"AC 3638".

Unknown source. Received 2000.

PI 629681. Gossypium arboreum L.
"AC 3128".

Unknown source. Received 2000.

PI 629682. Gossypium arboreum L.
"AC 3128".

Unknown source. Received 2000.

PI 629683. Gossypium arboreum L.
"AC 3307".

Unknown source. Received 2000.

PI 629684. Gossypium arboreum L.
"AC 3151".

Unknown source. Received 2000.

PI 629685. Gossypium arboreum L.

Unknown source. Received 2000.

PI 629686. Gossypium arboreum L.
"AC 3196".

Unknown source. Received 2000.

PI 629687. Gossypium arboreum L.
"AC 3722".

Unknown source. Received 2000.

PI 629688. Gossypium arboreum L.
"AC 3539".

Unknown source. Received 2000.

PI 629689. Gossypium arboreum L.
"AC 3178".

Unknown source. Received 2000.

PI 629690. Gossypium arboreum L.
"AC 3178".

Unknown source. Received 2000.

PI 629691. Gossypium arboreum L.
"AC 3168".

Unknown source. Received 2000.

PI 629692. Gossypium arboreum L.
7568.

Unknown source. Received 2000.

PI 629693. Gossypium arboreum L.
"AC 3185".

Unknown source. Received 2000.

PI 629694. Gossypium arboreum L.
"AC 3312".

Unknown source. Received 2000.

PI 629695. Gossypium arboreum L.
"AC 3312".

Unknown source. Received 2000.

PI 629696. Gossypium arboreum L.
"AC 3188".

Unknown source. Received 2000.

PI 629697. Gossypium arboreum L.
"AC 3658".

Unknown source. Received 2000.

PI 629698. Gossypium arboreum L.
0452.

Unknown source. Received 2000.

PI 629699. Gossypium arboreum L.
"AC 3596".

Unknown source. Received 2000.

PI 629700. Gossypium arboreum L.
"AC 3419".

Unknown source. Received 2000.

PI 629701. Gossypium arboreum L.
"AC 3419".

Unknown source. Received 2000.

PI 629702. Gossypium arboreum L.
"AC 3353".

Unknown source. Received 2000.

PI 629703. Gossypium arboreum L.
"AC 3011".

Unknown source. Received 2000.

PI 629704. Gossypium arboreum L.
"AC 3098".

Unknown source. Received 2000.

PI 629705. Gossypium arboreum L.
"AC 3646".

Unknown source. Received 2000.

PI 629706. Gossypium arboreum L.
"AC 3045".

Unknown source. Received 2000.

PI 629707. Gossypium arboreum L.
"AC 3045".

Unknown source. Received 2000.

PI 629708. Gossypium arboreum L.
0470.

Unknown source. Received 2000.

PI 629709. Gossypium arboreum L.
"AC 3412 B".

Unknown source. Received 2000.

PI 629710. Gossypium arboreum L.
"AC 3343".

Unknown source. Received 2000.

PI 629711. Gossypium arboreum L.
"AC 3035".

Unknown source. Received 2000.

PI 629712. Gossypium arboreum L.
"AC 3720".

Unknown source. Received 2000.

PI 629713. Gossypium arboreum L.
"AC 3742".

Unknown source. Received 2000.

PI 629714. Gossypium arboreum L.
"AC 3747".

Unknown source. Received 2000.

PI 629715. Gossypium arboreum L.
"AC 3237".

Unknown source. Received 2000.

PI 629716. Gossypium arboreum L.
"AC 3237".

Unknown source. Received 2000.

PI 629717. Gossypium arboreum L.
"AC 3171".

Unknown source. Received 2000.

PI 629718. Gossypium arboreum L.
"AC 3179".

Unknown source. Received 2000.

PI 629719. Gossypium arboreum L.
"AC 3179".

Unknown source. Received 2000.

PI 629720. Gossypium arboreum L.
"AC 3179".

Unknown source. Received 2000.

PI 629721. Gossypium arboreum L.
"AC 3147".

Unknown source. Received 2000.

PI 629722. Gossypium arboreum L.
"AC 3448 B".

Unknown source. Received 2000.

PI 629723. Gossypium arboreum L.
"AC 3371".

Unknown source. Received 2000.

PI 629724. Gossypium arboreum L.
"AC 3372".

Unknown source. Received 2000.

PI 629725. Gossypium arboreum L.
"7696".

Unknown source. Received 2000.

PI 629726. Gossypium arboreum L.
"AC 3578".

Unknown source. Received 2000.

PI 629727. Gossypium arboreum L.
"AC 3562".

Unknown source. Received 2000.

PI 629728. Gossypium arboreum L.
"AC 3641".

Unknown source. Received 2000.

PI 629729. Gossypium arboreum L.
"AC 3598".

Unknown source. Received 2000.

PI 629730. Gossypium arboreum L.
"AC 3456".

Unknown source. Received 2000.

PI 629731. Gossypium arboreum L.
"AC 3468".

Unknown source. Received 2000.

PI 629732. Gossypium arboreum L.
"AC 3468".

Unknown source. Received 2000.

PI 629733. Gossypium arboreum L.
"AC 3425".

Unknown source. Received 2000.

PI 629734. Gossypium arboreum L.
"AC 3425".

Unknown source. Received 2000.

PI 629735. Gossypium arboreum L.
"AC 3652".

Unknown source. Received 2000.

PI 629736. Gossypium arboreum L.
"AC 3652".

Unknown source. Received 2000.

PI 629737. Gossypium arboreum L.
0472.

Unknown source. Received 2000.

PI 629738. Gossypium arboreum L.
"AC 3245".

Unknown source. Received 2000.

PI 629739. Gossypium arboreum L.
"AC 3063".

Unknown source. Received 2000.

PI 629740. Gossypium arboreum L.
"AC 3091".

Unknown source. Received 2000.

PI 629741. Gossypium arboreum L.
"AC 3091".

Unknown source. Received 2000.

PI 629742. Gossypium arboreum L.
"AC 3194".

Unknown source. Received 2000.

PI 629743. Gossypium arboreum L.
"AC 3194".

Unknown source. Received 2000.

PI 629744. Gossypium arboreum L.
"AC 3026".

Unknown source. Received 2000.

PI 629745. Gossypium arboreum L.
"AC 3016".

Unknown source. Received 2000.

PI 629746. Gossypium arboreum L.
"AC 3612 B".

Unknown source. Received 2000.

PI 629747. Gossypium arboreum L.
"AC 3612 B".

Unknown source. Received 2000.

PI 629748. Gossypium arboreum L.
"AC 3140".

Unknown source. Received 2000.

PI 629749. Gossypium arboreum L.
"AC 3140".

Unknown source. Received 2000.

PI 629750. Gossypium arboreum L.
"AC 3363".

Unknown source. Received 2000.

PI 629751. Gossypium arboreum L.
"AC 3363".

Unknown source. Received 2000.

PI 629752. Gossypium arboreum L.
"AC 3031".

Unknown source. Received 2000.

PI 629753. Gossypium arboreum L.
"AC 3356".

Unknown source. Received 2000.

PI 629754. Gossypium arboreum L.
"AC 3422 B".

Unknown source. Received 2000.

PI 629755. Gossypium arboreum L.
"AC 3422 B".

Unknown source. Received 2000.

PI 629756. Gossypium arboreum L.
"AC 3422 B".

Unknown source. Received 2000.

PI 629757. Gossypium arboreum L.
"AC 3180".

Unknown source. Received 2000.

PI 629758. Gossypium arboreum L.
"AC 3579".

Unknown source. Received 2000.

PI 629759. Gossypium arboreum L.
"AC 3579".

Unknown source. Received 2000.

PI 629760. Gossypium arboreum L.
"AC 3642".

Unknown source. Received 2000.

PI 629761. Gossypium arboreum L.
"AC 3642".

Unknown source. Received 2000.

PI 629762. Gossypium arboreum L.
"AC 3490".

Unknown source. Received 2000.

PI 629763. Gossypium arboreum L.
"AC 3490".

Unknown source. Received 2000.

PI 629764. Gossypium arboreum L.
"AC 3446 A".

Unknown source. Received 2000.

PI 629765. Gossypium arboreum L.
"H 502".

Unknown source. Received 2000.

PI 629766. Gossypium arboreum L.
"H 502".

Unknown source. Received 2000.

PI 629767. Gossypium arboreum L.
"H 509".

Unknown source. Received 2000.

PI 629768. Gossypium arboreum L.
"H 511".

Unknown source. Received 2000.

PI 629769. Gossypium arboreum L.
"H 511".

Unknown source. Received 2000.

PI 629770. Gossypium arboreum L.
"H 511".

Unknown source. Received 2000.

PI 629771. Gossypium arboreum L.
"H 575".

Unknown source. Received 2000.

PI 629772. Gossypium arboreum L.
"H 582".

Unknown source. Received 2000.

PI 629773. Gossypium arboreum L.
"INDICUM-12".

Unknown source. Received 2000.

PI 629774. Gossypium arboreum L.
"INDICUM-12".

Unknown source. Received 2000.

PI 629775. Gossypium arboreum L.
"INDICUM-38".

Unknown source. Received 2000.

PI 629776. Gossypium arboreum L.
"INDICUM-38".

Unknown source. Received 2000.

PI 629777. Gossypium arboreum L.
"INDICUM-1844".

Unknown source. Received 2000.

PI 629778. Gossypium arboreum L.
"INDICUM-1844".

Unknown source. Received 2000.

PI 629779. Gossypium arboreum L.
"I 24".

Unknown source. Received 2000.

PI 629780. Gossypium arboreum L.
"JL 10".

Unknown source. Received 2000.

PI 629781. Gossypium arboreum L.
"JL 10".

Unknown source. Received 2000.

PI 629782. Gossypium arboreum L.
"JL 10-46".

Unknown source. Received 2000.

PI 629783. Gossypium arboreum L.
"JL 10-46".

Unknown source. Received 2000.

PI 629784. Gossypium arboreum L.
"KUMUDI B5".

Unknown source. Received 2000.

PI 629785. Gossypium arboreum L.
"KUMUDI B5".

Unknown source. Received 2000.

PI 629786. Gossypium arboreum L.
"K 5".

Unknown source. Received 2000.

PI 629787. Gossypium arboreum L.
"K 6".

Unknown source. Received 2000.

PI 629788. Gossypium arboreum L.
"K 6".

Unknown source. Received 2000.

PI 629789. Gossypium arboreum L.
"K 6".

Unknown source. Received 2000.

PI 629790. Gossypium arboreum L.
"K 6".

Unknown source. Received 2000.

PI 629791. Gossypium arboreum L.
"K 51-403".

Unknown source. Received 2000.

PI 629792. Gossypium arboreum L.
"K 52-562".

Unknown source. Received 2000.

PI 629793. Gossypium arboreum L.
0477.

Unknown source. Received 2000.

PI 629794. Gossypium arboreum L.
0483.

Unknown source. Received 2000.

PI 629795. Gossypium arboreum L.
"LD 141".

Unknown source. Received 2000.

PI 629796. Gossypium arboreum L.
0484.

Unknown source. Received 2000.

PI 629797. Gossypium arboreum L.
"LD 143".

Unknown source. Received 2000.

PI 629798. Gossypium arboreum L.
0485.

Unknown source. Received 2000.

PI 629799. Gossypium arboreum L.
0671.

Unknown source. Received 2000.

PI 629800. Gossypium arboreum L.
06832.

Unknown source. Received 1995.

PI 629801. Gossypium arboreum L.
JFW-1. Collected in Pakistan.

Unknown source. Received 1995.

PI 629802. Gossypium arboreum L.
JFW-2. Collected in Pakistan.

Unknown source. Received 1995.

PI 629803. Gossypium arboreum L.
JFW-3. Collected in Iran.

Unknown source. Received 1995.

PI 629804. Gossypium arboreum L.
JFW-4.

Unknown source. Received 1995.

PI 629805. Gossypium arboreum L.
JFW-5.

Unknown source. Received 1995.

PI 629806. Gossypium arboreum L.
JFW-6.

Unknown source. Received 1995.

PI 629807. Gossypium arboreum L.
JFW-7.

Unknown source. Received 1995.

PI 629808. Gossypium arboreum L.
JFW-8. Collected in China.

Unknown source. Received 1995.

PI 629809. Gossypium arboreum L.
JFW-9. Collected in Pakistan.

Unknown source. Received 2000.

PI 629810. Gossypium arboreum L.
"MALVENSIS".

Unknown source. Received 1995.

PI 629811. Gossypium arboreum L.
JFW-10. Collected in Iran.

Unknown source. Received 1995.

PI 629812. Gossypium arboreum L.
JFW-11. Collected in Pakistan.

Unknown source. Received 1995.

PI 629813. Gossypium arboreum L.
JFW-12. Collected in Pakistan.

Unknown source. Received 1995.

PI 629814. Gossypium arboreum L.
JFW-13.

Unknown source. Received 1995.

PI 629815. Gossypium arboreum L.
JFW-14. Collected in Pakistan.

Unknown source. Received 1995.

PI 629816. Gossypium arboreum L.
JFW-15. Collected in Pakistan.

Unknown source. Received 2000.

PI 629817. Gossypium arboreum L.
"NANDED BANI".

Unknown source. Received 2000.

PI 629818. Gossypium arboreum L.
"NANED 3745".

Unknown source. Received 2000.

PI 629819. Gossypium arboreum L.
"NANED 3883".

Unknown source. Received 2000.

PI 629820. Gossypium arboreum L.
"NANED 3883".

Unknown source. Received 2000.

PI 629821. Gossypium arboreum L.
"NANDICUM".

Unknown source. Received 2000.

PI 629822. Gossypium arboreum L.
"N 11-23-WR".

Unknown source. Received 2000.

PI 629823. Gossypium arboreum L.
"N 14".

Unknown source. Received 2000.

PI 629824. Gossypium arboreum L.
"N 14".

Unknown source. Received 2000.

PI 629825. Gossypium arboreum L.
"N 21".

Unknown source. Received 2000.

PI 629826. Gossypium arboreum L.
"N 73-WR".

Unknown source. Received 2000.

PI 629827. Gossypium arboreum L.
"OBTUSIFOLIUM-B-INDIC".

Unknown source. Received 2000.

PI 629828. Gossypium arboreum L.
"OBTUSIFOLIUM COCANAD".

Unknown source. Received 2000.

PI 629829. Gossypium arboreum L.
"OBTUSIFOLIUM COCANAD".

Unknown source. Received 2000.

PI 629830. Gossypium arboreum L.
"OBTUSIFOLIUM COCANAD".

Unknown source. Received 2000.

PI 629831. Gossypium arboreum L.
"O-S-220".

Unknown source. Received 2000.

PI 629832. Gossypium arboreum L.
"P 703-6-6-2".

Unknown source. Received 2000.

PI 629833. Gossypium arboreum L.
"P 703-6-6-2".

Unknown source. Received 2000.

PI 629834. Gossypium arboreum L.
"PBN 422".

Unknown source. Received 2000.

PI 629835. Gossypium arboreum L.
"PBN 481".

Unknown source. Received 2000.

PI 629836. Gossypium arboreum L.
"PBN 564".

Unknown source. Received 2000.

PI 629837. Gossypium arboreum L.
"PBN 565".

Unknown source. Received 2000.

PI 629838. Gossypium arboreum L.
"PBN 565".

Unknown source. Received 2000.

PI 629839. Gossypium arboreum L.
"PBN 833".

Unknown source. Received 2000.

PI 629840. Gossypium arboreum L.
"PBN 833".

Unknown source. Received 2000.

PI 629841. Gossypium arboreum L.
"PBN 5542".

Unknown source. Received 2000.

PI 629842. Gossypium arboreum L.
"PBN 5542".

Unknown source. Received 2000.

PI 629843. Gossypium arboreum L.
"PBS 6652".

Unknown source. Received 2000.

PI 629844. Gossypium arboreum L.
"PBS 6652".

Unknown source. Received 2000.

PI 629845. Gossypium arboreum L.
"PBS 1127".

Unknown source. Received 2000.

PI 629846. Gossypium arboreum L.
"PBS 1127".

Unknown source. Received 2000.

PI 629847. Gossypium arboreum L.
"PBS 1542".

Unknown source. Received 2000.

PI 629848. Gossypium arboreum L.
"PBS 1542".

Unknown source. Received 2000.

PI 629849. Gossypium arboreum L.
"RANGAMATI LARGE SPOT".

Unknown source. Received 2000.

PI 629850. Gossypium arboreum L.
"RED BL NAKED".

Unknown source. Received 2000.

PI 629851. Gossypium arboreum L.
"RED BL NAKED".

Unknown source. Received 2000.

PI 629852. Gossypium arboreum L.
"ROSI 7".

Unknown source. Received 2000.

PI 629853. Gossypium arboreum L.
"RM 1".

Unknown source. Received 2000.

PI 629854. Gossypium arboreum L.
"RM 1".

Unknown source. Received 2000.

PI 629855. Gossypium arboreum L.
"RPV 81".

Unknown source. Received 2000.

PI 629856. Gossypium arboreum L.
"SANGUINEUM/G 26".

Unknown source. Received 2000.

PI 629857. Gossypium arboreum L.
"SANGUINEUM/MINOR".

Unknown source. Received 2000.

PI 629858. Gossypium arboreum L.
"SARGUJA-2".

Unknown source. Received 2000.

PI 629859. Gossypium arboreum L.
"SPOT WHITE COLOUR".

Unknown source. Received 2000.

PI 629860. Gossypium arboreum L.
"VIJAY".

Unknown source. Received 2000.

PI 629861. Gossypium arboreum L.
"VIJAY".

Unknown source. Received 2000.

PI 629862. Gossypium arboreum L.
"VIRA-1".

Unknown source. Received 2000.

PI 629863. Gossypium arboreum L.
"VIRNAR".

Unknown source. Received 2000.

PI 629864. Gossypium arboreum L.
"VERUM 262".

Unknown source. Received 2000.

PI 629865. Gossypium arboreum L.
"VERUM 262".

Unknown source. Received 2000.

PI 629866. Gossypium arboreum L.
"VERUM 262".

Unknown source. Received 2000.

PI 629867. Gossypium arboreum L.
"W-31".

Unknown source. Received 2000.

PI 629868. Gossypium arboreum L.
"W-31".

Unknown source. Received 2000.

PI 629869. Gossypium arboreum L.
"WESTERN BANI".

Unknown source. Received 2000.

PI 629870. Gossypium arboreum L.
"WESTERN BANI".

Unknown source. Received 2000.

PI 629871. Gossypium arboreum L.
"Y-1A".

Unknown source. Received 2000.

PI 629872. Gossypium arboreum L.
"Y-1A".

Unknown source. Received 2000.

PI 629873. Gossypium arboreum L.
"13 A".

Unknown source. Received 2000.

PI 629874. Gossypium arboreum L.
"13 A".

Unknown source. Received 2000.

PI 629875. Gossypium arboreum L.
"13-63".

Unknown source. Received 2000.

PI 629876. Gossypium arboreum L.
"35 E-6".

Unknown source. Received 2000.

PI 629877. Gossypium arboreum L.
"35 E-6".

Unknown source. Received 2000.

PI 629878. Gossypium arboreum L.
"35-1".

Unknown source. Received 2000.

PI 629879. Gossypium arboreum L.
"57-94".

Unknown source. Received 2000.

PI 629880. Gossypium arboreum L.
"57-94".

Unknown source. Received 2000.

PI 629881. Gossypium arboreum L.
"57-94".

Unknown source. Received 2000.

PI 629882. Gossypium arboreum L.
"091".

Unknown source. Received 2000.

PI 629883. Gossypium arboreum L.
"0078 (KOVILPATTI)".

Unknown source. Received 2000.

PI 629884. Gossypium arboreum L.
"161-6".

Unknown source. Received 2000.

PI 629885. Gossypium arboreum L.
"161-6".

Unknown source. Received 2000.

PI 629886. Gossypium arboreum L.
"255 E6".

Unknown source. Received 2000.

PI 629887. Gossypium arboreum L.
"255 E6".

Unknown source. Received 2000.

PI 629888. Gossypium arboreum L.
"320-1".

Unknown source. Received 2000.

PI 629889. Gossypium arboreum L.
"355 E6".

Unknown source. Received 2000.

PI 629890. Gossypium arboreum L.
"360".

Unknown source. Received 2000.

PI 629891. Gossypium arboreum L.
"463-972".

Unknown source. Received 2000.

PI 629892. Gossypium arboreum L.
"554".

Unknown source. Received 2000.

PI 629893. Gossypium arboreum L.
"H 427".

Unknown source. Received 2000.

PI 629894. Gossypium arboreum L.
"H 428".

Unknown source. Received 2000.

PI 629895. Gossypium arboreum L.
"H 430".

Unknown source. Received 2000.

PI 629896. Gossypium arboreum L.
"H 431".

Unknown source. Received 2000.

PI 629897. Gossypium arboreum L.
"H 435".

Unknown source. Received 2000.

PI 629898. Gossypium arboreum L.
"H 436".

Unknown source. Received 2000.

PI 629899. Gossypium arboreum L.
"H 443".

Unknown source. Received 2000.

PI 629900. Gossypium arboreum L.
"H 444".

Unknown source. Received 2000.

PI 629901. Gossypium arboreum L.
"H 447".

Unknown source. Received 2000.

PI 629902. Gossypium arboreum L.
"H 448".

Unknown source. Received 2000.

PI 629903. Gossypium arboreum L.
"H 452".

Unknown source. Received 2000.

PI 629904. Gossypium arboreum L.
"H 453".

Unknown source. Received 2000.

PI 629905. Gossypium arboreum L.
"H 454".

Unknown source. Received 2000.

PI 629906. Gossypium arboreum L.
"H 457".

Unknown source. Received 2000.

PI 629907. Gossypium arboreum L.
"H 458".

Unknown source. Received 2000.

PI 629908. Gossypium arboreum L.
"H 461".

Unknown source. Received 2000.

PI 629909. Gossypium arboreum L.
"H 462".

Unknown source. Received 2000.

PI 629910. Gossypium arboreum L.
"H 463".

Unknown source. Received 2000.

PI 629911. Gossypium arboreum L.
"H 464".

Unknown source. Received 2000.

PI 629912. Gossypium arboreum L.
"H 466".

Unknown source. Received 2000.

PI 629913. Gossypium arboreum L.
"H 469".

Unknown source. Received 2000.

PI 629915. Gossypium arboreum L.
"H 471".

Unknown source. Received 2000.

PI 629916. Gossypium arboreum L.
"H 474".

Unknown source. Received 2000.

PI 629917. Gossypium arboreum L.
"H 476".

Unknown source. Received 2000.

PI 629918. Gossypium arboreum L.
"H 478".

Unknown source. Received 2000.

PI 629919. Gossypium arboreum L.
"H 481".

Unknown source. Received 2000.

PI 629920. Gossypium arboreum L.
"H 498".

Unknown source. Received 2000.

PI 629921. Gossypium arboreum L.
"JL 61".

Unknown source. Received 2000.

PI 629922. Gossypium arboreum L.
"K 408 F".

Unknown source. Received 2000.

PI 629923. Gossypium arboreum L.
"K 420".

Unknown source. Received 2000.

PI 629924. Gossypium arboreum L.
"OBTUSIFOLIUM HIRSUTU".

Unknown source. Received 2000.

PI 629925. Gossypium arboreum L.
"PBN 6106".

Unknown source. Received 2000.

PI 629926. Gossypium arboreum L.
"VIRA-6".

Unknown source. Received 1995.

PI 629927. Gossypium arboreum L.
JFW-16.

Unknown source. Received 2000.

PI 629928. Gossypium arboreum L.
"1802".

Unknown source. Received 2000.

PI 629929. Gossypium arboreum L.
"2164".

Unknown source. Received 2000.

PI 629930. Gossypium arboreum L.
"2205".

Unknown source. Received 2000.

PI 629931. Gossypium arboreum L.
"30813".

Unknown source. Received 2000.

PI 629932. Gossypium arboreum L.
"30831".

Unknown source. Received 2000.

PI 629933. Gossypium arboreum L.
"79/LD 133".

Unknown source. Received 2000.

PI 629934. Gossypium arboreum L.
"AKA 606".

Unknown source. Received 2000.

PI 629935. Gossypium arboreum L.
"AC 3209".

Unknown source. Received 2000.

PI 629936. Gossypium arboreum L.
"NA 39".

Unknown source. Received 2000.

PI 629937. Gossypium arboreum L.
"564".

Unknown source. Received 2000.

PI 629938. Gossypium arboreum L.
"564".

Unknown source. Received 2000.

PI 629939. Gossypium arboreum L.
"575-PST".

Unknown source. Received 2000.

PI 629940. Gossypium arboreum L.
"1173 WR".

Unknown source. Received 2000.

PI 629941. Gossypium arboreum L.
"1173 WR".

Unknown source. Received 2000.

PI 629942. Gossypium arboreum L.
"1789".

Unknown source. Received 2000.

PI 629944. Gossypium arboreum L.
"1882".

Unknown source. Received 2000.

PI 629945. Gossypium arboreum L.
"15-2".

Unknown source. Received 2000.

PI 629946. Gossypium arboreum L.
"1946".

Unknown source. Received 2000.

PI 629947. Gossypium arboreum L.
"2146".

Unknown source. Received 2000.

PI 629948. Gossypium arboreum L.
"2927".

Unknown source. Received 2000.

PI 629950. Gossypium arboreum L.
"2927".

Unknown source. Received 2000.

PI 629951. Gossypium arboreum L.
"2932N".

Unknown source. Received 2000.

PI 629952. Gossypium arboreum L.
"2932N".

Unknown source. Received 2000.

PI 629953. Gossypium arboreum L.
"2983".

Unknown source. Received 2000.

PI 629954. Gossypium arboreum L.
"3394".

Unknown source. Received 2000.

PI 629955. Gossypium arboreum L.
"3591".

Unknown source. Received 2000.

PI 629956. Gossypium arboreum L.
"3930 A".

Unknown source. Received 2000.

PI 629957. Gossypium arboreum L.
"5846".

Unknown source. Received 2000.

PI 629958. Gossypium arboreum L.
"5846".

Unknown source. Received 2000.

PI 629959. Gossypium arboreum L.
"5855".

Unknown source. Received 2000.

PI 629960. Gossypium arboreum L.
"5855".

Unknown source. Received 2000.

PI 629961. Gossypium arboreum L.
"5855".

Unknown source. Received 2000.

PI 629962. Gossypium arboreum L.
"5974".

Unknown source. Received 2000.

PI 629963. Gossypium arboreum L.
"6920".

Unknown source. Received 2000.

PI 629964. Gossypium arboreum L.
"6920".

Unknown source. Received 2000.

PI 629965. Gossypium arboreum L.
"9505-C".

Unknown source. Received 2000.

PI 629966. Gossypium arboreum L.
"9505-C".

Unknown source. Received 2000.

PI 629967. Gossypium arboreum L.
"30785".

Unknown source. Received 2000.

PI 629968. Gossypium arboreum L.
"30787".

Unknown source. Received 2000.

PI 629969. Gossypium arboreum L.
"30793".

Unknown source. Received 2000.

PI 629970. Gossypium arboreum L.
"30794".

Unknown source. Received 2000.

PI 629971. Gossypium arboreum L.
"30796".

Unknown source. Received 2000.

PI 629972. Gossypium arboreum L.
"30797".

Unknown source. Received 2000.

PI 629973. Gossypium arboreum L.
"30801".

Unknown source. Received 2000.

PI 629974. Gossypium arboreum L.
"30803".

Unknown source. Received 2000.

PI 629975. Gossypium arboreum L.
"30805".

Unknown source. Received 2000.

PI 629976. Gossypium arboreum L.
"30809".

Unknown source. Received 2000.

PI 629977. Gossypium arboreum L.
"30809".

Unknown source. Received 2000.

PI 629978. Gossypium arboreum L.
"30810".

Unknown source. Received 2000.

PI 629979. Gossypium arboreum L.
"30814".

Unknown source. Received 2000.

PI 629980. Gossypium arboreum L.
"30815".

Unknown source. Received 2000.

PI 629981. Gossypium arboreum L.
"30817".

Unknown source. Received 2000.

PI 629982. Gossypium arboreum L.
"30819".

Unknown source. Received 2000.

PI 629983. Gossypium arboreum L.
"30820".

Unknown source. Received 2000.

PI 629984. Gossypium arboreum L.
"30820".

Unknown source. Received 2000.

PI 629985. Gossypium arboreum L.
"30822".

Unknown source. Received 2000.

PI 629986. Gossypium arboreum L.
"30828".

Unknown source. Received 2000.

PI 629987. Gossypium arboreum L.
"30829".

Unknown source. Received 2000.

PI 629988. Gossypium arboreum L.
"30834".

Unknown source. Received 2000.

PI 629989. Gossypium arboreum L.
"30838".

Unknown source. Received 2000.

PI 629990. Gossypium arboreum L.
"30840".

Unknown source. Received 2000.

PI 629991. Gossypium arboreum L.
"30840".

Unknown source. Received 2000.

PI 629992. Gossypium arboreum L.
"30841".

Unknown source. Received 2000.

PI 629993. Gossypium arboreum L.
"30841".

Unknown source. Received 2000.

PI 629994. Gossypium arboreum L.
"30841".

Unknown source. Received 2000.

PI 629995. Gossypium arboreum L.
"30844".

Unknown source. Received 2000.

PI 629996. Gossypium arboreum L.
"30844".

Unknown source. Received 2000.

PI 629997. Gossypium arboreum L.
"30845".

Unknown source. Received 2000.

PI 629998. Gossypium arboreum L.
"30858".

Unknown source. Received 2000.

PI 629999. Gossypium arboreum L.
"79/BH-97".

Unknown source. Received 2000.

PI 630000. Gossypium arboreum L.
"79/BH-97".

Unknown source. Received 2000.

PI 630001. Gossypium arboreum L.
"79/BH 111".

Unknown source. Received 2000.

PI 630002. Gossypium arboreum L.
"DESI 77".

Unknown source. Received 2000.

PI 630003. Gossypium arboreum L.
"DESI 103".

Unknown source. Received 2000.

PI 630004. Gossypium arboreum L.
"DESI 103".

Unknown source. Received 2000.

PI 630005. Gossypium arboreum L.
"DESI 1".

Unknown source. Received 2000.

PI 630007. Gossypium arboreum L.
"DESI 88".

Unknown source. Received 1986.

PI 630008. Gossypium herbaceum L.
"DIGVIJAY".

Unknown source. Received 1998.

PI 630009. Gossypium herbaceum L.
var. wightianum.

Unknown source. Received 1986.

PI 630010. Gossypium herbaceum L.
"WAGAD CLOSED BOLLS".

Unknown source. Received 1987.

PI 630012. Gossypium herbaceum L.
"JING TA CAO MIAN".

Unknown source. Received 1987.

PI 630013. Gossypium herbaceum L.
"BOUMI ARIA".

Unknown source. Received 1979.

PI 630014. Gossypium herbaceum L.
var. africanum.

Unknown source. Received 1987.

PI 630015. Gossypium herbaceum L.
"CHONG GUIN".

Unknown source. Received 1987.

PI 630016. Gossypium herbaceum L.
"YONGLING".

Unknown source. Received 1985.

PI 630017. Gossypium herbaceum L.
var. roseum.

Unknown source. Received 1985.

PI 630018. Gossypium herbaceum L.

Unknown source. Received 1989.

PI 630019. Gossypium herbaceum L.
"ISMAEL".

Unknown source. Received 1989.

PI 630020. Gossypium herbaceum L.
"MEKRAN #1".

Unknown source. Received 1989.

PI 630021. Gossypium herbaceum L.
"MEKRAN #2".

Unknown source. Received 1989.

PI 630022. Gossypium herbaceum L.
TURKEY #1.

Unknown source. Received 1989.

PI 630023. Gossypium herbaceum L.
TURKEY #2.

Unknown source. Received 1972.

PI 630024. Gossypium herbaceum L.
AFRICANUM.

Unknown source. Received 1972.

PI 630025. Gossypium herbaceum L.
KULJIANUM.

Unknown source. Received 1977.

PI 630026. Gossypium herbaceum L.

Unknown source. Received 1996.

PI 630027. Gossypium herbaceum L.
"DEZI KHAKI".

Unknown source. Received 1995.

PI 630028. Gossypium herbaceum L.
WIR-75.

Unknown source. Received 1995.

PI 630029. Gossypium herbaceum L.
WIR-475.

Unknown source. Received 1995.

PI 630030. Gossypium herbaceum L.
WIR-570.

Unknown source. Received 1995.

PI 630031. Gossypium herbaceum L.
WIR-591.

Unknown source. Received 1995.

PI 630032. Gossypium herbaceum L.
WIR-597.

Unknown source. Received 1995.

PI 630033. Gossypium herbaceum L.
WIR-832.

Unknown source. Received 1995.

PI 630034. Gossypium herbaceum L.
WIR-833.

Unknown source. Received 1995.

PI 630035. Gossypium herbaceum L.
WIR-894.

Unknown source. Received 1995.

PI 630036. Gossypium herbaceum L.
WIR-921.

Unknown source. Received 1995.

PI 630037. Gossypium herbaceum L.
WIR-999.

Unknown source. Received 1995.

PI 630038. Gossypium herbaceum L.
WIR-1155.

Unknown source. Received 1995.

PI 630039. Gossypium herbaceum L.
WIR-411.

Unknown source. Received 1995.

PI 630040. Gossypium herbaceum L.
WIR-930.

Unknown source. Received 1997.

PI 630041. Gossypium herbaceum L.
RUSSIA NO. 393.

Unknown source. Received 1997.

PI 630042. Gossypium herbaceum L.
RUSSIA NO. 415.

Unknown source. Received 1997.

PI 630043. Gossypium herbaceum L.
RUSSIAN NO. 1267.

Unknown source. Received 1997.

PI 630044. Gossypium herbaceum L.
RUSSIAN NO. 2523.

Unknown source. Received 1997.

PI 630045. Gossypium herbaceum L.
RUSSIA NO. 2531.

Unknown source. Received 1997.

PI 630046. Gossypium herbaceum L.
RUSSIA NO. 2555.

Unknown source. Received 1997.

PI 630047. Gossypium herbaceum L.
RUSSIA NO. 6125.

Unknown source. Received 1998.

PI 630048. Gossypium herbaceum L.
WIR-592.

Unknown source. Received 1998.

PI 630049. Gossypium herbaceum L.
WIR-593.

Unknown source. Received 1998.

PI 630050. Gossypium herbaceum L.
WIR-607.

Unknown source. Received 1998.

PI 630051. Gossypium herbaceum L.
WIR-620.

Unknown source. Received 1998.

PI 630052. Gossypium herbaceum L.
WIR-626.

Unknown source. Received 1998.

PI 630053. Gossypium herbaceum L.
WIR-627.

Unknown source. Received 1998.

PI 630054. Gossypium herbaceum L.
WIR-835.

Unknown source. Received 1998.

PI 630055. Gossypium herbaceum L.
WIR-877.

Unknown source. Received 1998.

PI 630056. Gossypium herbaceum L.
K-6131.

Unknown source. Received 1998.

PI 630057. Gossypium herbaceum L.
K-7937.

Unknown source. Received 1987.

PI 630058. Gossypium herbaceum L.
JFW-17.

Unknown source. Received 1997.

PI 630059. Gossypium herbaceum L.
RUSSIA NO. 183.

Unknown source. Received 1995.

PI 630060. Gossypium barbadense L.
"COPA DE VINO".

Unknown source. Received 1995.

PI 630061. Gossypium barbadense L.
"MARRON CLARO".

Unknown source. Received 1997.

PI 630062. Gossypium barbadense L.
RUSSIAN NO. 196.

Unknown source. Received 1997.

PI 630063. Gossypium barbadense L.
N 23 FROM ASHMOUNI.

Unknown source. Received 1997.

PI 630064. Gossypium barbadense L.
10004.

Unknown source. Received 1997.

PI 630065. Gossypium barbadense L.
"4079 FROM ASHMOUNI 0590".

Unknown source. Received 1997.

PI 630066. Gossypium barbadense L.
10008.

Unknown source. Received 1997.

PI 630067. Gossypium barbadense L.
"5611 FROM PIMY 2111".

Unknown source. Received 1997.

PI 630068. Gossypium barbadense L.
"4408 FROM NUBARI".

Unknown source. Received 1997.

PI 630069. Gossypium barbadense L.
"9383 FROM MAARAD".

Unknown source. Received 1997.

PI 630070. Gossypium barbadense L.
"9075 FROM MAARAD".

Unknown source. Received 1997.

PI 630071. Gossypium barbadense L.
"275 FROM PIMY".

Unknown source. Received 1997.

PI 630072. Gossypium barbadense L.
"01348 FROM RAHURA".

Unknown source. Received 1997.

PI 630073. Gossypium barbadense L.
"35 FROM PILIONA".

Unknown source. Received 1997.

PI 630074. Gossypium barbadense L.
"4384 ASHMOUNI".

Unknown source. Received 1997.

PI 630075. Gossypium barbadense L.
"L-1611 "MIT-AFIFI"".

Unknown source. Received 1997.

PI 630076. Gossypium barbadense L.
"L-2113 "ANGORSKII"".

Unknown source. Received 1997.

PI 630077. Gossypium barbadense L.
"3248-ASHMOUNI 235".

Unknown source. Received 1997.

PI 630078. Gossypium barbadense L.
"928-FUADI".

Unknown source. Received 1997.

PI 630079. Gossypium barbadense L.
"3719-FUADI-276".

Unknown source. Received 1997.

PI 630080. Gossypium barbadense L.
"4710-I".

Unknown source. Received 1997.

PI 630081. Gossypium barbadense L.
"4829-I".

Unknown source. Received 1997.

PI 630082. Gossypium barbadense L.
"6086".

Unknown source. Received 1997.

PI 630083. Gossypium barbadense L.
"2 I 3".

Unknown source. Received 1997.

PI 630084. Gossypium barbadense L.
"5904-I".

Unknown source. Received 1997.

PI 630085. Gossypium barbadense L.
"MOS-620".

Unknown source. Received 1997.

PI 630086. Gossypium barbadense L.
"504-V".

Unknown source. Received 1997.

PI 630087. Gossypium barbadense L.
"2365-V".

Unknown source. Received 1997.

PI 630088. Gossypium barbadense L.
"7751-I".

Unknown source. Received 1997.

PI 630089. Gossypium barbadense L.
"4844-I".

Unknown source. Received 1997.

PI 630090. Gossypium barbadense L.
"8596-I".

Unknown source. Received 1997.

PI 630091. Gossypium barbadense L.
"3169-I".

Unknown source. Received 1997.

PI 630092. Gossypium barbadense L.
"1445".

Unknown source. Received 1997.

PI 630093. Gossypium barbadense L.
"2525".

Unknown source. Received 1997.

PI 630094. Gossypium barbadense L.
"2836".

Unknown source. Received 1997.

PI 630095. Gossypium barbadense L.
"5010-V".

Unknown source. Received 1997.

PI 630096. Gossypium barbadense L.
"9041-I".

Unknown source. Received 1997.

PI 630097. Gossypium barbadense L.
"A-2".

Unknown source. Received 1997.

PI 630098. Gossypium barbadense L.
"8945-I".

Unknown source. Received 1997.

PI 630099. Gossypium barbadense L.
"9126-I".

Unknown source. Received 1997.

PI 630100. Gossypium barbadense L.
Cultivated. "9148-I".

Unknown source. Received 1997.

PI 630101. Gossypium barbadense L.
9183-I.

Unknown source. Received 1997.

PI 630102. Gossypium barbadense L.
9039-I.

Unknown source. Received 1997.

PI 630103. Gossypium barbadense L.
4848-I.

Unknown source. Received 1997.

PI 630104. Gossypium barbadense L.
RUSSIAN NO. 5296.

Unknown source. Received 1997.

PI 630105. Gossypium barbadense L.
9155-I.

Unknown source. Received 1997.

PI 630106. Gossypium barbadense L.
9319-I.

Unknown source. Received 1997.

PI 630107. Gossypium barbadense L.
9143-I.

Unknown source. Received 1996.

PI 630108. Gossypium barbadense L.
"GIZA 67".

Unknown source. Received 1996.

PI 630109. Gossypium barbadense L.
"GIZA 70".

Unknown source. Received 1996.

PI 630110. Gossypium barbadense L.
"GIZA 75".

Unknown source. Received 1996.

PI 630111. Gossypium barbadense L.
"GIZA 80". Collected in Egypt.

Unknown source. Received 1996.

PI 630112. Gossypium barbadense L.
"GIZA 83".

Unknown source. Received 1998.

PI 630113. Gossypium barbadense L.
"K-6198".

Unknown source. Received 1998.

PI 630114. Gossypium barbadense L.
"K-6564 (PIMA S3)".

Unknown source. Received 1998.

PI 630115. Gossypium barbadense L.
"K-6565".

Unknown source. Received 1998.

PI 630116. Gossypium barbadense L.
"K-6569".

Unknown source. Received 1998.

PI 630117. Gossypium barbadense L.
"K-6573".

Unknown source. Received 1998.

PI 630118. Gossypium barbadense L.
"K-6588".

Unknown source. Received 1998.

PI 630119. Gossypium barbadense L.
"K-6715".

Unknown source. Received 1998.

PI 630120. Gossypium barbadense L.
"K-6726".

Unknown source. Received 1998.

PI 630121. Gossypium barbadense L.
"K-6727".

Unknown source. Received 1998.

PI 630122. Gossypium barbadense L.
"K-6729".

Unknown source. Received 1998.

PI 630123. Gossypium barbadense L.
"K-6732".

Unknown source. Received 1998.

PI 630124. Gossypium barbadense L.
"K-6734".

Unknown source. Received 1998.

PI 630125. Gossypium barbadense L.
"K-6747".

Unknown source. Received 1998.

PI 630126. Gossypium barbadense L.
"K-6757".

Unknown source. Received 1998.

PI 630127. Gossypium barbadense L.
"K-6760".

Unknown source. Received 1998.

PI 630128. Gossypium barbadense L.
"K-6770".

Unknown source. Received 1998.

PI 630129. Gossypium barbadense L.
"K-6779".

Unknown source. Received 1998.

PI 630130. Gossypium barbadense L.
"K-7444".

Unknown source. Received 1998.

PI 630131. Gossypium barbadense L.
"K-7606".

Unknown source. Received 1998.

PI 630132. Gossypium barbadense L.
"K-7607".

Unknown source. Received 1998.

PI 630133. Gossypium barbadense L.
"K-7609".

Unknown source. Received 1998.

PI 630134. Gossypium barbadense L.
"K-7610".

Unknown source. Received 1998.

PI 630135. Gossypium barbadense L.
"K-7613".

Unknown source. Received 1998.

PI 630136. Gossypium barbadense L.
"K-7616".

Unknown source. Received 1998.

PI 630137. Gossypium barbadense L.
"K-7620".

Unknown source. Received 1998.

PI 630138. Gossypium barbadense L.
"K-7625".

Unknown source. Received 1998.

PI 630139. Gossypium barbadense L.
"K-7628".

Unknown source. Received 1998.

PI 630140. Gossypium barbadense L.
"K-7630".

Unknown source. Received 1998.

PI 630141. Gossypium barbadense L.
"K-7631".

Unknown source. Received 1998.

PI 630142. Gossypium barbadense L.
"K-7643".

Unknown source. Received 1998.

PI 630143. Gossypium barbadense L.
"K-7646".

Unknown source. Received 1998.

PI 630144. Gossypium barbadense L.
"6566B".

Unknown source. Received 1998.

PI 630145. Gossypium barbadense L.
"PIMA 79-106".

Unknown source. Received 1998.

PI 630146. Gossypium barbadense L.
"PIMA FREGO BRACT".

Unknown source. Received 1998.

PI 630147. Gossypium barbadense L.
"PIMA GLANDLESS".

Unknown source. Received 1998.

PI 630148. Gossypium barbadense L.
"PIMA NECTARILESS".

Unknown source. Received 1998.

PI 630149. Gossypium barbadense L.
"PIMA OKRA LEAF".

Unknown source. Received 1998.

PI 630150. Gossypium barbadense L.
"PIMA RESTORER 41".

Unknown source. Received 2000.

PI 630151. Gossypium barbadense L.
"TANGUIS-SNA-W-22".

Unknown source. Received 2000.

PI 630152. Gossypium barbadense L.
"TANGUIS-CN-127-318".

Unknown source. Received 2000.

PI 630153. Gossypium barbadense L.
"TANGUIS-CN-40-52".

Unknown source. Received 2000.

PI 630154. Gossypium barbadense L.
"TANGUIS-LM-W-1-59".

Unknown source. Received 2000.

PI 630155. Gossypium barbadense L.
"TANGUIS-LM-1738-70".

Unknown source. Received 2000.

PI 630156. Gossypium barbadense L.
"TANGUIS-ICA-W-274-59".

Unknown source. Received 2000.

PI 630157. Gossypium barbadense L.
"06758".

Unknown source. Received 2000.

PI 630158. Gossypium barbadense L.
06769.

Unknown source. Received 2000.

PI 630159. Gossypium barbadense L.
06785.

Unknown source. Received 2000.

PI 630160. Gossypium barbadense L.
06796.

Unknown source. Received 2000.

PI 630161. Gossypium barbadense L.
06798A.

Unknown source. Received 2000.

PI 630162. Gossypium barbadense L.
06800.

Unknown source. Received 2000.

PI 630163. Gossypium barbadense L.
06801.

Unknown source. Received 2000.

PI 630164. Gossypium barbadense L.
06806.

Unknown source. Received 2000.

PI 630165. Gossypium barbadense L.
06807.

Unknown source. Received 2000.

PI 630166. Gossypium barbadense L.
06808.

Unknown source. Received 2000.

PI 630167. Gossypium barbadense L.
06797.

Unknown source. Received 2000.

PI 630168. Gossypium barbadense L.
06126.

Unknown source. Received 2000.

PI 630169. Gossypium barbadense L.
06131.

Unknown source. Received 2000.

PI 630170. Gossypium barbadense L.
06170.

Unknown source. Received 2000.

PI 630171. Gossypium barbadense L.
06172.

Unknown source. Received 2000.

PI 630172. Gossypium barbadense L.
06173.

Unknown source. Received 2000.

PI 630173. Gossypium barbadense L.
06175.

Unknown source. Received 2002.

PI 630174. Gossypium barbadense L.
06263.

Unknown source. Received 2000.

PI 630175. Gossypium barbadense L.
06267.

Unknown source. Received 2000.

PI 630176. Gossypium barbadense L.
06270.

Unknown source. Received 2000.

PI 630177. Gossypium barbadense L.
06272.

Unknown source. Received 2000.

PI 630178. Gossypium barbadense L.
06273.

Unknown source. Received 2000.

PI 630179. Gossypium barbadense L.
06276.

Unknown source. Received 2000.

PI 630180. Gossypium barbadense L.
6566 B.

Unknown source. Received 1997.

PI 630181. Gossypium hirsutum L.
"RUSSCOT-1".

Unknown source. Received 1997.

PI 630182. Gossypium hirsutum L.
"RUSSCOT-2".

Unknown source. Received 1997.

PI 630183. Gossypium hirsutum L.
"99-K-20-CHINA".

Unknown source. Received 1997.

PI 630184. Gossypium hirsutum L.
"RUSSCOT-4".

Unknown source. Received 1997.

PI 630185. Gossypium hirsutum L.
"RUSSCOT-5".

Unknown source. Received 1997.

PI 630186. Gossypium hirsutum L.
"RUSSCOT-6".

Unknown source. Received 1997.

PI 630187. Gossypium hirsutum L.
"RUSSCOT-7".

Unknown source. Received 1997.

PI 630188. Gossypium hirsutum L.
"99-K-29-CHINA".

Unknown source. Received 1997.

PI 630189. Gossypium hirsutum L.
"99-K-43-KIRGIZ".

Unknown source. Received 1997.

PI 630190. Gossypium hirsutum L.
"99-K-46-SEGEDI GROYOT UNGAIN".

Unknown source. Received 1997.

PI 630191. Gossypium hirsutum L.
"99-K-22-RL-1 UZBEKISTAN".

Unknown source. Received 1997.

PI 630192. Gossypium hirsutum L.
"RUSSCOT-12".

Unknown source. Received 1997.

PI 630193. Gossypium hirsutum L.
"K-24 ()".

Unknown source. Received 1999.

PI 630195. Gossypium hirsutum L.
"S-6524".

Unknown source. Received 1997.

PI 630196. Gossypium hirsutum L.
"3712-ASHMOUNI-235".

Unknown source. Received 1997.

PI 630197. Gossypium hirsutum L.
"1590-PIMA".

Unknown source. Received 1997.

PI 630198. Gossypium hirsutum L.
"414 (VIR NO. 2484)".

Unknown source. Received 1997.

PI 630199. Gossypium hirsutum L.
"8704-4-I (VIR NO. 4402)".

Unknown source. Received 1997.

PI 630200. Gossypium hirsutum L.
"S-8017 (VIR NO. 4479)".

Unknown source. Received 1997.

PI 630201. Gossypium hirsutum L.
"RUSSIAN NO. 1267".

Unknown source. Received 1997.

PI 630202. Gossypium hirsutum L.
"MACHA 1100".

Unknown source. Received 1998.

PI 630203. Gossypium hirsutum L.
"KL 85/335".

Unknown source. Received 1998.

PI 630204. Gossypium hirsutum L.
"KL 85/336".

Unknown source. Received 1998.

PI 630205. Gossypium hirsutum L.
"KL 85/337".

Unknown source. Received 1998.

PI 630206. Gossypium hirsutum L.
"KL 85/340".

Unknown source. Received 1998.

PI 630207. Gossypium hirsutum L.
"KL 85/341".

Unknown source. Received 1998.

PI 630208. Gossypium hirsutum L.
"KL 85/343".

Unknown source. Received 1998.

PI 630209. Gossypium hirsutum L.
FIELD NO. 6.

Unknown source. Received 1998.

PI 630210. Gossypium hirsutum L.
FIELD NO. 7.

Unknown source. Received 1998.

PI 630211. Gossypium hirsutum L.
FIELD NO. 8.

Unknown source. Received 1998.

PI 630212. Gossypium hirsutum L.
FIELD NO. 9.

Unknown source. Received 1998.

PI 630213. Gossypium hirsutum L.
FIELD NO. 10.

Unknown source. Received 1998.

PI 630214. Gossypium hirsutum L.
FIELD NO. 28.

Unknown source. Received 1998.

PI 630215. Gossypium hirsutum L.
K-6562.

Unknown source. Received 1998.

PI 630216. Gossypium hirsutum L.
K-6587.

Unknown source. Received 1998.

PI 630217. Gossypium hirsutum L.
K-6731.

Unknown source. Received 1998.

PI 630218. Gossypium hirsutum L.
6566 A.

Unknown source. Received 1998.

PI 630219. Gossypium hybrid
DES LONG 277 (HYBRID).

Unknown source. Received 1998.

PI 630220. Gossypium hybrid
DES BARB 277 (HYBRID).

Unknown source. Received 1998.

PI 630221. Gossypium hybrid
"CS-8614".

Unknown source. Received 1998.

PI 630222. Gossypium hirsutum L.
"M-DH-89".

Unknown source. Received 2000.

PI 630223. Gossypium hirsutum L.
08.

Unknown source. Received 2000.

PI 630224. Gossypium hirsutum L.
020.

Unknown source. Received 2000.

PI 630225. Gossypium hirsutum L.
042.

Unknown source. Received 2000.

PI 630226. Gossypium hirsutum L.
044.

Unknown source. Received 2000.

PI 630227. Gossypium hirsutum L.
046.

Unknown source. Received 2000.

PI 630228. Gossypium hirsutum L.
0213.

Unknown source. Received 2000.

PI 630229. Gossypium hirsutum L.
0216.

Unknown source. Received 2000.

PI 630230. Gossypium hirsutum L.
0218.

Unknown source. Received 2000.

PI 630231. Gossypium hirsutum L.
0221.

Unknown source. Received 2000.

PI 630232. Gossypium hirsutum L.
0222.

Unknown source. Received 2000.

PI 630233. Gossypium hirsutum L.
0223.

Unknown source. Received 2000.

PI 630234. Gossypium hirsutum L.
0224.

Unknown source. Received 2000.

PI 630235. Gossypium hirsutum L.
0229.

Unknown source. Received 2000.

PI 630236. Gossypium hirsutum L.
0231.

Unknown source. Received 2000.

PI 630237. Gossypium hirsutum L.
0237.

Unknown source. Received 2000.

PI 630238. Gossypium hirsutum L.
0241.

Unknown source. Received 2000.

PI 630239. Gossypium hirsutum L.
0245.

Unknown source. Received 2000.

PI 630240. Gossypium hirsutum L.
0248.

Unknown source. Received 2000.

PI 630241. Gossypium hirsutum L.
0252.

Unknown source. Received 2000.

PI 630242. Gossypium hirsutum L.
0256.

Unknown source. Received 2000.

PI 630243. Gossypium hirsutum L.
0259 SN.

Unknown source. Received 2000.

PI 630244. Gossypium hirsutum L.
0265.

Unknown source. Received 2000.

PI 630245. Gossypium hirsutum L.
0269.

Unknown source. Received 2000.

PI 630246. Gossypium hirsutum L.
0270.

Unknown source. Received 2000.

PI 630247. Gossypium hirsutum L.
0271.

Unknown source. Received 2000.

PI 630248. Gossypium hirsutum L.
0272.

Unknown source. Received 2000.

PI 630249. Gossypium hirsutum L.
0273.

Unknown source. Received 2000.

PI 630250. Gossypium hirsutum L.
0274.

Unknown source. Received 2000.

PI 630251. Gossypium hirsutum L.
0278.

Unknown source. Received 2000.

PI 630252. Gossypium hirsutum L.
0280 ?sn.

Unknown source. Received 2000.

PI 630253. Gossypium hirsutum L.
0281.

Unknown source. Received 2000.

PI 630254. Gossypium hirsutum L.
0299.

Unknown source. Received 2000.

PI 630255. Gossypium hirsutum L.
0300.

Unknown source. Received 2000.

PI 630256. Gossypium hirsutum L.
0301.

Unknown source. Received 2000.

PI 630257. Gossypium hirsutum L.
0306.

Unknown source. Received 2000.

PI 630258. Gossypium hirsutum L.
0307.

Unknown source. Received 2000.

PI 630259. Gossypium hirsutum L.
0310.

Unknown source. Received 2000.

PI 630260. Gossypium hirsutum L.
0311.

Unknown source. Received 2000.

PI 630261. Gossypium hirsutum L.
0315 SN.

Unknown source. Received 2000.

PI 630262. Gossypium hirsutum L.
0317.

Unknown source. Received 2000.

PI 630263. Gossypium hirsutum L.
0318.

Unknown source. Received 2000.

PI 630264. Gossypium hirsutum L.
0325 ?sn.

Unknown source. Received 2000.

PI 630265. Gossypium hirsutum L.
0326.

Unknown source. Received 2000.

PI 630266. Gossypium hirsutum L.
0328.

Unknown source. Received 2000.

PI 630267. Gossypium hirsutum L.
0329.

Unknown source. Received 2000.

PI 630268. Gossypium hirsutum L.
0330.

Unknown source. Received 2000.

PI 630269. Gossypium hirsutum L.
0331.

Unknown source. Received 2000.

PI 630270. Gossypium hirsutum L.
0332 ?sn.

Unknown source. Received 2000.

PI 630271. Gossypium hirsutum L.
0333.

Unknown source. Received 2000.

PI 630272. Gossypium hirsutum L.
0334.

Unknown source. Received 2000.

PI 630273. Gossypium hirsutum L.
0335.

Unknown source. Received 2000.

PI 630274. Gossypium hirsutum L.
0336.

Unknown source. Received 2000.

PI 630275. Gossypium hirsutum L.
0339.

Unknown source. Received 2000.

PI 630276. Gossypium hirsutum L.
0340.

Unknown source. Received 2000.

PI 630277. Gossypium hirsutum L.
0342.

Unknown source. Received 2000.

PI 630278. Gossypium hirsutum L.
0343.

Unknown source. Received 2000.

PI 630279. Gossypium hirsutum L.
0351.

Unknown source. Received 2000.

PI 630280. Gossypium hirsutum L.
0353.

Unknown source. Received 2000.

PI 630281. Gossypium hirsutum L.
0401.

Unknown source. Received 2000.

PI 630282. Gossypium hirsutum L.
0402.

Unknown source. Received 2000.

PI 630283. Gossypium hirsutum L.
0403.

Unknown source. Received 2000.

PI 630284. Gossypium hirsutum L.
0404.

Unknown source. Received 2000.

PI 630285. Gossypium hirsutum L.
0410.

Unknown source. Received 2000.

PI 630286. Gossypium hirsutum L.
0418.

Unknown source. Received 2000.

PI 630287. Gossypium hirsutum L.
0419.

Unknown source. Received 2000.

PI 630288. Gossypium hirsutum L.
0421.

Unknown source. Received 2000.

PI 630289. Gossypium hirsutum L.
0422.

Unknown source. Received 2000.

PI 630290. Gossypium hirsutum L.
0424.

Unknown source. Received 2000.

PI 630291. Gossypium hirsutum L.
0425.

Unknown source. Received 2000.

PI 630292. Gossypium hirsutum L.
0426.

Unknown source. Received 2000.

PI 630293. Gossypium hirsutum L.
0427.

Unknown source. Received 2000.

PI 630294. Gossypium hirsutum L.
0428.

Unknown source. Received 2000.

PI 630295. Gossypium hirsutum L.
0429.

Unknown source. Received 2000.

PI 630296. Gossypium hirsutum L.
0432.

Unknown source. Received 2000.

PI 630297. Gossypium hirsutum L.
0433 ?sn.

Unknown source. Received 2000.

PI 630298. Gossypium hirsutum L.
0434.

Unknown source. Received 2000.

PI 630299. Gossypium hirsutum L.
0435.

Unknown source. Received 2000.

PI 630300. Gossypium hirsutum L.
0438.

Unknown source. Received 2000.

PI 630301. Gossypium hirsutum L.
0440.

Unknown source. Received 2000.

PI 630302. Gossypium hirsutum L.
0456.

Unknown source. Received 2000.

PI 630303. Gossypium hirsutum L.
0458.

Unknown source. Received 2000.

PI 630304. Gossypium hirsutum L.
0461 (WHITE LINT).

Unknown source. Received 2000.

PI 630305. Gossypium hirsutum L.
0461 (BROWN LINT).

Unknown source. Received 2000.

PI 630306. Gossypium hirsutum L.
0462.

Unknown source. Received 2000.

PI 630307. Gossypium hirsutum L.
0463.

Unknown source. Received 2000.

PI 630308. Gossypium hirsutum L.
0464.

Unknown source. Received 2000.

PI 630309. Gossypium hirsutum L.
0468 (WHITE LINT).

Unknown source. Received 2000.

PI 630310. Gossypium hirsutum L.
0468 (BROWN LINT).

Unknown source. Received 2000.

PI 630311. Gossypium hirsutum L.
0469 SN.

Unknown source. Received 2000.

PI 630312. Gossypium hirsutum L.
0493.

Unknown source. Received 2000.

PI 630313. Gossypium hirsutum L.
0494.

Unknown source. Received 2000.

PI 630314. Gossypium hirsutum L.
0497.

Unknown source. Received 2000.

PI 630315. Gossypium hirsutum L.
0499.

Unknown source. Received 2000.

PI 630316. Gossypium hirsutum L.
0503.

Unknown source. Received 2000.

PI 630317. Gossypium hirsutum L.
0504.

Unknown source. Received 2000.

PI 630318. Gossypium hirsutum L.
0505.

Unknown source. Received 2000.

PI 630319. Gossypium hirsutum L.
0506 (WHITE LINT).

Unknown source. Received 2000.

PI 630320. Gossypium hirsutum L.
0506 (BROWN LINT).

Unknown source. Received 2000.

PI 630321. Gossypium hirsutum L.
0507.

Unknown source. Received 2000.

PI 630322. Gossypium hirsutum L.
0508.

Unknown source. Received 2000.

PI 630323. Gossypium hirsutum L.
0509 ?sn.

Unknown source. Received 2000.

PI 630324. Gossypium hirsutum L.
0510.

Unknown source. Received 2000.

PI 630325. Gossypium hirsutum L.
0511.

Unknown source. Received 2000.

PI 630326. Gossypium hirsutum L.
0512.

Unknown source. Received 2000.

PI 630327. Gossypium hirsutum L.
0516.

Unknown source. Received 2000.

PI 630328. Gossypium hirsutum L.
0517.

Unknown source. Received 2000.

PI 630329. Gossypium hirsutum L.
0519.

Unknown source. Received 2000.

PI 630330. Gossypium hirsutum L.
0520.

Unknown source. Received 2000.

PI 630331. Gossypium hirsutum L.
0522.

Unknown source. Received 2000.

PI 630332. Gossypium hirsutum L.
0523.

Unknown source. Received 2000.

PI 630333. Gossypium hirsutum L.
0524.

Unknown source. Received 2000.

PI 630334. Gossypium hirsutum L.
0525.

Unknown source. Received 2000.

PI 630335. Gossypium hirsutum L.
0526.

Unknown source. Received 2000.

PI 630336. Gossypium hirsutum L.
0527.

Unknown source. Received 2000.

PI 630337. Gossypium hirsutum L.
0528.

Unknown source. Received 2000.

PI 630338. Gossypium hirsutum L.
0530.

Unknown source. Received 2000.

PI 630339. Gossypium hirsutum L.
0531.

Unknown source. Received 2000.

PI 630340. Gossypium hirsutum L.
0536.

Unknown source. Received 2000.

PI 630341. Gossypium hirsutum L.
0539.

Unknown source. Received 2000.

PI 630342. Gossypium hirsutum L.
0540.

Unknown source. Received 2000.

PI 630343. Gossypium hirsutum L.
0541.

Unknown source. Received 2000.

PI 630344. Gossypium hirsutum L.
0542.

Unknown source. Received 2000.

PI 630345. Gossypium hirsutum L.
0544.

Unknown source. Received 2000.

PI 630346. Gossypium hirsutum L.
0545.

Unknown source. Received 2000.

PI 630347. Gossypium hirsutum L.
0546.

Unknown source. Received 2000.

PI 630348. Gossypium hirsutum L.
0547.

Unknown source. Received 2000.

PI 630349. Gossypium hirsutum L.
0553.

Unknown source. Received 2000.

PI 630350. Gossypium hirsutum L.
0554.

Unknown source. Received 2000.

PI 630351. Gossypium hirsutum L.
0578 (WHITE LINT).

Unknown source. Received 2000.

PI 630352. Gossypium hirsutum L.
0578 (BROWN LINT).

Unknown source. Received 2000.

PI 630353. Gossypium hirsutum L.
0851.

Unknown source. Received 2000.

PI 630354. Gossypium hirsutum L.
06627.

Unknown source. Received 2000.

PI 630355. Gossypium hirsutum L.
06655.

Unknown source. Received 2000.

PI 630356. Gossypium hirsutum L.
06656.

Unknown source. Received 2000.

PI 630357. Gossypium hirsutum L.
06657.

Unknown source. Received 2000.

PI 630358. Gossypium hirsutum L.
06658.

Unknown source. Received 2000.

PI 630359. Gossypium hirsutum L.
06660.

Unknown source. Received 2000.

PI 630360. Gossypium hirsutum L.
06661.

Unknown source. Received 2000.

PI 630361. Gossypium hirsutum L.
06662.

Unknown source. Received 2000.

PI 630362. Gossypium hirsutum L.
06663.

Unknown source. Received 2000.

PI 630363. Gossypium hirsutum L.
06664.

Unknown source. Received 2000.

PI 630364. Gossypium hirsutum L.
06665.

Unknown source. Received 2000.

PI 630365. Gossypium hirsutum L.
06666.

Unknown source. Received 2000.

PI 630366. Gossypium hirsutum L.
06667.

Unknown source. Received 2000.

PI 630367. Gossypium hirsutum L.
06668.

Unknown source. Received 2000.

PI 630368. Gossypium hirsutum L.
06669.

Unknown source. Received 2000.

PI 630369. Gossypium hirsutum L.
06670.

Unknown source. Received 2000.

PI 630370. Gossypium hirsutum L.
06671.

Unknown source. Received 2000.

PI 630371. Gossypium hirsutum L.
06672.

Unknown source. Received 2000.

PI 630372. Gossypium hirsutum L.
06674.

Unknown source. Received 2000.

PI 630373. Gossypium hirsutum L.
06676.

Unknown source. Received 2000.

PI 630374. Gossypium hirsutum L.
06677.

Unknown source. Received 2000.

PI 630375. Gossypium hirsutum L.
06678.

Unknown source. Received 2000.

PI 630376. Gossypium hirsutum L.
06679.

Unknown source. Received 2000.

PI 630377. Gossypium hirsutum L.
06680.

Unknown source. Received 2000.

PI 630378. Gossypium hirsutum L.
06681.

Unknown source. Received 2000.

PI 630379. Gossypium hirsutum L.
06683.

Unknown source. Received 2000.

PI 630380. Gossypium hirsutum L.
06685N.

Unknown source. Received 2000.

PI 630381. Gossypium hirsutum L.
06688.

Unknown source. Received 2000.

PI 630382. Gossypium hirsutum L.
06689.

Unknown source. Received 2000.

PI 630383. Gossypium hirsutum L.
06691.

Unknown source. Received 2000.

PI 630384. Gossypium hirsutum L.
06692.

Unknown source. Received 2000.

PI 630385. Gossypium hirsutum L.
06693.

Unknown source. Received 2000.

PI 630386. Gossypium hirsutum L.
06695.

Unknown source. Received 2000.

PI 630387. Gossypium hirsutum L.
06696.

Unknown source. Received 2000.

PI 630388. Gossypium hirsutum L.
06697.

Unknown source. Received 2000.

PI 630389. Gossypium hirsutum L.
06698.

Unknown source. Received 2000.

PI 630390. Gossypium hirsutum L.
06699.

Unknown source. Received 2000.

PI 630391. Gossypium hirsutum L.
06700.

Unknown source. Received 2000.

PI 630392. Gossypium hirsutum L.
06701.

Unknown source. Received 2000.

PI 630393. Gossypium hirsutum L.
06703.

Unknown source. Received 2000.

PI 630394. Gossypium hirsutum L.
06704.

Unknown source. Received 2000.

PI 630395. Gossypium hirsutum L.
06705A.

Unknown source. Received 2000.

PI 630396. Gossypium hirsutum L.
06705B.

Unknown source. Received 2000.

PI 630397. Gossypium hirsutum L.
06706.

Unknown source. Received 2000.

PI 630398. Gossypium hirsutum L.
06707.

Unknown source. Received 2000.

PI 630399. Gossypium hirsutum L.
06708.

Unknown source. Received 2000.

PI 630400. Gossypium hirsutum L.
06709.

Unknown source. Received 2000.

PI 630401. Gossypium hirsutum L.
06710.

Unknown source. Received 2000.

PI 630402. Gossypium hirsutum L.
06711.

Unknown source. Received 2000.

PI 630403. Gossypium hirsutum L.
06713.

Unknown source. Received 2000.

PI 630404. Gossypium hirsutum L.
06714.

Unknown source. Received 2000.

PI 630405. Gossypium hirsutum L.
06715.

Unknown source. Received 2000.

PI 630406. Gossypium hirsutum L.
06716.

Unknown source. Received 2000.

PI 630407. Gossypium hirsutum L.
06717.

Unknown source. Received 2000.

PI 630408. Gossypium hirsutum L.
06718.

Unknown source. Received 2000.

PI 630409. Gossypium hirsutum L.
06719.

Unknown source. Received 2000.

PI 630410. Gossypium hirsutum L.
06720.

Unknown source. Received 2000.

PI 630411. Gossypium hirsutum L.
06722.

Unknown source. Received 2000.

PI 630412. Gossypium hirsutum L.
06723.

Unknown source. Received 2000.

PI 630413. Gossypium hirsutum L.
06724A.

Unknown source. Received 2000.

PI 630414. Gossypium hirsutum L.
06724B.

Unknown source. Received 2000.

PI 630415. Gossypium hirsutum L.
06725.

Unknown source. Received 2000.

PI 630416. Gossypium hirsutum L.
06726.

Unknown source. Received 2000.

PI 630417. Gossypium hirsutum L.
06729.

Unknown source. Received 2000.

PI 630418. Gossypium hirsutum L.
06730.

Unknown source. Received 2000.

PI 630419. Gossypium hirsutum L.
06732.

Unknown source. Received 2000.

PI 630420. Gossypium hirsutum L.
06733.

Unknown source. Received 2000.

PI 630421. Gossypium hirsutum L.
06737.

Unknown source. Received 2000.

PI 630422. Gossypium hirsutum L.
06738.

Unknown source. Received 2000.

PI 630423. Gossypium hirsutum L.
06740.

Unknown source. Received 2000.

PI 630424. Gossypium hirsutum L.
06741.

Unknown source. Received 2000.

PI 630425. Gossypium hirsutum L.
06742.

Unknown source. Received 2000.

PI 630426. Gossypium hirsutum L.
06743.

Unknown source. Received 2000.

PI 630427. Gossypium hirsutum L.
06744.

Unknown source. Received 2000.

PI 630428. Gossypium hirsutum L.
06745.

Unknown source. Received 2000.

PI 630429. Gossypium hirsutum L.
06746.

Unknown source. Received 2000.

PI 630430. Gossypium hirsutum L.
06750.

Unknown source. Received 2000.

PI 630431. Gossypium hirsutum L.
06751.

Unknown source. Received 2000.

PI 630432. Gossypium hirsutum L.
06752.

Unknown source. Received 2000.

PI 630433. Gossypium hirsutum L.
06753.

Unknown source. Received 2000.

PI 630434. Gossypium hirsutum L.
06754.

Unknown source. Received 2000.

PI 630435. Gossypium hirsutum L.
06755.

Unknown source. Received 2000.

PI 630436. Gossypium hirsutum L.
06760.

Unknown source. Received 2000.

PI 630437. Gossypium hirsutum L.
06761.

Unknown source. Received 2000.

PI 630438. Gossypium hirsutum L.
06765.

Unknown source. Received 2000.

PI 630439. Gossypium hirsutum L.
06770.

Unknown source. Received 2000.

PI 630440. Gossypium hirsutum L.
06771.

Unknown source. Received 2000.

PI 630441. Gossypium hirsutum L.
06772.

Unknown source. Received 2000.

PI 630442. Gossypium hirsutum L.
06773.

Unknown source. Received 2000.

PI 630443. Gossypium hirsutum L.
06774.

Unknown source. Received 2000.

PI 630444. Gossypium hirsutum L.
06776.

Unknown source. Received 2000.

PI 630445. Gossypium hirsutum L.
06777.

Unknown source. Received 2000.

PI 630446. Gossypium hirsutum L.
06778.

Unknown source. Received 2000.

PI 630447. Gossypium hirsutum L.
06780.

Unknown source. Received 2000.

PI 630448. Gossypium hirsutum L.
06781.

Unknown source. Received 2000.

PI 630449. Gossypium hirsutum L.
06783.

Unknown source. Received 2000.

PI 630450. Gossypium hirsutum L.
06788.

Unknown source. Received 2000.

PI 630451. Gossypium hirsutum L.
06789.

Unknown source. Received 2000.

PI 630452. Gossypium hirsutum L.
06790.

Unknown source. Received 2000.

PI 630453. Gossypium hirsutum L.
06792A.

Unknown source. Received 2000.

PI 630454. Gossypium hirsutum L.
06798B.

Unknown source. Received 2000.

PI 630455. Gossypium hirsutum L.
06799.

Unknown source. Received 2000.

PI 630456. Gossypium hirsutum L.
06803.

Unknown source. Received 2000.

PI 630457. Gossypium hirsutum L.
06804.

Unknown source. Received 2000.

PI 630458. Gossypium hirsutum L.
06805.

Unknown source. Received 2000.

PI 630459. Gossypium hirsutum L.
06809.

Unknown source. Received 2000.

PI 630460. Gossypium hirsutum L.
06810.

Unknown source. Received 2000.

PI 630461. Gossypium hirsutum L.
06813.

Unknown source. Received 2000.

PI 630462. Gossypium hirsutum L.
06814.

Unknown source. Received 2000.

PI 630463. Gossypium hirsutum L.
06815.

Unknown source. Received 2000.

PI 630464. Gossypium hirsutum L.
06817.

Unknown source. Received 2000.

PI 630465. Gossypium hirsutum L.
06818.

Unknown source. Received 2000.

PI 630466. Gossypium hirsutum L.
06819.

Unknown source. Received 2000.

PI 630467. Gossypium hirsutum L.
06820.

Unknown source. Received 2000.

PI 630468. Gossypium hirsutum L.
06821.

Unknown source. Received 2000.

PI 630469. Gossypium hirsutum L.
06823.

Unknown source. Received 2000.

PI 630470. Gossypium hirsutum L.
06824.

Unknown source. Received 2000.

PI 630471. Gossypium hirsutum L.
06825.

Unknown source. Received 2000.

PI 630472. Gossypium hirsutum L.
06826.

Unknown source. Received 2000.

PI 630473. Gossypium hirsutum L.
06827.

Unknown source. Received 2000.

PI 630474. Gossypium hirsutum L.
06828.

Unknown source. Received 2000.

PI 630475. Gossypium hirsutum L.
06829.

Unknown source. Received 2000.

PI 630476. Gossypium hirsutum L.
06830.

Unknown source. Received 2000.

PI 630477. Gossypium hirsutum L.
06835.

Unknown source. Received 2000.

PI 630478. Gossypium hirsutum L.
06836.

Unknown source. Received 2000.

PI 630479. Gossypium hirsutum L.
06839.

Unknown source. Received 2000.

PI 630480. Gossypium hirsutum L.
06841.

Unknown source. Received 2000.

PI 630481. Gossypium hirsutum L.
06842.

Unknown source. Received 2000.

PI 630482. Gossypium hirsutum L.
06843.

Unknown source. Received 2000.

PI 630483. Gossypium hirsutum L.
06848.

Unknown source. Received 2000.

PI 630484. Gossypium hirsutum L.
06849.

Unknown source. Received 2000.

PI 630485. Gossypium hirsutum L.
06850.

Unknown source. Received 2000.

PI 630486. Gossypium hirsutum L.
06852.

Unknown source. Received 2000.

PI 630487. Gossypium hirsutum L.
06853.

Unknown source. Received 2000.

PI 630488. Gossypium hirsutum L.
06854.

Unknown source. Received 2000.

PI 630489. Gossypium hirsutum L.
06855.

Unknown source. Received 2000.

PI 630490. Gossypium hirsutum L.
06856.

Unknown source. Received 2000.

PI 630491. Gossypium hirsutum L.
06857.

Unknown source. Received 2000.

PI 630492. Gossypium hirsutum L.
06896.

Unknown source. Received 2000.

PI 630493. Gossypium hirsutum L.
09779.

Unknown source. Received 2000.

PI 630494. Gossypium hirsutum L.
09825.

Unknown source. Received 2000.

PI 630495. Gossypium hirsutum L.
038.

Unknown source. Received 2000.

PI 630496. Gossypium hirsutum L.
0423.

Unknown source. Received 2000.

PI 630497. Gossypium hirsutum L.
0217.

Unknown source. Received 2000.

PI 630498. Gossypium hirsutum L.
0244.

Unknown source. Received 2000.

PI 630499. Gossypium hirsutum L.
0275.

Unknown source. Received 2000.

PI 630500. Gossypium hirsutum L.
0283.

Unknown source. Received 2000.

PI 630501. Gossypium hirsutum L.
0312.

Unknown source. Received 2000.

PI 630502. Gossypium hirsutum L.
0313.

Unknown source. Received 2000.

PI 630503. Gossypium hirsutum L.
0314.

Unknown source. Received 2000.

PI 630504. Gossypium hirsutum L.
0327.

Unknown source. Received 2000.

PI 630505. Gossypium hirsutum L.
0337.

Unknown source. Received 2000.

PI 630506. Gossypium hirsutum L.
0338.

Unknown source. Received 2000.

PI 630507. Gossypium hirsutum L.
0442.

Unknown source. Received 2000.

PI 630508. Gossypium hirsutum L.
0444.

Unknown source. Received 2000.

PI 630509. Gossypium hirsutum L.
0448.

Unknown source. Received 2000.

PI 630510. Gossypium hirsutum L.
0491.

Unknown source. Received 2000.

PI 630511. Gossypium hirsutum L.
0496.

Unknown source. Received 2000.

PI 630512. Gossypium hirsutum L.
0498.

Unknown source. Received 2000.

PI 630513. Gossypium hirsutum L.
0500.

Unknown source. Received 2000.

PI 630514. Gossypium hirsutum L.
0501.

Unknown source. Received 2000.

PI 630515. Gossypium hirsutum L.
0514.

Unknown source. Received 2000.

PI 630516. Gossypium hirsutum L.
0515.

Unknown source. Received 2000.

PI 630517. Gossypium hirsutum L.
0521.

Unknown source. Received 2000.

PI 630518. Gossypium hirsutum L.
0534.

Unknown source. Received 2000.

PI 630519. Gossypium hirsutum L.
0535.

Unknown source. Received 2000.

PI 630520. Gossypium hirsutum L.
0548.

Unknown source. Received 2000.

PI 630521. Gossypium hirsutum L.
06101.

Unknown source. Received 2000.

PI 630522. Gossypium hirsutum L.
06102.

Unknown source. Received 2000.

PI 630523. Gossypium hirsutum L.
06103.

Unknown source. Received 2000.

PI 630524. Gossypium hirsutum L.
06104.

Unknown source. Received 2000.

PI 630525. Gossypium hirsutum L.
06105.

Unknown source. Received 2000.

PI 630526. Gossypium hirsutum L.
06106.

Unknown source. Received 2000.

PI 630527. Gossypium hirsutum L.
06108.

Unknown source. Received 2000.

PI 630528. Gossypium hirsutum L.
06110.

Unknown source. Received 2000.

PI 630529. Gossypium hirsutum L.
06112.

Unknown source. Received 2000.

PI 630530. Gossypium hirsutum L.
06113.

Unknown source. Received 2000.

PI 630531. Gossypium hirsutum L.
06114.

Unknown source. Received 2000.

PI 630532. Gossypium hirsutum L.
06115.

Unknown source. Received 2000.

PI 630533. Gossypium hirsutum L.
06116.

Unknown source. Received 2000.

PI 630534. Gossypium hirsutum L.
06117.

Unknown source. Received 2000.

PI 630535. Gossypium hirsutum L.
06118.

Unknown source. Received 2000.

PI 630536. Gossypium hirsutum L.
06120A.

Unknown source. Received 2000.

PI 630537. Gossypium hirsutum L.
06120B.

Unknown source. Received 2000.

PI 630538. Gossypium hirsutum L.
06121.

Unknown source. Received 2000.

PI 630539. Gossypium hirsutum L.
06122.

Unknown source. Received 2000.

PI 630540. Gossypium hirsutum L.
06123.

Unknown source. Received 2000.

PI 630541. Gossypium hirsutum L.
06124.

Unknown source. Received 2000.

PI 630542. Gossypium hirsutum L.
06126.

Unknown source. Received 2000.

PI 630543. Gossypium hirsutum L.
06131.

Unknown source. Received 2000.

PI 630544. Gossypium hirsutum L.
06132B.

Unknown source. Received 2000.

PI 630545. Gossypium hirsutum L.
06140.

Unknown source. Received 2000.

PI 630546. Gossypium hirsutum L.
06144.

Unknown source. Received 2000.

PI 630547. Gossypium hirsutum L.
06145.

Unknown source. Received 2000.

PI 630548. Gossypium hirsutum L.
06146.

Unknown source. Received 2000.

PI 630549. Gossypium hirsutum L.
06147.

Unknown source. Received 2000.

PI 630550. Gossypium hirsutum L.
06148.

Unknown source. Received 2000.

PI 630551. Gossypium hirsutum L.
06149.

Unknown source. Received 2000.

PI 630552. Gossypium hirsutum L.
06151.

Unknown source. Received 2000.

PI 630553. Gossypium hirsutum L.
06152.

Unknown source. Received 2000.

PI 630554. Gossypium hirsutum L.
06154.

Unknown source. Received 2000.

PI 630555. Gossypium hirsutum L.
06155.

Unknown source. Received 2000.

PI 630556. Gossypium hirsutum L.
06158.

Unknown source. Received 2000.

PI 630557. Gossypium hirsutum L.
06167.

Unknown source. Received 2000.

PI 630558. Gossypium hirsutum L.
06170.

Unknown source. Received 2000.

PI 630559. Gossypium hirsutum L.
06172.

Unknown source. Received 2000.

PI 630560. Gossypium hirsutum L.
06173.

Unknown source. Received 2000.

PI 630561. Gossypium hirsutum L.
06175.

Unknown source. Received 2000.

PI 630562. Gossypium hirsutum L.
06176.

Unknown source. Received 2000.

PI 630563. Gossypium hirsutum L.
06177.

Unknown source. Received 2000.

PI 630564. Gossypium hirsutum L.
06178.

Unknown source. Received 2000.

PI 630565. Gossypium hirsutum L.
06180.

Unknown source. Received 2000.

PI 630566. Gossypium hirsutum L.
06181.

Unknown source. Received 2000.

PI 630567. Gossypium hirsutum L.
06182.

Unknown source. Received 2000.

PI 630568. Gossypium hirsutum L.
06183.

Unknown source. Received 2000.

PI 630569. Gossypium hirsutum L.
06184.

Unknown source. Received 2000.

PI 630570. Gossypium hirsutum L.
06186.

Unknown source. Received 2000.

PI 630571. Gossypium hirsutum L.
06187.

Unknown source. Received 2000.

PI 630572. Gossypium hirsutum L.
06188.

Unknown source. Received 2000.

PI 630573. Gossypium hirsutum L.
06197.

Unknown source. Received 2000.

PI 630574. Gossypium hirsutum L.
06198.

Unknown source. Received 2000.

PI 630575. Gossypium hirsutum L.
06199.

Unknown source. Received 2000.

PI 630576. Gossypium hirsutum L.
06200.

Unknown source. Received 2000.

PI 630577. Gossypium hirsutum L.
06201.

Unknown source. Received 2000.

PI 630578. Gossypium hirsutum L.
06204.

Unknown source. Received 2000.

PI 630579. Gossypium hirsutum L.
06205.

Unknown source. Received 2000.

PI 630580. Gossypium hirsutum L.
06206.

Unknown source. Received 2000.

PI 630581. Gossypium hirsutum L.
06207.

Unknown source. Received 2000.

PI 630582. Gossypium hirsutum L.
06208.

Unknown source. Received 2000.

PI 630583. Gossypium hirsutum L.
06209.

Unknown source. Received 2000.

PI 630584. Gossypium hirsutum L.
06210.

Unknown source. Received 2000.

PI 630585. Gossypium hirsutum L.
06211.

Unknown source. Received 2000.

PI 630586. Gossypium hirsutum L.
06212.

Unknown source. Received 2000.

PI 630587. Gossypium hirsutum L.
06213.

Unknown source. Received 2000.

PI 630588. Gossypium hirsutum L.
06214.

Unknown source. Received 2000.

PI 630589. Gossypium hirsutum L.
06216.

Unknown source. Received 2000.

PI 630590. Gossypium hirsutum L.
06217.

Unknown source. Received 2000.

PI 630591. Gossypium hirsutum L.
06218.

Unknown source. Received 2000.

PI 630592. Gossypium hirsutum L.
06219.

Unknown source. Received 2000.

PI 630593. Gossypium hirsutum L.
06220.

Unknown source. Received 2000.

PI 630594. Gossypium hirsutum L.
06221.

Unknown source. Received 2000.

PI 630595. Gossypium hirsutum L.
06223.

Unknown source. Received 2000.

PI 630596. Gossypium hirsutum L.
06224.

Unknown source. Received 2000.

PI 630597. Gossypium hirsutum L.
06225.

Unknown source. Received 2000.

PI 630598. Gossypium hirsutum L.
06226.

Unknown source. Received 2000.

PI 630599. Gossypium hirsutum L.
06227.

Unknown source. Received 2000.

PI 630600. Gossypium hirsutum L.
06229.

Unknown source. Received 2000.

PI 630601. Gossypium hirsutum L.
06231.

Unknown source. Received 2000.

PI 630602. Gossypium hirsutum L.
06232.

Unknown source. Received 2000.

PI 630603. Gossypium hirsutum L.
06233.

Unknown source. Received 2000.

PI 630604. Gossypium hirsutum L.
06234.

Unknown source. Received 2000.

PI 630605. Gossypium hirsutum L.
06235.

Unknown source. Received 2000.

PI 630606. Gossypium hirsutum L.
06237.

Unknown source. Received 2000.

PI 630607. Gossypium hirsutum L.
06238.

Unknown source. Received 2000.

PI 630608. Gossypium hirsutum L.
06239.

Unknown source. Received 2000.

PI 630609. Gossypium hirsutum L.
06241.

Unknown source. Received 2000.

PI 630610. Gossypium hirsutum L.
06242.

Unknown source. Received 2000.

PI 630611. Gossypium hirsutum L.
06243.

Unknown source. Received 2000.

PI 630612. Gossypium hirsutum L.
06244.

Unknown source. Received 2000.

PI 630613. Gossypium hirsutum L.
06245.

Unknown source. Received 2000.

PI 630614. Gossypium hirsutum L.
06246.

Unknown source. Received 2000.

PI 630615. Gossypium hirsutum L.
06247.

Unknown source. Received 2000.

PI 630616. Gossypium hirsutum L.
06248.

Unknown source. Received 2000.

PI 630617. Gossypium hirsutum L.
06250B.

Unknown source. Received 2000.

PI 630618. Gossypium hirsutum L.
06251.

Unknown source. Received 2000.

PI 630619. Gossypium hirsutum L.
06252.

Unknown source. Received 2000.

PI 630620. Gossypium hirsutum L.
06253.

Unknown source. Received 2000.

PI 630621. Gossypium hirsutum L.
06254.

Unknown source. Received 2000.

PI 630622. Gossypium hirsutum L.
06255.

Unknown source. Received 2000.

PI 630623. Gossypium hirsutum L.
06260.

Unknown source. Received 2000.

PI 630624. Gossypium hirsutum L.
06261.

Unknown source. Received 2000.

PI 630625. Gossypium hirsutum L.
06262.

Unknown source. Received 2000.

PI 630626. Gossypium hirsutum L.
06263.

Unknown source. Received 2000.

PI 630627. Gossypium hirsutum L.
06267.

Unknown source. Received 2000.

PI 630628. Gossypium hirsutum L.
06269.

Unknown source. Received 2000.

PI 630629. Gossypium hirsutum L.
06270.

Unknown source. Received 2000.

PI 630630. Gossypium hirsutum L.
06272.

Unknown source. Received 2000.

PI 630631. Gossypium hirsutum L.
06273.

Unknown source. Received 2000.

PI 630632. Gossypium hirsutum L.
06276.

Unknown source. Received 2000.

PI 630633. Gossypium hirsutum L.
06307.

Unknown source. Received 2000.

PI 630634. Gossypium hirsutum L.
06308.

Unknown source. Received 2000.

PI 630635. Gossypium hirsutum L.
06309.

Unknown source. Received 2000.

PI 630636. Gossypium hirsutum L.
06310.

Unknown source. Received 2000.

PI 630637. Gossypium hirsutum L.
06311.

Unknown source. Received 2000.

PI 630638. Gossypium hirsutum L.
06315.

Unknown source. Received 2000.

PI 630639. Gossypium hirsutum L.
06321.

Unknown source. Received 2000.

PI 630640. Gossypium hirsutum L.
06323.

Unknown source. Received 2000.

PI 630641. Gossypium hirsutum L.
06326.

Unknown source. Received 2000.

PI 630642. Gossypium hirsutum L.
06327.

Unknown source. Received 2000.

PI 630643. Gossypium hirsutum L.
06328.

Unknown source. Received 2000.

PI 630644. Gossypium hirsutum L.
06329.

Unknown source. Received 2000.

PI 630645. Gossypium hirsutum L.
06331.

Unknown source. Received 2000.

PI 630646. Gossypium hirsutum L.
06659.

Unknown source. Received 2000.

PI 630647. Gossypium hirsutum L.
06673.

Unknown source. Received 2000.

PI 630648. Gossypium hirsutum L.
06675.

Unknown source. Received 2000.

PI 630649. Gossypium hirsutum L.
06694.

Unknown source. Received 2000.

PI 630650. Gossypium hirsutum L.
06712.

Unknown source. Received 2000.

PI 630651. Gossypium hirsutum L.
06749.

Unknown source. Received 2000.

PI 630652. Gossypium hirsutum L.
06756.

Unknown source. Received 2000.

PI 630653. Gossypium hirsutum L.
06779.

Unknown source. Received 2000.

PI 630654. Gossypium hirsutum L.
06791.

Unknown source. Received 2000.

PI 630655. Gossypium hirsutum L.
06792B.

Unknown source. Received 2000.

PI 630656. Gossypium hirsutum L.
06794.

Unknown source. Received 2000.

PI 630657. Gossypium hirsutum L.
06822.

Unknown source. Received 2000.

PI 630658. Gossypium hirsutum L.
06833.

Unknown source. Received 2000.

PI 630659. Gossypium hirsutum L.
06834.

Unknown source. Received 2000.

PI 630660. Gossypium hirsutum L.
06837.

Unknown source. Received 2000.

PI 630661. Gossypium hirsutum L.
06840.

Unknown source. Received 2000.

PI 630662. Gossypium hirsutum L.
06847.

Unknown source. Received 1996.

PI 630663. Gossypium hirsutum L.
"LA 304 (LA RN 910)". Developed in United States.

Unknown source. Received 1996.

PI 630664. Gossypium hirsutum L.
"LA 305 (LA RN 910)". Developed in United States.

Unknown source. Received 1996.

PI 630665. Gossypium hirsutum L.
"LA 306 (LA RN 4-4)".

Unknown source. Received 1996.

PI 630666. Gossypium hirsutum L.
"LA 322 (LA RN 910)". Developed in United States.

Unknown source. Received 1996.

PI 630667. Gossypium hirsutum L.
"LA 333 (LA RN 1032)". Developed in United States.

Unknown source. Received 1996.

PI 630668. Gossypium hirsutum L.
"LA 334 (LA RN 4-4)". Developed in United States.

Unknown source. Received 1996.

PI 630669. Gossypium hirsutum L.
"LA 337 (LA 434-1032)". Developed in United States.

Unknown source. Received 1996.

PI 630670. Gossypium hirsutum L.
"LA 342 (LA 434-1031-810910)". Developed in United States.

Unknown source. Received 1996.

PI 630671. Gossypium hirsutum L.
"LA 356 (LA RN 1032)". Developed in United States.

Unknown source. Received 1996.

PI 630672. Gossypium hirsutum L.
"LA 357 (LA 434-1031-C)". Developed in United States.

Unknown source. Received 2000.

PI 630673. Gossypium hirsutum L.
0673.

PI 630674 to 630921. Not assigned.

The following were developed by Syngenta Seeds, Inc., United States. Received 04/10/2002.

PI 630922 PVPO. Pisum sativum L.
Cultivar. "NORTH WIND"; FP2230. PVP 200200091.

PI 630923 PVPO. Pisum sativum L.
Cultivar. "FP2237". PVP 200200092.

PI 630924 PVPO. Pisum sativum L.
Cultivar. "NORTHFIELD"; FP2247. PVP 200200093.

The following were developed by C.A. Rose-Fricker, Pure Seed Testing, Inc., 3057 G Street, Hubbard, Oregon 97032, United States; Melodee L. Fraser, Pure Seed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States; Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers University, Cook College, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 04/10/2002.

PI 630925. Agrostis canina L.
Cultivar. "GREENWICH"; PST-EVM. CV-9; PVP 200200094. Pedigree - Origins of the plants in the EVM polycross were as follows: 29 traced maternally to Emanuel Francis, of which 12 were harvested; 61 traced maternally to Lake Success Country Club, of which 22 were harvested; 8 traced maternally to Pine Hollow Country Club, of which one was harvested and one traced maternally to National Golf Links Country Club but was not harvested. Fine-textured, low-growing, medium-green, developed for turf

uses. Shows good quality in turf trials maintained at mowing heights from 3 mm to 13 mm in New Jersey, North Carolina and Oregon. Shows good resistance to dollar spot (Sclerotinia homoeocarpa) and brown patch (Rhizoctonia solani). Good heat tolerance and is recommended for golf course greens, tees and fairways in temperate climates.

The following were developed by Wisconsin Agricultural Experiment Station, Madison, Wisconsin, United States. Received 04/10/2002.

PI 630926 PVPO. Avena sativa L.
Cultivar. "ForagePlus". PVP 200200096.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/10/2002.

PI 630927 PVPO. Phaseolus vulgaris L.
Cultivar. "LYNX"; XP 8104379. PVP 200200097.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 04/10/2002.

PI 630928 PVPO. Glycine max (L.) Merr.
Cultivar. "90B51". PVP 200200098.

PI 630929 PVPO. Glycine max (L.) Merr.
Cultivar. "90B74". PVP 200200099.

PI 630930 PVPO. Glycine max (L.) Merr.
Cultivar. "94B13". PVP 200200100.

PI 630931 PVPO. Glycine max (L.) Merr.
Cultivar. "94B74". PVP 200200101.

PI 630932 PVPO. Glycine max (L.) Merr.
Cultivar. "95B42". PVP 200200102.

PI 630933 PVPO. Glycine max (L.) Merr.
Cultivar. "95B43". PVP 200200103.

The following were developed by Cal/West Seeds, United States. Received 04/10/2002.

PI 630934 PVPO. Carthamus tinctorius L.
Cultivar. "CW 99-0L". PVP 200200104.

The following were developed by Western Plant Breeders, Inc., Phoenix, Arizona, United States. Received 04/10/2002.

PI 630935 PVPO. Triticum aestivum L.
Cultivar. "CHALLIS". PVP 200200105.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 04/10/2002.

PI 630936 PVPO. Zea mays L. **subsp. mays**
Cultivar. "LH331". PVP 200200106.

The following were developed by Hollar Seeds, Incorporated, Rocky Ford, Colorado, United States. Received 04/10/2002.

PI 630937 PVPO. Cucurbita pepo L.
Cultivar. "OneBallF". PVP 200200107.

The following were developed by South Dakota Agricultural Experiment Station, Brookings, South Dakota, United States. Received 04/10/2002.

PI 630938 PVPO. Triticum aestivum L.
Cultivar. "WALWORTH". PVP 200200108.

The following were developed by Purdue Research Foundation, Indiana, United States. Received 04/10/2002.

PI 630939 PVPO. Ocimum basilicum L.
Cultivar. "MAGICAL MICHAEL". PVP 200200109.

The following were developed by Wisconsin Agricultural Experiment Station, Madison, Wisconsin, United States. Received 04/10/2002.

PI 630940 PVPO. Avena sativa L.
Cultivar. "MORAINE". PVP 200200110.

The following were developed by O & A Enterprises, Inc., United States. Received 04/10/2002.

PI 630941 PVPO. Gossypium barbadense L.
Cultivar. "DP 340 Pima". PVP 200200111.

The following were developed by Turf Merchants, Inc., United States. Received 04/10/2002.

PI 630942 PVPO. Poa pratensis L.
Cultivar. "BOUTIQUE". PVP 200200112.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 04/10/2002.

PI 630943 PVPO. Lactuca sativa L.
Cultivar. "GORILLA". PVP 200200113.

The following were developed by Pioneer Hi-Bred International, Inc, United

States. Received 04/10/2002.

PI 630944 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH0GC". PVP 200200114.

The following were developed by Svalof Weibull AB, Svalow, Malmohus, Sweden. Received 04/10/2002.

PI 630945 PVPO. Pisum sativum L.
Cultivar. "SW CIRCUS". PVP 200200115.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/10/2002.

PI 630946 PVPO. Pisum sativum L.
Cultivar. "TRILOGY". PVP 200200117.

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 ; A.G.S. Reddy, Int. Crops Res. Inst. for the Semi-Arid Tropics, Asia Center, Patancheru, Andhra Pradesh 502324, India; H.D. Upadhyaya, Int. Crops Res. Inst. for the Semi-Arid Tropics, Genetic Enhancement Division, Patancheru, Andhra Pradesh 502 324, India; N. Yellaiah, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 04/10/2002.

PI 630947 QUAR. Arachis hypogaea L.
Breeding. ICGV 92267. GP-116. Pedigree - ICGV 86155/ICGV 86162 F2-B1-B1-B1-B2-B1-B1 (where B refers to bulk selection). Spanish peanut with erect growth habit, sequential branching, and elliptical medium sized green leaves. Matures in 90-95 days after planting. Pods mainly two-seeded, small in size with slight beak, slight constriction, and slight reticulation. Seeds have tan colored testa, weight 37 g 100-seed, and contain 47.3% oil and 25.0% protein.

PI 630948 QUAR. Arachis hypogaea L.
Breeding. ICGV 93382. GP-117. Pedigree - ICGV 86068/Chico F2-B1-P28-P2-B1-B1 (where P refers to plant selection and B to bulk selection). Spanish type peanut with erect growth habit, sequential branching and elliptical medium-sized green leaves. Matures in 90 days after planting. Pods mainly two-seeded, small in size with slight beak, moderate constricting, and slight reticulation. Seeds have tan colored testa, weight 37 g 100-seeds-1, and contain 46.3% oil and 23.8% protein.

The following were donated by Chuck Brown, USDA, ARS, WSU Irrigated Ag. Extension Center, 24106 N. Bunn Road, Prosser, Washington 99350, United States. Received 09/12/2000.

PI 630949. Solanum tuberosum L.
Cultivar. "97A-51"; Q 42812. Late Blight resistant cultivar from Poland.

The following were donated by Hector Lozoya, Pictipapa, Conjunto Sedagro,

Dom. conocido, Metepec, Mexico 52142, Mexico. Received 03/21/2001.

PI 630950. Solanum tuberosum L.
Cultivar. "A9520-45"; Q 42944; Q 43226. Late Blight breeding stock from Mexico.

PI 630951. Solanum tuberosum L.
Cultivar. "A96517-2"; Q 42947; Q 43227. Late Blight breeding stock from Mexico.

PI 630952. Solanum tuberosum L.
Cultivar. "A97084-44"; Q 42946; Q 43228. Late Blight breeding stock from Mexico.

PI 630953. Solanum tuberosum L.
Cultivar. "EGA 9706-14"; Q 42945; Q 43229. Late Blight breeding stock from Mexico.

The following were donated by Pure Line Seeds, Inc., P.O. Box 8866, Moscow, Idaho 83843, United States. Received 1962.

PI 630954. Pisum sativum L.
Cultivar. "RANGER". 71 days to maturity. Profusion type late canner. Cultivated. Literature reference -- List of Vegetable Varieties by "Committee on Vegetable Breeding and Varieties" American Society for Horticultural Science, August 1, 1959, p. 48.

The following were donated by Jerzy Puchalski, Polish Academy of Sciences, Botanical Garden, Center for Biological Diversity Conservation, Warsaw, Warszawa 02-973, Poland. Received 04/08/2002.

PI 630955. Secale strictum (C. Presl) C. Presl
Wild. 497; NSGC 8841.

PI 630956. Secale strictum (C. Presl) C. Presl
Wild. 17778; NSGC 8842.

Unknown source. Received 04/08/2002.

PI 630957. Secale strictum (C. Presl) C. Presl
Wild. 544; NSGC 8843.

The following were donated by Jerzy Puchalski, Polish Academy of Sciences, Botanical Garden, Center for Biological Diversity Conservation, Warsaw, Warszawa 02-973, Poland. Received 04/08/2002.

PI 630958. Secale strictum (C. Presl) C. Presl
Wild. 1785/94/INN; NSGC 8844. Collected in Turkey. Latitude 39 deg. 0' N. Longitude 35 deg. 0' E.

PI 630959. Secale strictum (C. Presl) C. Presl
Wild. 805; NSGC 8845.

PI 630960. Secale strictum (C. Presl) C. Presl
Wild. 789/95; NSGC 8846. Collected in Italy. Latitude 42 deg. 50' N. Longitude 12 deg. 50' E.

PI 630961. Secale strictum (C. Presl) C. Presl
Wild. 2706; NSGC 8847. Collected in Hungary. Latitude 47 deg. 0' N. Longitude 20 deg. 0' E.

PI 630962. Secale strictum (C. Presl) C. Presl
Wild. 14567; NSGC 8848. Collected in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E.

PI 630963. Secale strictum subsp. africanum (Stapf) K. Hammer
Wild. 6043; NSGC 8849. Collected in South Africa. Latitude 30 deg. 0' S. Longitude 26 deg. 0' E.

PI 630964. Secale strictum subsp. africanum (Stapf) K. Hammer
Wild. 834/96/144; NSGC 8850. Collected in South Africa. Latitude 30 deg. 0' S. Longitude 26 deg. 0' E.

PI 630965. Secale strictum subsp. anatolicum (Boiss.) K. Hammer
Wild. 14363; NSGC 8851. Collected in Turkey. Latitude 39 deg. 0' N. Longitude 35 deg. 0' E.

PI 630966. Secale strictum subsp. anatolicum (Boiss.) K. Hammer
Wild. 2702; NSGC 8852. Collected in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E.

PI 630967. Secale strictum subsp. ciliatoglume (Boiss.) K. Hammer
Wild. 24266; NSGC 8853.

PI 630968. Secale strictum subsp. kuprijanovii (Grossh.) K. Hammer
Wild. 2704; NSGC 8854. Collected in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E.

PI 630969. Secale strictum subsp. kuprijanovii (Grossh.) K. Hammer
Wild. 6143; NSGC 8855.

PI 630970. Secale strictum subsp. kuprijanovii (Grossh.) K. Hammer
Wild. 2705; NSGC 8856. Collected in Azerbaijan. Latitude 40 deg. 30' N. Longitude 47 deg. 0' E.

PI 630971. Secale strictum (C. Presl) C. Presl **subsp. strictum**
Wild. 24267; NSGC 8857.

PI 630972. Secale cereale L. **subsp. cereale**
Landrace. 14833; 32114/70; NSGC 8858. Collected in Turkey. Latitude 39 deg. 0' N. Longitude 35 deg. 0' E.

PI 630973. Secale cereale L. **subsp. cereale**
Landrace. 14956; 32635/71; NSGC 8859. Collected in Turkey. Latitude 39 deg. 0' N. Longitude 35 deg. 0' E.

The following were developed by Craig Sheaffer, University of Minnesota, Dept. of Agronomy & Plant Genetics, 416 Borlaug Hall, St. Paul, Minnesota 55108, United States; Nancy J. Ehlke, University of Minnesota, Department of

Agronomy &, Plant Genetics, St. Paul, Minnesota 55108-6026, United States; Douglas R. Swanson, University of Minnesota, 112 Crops Research Building, 1903 Hendon Avenue, St. Paul, Minnesota 55108-6089, United States; Donald L. Wyse, University of Minnesota, Department of Agronomy and Plant Genetics, 1991 Buford Circle, St. Paul, Minnesota 55108, United States; D.J. Vellekson, University of Minnesota, Dept. of Agronomy and Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States. Received 03/13/2002.

PI 630974. Elytrigia repens (L.) Desv. ex Nevski
Cultivar. "EVERETT". CV-223. Pedigree - Four-clone synthetic selected from among ten biotypes originally collected near Roseau, MN and selected for high rhizome-to-shoot dry weight ratio; shoot, root and total dry weight; and rhizome bud number. Evaluated in monoculture and in binary mixtures with alfalfa at Grand Rapids and St. Paul, MN from 1996 to 1998. Forage yield compared to common quackgrass in monoculture was similar averaging 2.3 and 4.8 Mg ha-1 at Grand Rapids and St. Paul repectively but were lower than Palaton reed canarygrass and Orion orchardgrass which averaed 2.9 and 5.2 Mg ha-1 at Grand Rapids and St. Paul respectively. Forage crude protein, acid detergent fiber, and neutral detergent fiber avraged 160, 333, and 530 g kg-1 respectively across the two locations and two harvest years and few differences were observed among the grass species for forage quality parameters. In replicated seed production trials conducted at Roseau, NM, the seed production potential was good and averaged 434 kg ha-1 and was not different from three common quackgrass populations.

The following were developed by Gordon Marten, University of Minnesota, Dept. of Agronomy and Plant Genetics, 411 Borlang Hall--1991 Burford Circle, St. Paul, Minnesota 55108, United States; Craig Sheaffer, University of Minnesota, Dept. of Agronomy & Plant Genetics, 416 Borlaug Hall, St. Paul, Minnesota 55108, United States; Nancy J. Ehlke, University of Minnesota, Department of Agronomy &, Plant Genetics, St. Paul, Minnesota 55108-6026, United States; D.J. Vellekson, University of Minnesota, Dept. of Agronomy and Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States; E.A. Ristau, University of Minnesota, Dept. of Agronomy and Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States. Received 03/13/2002.

PI 630975. Astragalus cicer L.
Cultivar. "HiPal". CV-202. Pedigree - 16-clone synthetic selected for improved palatability by grazing sheep. The 16 clone trace to 9 plant introductions (PI 362233, 362236, 362272, 362249, 362251, 362257, 362259, 362267, and 362269) and 3 polycross families from the parental clones of Monarch (F3-C3, 16-5 III-C7 and 17-3 I C8). Averages 19% of the forage biomass remaining at the end of the four grazing periods with sheep when compared to 29% and 34% for the forage remaining for Monarch and Lutana. Similar NDF (305.9 g kg-1) and ADF (272.6 g kg-1) concentrations and higher CP (214.1 vs 199.8 g kg-1 CP) than Monarch and Lutana at three of the four grazings. The entries had similar final stand densities (74%), vigor ratings (6.3; rated on a scale of 1 to 10=most vigorous), height (58 cm), and dry matter yield (3405 kg ha-1).

The following were developed by Nancy J. Ehlke, University of Minnesota, Department of Agronomy &, Plant Genetics, St. Paul, Minnesota 55108-6026, United States; Donald L. Wyse, University of Minnesota, Department of

Agronomy and Plant Genetics, 1991 Buford Circle, St. Paul, Minnesota 55108, United States; D.J. Vellekson, University of Minnesota, Dept. of Agronomy and Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States. Received 03/13/2002.

PI 630976. Lotus corniculatus L.
Cultivar. "NUELTIN". CV-9. Pedigree - Synthetic cultivar developed from the birdsfoot trefoil variety Leo using six cycles of recurrent half-sib family selection for glyphosate tolerance. Broad-leaved birdsfoot trefoil with good spring vigor and excellent winter hardiness. Similar in forage yield potential when compared to the currently available cultivars and averages 8.3 Mg ha-1 across three locations and nine harvest years in replicated trials. Similar in seed and forage yield potential when compared to Norcen, Leo and Carroll. Should be widely adapted to the northern U.S. and adjacent areas of Canada.

PI 630977. Lotus corniculatus L.
Cultivar. "ROSEAU". CV-10. Pedigree - Synthetic developed from birdsfoot trefoil variety Norcen using a combination of recurrent half-sib familty (C2 and C3) and mass selection (C4, C5 and C6) for glyphosate tolerance. Broad-leaved birdsfoot trefoil with an intermediate growth habit between Viking and Empire and has a diverse genetic background making it adapted to a breadth of environmental conditions. Similar in forage yield potential when compared to the currently available cvs. and averages 8.6 Mg ha-1 across three locations and nine harvest years in replicated trials. Produces higher seed yields when compared to Norcen, Leo and Empire in replicated seed production trials (475 vs 409 kg ha-1). Less winter hardy than Leo, Nueltin and Carroll, but more hardy than Empire, Fergus, and Steadfast. Similar in maturity to Norcen, but is later than Viking and earlier than Empire and Carroll.

The following were developed by Eric Bevis, ECORC, Agriculture and Agrifood Canada, Rm 2091, K.W. Neatby Bldg., 960 Carling Ave., Ottawa, Ontario KIA OC6, Canada. Received 04/10/2002.

PI 630978. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. 93-11-14-2-1. Pedigree - Ning 7840 / Wangshuibai (Wong Su). Highly resistant to Fusarium head blight and DON (deoxynivalenol) accumulation. Under conditions of natural infection, Fusarium Damaged Kernel concentrations in harvested grain were less than 25% of the susceptible check Roblin, with test weight being greater than Roblin. Taller than Roblin with heading and ripening occurring later than Roblin. Classed as Soft (II) based on SKCS measurements with 15.1% protein. Preliminary baking tests indicated not suitable for baking bread. Flag leaf medium to dark green in color, glabrous, medium to wide in width and medium to long in length, having intermediate attitude, being slightly to fully recurved and very slight to no waxiness on the lower side of the leaf. Leaf sheath is glabrous with absent to slight waxy bloom. Leaf auricles do not have anthocyanin coloration and the margins are glabrous to slightly pubescent. Culm is straight at maturity with the upper internode being glabrous and absent of waxiness. Margins of the rachis.

PI 630979. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. 93-11-14-2-2. Pedigree - Ning 7840 / Wangshuibai (Wong Su). Highly resistant to Fusarium head blight and DON

(deoxynivalenol) accumulation. Under conditions of natural infection, Fusarium Damaged Kernel concentrations in the harvested grain were less than 25% of the susceptible check Roblin, with test weight being greater than Roblin. Taller than Roblin with heading and ripening occurring later than Roblin. Classed as Soft (18) based on SKCS measurements with 15.2% protein. Preliminary baking tests indicated not suitable for baking bread. Flag leaf is medium green in color, glabrous, medium to wide in width and medium to long in length, having intermediate attitude, being slightly recurved and ver slight to no waxiness on the lower side of the leaf. Leaf sheath glabrous with a slight waxy bloom. Leaf auricles do not have anthocyanin coloration and the margins are glabrous to slightly pubescent. Culm is straight at maturity withy the upper internode being glabrous and absent to slightly waxy. Margins of the rachis sllightly to moderately.

PI 630980. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. 93-11-14-4-5. Pedigree - Ning 7840 / Wangshuibai (Wong Su). Highly resistant to Fusarium head blight and DON (deoxynivalenol) accumulation. Under conditions of natural infection, Fusarium Damaged Kernel concentrations in the harvested grain were less than 25% of the susceptible check Roblin, with test weight being greater than Roblin. Taller than Roblin, with heading and ripening occurring later than Roblin. Classed as Soft (22) based on SKCS measurements with 14.3% protein. Preliminary baking tests indicate not suitable for baking bread. Flag leaf medium green in color, glabrous to slightly pubescent, slightly narrow to medium in width and slightly short to slightly long in length, having intermediate attitude, being slightly to fully recurved and slight waxiness on the lower side of the leaf. Leaf sheath glabrous with a very slight to slight waxy bloom. The leaf auricles do not have anthocyanin coloration and the margins are glabrous to slightly pubescent. Culm straight at maturity with the upper internode being glabrous and absent.

PI 630981. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. 93-11-2-3-1. Pedigree - Ning 7840 / Wangshuibai (Wong Su). Highly resistant to Fusarium head blight and DON (deoxynivalenol) accumulation. Under conditions of natural infection, Fusarium Damaged Kernel concentrations in the harvested grain were less than 25% of the susceptible check Roblin, with test weight being greater than Roblin. Approx. the same height as Roblin, heading and ripening later than Roblin. Classed as Hard (63) based on SKCS measurements with 14% grain protein. Preliminary baking tests indicate not suitable for baking bread. Flag leaf medium to dark green in color, glabrous to very slightly pubescent, medium to slightly wide and short to slightly long in length, having intermediate attitude, being slightly to strongly recurved and absent to slight waxiness on the lower side of the leaf. Leaf sheath glabrous with a moderately pronounced waxy bloom. Leaf auricles do not have anthocyanin coloration and the margins are glabrous to very slightly pubescent. Culm straight at maturity with the upper internode being glabrous and.

PI 630982. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. 93-11-2-3-2. Pedigree - Ning 7840 / Wangshuibai (Wong Su). Highly resistant to Fusarium head blight and DON (deoxynivalenol) accumulation. Under conditions of natural infection, Fusarium Damaged Kernel concentrations in the harvested grain were less than 25% of the susceptible check Roblin, with test weight being greater

than Roblin. Approx. the same height as Roblin with heading and ripening occurring later than Roblin. Classed as Hard (60) based on SKCS measurements with 14% grain protein. Preliminary baking tests indicate not suitable for baking bread. Flag leaf is medium green in color, glabrous to very slightly pubescent, medium to slightly wide and short to medium in length, having intermediate attitude, being rectilinear to slightly recurved and absent to slight waxiness on the lower side of the leaf. Leaf sheath glabrous with a moderately pronounced waxy bloom. Leaf auricles do not have anthocyanin coloration and the margins are glabrous to very slightly pubescent. Culm straight at maturity with the upper internode being.

The following were developed by Craig F. Morris, USDA-ARS, Western Wheat Quality Lab., E-202 FSHN Facility East, Pullman, Washington 99164-6394, United States; Victor L. DeMacon, Washington State University, Crop & Soil Sciences Dept., Pullman, Washington 99164-6420, United States; Kimberlee Kidwell, Washington State University, Dept. of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; G.S. Shelton, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164-6430, United States; B.P. Carter, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States. Received 04/25/2002.

PI 630983. Triticum aestivum subsp. compactum (Host) Mackey
Cultivar. Pureline. "EDEN"; WA007902; NSGC 8860. CV-953; PVP 200300264. Pedigree - Wawawai/Calorwa. Released 2003. Club-type, soft white spring wheat. Semi-dwarf, awned, mid-season maturity, white straw and white glumes. Targeted to the imtermediate to high rainfall (>400 mm) production regions of Washington State as a replacement for Calorwa due to its outstanding yield potential and superior end-use quality. Susceptible to Hessian fly and the Russian wheat aphid. Resistant to stripe rust. Test weight higher than Calorwa. Protein lower than Calorwa. High molecular weight glutenin subunits of null (1A), 7/8/9 (1B), 5+10 (1D). Excellent club quality.

The following were developed by Fred Allen, University of Tennessee, Plant Science & Landscape Systems, 252 Ellington Hall, Knoxville, Tennessee 37901-1071, United States; Vincent R. Pantalone, University of Tennessee, Dept. of Plant and Soil Science, Knoxville, Tennessee 37901-1071, United States. Received 04/17/2002.

PI 630984. Glycine max (L.) Merr.
Cultivar. "5601T". CV-441; PVP 200400045. Pedigree - Hutcheson x TN89-39. In the USDA Uniform tests, 3-yr average (1999-2001), produced 3252 kg ha-1 seed yield, with 196 g kg-1 seed oil, 422 g kg-1 seed protein, and 13.0 g 100 seeds-1. Flowers white, gray pubescence, tan podwall and a determinate growth habit. Seeds yellow with buff hila. Resistant to stem canker (Diaporthe phaseolorum), soybean mosaic virus, southern root-knot nematode (Meloidogyne incognita). Moderately resistant to peanut root-knot nematode (Meloidogyne arenaria). Susceptible to soybean cyst nematode (Heterodera glycines) and sudden death syndrome (Fusarium solani).

The following were collected by James M. Stewart, University of Arkansas, Department of Crop, Soil, & Environmental Sciences, Fayetteville, Arkansas 72701, United States; Mauricio Ulloa, USDA, ARS, Crop Genetics and Production Research Unit, P.O. Box 345, Stoneville, Mississippi 38776, United States; Arturo Gaytan-Mascorro, INIFAP, Campo Experimental La Laguna, Apartado Postal 247, Torreon, Coahuila, Mexico; Alejandro Garcia-Castenada, INIFAP, Campo Experimental La Laguna, Apartado Postal 247, Torreon, Coahuila, Mexico. Received 05/03/2002.

PI 630985. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-4. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 8' 16'' N. Longitude 98 deg. 18' 10'' W. Elevation 958 m. 3 km N of Tecomatlan, along Hwy 92 (east side). Hillside with cut area of grazing; mica schist soil. Small to large (10 m) trees common. No foliage; many capsules mostly mature and dehisced; few flowers.

PI 630986. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-5. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 8' 26'' N. Longitude 98 deg. 17' 59'' W. Elevation 1016 m. 5.6 km N of Tecomatlan, along Hwy 92 (east side). Canyon edge in deciduous woodland. Trees, infrequent, scattered over canyon edge. Tallest ca. 15 m. Capsules dehisced.

PI 630987. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-10. Collected 03/01/2002 in Oaxaca, Mexico. Latitude 16 deg. 37' 11'' N. Longitude 94 deg. 58' 7'' W. Elevation 190 m. Along Hwy 185, approx. 11 km N of La Ventosa. Schlerophyllous, deciduous vegetation along mountain roadcuts. Boll weevil found at this location. Also, several small black wasps wer working around the trees (parasitic?). Trees 10-12 m tall of various ages; no foliage; late flowering stage with few capsules open; lysigenous glands prominent on capsules; flowers smaller than Puebla Gossypium.

PI 630988. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-11. Collected 03/01/2002 in Oaxaca, Mexico. Latitude 16 deg. 36' 6'' N. Longitude 94 deg. 56' 52'' W. Elevation 89 m. Along Hwy 185, approx. 8.8 km N of La Ventosa. Schlerophyllous, deciduous vegetation. Trees scattered along road. Deciduous, no foliage except new growth starting. More mature capsules than US-10 but less fruit and flowers. One plant with 5"+ trunk. Note: MEXU Gossypium herbarium specimens from this area have large, elongated cordate leaves.

PI 630989. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-12. Collected 03/02/2002 in Oaxaca, Mexico. Latitude 16 deg. 6' 46'' N. Longitude 95 deg. 19' 13'' W. Elevation 143 m. Along Hwy 200, 19 km W of Salina Cruz (or 6 km E of Puente Moro). Dry deciduous forest on hillside. Plants scattered infrequently through the forest, more frequent where the road reduced competition for light. Trees to 15 m. No foliage; capsules nearly all dehisced.

PI 630990. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-13. Collected 03/02/2002 in Oaxaca, Mexico. Latitude 15 deg. 59' 2'' N. Longitude 95 deg. 31' 11'' W. Elevation 400 m. Along Hwy 200, 2 km W of Zaachila (west of Salina Cruz). Dry deciduous forest; plants scattered. Trees to 10 m. No foliage; capsules all mature; flowers very

rare.

PI 630991. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-15. Collected 03/02/2002 in Oaxaca, Mexico. Latitude 16 deg. 2' 51'' N. Longitude 95 deg. 40' 25'' W. Elevation 125 m. Approx. 5 km N of San Pedro Huamelula on dirt road to Los Cocos. Edge of dirt road where hillside meets the road. Four small trees with no foliage; capsules all mature; no flowers.

PI 630992. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-16. Collected 03/02/2002 in Oaxaca, Mexico. Latitude 15 deg. 58' 47'' N. Longitude 95 deg. 36' 53'' W. Elevation 86 m. Along Hwy 200 (between Salina Cruz and Santa Maria Huamelula), just west of La Tortolita near "La Chontal" Pemex Station. Road bank and pasture area (first site not a deciduous forest or hillside). Several small trees to 8 m; capsules all mature; a few flowers.

PI 630993. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-17. Collected 03/03/2002 in Oaxaca, Mexico. Latitude 16 deg. 34' 52'' N. Longitude 94 deg. 48' 59'' W. Elevation 82 m. East of La Ventosa by Hwy 190 then 0.5 km N of Hwy by Provenir Road at wind-powered electric generators. Fence row between road and pasture, approx. 100 m occupied exclusively by this species. Various size trees up to 5 m, spreading; no foliage except occasional new growth start. Older plants more spreading than at other sites, probably due to constant strong winds.

PI 630994. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-41. Collected 03/08/2002 in Oaxaca, Mexico. Latitude 16 deg. 22' 32'' N. Longitude 95 deg. 23' 6'' W. Elevation 200 m. Along Hwy 190 (Tehuantepec - Oaxaca), approx. 18 km NW of jct. with Hwy 200. Plants scattered in deciduous forest. Trees, 8-9 m tall, with limited number of capsules. One tree with 4 flowers, no foliage on any tree. Heliothine worm found in one capsule.

PI 630995. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-72. Collected 03/15/2002 in Guerrero, Mexico. Latitude 17 deg. 57' 58'' N. Longitude 98 deg. 59' 7'' W. Elevation 642 m. Mpio. Copapillo, Oxtutla. Approx. 1 km up arroyo (located approx. 0.5 km N of Oxtutla) running W to NW. Steep S side of an arroyo in dry deciduous forest with numerous pipe cactus. Small trees 4-5 m, no foliage or flowers. Capsules all mature and dehisced. Area not previously reported to have Gossypium; may be related to US-4 & 5 but nursery plants should also be compared to G. laxum.

PI 630996. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-76. Collected 03/16/2002 in Guerrero, Mexico. Latitude 17 deg. 9' 59'' N. Longitude 100 deg. 33' 37'' W. Elevation 30 m. Along Hwy 200, 14.7 km NW of jct. with Hwy 196; 11 km SE of Tecpan de Galeana. Numerous trees along area between road and hillside. Trees to 10 m, defoliated but with some leaves on young shoots, numerous flowers and capsules of all ages. Flowers whitish with large petal spot.

PI 630997. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-78. Collected 03/16/2002 in Guerrero, Mexico. Latitude 17 deg. 16' 7'' N. Longitude 101 deg. 1' 48'' W. Elevation 29 m. Along Hwy 200 at Brisas del Mar near sea bluffs, 7.9 km SE of Papanoa (52.9 km SE of

Petatlan). Numerous trees in deciduous woodland with new growth in cut area. Defoliated trees with all stages of reproduction. Three very large trees (20-25 m) were seen on a woodland hillside approx. 4 km SE of this site.

PI 630998. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-80. Collected 03/17/2002 in Guerrero, Mexico. Latitude 17 deg. 59' 5'' N. Longitude 101 deg. 47' 54'' W. Elevation 70 m. Along Las Juntas road 500 m N of La Union. Ravine near dirt road, wooded area. Small trees, 4.5 m with flowers and capsules of all ages, a few leaves remaining. Capsules have some aspect of G. aridum, but also an aspect of G. schwendimanii. Possible intermediate.

PI 630999. Gossypium aridum (Rose & Standl.) Skovst.
Wild. US-81. Collected 03/17/2002 in Guerrero, Mexico. Latitude 17 deg. 59' 37'' N. Longitude 101 deg. 46' 35'' W. Elevation 127 m. Along Las Juntas road 4.6 km N of La Union by road. Regrowth where roadway was cleared in a hilly, wooded area. Single small tree 4 m, a few capsules with seeds. Capsules shed seeds soon after dehescing. Similar to US-80.

PI 631000. Gossypium barbadense L.
Cultivated. US-19. Collected 03/04/2002 in Chiapas, Mexico. Latitude 16 deg. 37' 54'' N. Longitude 92 deg. 59' 39'' W. Elevation 409 m. El Amatal, close to Rio Santo Domingo. Plants in garden plot on slope below road. Cultivated by Sra. Horalia Martinez, El Amatal Ejido, Tuxtla, Calle del Cedro, Sur No. 403. Plants with 5-6 mainstems, ~4 m tall, flower light yellow, no petal spots, "kidney" seed.

PI 631001. Gossypium barbadense L.
Cultivated. US-20. Collected 03/04/2002 in Chiapas, Mexico. Latitude 16 deg. 32' 20'' N. Longitude 92 deg. 53' 51'' W. Elevation 479 m. Veinte de Noviebre, Calle Contral No. 91. Patio plant maintained by Sra. Rosalinda Ruiz Cruz. Plant 3 m, flowers light yellow without petal spot, "kidney" seed.

PI 631002. Gossypium barbadense L.
Cultivated. US-21. Collected 03/04/2002 in Chiapas, Mexico. Latitude 16 deg. 26' 20'' N. Longitude 92 deg. 34' 50'' W. Elevation 477 m. Nicolas Ruiz. Yard of Evelion Leon Gomot. Garden plant with no foliage; seeds fuzzless. Plant not seen. Collected by Ricardo Gomez-B (local guide) for Ulloa and Stewart.

PI 631003. Gossypium barbadense L.
Cultivated. US-22. Collected 03/04/2002 in Chiapas, Mexico. Latitude 16 deg. 26' 20'' N. Longitude 92 deg. 34' 50'' W. Elevation 483 m. Nicolas Ruiz. Collected by Ricardo Gomez-B (local guide) for Ulloa and Stewart. Approx. 200 ft. from US-21. Garden of Fructoso Lopez.

PI 631004. Gossypium barbadense L.
Cultivated. US-25. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 13' 48'' N. Longitude 93 deg. 18' 25'' W. Elevation 612 m. Mpio. Villaflores, La Zona de las Cruces. Used as a windbreak for a field previously planted to corn. Eight plants ~2 m, 2-3 years old, with limited vegetative growth and fruit.

PI 631005. Gossypium barbadense L.
Cultivated. US-28. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16

deg. 17' N. Longitude 93 deg. 10' 23'' W. Elevation 587 m. Mpio. Villaflores, Col. 16 de Septiembre. Area shaded, so plants not vigorous. Three garden plants, 2 m tall. "Kidney cotton.".

PI 631006. Gossypium barbadense L.
Cultivated. US-32. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 8' 29'' N. Longitude 93 deg. 10' 27'' W. Elevation 560 m. Mpio. Villa Corzo, Col. San Pedro Buena Vista (known as Buena Vista). Along yard fence next to road. About six plants, to 3 m tall, water-stressed with terminals dying. Poor boll set. New growth with a few flowers present.

PI 631007. Gossypium barbadense L.
Cultivated. US-33. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 14' 16'' N. Longitude 93 deg. 16' 18'' W. Elevation 568 m. Mpio. Villaflores, Segunda Poniente Y Quinta Norte. Collected by Ricardo Gomez-B (local guide) from his neighbor's yard. Plants not seen by Ulloa and Stewart.

PI 631008. Gossypium barbadense L.
Cultivated. US-37. Collected 03/07/2002 in Chiapas, Mexico. Latitude 16 deg. 23' 53'' N. Longitude 93 deg. 52' 1'' W. Elevation 703 m. Mpio. Jiquipilas, Tiltepec near Reserva national. Garden plant. Single garden plant, 3 m, mostly defoliated with new leaves starting. "Kidney" seed.

PI 631009. Gossypium hirsutum L.
Cultivated. US-1. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 23' 9'' N. Longitude 98 deg. 18' 10'' W. Elevation 902 m. San Marquez, along Hwy 190. Dooryard plants. Six dooryard plants grown as curiosity. Erect with few branches; no petalspot; medium vestiture.

PI 631010. Gossypium hirsutum L.
Cultivated. US-2. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 20' 26'' N. Longitude 98 deg. 17' 13'' W. Elevation 980 m. Tehuitzingo, north side of pueblo by main road. Garden fence row. Two plants in garden fence row. No foliage.

PI 631011. Gossypium hirsutum L.
Wild. US-6. Collected in Puebla, Mexico. Latitude 18 deg. 10' 25'' N. Longitude 98 deg. 2' 47'' W. Amatitlan, along street and adjacent garden. Street and unkept garden; next to road cut as weeds. Several plants of various size. Ruderal type similar to US-1 - US-3.

PI 631012. Gossypium hirsutum L.
Cultivated. US-7. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 12' 28'' N. Longitude 98 deg. 2' 47'' W. Elevation 1146 m. Acatlan de Bravo, Calle Miguel Hidalgo (northward). Garden. Two large plants in garden handing over high wall. Plants ~15 years old.

PI 631013. Gossypium hirsutum L.
Wild. US-8. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 14' 24'' N. Longitude 98 deg. 1' 31'' W. Elevation 1170 m. Tinguistengo, 3 km N of Acatlan de Bravo. Fence row. Two plants in fence row, ~3 m tall.

PI 631014. Gossypium hirsutum L.
Wild. US-9. Collected 03/01/2002 in Oaxaca, Mexico. Latitude 16 deg. 41'

29'' N. Longitude 94 deg. 57' 13'' W. Elevation 237 m. Just S of El Mesquite along Hwy 185 from Matias Romero to La Ventosa. Below road on roadbank in full sunlight. Single plant, 3-4 years of age, 5-6 basal branches, 1.5 m long with all stages of reproduction (flowers to open bolls).

PI 631015. Gossypium hirsutum L.
Wild. US-14. Collected 03/02/2002 in Oaxaca, Mexico. Latitude 16 deg. 1' 26'' N. Longitude 95 deg. 39' 57'' W. Elevation 80 m. San Pedro Huamelula, along fence of the school yard. Along school fence, probably escaped from walled garden next to school. Large bushes (3 m) with limited branching; capsules all mature; limited vegetative growth (semi-dormant from limited water).

PI 631016. Gossypium hirsutum L.
Cultivated. US-18. Collected 03/03/2002 in Oaxaca, Mexico. Latitude 16 deg. 33' 45'' N. Longitude 94 deg. 36' 59'' W. Elevation 76 m. Niltepec,Hwy 190 E of La Ventosa, on east side of the pueblo. Dooryard plant, outside of fenced area by garden and fence. Shrub 1.5 m, new growth from older cut stem (~6-7 years old); white flowers and fibers.

PI 631017. Gossypium hirsutum L.
Cultivated. US-23. Collected 03/04/2002 in Chiapas, Mexico. Latitude 16 deg. 26' 15'' N. Longitude 92 deg. 42' 48'' W. Elevation 499 m. Mpio. Venustiana Carranza, Vicente Guerrero, Barrio El Torque. Single garden plant collected by Ricardo Gomez-B (local guide) for Ulloa and Stewart. Owner: Francisco Lopez Aguilar. Seeds like G. hirsutum. Many bolls but no leaves or flowers.

PI 631018. Gossypium hirsutum L.
Cultivated. US-24. Collected 03/04/2002 in Chiapas, Mexico. Latitude 16 deg. 26' 18'' N. Longitude 92 deg. 42' 47'' W. Elevation 496 m. Mpio. Venustiana Carranza, Vicente Guerrero, Calle Central (sin numero), una cuadra de la clinica. Single garden plant collected by Ricardo Gomez-B (local guide) for Ulloa and Stewart. Owner: Roberto de la Cruz Florez. Many leaves, squares, flowers, and green bolls. Only one open bolls.

PI 631019. Gossypium hirsutum L.
Cultivated. US-26. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 13' 18'' N. Longitude 93 deg. 16' 40'' W. Elevation 619 m. Mpio. Villaflores, Villaflores, Col. Solidaridad, en fuente de la Secundaria de El Estatal. Garden plants. Three garden plants, to 5 m, very productive with large open boll load, fiber quality good. (Possibly retained from introductions of cotton previously grown in the area.).

PI 631020. Gossypium hirsutum L.
Cultivated. US-27. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 12' 43'' N. Longitude 93 deg. 20' 10'' W. Elevation 592 m. Mpio. Villaflores, Ejido Francisco Villa. Branch sample indicated G. hirsutum.

PI 631021. Gossypium hirsutum L.
Cultivated. US-29. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 17' 43'' N. Longitude 93 deg. 10' 28'' W. Elevation 440 m. Mpio. Villaflores, Col. 16 de Septiembre. Garedn of Candelaria Diaz Perez. Small bush appearing dead but with approx. 2 dozen open bolls. Branches no more than 1 m.

PI 631022. Gossypium hirsutum L.
Cultivated. US-30. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 18' 22'' N. Longitude 93 deg. 9' 8'' W. Elevation 255 m. Mpio. Villaflores, Ejido Villa Hidalgo. Garden fence, next to street. Five plants to 2 m tall with few leaves. Bolls mostly mature.

PI 631023. Gossypium hirsutum L.
Cultivated. US-31. Collected 03/05/2002 in Chiapas, Mexico. Latitude 16 deg. 18' 21'' N. Longitude 93 deg. 9' 10'' W. Elevation 259 m. Mpio. Villaflores, Ejido Villa Hidalgo, ~200 m west of #US 30. Garden corner, next to street and house. Two plants 2.5 m tall with few leaves, no flowers, and open bolls.

PI 631024. Gossypium hirsutum L.
Cultivated. US-34. Collected 03/06/2002 in Chiapas, Mexico. Latitude 16 deg. 32' 59'' N. Longitude 92 deg. 48' 49'' W. Mpio. Acala, Col. Roberto Albores Guillen, just S of Acala-RAG bridge. Garden. Three plants 1.5 m tall. Seeds fuzzless.

PI 631025. Gossypium hirsutum L.
Wild. US-35. Collected 03/06/2002 in Chiapas, Mexico. Latitude 16 deg. 29' 34'' N. Longitude 92 deg. 58' 14'' W. Elevation 467 m. Mpio. Chiapa de Corzo, Julian Grajales. Field north of town. Along fence row that had been cut back at least twice (so plants short). Plants short from being cut back.

PI 631026. Gossypium hirsutum L.
Cultivated. US-36. Collected 03/06/2002 in Chiapas, Mexico. Latitude 16 deg. 29' 18'' N. Longitude 92 deg. 58' W. Elevation 481 m. Mpio. Chiapa de Corzo, Julian Grajales. In fence row and garden. Owner: Egrisel Nino Maldanado. Approx. 12 plants to 2.5 m tall with numerous bolls in all stages of development. Younger plants volunteering near older plants.

PI 631027. Gossypium hirsutum L.
Cultivated. US-38. Collected 03/07/2002 in Chiapas, Mexico. Latitude 16 deg. 23' 53'' N. Longitude 93 deg. 52' 1'' W. Elevation 703 m. Mpio. Jiquipilas, Ejido Tierra y Libertad. Garden. Two garden plants, 2.5 m tall. Numerous green bolls, but all bracts and foliage gone, apparently eaten by insects. New growth starting.

PI 631028. Gossypium hirsutum L.
Wild. US-39. Collected 03/07/2002 in Chiapas, Mexico. Latitude 16 deg. 5' 13'' N. Longitude 93 deg. 44' 37'' W. Elevation 91 m. Tonala, Nicolas Bravo St., 1 cuadra de Hwy 200 Business. (SE end of town before bridge.) . Garden fence plants and escapes into adjacent waste areas. Plants to 2 m, fruitful, open bolls fairly large, fiber quality seems good.

PI 631029. Gossypium hirsutum L.
Cultivated. US-40. Collected 03/07/2002 in Chiapas, Mexico. Latitude 16 deg. 13' 27'' N. Longitude 93 deg. 57' 41'' W. Elevation 49 m. Mpio. Arriaga, Hwy 200, 5.0 km W of Arriaga, Rancho Los Mangos. Garden plants and escapes in road waste area. Owner: Federico Velasquez Vasquez. Productive plants, with good quality fiber. Seeds saved and replanted every 3-4 years for 50+ years from cotton grown by owner's grandfather.

PI 631030. Gossypium hirsutum L.

Wild. US-42. Collected 03/08/2002 in Oaxaca, Mexico. Latitude 16 deg. 30' 9'' N. Longitude 95 deg. 54' 24'' W. Elevation 802 m. Mpio. Juan La Jarcia, El Coyul, along Hwy 190 (Tehuantepec-Oaxaca). Garden corner and waste area in pueblo. Two small plants 1 m tall with several branches, numerous bolls, some flowers and vegetative growth.

PI 631031. Gossypium hirsutum L.
Cultivated. US-44. Collected 03/08/2002 in Oaxaca, Mexico. Latitude 16 deg. 37' 54'' N. Longitude 96 deg. 3' 23'' W. Elevation 210 m. Mpio. Yautepec, Col. Las Animas, Calle Cristobal Colon, #7. Garden. Four garden plants to 3.5 m, plants erect, numerous open bolls, few leaves.

PI 631032. Gossypium hirsutum L.
Wild. US-45. Collected 03/08/2002 in Oaxaca, Mexico. Latitude 16 deg. 37' 54'' N. Longitude 96 deg. 3' 23'' W. Elevation 785 m. Mpio. Yautepec, along Hwy 190 (Tehuantepec-Oaxaca) approx. 2 km NE of El Camaron. Roadside. One roadside plant, 1 m tall, with numerous open bolls but no leaves.

PI 631033. Gossypium hirsutum L.
Cultivated. US-47. Collected 03/10/2002 in Oaxaca, Mexico. Latitude 16 deg. 34' 47'' N. Longitude 96 deg. 44' 9'' W. Elevation 1350 m. Mpio. San Miguel Ejutla, San Miguel, 1 km N of Ejutla, Hwy 175 S of Oaxaca. Codigo 71588. Fence row of yard owned by Artemio Ramirez. One plant 3-4 m, numerous bolls, but no flowers or foliage.

PI 631034. Gossypium hirsutum L.
Wild. US-48A. Collected 03/10/2002 in Oaxaca, Mexico. Latitude 16 deg. 19' 24'' N. Longitude 96 deg. 35' 18'' W. Elevation 1415 m. Mpio. Miahuatlan, Col. La Chindoo, along Hwy 175 S of Oaxaca. A large (4 m), old plant with normal leaf shape next to old plant with okra leaves (US-48B). A few flowers but open bolls scarse. Out-crossing with adjacent plant likely, but seeds are of maternal origin from this plant.

PI 631035. Gossypium hirsutum L.
Wild. US-48B. Collected 03/10/2002 in Oaxaca, Mexico. Latitude 16 deg. 19' 24'' N. Longitude 96 deg. 35' 18'' W. Elevation 1415 m. Mpio. Miahuatlan, Col. La Chindoo, along Hwy 175 S of Oaxaca. Along highway. Race palmeri. Old plant, 5 m, small bolls; productive. No flowers and few leaves. Adjacent to US-48A. this seed lot is probably a mix from the two plants, but predominately okra-leaf maternal.

PI 631036. Gossypium hirsutum L.
Wild. US-49. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 43' 26'' N. Longitude 96 deg. 28' 57'' W. Elevation 190 m. Mpio. Pochutla, Camino al Zapotal, 0.8 km W of jct. Pochutla-Puerto Angel road (Hwy 175). Road-side weedy area. A single plant, 1 m tall, race palmeri type with okra leaves. Probably an escape from US-50 site.

PI 631037. Gossypium hirsutum L.
Cultivated. US-50. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 43' 18'' N. Longitude 96 deg. 29' 37'' W. Elevation 207 m. Mpio. Pochutla, El Zapotal; 2 km W of Puerto Angel-Pochutla road (Hwy 175). Rural house lot. Owner: Adrian Reyes Carreno. Race palmeri. Six plants scattered about lot. Largest plant ~5 m tall, many bolls. Regrowth from older plant destroyed by hurricane 5 years previously.

PI 631038. Gossypium hirsutum L.
Cultivated. US-51. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 43' 51'' N. Longitude 96 deg. 32' 7'' W. Elevation 90 m. Mpio. Pochutla, Llano Grande Tonameca. Along Hwy 200 6.8 km W of jct with Hwy 175. In animal lot next to residence. Race palmeri. Nine plants of various ages, the tallest ~5 m; many bolls, some flowers and fruit.

PI 631039. Gossypium hirsutum L.
Wild. US-52. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 43' 52'' N. Longitude 96 deg. 41' 4'' W. Elevation 40 m. Mpio. Tonameca, Macahuitle, along Hwy 200, 22.6 km W of jct. with Hwy 175. Along highway. One roadside plant, 2.5 m. Normal leaf shape with heavy vestiture.

PI 631040. Gossypium hirsutum L.
Wild. US-53. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 43' 42'' N. Longitude 96 deg. 42' 24'' W. Elevation 39 m. Mpio. Tonameca, along Hwy 200, 27 km W of jct. with Hwy 175. Weedy, roadside area. Two plants, 1-1.5 m tall. Leaves normal shape, plant hairy. Only a few remnant leaves remaining.

PI 631041. Gossypium hirsutum L.
Wild. US-54. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 43' 40'' N. Longitude 96 deg. 43' 44'' W. Elevation 48 m. Mpio. Tonameca, Escobilla Cozoatepec. Fence of Escuela Prim. Rural Fed. Lazaro Cardenas del Rio. Race palmeri. Three meter plant with many open bolls; no foliage or flowers.

PI 631042. Gossypium hirsutum L.
Wild. US-55. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 44' 15'' N. Longitude 96 deg. 45' 52'' W. Elevation 46 m. Mpio. Tonameca, La Barra de El Potrero, along Hwy 200 W of Pochutla. In fence row being used as a fence post. Race palmeri. Plant 3-4 m tall with no flowers and little foliage.

PI 631043. Gossypium hirsutum L.
Wild. US-56. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 45' 45'' N. Longitude 95 deg. 49' 50'' W. Elevation 48 m. Mpio. Tonameca, Santa Elena, along Hwy 200 W of Pochutla. In yard fence. One plant 2 m tall. Leaf shape normal, plant hairy.

PI 631044. Gossypium hirsutum L.
Wild. US-57. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 48' 55'' N. Longitude 97 deg. 0' 31'' W. Elevation 78 m. Mpio. Tonameca, Barra de Navidad, ~5 km E of Puerto Escondido. Roadside waste area with largest plant (~5 m) on a trash heap. All plants heavily fruited.

PI 631045. Gossypium hirsutum L.
Wild. US-58. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 15 deg. 51' 8'' N. Longitude 97 deg. 3' 18'' W. Elevation 6 m. Puerto Escondido, Playa Zicatela, by Restaurant Elizabeth, next to beach. Weedy area next to beach road. Race palmeri. Numerous plants ~2m tall with numerous bolls; no foliage.

PI 631046. Gossypium hirsutum L.
Landrace. US-59. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 16 deg. 27' 38'' N. Longitude 97 deg. 57' 15'' W. Elevation 470 m. Mpio.

Jamiltepec, San Juan Colorado. Landrace dated to the area at least 70 years; cotton grown by co-op members for hand-spinning cottage industry.

PI 631047. Gossypium hirsutum L.
Wild. US-60. Collected 03/11/2002 in Oaxaca, Mexico. Latitude 16 deg. 27' 35'' N. Longitude 97 deg. 57' 14'' W. Elevation 470 m. Mpio. Jamiltepec, San Juan Colorado, in yard of Centro de Salud next to City Hall. Race palmeri. Single plant ~3 m tall. Many open bolls with leaves present.

PI 631048. Gossypium hirsutum L.
Wild. US-61. Collected 03/12/2002 in Oaxaca, Mexico. Latitude 16 deg. 20' 50'' N. Longitude 98 deg. 13' 19'' W. Elevation 80 m. Lagunilla, along Hwy 200, 22.3 km W of Pinotepa Nacional. House fence row by road. Race palmeri. Single plant ~4 m tall.

PI 631049. Gossypium hirsutum L.
Wild. US-62. Collected 03/12/2002 in Oaxaca, Mexico. Latitude 16 deg. 40' 43'' N. Longitude 98 deg. 27' 26'' W. Elevation 230 m. Las Vigas, 8 km N of San Juan de los Llanos on Ometepec road. Yard waste area. Race palmeri. Three plants of different ages ranging from 1.5 to 3 m tall. Very little foliage but many bolls and a few flowers.

PI 631050. Gossypium hirsutum L.
Wild. US-63. Collected 03/12/2002 in Guerrero, Mexico. Latitude 16 deg. 35' 37'' N. Longitude 98 deg. 55' 25'' W. Elevation 60 m. Along Hwy 200 at turn-off to Playa Ventura. House fence-row next to road. Four large plants scattered along fence, the largest ~4 m tall, all with many open bolls and no foliage or flowers.

PI 631051. Gossypium hirsutum L.
Wild. US-64. Collected 03/12/2002 in Guerrero, Mexico. Latitude 16 deg. 47' 16'' N. Longitude 99 deg. 38' 39'' W. Elevation 120 m. Along Hwy 200, 1.9 km E of San Antonio. Roadside trash heap and adjacent weedy area. Small bushes 2.5 m tall, flowers small and yellow with petal spot; very little foliage but many open bolls.

PI 631052. Gossypium hirsutum L.
Wild. US-69. Collected 03/13/2002 in Guerrero, Mexico. Latitude 17 deg. 33' 3'' N. Longitude 99 deg. 38' 29'' W. Elevation 1245 m. Along Hwy 95, 3.6 km N of Chilpancingo. Roadside waste area with trash dump. Race palmeri. Single large bush 3.0-3.5 m tall, heavily laden with open bolls.

PI 631053. Gossypium hirsutum L.
Cultivated. US-71. Collected 03/14/2002 in Guerrero, Mexico. Latitude 18 deg. 20' 37'' N. Longitude 99 deg. 30' 12'' W. Elevation 782 m. Iguala, Genetic nursery (near INIFAP Station) of Facultad de Ciencias Agricola y Ambientates de Universidad Autonoma de Guerrero. Old nursery of Mexican cotton. Single plant, ~2.5 m, open bolls, normal leaf shape. Origin unknown, but remnant of old nursery of Mexican cotton (only plant remaining). Fiber light brown.

PI 631054. Gossypium hirsutum L.
Wild. US-73. Collected 03/15/2002 in Guerrero, Mexico. Latitude 16 deg. 54' 15'' N. Longitude 99 deg. 58' 36'' W. Elevation 21 m. Street along Playa Pie de la Cuesta west of Acapulco. Fence row of beach house facing

street. Owner waters occasionally. Race palmeri. Single plant, 2 m tall. Numerous open bolls. Volunteer plant.

PI 631055. Gossypium hirsutum L.
Wild. US-74. Collected 03/16/2002 in Guerrero, Mexico. Latitude 17 deg. 8' 30'' N. Longitude 100 deg. 23' 47'' W. Elevation 29 m. Col. La Laja, along Hwy 200 between Acapulco and Zihuantanejo. Foot path in front of residences. Single plant, 1.5 m tall with normal leaf shape and numerous open bolls.

PI 631056. Gossypium hirsutum L.
Wild. US-75. Collected 03/16/2002 in Guerrero, Mexico. Latitude 17 deg. 8' 30'' N. Longitude 100 deg. 23' 47'' W. Elevation 29 m. Col. La Laja, along Hwy 200 between Acapulco and Zihuantanejo. Roadside waste area near road, approx. 150 ft. from US-74 plant. Race palmeri. Single plant, 1.3 m tall with open bolls and flowers.

PI 631057. Gossypium hirsutum L.
Wild. US-77. Collected 03/16/2002 in Guerrero, Mexico. Latitude 17 deg. 12' 27'' N. Longitude 100 deg. 42' 20'' W. Elevation 39 m. Along Hwy 200, 39.5 km NW of jct. with Hwy 196. Roadside waste area. Race palmeri. Single plant 2.5 m tall, many open bolls, some foliage, no flowers.

PI 631058. Gossypium hirsutum L.
Wild. US-79. Collected 03/16/2002 in Guerrero, Mexico. Latitude 17 deg. 41' 43'' N. Longitude 101 deg. 36' 34'' W. Elevation 25 m. Along Hwy 200 at Km 11 marker NW of Zihuantanejo toward Lazaro Cardenas. Four plants, ~3 m tall, many open bolls, very few leaves, no flowers.

PI 631059. Gossypium hirsutum L.
Wild. US-82. Collected 03/17/2002 in Guerrero, Mexico. Latitude 18 deg. 3' 14'' N. Longitude 101 deg. 56' 20'' W. Elevation 154 m. Along new Hwy 37, 6.3 km N of jct. with Hwy 200. Roadside weedy area. Race palmeri. Single plant, 2 m tall, many open bolls, little foliage, no flowers.

PI 631060. Gossypium hirsutum L.
Wild. US-85. Collected 03/17/2002 in Michoacan, Mexico. Latitude 18 deg. 59' 29'' N. Longitude 102 deg. 8' 34'' W. Elevation 371 m. Hwy to Apatzingan, 3 km W of jct. of Hwys 37 and 129. Roadside weedy area. Race palmeri. Five plants to 2 m clustered together. All stages of fruiting; foliage subokra rather than the typical palmeri leaf type.

PI 631061. Gossypium gossypioides (Ulbr.) Standl.
Wild. US-43. Collected 03/08/2002 in Oaxaca, Mexico. Latitude 16 deg. 31' 28'' N. Longitude 95 deg. 55' 43'' W. Elevation 1130 m. Mpio. Juan La Jarcia, along Hwy 190 (Tehuantepec-Oaxaca), 2 km NE of El Coyul. Dry forest, primarily deciduous vegetation, some pines in area. Above and below the hwy through mountainous area. Numerous small trees to 4-5 m, defoliated but retaining some capsules and seeds. Fruiting structures generally abscise at maturity but late capsules remain in the plant. Although the capsules reflex completely at maturity, the seeds remain clustered on the capsule.

PI 631062. Gossypium gossypioides (Ulbr.) Standl.
Wild. US-46. Collected 03/08/2002 in Oaxaca, Mexico. Latitude 16 deg. 41' 57'' N. Longitude 96 deg. 11' 29'' W. Elevation 1050 m. Rio Grande

canyon slope along Hwy 190 (Tehuantepec-Oaxaca), 13.7 km SE of San Juan Guegoyache. Mostly deciduous vegetation on rocky soil. Elevation appears to be critical to the distribution of this species. It was not seen below 1000 m. Medium trees to 7-8 m tall with no foliage but some capsules remaining.

PI 631063. Gossypium laxum L. Ll. Phillips
Wild. US-65. Collected 03/13/2002 in Guerrero, Mexico. Latitude 17 deg. 48' 41'' N. Longitude 99 deg. 33' 40'' W. Elevation 708 m. Canon de Zopilote along Hwy 95, 1.5 km N of jct with Filo de Caballo road. On Road escarpment and sides of an arroyo perpendicular to hwy. Small trees 4-5 m tall in deciduous woodland; without foliage, capsules persistent, hard, with some seed remaining. A few flowers found.

PI 631064. Gossypium laxum L. Ll. Phillips
Wild. US-66. Collected 03/13/2002 in Guerrero, Mexico. Latitude 17 deg. 53' 51'' N. Longitude 99 deg. 34' 46'' W. Elevation 575 m. Canon de Zopilote N of Zumpango along Hwy 95, 13 km N of jct with road to Filo de Caballo. Road embankment. Plants frequently seen from this point northward on Hwy 95 to Mezcala. Small trees 4-5 m tall in deciduous vegetation; without foliage, capsules persistent, hard, with some seed remaining.

PI 631065. Gossypium laxum L. Ll. Phillips
Wild. US-67. Collected 03/13/2002 in Guerrero, Mexico. Latitude 17 deg. 55' 22'' N. Longitude 99 deg. 37' 2'' W. Elevation 560 m. Along dirt road W of Mezcala, 3.7 km W of jct of Mezcala Road and Hwy 95. On banks above and below road along river. Four small trees; a few flowers present.

PI 631066. Gossypium laxum L. Ll. Phillips
Wild. US-68. Collected 03/13/2002 in Guerrero, Mexico. Latitude 17 deg. 57' 48'' N. Longitude 99 deg. 31' 59'' W. Elevation 724 m. Along road to San Juan Tetelcingo, 7 km NE jct. with Hwy 95. Road embankment and small draw in deciduous forest. Trees to 6 m tall, without foliage, capsules persistent, hard, with some seed remaining.

PI 631067. Gossypium laxum L. Ll. Phillips
Wild. US-70. Collected 03/14/2002 in Guerrero, Mexico. Latitude 17 deg. 54' 38'' N. Longitude 99 deg. 22' 55'' W. Elevation 810 m. Along Carretera de Sol at Km marker 223, 40 km N of Chilpancingo. Small knoll E of hwy. Trees 4-4.5 m. No foliage except small regrowth, many open capsules and occasional flower.

PI 631068. Gossypium lobatum Gentry
Wild. US-86. Collected 03/18/2002 in Michoacan, Mexico. Latitude 19 deg. 4' 44'' N. Longitude 102 deg. 4' 1'' W. Elevation 374 m. Puente de El marquez, 8 km N of Nueve Italia along Hwy. 37. Steep canyon walls and scree slope of canyon. Numerous small trees 5-6 m, no leaves except some regrowth. Many capsules just dehiscing (ideal time for seed collection).

PI 631069. Gossypium schwendimanii Fryxell & S. D. Koch
Wild. US-83. Collected 03/17/2002 in Michoacan, Mexico. Latitude 18 deg. 20' 41'' N. Longitude 101 deg. 53' 51'' W. Elevation 207 m. Along Hwy 37 (old hwy), 10.4 km N from the Infernillo bridge (new bridge). Wooded ravine bank by road. Trees to 10 m with flowers and capsules. Many

immature capsules but little foliage. Seeds shed soon after dehiscence so seed hard to find. Aspect of G. schwendimanii but also of G. aridum, esp. the capsules. Intermediate?.

PI 631070. Gossypium schwendimanii Fryxell & S. D. Koch
Wild. US-84. Collected 03/17/2002 in Michoacan, Mexico. Latitude 18 deg. 21' 39'' N. Longitude 101 deg. 53' 58'' W. Elevation 340 m. Along Hwy 37 (old hwy), 12.3 km N from the Infernillo bridge (new bridge). Washes and drainage areas along mountain slopes by road. Small trees. Many flowers but few capsules. Some foliage remaining.

PI 631071. Gossypium hirsutum L.
Wild. US-3. Collected 02/28/2002 in Puebla, Mexico. Latitude 18 deg. 6' 14'' N. Longitude 98 deg. 18' 44'' W. Elevation 885 m. Tecomatlan, south side of pueblo by main road. On Roadbank in overgrown area between road and house garden (escaped?).

The following were developed by A.K. Singh, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; 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; J. P. Moss, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh, India; D.C. Sastri, House #24, Sri Venkateswara Colony, Secunderabad, India; S. Pande, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 05/02/2002.

PI 631072 QUAR. Arachis hypogaea L.
Cultivar. "ICGV 99001". GP-118. Pedigree - Arachis hypogaea / A. villosa . Decumbent 2 growth habit; sequential branching and medium sized elliptic green leaves. 1-2-3 seeded pods. Resistant to late leaf spot.

PI 631073 QUAR. Arachis hypogaea L.
Cultivar. "ICGV 99003". GP-119. Pedigree - Arachis hypogaea / [A. duranensis / A. stenosperma]. Decumbent 3 growth, alternate branching and small elliptic dark green leaves. 2-1-3 seeded pods; resistant to rust.

PI 631074 QUAR. Arachis hypogaea L.
Cultivar. "ICGV 99004". GP-120. Pedigree - Arachis hypogaea / A. cardenasii. Decumbent 3 growth habit; sequential branching, medium sized elliptic green leaves. 2-1 seeded pods; resistant to late leaf spot.

PI 631075 QUAR. Arachis hypogaea L.
Cultivar. "ICGV 99005". GP-121. Pedigree - Arachis hypogaea / [A. batizocoi / A. duranensis]. Decumbent 2 growth habit; alternate branching, medium sized elliptic green leaves. 2-1-3 seeded pods; resistant to rust.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 05/02/2002.

PI 631076 PVPO. Poa pratensis L.

Cultivar. "ROYALE". PVP 200200136.

The following were developed by Pennington Seeds, Inc., United States. Received 05/02/2002.

PI 631077 PVPO. Poa pratensis L.
Cultivar. "MONTE CARLO". PVP 200200137.

The following were developed by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Steven Temple, University of California, Department of Agronomy & Range, 183 Hunt Hall, Davis, California 95616, United States; Weidong Chen, USDA, ARS, Washington State University, 303 Johnson Hall, Pullman, Washington 99164, United States. Received 05/02/2002.

PI 631078. Cicer arietinum L.
Cultivar. "SIERRA"; CA9783152. CV-226; PVP 200200123. Pedigree - Originated as an F8 selection from the cross Dwelley//FLIP85-58/Spanish White made in 1992. Dwelley is a unifoliate Kabuli type cv. that was developed for resistance to ascochyta blight. FLIP85-58 is an ascochyta blight resistant germplasm line provided by ICARDA, Aleppo, Syria. Spanish White is a white seeded cv. with exceptionally large seed size and a preferred type in Spain. Progenies from the cross were advanced by the pedigree method to the F8 with selection for seed size and color in each generation. Ascochyta blight resistance was assessed in the disease nursery that was established at the Washington State University Spillman Research Farm located near Pullman, WA. Evaluations for ascochyta blight resistance were made in the F3, F5 and F7 in 1994, 1995, and 1996, respectively. In the final year of screening, disease scores indicated improved resistance to ascochyta blight when compared to earlier released cvs. Sanford and Dwelley. The improved resistance to ascochyta blight was the primary reason for release.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 05/02/2002.

PI 631079 PVPO. Zea mays L. **subsp. mays**
Cultivar. "LH247". PVP 200200124.

The following were developed by D&PL Technology Holding Corp., United States. Received 05/02/2002.

PI 631080 PVPO. Gossypium hirsutum L.
Cultivar. "PM 2167 RR". PVP 200200118.

PI 631081 PVPO. Gossypium hirsutum L.
Cultivar. "PM 2344 BG/RR". PVP 200200119.

PI 631082 PVPO. Gossypium hirsutum L.
Cultivar. "PM 2266 RR". PVP 200200120.

The following were developed by American Takii, Inc., United States. Received 05/02/2002.

PI 631083 PVPO. Lactuca sativa L.
Cultivar. "LETTUCE D". PVP 200200132.

The following were developed by Brotherton Seed Company, P.O. Box 1378, Moses Lake, Washington, United States. Received 05/02/2002.

PI 631084 PVPO. Pisum sativum L.
Cultivar. "NIKKI". PVP 200200128.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 05/02/2002.

PI 631085 PVPO. Brassica napus L.
Cultivar. "45A77". PVP 200200122.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 05/02/2002.

PI 631086 PVPO. Glycine max (L.) Merr.
Cultivar. "92B14". PVP 200200131.

The following were developed by Kansas Agricultural Experiment Station, Fort Hays Branch Sta., Hays, Kansas 67601, United States. Received 05/02/2002.

PI 631087 PVPO. Triticum aestivum L.
Cultivar. "2145". PVP 200200133.

The following were developed by Syngenta Seeds, Inc., United States. Received 05/02/2002.

PI 631088 PVPO. Triticum aestivum L.
Cultivar. "COKER 9152". PVP 200200134.

PI 631089 PVPO. Triticum aestivum L.
Cultivar. "COKER 9184". PVP 200200135.

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States. Received 04/01/2002.

PI 631090. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 302. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (52 vs 103 cm), test wt. (756 vs. 819 g/L), kernel wt. (29 vs. 37 mg), kernels/spike (37 vs. 28), spike no. (532 vs. 471 m2), harvest index (45

vs. 36), heading date (156 vs. 153 d), lodging (1 vs. 65%). Similar to Brevor for grain yield. Comparisons based on 3 to 6 SYs.

PI 631091. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 303. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (52 vs. 103 cm), grain yield (499 vs. 517 g/m2), test wt. (751 vs. 819g/L), kernel wt. (29 vs. 37 mg.), kernels/spike (36 vs. 28), spike no. (519 vs. 471 m2), harvest index (43 vs. 36), heading date (155 vs. 153 d), lodging (3 vs. 65%). Comparisons based on 3 to 6 SYs.

PI 631092. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 304. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (52 vs 103 cm), test wt. (765 vs. 819 g/L), kernel wt. (30 vs. 37 mg), kernels/spike (41 vs. 28), spike no. (513 vs. 471 m2), harvest index (46 vs. 36), heading date (155 vs. 153 d), lodging (3 vs. 65%). Similar to Brevor for grain yield. Comparisons based on 3 to 6 SYs.

.

PI 631093. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 305. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (53 vs 103 cm), grain yield (478 vs 517 g/m2), test wt. (777 vs. 819 g/L), kernel wt. (30 vs. 37 mg), kernels/spike (36 vs. 28), spike no. (499 vs. 471 m2), harvest index (42 vs. 36), heading date (156 vs. 153 d), lodging (1 vs. 65%). Comparisons based on 3 to 6 SYs

.

PI 631094. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 306. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (51 vs 103 cm), test wt. (744 vs. 819 g/L), kernel wt. (31 vs. 37 mg), kernels/spike (38 vs. 28), harvest index (43 vs. 36), heading date (155 vs. 153 d), lodging (1 vs. 65%). Similar to Brevor for grain yield. Comparisons based on 3 to 6 SYs.

PI 631095. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 307. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and Rht2 genes for reduced plant height

derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (52 vs 103 cm), test wt. (779 vs. 819 g/L), kernel wt. 31 vs. 37 mg), kernels/spike (36 vs. 28), spike no. (508 vs. 471 m2), harvest index (43 vs. 36), heading date (155 vs. 153 d), lodging (1 vs. 65%). Similar to Brevor for grain yield. Comparisons based on 3 to 6 SYs.

.

PI 631096. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 309. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and rht2 genes for reduced plant height derived from Brevor. A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht1 ht. genes). Similar phenotypically to Brevor. Equal to Brevor for plant ht., test wt., kernel wt., kernels/spike, spike no., harvest index, heading date, lodging. Comparisons based on 3 to 6 SYs.

PI 631097. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 311. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and rht2 genes for reduced plant height derived from Brevor. A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Equal to Brevor for grain yield, test wt., kernel wt., kernels/spikes, harvest index, heading date, lodging. Different from Brevor for plant ht. (107 vs. 103 cm) and spike no. (431 vs. 471 m2). Comparisons based on 3 to 6 SYs.

PI 631098. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 312. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and rht2 genes for reduced plant height derived from Brevor. A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Equal to Brevor for test wt., kernel wt., kernels/spikes, spike no., harvest index, heading date, lodging. Different from Brevor for plant ht. (107 vs. 103 cm) and grain yield (481 vs. 517 g/m2). Comparisons based on 3 to 6 SYs.

.

PI 631099. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 313. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and rht2 genes for reduced plant height derived from Brevor. A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for grain yield (487 vs. 517 g/m2), spike no. (436 vs. 471 m2). Similar to Brevor for plant ht., test wt., kernel wt., kernels/spikes, harvest index, heading date, and lodging. Comparisons based on 3 to 6 SYs.

.

PI 631100. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 314. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and rht2 genes for reduced plant height

derived from Brevor. A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for kernels/spike (32 vs. 28), spike no. (411 vs. 471 m2). Similar to Brevor for
plant ht., grain yield, test wt., kernel wt., heading date, harvest index and lodging. Comparisons based on 3 to 6 SYs.

PI 631101. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 315. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and rht2 genes for reduced plant height derived from Brevor. A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Similar to Brevor for plant ht., grain yield, test wt., kernel wt., kernels/spike, spike no., harvest index, heading date, lodging. Comparisons based on 3 to 6 SYs.

PI 631102. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 319. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (82 vs. 103 cm), grain yield (604 vs. 517 g/m2), kernels/spike (41 vs. 28), harvest index (43 vs. 36), lodging (16 vs. 65%). Similar to Brevor for test wt., kernel wt., spike no., heading date. Comparisons based on 3 to 6 SYs.

.

PI 631103. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 320. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (83 vs. 103 cm), grain yield (634 vs. 517 g/m2), kernels/spike (39 vs. 28), harvest index (43 vs. 36), lodging 22 vs. 65%). Similar to Brevor for test wt., kernel wt., spike no., heading date. Comparisons based on 3 to 6 SYs.

PI 631104. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 321. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (82 vs. 103 cm), grain yield (611 vs. 517 g/m2), test wt. (811 vs. 819 g/L), kernels/spike (35 vs. 28), harvest index (41 vs. 36), lodging (21 vs. 65%). Similar to Brevor for kernel wt., spike no., heading date. Comparisons based on 3 to 6 SYs.

PI 631105. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 322. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and Rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar

phenotypically to Brevor. Differing from Brevor for plant ht. (83 vs. 103 cm), grain yield (596 vs. 517 g/m2), test wt. (804 vs. 819 g/L), kernel wt. (34 vs 37 mg), kernels/spike (42 vs. 28), spike no. (449 vs. 471 m2), harvest index (43 vs. 36), lodging (17 vs. 65%). Similar to Brevor for heading date. Comparisons based on 3 to 6 SYs.

.

PI 631106. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 328. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (82 vs. 103 cm), grain yield (614 vs. 517 g/m2), test wt. (802 vs. 819 g/L), kernels/spike (37 vs. 28), harvest index (43 vs. 36), lodging (24 vs. 65%). Similar to Brevor kernel wt., spike no., and heading date. Comparisons based on 3 to 6 SYs.

PI 631107. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 334. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having rht1 and Rht2 genes for reduced plant height derived from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (82 vs. 103 cm), grain yield (599 vs. 517 g/m2), test wt. (793 vs. 819 g/L), kernels/spike (38 vs. 28), harvest index (43 vs. 36), lodging (20 vs. 65%). Similar to Brevor for kernel wt., spike no., and heading date. Comparisons based on 3 to 6 SYs.

.

PI 631108. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 345. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (86 vs. 103 cm), grain yield (600 vs. 517 g/m2), kernel wt. (34 vs. 37 mg), Kernels/spike (36 vs. 28), harvest index (39 vs. 36), lodging (38 vs. 65%). Similar to Brevor for test wt., spike no., and heading date. Comparisons based.

PI 631109. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 347. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (88 vs. 103 cm), grain yield (618 vs. 517 g/m2), test wt. (804 vs. 819 g/L), kernels/spike (34 vs. 28), harvest index (40 vs. 36), lodging (30 vs. 65%). Similar to Brevor for kernel wt., spike no., and heading date. Comparisons based on 3 to 6 SYs.

PI 631110. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 352. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically like Brevor. Differing from Brevor for plant ht. (86 vs. 103 cm), grain yield (597 vs. 517 g/m2), kernels/spike (35 vs. 28), spike no. (486 vs. 471 m2), harvest index (39 vs. 36), loding (31 vs. 65%). Similar to Brevor for test wt., kernel wt., and heading date. Comparisons based on 3 to 6 SYs.

PI 631111. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 355. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Similar phenotypically to Brevor. Differing from Brevor for plant ht. (85 vs. 103 cm), grain yield (591 vs. 517 g/m2), kernels/spike (32 vs,. 28), harvest index (39 vs. 36), lodging (37 vs. 65%). Similar to Brevor for test wt., kernel wt., spike no., and heading date. Comparisons based on 3 to 6 SYs.

PI 631112. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 362. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (87 vs. 103 cm), grain yield (644 vs. 517 g/m2), test wt. (810 vs 819 g/L), kernels/spike (34 vs. 28), spike no. (530 vs. 471m2), harvest index (41 vs. 36), lodging (31 vs. 65%). Similar to Brevor for kernel wt. and heading date. Comparisons based on 3 to 6 SYs.

.

PI 631113. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS92 364. Pedigree - Norin 10/Brevor 14//7*Brevor. Near isoline (NIL) having Rht1 and rht2 genes for reduced plant height from Norin 10/Brevor 14 (CI 13253). A BC6 F8:4 NIL of Brevor (CI 12385, a soft white winter awnless cv. with rht1 and rht2 ht. genes). Fully awned NIL otherwise phenotypically like Brevor. Differing from Brevor for plant ht. (87 vs. 103 cm), grain yield (617 vs. 517 g/m2), test wt. (813 vs. 819 g/L), kernels/spike (34 vs. 28), harvest index (39 vs. 36), lodging (41 vs. 65%). Similar to Brevor for kernel wt., spike no., heading date. Comparisons based on 3 to 6 SYs.

The following were collected by Max E. Patterson, Washington State University, Department of Horticulture and Landscape Architecture, Rm 149 Johnson Hall, Pullman, Washington 99164-6414, United States. Received 05/13/1996.

PI 631114. Phaseolus vulgaris L.
Cultivated. MP-2; W6 17937. Collected 05/05/1996 in Trabzon, Turkey. Russian covered market in town of Trabzon.

PI 631115. Phaseolus vulgaris L.

Cultivated. MP-4; W6 17939. Collected 05/05/1996 in Trabzon, Turkey. Russian covered market in town of Trabzon. Cranberry type.

PI 631116. Phaseolus vulgaris L.
Cultivated. MP-5; W6 17940. Collected 05/05/1996 in Trabzon, Turkey. Russian covered market in town of Trabzon. White bean (Great Northern type), bruchid damage.

PI 631117. Phaseolus vulgaris L.
Cultivated. MP-6; W6 17941. Collected 05/05/1996 in Trabzon, Turkey. Russian covered market in town of Trabzon. Purple Andean, "Black bean".

PI 631118. Phaseolus vulgaris L.
Cultivated. MP-8; W6 17943. Collected 05/07/1996 in Ankara, Turkey. Old City Market in town of Ankara.

PI 631119. Phaseolus vulgaris L.
Cultivated. MP-7; W6 17945. Collected 05/07/1996 in Ankara, Turkey. Old City Market in town of Ankara. 'Red bean'.

PI 631120. Phaseolus vulgaris L.
Cultivated. MP-11; W6 17946. Collected 05/05/1996 in Nevsehir, Turkey. White bean, navy type.

PI 631121. Phaseolus vulgaris L.
Cultivated. MP-13; W6 17948. Collected 05/05/1996 in Nevsehir, Turkey. Red/pinto type. Andean.

The following were developed by Fred Allen, University of Tennessee, Plant Science & Landscape Systems, 252 Ellington Hall, Knoxville, Tennessee 37901-1071, United States; Vincent R. Pantalone, University of Tennessee, Dept. of Plant and Soil Science, Knoxville, Tennessee 37901-1071, United States; D. Landau-Ellis, University of Tennessee, Dept. of Plant and Soil Sciences, P.O. Box 1071, Knoxville, Tennessee 37901-1071, United States. Received 04/17/2002.

PI 631122. Glycine max (L.) Merr.
Cultivar. TN93-99. GP-280. Pedigree - Hutcheson x [(TN85-55 x TN 5-85)]. Seed yield 3192 kg ha-1, with 208 g kg-1 seed oil, 416 g kg-1 seed protein, and 13.3 g 100 seeds-1. Flowers white, gray pubescence, tan podwall and a determinate growth habit. Seeds yellow with buff hila. Resistant to stem canker (Diaporthe phaseolorum), and soybean mosaic. Susceptible to soybean cyst nematode (Heterodera glycines) and sudden death syndrome (Fusarium solani).

The following were developed by Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 05/02/2002.

PI 631123. Glycine max (L.) Merr.
Breeding. Pureline. TW98-1. GS-38. Pedigree - T135xPI 83945-4) x [[(Wilson 6 x Forrest) x (Perry x L76-0253)]xBSR201]. High frequency of twinspots on the foliage during the juvenile stage. Released to provide an experimental tool for plant geneticists studying the phenomenon of twinspots and somatic crossing over. The phenomenon of twinspots is

rarely observed in plant species. Exceptionally high frequency of this phenomenon. Carries the f allele conditioning fasciated stem and the y9 allele, which in homozygous mode conditions bright yellow green colored leaves rather than normal dark green colored leaves. The twinspots are apparent on the upper surfaces of the unifoliolate and early trifoliolate leaves during the juvenile growth period. The twinspots are immediately adjacent sectors differing in color with a dark green sector bordering a white sector. A greenhouse test has shown the number of twinspots per leaf to average 1.18 for the unifoliolate leaves, 4.7 for the first trifoliolate leaves, 1.27 for the second trifoliolate leaves and 0.30 for the third trifoliolate leaves.

The following were developed by HZPC Holland B.V., Netherlands. Received 05/14/2002.

PI 631124 PVPO. Solanum tuberosum L.
Cultivar. "VICTORIA". PVP9900181.

PI 631125 PVPO. Solanum tuberosum L.
Cultivar. "VIVALDI". PVP 9900180.

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 631126. Capsicum annuum L.
Grif 974.

PI 631127. Capsicum annuum L.
Grif 975.

The following were donated by G. F. Govorova, Krymsk Experimental Breeding Station, Immunity Laboratory, VIR, Krymsk, Krasnodar 353330, Russian Federation. Received 10/05/1992.

PI 631128. Capsicum annuum L.
Grif 1248; KAPITOSHKA.

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 631129. Capsicum annuum L.
Cultivated. B92-68; "Djelenska shipka"; W6 10748; Grif 1547. Collected 06/30/1992 in Bulgaria. Dobrich market, grown in region near Chirpan. Hot pepper. Fruit red and beginning to dry.

PI 631130. Capsicum annuum L.
Cultivated. B92-69; W6 10749; Grif 1548. Collected 06/30/1992 in Bulgaria. Pazar market, Dobrich. Grown in Christo Milevo Village near Plovdiv. Hot pepper. Fruit red and beginning to dry.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy. Received 09/28/1992.

PI 631131. Capsicum annuum L.
1235; Grif 1570. Collected 1988 in Yemen. PDR South Yemen.

The following were donated by Vegetable and Potato Research Institute, Tirana, Albania. Received 11/30/1994.

PI 631132. Capsicum annuum L.
"Kosova"; Grif 12453.

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 631133. Capsicum annuum L.
Cultivated. Al 081; Hot Turkish pepper; Grif 14001. Collected 08/28/1996 in Albania. Latitude 40 deg. 37' 11'' N. Longitude 20 deg. 46' 56'' E. Elevation 320 m. Korce, market. Fruit bright red, 2.5-3cm diameter.

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

PI 631134. Capsicum frutescens L.
Wild. WWA-1414; diente de perro; NGRL 254; Grif 14084. Collected 11/22/1997 in San Marcos, Guatemala. Latitude 14 deg. 54' 38'' N. Longitude 92 deg. 3' 21'' W. Elevation 500 m. Malacatan, Malacatan. Market. Cultivated. From Canton Santo Domingo, Malacatan. Semi-cultivated in dooryard garden. Plant said to be 1.5 m tall. Leaves narrow. Fruits 2 cm long, 1/2 cm wide, green, turning orange, calyx margin intermediate, oblong.

PI 631135. Capsicum frutescens L.
Wild. WWA-1416; chiltepe; NGRL 255; Grif 14085. Collected 11/22/1997 in Retalhuleu, Guatemala. Latitude 14 deg. 32' N. Longitude 91 deg. 41' W. Retalhuleu, Retalhuleu. Fruit green when immature, turning yellow, then orange; round, 1 cm long, smooth, calyx margin intermediate, piquant.

PI 631136. Capsicum annuum var. glabriusculum (Dunal) Heiser & Pickersgill
Wild. WWA-1418; chiltepe; NGRL 256; Grif 14086. Collected 11/23/1997 in

Suchitepequez, Guatemala. Latitude 14 deg. 18' 3'' N. Longitude 91 deg. 33' 46'' W. Elevation 190 m. La Maquina, Cuyotenango. Fruit 1/2 to 1 cm long, 1/2 cm wide, green, turning orange then bright red, calyx margin intermediate. Piquant.

PI 631137. Capsicum frutescens L.
Wild. WWA-1423; tolito; torolito; NGRL 257; Grif 14087. Collected 11/25/1997 in Sacatepequez, Guatemala. Latitude 14 deg. 28' 51'' N. Longitude 90 deg. 48' 20'' W. Elevation 1415 m. Alotenango, Alotenango. Fruit round, 1 1/2 cm long. green, turning orange, smooth. Piquant.

PI 631138. Capsicum frutescens L.
Landrace. WWA-1429; chile blanco; NGRL 258; Grif 14088. Collected 11/27/1997 in Zacapa, Guatemala. Latitude 15 deg. 12' 21'' N. Longitude 89 deg. 16' 12'' W. Elevation 215 m. Llauo Largo, Gualan. Cultivated in dooryard garden. Shrub 1.5 m tall. Fruit pendant, conical, 5-6 cm long, 2 cm wide at base, light green turning red when ripe, corrugated in X-section. Flower petals light green, blue anthers, 2-3 fruits per node.

PI 631139. Capsicum frutescens L.
Landrace. WWA-1430; chile; NGRL 259; Grif 14089. Collected 11/27/1997 in Zacapa, Guatemala. Latitude 15 deg. 12' 21'' N. Longitude 89 deg. 16' 12'' W. Elevation 215 m. Llano Largo, Gualan. Growing spontaneously in dooryard garden. Shrub 1 m tall. Fruit upright, rounded conical, 1.5 cm long, 1 cm at base, green turning orange then red when ripe. Flowers cream colored with purple anthers. Very piquant. Fruiting heavily.

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

PI 631140. Capsicum annuum L.
Landrace. FAUSAC 42; chile; NGRL 260; Grif 14090. Collected 1996 in Quiche, Guatemala. Latitude 15 deg. 17' N. Longitude 91 deg. 8' W. Elevation 1200 m. Rio Blanco, Sacapulas.

PI 631141. Capsicum annuum var. glabriusculum (Dunal) Heiser & Pickersgill
Landrace. FAUSAC 67; chiltepe; NGRL 261; Grif 14091. Collected 04/23/1997 in Escuintla, Guatemala. Latitude 14 deg. 10' N. Longitude 91 deg. 20' W. Elevation 50 m. Nueva Concepcion, Nueva Concepcion.

PI 631142. Capsicum frutescens L.
Landrace. FAUSAC 68; diente de perro; NGRL 262; Grif 14092. Collected 04/23/1997 in Escuintla, Guatemala. Latitude 14 deg. 10' N. Longitude 91 deg. 20' W. Elevation 50 m. Nueva Concepcion, Nueva Concepcion.

PI 631143. Capsicum annuum L.
Landrace. FAUSAC 89; chile nance; NGRL 264; Grif 14094. Collected 05/07/1997 in Suchitepequez, Guatemala. Latitude 14 deg. 32' N. Longitude 91 deg. 25' W. Elevation 500 m. Canton Barrios, San Antonio.

PI 631144. Capsicum frutescens L.
Landrace. FAUSAC 200; chile nan; NGRL 272; Grif 14102. Collected 07/31/1997 in Jutiapa, Guatemala. Latitude 14 deg. 16' N. Longitude 90 deg. 2' W. Elevation 1000 m. Quezada, Quezada.

PI 631145. Capsicum annuum L.
Landrace. FAUSAC 296; blanco; NGRL 279; Grif 14109. Collected 09/03/1997 in Alta Verapaz, Guatemala. Latitude 15 deg. 24' N. Longitude 89 deg. 41' W. Elevation 250 m. Panzos, Panzos.

The following were collected by Fatima Mereles, Facultad de Ciencias Quimicas of the National University, Herbarium, San Lorenzo, Paraguay; Pedro Juan Caballero, Ministry of Agriculture and Livestock, Instituto Agronomico Nacional, Caacupe, Paraguay. Received 05/07/1999.

PI 631146. Capsicum annuum L.
Cultivated. MC 146; NGRL 279; Grif 14221. . Collected 07/25/1998 in Caazapa, Paraguay. Latitude 26 deg. 6' 27'' N. Longitude 55 deg. 27' 33'' W. Tabai, Compania Apepu, Apepu Indigenous Reserve. Nature reserve. Hill. Slope 20 degrees, slope aspect East. Soil texture loam, drainage moderate. Plant erect, approximately 60 cm. Tall. Branches distichous. Leaves large, brilliant green. No flowers. Fruits erect when green and immature, pendulous and brilliant red when mature. Not piquant.

The following were donated by Molly Jahn, Cornell University, Department of Plant Breeding, 312 Bradfield Hall, Ithaca, New York 14853-1902, United States. Received 02/23/2000.

PI 631147. Capsicum annuum L.
Uncertain. FP-2; RCG 411; Grif 14379; Perennial. Purified Indian open pollinated variety.

The following were developed by Paul W. Bosland, New Mexico State University, Department of Agronomy & Horticulture, Box 30003 - Dept. 3Q, Las Cruces, New Mexico 88003-0003, United States; Jaime Iglesias, New Mexico State University, Department of Agronomy and Horticulture, Las Cruces, New Mexico 88003, United States; Max M. Gonzalez, New Mexico State University, Department of Agronomy and Horticulture, Las Cruces, New Mexico 88003, United States. Received 11/02/1999.

PI 631148. Capsicum annuum L.
Cultivar. "NuMex Centennial"; NMCA 10009; Grif 14468. Pedigree - Selection from original population from Chihuahua, Mexico with no hybridization. Released 09/1994. Compact plants developed for growing in small containers, but suitable for cultivation in formal garden bed. Polychotomous branching of basal branches makes cultivar ideal for pot plant production. One flower per leaf axil. Fruit purple, ripening to yellow, orange, and then red. Purple flowers and purple foliage. Erect flower pedicels at anthesis, fruit upright and smooth with cup-shaped calyx. Flowers begin opening 120 days after sowing, fruit matures to red in an additional 90 days. Plants erect, stem has no pubescence, leaf texture is smooth. Pungent. Polychotomous growth habit and four-colored fruit serve as important marketing traits.

PI 631149. Capsicum annuum L.
Cultivar. "NuMex Twilight"; NMCA 10488; Grif 14469. Pedigree - Selection from original population from Jalisco, Mexico with no hybridization. Released 09/1994. Compact plants developed for growing in small containers, but suitable for cultivation in formal garden bed.

Polychotomous branching of basal branches makes cultivar ideal for pot plant production. One flower per leaf axil. Fruit purple, ripening to yellow, orange, and then red. White flowers and green leaves. Yellow fruit stage is more pronounced. Erect flower pedicels at anthesis, fruit upright and smooth with cup-shaped calyx. Flowers begin opening 120 days after sowing, fruit matures to red in an additional 90 days. Plants erect, stem has no pubescence, leaf texture is smooth. Pungent. Polychotomous growth habit and four-colored fruit serve as important marketing traits.

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

PI 631150. Capsicum baccatum L. **var. baccatum**
Wild. WWMC 132; ky y'; Grif 14142. . Collected 05/10/1998 in Cordillera, Paraguay. Latitude 25 deg. 33' 16'' S. Longitude 57 deg. 2' 27'' W. Elevation 340 m. Pirebebuy, Chololo. Hillside, bushland. Slope 10 deg., slope aspect E. Soil drainage moderate, soil acidic, stoniness high. Plant erect, 80 cm tall. Fruits erect, ovoid, 1.0 cm long, 0.5 cm wide, shiny red, piquant. No flowers. Mottled leaves. Fruits used by local people. No cultivated relatives growing nearby. Very scarce.

Unknown source. Received 02/15/1990.

PI 631151. Capsicum frutescens L.
2299; Grif 5492. Collected in Nepal. Fruits small.

The following were donated by Jose Roberto Guedes de Oliveira, Rua Bororo, 2218 Vila Maria Helena, Indaiatura, Sao Paulo 13335-500, Brazil. Received 03/25/1994.

PI 631152. Capsicum annuum L.
Grif 12292. Ornamental type, non-edible.

The following were donated by H.G. Hastings Company, Atlanta, Georgia, United States. Received 1968.

PI 631153. Capsicum annuum L.
NSL 67887; FIRECRACKER.

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

Quintana, Museo Nacional de Historia Natural del Paraguay, Ruta MariscalEstigarribia, Km 10.5, San Lorenzo, Paraguay. Received 07/12/2001.

PI 631154. Capsicum flexuosum Sendtn.
Wild. WWQC 146; ke'hui (Guarani); NGRL 279. . Collected 05/17/2001 in Alto Parana, Paraguay. Latitude 25 deg. 3' 46'' S. Longitude 54 deg. 41' 52'' W. Elevation 235 m. Disto. Mbaracayu, Reserva Biologica Itabo, Salto Sy'y. Base of wooden staircase leading to waterfall. Small shrub, 1 m tall. No flowers. Fruits globose, shiny red, 0.5-1.0 cm in diam. with 3 brown seeds, piquant, 1-3 seeds per fruit. 9 fruits collected from 1 plant, 1 fruit from second plant, 23 seeds total.

The following were donated by Shawn A. Mehlenbacher, Oregon State University, Department of Horticulture, Corvallis, Oregon 97331, United States. Received 03/30/2001.

PI 631155. Corylus sp.
Cultivar. 446.106; CCOR 737.

The following were developed by Dick L. Auld, Texas Tech University, Department of Plant and Soil Sciences, P.O. Box 42122, Lubbock, Texas 79409-2122, United States; Victor Ghetie, University of Texas, SW Medical Center, 5323 Hary Hines, Dallas, Texas 75235, United States; Charles F. Murphy, USDA-ARS-NPS, BOF, Room 4-2238, 5601 Sunnyside Avenue, Beltsville, Maryland 20705-2238, United States; Eli Boroda, Texas Tech University, College of Agricultural Sciences and Natural Resources, Department of Plant and Soil Science, Lubbock, Texas 79409-2122, United States; W.D. Becker, Texas Tech University, Dept. of Plant and Soil Science, Lubbock, Texas 79409-2122, United States; S.D. Pinkerton, Texas Tech University, Dept. of Plant and Soil Science, Lubbock, Texas 79409-2122, United States; K.A. Lombard, Texas Tech University, Dept. of Pland and Soil Science, Lubbock, Texas 79409-2122, United States; K.E. Kenworthy, Tarleton State University, Agribusiness, Agronomy, Hort. and Range Management, Stephenville, Texas 76402, United States; R.D. Rolfe, Texas Tech University, Dept. of Microbiology and Immunology, Health Science Center, Lubbock, Texas 79430, United States. Received 05/02/2002.

PI 631156. Ricinus communis L.
Breeding. TTU-LRC. GP-3. Pedigree - Open pollinated population obtained by randomly intercrossing eight F6 parental lines. Three of the lines originated from crosses made in 1994 between PI 257654 and Hale, while five of the lines originated from a cross between PI 258368 and Hale. During the F3, F4, and F5 generation, open pollinated seeds of these crosses were screened for reduced levels of ricin and RCA120 using a radial immunodiffusion (RID) assay. Plants were also selected for yield and dwarf internode growth habit in these segregating generations. Approx. 50 plants from each F6 parent were randomly intercrossed in an isolated field nursery during the 2000 growing season at Lubbock, TX. Approx. 40 plants, which did not exhibit dwarf-internode growth habit, were removed prior to pollination. Phenotypic analyses conducted on a sample of 118 of the F6 parental plants showed that plant height ranged from 33 to 119 cm. Less than 10% of the plants produced spineless capsules and less than 5% of the plants had red stems or leaves. The presence of spineless capsules and red leaves and stems indicated there had been limited cross pollination with other accessions during the

segregating generations of these crosses. The RID assay was used to determine the.

The following were developed by Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Lawrence D. Young, USDA, ARS, MSA Crop Genetics & Prod. Res. Unit, P.O. Box 345, Stoneville, Mississippi 38776-0345, United States. Received 05/10/2002.

PI 631157. Glycine max (L.) Merr.
Breeding. D96-1217. GP-278. Pedigree - Bedford (5) x Centennial. Maturity Group V soybean germplasm line released to provide soybean breeders with a potential parent to develop multiple-pest resistant. Developed by backcrossing the gene Rpsl-c into the cv. Bedford. Similar to the recurrent parent 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 collected by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 09/30/1960.

PI 631158. Triticum turgidum subsp. durum (Desf.) Husn.
Landrace. 90; NSGC 8861. Collected 1960 in Lorestan, Iran. Latitude 33 deg. 36' N. Longitude 47 deg. 53' E. Elevation 1128 m. mountains, 53 km west of Khorramabad. Pedigree - separated from PI 268309.

The following were collected by Institute for Small Grains, Kragujevac, Serbia, Yugoslavia. Received 03/12/1971.

PI 631159. Triticum aestivum L. **subsp. aestivum**
Landrace. VII/16-X14; NSGC 8862. Collected 1970 in Macedonia. Latitude 41 deg. 25' N. Longitude 22 deg. 15' E. Elevation 108 m. Demir Kapija. Pedigree - separated from PI 362632.

The following were collected by J.D. Gray, Reading University, Surry, England, United Kingdom. Received 07/12/1966.

PI 631160. Triticum turgidum subsp. durum (Desf.) Husn.
Landrace. 1782; NSGC 8863. Collected 1965 in Afghanistan. Latitude 34 deg. 0' N. Longitude 66 deg. 0' E. Pedigree - separated from PI 367115.

PI 631161. Triticum aestivum subsp. spelta (L.) Thell.
Landrace. 1803; NSGC 8864. Collected 1965 in Afghanistan. Latitude 34 deg. 0' N. Longitude 66 deg. 0' E. Pedigree - separated from PI 367136.

The following were developed by Paul McCaughey, Agriculture and Agri-Food Canada, Brandon Research Stations, Box 1000A, RR#3, Brandon, Manitoba R7A 5Y3, Canada. Received 06/02/2002.

PI 631162. Nassella viridula (Trin.) Barkworth
Cultivar. "AC MALLARD". Pedigree - Derivative of the bulking of two accessions of green needlegrass collected from the wild, in western

Manitoba Canada, and systematically selected for enhanced seedling emergence and establishment. Intended as a replacement for the green needlegrass variety Lodorm (developed by USDA-ARS in Bismarck, ND in 1970) for the Canadian prairies. Selected for improved seedling emergence vs. Lodorm, having an average of 58 seedlings per meter row vs. 18 seedlings/row for Lodorm, from an initial 100 seeds per meter row. More columnar-shaped panicle vs. Lodorm and is more resistant to seed shattering. Good adaptability to western Canadian growing conditions. In all other aspects, similar to other green needlegrass indigenous to the eastern prairie region of western Canada.

The following were developed by Mark A. Brick, Colorado State University, Department of Soil and Crop Sciences, Room C113, Fort Collins, Colorado 80521, United States; J.B. Ogg, Colorado State University, Dept. of Soil and Crop Sciences, Fort Collins, Colorado 80523, United States; J.J. Johnson, Colorado State University, Dept. of Soil and Crop Sciences, Fort Collins, Colorado 80523, United States; F. Judson, Fruita Research Station, 1910 L Road, Fruita, Colorado 81521, United States; Howard F. Schwartz, Colorado State University, Department of Plant Pathology, C 205 Plant Science Building-BSPM, Fort Collins, Colorado 80523-1177, United States. Received 05/09/2002.

PI 631163. Phaseolus vulgaris L.
Cultivar. "GRAND MESA"; CO 75511. CV-231; PVP 20020156. Pedigree - CO56249/83b235//RNK 178. Upright in most environments (Type IIb), however in some environments expresses semi-vine architecture (Type II). Possesses resistance to the prevalent races of rust in the High Plains, bean common mosaic virus, and white mold. Rust resistance appears to be conditioned by the Ur-3 allele from RNK-178. Resistance to bean common mosaic appears to be conditioned by the recessive allele bc2(2) from the line 34596-1, however that has not been confirmed in duplicate tests. White mold tolerance ratings are based on field performance at three locations in 2000. Yield levels averaged 320 and 91 pounds per acre less than Montrose and Buster, respectively, across 13 location-years in 1999 and 2000.

The following were developed by Richard Wang, USDA-ARS, Forage & Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; N. Jerry Chatterton, USDA-ARS, Forage & Range Research, Utah State University, Logan, Utah 84322-6300, United States; W.H. Horton, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Steve Larson, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 05/16/2002.

PI 631164. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. W4909. GP-730. Pedigree - AJDAj5 / Ph inhibitor line. Released 2002. Slightly shorter (137 cm) than Chinese Spring (150 cm). Heading date later than Chinese Spring but earlier than W4910. More salt-tolerant than both parents and Chinese Spring at EC = 22 dS/m.

PI 631165. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. W4910. GP-731. Pedigree - AJDAj5 / Ph inhibitor line. Released 2002. Shorter (125 cm) than W4909 (137 cm) and Chinese Spring (150 cm). Heading date similar to that of AJDAj5 and later than

those of W4909 and Chinese Spring. More salt-tolerant than both parents and Chinese Spring at EC = 22 dS/m.

The following were developed by Syngenta Seeds, Inc., United States. Received 06/10/2002.

PI 631166 PVPO. Glycine max (L.) Merr.
Cultivar. "S18-N5". PVP 200200138.

PI 631167 PVPO. Glycine max (L.) Merr.
Cultivar. "X125". PVP 200200139.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 06/10/2002.

PI 631168 PVPO. Poa pratensis L.
Cultivar. "BEDAZZLED". PVP 200200140.

The following were developed by Novel Ag, Inc., United States. Received 06/10/2002.

PI 631169 PVPO. Festuca arundinacea Schreb.
Cultivar. "BILTMORE". PVP 200200141.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, United States; Tom Brentano, Lesco, Inc., 1651 Eska Way, Silverton, Oregon 97381, United States; Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers University, Cook College, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States; Thomas Molnar, Rutgers, State Univ. of New Jersey, Dept. of Plant Pathology, Foran Hall, Cook College, New Brunswick, New Jersey 08901-8520, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 06/10/2002.

PI 631170. Poa pratensis L.
Cultivar. "LAKESHORE". CV-75; PVP 200200142. Pedigree - Single, highly apomictic (>95%) plant selected from the open-pollinated progeny of A80-336. Medium dark-green color, medium-low growth habit, medium-fine leaves, medium shoot density, early spring green up, and good winter color. Performed well in most areas of Kentucky bluegrass adaptation in North America. Good resistance to leaf spot and melting out (Dreshclera poae) and stripe smut (Ustilago striiformis). Large seed with excellent processing characteristics and appears to have the potential of producing high yields under proper management. Also performed well under simulated fairway conditions in New Jersey, which included a cutting height of 1.74 cm, traffic stress, and Poa annua competition.

The following were developed by ProGene L.L.C., United States. Received 06/10/2002.

PI 631171 PVPO. Pisum sativum L.
Cultivar. "HERO". PVP 200200143.

PI 631172 PVPO. Pisum sativum L.
Cultivar. "JOURNEY". PVP 200200144.

The following were developed by New Zealand Institute for Crop & Food Research Limited, New Zealand. Received 06/10/2002.

PI 631173 PVPO. Pisum sativum L.
Cultivar. "CRUISER". PVP 200200145.

PI 631174 PVPO. Pisum sativum L.
Cultivar. "ARIEL". PVP 200200146.

The following were developed by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jim Starr, Texas A&M University, Dept. of Plant Pathology & Microbiology, Room 120, Peterson Building, College Station, Texas 77843, United States; Andrew H. Paterson, University of Georgia, College of Agricultural & Environmental Sci., Department of Crop & Soil Sciences, Athens, Georgia 30602-7272, United States ; Mark Burow, Texas Agricultural Experiment Station, 1102 East FM 1294, Lubbock, Texas 79403, United States; G.T. Church, Texas A&M University, Dept. of Path. and Micro., College Station, Texas 77834, United States. Received 06/10/2002.

PI 631175. Arachis hypogaea L.
Cultivar. "NemaTAM"; TP 301-1-8. CV-74; PVP 200200148. Pedigree - Florunner/complex interspecific hybrid. Vine size equal to Florunner. Main stem semi-apparent and lateral branching profuse, like Florunner, branching pattern is alternate, but not uniformly 2 X 2. Leaf color moderate green, like Florunner. Pods similar in size and shape to Florunner, mostly two seeded (up to 1% three seeded). Constriction between the kernels equal to Florunner. Seed size almost identical to Florunner and averages 58 g 100 sd-1. Averaged equal in yield to Florunner and Tamrun 96 in 11 tests without nematode pressure, 1998-2000 ($p>0.05$). In ten tests with damaging levels of root-knot nematode present, averaged 113% higher in yield and 129% higher in value per hectare than Florunner, with no chemical application for nematode control. Resistance to root-knot nematode (Meloidogyne arenaria and M. Javanica) confirmed in the third self pollinated generation by using molecular markers. In shelling tests, not different (0.05) from Florunner in jumbo, medium, or US#1 kernel turnout. Splits, other.

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; James S. Kirby, Oklahoma State University, Department of Agronomy, 368 Agriculture Hall, Stillwater, Oklahoma 74078, United States; Michael Baring, Texas A&M University, Soil & Crop Sciences Dept., Mail Stop 2474, College Station, Texas 77843-2474, United States; Y. Lopez, Texas A&M University, Texas Agricultural Exp. Station, Soil & Crop Sci. Dept., College Station, Texas 77841, United States; A.M. Schubert, Texas

Agricultural Experiment Station, Lubbock, Texas 79403, United States. Received 06/10/2002.

PI 631176. Arachis hypogaea L.
Cultivar. "OLin"; TX 962120. CV-75; PVP 200200149. Pedigree - Selection from a first backcross with Tamspan 90 as the recurrent parent and F435-1, the donor of the high O/L genes. Plant size equal to Tamspan 90. Main stem semi-apparent at most locations and seeding rates. Lateral branching sparse, like Tamspan 90, and the branching pattern is sequential, although not perfectly so. Leaf color light green, like Tamspan 90 (RHS 146A). Pods similar in size and shape to Tamspan 90, mostly two seeded (up to 1% three seeded pods). Constriction between the seeds is slight, like Tamspan 90. In 28 tests (1998 to 2000), averaged approx. 10% lower yield than Tamspan 90 in Central Texas, West Texas and Southwest Oklahoma. Grades (TSMK) were equal with Tamspan 90 in these tests (68.7% vs 68.4%) as was seed weight per 100 sd (43.7 g vs 43.6g). Shelling tests no difference in jumbo or US no. 1 seed size distribution. Splits, other kernels, damage kernels and oil stocks were equal to Tamspan 90. Quality analyses indicates no significant difference between OLin and Tampsan 90 except in O/L ratio (22.3 vs 1.15), and Iodine number (77.52 vs 102.02). Other traits were equal:.

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; M.C. Black, Texas A&M University, Agricultural Res. and Ext. Ctr., Uvalde, Texas 78802-1849, United States; Kent Keim, Oklahoma State University, Plant and Soil Science, 276 Ag Hall, Stillwater, Oklahoma 74078, United States; Michael Baring, Texas A&M University, Soil & Crop Sciences Dept., Mail Stop 2474, College Station, Texas 77843-2474, United States; Y. Lopez, Texas A&M University, Texas Agricultural Exp. Station, Soil & Crop Sci. Dept., College Station, Texas 77841, United States; A.M. Schubert, Texas Agricultural Experiment Station, Lubbock, Texas 79403, United States. Received 06/10/2002.

PI 631177. Arachis hypogaea L.
Cultivar. "Tamrun OL 01"; TX 977006. CV-77; PVP 200200150. Pedigree - Derived from a first backcross with Tamrun 96 (recurrent parent) and SunOleic 95R (donor of the high O/L genes). Vine size equal to Tamrun 96. Main stem is semi-apparent in most locations and seeding rates. Lateral branching is profuse, like Tamrun 96, and the branching pattern is alternate, although not perfectly so. Leaf color is medium green like Tamrun 96 (RHS 137A). Pods much larger in size than Tamrun 96, mostly two seeded (up to 1% three seeded). Constriction between the kernels is moderate, but deeper than Tamrun 96. Seed size is also much larger than Tamrun 96 and averages 73 g/100 sd over all locations. In 18 tests 1998 to 2000, averaged 16% higher yield than Florunner in Central Texas, West Texas and Southwest Oklahoma. Grades (TSMK) were equal with Florunner in these tests (71.4% vs 71.8%) and seed weight per 100 sd significantly different (73.3 g/100; Florunner = 59.8 g). In shelling tests, significantly different (P=0.05) from Florunner in jumbo, medium, and US#1 seed. Splits, other kernels, damaged kernels and oil stock equal to Florunner. Quality analyses indicated.

The following were developed by Lebanon Seaboard Corporation, United States;

Timothy M. Ford, Lebanon Seaboard Corporation, P.O. Box 10, Huntsville, Utah 84317, United States. Received 06/10/2002.

PI 631178. Poa pratensis L.
Cultivar. "BORDEAUX". CV-85; PVP 200200154. Pedigree - Originated as a single, apomictic plant selected from the open-pollinated progeny of C-74. Attractive, dark, low growing plant with excellent floret fertility. Medium-early maturing; has high seed yielding potential.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, United States; Ronald F. Bara, Rutgers University, New Jersey Agricultural Experiment Station, Cook College, New Brunswick, New Jersey 08903, United States; Timothy M. Ford, Lebanon Seaboard Corporation, P.O. Box 10, Huntsville, Utah 84317, United States; Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers University, Cook College, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 06/10/2002.

PI 631179. Poa pratensis L.
Cultivar. "CABERNET". CV-76; PVP 200200155. Pedigree - Originated as a single highly apomictic plant selected from the polycross progeny of RSP. Medium-low growth habit, medium-fine leaf width, bright medium-dark green color, medium shoot density, and good turf quality. Performed well in most areas where Kentucky bluegrass is used in the U.S. Exhibited above average leaf spot resistance (Drechslera poae) which was a substantial improvement compared to the maternal parent, RSP. Very good resistance to necrotic ring spot (Leptospheria korrae). Performed well under simulated fairway conditions in New Jersey which included a cutting height of 1.74 cm, traffic stress and Poa annua competition indicating potential successful use on athletic fields.

The following were developed by Kuo-Kao Wu, Hawaiian Ag Research Center, Department of Genetics and Pathology, 99-193 Aiea Heights Drive, Aiea, Hawaii 96701-1057, United States. Received 06/05/2002.

PI 631180. Saccharum hybrid
Cultivar. "H78-4153". CV-116. Pedigree - H57-5174 / ?. Adapted to a two-year cropping cycle with high cane tonnage and average sucrose content. Slow and erect in early growth habit, proliferates a large number of young tillers which provide tolerance to lesser cornstalk borers (LCB) [Elasmopalpus lignosellus]. Good ratooning ability. Grows rapidly at about six months of age and produces uniform, average sized purple colored stalks. Resistant to common rust (Puccinia melanocephala), leaf scald (Xanthomonas albilineans), yellow leaf syndrome (Sugarcane Yellow Leaf Virus), and moderately resistant to smut (Ustilago scitaminea) and eye spot (Bipolaris sacchari). Soft rind and a few growth cracks making it susceptible to rats and beetle borers (Rhabdocelus obscurus) during the second year of growth as the cane lodges.

The following were developed by Peggy Thaxton, Texas A&M University, Dept. of

Soil and Crop Science, College Station, Texas 77843, United States; Kamal M. El-Zik, Texas A&M University, Department of Soil & Crop Sciences, College Station, Texas 77843, United States. Received 06/11/2002.

PI 631181. Gossypium hirsutum L.
Breeding. CD3HG2CABS-1-91. GP-762. Pedigree - CD3HCAHUGH-2-88(PI 603000) / CABUCAHUGS-1-88, an unreleased breeding line. Glabrous line with normal leaf and bract types, and is glanded and nectaried. Early maturing with improved fiber strength. Resistant to bacterial blight and has improved levels of Multi-Adversity Resistance (MAR) to pests. Average UHM length of 1.07 in., fiber bundle strength of 28.1 and micronaire of 4.4 units.

PI 631182. Gossypium hirsutum L.
Breeding. CD3HGCBU8S-1-91. GP-763. Pedigree - CD3HCAHUGH-2-88(PI 603000) / CABUCAG8US-1-88, an unreleased breeding line. Glabrous line with normal leaf and bract types, and is glanded and nectaried. Early maturing and has excellent fiber quality with an average upper half mean length of 1.10 in., and fiber bundle strength of 28.4 g/tex and micronaire of 4.2 units. Resistant to bacterial blight and has improved levels of Multi-Adversity Resistance (MAR) to pests.

PI 631183. Gossypium hirsutum L.
Breeding. LBCBHGDPIS-1-91. GP-764. Pedigree - LBBCABCHUS-1-87 (PI 595760) / CHUGCD3PIS-1-88, an unreleased breeding line. Glabrous line with normal leaf and bract types, and is glanded and nectaried. Early maturing with good fiber quality. Resistant to bacterial blight and has improved levels of Multi-Adversity Resistance (MAR) to pests. Fiber bundle strength of 28.4 g/tex, UHM fiber length of 1.10 in. and micronaire value of 4.2. Yield potential similar to previously released MAR germplasm and is early in maturity.

PI 631184. Gossypium hirsutum L.
Breeding. CUBQHGRPIS-1-92. GP-765. Pedigree - CHUBCABD3S-1-89, an unreleased breedling line / CAHUGARPIH-1-88 (PI 602998). Glabrous line with normal leaf and bract types, glanded, nectaried and early maturing. Has bacterial blight resistance with improved levels of resistance to phymatotrichum root rot (Phytototrichum ominivorum) and verticillium (Verticillium dahliae) and fusarium (Fusarium oxyporum). Boll size larger than previously released Tamcot cvs. Produces 11% higher lint yield, and has a higher fiber bundle strength (3.4 g/tex) and micronaire value (0.2 units) than Tamcot CAB-CS, a previously released MAR variety.

PI 631185. Gossypium hirsutum L.
Breeding. PD23CD3HGS-1-93. GP-766. Pedigree - MAR5PD208S-4-90 (PI 603009) / CD3HCAHUGH-2-88 (PI 603000). Glabrous line with normal leaf and bract types, and is glanded and nectaried. Resistance to bacterial blight. Improved yield potential over previously released MAR germplasm and is early maturing. Fiber bundle strength averages 28.7 g/tex, 4.4 micronaire value 4.4, and fiber length 1.07 in.

PI 631186. Gossypium hirsutum L.
Breeding. CBD3HGDPIH-1-91. GP-767. Pedigree - Tamcot HQ95 (PI 538033) / CHUGCD3PIS-1-88, an unreleased breeding line. Pubescent line with normal leaf and bract types, and is glanded and nectaried. Resistant to bacterial blight and improved levels of resistance to insects. Lint yield potential similar to previously released MAR cvs. and is late in

maturity. Fiber bundle strength averages 26.4 g/tex, 4.1 micronaire value 4.4, and UHM fiber length 1.07 in.

PI 631187. Gossypium hirsutum L.
Breeding. LBCHUD3HGH-1-91. GP-768. Pedigree - LBBCABCHUS-1-87 (PI 595760) / CD3HCAHUGH-2-88 (PI 603000). Pubescent line with normal leaf and bract types, and is glanded and nectaried. Early maturing and is resistant to bacterial blight. Excellent lint yield potential and is early in maturing. Fiber bundle strength averages 25.4 g/tex, 4.0 micronaire value 4.4, and fiber length 1.06 in. Boll large in comparison to previously released MAR germplasm.

PI 631188. Gossypium hirsutum L.
Breeding. CD3HGCULBH-1-91. GP-769. Pedigree - CD3HCAHUGH-2-88 (PI 603000) / CD3HCHULBH-1-88 (PI 603001). Pubescent line with normal leaf and bract types, and is glanded and nectaried. Bacterial blight resistant and is very early in maturity. Average fiber bundle strength of 27.6 g/tex, UHM length of 1.07, micronaire value of 4.1 and a large boll.

PI 631189. Gossypium hirsutum L.
Breeding. CDRCIQCUBH-2-92. GP-770. Pedigree - CD3HHARCIH-1-88 (PI 602999) / CHUBCABD3S-1-89, an unreleased breeding line. Pubescent line with normal leaf and bract types, and is glanded and nectaried. Bacterial blight resistance, improved levels of insect resistance, and is late in maturity. Excellent fiber quality with a bundle strength of 31.4 g/tex, UHM length of 1.08, and micronaire value of 4.5.

PI 631190. Gossypium hirsutum L.
Breeding. CDARCILBCH-1-92. GP-771. Pedigree - CD3HHARCIH-1-88 (PI 602999) / LBBCC4HUGS-1-89 (PI 603006). Very pubescent line with normal leaf and bract types, and is glanded and nectaried. Bacterial blight resistance and is very early in maturity. Excellent fiber quality with a bundle strength of 30.8 g/tex, UHM length of 1.12, and micronaire value of 4.6.

PI 631191. Gossypium hirsutum L.
Breeding. CUBQHGRPIH-1-92. GP-772. Pedigree - CHUBCABD3S-1-89, an unreleased breeding line / CAHUGARPIH-1-88 (PI 602998). Pubescent line with normal leaf and bract types, and is glanded and nectaried. Bacterial blight resistance and is early maturing. Fiber bundle strength of 29.8 g/tex, UHM length of 1.15, and micronaire value of 4.2.

The following were collected by Zykin, N.I. Vavilov All-Union Institute of Plant Industry, Leningrad, Leningrad 190000, Russian Federation; Pukhalsky, N.I. Vavilov All-Union Institute of Plant Industry, Leningrad, Leningrad 190000, Russian Federation. Donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631192. Solanum acaule Bitter
Wild. VIR 9786; Q 43641. Collected 1971 in Bolivia. Material from Polish seed rescue. Originally from 1971 Bolivian collection by Pukhalsky and Zykin (VIR).

The following were collected by Zykin, N.I. Vavilov All-Union Institute of Plant Industry, Leningrad, Leningrad 190000, Russian Federation. Donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631193. Solanum acaule Bitter
Wild. VIR 17901; Q 43642. Collected 1980 in Bolivia. Material from Polish seed rescue. Originally from 1980 Bolivian expedition by Zykin (VIR).

PI 631194. Solanum acaule Bitter
Wild. VIR 18002; Q 43643. Collected 1980 in Bolivia. Material from Polish seed rescue. Originally from 1980 Bolivian expedition by Zykin (VIR).

PI 631195. Solanum acaule Bitter
Wild. VIR 18004; Q 43644. Collected 1980 in Bolivia. Material from Polish seed rescue. Originally from 1980 Bolivian expedition by Zykin (VIR).

PI 631196. Solanum acaule Bitter
Wild. VIR 18007; Q 43645. Collected 1980 in Bolivia. Material from Polish seed rescue. Originally from 1980 Bolivian expedition by Zykin (VIR).

The following were donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631197. Solanum acaule subsp. aemulans (Bitter & Wittm.) Hawkes & Hjert.
Wild. VIR 9146; Q 43646. Material from Polish seed rescue. Originally donated by Hawkes.

PI 631198. Solanum albicans (Ochoa) Ochoa
Wild. VIR 9814; Q 43647. Material from Polish seed Rescue. Originally from Bolivia.

The following were collected by Zykin, N.I. Vavilov All-Union Institute of Plant Industry, Leningrad, Leningrad 190000, Russian Federation; Pukhalsky, N.I. Vavilov All-Union Institute of Plant Industry, Leningrad, Leningrad 190000, Russian Federation. Donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631199. Solanum albicans (Ochoa) Ochoa
Wild. VIR 9813; Q 43648. Collected 1971 in Bolivia. Material from Polish seed rescue. Originally from 1971 Bolivian expedition by Pukhalsky & Zykin (VIR).

The following were donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631200. Solanum angustifolium Mill.
Wild. VIR 2733; Q 43649. Material from Polish seed rescue. Originally from Argentina (Cordoba).

PI 631201. Solanum x juzepczukii Bukasov
Wild. VIR 9742; Q 43650. Material from Polish seed rescue.

PI 631202. Solanum chacoense Bitter
Wild. VIR 7610; Q 43651. Material from Polish seed rescue.

PI 631203. Solanum chacoense Bitter
Wild. VIR 7613; Q 43652. Material from Polish seed rescue.

PI 631204. Solanum chacoense Bitter
Wild. VIR 2937; Q 43653. Material from Polish seed rescue.

PI 631205. Solanum chacoense Bitter
Wild. VIR 2739; Q 43654. Material from Polish seed rescue. Originally from Argentina.

PI 631206. Solanum stoloniferum Schltdl. & Bouche
Wild. VIR 8505; Q 43655. Material from Polish seed rescue.

The following were collected by Zhukowksy, N.I. Vavilov All-Union Institute of Plant Industry, Leningrad, Leningrad 190000, Russian Federation. Donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631207. Solanum chacoense Bitter
Wild. VIR 3701; Q 43656. Collected 1958 in Argentina. Material from Polish seed rescue. Originally from 1958 Argentinian expedition by Zhukowsky (VIR).

The following were donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631208. Solanum chacoense Bitter
Wild. VIR 8280; Q 43657. Material from Polish seed rescue.

PI 631209. Solanum sparsipilum (Bitter) Juz. & Bukasov
Wild. VIR 7370; Q 43658. Collected in Bolivia. Material from Polish seed rescue. Originally collected in Bolivia by Cardenas.

PI 631210. Solanum sparsipilum (Bitter) Juz. & Bukasov
Wild. VIR 7381; Q 43659. Collected in Bolivia. Material from Polish seed rescue. Originally collected in Bolivia by Cardenas.

PI 631211. Solanum microdontum Bitter
Wild. VIR 5400; Q 43660. Material from Polish seed rescue.

PI 631212. Solanum microdontum Bitter
Wild. VIR 5684; Q 43661. Material from Polish seed rescue.

The following were collected by K. Budin, N.I. Vavilov Institute, 44 Herzen Street, St. Petersburg, Leningrad 190000, Russian Federation. Donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631213. Solanum stoloniferum Schltdl. & Bouche
Wild. VIR 8416; Q 43662. Collected 1968 in Mexico. Material from Polish seed rescue. Originally collected in 1968 Mexican expedition by Bud.

PI 631214. Solanum stoloniferum Schltdl. & Bouche
Wild. VIR 8475; Q 43663. Collected 1968 in Mexico. Material from Polish seed rescue. Originally from 1968 Mexican expedition by Budin (VIR).

The following were donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631215. Solanum stoloniferum Schltdl. & Bouche
Wild. VIR 2492; Q 43664. Material from Polish seed rescue.

PI 631216. Solanum stoloniferum Schltdl. & Bouche
Wild. VIR 4226; Q 43665. Material from Polish seed rescue.

PI 631217. Solanum stoloniferum Schltdl. & Bouche
Wild. VIR 3336; Q 43666. Material from Polish seed rescue. Originally collected in Mexico.

The following were collected by Brucher. Donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631218. Solanum acaule Bitter
Wild. VIR 4114; Q 43667. Collected in Bolivia. Material from Polish seed rescue. Originally collected in Bolivia by Brucher.

The following were collected by David Spooner, USDA, ARS, University of Wisconsin, Department of Horticulture, 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. Donated by Roel Hoekstra, Center for Plant Breeding and Reproduction Research, Center for Genetic Resources The Netherlands (CGN), Droevendaalsesteeg 1,, Wageningen, Gelderland 6700 AA, Netherlands. Received 12/04/2001.

PI 631219. Solanum tuberosum subsp. andigenum (Juz. & Bukasov) Hawkes
Cultivated. VSUG 605; BGRC 62756 x 63059; Q 43668. Collected 01/06/1994 in La Paz, Bolivia. Latitude 16 deg. 4' 15'' S. Longitude 67 deg. 41'

19'' W. Elevation 1120 m. Nor Yungas: in Chiriquero, 34 km N of Coroico on road to Caranavi, between Challa and Choro. found in backyard banana plantation. Young to old plants seen, but no flowers or fruits found. Appears like some cultivated potato vegetatively, owner of land says a long-standing wild population, tubers round to cylindrical.

PI 631220. Solanum x doddsii Correll
Wild. VSUG 609; BGRC 62759; Q 43669. Collected 01/13/1994 in Chuquisaca, Bolivia. Latitude 18 deg. 8' 34'' S. Longitude 65 deg. 13' 39'' W. Elevation 2400 m. Campero: 10 km northwest of Aiquile on the road to Mizque. growing in sandy soil of shaded streambank. Corolla blue, pentagonal, fruits round to round-ovoid.

PI 631221. Solanum x doddsii Correll
Wild. VSUG 617; BGRC 63034; Q 43671. Collected 01/14/1994 in Chuquisaca, Bolivia. Latitude 18 deg. 17' 46'' S. Longitude 65 deg. 15' 12'' W. Elevation 2210 m. Campero: from 16 km south of town square of Aiquile, drive 4.5 km west, across river, to town of Pabellon Mayu, then walk south up stream for 0.5 km. growing on rocky slope. Corollas stellate, white tinged with blue.

PI 631222. Solanum chacoense Bitter
Wild. VSUG 621; BGRC 63038; Q 43674. Collected 01/16/1994 in Chuquisaca, Bolivia. Latitude 20 deg. 6' S. Longitude 64 deg. 24' W. Elevation 2480 m. Azurduy: about 2 km north on town square of Azurduy on road to Tarabuco. growing in back yard of house in organic soil. Corolla white, fruits not yet present.

PI 631223. Solanum hoopesii Hawkes & K. A. Okada
Wild. VSUG 623; BGRC 63039; Q 43675. Collected 01/16/1994 in Chuquisaca, Bolivia. Latitude 19 deg. 57' 36'' S. Longitude 64 deg. 27' 28'' W. Elevation 2860 m. Azurduy: 24.3 km north of town square of Azurduy on road to Tarabuco. collected at edge of corn field by stream. Corolla blue, fruits round, verrucose.

PI 631224. Solanum ugentii Hawkes & K. A. Okada
Wild. VSUG 628; BGRC 63043; Q 43676. Collected 01/17/1994 in Chuquisaca, Bolivia. Latitude 19 deg. 38' 31'' S. Longitude 64 deg. 35' 26'' W. Elevation 3440 m. Azurduy: 115.2 km north of Azurduy on road to Tarabuco, 37.2 km north of Cruz Kaza. growing on steep rocky slope by road. Corollas deep blue, fruits maturing to mature.

PI 631225. Solanum x doddsii Correll
Wild. VSUG 631; BGRC 63045; Q 43677. Collected 01/20/1994 in Chuquisaca, Bolivia. Latitude 19 deg. 28' S. Longitude 64 deg. 10' 32'' W. Elevation 2380 m. Tomina: 41 km southeast of town square of Padilla town square, then turn left up a steep private jeep road for 1 km. growing among grasses and bushes at edge of small stream between two cultivated fields . Corolla light blue, stellate, fruits round.

PI 631226. Solanum microdontum Bitter
Wild. VSUG 638; BGRC 63051; Q 43678. Collected 01/22/1994 in Santa Cruz, Bolivia. Latitude 18 deg. 43' 9'' S. Longitude 64 deg. 10' 32'' W. Elevation 2620 m. Valle Grande: 1.7 km north of town square of Pucara, on road to Valle Grande, on east side of road at margin of cornfield. growing in rich soil at border of cultivated field. Corolla white, fruits not present.

PI 631227. Solanum tuberosum subsp. andigenum (Juz. & Bukasov) Hawkes
Cultivated. VSUG 652; BGRC 63062; Q 43682. Collected 02/13/1994 in La Paz, Bolivia. Latitude 15 deg. 46' 52'' S. Longitude 68 deg. 38' 44'' W. Elevation 2730 m. Larecaja: growing about Hotel La Mansion in area called Ladrilluni, ca 1 km south of town square of Sorat . fruits round. Growing at edge of plantation and in gardens. Fruits round.

PI 631228. Solanum hoopesii Hawkes & K. A. Okada
Wild. SFVU 6684; BGRC 63069; Q 43684. Collected 03/07/1993 in Chuquisaca, Bolivia. Latitude 20 deg. 6' 5'' S. Longitude 64 deg. 24' 12'' W. Elevation 2481 m. Azurduy: 1 km N of town square of Azurduy, on road to Icla. Growing in cornfield. Plants mature, flowers gone, but said by local farmer to be deep purple, one fruit collected.

PI 631229. Solanum violaceimarmoratum Bitter
Wild. SFVU 6731; BGRC 63080; Q 43685. Collected 03/18/1993 in La Paz, Bolivia. Latitude 16 deg. 18' 11'' S. Longitude 67 deg. 51' 17'' W. Elevation 2450 m. Nor Yungas: at Chulumani, starting 15 km from junction of road out of La Laz at road to Caranavi and road to Chuspipata. growing in deep organic soils, in a recently cleared and burned jungle slope, recently planted in Hydrangea bushes. Corolla blue, rotate-pentagonal, fruits conical, but too young to extract seeds.

The following were donated by Stepan Kiru, N.I. Vavilov Institute of Plant Industry, Department of Tuber Crops, 44 Herzen Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 12/04/2001.

PI 631230. Solanum tuberosum L.
Breeding. KH 94/132; Q 43689.

PI 631231. Solanum tuberosum L.
Breeding. KH 94/81; Q 43690.

PI 631232. Solanum tuberosum L.
Breeding. KH 94/90; Q 43691.

PI 631233. Solanum tuberosum L.
Breeding. KH 94/107; Q 43692.

PI 631234. Solanum tuberosum L.
Breeding. KH 94/115; Q 43693.

PI 631235. Solanum tuberosum L.
Breeding. KH 95/79; Q 43696.

PI 631236. Solanum tuberosum L.
Breeding. KH 95/07; Q 43697.

PI 631237. Solanum tuberosum L.
Breeding. KH 95/17; Q 43698.

PI 631238. Solanum tuberosum L.
Breeding. KH 95/57; Q 43701.

PI 631239. Solanum tuberosum L.

Breeding. KH 96/29; Q 43705.

PI 631240. Solanum tuberosum L.
Breeding. KH 96/37A; Q 43723.

PI 631241. Solanum tuberosum L.
Breeding. KH 96/77; Q 43724.

PI 631242. Solanum tuberosum L.
Breeding. KH 97/14C; Q 43725.

PI 631243. Solanum tuberosum L.
Breeding. KH 97/40A; Q 43726.

PI 631244. Solanum tuberosum L.
Breeding. KH 97/51C; Q 43727.

PI 631245. Solanum tuberosum L.
Breeding. KH 97/28; Q 43728.

The following were developed by Busch Agricultural Resources, Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 05/14/1998.

PI 631246 PVPO. Hordeum vulgare L.
Cultivar. "MARLIS"; B107A. PVP 9700394.

The following were developed by University of Helsinki, Department of Plant Husbandry, Helsinki, Uusimaa SF 00710, Finland. Donated by Kevin Hendricksen, RFD 3, Box 10, Stephenson, Michigan 49887, United States. Received 01/19/1990.

PI 631247. Aronia melanocarpa (Michx.) Elliott
Cultivated. Ames 12718. Collected in Finland. Originally from Estonia.

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

PI 631248. Cornus drummondii C. A. Mey.
Wild. 890438; Ames 13772. Collected in Ontario, Canada. Latitude 42 deg. 33' N. Longitude 81 deg. 34' W. Elevation 205 m. South of Eagle (village), Aldborough Township, Elgin County.

The following were collected by J. Baskin; C. Baskin. Donated by Slaven Aljinovic, Iowa State University, Ag Engineering Department, Davidson Hall, Ames, Iowa 50011, United States. Received 10/20/1992.

PI 631249. Echinacea simulata McGregor
Wild. Ames 20059. Collected 09/22/1991 in Kentucky, United States. Latitude 37 deg. 28' 48'' N. Longitude 86 deg. 17' 38'' W. 1 mile east of Leitchfield, Western Kentucky Parkway, Grayson County.

The following were collected by Andrea Shea, Tennessee Department of Environment and Conservation, Division of Natural Heritage, 401 Church Street, Nashville, Tennessee 37243-0447, United States; William Christie, Department of Environment and Conservation, Rare Species Protection, 401 Church Street, Nashville, Tennessee 37243, United States. Donated by Andrea Shea, Tennessee Department of Environment and Conservation, Division of Natural Heritage, 401 Church Street, Nashville, Tennessee 37243-0447, United States. Received 05/06/1994.

PI 631250. Echinacea tennesseensis (Beadle) Small
Wild. Ames 22010. Collected 11/11/1993 in Tennessee, United States. Latitude 36 deg. 2' N. Longitude 86 deg. 23' W. Lane Farm, Wilson County. Please contact curator for specific site location. Extensive gravel glades (limestone substrate) intermixed with forest, old field communities, and pasture. Predominantly grazed.

The following were collected by Shaw Nature Reserve, Missouri Botanical Garden, P.O. Box 38, Gray Summit, Missouri 63039, United States. Received 04/01/1996.

PI 631251. Echinacea simulata McGregor
Wild. Ames 22782. Collected 1995 in Missouri, United States. Latitude 38 deg. 28' N. Longitude 90 deg. 49' W. Shaw Arboretum, Franklin County.

The following were collected by Susanne Masi, Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022-0400, United States; J. Epting, Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022-0400, United States; H. Nguyen, Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022-0400, United States. Donated by Susanne Masi, Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022-0400, United States. Received 09/27/1996.

PI 631252. Echinacea pallida (Nutt.) Nutt.
Wild. 690; Ames 23192. Collected 09/17/1996 in Illinois, United States. Latitude 42 deg. 14' 55'' N. Longitude 88 deg. 36' 30'' W. About 1 block west of Thorne Road, north of Route 20, south of railroad tracks, Hum Prairie, Marengo, McHenry County. Dry mesic prairie remnant adjacent to railroad. Purple coneflower. Herb with dried brown seed heads and persistent rays. Cauline leaves still green. White seed. Growing in association with Liatris aspera, Desmodium canadense, Aster ericoides, Solidago
rigida, Sporobolus asper, Euphorbia corollata, Helianthus occidentalis, H. rigidus, Sorghastrum nutans, Monarda fistulosa, Aster pilosus, Asclepias sullivantii, Potentilla arguta, and Rubus sp.

The following were collected by Cindy Hildebrand, 3323 Harcourt Drive, Ames, Iowa 50010, United States. Received 11/19/1996.

PI 631253. Echinacea pallida (Nutt.) Nutt.
Wild. Ames 23368. Collected 11/19/1996 in Iowa, United States. Latitude 41 deg. 58' N. Longitude 93 deg. 28' W. Elevation 289 m. T83N, R23W, W 1/2 of SE 1/4, Section 25, Story County. Prairie remnant.

PI 631254. Echinacea pallida (Nutt.) Nutt.

Wild. Ames 23680. Collected 11/22/1996 in Iowa, United States. Latitude 41 deg. 51' N. Longitude 93 deg. 31' W. Elevation 259 m. Just east of Interstate 35, T-81 N, R-23 W, SW 1/4 of Section 3, Polk County. Coneflower remnant (along railroad right of way, but on private land).

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 08/22/1997.

PI 631255. Echinacea atrorubens (Nutt.) Nutt.
Wild. 001; 067; Snakeroot; Ames 23869; Ames 24061. Collected 07/23/1997 in Kansas, United States. Latitude 38 deg. 47' N. Longitude 95 deg. 12' W. Elevation 350 m. Near Baldwin City, Douglas County. Please contact curator for specific site location. Hay field. Open/full exposure, ~5 degrees of slope with a southern aspect. Calcareous soil with low stoniness and good drainage. Plants were 3 feet tall, robust, and frequent. 97ncao02 was collected one month after 97ncao01 from the same site by Dr. Roger L. Boyd.

PI 631256. Echinacea pallida (Nutt.) Nutt.
Wild. 002; Ames 23870. Collected 08/03/1997 in Missouri, United States. Latitude 38 deg. 33' N. Longitude 93 deg. 16' W. Elevation 380 m. Near Sedalia, Pettis County. Please contact curator for specific site location. Open prairie. Full sun with a nearly flat slope. Fine, sandy, hard packed soil with high stoniness and fair drainage. Plants were 2-3 feet tall, unbranched, and in frequent abundance with no lodging.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Rhonda Stewart, USDA, FS, Kisatchie National Forest, 12458 Lake Charles Highway, Leesville, Louisiana 71446, United States ; Linda Branning, USDA, FS, c/o Rhonda Stewart, Kisatchie National Forest, Leesville, Louisiana 71446, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 08/22/1997.

PI 631257. Echinacea sanguinea Nutt.
Wild. 006; Pale Purple Coneflower; Spit-a-River; Ames 23874. Collected 08/07/1997 in Louisiana, United States. Latitude 30 deg. 58' N. Longitude 93 deg. 13' W. Elevation 140 m. Kisatchie National Forest, near Leesville, Vernon Parish. Please contact curator for specific site location. Open long-leaf pine savannah/flat woods. Partial shade with ~70% exposure and flat ground. Fine sandy soil over impermeable clay with no stones and poor drainage. Plants were 2-2.5 feet tall in frequent abundance with light pink flowers and some branching.

PI 631258. Echinacea sanguinea Nutt.
Wild. 007; Pale Purple Coneflower; Spit-a-River; Ames 23875. Collected 08/07/1997 in Louisiana, United States. Latitude 30 deg. 57' N. Longitude 93 deg. 11' W. Elevation 130 m. Kisatchie National Forest, near Rosepine, Vernon Parish. Please contact curator for specific site location. Upland long-leaf pine savannah/flat woods. ~70% exposure on level ground. Fine sandy soil over impermeable clay with no stones and fair drainage. Plants were 2-2.5 feet tall in frequent abundance with

light pink flowers and some branching.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 08/22/1997.

PI 631259. Echinacea pallida (Nutt.) Nutt.
Wild. 012; Ames 23880. Collected 08/10/1997 in Oklahoma, United States. Latitude 34 deg. 0' N. Longitude 95 deg. 17' W. Elevation 250 m. Near Fort Towson, Choctaw County. Please contact curator for specific site location. Along fence at edge of stand of trees. Nearly full sun on level ground with an east and west aspect. Clay soil with very high stoniness and fair to poor drainage. Plants were growing in rare abundance with pure white flowers and severe lodging.

PI 631260. Echinacea atrorubens (Nutt.) Nutt.
Wild. 013; Ames 23881. Collected 08/09/1997 in Oklahoma, United States. Latitude 34 deg. 0' N. Longitude 96 deg. 17' W. Elevation 300 m. Near Durant, Bryan County. Please contact curator for specific site location. Roadside adjacent to hayfield. Full exposure on flat ground. Calcareous/clay soil with medium stoniness and poor drainage. Plants were up to 3 feet tall in frequent abundance with pink to magenta flowers and sometimes branched.

PI 631261. Echinacea angustifolia DC. **var. angustifolia**
Wild. 014; Ames 23882. Collected 08/09/1997 in Oklahoma, United States. Latitude 34 deg. 11' N. Longitude 96 deg. 56' W. Elevation 350 m. Near Mannsville, Carter/Johnston County line. Please contact curator for specific site location. Base of fairly steep roadbank. Full exposure on level ground. Calcareous soil with high stoniness and good drainage. Plants were short, in occasional abundance, and branched with white and pink flowers. This is not a true Echinacea angustifolia var. strigosa because all the stem hairs did not lie flat against the stem and parallel; probably a natural hybrid (per R. McGregor).

PI 631262. Echinacea atrorubens (Nutt.) Nutt.
Wild. 015; Ames 23883. Collected 08/10/1997 in Oklahoma, United States. Latitude 34 deg. 34' N. Longitude 96 deg. 57' W. Elevation 385 m. Near Sulphur, Murray County. Pool of two colonies ~0.4 mile apart. Please contact curator for specific site location. Edge of pasture at roadside. Full sun on nearly level ground. Sandy soil with high stoniness and fair drainage. Plants were tall in occasional abundance with light to medium pink flowers and occasional branching.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Jerry Underwood, Chickasaw National Recreation Area, P.O. Box 201, Sulphur, Oklahoma 73086, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 08/22/1997.

PI 631263. Echinacea paradoxa var. neglecta McGregor
Wild. 016; Ames 23884. Collected 08/10/1997 in Oklahoma, United States. Latitude 34 deg. 30' N. Longitude 96 deg. 57' W. Elevation 380 m. Near

Sulphur, Murray County. Please contact curator for specific site location. Full exposure with ~10 degrees of slope and a southern aspect. Calcareous, well drained soil with high stoniness. Plants were up to ~2.5 feet high, in frequent abundance, and seldom branched with white and medium pink flowers.

PI 631264. Echinacea paradoxa var. neglecta McGregor
Wild. 017; Ames 23885. Collected 08/10/1997 in Oklahoma, United States. Latitude 34 deg. 30' N. Longitude 96 deg. 58' W. Elevation 370 m. Near Sulphur, Murray County. Please contact curator for specific site location. Top of road bank adjacent to buffalo pasture. Full exposure on nearly level ground. Calcareous, well drained soil with high stoniness. Plants were up to ~2.5 feet high, in relative abundance, and seldom branched with white and medium pink flowers. Endemic to Arbuckle Mountains.

PI 631265. Echinacea paradoxa var. neglecta McGregor
Wild. 018; Ames 23886. Collected 08/10/1997 in Oklahoma, United States. Latitude 34 deg. 30' N. Longitude 97 deg. 0' W. Elevation 400 m. Near Sulphur, Murray County. Please contact curator for specific site location. Hillside overlooking Veteran's Lake. Full exposure with 5-10 degrees of slope and a southern aspect. Calcareous, well drained soil with high stoniness. Plants were growing in relative abundance and seldom branched with white and medium pink flowers.

PI 631266. Echinacea angustifolia var. strigosa McGregor
Wild. 019; Ames 23887. Collected 08/10/1997 in Oklahoma, United States. Latitude 34 deg. 30' N. Longitude 96 deg. 59' W. Elevation 380 m. Near Sulphur, Murray County. Please contact curator for specific site location. Prairie remnant. Full exposure on level ground. Calcareous, well drained soil with low stoniness. Plants were growing in frequent abundance and frequently branched with white and pink flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Le Mac Morris, Route 1, Box 207A, Davis, Oklahoma 73030, United States; Jo Retta Morris, Route 1, Box 207A, Davis, Oklahoma 73030, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 08/22/1997.

PI 631267. Echinacea angustifolia DC.
Wild. 020; Ames 23888. Collected 07/18/1997 in Oklahoma, United States. Latitude 34 deg. 34' N. Longitude 97 deg. 2' W. Elevation 410 m. Near Sulphur, Murray County. Please contact curator for specific site location. Roadside adjacent to and extending into native prairie. Full exposure with ~20 degrees of slope and a western aspect. Clay and limestone, well drained soil with high stoniness on surface and moderate stoniness below. Plants were frequently abundant, erect, frequently branched, rays reflexed, stems nearly glabrous below, and 40-80 cm high with pink ligules and burnt orange bracts. This is likely one of the hybrids described in the McGregor monograph, occurring in the geographic area where E. atrorubens hybridizes with E. a. var. angustifolia.

The following were collected by Kathy McKeown, University of Massachusetts,

Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 09/03/1997.

PI 631268. Echinacea angustifolia DC. **var. angustifolia**
Wild. 021; Ames 23906. Collected 08/11/1997 in Oklahoma, United States. Latitude 34 deg. 30' N. Longitude 97 deg. 21' W. Elevation 370 m. Near Hennepin, Garvin County. Please contact curator for specific site location. Roadside adjacent to pasture. Full exposure with ~10 degrees of slope and a western aspect. Sandy, eroded, well drained soil with high stoniness. Plants were growing in occasional abundance and short with light pink flowers.

PI 631269. Echinacea angustifolia DC. **var. angustifolia**
Wild. 022; Ames 23907. Collected 08/11/1997 in Oklahoma, United States. Latitude 34 deg. 30' N. Longitude 97 deg. 17' W. Elevation 370 m. Near Davis, Garvin County. Please contact curator for specific site location. Roadside adjacent to pasture. Full exposure with 10-20 degrees of slope and an eastern aspect. Well drained soil. Plants were growing in frequent abundance and short with light pink flowers.

PI 631270. Echinacea angustifolia DC. **var. angustifolia**
Wild. 023; Ames 23908. Collected 08/11/1997 in Oklahoma, United States. Latitude 34 deg. 31' N. Longitude 97 deg. 24' W. Elevation 370 m. Near Elmore City, Garvin County. Please contact curator for specific site location. Top of eroded roadbank adjacent to pasture. Full exposure on level ground. Calcareous/sandy, well drained soil with low stoniness. Plants were growing occasional abundance with light pink flowers.

PI 631271. Echinacea angustifolia DC. **var. angustifolia**
Wild. 024; Ames 23909. Collected 08/11/1997 in Oklahoma, United States. Latitude 34 deg. 43' N. Longitude 98 deg. 24' W. Elevation 440 m. Near Fort Sill, Comanche County. Please contact curator for specific site location. Native prairie. Full exposure on level ground. Plants were growing in frequent abundance with light pink flowers.

PI 631272. Echinacea angustifolia DC. **var. angustifolia**
Wild. 025; Ames 23910. Collected 08/11/1997 in Oklahoma, United States. Latitude 34 deg. 42' N. Longitude 98 deg. 38' W. Elevation 535 m. Wichita Mountains National Wildlife Refuge, Comanche County. Please contact curator for specific site location. Native prairie. Full exposure on level ground. Soil had medium stoniness. Plants were short, in frequent abundance, and seldom branched with light pink flowers.

PI 631273. Echinacea angustifolia DC. **var. angustifolia**
Wild. 026; Ames 23911. Collected 08/11/1997 in Oklahoma, United States. Latitude 34 deg. 44' N. Longitude 98 deg. 35' W. Elevation 570 m. Wichita Mountains National Wildlife Refuge, Comanche County. Please contact curator for specific site location. Native prairie. Full exposure on level ground. Plants were short, in occasional abundance, and seldom branched with light pink flowers.

PI 631274. Echinacea pallida (Nutt.) Nutt.
Wild. 027; Ames 23912. Collected 08/13/1997 in Oklahoma, United States. Latitude 35 deg. 50' N. Longitude 96 deg. 24' W. Elevation 250 m. Near Bristow, Creek County. Please contact curator for specific site location. Roadside. Full exposure with 20 degrees of slope and a

northwest aspect. Well drained soil. Plants were up to ~2.5 feet tall, in occasional abundance, and seldom branched with light pink flowers.

PI 631275. Echinacea pallida (Nutt.) Nutt.
Wild. 028; Snakeroot; Ames 23913. Collected 08/13/1997 in Oklahoma, United States. Latitude 36 deg. 45' N. Longitude 96 deg. 11' W. Elevation 330 m. Near Bartlesville, Osage County. Please contact curator for specific site location. Black Jack oak savannah. Full exposure on flat ground. Soil had fair drainage. Plants were growing in occasional abundance, had stems to ~2 feet high, occasional branching, and pinkish purple flowers.

PI 631276. Echinacea pallida (Nutt.) Nutt.
Wild. 029; Ames 23914. Collected 08/13/1997 in Oklahoma, United States. Latitude 36 deg. 45' N. Longitude 96 deg. 19' W. Elevation 335 m. Near Pawhuska, Osage County. Please contact curator for specific site location. Tallgrass prairie at edge of road. Full exposure on level ground. Plants were up to 2.5 feet tall, in occasional abundance, and seldom branched.

PI 631277. Echinacea pallida (Nutt.) Nutt.
Wild. 030; Snakeroot; Ames 23915. Collected 08/14/1997 in Oklahoma, United States. Latitude 36 deg. 51' N. Longitude 95 deg. 37' W. Elevation 360 m. Near Lenapah, Nowata County. Please contact curator for specific site location. Roadside adjacent to pasture. Full exposure with a gentle slope. Plants were growing in occasional abundance with large cones.

PI 631278. Echinacea pallida (Nutt.) Nutt.
Wild. 031; Snakeroot; Ames 23916. Collected 08/14/1997 in Oklahoma, United States. Latitude 36 deg. 53' N. Longitude 95 deg. 20' W. Elevation 380 m. Near Centralia, Craig County. Please contact curator for specific site location. Roadside adjacent to pasture. Full exposure on level ground. Plants were tall, in occasional abundance, and occasionally branched with very large cones.

PI 631279. Echinacea pallida (Nutt.) Nutt.
Wild. 032; Snakeroot; Ames 23917. Collected 08/14/1997 in Kansas, United States. Latitude 37 deg. 1' N. Longitude 94 deg. 42' W. Elevation 400 m. Near Baxter Springs, Cherokee County. Please contact curator for specific site location. Steep roadbank. Full exposure with 25 degrees of slope and a western aspect. Red clay soil with fair drainage and a rocky surface. Plants were growing in frequent abundance with light pink flowers and white and very light yellow pollen.

PI 631280. Echinacea pallida (Nutt.) Nutt.
Wild. 033; Pale Purple Coneflower; Ames 23918. Collected 08/15/1997 in Arkansas, United States. Latitude 34 deg. 5' N. Longitude 93 deg. 10' W. Elevation 220 m. Near Arkadelphia, Clark County. Please contact curator for specific site location. Blackland prairie remnant. Full exposure on nearly level ground. Calcareous soil with low stoniness, poor drainage, and a high holding capacity. Plants were up to ~2 feet high, relatively abundant, and seldom branched with light purple flowers and small cones.

PI 631281. Echinacea pallida (Nutt.) Nutt.
Wild. 034; Ames 23919. Collected 08/16/1997 in Arkansas, United States. Latitude 34 deg. 47' N. Longitude 91 deg. 41' W. Elevation 170 m. Near

Carlisle, Lonoke County. Please contact curator for specific site location. Lowland prairie remnant. Full exposure on level ground. Calcareous, hard packed soil with fair drainage and no stones. Plants were up to 3 feet tall and in frequent abundance with large cones, frequent branching at base, and no lodging despite height.

The following were collected by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 10/01/1997.

PI 631282. Echinacea pallida (Nutt.) Nutt.
Wild. 2; Ames 23926. Collected 09/29/1997 in Iowa, United States. Latitude 42 deg. 31' N. Longitude 94 deg. 37' W. Elevation 375 m. Near Manson, Calhoun County. Please contact curator for specific site location. Degraded prairie. Nearly full sun on flat ground. Clarion loam soil with fair drainage and no stoniness. Plants were occasional and 60-100 cm tall.

The following were collected by Clint Fraley, Clay County Conservation Board, 420 10th Avenue SE, Spencer, Iowa 51301-5209, United States. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 10/01/1997.

PI 631283. Echinacea angustifolia DC. **var. angustifolia**
Wild. 6; Ames 23930. Collected 09/23/1997 in Iowa, United States. Latitude 42 deg. 55' N. Longitude 95 deg. 19' W. Elevation 415 m. Near Peterson, Clay County. Please contact curator for specific site location. Steep 30% slope with a southern aspect. Well drained, stony, poor quality Storden loam soil. Plants were abundant.

The following were collected by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 10/01/1997.

PI 631284. Echinacea angustifolia DC. **var. angustifolia**
Wild. 8; Ames 23932. Collected 09/29/1997 in Iowa, United States. Latitude 43 deg. 25' N. Longitude 95 deg. 36' W. Elevation 475 m. Near Ocheyedan, Osceola County. Please contact curator for specific site location. Prairie. Full sun with a steep (20-40%) slope and an aspect ranging from northeast to northwest. Well drained, variably stony, Storden loam soil. Plants were abundant and 40-56 cm tall.

PI 631285. Echinacea angustifolia DC. **var. angustifolia**
Wild. 9; Ames 23933. Collected 09/29/1997 in Iowa, United States. Latitude 43 deg. 25' N. Longitude 96 deg. 34' W. Elevation 410 m. Near Granite, Lyon County. Please contact curator for specific site location. Prairie. Mostly sunny exposure with a steep (20-40%) slope and a southwest aspect. Well drained, poor Steinauer clay loam with large exposed rocks. Plants were frequent and 40-64 cm tall.

PI 631286. Echinacea angustifolia DC. **var. angustifolia**
Wild. 11; Ames 23934. Collected 09/30/1997 in Iowa, United States. Latitude 43 deg. 3' N. Longitude 96 deg. 28' W. Elevation 400 m. Near Hawarden, Sioux County. Please contact curator for specific site

location. Sandy mound near pond on south end of park. Full sun with ~15% slope and aspects in all directions. Well drained, silty clay loam, and one small sandy area, with few stones. Plants were occasional and 40-60 cm tall.

PI 631287. Echinacea angustifolia DC. **var. angustifolia**
Wild. 12; Ames 23935. Collected 09/30/1997 in Iowa, United States. Latitude 42 deg. 43' N. Longitude 96 deg. 31' W. Elevation 420 m. Near Westfield, Plymouth County. Please contact curator for specific site location. Prairie on a loess hill. A few trees present with 20% slope and a northern aspect. Well drained, eroded Ida silt loam soil with no stones. Plants were 30-50 cm tall.

PI 631288. Echinacea angustifolia DC. **var. angustifolia**
Wild. 13; Ames 23936. Collected 09/30/1997 in Iowa, United States. Latitude 42 deg. 38' N. Longitude 96 deg. 19' W. Elevation 400 m. Near Hinton, Plymouth County. Please contact curator for specific site location. Degraded prairie on a loess hill. Full sun with 20-40% slope and a southwestern aspect. Well drained, eroded Ira silt loam with no stones. Plants were 45-62 cm tall.

PI 631289. Echinacea angustifolia DC. **var. angustifolia**
Wild. 14; Ames 23937. Collected 09/30/1997 in Iowa, United States. Latitude 42 deg. 51' N. Longitude 95 deg. 28' W. Elevation 405 m. Near Larrabee, Cherokee County. Please contact curator for specific site location. Hill prairie. Full sun with 20% slope and a northwestern aspect. Well drained, Galva silty clay/loam soil with some stoniness. Plants were frequent and 40-60 cm tall. Collected with the help of the staff of the Cherokee County Conservation Board.

PI 631290. Echinacea pallida (Nutt.) Nutt.
Wild. 15; Ames 23938. Collected 09/30/1997 in Iowa, United States. Latitude 42 deg. 15' N. Longitude 94 deg. 57' W. Elevation 390 m. Near Auburn, Sac County. Please contact curator for specific site location. Tallgrass prairie. Full sun on almost flat ground. Canisteo silty clay loam soil with fair drainage and no stoniness. Plants were occasional and 70-95 cm tall.

PI 631291. Echinacea pallida (Nutt.) Nutt.
Wild. 16; Ames 23939. Collected 09/30/1997 in Iowa, United States. Latitude 42 deg. 15' N. Longitude 94 deg. 32' W. Elevation 345 m. Near Lohrville, Calhoun County. Please contact curator for specific site location. Roadside ditch. Full sun with ~10% slope and a slightly northern aspect. Clarion loam soil with good drainage and no stoniness. Plants were uncommon and 70-84 cm tall.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Earl Hendrix, USDA-USFS, Sylamore Ranger District, P.O. Box 1279, Mountain View, Arkansas 72560, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631292. Echinacea paradoxa (Norton) Britton **var. paradoxa**
Wild. 036; Bush's Yellow Coneflower; Ames 23942. Collected 08/18/1997 in

Arkansas, United States. Latitude 36 deg. 5' N. Longitude 92 deg. 10' W. Elevation 325 m. Near Calico Rock, Stone County. Please contact curator for specific site location. Steeply sloping cedar grade. Full exposure, ~45 degrees of slope with a southern aspect. Calcareous, well drained, and very rocky soil. Plants were up to ~2.5 feet tall, occasional, and unbranched with yellow flowers.

PI 631293. Echinacea pallida (Nutt.) Nutt.
Wild. 037; Pale Purple Coneflower; Ames 23943. Collected 08/18/1997 in Arkansas, United States. Latitude 36 deg. 5' N. Longitude 92 deg. 10' W. Elevation 325 m. Near Calico Rock, Stone County. Please contact curator for specific site location. Steeply sloping cedar grade. Full exposure, ~45 degrees of slope with a southern aspect. Calcareous, well drained, and very rocky soil. Plants were up to ~2.5 feet tall, occasional, and unbranched with pale pink flowers.

PI 631294. Echinacea hybrid
Wild. 038; Bush's Yellow Coneflower; Ames 23944. Collected 08/18/1997 in Arkansas, United States. Latitude 36 deg. 3' N. Longitude 92 deg. 7' W. Elevation 320 m. Near Mountain View, Stone County. Please contact curator for specific site location. Limestone glade. Full exposure, ~30 degrees of slope with a southern aspect. Calcareous, well drained soil with high stoniness. Pedigree - Putative parents: E. paradoxa and E. pallida. Plants were up to ~2 feet tall, occasional, and unbranched with yellow flowers.

PI 631295. Echinacea pallida (Nutt.) Nutt.
Wild. 039; Pale Purple Coneflower; Ames 23945. Collected 08/18/1997 in Arkansas, United States. Latitude 36 deg. 3' N. Longitude 92 deg. 7' W. Elevation 320 m. Near Mountain View, Stone County. Please contact curator for specific site location. Limestone glade. Full exposure, ~30 degrees of slope with a southern aspect. Calcareous, well drained soil with high stoniness. Plants were up to ~2.5 feet tall, occasional, and unbranched with very pale pink flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631296. Echinacea pallida (Nutt.) Nutt.
Wild. 040; Pale Purple Coneflower; Ames 23946. Collected 08/19/1997 in Missouri, United States. Latitude 36 deg. 40' N. Longitude 93 deg. 18' W. Elevation 480 m. Near Branson, Taney County. Please contact curator for specific site location. Grassy clearings between cedars on hillside. Full to nearly full sun, ~10 degrees of slope with a southern aspect. Dolomite, well drained soil with high stoniness. Plants were up to ~2 feet high, occasional, and mostly unbranched with very pale pink flowers.

PI 631297. Echinacea pallida (Nutt.) Nutt.
Wild. 043; Ames 23949. Collected 08/19/1997 in Missouri, United States. Latitude 37 deg. 52' N. Longitude 93 deg. 11' W. Elevation 420 m. Near Urbana, Dallas County. Please contact curator for specific site location. Roadside adjacent to hay field. Full exposure, ~10 degrees of slope with an eastern aspect. Red clay, rocky soil with good drainage. Plants were up to ~3 feet tall, frequent, and unbranched with pale pink

flowers and no lodging. This site was harvested by another collector earlier this year. 30-40% of the cones remained. All of the tallest and most robust plants had been harvested; believe the largest cones were taken. Therefore, this accession may be biased towards smaller cone size and shorter plants.

PI 631298. Echinacea pallida (Nutt.) Nutt.
Wild. 044; Snakeroot; Ames 23950. Collected 08/23/1997 in Kansas, United States. Latitude 38 deg. 46' N. Longitude 95 deg. 8' W. Elevation 380 m. Near Baldwin City, Douglas County. Please contact curator for specific site location. Native prairie remnant. Full exposure on a gentle slope. Plants were up to ~3 feet tall, abundant, stout, and seldom branched in a vigorous population with pale pink flowers.

PI 631299. Echinacea atrorubens (Nutt.) Nutt.
Wild. 045; Ames 23951. Collected 08/23/1997 in Kansas, United States. Latitude 38 deg. 36' N. Longitude 95 deg. 40' W. Elevation 390 m. Near Lyndon, Osage County. Please contact curator for specific site location. Native tall grass prairie. Full exposure, gentle slope with an eastern aspect. Dark like blackland, stoney on top with good drainage. Plants were up to ~3.5 feet tall, occasionally branched, and frequent with a population total >100 and pink flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Jodi Moulder, Ha Ha Tonka State Park, Route 1, Box 658, Camdenton, Missouri 65020, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631300. Echinacea pallida (Nutt.) Nutt.
Wild. 046; Ames 23952. Collected 08/25/1997 in Missouri, United States. Latitude 37 deg. 58' N. Longitude 92 deg. 46' W. Elevation 260 m. Near Camdenton, Camden County. Please contact curator for specific site location. Savanna. Nearly full exposure, ~20 degrees of slope with a southern aspect. Dolomite and chert, calcareous, dry, well drained soil with high stoniness. Plants were 2.5 to 3 feet tall, frequent, and seldom branched with pale pink flowers.

PI 631301. Echinacea paradoxa (Norton) Britton **var. paradoxa**
Wild. 047; Ames 23953. Collected 08/25/1997 in Missouri, United States. Latitude 37 deg. 58' N. Longitude 92 deg. 46' W. Elevation 260 m. Near Camdenton, Camden County. Please contact curator for specific site location. Savanna. Nearly full exposure, ~20 degrees of slope with a southern aspect. Dolomite and chert, calcareous, dry, well drained soil with high stoniness. Plants were up to ~2.5 feet tall, frequent, and unbranched with yellow flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631302. Echinacea pallida (Nutt.) Nutt.
Wild. 048; Ames 23954. Collected 08/25/1997 in Missouri, United States. Latitude 37 deg. 45' N. Longitude 92 deg. 34' W. Elevation 390 m. Near

Sleeper, Laclede County. Please contact curator for specific site location. Roadside prairie remnant/disturbed area. Full exposure, ~15 degrees of slope with a southern aspect. Calcareous, dry soil with good drainage and high stoniness. Plants were tall, occasional, and sometimes branched with pale pink flowers. Population had the "mixed pollen color" character (ie. most plants had white pollen, some had light yellow pollen). Part of site mowed, part of site previously harvested of seed: more of a "clear cut" than a random/scientific collection (probable collection for profit).

PI 631303. Echinacea pallida (Nutt.) Nutt.
Wild. 049; Ames 23955. Collected 08/25/1997 in Missouri, United States. Latitude 37 deg. 52' N. Longitude 92 deg. 1' W. Elevation 400 m. Near Jerome, around the Phelps/Pulaski County line. Please contact curator for specific site location. Steep, rocky roadbank. Full exposure, 45 degrees of slope with a southern aspect. Thin, dry, calcareous, well drained, and very rocky soil. Plants were up to ~3 feet tall and occasional with lodging, some branching, and pale pink flowers. Very small population of 15-20 plants. Mixed pollen color (light yellow and white). Some prior harvesting of seed at this site earlier in the season.

PI 631304. Echinacea simulata McGregor
Wild. 050; Ames 23956. Collected 08/26/1997 in Missouri, United States. Latitude 38 deg. 30' N. Longitude 90 deg. 45' W. Elevation 260 m. Near Pacific, Franklin County. Please contact curator for specific site location. Sloping bank. Full exposure, ~20 degrees of slope with a southern aspect. Rocky, dry, and well drained soil with high stoniness. Plants were 1.5-3 feet tall, abundant, and occasionally branched with pink to magenta and highly variable flowers. Vigorous population, highly variable in height and color. Site was heavily harvested by a previous collector (~95% of all seed heads were gone).

PI 631305. Echinacea simulata McGregor
Wild. 051; Ames 23957. Collected 08/26/1997 in Missouri, United States. Latitude 38 deg. 28' N. Longitude 90 deg. 49' W. Elevation 270 m. Shaw Arboretum, Gray Summit, Franklin County. Please contact curator for specific site location. Limestone glade. Full exposure, 15-20 degrees of slope with a southern aspect. Calcareous, rocky, and well drained soil with high stoniness (limestone and sandstone). Plants were up to ~2.5 feet tall, abundant, and frequently branched with pink flowers.

PI 631306. Echinacea hybrid
Wild. 052; Ames 23958. Collected 08/26/1997 in Missouri, United States. Latitude 38 deg. 28' N. Longitude 90 deg. 49' W. Elevation 270 m. Shaw Arboretum, Gray Summit, Franklin County. Please contact curator for specific site location. Limestone glade. Full exposure, 15-20 degrees of slope with a southern aspect. Calcareous, rocky, and well drained soil with high stoniness (limestone and sandstone). Pedigree - Putative parents: E. paradoxa and E. simulata. Plants were frequent with yellow flowers. Very few cones present, possibly due to poaching. This population was reported in 1937 and is not likely to have any introductions.

PI 631307. Echinacea purpurea (L.) Moench
Cultivated. 053; Ames 23959. Collected 08/26/1997 in Missouri, United States. Latitude 38 deg. 28' N. Longitude 90 deg. 47' W. Elevation 270

m. Shaw Arboretum, Gray Summit, Franklin County. Please contact curator for specific site location. Nursery. Full exposure on level ground. Loess derived neutral clay/loam, well drained soil with low stoniness. Plants were up to ~3 feet tall and branched with purple flowers. Subpopulation of a wild population from the "Christy Road" site in St. Louis County. Seed planted in 1994. Original soil: dry, rocky. "Christy Road" site is faced with possible extirpation.

PI 631308. Echinacea simulata McGregor
Wild. 054; Ames 23960. Collected 08/27/1997 in Tennessee, United States. Latitude 35 deg. 51' N. Longitude 86 deg. 18' W. Elevation 300 m. Near Murfreesboro, Rutherford County. Please contact curator for specific site location. Cedar glade. Nearly full exposure on level ground. Calcareous, well drained soil with high stoniness. Plants were up to ~3.5 feet tall, frequent, and unbranched with magenta flowers.

PI 631309. Echinacea pallida (Nutt.) Nutt.
Wild. 055; Ames 23961. Collected 08/28/1997 in Tennessee, United States. Latitude 35 deg. 22' N. Longitude 86 deg. 8' W. Elevation 400 m. Near Arnold Air Force Base, Manchester, Coffee County. Please contact curator for specific site location. Disturbed area around railroad track right-of-way and prairie remnant. Full exposure, level to ~20 degrees of slope with a southern aspect. Shallow, dry, chalky, well drained, and very rocky soil. Plants were up to 2.5 feet tall, occasional, and mostly unbranched with light magenta flowers. This may be the only known E. pallida site in Tennessee. Possibly introduced via the railroad right-of-way.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Tom Waldrop, USDA-USFS, Southern Research Station, Clemson University, Clemson, South Carolina 29634-1003, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631310. Echinacea laevigata (C. L. Boynton & Beadle) S. F. Blake
Wild. 057; Ames 23963. Collected 08/29/1997 in South Carolina, United States. Latitude 34 deg. 46' N. Longitude 83 deg. 11' W. Elevation 450 m. Site "2658", Plots 1-3 of Dr. Tom Waldrop, Pickens Ranger District, Walhalla, Oconee County. Please contact curator for specific site location. Dense hardwood clearcut. Partial exposure, 10-15 degrees of slope with a southern aspect. Magnesium rich, well drained clay with no stones. Plants were up to ~3 feet tall, rare, and occasionally branched with pink flowers.

PI 631311. Echinacea laevigata (C. L. Boynton & Beadle) S. F. Blake
Wild. 058; Ames 23964. Collected 08/29/1997 in South Carolina, United States. Latitude 34 deg. 45' N. Longitude 83 deg. 11' W. Elevation 490 m. Site "2727", Plots 7A & 7B of Dr. Tom Waldrop, Pickens Ranger District, Walhalla, Oconee County. Please contact curator for specific site location. Ridgetop. Partial exposure on gentle sloping ground. Magnesium rich, well drained clay with no stones. The soil is losing its buffering capacity and is high in Mg where Echinacea is found. Plants were frequent with pink flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Mary Bunch, Carolina Department of Natural Resources, Wildlife Diversity Section, P.O. Box 1806, Clemson, South Carolina 29633, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631312. Echinacea laevigata (C. L. Boynton & Beadle) S. F. Blake
Wild. 060; Ames 23966. Collected 08/29/1997 in South Carolina, United States. Latitude 34 deg. 46' N. Longitude 83 deg. 9' W. Elevation 590 m. Near Walhalla, Oconee County. Please contact curator for specific site location. Hardwood forest. Partial exposure, ~25 degrees of slope with a southern aspect. Schist and low grade marble in Brevard Belt, well drained soil with low stoniness. Plants were rare with pink flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631313. Echinacea purpurea (L.) Moench
Wild. 061; Ames 23967. Collected 09/01/1997 in North Carolina, United States. Latitude 35 deg. 55' N. Longitude 82 deg. 53' W. Elevation 490 m. Hot Springs, Madison County. Please contact curator for specific site location. Fairly steep roadside and wooded hill/prairie remnant. ~80% exposure, 30 degrees of slope with a southern aspect. Well drained soil with low stoniness. Plants were up to ~2 feet tall, abundant, and occasionally branched with purple and pale purple flowers. Very close in floral phenotype to E. laevigata. 1st of 2 collections. This accession is of early ripening seed. Most of population in bloom at time of collection. Counted ~250 flowering stems. 2nd collection to be made in 09/1998.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Carol Banaitis, U.S. Army Corps of Engineers, Falls Lake Management Center, 11405 Falls of Neuse Road, Wake Forest, North Carolina 27587, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631314. Echinacea laevigata (C. L. Boynton & Beadle) S. F. Blake
Wild. 062; Ames 23968. Collected 09/02/1997 in North Carolina, United States. Latitude 36 deg. 8' N. Longitude 78 deg. 48' W. Elevation 90 m. Near Butner, Granville County. Please contact curator for specific site location. Power line right-of-way running southeast to northwest. Nearly full exposure on a very gentle slope. Diabase sill, well drained soil. Plants were up to ~2.5 feet tall, frequent, and sometimes branched with light pink to dark magenta flowers.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States; Milo Pyne, The Nature Conservancy, 101 Connor

Drive, Suite 302, Chapel Hill, North Carolina 27514, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631315. Echinacea pallida (Nutt.) Nutt.
Wild. 064; Ames 23970. Collected 09/03/1997 in North Carolina, United States. Latitude 36 deg. 9' N. Longitude 78 deg. 46' W. Elevation 107 m. Near Butner, Granville County. Please contact curator for specific site location. Roadside. Partial exposure with a southern aspect. Plants were rare. A very small population of 2-3 plants.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

PI 631316. Echinacea laevigata (C. L. Boynton & Beadle) S. F. Blake
Wild. 065; Ames 23971. Collected 09/04/1997 in Virginia, United States. Latitude 37 deg. 1' N. Longitude 79 deg. 54' W. Elevation 490 m. Near Rocky Mount, Franklin County. Please contact curator for specific site location. Sandy, eroded bank. Nearly full exposure, ~10% slope with an eastern aspect. Sandy, well drained soil with low stoniness. Plants were up to ~4 feet tall, frequent, and noticeably tall and sturdy compared to other populations of this species.

The following were collected by Dana P. Hurlburt, University of Kansas, Kansas Biological Survey, 2041 Constant Avenue, Lawrence, Kansas 66047-2906, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 11/03/1997.

PI 631317. Echinacea angustifolia DC. **var. angustifolia**
Wild. 069; Kansas Snakeroot; Ames 24058. Collected 08/26/1997 in Kansas, United States. Latitude 39 deg. 16' N. Longitude 96 deg. 35' W. Elevation 385 m. Near Manhattan, Pottawatomie County. Please contact curator for specific site location. Native mixed prairie; not grazed or harvested (burned in the spring). Full exposure on nearly 0 to 20% slope with a western aspect. Clime-Sogn silty clay loam (calcareous), well drained with a limestone outcrop and stones on the surface. Plants were 3-5 dm tall, few branched, relatively abundant with about 1 flowering plant/square meter, and an overall population estimated at 2-3000.

PI 631318. Echinacea angustifolia DC. **var. angustifolia**
Wild. 070; Snakeroot; Ames 24059. Collected 08/27/1997 in Kansas, United States. Latitude 39 deg. 28' N. Longitude 99 deg. 8' W. Elevation 585 m. Near Woodston, Rooks County. Please contact curator for specific site location. Native mixed prairie; grazed mid-summer to fall; harvested since the 1930's. Full exposure, 5-25% slope with southern and eastern aspects. Heizer-Brownell gravelly loam, well drained with moderate amounts of limestone gravel. Cont: Hedeoma drummondii, Liatris punctata, Comandra, Mentzelia, and Stenosiphon. Most plants were 3-4 (some up to 5) dm tall, branched, and frequent on the hilltop and abundant on the slopes in a large population with a moderate density of about 0.5 flowering plants/square meter.

PI 631319. Echinacea angustifolia DC. **var. angustifolia**
Wild. 071; Snakeroot; Ames 24060. Collected 08/29/1997 in Kansas, United States. Latitude 38 deg. 57' N. Longitude 100 deg. 13' W. Elevation 840 m. Near Quinter, Gove County. Please contact curator for specific site location. Native pasture of mixed and short grasses, somewhat weedy. Full exposure, ~25% slope with a north to northeast aspect. Manuel-Badland complex (calcareous; chalk breaks), well drained thin soil over chalk and limestone, gravelly to stony. Cont: Leucelene ericoides, Liatris punctata, Calylophus, Lesquerella, Psoralea tenuiflora, Dalea, and Paronychia. Plants were short (mostly 2-3 dm), unbranched, and frequent (clustered on slopes, mostly on thin soil, not areas of bare chalk).

The following were collected by Forrest Johnson, University of Oklahoma, Oklahoma Biological Survey, 111 East Chesapeake Street, Norman, Oklahoma 73019-0575, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 11/03/1997.

PI 631320. Echinacea angustifolia var. strigosa McGregor
Wild. 068; Ames 24062. Collected 08/1997 in Oklahoma, United States. Pontotoc County. Please contact curator for specific site location. Limestone hill. Thin, rocky soil with high stoniness.

The following were collected by Jodi Moulder, Ha Ha Tonka State Park, Route 1, Box 658, Camdenton, Missouri 65020, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 11/03/1997.

PI 631321. Echinacea paradoxa (Norton) Britton **var. paradoxa**
Wild. 072; Ames 24064. Collected 09/09/1997 in Missouri, United States. Latitude 37 deg. 27' N. Longitude 92 deg. 46' W. Elevation 275 m. ~0.6 mile directly south of Collection number 072. Near Camdenton, Camden County. Please contact curator for specific site location. Limestone glade. Full exposure, ~10% slope with a south-southwestern aspect. Dolomite and chert soil, well drained with high stoniness. Plants were abundant with yellow flowers. This is likely the largest population of this species in the world.

The following were collected by R. Dale Thomas, Northeast Louisiana University, Department of Biology, NLU Herbarium, Monroe, Louisiana 71209-0502, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 11/03/1997.

PI 631322. Echinacea pallida (Nutt.) Nutt.
Wild. 073; Ames 24065. Collected 09/1996 in Louisiana, United States. Near Leesville, Vernon Parish. Please contact curator for specific site location. Purple flowers. Seed has been stored in cool, dry LSU herbarium for 1 year.

The following were collected by I.M. Cull, Horticultural and Special Crops Lab., Northern Regional Research Center, Peoria, Illinois, United States. Donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

PI 631323. Echinacea pallida (Nutt.) Nutt.
Wild. NU 63404; Ames 24305. Collected 01/1998 in Illinois, United States . Latitude 41 deg. 11' 6'' N. Longitude 89 deg. 23' 47'' W. Putnam.

The following were collected by Andrea Shea, Tennessee Department of Environment and Conservation, Division of Natural Heritage, 401 Church Street, Nashville, Tennessee 37243-0447, United States. Donated by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 01/27/1999.

PI 631324. Echinacea tennesseensis (Beadle) Small
Wild. 086; Ames 25162. Collected 11/1998 in Tennessee, United States. Latitude 36 deg. 3' 54'' N. Longitude 86 deg. 24' 48'' W. "Vesta Road", Wilson County. Cedar glades and barrens. Full exposure. Shallow and rocky soil. Plants were growing in relative abundance. Flowers were white-magenta-purple.

PI 631325. Echinacea tennesseensis (Beadle) Small
Wild. 087; Ames 25163. Collected 11/1998 in Tennessee, United States. Latitude 36 deg. 9' N. Longitude 86 deg. 17' W. "Lane Farm", Wilson County. Glade. Full exposure. Rocky, shallow soil. Plants were growing in frequent abundance. Flowers varied from white to magenta to purple.

PI 631326. Echinacea tennesseensis (Beadle) Small
Wild. 088; Ames 25164. Collected 11/1998 in Tennessee, United States. Latitude 36 deg. 9' N. Longitude 86 deg. 17' W. "Vine site", Wilson County. Cedar glade and old field. Full exposure. Shallow and rocky soil. Plants were growing in relative abundance. Flowers were white-magenta-purple.

The following were donated by Instytut Hodowli I Aklimatyzacji Roslin, Ogrod Botanicany, Ul. Jezdziecka 5, Bydgoszcz, Bydgoszcz 85-687, Poland. Received 06/17/1991.

PI 631327. Malva sylvestris L.
Wild. 107; Ames 15752. Collected in Suwalki, Poland. Latitude 53 deg. 59' N. Longitude 22 deg. 17' E. Polom.

The following were donated by Goncalo Sampaio, Instituto de Botanica, Universidade Do Porto, 1191 Rua do Campo Alegre, Porto, Porto 4100, Portugal. Received 08/13/1992.

PI 631328. Malva parviflora L.
Wild. No. 300; 900522; Ames 19350. Collected in Vila Real, Portugal. Latitude 41 deg. 10' N. Longitude 7 deg. 47' W. Peso da Regua, Tras-os-Montes Province.

The following were collected by D. Arndt, 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 12/30/1992.

PI 631329. Malva alcea L.
Wild. No. 536; Ames 20111. Collected in Saxony-Anhalt, Germany. Latitude 51 deg. 53' N. Longitude 12 deg. 22' E. Klieken.

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 631330. Malva sylvestris L.
Cultivated. 15; MALVA 36/76; Ames 21156. Collected 1964 in Mongolia. Chobd. Formal Chinese garden.

PI 631331. Malva sylvestris L.
Uncertain. 2754; MALVA 91/90; Ames 21157. Collected 1989 in South Ossetia, Georgia. Latitude 41 deg. 38' 39'' N. Longitude 42 deg. 47' 49'' E. Elevation 1250 m. Ude, west-southwest of Achalciche, Adigeni Region (Mebcheti), southern Georgia mountainland near the Turkish border. received as M. sylvestris var. sylvestris.

PI 631332. Malva verticillata var. crispa L.
Cultivated. 2769; MALVA 90/91; Ames 21159. Collected 1989 in South Ossetia, Georgia. Latitude 41 deg. 28' N. Longitude 43 deg. 17' E. Elevation 1500 m. Chertvisi, south-southeast of Aspindza, Aspindza Region (Mebcheti), southern Georgia mountainland, in the valley of Mtkvari (Kura).

PI 631333. Malva verticillata L. **var. verticillata**
Wild. 63; MALVA 85/89; Ames 21160. Collected 1988 in Korea, South. Kuupri, or Sariwon. Foot of a small mountain chain (lowland). Special region for medicinal plants.

PI 631334. Malva verticillata var. crispa L.
Cultivated. MALVA 74/76; Ames 21161. Collected in Mongolia.

PI 631335. Malva verticillata var. crispa L.
Cultivated. 11604; MALVA 92/91; Ames 21162. Collected 1990 in Trentino-Alto Adige, Italy. Latitude 46 deg. 37' N. Longitude 10 deg. 52' E. Elevation 850 m. Fuchs Molino Farm, Laces (Bz).

PI 631336. Malva verticillata var. crispa L.
Cultivated. 2769; MALVA 89/91; Ames 21163. Collected 1989 in South Ossetia, Georgia. Latitude 41 deg. 28' N. Longitude 43 deg. 17' E. Elevation 1150 m. Chertvisi, south-southeast of Aspindza, Aspindza Region (Mebcheti), southern Georgia mountainland, in the valley of Mtkvari (Kura).

PI 631337. Malva verticillata L. **var. verticillata**
Uncertain. MALVA 46/78; Ames 21164. Collected in China. received as M. verticillata var. neuroloma.

PI 631338. Malva verticillata L. **var. verticillata**
Uncertain. MALVA 62/91; Ames 21165. Collected 1939 in Xizang, China. Samye. received as M. verticillata var. rosulata.

PI 631339. Malva verticillata var. chinensis (Mill.) S. Y. Hu
Uncertain. 70; MALVA 63/76; Ames 21166. Collected 1964 in Mongolia. Chobd. received as M. verticillata var. rosulata.

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 631340. Malva moschata L.
Wild. Index Seminum 101; Ames 22482. Collected in Switzerland. Elevation 600 m. Foot of Jura Mountains.

The following were collected by Botanical Garden of Iran, Research Institute of Forests and Rangel, P.O. Box 13185-116, Tehran, Tehran, Iran. Received 10/01/1996.

PI 631341. Malva parviflora L.
Wild. 353; Ames 23215. Collected 1996 in Khuzestan, Iran. Ahvaz to Khorramshahr.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Bassam Al-Safadi, Atomic Energy Commission, P.O. Box 6091, Damascus, Syria. Donated by Mary Brothers, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Kathleen Reitsma, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 01/04/2000.

PI 631342. Malva parviflora L.
Wild. Separation from S112; Separation from Ames 25696; Ames 25961. Collected 1999 in Syria. Possibly has a purple flower.

The following were collected by J. Lambinon, Chaussee F. Terwagne, 70, Amay, Liege B-4540, Belgium. Donated by Willy Bellotte, Chaussee F. Terwagne, 70, Amay, Liege B-4540, Belgium. Received 04/12/2000.

PI 631343. Malva parviflora L.
Wild. Ames 26027. Collected 1999 in Tunisia.

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

PI 631344. Potentilla argentea L.
Wild. 373; Ames 15629. Collected in Finland. Latitude 62 deg. 46' N. Longitude 30 deg. 58' E. Dry meadow, Ilomantsi, Mekrijarvi Research Station, Pohjois-Karjala.

The following were collected by Charles Tubesing, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44094-5172, United States; Rick J. Lewandowski, Morris Arboretum, The University of Pennsylvania, 9414 Meadowbrook Road, Philadelphia, Pennsylvania 19118, United States; Edward J. Garvey, USDA, ARS, National Germplasm Repository, U.S. National Arboretum, Washington, District of Columbia 20002, 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; Edward J. Garvey, USDA, ARS, National Germplasm Repository, U.S. National Arboretum, Washington, District of Columbia 20002, United States. Received 01/12/1995.

PI 631345. Spiraea fritschiana C. K. Schneid.
Wild. BJG-012; NA 64521; Ames 22273. Collected 09/14/1994 in Beijing, China. Latitude 40 deg. 36' 44'' N. Longitude 117 deg. 23' 3'' E. Elevation 650 m. Yong Xiu Gou, (Valley with Beautiful Clouds), Wuling Shan Preserve, Miyun County. Growing on an embankment just above a stream. Multi-stemmed deciduous shrub, 1.2 meters tall and 2 meters wide with arching branches; leaves 5 cm long, lanceolate, coarsely serrated, dull dark green above and below.

The following were collected by Geza Kosa, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary; Erzsebet Frater, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary . Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 06/02/1998.

PI 631346. Spiraea hypericifolia L.
Wild. Index Seminum 419; Ames 24667. Collected 1997 in Mongolia. Latitude 49 deg. 35' N. Longitude 105 deg. 15' E. Elevation 1400 m. Near Sanzay, Bagabayan Ridge, Hentiy Mountains. Growing in association with Larch-wood (Larix sibirica) and birch-bush (Betula fusca) on granite.

The following were collected by David Michener, University of Michigan, Matthaei Botanical Gardens, 1800 North Dixboro Road, Ann Arbor, Michigan 48105-9406, United States; Harold Pellett, University of Minnesota, Minnesota Landscape Arboretum, P.O. Box 39, Chanhassen, Minnesota 55317, United States; Galen Gates, Chicago Botanic Garden, P.O. Box 400, Glencoe, Illinois 60022, United States; Tom Yates, The Holden Arboretum, 9500 Sperry Road, Mentor, Ohio 44060-8199, United States. Donated by Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022, United States. Received 09/30/1998.

PI 631347. Spiraea betulifolia Pall.
Wild. RU-FE-119; 980017; 184-98P; Ames 25026. Collected 09/19/1997 in Primorye, Russian Federation. Latitude 43 deg. 43' 1'' N. Longitude 134

deg. 26' 20'' E. Elevation 1463 m. 60 degrees of slope with a western aspect. 12-15 inches tall. Starting to show fall color.

The following were donated by USDA, ARS, U.S. National Arboretum, Woody Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United States. Received 06/08/1990.

PI 631348. Staphylea bumalda DC.
Wild. NEKG 96; NA 61699; Ames 13853. Collected 09/28/1989 in Kangwon, Korea, South. Latitude 37 deg. 23' 20'' N. Longitude 128 deg. 3' 25'' E. Elevation 350 m. Chiak-san. Shrubs along path, growing near creek of disturbed site, abandoned rice field. Growing with Zanthoxylum, Fraxinus,
Robinia pseudoacacia, and Morus. 2-3 meters tall, multi-stemmed. Leaves three-parted, green. Fruits had a slight pink tinge on greenish tan.

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 631349. Tanacetum coccineum (Willd.) Grierson
Uncertain. CHRY 11/89; Ames 21139. Collected in Italy. Latitude 45 deg. 55' N. Longitude 8 deg. 33' E. Villa Taranto, Pallanza.

The following were collected by D. Arndt, 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 08/03/1995.

PI 631350. Tanacetum corymbosum (L.) Sch. Bip.
Wild. Index Seminum 139; Ames 22566. Collected 1994 in Saxony-Anhalt, Germany. Latitude 51 deg. 3' N. Longitude 12 deg. 4' E. Mannsdorf.

The following were collected by Botanical Garden of Iran, Research Institute of Forests and Rangel, P.O. Box 13185-116, Tehran, Tehran, Iran. Received 10/01/1996.

PI 631351. Tanacetum parthenifolium (Willd.) Sch. Bip.
Wild. 130; Ames 23219. Collected 1996 in Tehran, Iran.

The following were developed by Mark D. Lazar, Texas A&M University, Research & Extension Center, 6500 Amarillo Blvd. West, Amarillo, Texas 79106, United States; W. David Worrall, Texas A&M University, Research & Extension Center, P.O. Box 1658, Vernon, Texas 76385, United States; Lloyd R. Nelson, Texas A&M University, Agricultural Research & Extension Center, P.O. Box 200, Overton, Texas 75684, United States; Lloyd W. Rooney, Texas A&M University, 17360 Coit Road, Dallas, Texas 75252, United States; Gary L. Peterson, Texas A&M University, Texas Agric. Exp. Station, Drawer 10, Bushland, Texas 79012, United States; Allan K. Fritz, Kansas State University, Department of Agronomy, 2004 Throckmorton Hall, Manhatttan, Kansas 66506-5501, United States; David S. Marshall, USDA, ARS, North Carolina State University, Plant

Science Research Unit, Raleigh, North Carolina 27695-7616, United States. Received 06/19/2002.

PI 631352. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "TAM 111"; TX95A3091. CV-930; PVP 200300291. Pedigree - TAM 107//TX78V3630/Centurk 78/3/TX87V1233 = TAM 107/4/Sturdy sib/Kaw//Centurk/3/Centurk 78/5/Sturdy sub/Kaw//Centurk/3/Jupetaco/Bluejay. Released 2002. Medium-maturing, awned, white chaffed, semidwarf hard red winter wheat. Relatively tall for a drought-adapted, semidwarf wheat, especially so for its maturity range. In grain yield, has placed consistently among the highest ranking entries in nurseries in the southwestern Great Plains, regardless whether nursery mean yields were large or small. Spikes awned, dense, tapering and inclined. Kernels ovate, with rounded cheeks and shallow, narrow crease. Resistant to stripe rust, and moderately resistant to both barley yellow dwarf virus and wheat streak mosaic virus. Milling and baking attributes are good, especially for mixing tolerance.

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; Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; Robert L. Conner, Agriculture and Agri-Food Canada, Morden Research Station, Unit 100-101, Morton, Manitoba R6M 1Y5, Canada. Received 07/11/2002.

PI 631353. Phaseolus vulgaris L.
Cultivar. "Alert"; L96E109. CV-203. Pedigree - Line 94CT362, consisting of the following parents: LE93-7/XAN51//LE93-8/DOR391. The single-cross F1's were crossed. A high-yielding, type IIa growth habit, with good lodging resistance, great northern dry bean cultivar. It was developed from a series of crosses carried out at CIAT on contract to the Agriculture and Agri-Food Canada Research Centre, Lethbridge, with cooperation from the Agriculture and Agri-Food Canada Research Centre, Morden. Well adapted to the high heat unit areas of southern Manitoba in the Canadian prairies, at 130% yielding significantly more than the check cultivar, US1140. Moderately resistant to white mold and resistant to races 1 and 15 of the Bean Common Mosaic Virus (BCMV).

The following were developed by G. E. Coe, USDA, ARS, Field Crops Lab., Lab. 6B, Bldg. 009, BARC-West, Beltsville, Maryland 20705, United States; G. J. Hogaboam, USDA-ARS, Sugarbeets & Edible Legumes, PO Box 1633, East Lansing, Michigan 48823, United States. Donated by USDA, ARS, Plant Science Research Division, Beltsville, Maryland 20705, United States. Received 07/06/1939.

PI 631354. Beta vulgaris L. **subsp. vulgaris**
Cultivar. "US H20"; WC 990379; CSR 394. CV-5. Pedigree - SL129 CMS/SL133//SP 6322-0. Moderate resistance to leaf spot disease, black root disease and curly top virus.

The following were developed by Morinaga & Co., Ltd., United Kingdom. Received 07/11/2002.

PI 631355 PVPO. Capsicum annuum L.
Cultivar. "CH-19 AMA". PVP 200200159.

The following were developed by J.C. Robinson Seed Company, United States. Received 07/11/2002.

PI 631356 PVPO. Zea mays L. **subsp. mays**
Cultivar. "N10018". PVP 200200162.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 07/11/2002.

PI 631357 PVPO. Sorghum bicolor (L.) Moench
Cultivar. "PHKKKVJYE". PVP 200200165.

PI 631358 PVPO. Sorghum bicolor (L.) Moench
Cultivar. "PHB1D7YY". PVP 200200166.

PI 631359 PVPO. Sorghum bicolor (L.) Moench
Cultivar. "PHUGKZYM". PVP 200200167.

The following were developed by Svalof Weibull AB, Svalow, Malmohus, Sweden. Received 07/11/2002.

PI 631360 PVPO. Pisum sativum L.
Cultivar. "SW Capri". PVP 200200172.

PI 631361 PVPO. Pisum sativum L.
Cultivar. "SW Parade". PVP 200200174.

PI 631362 PVPO. Pisum sativum L.
Cultivar. "SW Belfield". PVP 200200175.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 07/11/2002.

PI 631363 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH4CV". PVP 200200176.

PI 631364 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH5FW". PVP 200200177.

PI 631365 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH6WA". PVP 200200179.

PI 631366 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH70R". PVP 200200181.

PI 631367 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH76T". PVP 200200182.

PI 631368 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH7AB". PVP 200200183.

PI 631369 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH7BW". PVP 200200184.

PI 631370 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH87H". PVP 200200186.

PI 631371 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH8CW". PVP 200200187.

PI 631372 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH8DB". PVP 200200188.

PI 631373 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH91C". PVP 200200191.

PI 631374 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH94T". PVP 200200192.

PI 631375 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH951". PVP 200200193.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 07/11/2002.

PI 631376 PVPO. Triticum aestivum L.
Cultivar. "JAGALENE". PVP 200200160.

The following were developed by J.C. Robinson Seed Company, United States. Received 07/11/2002.

PI 631377 PVPO. Zea mays L. **subsp. mays**
Cultivar. "E24018". PVP 200200161.

PI 631378 PVPO. Zea mays L. **subsp. mays**
Cultivar. "N16028". PVP 200200163.

The following were developed by Svalof Weibull AB, Svalow, Malmohus, Sweden. Received 07/11/2002.

PI 631379 PVPO. Pisum sativum L.
Cultivar. "SW Prize". PVP 200200173.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 07/11/2002.

PI 631380 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH6CF". PVP 200200178.

PI 631381 PVPO. Zea mays L. **subsp. mays**

Cultivar. "PH705". PVP 200200180.

PI 631382 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH876". PVP 200200185.

PI 631383 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH8KG". PVP 200200189.

PI 631384 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH8PG". PVP 200200190.

PI 631385 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH9AH". PVP 200200194.

The following were developed by Stoneville Pedigreed Seed Company, Stoneville, Mississippi, United States. Received 07/11/2002.

PI 631386 PVPO. Gossypium hirsutum L.
Cultivar. "BXN 49B". PVP 200200195.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 07/11/2002.

PI 631387 PVPO. Pisum sativum L.
Cultivar. "XP 8504158". PVP 200200196.

The following were developed by Louisiana State University Agricultural Center, Louisiana, United States. Received 07/11/2002.

PI 631388 PVPO. Oryza sativa L.
Cultivar. "CL161". PVP 200200198.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 07/11/2002.

PI 631389 PVPO. Triticum aestivum L.
Cultivar. "CUTTER". PVP 200200199.

The following were developed by 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; S.W. Swann, Virginia Polytechnic Inst. and State Univ., Tidewater Agric. Res. and Ext. Center, 6321 Holland Rd., Suffolk, Virginia 23437, United States; P.M. Phipps, Virginia Polytechnic Inst. and State Univ., Tidewater Agric. Res. and Ext. Center, 6321 Holland Rd., Suffolk, Virginia 23437, United States. Received 06/27/2002.

PI 631390. Arachis hypogaea L.
Cultivar. "WILSON". CV-78; PVP 200200200. Pedigree - VA 781621 / PI 476823, cross made in 1988. VA 781621 is PI 295216 (from Israel) / MC-Fla.14. PI 476823 is a cv. from China with resistance to leaf spot. A

single plant selection was made in the F4 generation in 1992; however, testa color was still segregating. Individual plant selections for pink testa color were made in the F8 (1966) and F9 (1997). The F10 plants all had pink testa and were bulked and selfed to the present F14 generation. Large-seeded Virginia-type peanut cv. with high yield potential (4-13% higher than current cvs.). Plants have an intermediate-spreading (runner) growth habit. Main stem height (32cm) is taller than VA 98R (27cm). Maturity is considered to be early (138-150 DAP). The pink-light pink testa color and excellent pod characteristics, which include bright color, shape, and size for the in-shell trade, makes it highly desirable by the peanut industry. Inshell grades have 44% jumbo pods and 43% fancy pods with both grades having bright pod color. Shelled grade data show 72% total meat content which includes 35% extra large kernels (ELK). Blanchability excellent with 93% whole blanched, 0.7% not blanched and 1.6% partially blanched for ELK. Shelf life (O/L ratio of 2.11) is better than any commercial cv. except NC 7.

The following were developed by University of Georgia Research Foundation, Inc., Georgia, United States. Received 07/11/2002.

PI 631391 PVPO. Festuca arundinacea Schreb.
Cultivar. "SOUTHEAST". PVP 200200201.

The following were developed by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Blair Waldron, USDA, ARS, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 07/03/2002.

PI 631392. Elymus hoffmannii K. B. Jensen & K. H. Asay
Breeding. RS-H. GP-8. Pedigree - Derived from a collection made in 1979 from the edge of a wheat field about 56km northwest of Eleskirt, Erzurum Province, Turkey (PI 593438). Hybrid wheatgrass. The original seedlot, MH-114-1085, described in the collection notes as Agropyron sp., was included the NPGS as Elytrigia repens (PI 593438). This germplasm is the result of five cycles of recurrent selection for caespitose growth habit, vegetative vigor, leafiness, seed set, plant color, and freedom from plant pests. Based on chromosome pairing in intra- and interspecific hybrids, germplasm originated from a natural hybrid between quackgrass and an Asian relative of North American bluebunch wheatgrass and has a chromosome number of 2n=6x=42 with a genomic constitution of StStStStHH. This germplasm is less rhizomatous (58 vs. 83 cm), tall in stature (1007 vs. 934 mm), and has longer flag leaves (213 vs. 164 mm) than NewHy. Salinity tolerance comparable to NewHy, but less than tall wheatgrass (Thinopyrum ponticum).

The following were developed by H. Z. Cross, North Dakota State University, 329 Walster Hall, Fargo, North Dakota 58105, United States; Marcelo J. Carena, North Dakota State University, Department of Plant Science, Loftsgard Hall, Fargo, North Dakota 58105-5051, United States; D.W. Wanner, North Dakota State University, Dept. of Plant Sciences, P.O. Box 5051, Fargo, North Dakota 58105, United States. Donated by Marcelo J. Carena, North Dakota State University, Department of Plant Science, Loftsgard Hall, Fargo, North Dakota

58105-5051, United States. Received 06/11/2002.

PI 631393. Zea mays L. **subsp. mays**
Breeding. Inbred. ND291; ND95-14. PL-305; PVP 200400006. Pedigree - NDSM (M) C1-1-1-1-1-1-2. Typically produces medium-tall plants with medium-short ear height in the northern Corn Belt. Vigorous with above average emergence percentage in cold soils. Good plant health overall, with intermediate ratings to eyespot (Kabatiella zeae) inoculation and medium to high susceptibility to common rust (Puccinia sorgui) infection. Flowers 63-67 days after planting. Dent yellow kernels on white cobs. Exhibits good combining ability with lines derived from specific early versions of Iowa Stiff Stalk Synthetic (BSSS) and from non-BSSS lines.

The following were developed by Marcelo J. Carena, North Dakota State University, Department of Plant Science, Loftsgard Hall, Fargo, North Dakota 58105-5051, United States; D.W. Wanner, North Dakota State University, Dept. of Plant Sciences, P.O. Box 5051, Fargo, North Dakota 58105, United States. Donated by Marcelo J. Carena, North Dakota State University, Department of Plant Science, Loftsgard Hall, Fargo, North Dakota 58105-5051, United States. Received 06/11/2002.

PI 631394. Zea mays L. **subsp. mays**
Breeding. Inbred. ND2000; ND98-95. PL-306; PVP 200400005. Pedigree - NDSCD(M)C8-3-2-1-1-1-1. Produces tall plants, wide and long leaves, above average tassel branches, heavy ears with 14-16 rows of long, wide, heavy kernels, and kernels with average protein content and above average starch content. Healthy line with intermediate ratings to eyespot (Kabatiella zeae) innoculation and intermediate reaction to common rust (Puccinia sorgui) infection. Flowers 67-72 days after planting. Dent yellow kernels on white cobs. Exhibits good combining ability with lines derived from early non-BSSS and unrelated lines.

The following were developed by W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; N. Aydin, Central Research Institute for Field Crops, Ankara, Turkey; A. Aydogan, Central Research Institute for Field Crops, Ankara, Turkey; I. Kusmenglu, Central Research Institute for Field Crops, Ankara, Turkey; H. EL-Hassan, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 01/31/2002.

PI 631395 QUAR. Lens culinaris Medik.
Cultivar. "ALI DAYI"; ILL 5722. CV-13. Pedigree - ILL 883 / ILL 470. Red lentil variety recommended for spring planting in Turkey. Erect growth habit with upright primary branches. Medium-statured plant with a height of 30 cm. Leaves lightly pubescent, medium size with long tendrils. Flowers in about 59 days and flowers are white. In Turkish condition, crop matures in about 90 days. Seed has brown testa without any pattern, and has a bright red cotyledon. Seed weight 4.7 g/100 seeds. Seeds contain 25.2% protein.

The following were developed by Nasri Haddad, Int. Center for Agricultural Research in the Dry Areas, ICARDA Amman Office, P.O. Box 950764, Department

of Plant Protection, Amman, Jordan; W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; B. Bayaa, University of Aleppo, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; H. EL-Hassan, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; F. EL-Ashkar, Directorate of Agriculture and Scientific Research, Damascus, Syria. Received 03/15/2002.

PI 631396 QUAR. Lens culinaris Medik.
Cultivar. "Idlib-2"; ILL 5883. CV-14. Pedigree - Single plant selection from Jordanian landrace, 74TA14. Wilt resistant red lentil variety with good standing ability, and wide adaptation. Plants medium statured (35cm) with more basal primary branches. Leaves dark-green and develop long tendrils. Matures in 152 days in northern Syrian condition. Reddish testa color without pattern and cotyledons bright red. 100-seed weight 4.0g. Dehulled seed contains 26.3% and straw has 6.9% protein. Seed takes 37 minutes to cook.

The following were developed by W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; N. Aydin, Central Research Institute for Field Crops, Ankara, Turkey; A. Aydogan, Central Research Institute for Field Crops, Ankara, Turkey; I. Kusmenglu, Central Research Institute for Field Crops, Ankara, Turkey; H. EL-Hassan, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 01/31/2002.

PI 631397 QUAR. Lens culinaris Medik.
Cultivar. "MEYVECI 2001"; ILL 6972. CV-15. Pedigree - ILL 28 / ILL 851. Green lentil variety released for spring planting in Central Anatolian region of Turkey. Erect and medium-statured variety with a canopy height of about 32 cm. Lowest pod-bearing node is about 14 cm from ground level, leading to less yield loss at harvest. Leaves have medium leaflet size with a terminal tendril and with light hairiness. Stem green, flowers white, and pods non-pigmented. Large seed size of 7.2 g/100 seed, seed coat color green without a pattern, and cotyledon yellow. Seed contains 25.9% protein and takes 44 minutes to cook.

The following were developed by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States. Received 07/17/2002.

PI 631398. Glycine max (L.) Merr.
Breeding. Pureline. LG92-1255; SY 211001. Indeterminate stem termination and classified as late group II maturity. PI 68658, which was imported in 1926 from northeast China and does not appear in the pedigree of any U.S. cultivar, is in the pedigree of LG92-1255. PI 68522 was characterized using RAPD fragments and based on cluster analysis was unique from all major ancestral lines of current U.S. cultivars. LG92-1255 has purple flowers, tawny pubescence, tan pods, yellow seed coat and black hilum. In tests at 6 locations in central Illinois, LG92-1255 was 6 d later in maturity and yielded 20% more than 'IA2021'. At 12 locations in the Uniform Preliminary Test IIB in 1997 it was also 6 d later than IA2021 but yielded 3% less. LG92-1255 was higher in protein (411 vs. 372 g kg-1) and lower in oil (207 vs. 221 g kg-1) than

IA2021. LG92-1255 was challenged with and found to be susceptible to races 4 and 7 of Phytophthora sojae (M. J. Kaufmann & J. W. Gerdemann).

PI 631399. Glycine max (L.) Merr.
Breeding. Pureline. LG93-7054; SY 211002. Indeterminate stem termination and is classified as late group II maturity. It has purple flowers, gray pubescence, brown pods, yellow seed coat and imperfect black hilum. Tested against races 4 and 7 of Phytophthora sojae and was susceptible to both. In regional tests seeds averaged 414 g kg-1 in protein 200 g kg-1 of oil. PI 361064 and PI 407710 are in the pedigree of LG93-7054 and do not occur in the pedigree of any U.S. soybean cultivar. Based on characterization with RAPD markers and cluster analysis PI 407710 was in the same genetic group that included ancestral lines that contributed less than 1% of the genes in current U.S. cultivars and PI 361064 was genetically distinct from the ancestors of current U.S. cultivars.

PI 631400. Glycine max (L.) Merr.
Breeding. Pureline. LG93-7654; SY 211003. Indeterminate stem termination and is classified as late group III maturity. PI 424195B and PI 361066A are in the pedigree of LG93-7654 and do not occur in the pedigree of any U.S. cultivar. Flowers purple, tawny pubescence, brown pods, yellow seed coat and brown hilum. At 10 locations in regional tests in 1997, seeds averaged 421 g kg-1 of protein and 193 g kg-1 of oil. Tested against races 4 and 7 of Phytophthora sojae and was susceptible to both.

PI 631401. Glycine max (L.) Merr.
Breeding. Pureline. LG93-7792; SY 211004. Indeterminate stem termination and is classified as early group IV maturity. Flowers purple, tawny pubescence, brown pods, yellow seed coat and brown hilum. In tests at six locations in central Illinois, was 6 days later in maturity and yielded 3% less than Macon. At eight locations in Uniform Preliminary Test IVA in 1997 it was 2 d later than Macon and yielded 3% less. Higher in protein (411 vs. 401 g kg-1) and lower in oil (193 vs. 205 g kg-1) than Macon. Tested against races 4 and 7 of Phytophthora sojae and was susceptible to both. PI 253665D x PI 283331 are in the pedigree of and do not occur in the pedigree of any U.S. soybean cultivar. Based on characterization with RAPD markers and cluster analysis PI 283331 was in a genetic group that contained no U.S. ancestral lines and PI 253665D was in a genetic group that included ancestral lines that contributed less than 1% of the genes in current U.S. cultivars.

The following were developed by T.J. Martin, Kansas State University, Agric. Research Center-Hays, 1232 240th Avenue, Hays, Kansas 67601, United States; Robert Hunger, Oklahoma State University, Dept. of Plant Pathology, 110 NRC, Stillwater, Oklahoma 74078-9947, United States; Brett F. Carver, Oklahoma State University, Dept. of Plant & Soil Sciences, 368 Agriculture Hall North, Stillwater, Oklahoma 74078, United States; David R. Porter, USDA, ARS, 1301 N. Western Road, Stillwater, Oklahoma 74075-2714, United States; Guihua Bai, Oklahoma State University, Dept. of Plant and Soil Science, 469 Ag. Hall, Stillwater, Oklahoma 74074, United States; E.G. Krenzer, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; A.R. Klatt, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; J. Verchot, Oklahoma State University, Dept. of Entomology and Plant Pathology, Stillwater, Oklahoma 74078, United States; A.C. Guenzi, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; B.C.

Martin, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; P. Rayas-Duarte, Oklahoma State University, Dept. of Biochemistry and Molecular Biology, Stillwater, Oklahoma 74078, United States. Received 07/16/2002.

PI 631402. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "INTRADA"; OK95G701. CV-927. Pedigree - Rio Blanco / TAM 200. Released 2000. Medium-maturity genotype, heading about 2-3 days later than Jagger. Spring dormancy release is intermediate (similar to TAM 107), but about 2 weeks later than the early hard white cv., Heyne. Semi-dwarf, medium-short plant height and moderately weak straw, and susceptible to lodging. Heads awned and white-chaffed. Kernels white, partly vitreous, and small, usually weighing about 26-29 mg with a diameter of 2.0 to 2.1 mm. Test weight is high, or about 780 kg m-3. Pre-harvest sprouting tolerance is less than its more tolerant parent, Rio Blanco, but similar to its red-kernel parent, TAM 200, based on a germination index. Moderately resistant to wheat soilborne mosaic virus and to Puccinia graminis. Moderately susceptible to P. striiformis, and moderately resistant to the adult-plant stages to P. triticina, though seedling plants show a susceptible reaction to current races of leaf rust. Susceptible to Polymyxa graminis and moderately susceptible to Pyrenophera tritici-repentis. Also.

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States. Received 07/11/2002.

PI 631403. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 715. Pedigree - Suweon 185/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes of Paha for heading date and lacking early heading genes from Suweon 185. Paha is a soft-white winter club cv. that was widely grown in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for heading date, grain yield, test wt., plant ht., lodging, kernel wt., kernels/spike and kernels/m2 as well as all key quality traits.

PI 631404. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 717. Pedigree - Suweon 185/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes for early heading derived from Suweon 185. Paha is a soft-white winter club cv. that was grown extensively in the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Similar to Paha for test wt., kernel wt., kernels/spike, spikes/m2 and key quality traits. Differs from Paha for heading date (6 d earlier), plant ht. (4 cm<), and grain yield (1191<).

PI 631405. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 719. Pedigree - Suweon 185/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having gene(s) for early heading derived from Suweon 185. Paha is a soft-white winter club cv. that was grown extensively in the USA-PNW in the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Like Paha for grain yield, test wt., lodging %, kernel wt., spikes/m2, and most quality traits. Differs from Paha for heading date (7 d earlier), plant ht. (5 cm<) kernels/spike (66 vs. 73),

flour yield (73.5 vs. 72.1%).

PI 631406. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 720. Pedigree - Suweon 185/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having gene(s) for early heading derived from Suweon 185. Paha is a soft-white winter club cv. that was widely grown in the USA-PNW in the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Like Paha for grain yield, lodging, spikes/m2, and most quality traits. Differs from Paha for heading date (6 d earlier), plant ht. (8 cm<), kernel wt. (26 vs 28 mg), kernels/spike (65 vs 73) and break flour yield (46.1 vs 48.2).

PI 631407. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 725. Pedigree - Suweon 185/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes of Paha for heading date and lacking early heading gene(s) from Suweon 185. Paha is a soft-white winter club cv. that was widely grown in the USDA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Like Paha for heading date, grain yield, test wt., plant ht., lodging, kernel wt., kernels/spike and kernels/m2. Similar to Paha for key quality traits except having lower break flour yield (46.1 vs 48.2).

PI 631408. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 730. Pedigree - Suweon 185/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes of Paha for heading date while lacking early heading gene(s) from Suweon 185. Paha is a soft-white winter club cv. that was widely grown in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Like Paha for heading date, grain yield, plant ht., lodging %, kernel wt., spikes/m2, flour yield, absorption, and cookie diameter. Differs from Paha for kernels/spike (62 vs 73), NIR hardness (24 vs 17), break flour yield (45.0 vs 48.2%), and wheat protein (11.6 vs 10.2).

PI 631409. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS96 651. Pedigree - Early Blackhull/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having gene(s) for early heading derived from Early Blackhull. Paha is a soft-white winter club cv. that was grown widely in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Similar to Paha for grain yield, test wt., kernel wt., spikes/m2, flour yield, break flour yield, wheat protein and cookie dia. Differs from Paha for heading date (7 d earlier), plant ht. (83 vs 101 cm), kernels/spike (68 vs 78), grain hardness (28 vs. 41) and absorption (51.4 vs 48.4).

PI 631410. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS96 652. Pedigree - Early Blackhull/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having gene(s) for early heading derived from Early Blackhull. Paha is a soft-white winter club cv. that was grown widely in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha, having awnletted, compact, red-chaff spikes. Similar to Paha for grain yield, test wt., lodging, kernel wt., spikes/m2, and most quality traits. Differs from Paha for heading date (7 d earlier), plant ht (85 vs 101 cm), kernels/spike (65

vs 78), and flour absorption (50.4 vs 48.4).

PI 631411. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS96 661. Pedigree - Early Blackhull/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having gene(s) for early heading derived from Early Blackhull. Paha is a soft-white winter club cv. that was widely grown in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red-chaff spikes. Similar to Paha for grain yield, plant ht., lodging, kernels/spike, spikes/m2, and all key quality traits. Differs from Paha for heading date (7 d earlier), test wt. (811 vs 799 g/L), and kernel wt. (35 vs 31 mg).

PI 631412. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS96 673. Pedigree - Early Blackhull/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes of Paha for mid-seasong heading and lacking early heading genes from Early Blackhull. Paha is a soft white winter club cv. that was widely grown in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like paha for heading date, grain yield, test wt., plant ht., lodging, kernel wt., kernels/spike, spikes/m2, and all key quality criteria.

PI 631413. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS96 674. Pedigree - Early Blackhull/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes of Paha for mid-season heading and lacking early heading genes from Early Blackhull. Paha is a soft-white winter club cv. that was widely grown in the USA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for heading date, grain yield, test wt., plant ht., lodging, kernel wt., kernels/spike, spikes/m2, and all key quality traits.

PI 631414. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS96 678. Pedigree - Early Blackhull/7*Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having genes of Paha for mid-season heading and lacking early heading genes from Early Blackhull. Paha is a soft white winter club cv. that was widely grown in the USDA-PNW during the 1970s and has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for heading date, grain yield, test wt., plant ht., lodging, kernel wt., kernels/spike, spikes/m2, and most quality criteria except lower flour yield (70.7 vs 72.1%).

The following were collected by David Spooner, USDA, ARS, University of Wisconsin, Department of Horticulture, 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. Donated by David Spooner, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706-1590, United States. Received 04/21/1993.

PI 631415. Solanum candolleanum P. Berthault
Wild. SFVU 6743; BE-4652; Q 30487. Collected 03/24/1993 in La Paz, Bolivia. Latitude 15 deg. 32' 21'' S. Longitude 69 deg. 4' 57'' W. Elevation 4080 m. Camacho: from 18km N of town square in Escoma, turn E and back S to Cartiguina (a small village), then 2 km to Chinaya Llijlliji, cross stream to collect plant in small flat place perched up on cliff face. Growing in organic soil on flat place perched on cliff face, among Loasa. Plants wilted, no flowers or fruits collected but said by local guide to have white corollas, tubers to 8.5 cm long, with yellow skin and flesh.

The following were donated by Danuta Sekrecka, Plant Breeding & Acclimatixation Inst., Gene Bank Labaratory, Branch Division Bonin, Bonin, Poland. Received 09/12/2000.

PI 631416. Solanum tuberosum L.
Cultivar. "DG-D8-330"; Q 42809. Polish Late Blight variety brought in by Chuck Brown.

PI 631417. Solanum tuberosum L.
Cultivar. "97A-64"; Q 42814. Polish late blight variety brought in by Chuck Brown.

PI 631418. Solanum tuberosum L.
Cultivar. "97A-68"; Q 42815. Polish late blight variety brought in by Chuck Brown.

The following were donated by Chuck Brown, USDA, ARS, WSU Irrigated Ag. Extension Center, 24106 N. Bunn Road, Prosser, Washington 99350, United States. Received 09/13/2000.

PI 631419. Solanum tuberosum L.
Cultivar. PPP 1830; "701830"; Q 42833. Collected 06/01/1970 in Peru. Latitude 11 deg. 48' 36'' S. Longitude 75 deg. 22' 48'' W. Elevation 3300 m. Est. Exp. El Mantaro. Colored fleshed cultivated species from CIP - brought in by Chuck Brown.

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, U.S. Peace Corps, Cuerpo de Paz, Casilla #749, Sucre, Chuquisaca, Bolivia; Isabella Arevshatyan, Yerevan, Armenia; Eleonora Gabrielian, Department of Plant Systemics, Geography National Academie of Sciences, Institute of Botany, Yerevan, Armenia; Samvel M. Gasparian, Scientific Research Center of Viticulture, Fruit Growing and Wine Making, Merdzavan, Armenia; Vrez Manakyan, Armenia Academie of Science, Institute of Botany, Yerevan, Armenia; Ashot A. Charchoglian, National Academie of Sciences, Institute of Botany, Yerevan, Armenia. Received 07/22/2002.

PI 631420. Trifolium arvense L.
Uncertain. ARM 092; hare-foot clover. Collected 08/10/2001 in Armenia. Latitude 40 deg. 21' 59'' N. Longitude 44 deg. 16' 16'' E. Elevation 1838 m. Koshabulakh region. Oak woodland of secondary growth. 200-300

years ago the large oak trees were cut down.

PI 631421. Trifolium arvense L.
Uncertain. ARM 233; hare-foot clover. Collected 08/14/2001 in Armenia. Latitude 39 deg. 52' 22'' N. Longitude 45 deg. 25' 35'' E. Elevation 1680 m. Traveled past Vayk and then up the canyon of the Yeghegis River. Desert/semi-desert steep rocky part of the canyon.

PI 631422. Trifolium arvense L.
Uncertain. ARM 484; hare-foot clover. Collected 08/20/2001 in Armenia. Latitude 40 deg. 34' 40'' N. Longitude 44 deg. 59' 23'' E. Elevation 2006 m. Area know as Archanots (Bear place). Mountainside on south side of Lake Sevan. Reading is at base of slope, but collected all the way to the top which was at 2300 masl. Yellow fruit.

PI 631423. Trifolium arvense L.
Uncertain. ARM 531; hare-foot clover. Collected 08/22/2001 in Armenia. Latitude 40 deg. 34' 18'' N. Longitude 44 deg. 57' 47'' E. Elevation 2240 m. Site where collectors were specifically looking for Vicia tetrasperma. Very dry, heavily grazed area, except at the base of small cliff.

PI 631424. Trifolium arvense L.
Uncertain. ARM 533; hare-foot clover. Collected 08/22/2001 in Armenia. Latitude 40 deg. 34' 18'' N. Longitude 44 deg. 57' 47'' E. Elevation 2240 m. Site where collectors were specifically looking for Vicia tetrasperma. Very dry, heavily grazed area, except at the base of small cliff.

PI 631425. Trifolium campestre Schreb.
Uncertain. ARM 003; hop clover. Collected 08/08/2001 in Armenia. Latitude 40 deg. 30' 5'' N. Longitude 44 deg. 35' 22'' E. Elevation 1507 m. Aghveran foothills. Steep canyon running E-W with small creek at the bottom. Collected on North side of slope, Aspect S. Riparian habitat at the bottom, gradually became very dry, grassy slope with scattered scrub oak up side of the slope.

PI 631426. Trifolium campestre Schreb.
Uncertain. ARM 054; hop clover. Collected 08/09/2001 in Armenia. Latitude 40 deg. 5' 22'' N. Longitude 46 deg. 46' 58'' E. Elevation 1364 m. Riparian community. Semi-arid desert when around 25 m above creek bottom. Then it is very steep, rocky and dry.

PI 631427. Trifolium campestre Schreb.
Uncertain. ARM 037; hop clover. Collected 08/09/2001 in Armenia. Latitude 40 deg. 5' 39'' N. Longitude 44 deg. 46' 22'' E. Elevation 1331 m. Bottom of steep canyon in Khosrov Reserve.

PI 631428. Trifolium campestre Schreb.
Uncertain. ARM 242; hop clover. Collected 08/14/2001 in Armenia. Latitude 39 deg. 52' 22'' N. Longitude 45 deg. 24' 35'' E. Elevation 1680 m. Traveled past Vayk and then up the canyon of the Yeghegis River. Collected mostly above the river. Desert/semi-desert steep rocky part of the canyon.

PI 631429. Trifolium campestre Schreb.
Uncertain. ARM 438. Collected 08/20/2001 in Armenia. Latitude 40 deg.

37' 55'' N. Longitude 44 deg. 59' 11'' E. Elevation 1924 m. Camp site on the north shore of Lake Sevan.

PI 631430. Trifolium depauperatum Desv.
Uncertain. ARM 323. Collected 08/15/2001 in Armenia. Latitude 39 deg. 47' 43'' N. Longitude 45 deg. 28' 49'' E. Elevation 2557 m. On the rim and inside of an old volcano. Very dry, steep rocky area. Observed Cicer anatolicum growing in basaltic rocky area, but the pods were all dehisced.

PI 631431. Trifolium diffusum Ehrh.
Uncertain. ARM 072. Collected 08/09/2001 in Armenia. Latitude 40 deg. 4' 4'' N. Longitude 44 deg. 50' 4'' E. Elevation 1381 m. Collected on west and east sides of steep N-S canyon. Species include Plantago major, Aegilops, Berberis, Prunus, Pyrus, Sorgus graeca, Sorbus persica (large simple leaf type w/orange fruit), Dactylis glomerata, Malus, Crataegus orientalis.

PI 631432. Trifolium diffusum Ehrh.
Uncertain. ARM 240. Collected 08/14/2001 in Armenia. Latitude 39 deg. 52' 22'' N. Longitude 45 deg. 24' 35'' E. Elevation 1680 m. Traveled past Vayk and then up the canyon of the Yeghegis River. Collected mostly above the river. Desert/semi-desert steep rocky part of the canyon.

PI 631433. Trifolium diffusum Ehrh.
Uncertain. ARM 259. Collected 08/14/2001 in Armenia. Latitude 39 deg. 52' 10'' N. Longitude 45 deg. 21' 44'' E. Elevation 1582 m. 3 km down river on the Yeghegis River from site 25. Area known for wild Prunus and should be a target for further collections. A good part of site was above the river near a 13th century Jewish graveyard where they are conducting an archeological dig.

PI 631434. Trifolium diffusum Ehrh.
Uncertain. ARM 532. Collected 08/22/2001 in Armenia. Latitude 40 deg. 34' 18'' N. Longitude 44 deg. 58' E. Elevation 2240 m. Site where collectors were specifically looking for Vicia tetrasperma. Very dry, heavily grazed area, except at the base of small cliff. Large vines with many large heads.

PI 631435. Trifolium striatum L.
Uncertain. ARM 256; knotted clover. Collected 08/14/2001 in Armenia. Latitude 39 deg. 52' 10'' N. Longitude 45 deg. 21' 44'' E. Elevation 1582 m. 3 km down river on the Yeghegis River from site 25. Area known for wild Prunus, and should be a target area for further collection. A good part of the site was above the river near a 13th century Jewish graveyard where they are conducting an archeological dig.

PI 631436. Trifolium willdenovii Spreng.
Uncertain. ARM 449. Collected 08/20/2001 in Armenia. Latitude 40 deg. 39' 38'' N. Longitude 44 deg. 53' 19'' E. Elevation 2184 m. Between Lake Sevan and the Dilijan Reserve. Hillside with many wild flowers. First place with good soil. Much of the area was heavily grazed or cut.

The following were developed by Theodore C. Helms, North Dakota State University, Dept. of Plant Science, Rm 166 Loftsgard Hall, Fargo, North Dakota 58105-5051, United States. Received 08/01/2002.

PI 631437. Glycine max (L.) Merr.
Cultivar. "Nornatto"; ND97-1120. CV-450; PVP 200200263. Pedigree - Danatto*(Chico*PI 437296). Small-seeded soybean developed for the specialty natto and sprout markets. Flowers purple, gray pubescence, tan pods at maturity, yellow seed coat with yellow hila and dull seed coat luster.

PI 631438. Glycine max (L.) Merr.
Cultivar. "Nannonatto"; ND97-962. CV-451; PVP 200200264. Pedigree - (NattoKing K86*unknown)*2/(Chico*PI 437296). Small-seeded soybean developed for the specialty natto and sprout markets. Flowers purple, gray pubescence, tan pods at maturity, yellow seed coat with yellow hila and intermediate seed coat luster.

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; Ann Corey, Oregon State University, Dept. of Crop and Soil Science, Barley Project, Corvallis, Oregon 97331, United States; C. Mundt, Oregon State University, Dept. of Botany and Pl. Pathology, Corvallis, Oregon 97731, United States; T. Toojinda, National Center for Genetic Engineering and Biotechnology, DNA Fingerprinting Unit, Kasetsart University, Nakorn Pathom, Thailand. Received 08/02/2002.

PI 631439. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. "TANGO"; SR58-4; OR2967007. CV-306. Pedigree - Orca-sib/2*Steptoe. Released 2000. Six-row, spring habit feed barley developed via molecular marker assisted selection for Quantitative Trait Loci (QTL) determining quantitative resistance to barley stripe rust (Puccinia striiformis). Additional identifiers are long and smooth-awns, white-aleurone, and short rachilla hairs. Two cycles of molecular marker-assisted backcrossing were used to transfer the resistance QTL alleles from BSR-41 to Steptoe, the recurrent parent. Steptoe is a six-row spring feed barley cv. released by the Washington State Agric. Res. Center. BSR-41, a sister line of Orca is Calicuchima-sib/Bowman.

The following were developed by C. Wayne Smith, Texas A&M University, Department of Soil and Crop Sciences, 2474 TAMUS, College Station, Texas 77843-2474, United States. Received 08/01/2002.

PI 631440. Gossypium hirsutum L.
Breeding. TAM 94L-25. GP-773. Pedigree - TAM 87G3-27//Stoneville 213/(Lankart 57/Deltapine 14/Rogers Acala/Gregg/Fox/). Normal upland cotton phenotype with pubescent leaves and stems and cream-colored pollen. Leaves have about 45 leaf trichomes/cm2 compared with about 5 for Deltapine 50. Plants shorter than most commercial cvs. The outstanding feature is UHM fiber length when grown under irrigated (31 mm) or drought stressed (29 mm) culture.

PI 631441. Gossypium hirsutum L.
Breeding. TAM 94J-3. GP-774. Pedigree - TAM 87G3-27//DES 56/Deltapine 50. Normal upland cotton phenotype with pubescent leaves and stems and cream-colored pollen. Leaves have about 50 trichomes/cm2 compared with

about 5 for Deltapine 50. The outstanding feature is UHM fiber length when grown under irrigated (30 mm) or drought stressed (29 mm) culture.

PI 631442. Gossypium hirsutum L.
Breeding. TAM 94WE-37s. GP-775. Pedigree - Tamcot SP37s/Lankart 57/Deltapine 14/Gregg/Foxx//Des 56/Deltapine 50. A smooth leaf and stem phenotype with competitive yield potential in central and south Texas. Agronomic characteristics are equivalent to most upland cvs. adapted to south Texas. The outstanding features are smooth phenotype and UHM fiber length when grown under irrigated (30 mm) or drought stressed (28 mm) culture.

The following were developed by Raymond L. Ditterline, Montana State University, Department of Plant and Soil Science, P.O. Box 173120, Bozeman, Montana 59717-0312, United States. Received 08/02/2002.

PI 631443. Medicago sativa L. **subsp. sativa**
Cultivar. "COOPER"; MT9503. Pedigree - 115 parent synthetic cv. including 60 clones selected from Arrow and five clones each selected from 5262, 5362, 5472, Allegiance, Asset, DK-122, DK-135, Husky, Multiplier and WL-317. Fall-dormancy similar to 5246. High resistance to bacterial wilt (Clavibacter michiganense subsp. Insidiosum), resistance to Verticillium wilt, Phytophthora root rot, anthracnose (Colletotrichum trifolii) Race 1, pea aphid (Acyrthosiphon pisum), northern root-knot nematode (Meloidogyne hapla), and stem nematode (Ditylenchus dipsaci), and moderate resistance to Aphanomyces root rot (Aphanomyces eutiches, and spotted aphid (Therioaphis maculata). Intended for use as hay, haylage, greenchop, or dehy production. Flower color 80% purple and 20% variegated with a trace of white, cream, and yellow.

The following were developed by Fred Allen, University of Tennessee, Plant Science & Landscape Systems, 252 Ellington Hall, Knoxville, Tennessee 37901-1071, United States; Dennis R. West, University of Tennessee, Department of Plant and Soil Science, P.O. Box 1071, Knoxville, Tennessee 37996-4562, United States; D.R. Kincer, University of Tennessee, Dept. of Plant and Soil Sciences, Knoxville, Tennessee 37901-1071, United States. Donated by Dennis R. West, University of Tennessee, Department of Plant and Soil Science, P.O. Box 1071, Knoxville, Tennessee 37996-4562, United States. Received 08/26/2002.

PI 631444. Zea mays L. **subsp. mays**
Breeding. Inbred. T270. PL-307. Pedigree - Tennessee Synthetic One-18#-2-1-1-1-1-1-1-1-1-1. Late maturing line for the U.S. Heat units to pollen shed are 1500, compared to 1400 for Mo17 in 2001. Plant and ear height are 1.99 and 0.67 m, compared to 1.82 and 0.7 m for Mo17. Leaves erect, and usually 6-7 leaves above the ear-bearing node. Tassel compact and dense with a central spike and 10-14 lateral branches. Heavy pollen producer for 3-4 days. Anthers yellow and green silks. Flower synchronization excellent, with silk emergence seldom delayed more than one day after pollen shed. Plants produce many sun-red brace roots to the 2d or 3d node above the crown. Produces a large girthy ear with 16 or 18 rows of very hard, medium-sized orange kernels on a white cob.

Unknown source. Received 01/13/1995.

PI 631445. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "KANTO 107". Developed in Japan. Pedigree - Kanto 79/Kanto 82.

The following were developed by Eugene A. Milus, University of Arkansas, Dept. of Plant Pathology, Fayetteville, Arkansas 72701, United States; Robert K. Bacon, University of Arkansas, Dept. of Crop, Soil, and Env. Science, 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; C.E. Parsons, University of Arkansas, Dept. of Crop, Soil and Environmental Sciences, Lonoke, Arkansas 72086, United States. Received 09/10/2002.

PI 631446. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "PAT"; AR839-27-1-3; NSGC 8865. CV-933; PVP 200200274. Pedigree - Terral 101/Pioneer 2548. Released 2001. Soft red winter wheat. Originated from an F5 selection. Awned, white chaffed, approximately 2 inches taller and 1 day later in maturity than Sabbe. Excellent winter hardiness and good straw strength. Resistant to soilborne wheat mosaic, wheat spindle streak mosaic, and stripe rust; moderately resistant to leaf rust; moderately susceptible to septoria leaf blotch, and susceptible to powdery mildew. Tests at the USDA Soft Wheat Quality Lab indicate excellent milling characteristics and excellent baking characteristics.

The following were developed by David Hole, Utah State University, Plants, Soils, & Biometeorology Dept., UMC 4820 Agsci 334, Logan, Utah 84322-4820, United States; S.A. Young, Utah State University, Plants, Soils, and Biometerorology Department, Logan, Utah 84322-4820, United States; S.M. Clawson, Utah State University, Dept. of Plants, Soils, and Biometeorology, Logan, Utah 84322-4820, United States; Dominique Roche, Utah State University, Dept. of Plants, Soils & Biometeorology, Ag. Sci. Bldg. 332, Logan, Utah 84322-4820, United States. Received 09/09/2002.

PI 631447. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "DELORIS"; UT2030-32; UT203032. CV-934. Pedigree - Arbon/Hansel//PI 470329/3/Weston/6/Favorit/5/Cirpiz/4/Jang Kwang/2/Atlas66/Comanche/3/Velvet. Released 2002. Juvenile growth habit semi-erect and coleoptile anthocyanin absent. Heading date 2 days earlier than Utah-100, and flag leaf lax and flat. Stems hollow, and mature plant average height in Utah of 78 cm (36 site years). Awned, tan chaffed (0.6Y/6/3.6 Munsell), oblong, mid-dense, and inclined spike characteristics. Kernel elliptical, angular cheeks, and narrow, mid-deep seed crease, and medium length brush that is not collared. Kernel phenol reaction brown. High level of resistance to dwarf bunt derived from PI1783.

The following were developed by DLF-Jenks, United States. Received 09/19/2002.

PI 631448 PVPO. Lolium perenne L.
Cultivar. "ESQUIRE". PVP 200200204.

The following were developed by Colorado Wheat Research Foundation, Colorado, United States. Received 09/19/2002.

PI 631449 PVPO. Triticum aestivum L.
Cultivar. "ABOVE". PVP 200200206. Pedigree - TAM 110*4/FS2.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 09/19/2002.

PI 631450 PVPO. Triticum aestivum L.
Cultivar. "SAVAGE". PVP 200200207.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 09/19/2002.

PI 631451. Poa pratensis L.
Cultivar. "BEYOND". CV-79; PVP 200200210. Pedigree - Apomictic, single-plant selection from the open-pollinated progeny of Jacklin breeding line 93-3333, which was one of the selected progeny of hybrid 91-0195, created in the field in July 1991. Dark green genetic color which is retained in autumn, a fine leaf texture, good spring density, good sod stretching resistance (an important parameter for commercial turf sod production), and tolerance to traffic stress, shade, and drought (wilting). Resistant to leafspot (Drechslera poae) disease and shows good resistance to necrotic ring spot (Leptosphaeria korrae), and encroachment of annual bluegrass (P. annua).

PI 631452. Poa pratensis L.
Cultivar. "TSUNAMI". CV-80; PVP 200200211. Pedigree - Apomictic, single-plant selection from hybrid 89-1037, created in the field in July 1989. Dark green genetic color, a fine leaf texture, good seedling vigor, resistance to close mowing (25 mm or lower) and traffic stress, good shear strength/traction (an important parameter for sports turf), and produces few seed stalks in mowed turf. Resistant to leafspot (Drechslera poae) disease and shows good resistance to summer patch (Magnaporthe poae), leaf rust (Puccinia coronata), brown patch (Rhizoctonia solani), and encroachment of annual bluegrass (P. annua).

The following were developed by New Mexico State University Agricultural Experiment Station, Las Cruces, New Mexico 88003, United States. Received 09/19/2002.

PI 631453 PVPO. Allium cepa L.
Cultivar. "NuMex Crimson". PVP 200200212.

PI 631454 PVPO. Allium cepa L.
Cultivar. "NuMex Solano". PVP 200200213.

The following were developed by Idaho Seed Bean Company, Inc., Idaho, United States. Received 09/19/2002.

PI 631455 PVPO. Phaseolus vulgaris L.
Cultivar. "BIG HORN". PVP 200200214.

The following were developed by Resource Seeds, Inc., United States. Received 09/19/2002.

PI 631456 PVPO. X Triticosecale sp.
Cultivar. "348". PVP 200200215.

PI 631457 PVPO. X Triticosecale sp.
Cultivar. "336". PVP 200200216.

The following were developed by Cebeco International Seeds, Inc., P.O. Box 229, Halsey, Oregon 97348-0229, United States. Received 09/19/2002.

PI 631458 PVPO. Lolium perenne L.
Cultivar. "ALL*STAR2". PVP 200200217.

PI 631459 PVPO. Lolium perenne L.
Cultivar. "GATOR 3". PVP 200200218.

PI 631460 PVPO. Lolium perenne L.
Cultivar. "CIS-PR 72". PVP 200200219.

The following were developed by The Scotts Company, United States. Received 09/19/2002.

PI 631461 PVPO. Lolium perenne L.
Cultivar. "INSPIRE". PVP 200200220.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 09/19/2002.

PI 631462 PVPO. Lactuca sativa L.
Cultivar. "BADGER". PVP 200200221.

PI 631463 PVPO. Lactuca sativa L.
Cultivar. "BRAVE HEART". PVP 200200222.

PI 631464 PVPO. Lactuca sativa L.
Cultivar. "JAVELINA". PVP 200200223.

PI 631465 PVPO. Lactuca sativa L.
Cultivar. "COYOTE". PVP 200200224.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 09/19/2002.

PI 631466 PVPO. Lolium perenne L.
Cultivar. "SR 4220". PVP 200200225.

PI 631467 PVPO. Lolium perenne L.

Cultivar. "HAWKEYE". PVP 200200226.

PI 631468 PVPO. Lolium perenne L.
Cultivar. "SR 4420". PVP 200200227.

The following were developed by Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States. Received 09/19/2002.

PI 631469 PVPO. Festuca rubra L. **subsp. rubra**
Cultivar. "JASPER II". PVP 200200228.

The following were developed by South Carolina Agriculture and Forestry Research System, Clemson University, Clemson, South Carolina 29631, United States. Received 09/19/2002.

PI 631470 PVPO. Festuca arundinacea Schreb.
Cultivar. "TOMCAT". PVP 200200229.

The following were developed by Cebeco International Seeds, Inc., P.O. Box 229, Halsey, Oregon 97348-0229, United States. Received 09/19/2002.

PI 631471 PVPO. Festuca rubra L. **subsp. rubra**
Cultivar. "CINDY LOU". PVP 200200230.

PI 631472 PVPO. Festuca rubra L. **subsp. rubra**
Cultivar. "NAVIGATOR". PVP 200200231.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 09/19/2002.

PI 631473 PVPO. Triticum aestivum L.
Cultivar. "25R47". PVP 200200232.

PI 631474 PVPO. Triticum aestivum L.
Cultivar. "26R58". PVP 200200233.

PI 631475 PVPO. Triticum aestivum L.
Cultivar. "26R12". PVP 200200234.

The following were developed by Department of Agriculture - Thailand, Kalasin, Thailand. Received 09/19/2002.

PI 631476 PVPO. Oryza sativa L.
Cultivar. "PATHUM THANI 1". PVP 200200235.

The following were developed by Cebeco International Seeds, Inc., P.O. Box 229, Halsey, Oregon 97348-0229, United States. Received 09/19/2002.

PI 631477 PVPO. Festuca rubra subsp. fallax (Thuill.) Nyman
Cultivar. "LONGFELLOW II". PVP 200200236.

The following were developed by Yugen Kaisha Nihon Noken, Japan. Received 09/19/2002.

PI 631478. Angelica keiskei (Miq.) Koidz.
Cultivar. "GENSEIRIN". PVP 200200237.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 09/19/2002.

PI 631479 PVPO. Cucurbita maxima Duchesne
Cultivar. "WYATT'S WONDER". PVP 200200238.

The following were developed by Resource Seeds, Inc., United States. Received 09/19/2002.

PI 631480 PVPO. Triticum aestivum L.
Cultivar. "SUMMIT". PVP 200200239.

PI 631481 PVPO. Triticum aestivum L.
Cultivar. "BLANCA GRANDE". PVP 200200240.

PI 631482 PVPO. Triticum aestivum L.
Cultivar. "PLATA". PVP 200200241.

The following were developed by Montana State University, Montana Agr. Exp. Sta., Department of Plant and Soil Science, Bozeman, Montana 59717, United States. Received 09/19/2002.

PI 631483 PVPO. Carthamus tinctorius L.
Cultivar. "MONTOLA 2004". PVP 200200242.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, United States; C.A. Rose-Fricker, Pure Seed Testing, Inc., 3057 G Street, Hubbard, Oregon 97032, United States; Melodee L. Fraser, Pure Seed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 09/19/2002.

PI 631484. Lolium perenne L.
Cultivar. "CITATION FORE"; PST-2BR. CV-229; PVP 200200243. Pedigree - Selected from progenies of 30 plants chosen from a spaced-plant nursery established at the Rutgers Plant Biology and Pathology Res. & Ext. Farm, Adelphia, NJ, during the summer of 1996. Plants selected from Citation II, Citation III and breeding populatons used in their development were intercrossed and subjected to additional cycles of populations improvement in both Oregon and New Jersey. Dark-green, low-growing, turf-type perennial ryegrass. Showed good turf quality in trials throughout the U.S. Good resistance to stem rust (Puccinia graminis), leaf spot (Drechslera siccans), red thread (Laetisaria fuciformis) and crown rust (P. coronata) and moderate resistance to dollar spot

(Sclerotinia homoeocarpa) and brown patch (Rhizoctonia solani). Lower growth habit, darker green color, improved crown rust and gray leaf spot (Pyricularia grisea) resistance, and better turf quality compared to Citation III.

The following were developed by Pure Line Seeds, Inc., P.O. Box 8866, Moscow, Idaho 83843, United States. Received 09/19/2002.

PI 631485 PVPO. Pisum sativum L.
Cultivar. "TOPPS". PVP 200200244.

The following were developed by Edward J. Souza, University of Idaho, Aberdeen Research & Extension Center, P.O. Box 870, Aberdeen, Idaho 83210, United States; Larry Robertson, University of Idaho, Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210-0530, United States; Robert S. Zemetra, University of Idaho, Department of Plant, Soil and Entomology, Moscow, Idaho 83843, United States; Katherine O'Brien, University of Idaho, Aberdeen Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210, United States; Bradford D. Brown, University of Idaho, Parma Research & Extension Center, 29603 U of I Lane, Parma, Idaho 83660, United States; Stephen O. Guy, University of Idaho, Plant, Soils, and Entomological Sciences, Moscow, Idaho 83844-2339, United States; Mary Lauver, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States; T. Koehler, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States. Received 09/19/2002.

PI 631486. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "BRUNDAGE 96"; ID-B-96. CV-929; PVP 200200245. Pedigree - selection from Brundage (Stephens/Geneva). Released 2001. Soft white winter wheat released because of yield potential, end-use quality and improved level of stripe rust (Puccinia striformis) resistance compared to the cv. Brundage. A head row reselection from a pre-breeder seed field of Brundage made in 1996 based on a difference in leaf color and stripe rust resistance. Similar to Brundage in appearance and is an awnletted, semi-dwarf wheat with excellent straw strength. Dark blue-green in color and has erect to semi-erect flag leaves. Days to anthesis (165 days of year DOY) is the same as Stephens (165 DOY) and is later than Brundage (162 DOY) based on four years of data in Moscow, Idaho. Glumes white, with an oblique shoulder and obtuse peak. Kernel characteristics similar to those of Brundage being white, soft, ovate with a mid-deep to deep crease. Greater adult plant resistance to the prevalent northwestern biotype of stripe rust (Puccinia striformis) than Brundage. In four years of testing (1998-2001) in the Western Regional.

The following were developed by Rijk Zwaan Zaadteelt en Zaadhandel B.V., Meo Voto Beheer BV, De Lier, South Holland, Netherlands. Received 09/19/2002.

PI 631487 PVPO. Lactuca sativa L.
Cultivar. "ELENAS". PVP 200200246.

PI 631488 PVPO. Lactuca sativa L.
Cultivar. "CAMPIONAS". PVP 200200247.

PI 631489 PVPO. Lactuca sativa L.
Cultivar. "KLINGON". PVP 200200248.

PI 631490 PVPO. Lactuca sativa L.
Cultivar. "GIRONDAC". PVP 200200249.

PI 631491 PVPO. Lactuca sativa L.
Cultivar. "LAGON". PVP 200200250.

The following were developed by Paul R. 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 09/18/2002.

PI 631492. Lotus corniculatus L.
Breeding. ARS-2622. GP-8. Pedigree - Developed from the mating of the germplasm MU-81 with five wild germplasm accessions from Morocco (G31272, G31273, G31276, G31298, and G31317). Progeny were evaluated for rhizome production, vigor, dry matter production, forage quality, incidence ofdisease, seed production, and winterhardiness. Selected progency were vegetatively-propagated to produce ramets. Result of two cycles of open-pollinated recombination in the field using honey bees (Apis mellifera) as pollinators. Equal numbers of see. Released 08/2002. Rhizome producing broadleafed birdsfoot trefoil germplasm with a population with a broad genetic base. Important because it will allow plant breeders to develope rhizomatous cvs. with diverse attributes for pasture, range, and other environments.

The following were developed by Robert Hunger, Oklahoma State University, Dept. of Plant Pathology, 110 NRC, Stillwater, Oklahoma 74078-9947, United States; Brett F. Carver, Oklahoma State University, Dept. of Plant & Soil Sciences, 368 Agriculture Hall North, Stillwater, Oklahoma 74078, United States; E.L. Smith, Oklahoma State University, Oklahoma Agr. Exp. Sta., Stillwater, Oklahoma 74078, United States; David R. Porter, USDA, ARS, 1301 N. Western Road, Stillwater, Oklahoma 74075-2714, United States; Guihua Bai, Oklahoma State University, Dept. of Plant and Soil Science, 469 Ag. Hall, Stillwater, Oklahoma 74074, United States; E.G. Krenzer, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; A.R. Klatt, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; A.C. Guenzi, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; B.C. Martin, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; P. Rayas-Duarte, Oklahoma State University, Dept. of Biochemistry and Molecular Biology, Stillwater, Oklahoma 74078, United States. Received 09/23/2002.

PI 631493. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "OK101"; OK95571. CV-932. Pedigree - OK87W663/Mesa//2180. Released 2001. Hard red winter wheat. Maturity medium-early, heading about 1 day before 2174 and 1 day after Jagger. Height equal to 2174 and Jagger, but 2 cm shorter than 2137. Plants at flowering yellow-green with yellow anthers. Flag leaf at flowering erect, and twisted at the tip. Spikes middense, tapering, awned, white-glumed, and about 8 cm in length and 9 mm in width. Juvenile plants semi-prostrate and show an intermediate dormancy release during

the late winter (similar to Custer but earlier than 2174). Short coleoptile (5.9 cm or 63% of Scout 66 at 75/95 deg.F night/day temperature). Based on the single-kernel characterization system, means and standard deviations for kernel size and texture are 30.9 and 6.8 mg for kernel weight, 2.4 and 0.5 mm for kernel diameter, and 56 and 17 for kernel hardness. Resistant to soilborne mosaic virus, moderately susceptible to stem rust (Puccinia graminis), susceptible to stripe rust (P. striiformis), and moderately susceptible in the adult-plant.

The following were developed by Jorge A. Acosta-Gallegos, National Research Institute for Forestry Agriculture, CIRNOC-INIFAP-SARAH, Bean Program, Valle de Mexico Experimental Station, Chapingo, Mexico 56230, Mexico; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; J.Z. Castellanos-Ramos, National Research Institute for Forestry and Agriculture, Bean Program, El Bajio Experimental Station, Celaya, Guanajuato CP 38000, Mexico; H. Guzman-Maldonado, National Research Institute for Forestry and Agriculture, Bean Program, Apartado Postal No. 112, Celaya, Guanajuato, Mexico. Received 09/16/2002.

PI 631494. Phaseolus vulgaris L.
Cultivar. "FLOR DE JUNIO MARCELA"; FJ 96001. CV-204. Pedigree - Derived from single cross made in 1990 between a Flor de Junio landrace cv. (Jalisco race) from the state of Zacatecas and Flor de Mayo M38, a high yielding cv. with multiple disease resistance bred for the highlands of Mexico. Photoperiod sensitive and flowers 55 d after planting, white flowers, and exhibits mid-season maturity, maturing in 105 d in Guanajuato, Mexico. Type III indeterminate growth habit with pod distribution in the middle of the plant canopy. Suited for irrigation systems during the early season (March) in mid-altitude locations, below 1800 masl. Yielded 2,940 kg ha-1 under irrigation, superior to Flor de Mayo M38 by 6% over 10 location/year combinations. Out yielded the most popular FJ landrace by 21% across six locations, and yielded 680 kg ha-1 over nine rainfed trials. Resistant to the prevalent races of Bean Common Mosaic Virus in the state of Guanajuato but displays an intermediate reaction to rust, anthracnose and common bacterial blight. Seed averaged 34 g 100 seeds-1 and is similar in size, shape and color to traditional FJ bean landraces. Top rated cv. in the culinary tests based on cooking time and the appearance and flavor of broth and cooked seed.

The following were developed by Jose Fernandez-Martinez, Instituto de Agricultura Sostenible, Apartado 4084, Alameda del Obispo s/n, Cordoba, Cordoba 14080, Spain; Leonardo Velasco Varo, Instituto de Agricultura Sostenible, Apartado 4084, E-14080, Cordoba, Cordoba 14080, Spain; J. Dominguez, CIFA-Junta de Andalucia, Departamento de Mejora y Agronomia, Apartado 4240, Cordoba, Cordoba, Spain; J. Munoz-Ruz, Instituto de Agricultura Sostenible, Dept. de Mejora y Agronomia, CSIC, Apdo. 4084, E-14080, Cordoba, Cordoba, Spain; B. Perez-Vich, Instituto de Agricultura Sostenible, Apartado 4080, E-14080, Cordoba, Cordoba 14071, Spain. Received 09/12/2002.

PI 631495. Helianthus annuus L.
Breeding. "Dw 89". PL-74. Pedigree - Developed by introgressing genes for reduced plant height from the dwarf line Donsky (Yugoslavia) into

the oilseed maintainer parental line HA 89 (PI 599773). After the initial cross, F1 plants (semi-dwarf), were backcrossed to the recurrent parent HA 89. In each backcross generation, semi-dwarf heterozygotes were identified and backcrossed to the recurrent parent. Released as BC5F6-derived BC5F7 parental line. Dwarf parental line near-isogenic to HA 89. Unbranched oilseed maintainer. Height 51.3 +- 3.9cm, compared with 125.5 +- 7.6 cm for HA 89. Exhibits a head diameter of 12.7 +- 2.2 cm, a stem diameter of 2.1 +- 0.3 cm, and 27.0 +- 2.5 leaves per plant, which is not significantly different from HA 89. Since similar number of leaves per plant as HA89, reduced stature is produced by shortened internodes. Similar to HA 89 for head angle and level of autogamy. In combination with standard-height parental line, produces semi-dwarf hybrids. Semi-dwarf hybrids exhibit a reduction of about 25-30% in stature in comparison with near-isogenic standard-height hybrids. Under dryland conditions in Southern Spain, semi-dwarf hybrids presented similar yield potential than standard-height hybrids. Higher yield potential for semi-dwarf hybrids is expected in high yield environments and under conditions that promote lodging or stem breakage. In combination with its isoline HA 89 are also an.

PI 631496. Helianthus annuus L.
Breeding. "Dw 271". PL-75. Pedigree - Developed by introgressing genes for reduced plant height from the dwarf line Donsky (Yugoslavia) into the oilseed restorer parental line RHA 271 (PI 599786). After the initial cross, F1 plants (semi-dwarf), were backcrossed to the recurrent parent RHA 271. In each backcross generation, semi-dwarf heterozygotes were identified and backcrossed to the recurrent parent. Released as BC5F6-derived BC5F7 parental line. Dwarf parental line near-isogenic to RHA 271. An oilseed restorer that possesses genes for fertility restoration of the PET1 cytoplasmic male sterility. Height 64.2 +- 5.0 cm, compared with 119.6 +- 7.4 cm for RHA 271. Exhibits a head diameter of 8.2 +- 1.1 cm, a stem diameter of 1.8 +- 0.3 cm, and 21.4 +- l.1 leaves per plant, which is not significantly different from RHA 271. Since similar number of leaves per plant as RHA 271, reduced stature is produced by shortened internodes. Similar to RHA 271 for head angle and level of autogamy. In combination with standard-height parental lines, produces semi-dwarf hybrids. Semi-dwarf hybrids exhibit a reduction of about 25 to 30% in stature in comparison with near-isogenic standard-height hybrids. Under dryland conditons in Southern Spain, semi-dwarf hybrids presented similar yield potential than standard-height hybrids. Higher yield potential for semi-dwarf hybrids is expected in high yield environments and under conditions that.

The following were donated by Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 10/03/2002.

PI 631497 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18926. Collected 09/2002 in South Africa.

PI 631498 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18929; MW 80-54. Collected 09/2002 in Malawi.

PI 631499 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18940. Collected 09/2002 in South Africa.

PI 631500 QUAR. Sorghum bicolor (L.) Moench

Breeding. CER-S 51; IS 18941. Collected 09/2002 in Tanzania.

PI 631501 QUAR. Sorghum bicolor (L.) Moench
Breeding. MPR 156; IS 18943; S. purpureosericeum. Collected 09/2002 in Tanzania.

PI 631502 QUAR. Sorghum bicolor (L.) Moench
Breeding. PGI 44; IS 18944; Anees. Collected 09/2002 in Sudan.

PI 631503 QUAR. Sorghum bicolor (L.) Moench
Breeding. PGI 68; IS 18945; Anees. Collected 09/2002 in Sudan.

PI 631504 QUAR. Sorghum bicolor (L.) Moench
Breeding. PG 189; IS 18947. Collected 09/2002 in India.

PI 631505 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18951. Collected 09/2002 in India.

PI 631506 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18954. Collected 09/2002 in Australia.

PI 631507 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18955. Collected 09/2002 in Australia.

PI 631508 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18956. Collected 09/2002 in Australia.

PI 631509 QUAR. Sorghum bicolor (L.) Moench
Breeding. IS 18957; S. brevicallosum. Collected 09/2002 in Australia.

PI 631510 QUAR. Sorghum bicolor (L.) Moench
Breeding. PG 185; IS 22191; S. purpureosericeum. Collected 09/2002 in India.

PI 631511 QUAR. Sorghum bicolor (L.) Moench
Breeding. MPR 125; IS 23159; Para sorghum. Collected 09/2002 in Tanzania .

PI 631512 QUAR. Sorghum bicolor (L.) Moench
Breeding. MPR 154; IS 23175; Para sorghum. Collected 09/2002 in Tanzania .

PI 631513 QUAR. Sorghum bicolor (L.) Moench
Breeding. MPR 157; IS 23177; Para sorghum. Collected 09/2002 in Tanzania .

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States. Received 09/25/2002.

PI 631514. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 451; REA94 411. Pedigree - Suweon 185/6* Marfed. Heterogeneous spring (95%) winter (5%) growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Spring habit derived from Marfed. Similar to Marfed for plant ht, heading date, test wt, kernel wt, fall-sown grain

yield, fall-sown stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT50 -8.7 vs. -8.2 deg. C).

PI 631515. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 452; REA94 412. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for test wt, kernel weight, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.7 vs. -8.2 deg. C), plant ht. (>6 cm), heading date (>2d).

PI 631516. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 453; REA94 424. Pedigree - Suweon 185/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Spring habit derived from Marfed. Similar to Marfed for test wt, kernel wt, fall-sown stand, grain hardness, protein %, mixograph, absorption and coldhardiness (LT50 -8.5 vs. -8.2 deg C). Different from Marfed for plant ht. (>5 cm), heading date (>3d), fall-sown grain yield (<10%).

PI 631517. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 454; REA94 425. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for plant ht, heading date, test wt, kernel wt, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.9 vs. -8.2 deg. C), fall-sown grain yield (<10%), fall-sown stand (>11%), SK grain hardness (38 vs. 27).

PI 631518. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 456; REA94 442. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for plant ht, heading date, test wt, kernel wt, fall-sown grain yield, rpotein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.9 vs. -8.2 deg. C), fall-sown stand (>13%), SK grain hardness (37 vs. 27).

PI 631519. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 457; REA94 443. Pedigree - Suweon 185/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Spring habit derived from Marfed. Similar to Marfed for plant ht, heading date, test wt, kernel wt, fall-sown grain yield, fall-sown stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT 50 -8.2 vs. -8.2 deg. C).

PI 631520. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 458; REA94 444. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for

plant ht, heading date, test wt, kernel wt, fall-sown grain yield, grain hardness, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.3 vs. -8.2 deg. C), fall-sown stand (>18%), protein % (>0.7%).

PI 631521. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 460; REA94 446. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for plant ht, heading date, test wt, fall-sown grain yield, grain hardness, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.1 vs. -8.2 deg. C), fall-sown stand (>10%), protein % (>0.8%).

PI 631522. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 461; REA94 430. Pedigree - Suweon 185/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Spring habit derived from Marfed. Simmilar to Marfed for heading date, test wt, fall-sown grain yield, fall-sown stand, protein %, mixograph absorption and coldhardiness (LT50 -8.5 vs. -8.2 deg. C). Different from Marfed for plant ht (<9 cm), kernel wt (32 vs. 35 mg), SK grain hardness (40 vs. 27).

PI 631523. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 462; REA94 431. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (VRN1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for heading date, test wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -13.7 vs. -8.2 deg. C), plant ht (<6 cm), fall-sown stand (>17%).

PI 631524. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 463; REA94 428. Pedigree - Suweon 185/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Spring habit derived from Marfed. Similar to Marfed for kernel wt, fall-sown grain yield, fall-sown stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT50 -8.1 vs. -8.2 deg. C). Different from Marfed for plant ht (<10 cm), heading date (>2 d), test wt (13 g/L).

PI 631525. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 464; REA94 421. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for plant ht, heading date, test wt, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.8 vs. -8.2 deg. C), kernel wt (39 vs. 35 mg), fall-sown grain yield (>10%), fall-sown stand (>13%). Heterogeneous for red and white grain col.

PI 631526. Triticum aestivum L. **subsp. aestivum**

Breeding. Pureline. ARS95 465; REA94 423. Pedigree - Suweon 185/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard height, awnless, white glume cv. Winter habit (vrn1) derived from Suweon 185. Similar to Marfed for plant ht, test wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.2 vs. -8.2 deg. C), heading date (<2d), kernel wt (39 vs. 35 mg), fall-sown stand (>15%). Heterogeneous for white and red grain color.

PI 631527. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 468; REA94 432. Pedigree - Chugoku 81/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Has Vrn1 gene. Like Marfed for plant ht, heading date, test wt, kernel wt, fall-sown grain yield, fall sown-stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT50 -8.0 vs. -8.2 deg C).

PI 631528. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 469; REA94 433. Pedigree - Chugoku 81/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived Chugoku 81. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.1 vs. -8.2 deg. C), fall-sown stand (>13%).

PI 631529. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 470; REA94 434. Pedigree - Chugoku 81/6* Marfed. Heterogeneous spring (98%) winter (2%) growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Has Vrn1 gene. Like Marfed for plant ht, test wt, fall-sown grain yield, fall sown-stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT50 -8.0 vs. -8.2 deg. C). Different from Marfed for heading date (>2d), kernel wt (38 vs. 35 mg).

PI 631530. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 471; REA94 435. Pedigree - Chugoku 81/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (VRN1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived Chugoku 81. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.6 vs. -8.2 deg. C), fall-sown stand (>10%), kernel wt.

PI 631531. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 472; Rea94 437. Pedigree - Chugoku 81/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vnr1) standard ht, awnless, white glume cv. Has Vrn1 gene. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, fall-sown stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT50 -7.9 vs. -8.2 deg. C). Different from Marfed for kernel wt (39 vs. 35 mg).

PI 631532. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 473; REA94 438. Pedigree - Chugoku 81/6*

Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived from Chugoku 81. Like Marfed for plant ht, heading date, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.5 vs. -8.2 deg. C), fall-sown stand (>17%), test wt (<10g/L), kernel wt (38 vs. 35 mg).

PI 631533. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 474; REA94 451. Pedigree - Chugoku 81/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Has Vrn1 gene. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, fall-sown stand, grain hardness, protein %, mixograph absorption and coldhardiness (T50 -8.4 vs. -8.2 deg. C). Different from Marfed for kernel wt (40 vs. 35 mg).

PI 631534. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 475; REA94 452. Pedigree - Chugoku 81/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived Chugoku 81. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -11.7 vs. -8.2 deg. C) fall-sown stand (>15%), kernel wt (39 vs. 34 mg).

PI 631535. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 477; REA94 458. Pedigree - Chugoku 81/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived Chugoku 81. Like Marfed for plant ht, heading date, test wt, kernel wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.6 vs. -8.2 deg. C), fall-sown stand (>7%).

PI 631536. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 478; REA94 453. Pedigree - Chugoku 81/6* Marfed. Homozygous spring growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Has Vrn1 gene. Like Marfed for heading date, kernel wt, fall-sown grain yield, fall-sown stand, grain hardness, protein %, mixograph absorption and coldhardiness (LT50 -8.1 vs. -8.2 deg. C). Different from Marfed for plant ht (<12 cm), test wt (<11 g/L). Has red grain color.

PI 631537. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 479; REA94 454. Pedigree - Chugoku 81/6* Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1) standard ht, awnless, white glume cv. Winter habit (vrn1) derived from Chugoku 81. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, grain hardness, protein %, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.1 vs. -8.2 deg. C), fall-sown stand (>11%), kernel wt (39 vs. 35 mg). Heterogeneous for red and white grain color.

PI 631538. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. ARS95 480; REA94 456. Pedigree - Chugoku 81/6*

Marfed. Homozygous winter growth habit BC5 F4:9 NIL of Marfed, a soft white spring growth habit (Vrn1), standard ht, awnless, white glume cv. Winter habit (vrn1) derived from Chugoku 81. Like Marfed for plant ht, heading date, test wt, fall-sown grain yield, grain hardness, mixograph absorption. Different from Marfed for increased coldhardiness (LT50 -12.2 vs. -8.2 deg. C), fall-sown stand (>10%), kernel wt (40 vs. 35 mg), protein % (>0.8%). Heterogeneous for red and white grain color.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631539. Lotus corniculatus L.
Wild. KBG 5758; G 31272. Collected 10/06/1989 in Morocco. Latitude 33 deg. 32' N. Longitude 5 deg. 0' W. Elevation 1640 m. Dait achlaf 10km S on S309 from the junction on S309 + 3325,SE of Ifrane 17 l, Province=Ifrane. Good soil drainage,Daya Remn,sandy loam,limestone,parent rock,PH 8.5,friable,stony,shallow,common density,heavy grazing,700mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631540. Lotus corniculatus L.
Wild. KBG 5764; G 31273. Collected 11/06/1989 in Morocco. Latitude 33 deg. 26' N. Longitude 5 deg. 3' W. Elevation 1855 m. 3km beyond junction S309 + 3206. Poor drainage,meadow,sandy loam,parent rock limestone,PH 8.0,friable,stony,moderate,soil depth,common density,800+mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631541. Lotus corniculatus L.
Wild. KBG 5797; G 31276. Collected 11/06/1989 in Morocco. Latitude 33 deg. 38' N. Longitude 4 deg. 52' W. Elevation 1550 m. 17km E ofjunction P24 + 3325, S of Imouzzer Kandar Province=Ifrane. Good soil drainage,meadow,loam,parent rock:limestone,PH 8.5,friable,stony,deep soil depth,common density of specimen,heavy grazing,600+mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631542. Lotus corniculatus L.
Wild. KBG 5869; G 31298. Collected 06/18/1989 in Morocco. Latitude 34 deg. 54' N. Longitude 4 deg. 34' W. Elevation 1490 m. 1km E of Ketama on P39 Province=Al Hoceima. Moderate to poor soil drainage,in a meadow,loam,parent rock:granite,PH 6.5,friable,shallow to mod depth,common density,heavy grazing,1200mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C.,

Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631543. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 178; W6 5813. Collected 1950 in Sweden. Gotland Island, Grotlmgbo.

PI 631544. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 179; W6 5814. Collected 1950 in Sweden. Gotland Island, Siffride.

PI 631545. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 180; W6 5815. Collected 1950 in Sweden. Gotland Island, Silterby-Klimte.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631546. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1808; W6 5816. Collected in Russian Federation.

PI 631547. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1809; W6 5817. Collected in Russian Federation.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631548. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 181; W6 5818. Collected 1950 in Sweden. 8km from Klintehamn, Gotland Island.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631549. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1810; W6 5819. Collected in Russian Federation.

PI 631550. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1811; W6 5820. Collected in Russian Federation.

PI 631551. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1812; W6 5821. Collected in Russian Federation.

PI 631552. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1813; W6 5822. Collected in Russian Federation.

PI 631553. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1814; W6 5823. Collected in Russian Federation.

PI 631554. Medicago sativa subsp. falcata (L.) Arcang.

Cultivated. 1815; W6 5824. Collected in Russian Federation.

PI 631555. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1816; W6 5825. Collected in Russian Federation.

PI 631556. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1817; W6 5826. Collected in Russian Federation.

PI 631557. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1818; W6 5827. Collected in Switzerland.

PI 631558. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1819; W6 5828. Collected in Switzerland.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631559. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 182; W6 5829. Collected 1950 in Sweden. Latitude 57 deg. 30' N. Longitude 18 deg. 6' E. Gotland Island, Gnisvard.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631560. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1820; W6 5830. Collected in Switzerland.

PI 631561. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1821; W6 5831. Collected in Switzerland.

PI 631562. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1824; W6 5834. Collected in Austria.

PI 631563. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1825; W6 5835. Collected in Italy.

PI 631564. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1826; W6 5836. Collected in Yugoslavia.

PI 631565. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 1827; W6 5837. Collected in Sweden.

PI 631566. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1830; W6 5840. Collected 1963 in Bulgaria. Seashore sands near Sevastopol, Black Sea.

PI 631567. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1831; W6 5841. Collected 1963 in Bulgaria. Latitude 43 deg. 21' N. Longitude 27 deg. 57' E. Dry grassy plains near Varna.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631568. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 184; W6 5842. Collected 1959 in Italy. Latitude 46 deg. 23' N. Longitude 13 deg. 7' E. Near Carnia.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631569. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1860; W6 5846.

PI 631570. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1863; W6 5847.

PI 631571. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1869; W6 5848. Collected 1964 in Bulgaria. Philipoura (prob. near mod. Plovdiv), Stefanoff.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631572. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 187; W6 5849. Collected 1960 in Italy. Latitude 45 deg. 38' N. Longitude 13 deg. 46' E. On way to Trieste/Grotto. One plant.

PI 631573. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 188; W6 5850. Collected 1960 in Italy. Latitude 45 deg. 38' N. Longitude 13 deg. 46' E. On way to Triesta/Grotto. One plant.

The following were collected by Mouceenko. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631574. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1886; W6 5851. Collected 1964 in Ukraine. Crimea.

The following were collected by J.R. Fryer, University of Alberta, Edmonton, Alberta, Canada. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631575. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 1890; W6 5852. Collected 1965 in Unknown.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631576. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 191; W6 5853. Collected 1959 in Italy. Carmons.

PI 631577. Medicago sativa subsp. falcata (L.) Arcang.

Wild. 193; W6 5854. Collected 1959 in Italy. Carmons.

PI 631578. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 195; W6 5855. Collected 1959 in Italy. Latitude 45 deg. 52' N. Longitude 13 deg. 29' E. Basin of river valley, Sagrado.

PI 631579. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 197; W6 5857. Collected 1959 in Italy. Latitude 45 deg. 52' N. Longitude 13 deg. 29' E. Sagrado.

PI 631580. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 198; W6 5859. Collected 1959 in Italy. Latitude 45 deg. 43' N. Longitude 13 deg. 43' E. Prosecco.

PI 631581. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 200; W6 5860. Collected 1959 in Italy. Latitude 45 deg. 38' N. Longitude 13 deg. 46' E. On road from Trieste to Blue Grotto.

The following were collected by D. Cornelius. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631582. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 2008; W6 5862. Collected in Turkey. Latitude 39 deg. 45' N. Longitude 37 deg. 2' E. Halik Inekhanesi Sivas Province.

PI 631583. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 2009; W6 5863. Collected in Turkey. Latitude 39 deg. 45' N. Longitude 37 deg. 2' E. Eylular Koyu Halik Dist., Sivas Province.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631584. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 201; W6 5864. Collected 1959 in Italy. Latitude 45 deg. 39' N. Longitude 13 deg. 47' E. Pinta Satlile, Trieste.

PI 631585. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 202; W6 5865. Collected 1959 in Italy. Latitude 45 deg. 39' N. Longitude 13 deg. 47' E. Pinta Satlile, Trieste.

PI 631586. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 203; W6 5867. Collected 1959 in Italy. Latitude 45 deg. 36' N. Longitude 13 deg. 46' E. Muggia, nearer to Laeretto.

The following were collected by Stefanoff. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631587. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 2031; W6 5868. Collected in Bulgaria. Reprod. garden in Sofia. Org. near Resseletz Dist., Lukovit.

The following were collected by Sumnevica. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631588. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 2037; W6 5869. Collected 1935 in Kazakhstan. Kanaganda Dist.

The following were collected by Parnassky. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631589. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 2038; W6 5870. Collected 1939 in Russian Federation. Ganiczesk.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631590. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 204; W6 5871. Collected 1959 in Italy. Latitude 45 deg. 36' N. Longitude 13 deg. 46' E. Muggia, nearer to Laeretto.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631591. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 205; W6 5872. Collected 1959 in Austria. Latitude 47 deg. 15' N. Longitude 9 deg. 38' E. Feldkirch.

PI 631592. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 206; W6 5873. Collected 1959 in Italy. Latitude 45 deg. 39' N. Longitude 13 deg. 47' E. Trieste.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631593. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 2078; W6 5874. Collected 1968 in Italy. Mantredano Viesta, Gargano .

PI 631594. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 963; W6 5892. Collected 1960 in Greece. Latitude 40 deg. 11' N. Longitude 21 deg. 40' E. Vourinos.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631595. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 99; W6 5894. Collected in France. Museum of History and Natural Culture.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 03/23/1993.

PI 631596. Medicago sativa subsp. falcata (L.) Arcang.
Cultivar. "ALTAIJSKAIA ZIOLTAIA"; VIR 39954; W6 11464. Collected in Russian Federation. Latitude 53 deg. 27' N. Longitude 91 deg. 48' E. Altaij.

PI 631597. Medicago sativa subsp. falcata (L.) Arcang.
Cultivar. "KRASNOKUTSKAIA-4009"; VIR 23738; W6 11466. Collected in Russian Federation. Latitude 51 deg. 30' N. Longitude 45 deg. 55' E. Saratov.

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 631598. Lotus corniculatus L.
Wild. X93007; G 31851; W6 12925. Collected 08/06/1993 in Xinjiang, China . Latitude 44 deg. 11' N. Longitude 86 deg. 54' E. Elevation 532 m. Hutubi Stud and Dairy Farm, Xinjiang.

PI 631599. Lotus corniculatus L.
Wild. X93012; G 31849; W6 12930. Collected 08/07/1993 in Xinjiang, China . Latitude 44 deg. 8' N. Longitude 86 deg. 35' E. Elevation 600 m. Along stream and lowlands, 1km from the Hong Shan Reservoir, 38km west of Hutubi, and 11km south Dafeng, Xingiang.

PI 631600. Lotus corniculatus L.
Wild. X93032; G 31850; W6 12950. Collected 08/08/1993 in Xinjiang, China . Latitude 43 deg. 56' N. Longitude 86 deg. 26' E. Elevation 1040 m. Along a river drainage, 31km southwest of Dafeng, Xinjiang. Plant diversity immense.

PI 631601. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X93084; W6 13000. Collected 08/11/1993 in Xinjiang, China. Latitude 44 deg. 9' N. Longitude 84 deg. 38' E. Elevation 1620 m. Natural pasture at base of Tien Shan Mountains, approx. 65km south of Usu, Xinjiang.

PI 631602. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X93098; W6 13015. Collected 08/11/1993 in Xinjiang, China. Latitude 44 deg. 10' N. Longitude 84 deg. 34' E. Elevation 1500 m. Natural pasture just before Chanjing Farm, Xinjiang.

PI 631603. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. X93160; W6 13026. Collected 08/12/1993 in Xinjiang, China. Latitude 44 deg. 34' N. Longitude 83 deg. 55' E. Elevation 385 m. Gultu Farm, Xinjiang. Farm characterized by being very dry with high accumulation of salt due to excessive irrigation. Dominant species Achnatherum splendens. Some very large stands of Leymus secalinus

growing in very harsh conditions.

PI 631604. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X93178; W6 13084. Collected 08/18/1993 in Xinjiang, China. Latitude 44 deg. 7' N. Longitude 87 deg. 58' E. Elevation 1680 m. Uncut, non-irrigated mountain pasture. Bottom of slope at Y in road 4km from main road to Tien Shi Lake (Heavenly Lake) on left side of road going east, Xinjiang.

The following were collected by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/30/1993.

PI 631605. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14149. Collected 09/11/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2682 m. Field margin, naturally occuring along irrigated canals. 1km northeast of Jomsom Airport, Jomsom, Mustang . Abundant yellow-flower with sickle-shaped seed pod. Very occasional yellow variegated flowers. Abundant forage. First cut in May or early June. Usually hand harvested for winter forage. Sept. 15 - Oct. 10 for second cut.

PI 631606. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14150. Collected 09/11/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2682 m. Field margin, naturally occuring along irrigated canals. 1.5km northeast of Jomsom Airport, Mustang. Abundant yellow-flower with sickle-shaped seed pod. Very occasional yellow variegated flowers, abundant forage. First cut in late May or early June. Second cut usually between Sept. 15 and Oct. 10. Usually hand harvest d for winter forage.

PI 631607. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14151. Collected 09/11/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2713 m. Field margin, naturally occuring along irrigated canals. 3km northeast of Jomsom Airport, Mustang. Abundant yellow-flower with sickle-shaped seed pod. Very occasional yellow variegated flowers, abundant forage. First cut in late May or early June. Second cut usually made between Sept. 15 and Oct. 10. Usually hand harvested for winter forage.

PI 631608. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14153. Collected 09/11/1986 in Nepal. Latitude 2 deg. N. Longitude 84 deg. E. Elevation 2682 m. Field margin, naturally occuring along irrigated canals. 1km east of Jomsom Airport, Mustang. Abundant yellow-flower with sickle-shaped seed pod. Very occasional yellow variegated flowers, abundant forage. First cut in late May or early June. Second cut usually made between Sept. 15 and Oct. 10. Usually hand harvested for winter forage.

The following were collected by M.B. Thapa. Donated by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/30/1993.

PI 631609. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14154. Collected 10/1985 in Nepal. Latitude 29 deg. N.

Longitude 84 deg. E. Elevation 2682 m. Field margin, naturally occuring along irrigated canals. Jomsom, Mustang. Abundant yellow-flower with sickle-shaped seed pod. Very occasional yellow variegated flowers, abundant forage. First cut in late May or early June. Second cut usually made between Sept. 15 and Oct. 10. Usually hand harvested for winter forage.

The following were collected by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/30/1993.

PI 631610. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. W6 14155. Collected 09/12/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2774 m. Sapchae, 1km south of Kagbeni, Mustang. Flower yellow with sickle shape seed pod. Farmer built stone wall and has irrigation; M. falcata plants flourished under protection. Farmer now has 2-3 acres that he cuts for forage and sells @ $.25 for small bundle.

PI 631611. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14156. Collected 09/12/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 3261 m. 1km west of Khinga Village, 5km east of Kagbeni, Mustang. Flower yellow with sickle shape pod. Growing in pasture area.

PI 631612. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14157. Collected 09/13/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 3414 m. Jarkot, 7km east of Kagbeni, Mustang. Flower yellow, sickle shape pod.

PI 631613. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14158. Collected 09/14/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2591 m. Chairo, 1km south of Marpha, Mustang. Flower yellow, sickle shape pod.

The following were collected by M.B. Thapa. Donated by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/30/1993.

PI 631614. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14160. Collected 10/1987 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2682 m. Along field margin, Jomsom. Flower yellow, sickle shape pod.

PI 631615. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14161. Collected 10/29/1987 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2774 m. Kagbeni, Mustang. Flower yellow, sickle shape pod.

PI 631616. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14162. Collected 10/1987 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 3261 m. Khinga, near Jharkot, Mustang. Flower yellow, sickle shape pod.

PI 631617. Medicago sativa subsp. falcata (L.) Arcang.

Wild. W6 14163. Collected 10/26/1987 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2600 m. In front of Hotel Om's House, Marpha, Mustang. Flower yellow, sickle shape pod.

PI 631618. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14164. Collected 10/25/1987 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2591 m. Chairo Livestock Farm, Mustang. Flower yellow, sickle shape pod.

PI 631619. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W6 14165. Collected 11/1987 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 3000 m. Lo Manthang, 3 days walk north of Jomsom. Flower yellow, sickle shape pod.

The following were collected by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/30/1993.

PI 631620. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. Yarkendy type; W6 14166. Collected in India. Latitude 34 deg. N. Longitude 77 deg. E. Elevation 3257 m. Leh, Ladakh. Purchased at Main Bazaar Market from M/S Chospa General Merchants. Seed produced in area during 1987-88.

Unknown source. Received 07/06/1939.

PI 631621. Lotus corniculatus L.
G 16903.

Unknown source. Received 07/06/1939.

PI 631622. Lotus corniculatus L.
"Dawn"; G 19669.

Unknown source. Received 07/06/1939.

PI 631623. Lotus corniculatus L.
G 22102.

Unknown source. Received 07/06/1939.

PI 631624. Lotus corniculatus L.
G 22520.

Unknown source. Received 07/06/1939.

PI 631625. Lotus corniculatus L.
G 23812.

Unknown source. Received 07/06/1939.

PI 631626. Lotus corniculatus L.
G 29103. Collected in Pakistan.

Unknown source. Received 07/06/1939.

PI 631627. Lotus corniculatus L.
G 29104. Collected in Pakistan.

Unknown source. Received 07/06/1939.

PI 631628. Lotus corniculatus L.
G 29105. Collected in Nepal.

The following were developed by National Agricultural Research Centre, Pakistan Agricultural Research Council, P.O. National Health Laboratories, Islamabad, Pakistan; Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Donated by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 09/05/1989.

PI 631629. Lotus corniculatus L.
Wild. 86PK1290-003; G 30017; W6 696. Collected 07/24/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 21' N. Longitude 75 deg. 46' E. Elevation 2080 m. Collected near Kothan Pine, 5km northeast from Shigar on Skardu - Shigar Road, Baltistan Province. 100 plants sampled.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631630. Lotus corniculatus L.
Wild. KBG 5928; G 31314. Collected 06/26/1989 in Morocco. Latitude 31 deg. 42' N. Longitude 5 deg. 48' W. Elevation 1980 m. 3km N of Msemrir. Poor soil drainage,in meadow,clay loam,parent rock:limestone,PH 8.5,friable,stony,shallow,common density of specimen,250mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

Unknown source. Received 07/06/1939.

PI 631631. Trifolium fragiferum L.
S-16-54; G 31574. Collected in France.

Unknown source. Received 07/06/1939.

PI 631632. Trifolium lupinaster L.
S-23-2; G 31613. Collected in Mongolia.

Unknown source. Received 07/06/1939.

PI 631633. Trifolium canescens Willd.
S-9-17; G 31630. Collected in Former Soviet Union.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

PI 631634. Medicago laciniata (L.) Mill.
Wild. M182.CPG94; W6 15911. Collected 07/26/1994 in Morocco. Latitude 31 deg. 6' 10'' N. Longitude 8 deg. 42' 39'' W. Elevation 980 m. Near Bou-Laouane, 21 k south of Bou-Laouane along road 6404. Grazed. Slope 11-40%, aspect E. Area open. Soil sandy loam on degraded schist/calcareous rock, pH 10.0. Rainfall 350 mm. Seasonally dry, lower-upper slope. Vegetation open. evergreen steppe scrub. Surrounding veg. stream terrace agriculture. Population abundance frequent, distribution patchy. Growth habit prostrate.

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 1995.

PI 631635. Medicago sativa subsp. falcata (L.) Arcang.
Wild. E94012; W6 16601. Collected 09/02/1994 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. Collection sites on grass steppe uplands above river floodplain. Mountain-grass steppe. Soils shallow, gravelly, low fertility, brown chestnut and cherty. Shrubs co-dominant which is common on hilly uplands in this area.

PI 631636. Medicago sativa subsp. falcata (L.) Arcang.
Wild. E94042; W6 16603. Collected 09/06/1994 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 631637. Medicago sativa subsp. falcata (L.) Arcang.
Wild. E94151; W6 16605. Collected 09/10/1994 in Mongolia. Latitude 47 deg. 30' 24'' N. Longitude 118 deg. 1' 2'' E. Elevation 610 m. Approximately 100 km south of border with Inner Mongolian. In center of vast plain almost devoid of livestock or people. Grass steppe.

PI 631638. Medicago sativa subsp. falcata (L.) Arcang.

Wild. E94157; W6 16606. Collected 09/11/1994 in Mongolia. Latitude 47 deg. 58' N. Longitude 118 deg. 8' E. Elevation 466 m. "Breaks" of higher elevation grass steppe on to floodplain of Khalkin Gol River, extreme eastern Mongolia. Inner Mongolia observable from this point. Grass steppe. Cherty brown chestnut soils.

PI 631639. Medicago sativa subsp. falcata (L.) Arcang.
Wild. E94222; W6 16612. Collected 09/16/1994 in Mongolia. Latitude 47 deg. 30' 20'' N. Longitude 111 deg. 59' 57'' E. Elevation 808 m. Winter camp area in low range of mountains south of Herlen River. Collections made from slopes of highest peak in general area. Highly productive grass steppe, much of bottomland used for cutting hay. Soils rocky from debris and appeared to be loamy, cherty soils. Soils in the bottom deep and fertile. Aspect SE, slope 5%.

PI 631640. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W94009; W6 16615. Collected 09/02/1994 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. 3-5% SE slope. Soil well drained.

PI 631641. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W94030; W6 16617. Collected 09/05/1994 in Mongolia. Latitude 50 deg. 2' 23'' N. Longitude 105 deg. 50' 27'' E. Elevation 875 m. About 4 km SW of Dzuunburen, in floor of the Selenge River Valley. Relatively wet meadow.

PI 631642. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W94033; W6 16618. Collected 09/06/1994 in Mongolia. Latitude 49 deg. 58' 43'' N. Longitude 105 deg. 41' 57'' E. Elevation 1000 m. In hills south of Selenge River, about 14 km SW of Dzuunburen by air. Surrounded by hills. Meadow. 5-10% slope creek bottom.

PI 631643. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W94044; W6 16619. Collected 09/06/1994 in Mongolia. Latitude 49 deg. 51' 47'' N. Longitude 105 deg. 32' 20'' E. Elevation 1010 m. About 32 km SW of Dzuunburen by air in low pass between two drainages. Mountain steppe. Hills on both sides gently rolling and grass covered.

PI 631644. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W94045; W6 16620. Collected 09/06/1994 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. About 5 km south of Selenge River in creek bottom.

. Mountain steppe. 3% W slope.

PI 631645. Medicago sativa subsp. falcata (L.) Arcang.
Wild. W94119; W6 16622. Collected 09/14/1994 in Mongolia. Latitude 47 deg. 23' 7'' N. Longitude 102 deg. 34' 3'' E. Elevation 1530 m. 9 km NE of Hotont. Meadow on east bank of tributary of Hogshin River. Mountain steppe. Soil gravelly. Heavily grazed.

Unknown source. Received 1900.

PI 631646. Trifolium fragiferum L.

G 31855.

Unknown source. Received 1900.

PI 631647. Trifolium rubens L.
G 31870.

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 631648. Trifolium lupinaster L.
Wild. W94019; W6 18176. Collected 09/1994 in Mongolia. Latitude 50 deg. 3' 8'' N. Longitude 106 deg. 13' 18'' E. Elevation 890 m. On highway just east of Shaamar. Mountain steppe. Slope 1%. Wooded with Pinus species.

PI 631649. Trifolium lupinaster L.
Wild. W94069; W6 18218. Collected 09/1994 in Mongolia. Latitude 49 deg. 14' 37'' N. Longitude 104 deg. 33' 40'' E. Elevation 1509 m. High mountain valley, about 135 km SW of Dzuunburen by air. Mountain steppe. South slope 5-10%.

The following were collected by 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; Siyka Angelova, Institute of Introduction and Plant Genetic Resources, Sadovo, Plovdiv 4122, Bulgaria; Datcho P. Shamov, Institute of Introduction and Plant Genetic Resources, Sadovo, Plovdiv 4122, Bulgaria; Kenneth H. Quesenberry, University of Florida, Department of Agronomy, 304 Newell Hall, P.O. Box 110500, Gainesville, Florida 32611-0500, United States. Received 09/01/1994.

PI 631650. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 93-19; W6 19150. Collected 08/1993 in Bulgaria. Latitude 41 deg. 59' 29'' N. Longitude 24 deg. 51' 10'' E. Elevation 736 m. 9-10 km S of Asenovgrad near Backovski. Shrubby high plateau with grasses and forbes. Sloping. Clay loam, 37% sand, 26% silt, 37% clay, pH 6.85. All seed from one clump of plants. Seed yellow.

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

PI 631651. Medicago orbicularis (L.) Bartal.
Wild. 0150; 004; W6 18305. Collected 09/07/1995 in Russian Federation. Latitude 45 deg. 21' N. Longitude 36 deg. 56' E. Elevation 50 m. Province Temrjuk/Novorossiysk, village Fontavlski. Southwest of Temrjuk, 7 km. Past and current grazing. Slope 11-40%, aspect S. Open light. Soil

clay, deluvial (colluvial), pH 7.5-7.7. Seasonally dry, ravine. Vegetation open, evergreen dwarf shrub steppe savanna. Surrounding veg. human disturbances, evergreen steppe. Edge of Hornbeam-Oak zone. Dominant shrub species Artemisia austriaca. Dominant herb/grass species Salvia sp., Inula sp., Festuca v., Stipa sp., Agropyron sp. Population distribution patchy, abundance occasional. Growth habit prostrate. Dry pods. 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 631652. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0181; 035; W6 18323. Collected 07/23/1995 in Russian Federation. Latitude 44 deg. 19' 33'' N. Longitude 40 deg. 52' 33'' E. Elevation 335 m. Province Maykop, 1 km north of Kaladehinskaya. Past grazing,now roadway.Slope 0-5%,aspect SW.1/4 shade.Soil sand,pH 5.4-6.3,parent rock sandstone.Seasonally dry,ridgetop,landslide. Vegetation closed,evergreen short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species boundary vegetation type. Dominant shrub species Carpinus c., Q. petraea. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631653. Trifolium fragiferum L.
Wild. 0186; W6 18326. Collected 07/24/1995 in Russian Federation. Latitude 44 deg. 25' 7'' N. Longitude 41 deg. 25' 53'' E. Elevation 610 m. Province Maykop, 5 km west of Otradnaya. Past logged,now settlement.Slope 0-5%,aspect S.Light open.Soil conglomerate w/ clay between,pH 7.8.Seasonally dry,ridgetop.Vegetation closed,evergreen broad-leafed herb vegetation.Surrounding veg. open decid. forest with closed lower layers. Dominant tree species Quercus sp., Q. robur. Dominant shrub specis Carpinus c., Q. Petraea. Dominant herb/grass species Trifolium sp. Population distribution uniform, abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631654. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0190; 044; W6 18330. Collected 07/25/1995 in Russian Federation. Latitude 44 deg. 13' N. Longitude 41 deg. 51' E. Elevation 700 m. Province Maykop, 1 km northwest of Psauch'ye-Dakha. Past logged, now grazed. Slope 11-40%, aspect SE. Light open. Soil clay with gravel, pH 7.4-8.0, some sand layer, mainly tertiary clays. Seasonally dry, upper slope, landslide slope. Vegetation closed evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus sp., Q. robur. Dominant shrub species Carpinus c., Q. petraea. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631655. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0192; 046A; W6 18331. Collected 07/26/1995 in Chelyabinsk, Russian Federation. Latitude 44 deg. 4' 25'' N. Longitude 42 deg. 21' 24'' E.

Elevation 823 m. 5 km. south of Bekeshevskaya. Past logged, now grazed. Slope 11-40%, aspect E. Light open. Soil loam, pH 7.8-8.0. Seasonally dry, mid slope, high terrace. Vegetation closed, seasonal tall and short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant shrub species Carpinus c., Q. petraea. Dominant herb/grass species Carix sp., Bothriochloa i., Festuca sp., Koeleria sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631656. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0201; 054; W6 18336. Collected 07/29/1995 in Russian Federation. Latitude 43 deg. 35' 42'' N. Longitude 43 deg. 12' 48'' E. Elevation 900 m. Province Prokhladnyy/Nal'Chir (Kabardin-Balkarskaya Republic), 20 km southwest of Baksanges. Past logged, now grazed. Slope 11-40%, aspect SE. Light open. Soil sand, pH 7.1-7.5. Seasonally dry, cliff, mid slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species Origanum sp. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Pods odd shape, straight to curved. 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 631657. Trifolium fragiferum L.
Wild. 0207; 059; W6 18341. Collected 07/30/1995 in Russian Federation. Latitude 44 deg. 26' 38'' N. Longitude 42 deg. 52' 39'' E. Elevation 335 m. Province Pyatigorsk (Kabardin-Balkarskaya Republic), 3 km southwest of Nagutskoye. Past logged, now grazed. Slope 0-5%, aspect S. Light open. Soil tertiary clays, pH neutral-slight basic. Seasonally dry, upper slope. Vegetation closed, evergreen tall grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree specie Q. robur. Dominant shrub species Caragana sp., Cerasus sp. Dominant herb/grass species Trifolium sp, Brachypodium pinn., Festuca sp., Stipa sp. Population distribution uniform, abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631658. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0223; 075; W6 18354. Collected 08/12/1995 in Russian Federation. Latitude 44 deg. 14' 44'' N. Longitude 39 deg. 36' 49'' E. Elevation 488 m. Province Maykop, 5 km west of Cherngovskoye, village Maratduki. Past logged, now grazed. Slope 0-5%, aspect S. Light open. Soil clay, loam, pH 5.9-6.4. Seasonally dry, lower slope, stream terrace. Vegetation closed, evergreen tall grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species Carpinus sp., Q. petraea. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631659. Trifolium fragiferum L.
Wild. 0227; 079; W6 18356. Collected 08/15/1995 in Krasnodar, Russian Federation. Latitude 44 deg. 41' 45'' N. Longitude 38 deg. 58' 32'' E.

Elevation 140 m. Province Krasnodar, Groreghgloviskoy (hot springs), village Chibiy/Kaluzhskaya, southwest of Krasnodar. Past cultivated, now roadway. Slope 0-5%, aspect SE. Light 1/4 shade. Soil loam to clay, pH 7.4. Seasonally dry, lower slope, lower mountain foothills. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus robur. Dominant shrub species Caprinus sp., Quercus sp. Dominant herb/grass species mixed grass/legume, some forbes, Dorycnium intermedium, T. apertum, T. caucasium, M. falcatum. Population distribution uniform, abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631660. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0239; 090; W6 18366. Collected 08/17/1995 in Krasnoyarsk, Russian Federation. Latitude 44 deg. 54' 39'' N. Longitude 37 deg. 57' 45'' E. Elevation 70 m. Province Krymsk, between Krasnodar and Novorossiysk, west of Krymsk. Past and current grazing. Slope 6-40%, aspect NE. Light open. Soil calcareous loams/sands, clay, pH 7.6-7.9. Seasonally dry, lower to mid slope, active slope movement. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus robur, Quercus sp. Dominant shrub species Ribes sp. Dominant herb/grass species broadleaves, Trifoliums, Lotus corniculatus, Bermuda grass, Bothriochloa ischaemum, Senecio grandidentatus, Tussilago farfara, Coronilla varia, Xanthium strumarium, Daucus carota, Convolvulus arvensis, Achillea millefolium. Population distribution patchy, abundance occasional. Growth habit semi-erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631661. Medicago sativa subsp. falcata (L.) Arcang.
Wild. M102; W6 18373. Collected 08/18/1995 in Russian Federation. Latitude 45 deg. 16' N. Longitude 36 deg. 57' E. Elevation 60 m. 2 km. west of site #8, near Mt. Blevaka. Area grazed. Slope 6-10%, aspect N. Light open. Soil loam, clay, pH basic-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. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631662. Trifolium fragiferum L.
Wild. M106; W6 18375. Collected 08/19/1995 in Russian Federation. Latitude 44 deg. 59' 35'' N. Longitude 37 deg. 13' 49'' E. Elevation 2 m. Province Amana/Novorossiysk, south of Vitisevo on Black Sea. Past and current grazing. Slope 0-5%, aspect S. Light open. Soil sand, pH basic. Seasonally dry, dune. Vegetation open, evergreen dwarf shrub steppe savanna. Surrounding vegetation open evergreen dwarf scrub with closed ground cover. Not as common as Lotus tenuis. Dominant tree specie Russian Olive. Dominant shrub specie Artemisia austriaca. Dominant herb/grass species Arundo sp., Pulicaria, Phragmites, Calamagrostis,

Elytrigia sp., pseudo-Phragmites. Population distribution patchy. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631663. Medicago sativa subsp. falcata (L.) Arcang.
Wild. M128; W6 18391. Collected 08/21/1995 in Russian Federation. Latitude 44 deg. 33' 30'' N. Longitude 38 deg. 21' 48'' E. Elevation 690 m. Province Novorossiysk, 10 km north of Michaelovski-Pervial. Past logged, now grazed. Slope 0-5%, aspect NW. Light open. Soil clay, limestone/slate, shales, sandstones, pH 5.6-7.5. Seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus sp. Dominant shrub species Caprinus sp., Quercus sp., Ribes sp. Dominant herb/grass species Trifolium sp., Festuca pratensis, Poa sp., Potentilla sp., Medicago falcata, Onobrychis sp., Aster sp., Dactylis glomerata, Geranium sp. Population abundant. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631664. Trifolium fragiferum L.
Wild. M135; W6 18394. Collected in Russian Federation. Latitude 44 deg. 32' 17'' N. Longitude 38 deg. 20' 46'' E. Elevation 420 m. Province Novorossiysk, 6 km north of Michaelovski-Perival. Past logged, now raodway. Slope 6-10%, aspect S. Light 1/4 shade. Soil clay, parent rock limestone, pH basic. Seasonally dry, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus sp. Dominant shrub species Caprinus sp., Quercus sp., Ribes, Dorycnium intermedium. Dominant herb/grass species Trifolium sp., Dactylis glomerata, Daucus carota. Population distribution patchy. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631665. Trifolium fragiferum L.
Wild. M141; W6 18398. Collected 08/21/1995 in Russian Federation. Latitude 44 deg. 8' 54'' N. Longitude 39 deg. 1' 20'' E. Elevation 50 m. Province Novorossiysk-Tuapsf, south of Aguaye (Agoy) on beach. Past logged, now settlement. Slope 0-5%, aspect S. Light 1/4 shade. Soil clay, limestone, beach platy stones, pH basic. 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 fragiferum, Lotus tenuis. Population abundance occasional. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631666. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0073; 0230; W6 18462. Collected 07/22/1995 in Russian Federation. Latitude 44 deg. 10' 2'' N. Longitude 40 deg. 50' 56'' E. Elevation 579 m. Province Maykop, 1.5 km. east of Psebay. Area grazed. Slope 0-5%, aspect SW. 1/2 shade. Soil sand with gravel,pH 5.3-5.4.Moist,stream

terrace.Vegetation closed,open deciduous forest with closed lower layers.Surrounding veg. evergreen tall grass and seasonal broad-leafed herb veg. Dominant tree species Hornbeam-Oak, Carpinus sp. Dominant shrub species Carpinus c., Q. petraea, willows, Ribes. Dominant herb/grass species Asperula sp., thistles, Festuca d., Erytregia sp., Calamagrostis sp., Lolium p. Population distribution patchy, abundance rare. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631667. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0084; 0241; W6 18467. Collected 09/05/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 55' N. Longitude 41 deg. 13' 59'' E. Elevation 850 m. Province Cherkessk-Karachayeysk Republic, 2 km east of Pregradnayc. Past logged, now grazed, hayed. Slope 0-5%, aspect S. Light open. Soil loam, pH neutral. Moist to seasonally dry, stream terrace. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Fagus o., Quercus sp., Betula p. Dominant shrub species Laurocerasus officinalis, Ribes sp., Rosa sp. Dominant herb/grass species Achillea sp., Trifolium sp., Medicago sp., Geranium sp., Ambrosia sp., Daucus, Chicory, Dactylis g., Phleum p., Lolium p. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631668. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 0096; 0253; W6 18476. Collected 09/06/1995 in Karelia, Russian Federation. Latitude 43 deg. 51' 30'' N. Longitude 41 deg. 54' 7'' E. Elevation 790 m. Province Karachayevo-Cherkesskaya Republic, 1 km northwest of Ordzhanikedevskiy. Past and current grazing. Lower slope 6-10%, upper slope 41-60%, aspect SE. Light open. Soil sandy loam, sandstone rock outcrop, pH upper 5.8, lower 6.3-6.4. Seasonally dry, lower slope, rock outcrop. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Beech, Oak, Fagus o., Quercus sp. Dominant shrub species Artemisia sp., Rosa sp. Dominant herb/grass species Achillea sp., Medicago sp., Bothriochloa i., Festuca v. Population distribution uniform, abundant. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631669. Medicago sativa subsp. falcata (L.) Arcang.
Wild. A113; W6 18555. Collected 08/16/1995 in Krasnodar, Russian Federation. Latitude 44 deg. 41' 38'' N. Longitude 38 deg. 57' 14'' E. Elevation 260 m. Province Krasnodar, 8 km south of site 61, village Kaluzhskaya. Logged/cleared. Slope 0-5%, aspect SE. Light 1/4 shade. Soil loam to clay, limestones in profile, pH 7.0. Seasonally dry, lower slope, pasture/meadow. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species Prunus, Ribes. Dominant herb/grass species broadleaves, Elytrigia sp., Rubus sp., Lycopus sp., some grasses, poor in legumes, some Lathyrus sp., T. hybridum, T. medium, T. pratense, Artemisia sp. Population distribution patchy, abundance

occasional. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631670. Medicago sativa subsp. falcata (L.) Arcang.
Wild. VIR D24; W6 18576. Collected 07/18/1995 in Russian Federation. Latitude 44 deg. 25' 27'' N. Longitude 40 deg. 8' 33'' E. Elevation 540 m. Nearest s. is Shuntuk. Area grazed. Eastern NE slope, incline 10-25'. Open with single shrubs. Soil soddy calcerous, pH 6.0-7.7. Moist to seasonally dry. Vegetation closed. Grasses and legumes Lotus c., Trifolium pratense, T. ambiguum, T. bonnanii, Onobrychis sp. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631671. Medicago sativa subsp. falcata (L.) Arcang.
Wild. VIR D41; W6 18579. 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. Open. Soil highly organic sod, pH 5.3-7.5. Moist to seasonally dry, lower-upper slope. 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. Extensive regional climate data available in spreadsheet format or image mpas in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631672. Medicago sativa subsp. falcata (L.) Arcang.
Wild. A44; W6 18583. Collected 07/25/1995 in Russian Federation. Latitude 44 deg. 12' N. Longitude 41 deg. 36' 30'' E. Elevation 720 m. Province Maykop, 2 km east of Odobnaya-Shriak. Past logged, now grazed. Slope 41-60%, aspect SE. Light open. Soil clay, pH 6.6-6.9. Seasonally dry,upper slope, depression in landslide.Vegetation closed,evergreen short grass.Surrounding veg. open deciduous forest with closed lower layers. Dominant shrub species Carpinus c., Q. petraea. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

Unknown source. Received 1996.

PI 631673. Trifolium fragiferum L.
G 31859.

Unknown source. Received 1996.

PI 631674. Trifolium fragiferum L.
G 31860.

Unknown source. Received 1996.

PI 631675. Trifolium fragiferum L.

G 31869.

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 12/1996.

PI 631676. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-271; W6 18932. Collected 08/28/1996 in Mongolia. Latitude 49 deg. 30' 13'' N. Longitude 94 deg. 21' 13'' E. Elevation 1724 m. Uvs Aimag, 14 km northeast of Mondoohoo and 17 km south of Beruuturuun in foothills of Hanhohiy Mountains. Dry hillside with east aspect and 15% slope along roadside. Exposed rock above site. Soils medium brown. Ecological zone: transition forest steppe to steppe.

PI 631677. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-289; W6 18933. Collected 08/31/1996 in Mongolia. Latitude 49 deg. 49' 32'' N. Longitude 92 deg. 3' 48'' E. Elevation 1141 m. Uvs Aimag, 16 km south of Ulaangom and 13 km northeast of Harhiraa. Abandoned alfalfa field with an east-northeast aspect and 1-2% slope that was abandoned three years ago. Soils are sandy with coarse aggregate. Ecological zone: steppe.

PI 631678. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-295; W6 18934. Collected 08/31/1996 in Mongolia. Latitude 49 deg. 46' 40'' N. Longitude 91 deg. 53' 52'' E. Elevation 1463 m. Uvs Aimag, in the city park in Harhiraa, sum center for Tarialan. East aspect with 1% slope and gravelly, sandy soil. Ecological zone: steppe.

PI 631679. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-301; W6 18935. 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 and soils are sand and gravel. Ecological zone: steppe.

PI 631680. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-350; W6 18936. Collected 09/06/1996 in Mongolia. Latitude 48 deg. 34' 20'' N. Longitude 90 deg. 26' 59'' E. Elevation 1232 m. Hovd Aimag, 8 km north of Har-Us on an abandoned state forage production farm (2,000 hectares) in a previously irrigated field 0.5 km west of the farm buildings along the elevated road. Site is level with silty light tan soils. Ecological zone: desert steppe.

PI 631681. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-356; W6 18937. Collected 09/06/1996 in Mongolia. Latitude 48 deg. 9' 35'' N. Longitude 91 deg. 41' 50'' E. Elevation 1296 m. Hovd Aimag, 18 km north of Hovd in an abandoned irrigated field that is fenced and being used for winter forage production. Soils are gravel and sand with a high percentage of coarse aggregate. Irrigation started in 1995; species are natural. Ecological zone: desert steppe.

PI 631682. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-362; W6 18938. Collected 09/07/1996 in Mongolia. Latitude 48 deg. 10' 33'' N. Longitude 91 deg. 45' 29'' E. Elevation 1232 m. Hovd Aimag, 21 km north of Dundus and 24 km northwest of Har-Us Nuur about 1

km from the abandoned crop research center to the northwest. Site is a fenced irrigated area being used for forage and vegetable production and is surrounded by trees to the west. Ecological zone: desert steppe.

PI 631683. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96N-369; W6 18939. Collected 09/09/1996 in Mongolia. Latitude 47 deg. 1' 59'' N. Longitude 93 deg. 18' 18'' E. Elevation 1355 m. Hovd Aimag, an abandoned wheat farm south of the highway from Hovd to Altai city. Site is directly south of the fence in the area previously under a circle irrigation. Soils are small gravel/sandy/silt. Aspect is north with **PI 631684. Medicago sativa subsp. falcata** (L.) Arcang.
Wild. 96S-88; W6 18941. Collected 09/02/1996 in Mongolia. Latitude 46 deg. 6' 44'' N. Longitude 91 deg. 33' 15'' E. Elevation 1213 m. Khovd Aimag, Bulgan Sum, experimental area about 1 km from the Sum center. 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. Slope: flat. Aspect: flat.

PI 631685. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96S-97; W6 18942. Collected 09/04/1996 in Mongolia. Latitude 47 deg. 25' 23'' N. Longitude 92 deg. 13' 37'' E. Elevation 1400 m. Khovd Aimag, Mankhan Sum, fenced experimental farm that is currently being used as a hay-making area located about 0.5 km from Sum center. Old river terrace at edge of the Sum center that is irrigated to produce hay. Soils are rubbly, gravelly valley outwash soils. Slope - flat. Aspect - flat.

PI 631686. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 96S-109; W6 18943. Collected 09/04/1996 in Mongolia. Latitude 48 deg. 10' N. Longitude 91 deg. 45' 21'' E. Elevation 1335 m. Khovd Aimag, Buyant Sum, experimental area about 10 km north of aimag center. Wide valley bottom that is currently being used for growing vegetables and making hay. Soils are alluvial and are coarse brown sandy loams. Slope - flat. Aspect - flat.

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 631687. Lotus corniculatus L.
Wild. B96-286; W6 19439. Collected 07/1996 in Bulgaria. Latitude 42 deg. 49' 5'' N. Longitude 24 deg. 57' 48'' E. Elevation 608 m. Near Ostritz Peak just west of Ostritz. Grassy pasture. west.

PI 631688. Lotus corniculatus L.
Wild. B96-296; W6 19447. Collected 07/1996 in Bulgaria. Latitude 42 deg. 55' 41'' N. Longitude 24 deg. 58' 16'' E. Elevation 304 m. Oak woodland. Collected on edge of woods. west.

PI 631689. Medicago sativa subsp. falcata (L.) Arcang.
Wild. B96-322; W6 19464. Collected 07/1996 in Bulgaria. Latitude 42 deg. 57' 57'' N. Longitude 24 deg. 11' 58'' E. Elevation 258 m. 5 km west of Tetevan along the river. Steep grassy slope from river. west.

PI 631690. Medicago sativa subsp. falcata (L.) Arcang.
Wild. B96-391; W6 19527. Collected 07/1996 in Bulgaria. Collected near Pleven.

PI 631691. Medicago sativa subsp. falcata (L.) Arcang.
Wild. B96-134; W6 19327. Collected 07/1996 in Bulgaria. Latitude 41 deg. 59' 40'' N. Longitude 24 deg. 51' 26'' E. Elevation 578 m. Dense woods (Ulmas and wild elm). south.

PI 631692. Lotus corniculatus L.
Wild. B96-347; W6 19486. Collected 07/1996 in Bulgaria. Latitude 42 deg. 37' 26'' N. Longitude 24 deg. 10' 32'' E. Elevation 775 m. Oak woodland, much Thymus, grasses, thistle, wild plum, very dry sandy/gravel soil. Open.

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

PI 631693. Lotus corniculatus L.
Wild. 96N-298; W6 19779. Collected 08/1996 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 and soils are sand and gravel. DOMINANT VEG: Achnatherum splendens, Heteropappus hispidus, Potentilla biforca ECOLOGICAL ZONE: Steppe.

PI 631694. Trifolium lupinaster L.
Wild. 96N-195; W6 19689. Collected 08/1996 in Mongolia. Latitude 48 deg. 32' 54'' N. Longitude 98 deg. 29' 59'' E. Elevation 2002 m. Site is 28 km southeast of town of Tosontsengel in Zuvhan Aimag. 3% east slope. Located in the wooded creek bottom with understory of shrub. Creek is running east. North slope is Larix while south is grass covered. Soils appear to be sandy/sandy loam. DOMINANT VEG: Larix sibiricum, Dasiphora fruiticosa, Salix ledebouriana, Carex korshinsky, Carex caespitosa, Poa pratense, Allium spinosa ECOLOGICAL ZONE: Forest steppe - mountain meadow.

The following were collected by Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria; 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 07/1997.

PI 631695. Lotus corniculatus L.
Cultivar. B97-89; W6 20060. Collected 06/25/1997 in Bulgaria.

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 631696. Trifolium fragiferum L.
Wild. X97-001; W6 20171. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 54' 1'' N. Longitude 80 deg. 58' 28'' E. Elevation 540 m. 10 km west of No. 68 Farm, 30 km southwest of Yili city. Alluvial flood plain, sand and coarse stone with no slope. Near bank of Yili River.

PI 631697. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-033; W6 20179. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 11' 19'' N. Longitude 81 deg. 7' 52'' E. Elevation 1980 m. 3 km north of Zhaosu County. In tree rows consisting of Populus spp. about 6 m tall and Siberian elm about 2-3 m tall along main road to Zhaosu County. Not grazed, no slope.

PI 631698. Trifolium fragiferum L.
Wild. X97-054; W6 20185. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 3' 41'' N. Longitude 80 deg. 54' 9'' E. Elevation 1710 m. 5 km north of Farm No. 77, 38 km west of Zhaosu County. Disturbed road ditch with Populus spp. trees (3 m tall) planted in rows 1.5 m apart. Silt loam and clay loam soil mixture with some 2- to 5-cm stones on surface. No slope.

PI 631699. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-055; W6 20186. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 3' 41'' N. Longitude 80 deg. 54' 9'' E. Elevation 1710 m. 5 km north of Farm No. 77, 38 km west of Zhaosu County. Disturbed road ditch with Populus spp. trees (3 m tall) planted in rows 1.5 m apart. Silt loam and clay loam soil mixture with some 2- to 5-cm stones on surface. No slope.

PI 631700. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-061; W6 20187. 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 vally floor. Silt loam soil. Grazed very lightly. Cut for hay. Slope is 1% with north aspect.

PI 631701. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-067; W6 20190. 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. Dry site with silt loam soil. Slope is 1% with southwest aspect.

PI 631702. Trifolium fragiferum L.
Wild. X97-075; W6 20192. Collected 08/1997 in Xinjiang, China. Latitude 42 deg. 52' 39'' N. Longitude 80 deg. 52' 48'' E. Elevation 1620 m. 30 km southwest of Zhaosu County. From dugout area 3 m wide, 2 m deep near side of road in clay soil. Very dry site in rain shadow of Tian Shan Mountains. Clay loam soil. Slope is 1% with southwest aspect.

PI 631703. Trifolium fragiferum L.
Wild. X97-079; W6 20193. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 1' 46'' N. Longitude 81 deg. 28' 36'' E. Elevation 1020 m. 5 km

east at Akedala Farm, 40 km east of Zhaosu County. Ungrazed meadow, rough furrows, will not be cut for hay. Lush vegetation; may be subirrigated. No slope.

PI 631704. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-092; W6 20195. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 9' 52'' N. Longitude 81 deg. 37' 12'' E. Elevation 1320 m. 40 km east of Zhaosu County. Ungrazed meadow that will be cut for hay. Lush vegetation, silt loam soil. Slope is 2% with southwest aspect. Near Suasu River.

PI 631705. Trifolium lupinaster L.
Wild. X97-104; W6 20199. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 20' 31'' N. Longitude 81 deg. 49' 1'' E. Elevation 1710 m. 20 km north of Tekes County. Ungrazed hillside with failed evergreen tree planting on pass through mountains. Silt loam soil. Moderately dense vegetation with a high proportion of forbs. Slope is 20% with north-northwest aspect.

PI 631706. Trifolium fragiferum L.
Wild. X97-112; W6 20201. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 37' 40'' N. Longitude 81 deg. 50' 11'' E. Elevation 750 m. 5 km east of Xemadu Bridge. Boggy road ditch, disturbed soil, very wet. Slope is 1% with east aspect.

PI 631707. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-127; W6 20203. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 29' 26'' N. Longitude 81 deg. 7' 24'' E. Elevation 1960 m. 50 km south of Yili City. Moderately grazed hillside. Clay loam topsoil with stones 1-3 cm diameter. Moderately xeric site. Slope is 25% with southeast aspect.

PI 631708. Medicago sativa subsp. falcata (L.) Arcang.
Wild. X97-131; W6 20204. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 28' 40'' N. Longitude 81 deg. 6' 38'' E. Elevation 2040 m. 55 km south of Yili City. Dry hillside, stoney soil, grazed moderately. Slope is 30% with south-southeast aspect.

PI 631709. Trifolium lupinaster L.
Wild. X97-138; W6 20206. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 28' 4'' N. Longitude 81 deg. 6' 38'' E. Elevation 2040 m. 55 km south of Yili City. Dry hillside, stoney soil, grazed moderately. Slope is 30% with south-southeast aspect.

Unknown source. Received 1996.

PI 631710. Lotus corniculatus L.
96-1; G 22507.

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 1997.

PI 631711. Trifolium ornithopodioides L.
Uncertain. 51-S-188-2; W6 22212.

Unknown source. Received 1939.

PI 631712. Lotus corniculatus L.
VT5452; G 2224.

Unknown source. Received 1939.

PI 631713. Trifolium fragiferum L.
G 31348.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/24/1990.

PI 631714. Medicago sativa nothosubsp. tunetana Murb.
Cultivated. VIR-16692; W6 4776. Collected in Georgia.

The following were collected by L. Ducellier. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631715. Medicago sativa nothosubsp. tunetana Murb.
Wild. 225; W6 4911. Collected 1959 in Italy. Algiers.

Unknown source. Received 07/06/1939.

PI 631716. Lotus glaber Mill.
G 22523.

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. Received 01/17/1992.

PI 631717. Lotus glaber Mill.
Wild. X910007; G 30579; W6 9550. Collected 08/23/1991 in China. Latitude 41 deg. 49' N. Longitude 85 deg. 54' E. From Shanghu Village, 20 km W of Korla.

PI 631718. Lotus glaber Mill.
Wild. X910072; G 30580; W6 9551. Collected 09/02/1991 in China. Latitude 41 deg. 14' N. Longitude 80 deg. 14' E. Elevation 1080 m. Kekeya Shelterbelt Forest, 8 km N of Aksu.

Unknown source. Received 07/06/1939.

PI 631719. Trifolium tumens Steven ex M. Bieb.
S-154-4; G 31354. Collected in Former Soviet Union.

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 631720. Trifolium apertum Bobrov
Wild. 0157; W6 18310. Collected 08/18/1995 in Russian Federation. Latitude 45 deg. 16' N. Longitude 36 deg. 57' E. Elevation 60 m. 2 km. west of site #8, near Mt. Blevaka. Area grazed. Slope 6-10%, aspect N. Light open. Soil loam, clay, pH basic-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., occassional annual Medicagos. Population distribution patchy, 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 631721. Medicago cretacea M. Bieb.
Wild. 0168; 022; W6 18315. Collected 07/13/1995 in Russian Federation. Latitude 44 deg. 40' N. Longitude 37 deg. 55' E. Elevation 50 m. Province Novorossiysk. 5 km west of Kaberdinka. Roadway. Slope 41-60%, aspect SW. Open light. Soil clay,parent rock limestone/clay layers(schist), pH 7.8-7.9. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers, human disturbance. Dominant tree species Juniperus sp., Quercus sp. Dominant shrub species Pistacia sp., Chus sp. Dominant herb/grass species Bothriochloa ischaemum, Festuca ovina type, Agropyron cristatum. Population distribution patchy, abundance occasional. Growth habit semi-prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631722. Trifolium apertum Bobrov
Wild. D86; W6 18594. Collected 08/10/1995 in Russian Federation. Latitude 44 deg. 23' 5'' N. Longitude 39 deg. 55' 35'' E. Elevation 366 m. Province Maykop, 30 km southwest of Maykop, village Bizvodnah. Past logged, now grazed. Slope 0-5%, aspect S. Light 1/4 shade. Soil clay, pH 7.7. Seasonally dry, lower to mid slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species Carpinus sp., Q. petraea. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

Unknown source. Received 07/06/1939.

PI 631723. Trifolium pratense L.
G 30557. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631724. Trifolium pratense L.
G 30558. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631725. Trifolium pratense L.
G 30560. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631726. Trifolium pratense L.
G 31015. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631727. Trifolium pratense L.
G 31016. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631728. Trifolium pratense L.
G 31020. Collected in Former Soviet Union.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631729. Lotus weilleri Maire
Wild. KBG 5845; G 31290. Collected 06/16/1989 in Morocco. Latitude 33 deg. 33' N. Longitude 6 deg. 37' W. Elevation 340 m. 2km W of Rommani on S106 Province=Khemisset. Good soil drainage,on a hillside,clay soil,parent rock:limestone,PH 8.5,friable,stony,shallow-mod depth,common density of specimen,heavy grazing,430mm yr precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

Unknown source. Received 07/06/1939.

PI 631730. Trifolium pratense L.
S-207-12; G 31380. Collected in France.

Unknown source. Received 07/06/1939.

PI 631731. Trifolium pratense L.
S-207-37; G 31383. Collected in Former Soviet Union.

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. Received 03/07/1997.

PI 631732. Trifolium stoloniferum Muhl. ex Eaton
Wild. S-232-10; G 31416. Collected 06/13/1990 in United States.

Unknown source. Received 07/06/1939.

PI 631733. Trifolium montanum L.
S-92-29; G 31493. Collected in Former Soviet Union.

The following were developed by North American Plant Breeders, Inc., Ames, Iowa, United States. Donated by James B. Moutray, ABI Alfalfa, Route 3, Ames, Iowa 50010, United States. Received 1980.

PI 631734. Trifolium pratense L.
Cultivar. "FLARE"; NSL 187443. CV-19; PVP 8100069.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

PI 631735. Trifolium pratense L.
Wild. T104.CPG94; W6 16078. 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. Flower red-violet.

PI 631736. Trifolium pratense L.
Wild. T106.CPG94; W6 16080. 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. Flower red-violet.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States; Leonardo Sulas, Sardinia, Italy. Received 08/19/1994.

PI 631737. Trifolium pratense L.
Wild. S056.CPG94; W6 16161. 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%, apsect 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 occasional, distribution patchy. Growth habit semi-erect. Flower red.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States; Saddik Saidi, Morocco. Received 08/19/1994.

PI 631738. Trifolium pratense L.
Wild. MO80.CPG94; W6 15809. 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.Area sampled 20,000 sq. m. Population distribution patchy, abundance frequent. Growth habit semi-erect. Flower red.

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 1995.

PI 631739. Medicago ruthenica (L.) Trautv.
Wild. E94011; W6 16600. Collected 09/02/1994 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. Collection sites on grass steppe uplands above river floodplain. Grass steppe. Soils shallow, gravelly, and low fertility.

PI 631740. Medicago ruthenica (L.) Trautv.
Wild. E94034; W6 16602. Collected 09/05/1994 in Mongolia. Latitude 47 deg. 23' 26'' N. Longitude 110 deg. 7' 42'' E. Elevation 1463 m. Approximately 100 km west of Onderhan City, capital of Hentii Aimag. Collection area is toe-slope and lower to middle slope of significant range of hills along Herlen River. Mountain-grass steppe.

PI 631741. Medicago ruthenica (L.) Trautv.
Wild. E94143; W6 16604. Collected 09/10/1994 in Mongolia. Latitude 47 deg. 6' 32'' N. Longitude 117 deg. 11' 58'' E. Elevation 600 m. Dornod Aimag, eastern Mongolia. Approximately 200 km from Inner Mongolian border to the north, south, and east. Near WWII battlefield with bunkers and destroyed vehicles. Grass steppe.

PI 631742. Medicago ruthenica (L.) Trautv.
Wild. E94160; W6 16607. Collected 09/11/1994 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. On vast plain to west of Khalkin Gol River. Grass steppe.

PI 631743. Medicago ruthenica (L.) Trautv.
Wild. E94192; W6 16610. Collected 09/14/1994 in Mongolia. Latitude 48 deg. 3' 56'' N. Longitude 104 deg. 36' E. Elevation 564 m. Small research area on outskirts of Choibalson City operated by Ministry of Agriculture to test vegetables obtained from different countries. Approximately 2 ha in area, fenced, irrigated with water from Herlen River. Grass steppe (cultivated river terrace). Species listed here obtained from heavily qrazed areas outside the protective fence. Light brown, loamy river terrace soils, high gravel content. Aspect and slope horizontal.

Unknown source. Received 1995.

PI 631744. Lotus unifoliolatus (Hook.) Benth.
G 22920.

Unknown source. Received 1996.

PI 631745. Trifolium pratense L.
G 12579.

Unknown source. Received 1996.

PI 631746. Trifolium pratense L.
G 12928.

Unknown source. Received 1996.

PI 631747. Trifolium pratense L.
G 17178.

Unknown source. Received 1996.

PI 631748. Trifolium pratense L.
G 24103.

Unknown source. Received 1996.

PI 631749. Trifolium pratense L.
G 20857.

Unknown source. Received 1996.

PI 631750. Trifolium velebiticum Degen
G 30679.

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 12/1996.

PI 631751. Medicago platycarpos (L.) Trautv.
Wild. 96N-385; W6 18940. Collected 09/13/1996 in Mongolia. Latitude 47 deg. 25' 10'' N. Longitude 103 deg. 38' 46'' E. Elevation 1355 m. Bulgan Aimag, located in sand dunes about 1 km west of the mouth of a mountain canyon several km north of the paved Arrayheer - Ulaanbaatar highway. Hogin Kahn mountains are large boulders and steep with shrubs. The valley floor is even terrain and sandy/silt soils with shrub and grass. Aspect is east and slope is 5%. Ecological zone: Mountain steppe.

PI 631752. Medicago platycarpos (L.) Trautv.
Wild. 96S-166; W6 18946. Collected 09/11/1996 in Mongolia. Latitude 49 deg. 24' 42'' N. Longitude 101 deg. 2' 7'' E. Elevation 1300 m. Khovsgol Aimag, Tsosontsengel Sum, located 30 km east of Sum center. Outwash fan with larch forest in protected areas at higher elevations. Soils are dark brown gravelly loams typical of forest steppe. Slope - 2%. Aspect - south.

Unknown source. Received 1939.

PI 631753. Trifolium velebiticum Degen
S-236-4; G 31432.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

PI 631754. Trifolium pratense L.
Wild. S036.CPG94; W6 16141. Collected 07/04/1994 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 flooded, alluvial fan, spring bog. Vegetation closed, seasonal broad-leafed herb. Surrounding veg. evergreen open forest with closed lower layers. Population abundance frequent, distribution patchy. Growth habit semi-erect. Flower red/purple.

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 631755. Trifolium pratense L.
Cultivated. X97-007; W6 20172. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 50' 28'' N. Longitude 81 deg. 0' 16'' E. Elevation 630 m. 3 km east of Chabuchan Sheep Farm, 30 km southwest of Yili City. Hay meadow, clay soil, sub-irrigated, previously cultivated, slaine. Slope is 2% with east aspect.

PI 631756. Trifolium pratense L.
Wild. X97-015; W6 20176. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 37' 7'' N. Longitude 81 deg. 49' 50'' E. Elevation 720 m. 5 km east of Yemadu Bridge. Hillside going down into a drainage area and near edge of drainage area. Sandy loam soil. Slope is 30% going down into drainage area.

PI 631757. Trifolium pratense L.
Cultivated. X97-050; W6 20184. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 6' 33'' N. Longitude 80 deg. 52' 1'' E. Elevation 1950 m. 11 km north of Farm No. 77, 38 km west of Zhaosu County. Seeded hay field, established in 1989. Silt loam soil. Silt loam soil with a sandy ridge. Slope is 2% with south aspect.

PI 631758. Trifolium pratense L.
Wild. X97-071; W6 20191. Collected 08/1997 in Xinjiang, China. Latitude 42 deg. 44' 45'' N. Longitude 81 deg. 0' 43'' E. Elevation 1920 m. 48 km south of Zhaosu County in foothills of Tian Shan Mountains. Ungrazed meadow, will be cut for hay. Silt loam soil. collected in a 50 x 100 m basin at base of hillside. Slope is 10% with northeast aspect.

PI 631759. Trifolium pratense L.
Wild. X97-091; W6 20194. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 9' N. Longitude 81 deg. 37' E. Elevation 1320 m. 40 km east of Zhaosu County. Ungrazed meadow that will be cut for hay. Lush vegetation, silt loam soil. Slope is 2% with southwest aspect. Near Suasu River.

PI 631760. Trifolium pratense L.
Wild. X97-114; W6 20202. Collected 08/1997 in Xinjiang, China. Latitude 44 deg. 13' 10'' N. Longitude 81 deg. 9' 30'' E. Elevation 990 m. 45 km northeast of Huocheng County. In ditch next to hay meadow and in adjacent Medicago sativa field. Clay loam soil. No slope.

PI 631761. Trifolium pratense L.
Wild. X97-133; W6 20205. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 28' N. Longitude 81 deg. 6' E. Elevation 2040 m. 55 km south of Yili City. Dry hillside, stoney soil, grazed moderately. Slope is 30% with south-southeast aspect.

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

PI 631762. Trifolium pratense L.
Uncertain. OR85; W6 20431. Collected 08/1997 in Oregon, United States. Latitude 46 deg. 1' 48'' N. Longitude 123 deg. 55' 43'' W. Elevation 2

m. Town of Gearhart, Gearhart Beach on dune sand, less than 100 m from the ocean. Sand dune, 0-5% slope, open, seasonally dry.

PI 631763. Trifolium pratense L.
Wild. OR117; W6 20454. Collected 08/1997 in Oregon, United States. Latitude 44 deg. 30' 37'' N. Longitude 124 deg. 1' 53'' W. Elevation 100 m. Town of Ona, Beaver Creek Road, 1 mile before turnoff towards Ona. Infertile hill sloping down to river terrace. Ridgetop+upperslope+stream terrace. Grazed. Loam, 6-40% slope, open, moist.

PI 631764. Trifolium pratense L.
Uncertain. OR122; W6 20458. Collected 08/1997 in Oregon, United States. Latitude 44 deg. 30' 37'' N. Longitude 124 deg. 1' 53'' W. Elevation 100 m. Town of Ona, Beaver Creek Road, 1 mile before turnoff towards Ona. Upper slope of infertile hill (near house and barn) sloping down to river terrace. Grazed. Loam, 6-10% slope, open, moist/seasonally dry.

PI 631765. Trifolium pratense L.
Uncertain. W17; W6 20474. Collected 08/1997 in Washington, United States . Latitude 47 deg. 4' 13'' N. Longitude 124 deg. 10' 22'' W. Elevation 5 m. Ocean City. On beach and roadsides near beach. Sand dune, 0-5% slope, open, moist.

Unknown source. Received 07/06/1939.

PI 631766. Lotus uliginosus Schkuhr
G 3577.

Unknown source. Received 07/06/1939.

PI 631767. Lotus uliginosus Schkuhr
G 3578; Columbia. Collected in United States.

The following were collected by J.S. Peterson, USDA, SCS, National PMC, Bldg. 509, BARC-East, Beltsville, Maryland 20705, United States. Received 03/24/1993.

PI 631768. Medicago hybrid
Wild. 9070341; W6 11498. Collected 1960 in Mongolia. Latitude 43 deg. 41' N. Longitude 109 deg. 59' E. Forest-steppe, Ulan Bator.

The following were donated by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 12/30/1993.

PI 631769. Medicago hybrid
Cultivated. J-51; W6 14905. Collected 08/31/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2195 m. Skardu Forest Headquarter garden, Baltistan. Pedigree - Medicago sativa/M. falcata. Variegated flower color.

PI 631770. Medicago hybrid

Cultivated. J-72; W6 14906. Collected 09/01/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2256 m. Ispecho (above Hussainabad) 5km east of Skardu, Baltistan. Pedigree - Medicago sativa/M. falcata. Variegated flower color.

Unknown source. Received 07/06/1939.

PI 631771. Lotus uliginosus Schkuhr
G 22522.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631772. Lotus uliginosus Schkuhr
Wild. KBG 5843; G 31289. Collected 06/14/1989 in Morocco. Latitude 34 deg. 1' N. Longitude 6 deg. 33' W. Elevation 70 m. Rabat,new highway from Rabat-Sale-Meknes Province=Rahat. Good soil drainage,along rdside,sandy loam soil,PH 8.5,friable,stony,moderate depth,common density,525 mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631773. Lotus uliginosus Schkuhr
Wild. KBG 5859; G 31296. Collected 06/18/1989 in Morocco. Latitude 35 deg. 5' N. Longitude 5 deg. 16' W. Elevation 400 m. 5km E of junction P28 and P39 on P39. 8.5km SE of Chechaouen. Moderate soil drainage,in a ditch,loam,parent rock:granite,PH 7.5,friable,stony,shallow depth,common density,low grazing,900mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631774. Lotus uliginosus Schkuhr
Wild. KBG 5994; G 31327. Collected 06/30/1989 in Morocco. Latitude 35 deg. 49' N. Longitude 5 deg. 21' W. Elevation 10 m. Marshy area 10km of Frideq Province=Tetouan. Poor soil drainage, marsh, clay soil, parent rock is limestone, pH 7.5, hard surface, moderate soil depth, common density of specimen, moderate grazing, 575mm annual prec. Nodules collected.

Unknown source. Received 07/06/1939.

PI 631775. Trifolium virginicum Small
S-213-5; G 31401. Collected in United States.

Unknown source. Received 07/06/1939.

PI 631776. Trifolium pallescens Schreb.
S-244-2; G 31406. Collected in Yugoslavia.

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 1997.

PI 631777. Trifolium virginicum Small
Uncertain. S-213-6; W6 22228.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631778. Medicago papillosa Boiss.
Wild. 1862; W6 5244. Collected 1962 in Turkey. Latitude 39 deg. 57' N. Longitude 41 deg. 17' E. Erzurum University Farm.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631779. Lotus arenarius Brot.
Wild. KBG 5659; G 31260. Collected 05/29/1989 in Morocco. Latitude 33 deg. 50' N. Longitude 7 deg. 5' W. Elevation 20 m. PI from Casablanca to Rabat, 1.5 km w of Tamera, exit near km marker 64 Province=Casablanca. Good soil drainage, roadside,common density, 500mm annual precipitation. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botanica.

PI 631780. Lotus arenarius Brot.
Wild. KBG 5688; G 31263. Collected 04/06/1989 in Morocco. Latitude 29 deg. 40' N. Longitude 9 deg. 5' W. Elevation 1020 m. 96 km from Tiznit near Agard-Oudad on 7074 Province=Tiznit. Good soil drainage,along rdside,sandy loam,limestone/quartz,PH 7.5,friable,gritty soil,stoniness,shallow,common density of specimen,low-moderate grazing,200mm annual prec. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botanic.

PI 631781. Lotus arenarius Brot.
Wild. KBG 5689; G 31264. Collected 04/06/1989 in Morocco. Latitude 29 deg. 40' N. Longitude 9 deg. 5' W. Elevation 1020 m. 96km from Tiznit near Agard-Oudad on 7074 Province=Tiznit. Good soil drainage,along rdside,sandy loam,limestone/quartz,PH 7.5,friable,gritty soil,stoniness,shallow depth, common density of specimen,low-moderate grazing,200mm annu. Voucher specimens prepared by Dr. Joseph H.

Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botanic.

PI 631782. Lotus arenarius Brot.
Wild. KBG 5721; G 31266. Collected in Morocco. Latitude 31 deg. 45' N. Longitude 8 deg. 42' W. Elevation 230 m. 27km N of Chichaoua on S511 Province=Safi. Good soil drainage,along rdside,sandy loam,PH 8.5,moderate soil hardness,stony,shallow,common density of specimen at site,150-200mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botanic.

PI 631783. Lotus arenarius Brot.
Wild. KBG 5724; G 31267. Collected 06/06/1989 in Morocco. Latitude 32 deg. 20' N. Longitude 8 deg. 32' W. Elevation 230 m. Province=Safi. Good soil drainage,w.fallow microenvironment,sandy loam,limestone,PH 8.5,friable,stony,shallow,common density of specimen,heavy grazing,254mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botanic.

PI 631784. Lotus eriosolen (Maire) Mader & Podlech
Wild. KBG 5810; G 31279. Collected 12/06/1989 in Morocco. Latitude 32 deg. 35' N. Longitude 4 deg. 30' W. Elevation 1900 m. Tizi-n-Talrhent, 29km S of Midelt on P21 Province=Khenifra. Good soil drainage,on plantation,shale soil,parent rock:limestone,PH 8.5,hard to frialbe surface,rocky,shallow,common density of specimen,300mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631785. Lotus subbiflorus Lag.
Wild. KBG 5834; G 31284. Collected 06/13/1989 in Morocco. Latitude 33 deg. 27' N. Longitude 6 deg. 5' W. Elevation 1050 m. 9km W of Oulmes on S209 Province=Khemisset. Moderate-poor soil drainage,in a ditch,PH 8.2,friable,moderate depth of soil,common density of specimen,750mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631786. Lotus ornithopodioides L.
Wild. KBG 5908; G 31308. Collected 06/21/1989 in Morocco. Latitude 34 deg. 4' N. Longitude 5 deg. 35' W. Elevation 470 m. Ruins of Volubilis, 31km N of Mekens Province=Mekens. Good soil drainage,in ruins,clay,parent rock:limestone,PH 8.5,hard surface,stony,shallow,common density of specimen,450-500mm annual precipl. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

Unknown source. Received 07/06/1939.

PI 631787. Trifolium alpestre L.
29-S-71-30; G 31558. Collected in Yugoslavia.

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 631788. Medicago minima (L.) Bartal.
Wild. 0151; 005; W6 18306. Collected 09/07/1995 in Russian Federation. Latitude 45 deg. 21' N. Longitude 36 deg. 56' E. Elevation 50 m. Province Temrjuk/Novorossiysk, village Fontavlski. Southwest of Temrjuk, 7 km. Past and current grazing. Slope 11-40%, aspect S. Open light. Soil clay, deluvial (colluvial), pH 7.5-7.7. Seasonally dry, ravine. Vegetation open, evergreen dwarf shrub steppe savanna. Surrounding veg. human disturbances, evergreen steppe. Edge of Hornbeam-Oak zone. Dominant shrub species Artemisia austriaca. Dominant herb/grass species Salvia sp., Inula sp., Festuca v., Stipa sp., Agropyron sp. Population distribution patchy, abundance occasional. Growth habit prostrate. Dry pods. 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 631789. Medicago minima (L.) Bartal.
Wild. 0237; 089; W6 18365. Collected 08/17/1995 in Krasnoyarsk, Russian Federation. Latitude 44 deg. 54' 39'' N. Longitude 37 deg. 57' 45'' E. Elevation 70 m. Province Krymsk, between Krasnodar and Novorossiysk, west of Krymsk. Past and current grazing. Slope 6-40%, aspect NE. Light open. Soil calcareous loams/sands, clay, pH 7.6-7.9. Seasonally dry, lower to mid slope, active slope movement. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus robur, Quercus sp. Dominant shrub species Ribes sp. Dominant herb/grass species broadleaves, Trifoliums, Lotus corniculatus, Bermuda grass, Bothriochloa ischaemum, Senecio grandidentatus, Tussilago farfara, Coronilla varia, Xanthium strumarium, Daucus carota, Convolvulus arvensis, Achillea millefolium. Population distribution patchy, abundance occasional. Growth habit prostrate. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 1997.

PI 631790. Trifolium pannonicum Jacq.
Uncertain. 59-S-30-17; W6 22213.

PI 631791. Trifolium alpestre L.
Uncertain. S-71-16; W6 22244.

Unknown source. Received 07/19/1990.

PI 631792. Trifolium alpestre L.
90-71; G 31103. Collected 07/19/1990 in Bulgaria. Elevation 350 m. 2 Km SE of Dubovec on road from Ivajlovgrad to Malk Gradiste, nearest village was Dubovec. Cracking clay; Edge of oak scrub;Topography: Rolling hills but flat area. Frequency of sample: Occcasioanal; Comments: An unusual site. Near the road annuals T. echinatum, T. diffusum, T. vesiculosum but w/n 20m along edge of wooded area area perennials alpestre, heldreichinum and ochroleucum.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631793. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 8; W6 5636. Collected in Italy. Reprod. at Edmonton 1958.

PI 631794. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 100; W6 5739. Collected in France. Jardin Bot. de Toulouse, Mont. Faron.

PI 631795. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 101; W6 5740. Collected in Unknown. Rostov on Don.

PI 631796. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 102; W6 5741. Collected in South Moravia, Czech Republic. Latitude 49 deg. 12' N. Longitude 16 deg. 38' E. Brno.

PI 631797. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 103; W6 5742. Collected in Russian Federation. Hortus Bot. Nikotensis Falta, Taurica.

PI 631798. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 104; W6 5743. Collected in Russian Federation. Hortus Bot. Nikotensis Falta, Taurica.

PI 631799. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 105; W6 5744. Collected in Latvia. Hortus Bot. University, Riga.

PI 631800. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 107; W6 5745. Collected in Russian Federation. Latitude 55 deg. 9' N. Longitude 71 deg. 23' E. Institute of Forage Crops, Leningrad.

PI 631801. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 108; W6 5746. Collected 1954 in Russian Federation. Bagradsky Region/Krasnodarky krai territory.

PI 631802. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 110; W6 5747. Collected 1953 in Russian Federation. Mountainous river bank, Altaiskaya.

PI 631803. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 111; W6 5748. Collected 1952 in Russian Federation. Chulusman.

Local.

PI 631804. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 112; W6 5749. Collected 1940 in Russian Federation.

PI 631805. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 113; W6 5750. Collected in Russian Federation. Botanical Garden, Moscow.

PI 631806. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 114; W6 5751. Collected in Russian Federation. Botanical Garden, Moscow.

PI 631807. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 115; W6 5752. Collected in Russian Federation. Latitude 59 deg. 55' N. Longitude 30 deg. 25' E. Wet lands of river, Leningrad, Jugum Ferghanicum Moscowksaya oblast (province).

PI 631808. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 116; W6 5753. Collected 1937 in Russian Federation. Latitude 55 deg. 9' N. Longitude 7 deg. 23' E. Wet lands of River Morava, Leningrad Yaroslavskaya province.

PI 631809. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 117; W6 5754. Collected 1951 in Russian Federation. Latitude 55 deg. 9' N. Longitude 7 deg. 23' E. Wet lands of River Morava, Leningrad Novogorodskaya province.

PI 631810. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 118; W6 5755. Collected 1946 in Russian Federation. Small meadow, wet lands of River Velikan, St. Petersburg, Pekhovskaya province.

PI 631811. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 119; W6 5756. Collected 1931 in Kazakhstan. Among motley grass pasture, foothill zone, Leningrad South Kazakhstan province.

PI 631812. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 120; W6 5757. Collected 1957 in Russian Federation. Among motley grass pasture, foothill zone, Leningrad Krasnodarsky province.

PI 631813. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 121; W6 5758. Collected 1955 in Russian Federation. Latitude 55 deg. 9' N. Longitude 7 deg. 23' E. Wet lands close to streams of River Neva, Leningrad, Leningradskaya province.

PI 631814. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 122; W6 5759. Collected 1949 in Russian Federation. Latitude 59 deg. 55' N. Longitude 30 deg. 25' E. Wet lands of River Shekhen, Leningrad, Ivanovskaya province.

PI 631815. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 123; W6 5760. Collected 1937 in Russian Federation. Latitude 55 deg. 9' N. Longitude 7 deg. 23' E. Wet lands of River Sheken, Leningrad.

PI 631816. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 124; W6 5761. Collected 1947 in Russian Federation. Latitude 59 deg. 55' N. Longitude 30 deg. 25' E. Leningrad, Mayknoskaya province.

PI 631817. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 125; W6 5762. Collected 1946 in Russian Federation. Latitude 59 deg. 55' N. Longitude 30 deg. 25' E. Leningrad, Kubanskaya province.

PI 631818. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 126; W6 5763. Collected 1957 in Russian Federation. Latitude 59 deg. 55' N. Longitude 30 deg. 25' E. Leningrad, Kubanskaya province.

PI 631819. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 127; W6 5764. Collected 1951 in Bulgaria. Kuleamskaja.

PI 631820. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 128; W6 5765. Collected 1961 in France. Latitude 48 deg. 48' N. Longitude 2 deg. 8' E. Versailles.

PI 631821. Medicago sativa subsp. falcata (L.) Arcang.
Cultivar. 129; "LAGON"; W6 5766. Collected 1961 in Italy. Orto Bot. Institute, Udine.

PI 631822. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 130; W6 5767. Collected 1961 in Italy. Orto Bot. Institute, Udine.

PI 631823. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 131; W6 5768. Collected 1954 in Germany. Lech river, Bavaria, Augsburg.

PI 631824. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 132; W6 5769. Collected 1954 in Germany. Latitude 49 deg. 12' N. Longitude 11 deg. 51' E. Hohenfels.

PI 631825. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 133; W6 5770. Collected 1955 in Russian Federation. Reprod. at Fort Vermillion, Canada.

PI 631826. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 134; W6 5771. Collected 1958 in Russian Federation. Hortus Bot. Garden, Moscow.

PI 631827. Medicago sativa subsp. falcata (L.) Arcang.
Cultivated. 135; W6 5772. Collected 1947 in Russian Federation. Bot. Genet. Inst., Omsk-Siberia.

PI 631828. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 136; W6 5773. Collected 1954 in Alaska, United States.

PI 631829. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 137; W6 5774. Collected 1936 in Russian Federation. NW Caucasus.

PI 631830. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 139; W6 5775. Collected 1962 in Unknown.

PI 631831. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 140; W6 5776. Collected 1962 in Romania.

PI 631832. Medicago sativa subsp. falcata (L.) Arcang.

Wild. 141; W6 5777. Collected 1952 in Germany. Latitude 48 deg. 22' 48'' N. Longitude 10 deg. 52' 12'' E. Lech river, Ausburg.

PI 631833. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 142; W6 5778. Collected 1950 in Sweden. Latitude 68 deg. 15' N. Longitude 13 deg. 50' E. Upland Borge.

PI 631834. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Wild. 143; W6 5779. Collected 1950 in Sweden. Ultuna.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631835. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 146; W6 5781. Collected 1950 in Sweden. Latitude 56 deg. 39' N. Longitude 16 deg. 31' 12'' E. 28km S of Borgholm, Borgholm.

PI 631836. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 147; W6 5782. Collected 1950 in Sweden. Latitude 56 deg. 39' N. Longitude 16 deg. 31' 12'' E. 28km S of Borgholm, Borgholm.

PI 631837. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 148; W6 5783. Collected 1950 in Sweden. Latitude 56 deg. 39' N. Longitude 16 deg. 31' 12'' E. 28km S of Borgholm, Borgholm.

PI 631838. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 149; W6 5784. Collected 1950 in Sweden. Latitude 56 deg. 53' N. Longitude 16 deg. 39' E. South of Borgholm, Molntorp.

PI 631839. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 150; W6 5785. Collected 1950 in Sweden. Latitude 56 deg. 43' 12'' N. Longitude 16 deg. 32' 24'' E. 20km S of Borgholm.

PI 631840. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 152; W6 5786. Collected 1950 in Sweden. 1 km N of Fora-Fora.

PI 631841. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 153; W6 5787. Collected 1950 in Sweden. Sodrik.

PI 631842. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 155; W6 5790. Collected 1950 in Sweden. 1 km S of Skagshy.

PI 631843. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 156; W6 5791. Collected 1950 in Sweden. 2km W of Resno.

PI 631844. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 158; W6 5793. Collected 1950 in Sweden. 2km S from Kastlosa.

PI 631845. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 159; W6 5794. Collected 1950 in Sweden. Degerhamn.

PI 631846. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 160; W6 5795. Collected 1950 in Sweden. 2km S from Eketorp.

PI 631847. Medicago sativa subsp. falcata (L.) Arcang.

Wild. 161; W6 5796. Collected 1950 in Sweden. Hullerstad.

PI 631848. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 162; W6 5797. Collected 1950 in Sweden. Latitude 55 deg. 26' N. Longitude 14 deg. 11' E. Sandby.

PI 631849. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 163; W6 5798. Collected 1950 in Sweden. Latitude 55 deg. 26' N. Longitude 14 deg. 11' E. Sandby.

PI 631850. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 165; W6 5800. Collected 1950 in Sweden. Latitude 56 deg. 39' N. Longitude 16 deg. 20' E. Kalmar.

PI 631851. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 167; W6 5802. Collected 1950 in Sweden. Gotland Island, Narshamn.

PI 631852. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 168; W6 5803. Collected 1950 in Sweden. Latitude 57 deg. 43' 48'' N. Longitude 18 deg. 25' 12'' E. 10-15km N from Visby, Gotland Island.

PI 631853. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 169; W6 5805. Collected 1950 in Sweden. Latitude 57 deg. 47' 24'' N. Longitude 18 deg. 28' 12'' E. 20km N from Visby, Gotland Island.

PI 631854. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 170; W6 5806. Collected 1950 in Sweden. Gotland Island, Treviken.

PI 631855. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 171; W6 5807. Collected 1950 in Sweden. Latitude 57 deg. 11' N. Longitude 12 deg. 20' E. Gotland Island, Tofta.

PI 631856. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 173; W6 5808. Collected 1950 in Sweden. Gotland Island, Sanderik, Otergarn.

PI 631857. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 175; W6 5810. Collected 1950 in Sweden. Latitude 57 deg. 17' N. Longitude 18 deg. 37' E. Gotland Island, Lau.

PI 631858. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 176; W6 5811. Collected 1950 in Sweden. Latitude 57 deg. 17' N. Longitude 18 deg. 37' E. Gotland Island, Lau-Nar.

PI 631859. Medicago sativa subsp. falcata (L.) Arcang.
Wild. 177; W6 5812. Collected 1950 in Sweden. Gotland Island, Nar-Smissarve.

The following were collected by R.P. Murphy, Cornell University, Dept. of Plant Breeding and Biometry, Ithaca, New York 14853, United States. Received 04/13/1979.

PI 631860. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5833; W6 16328. Collected in Chile.

PI 631861. Medicago sativa L. **subsp. sativa**

Cultivated. P.F. 5849; W6 16341. Collected in Chile.

PI 631862. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5864; W6 16356. Collected in Chile.

PI 631863. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5875; W6 16366. Collected in Chile.

PI 631864. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5827; W6 16322. Collected in Chile.

PI 631865. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5838; W6 16332. Collected in Chile.

PI 631866. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5855; W6 16347. Collected in Chile.

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 1995.

PI 631867. Medicago sativa L. **subsp. sativa**
Wild. E94176; W6 16609. Collected 09/11/1994 in Mongolia. Latitude 47 deg. 59' 49'' N. Longitude 118 deg. 6' 26'' E. Elevation 466 m. Research station established to test shrub ad tree species adaptation to steppe environment, in extreme northeast corner of Mongolia approximately 30 km from border with Inner Mongolia. Grass steppe.

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 631868. Medicago sativa L. **subsp. sativa**
Wild. 0193; 046b; W6 18332. Collected 07/26/1995 in Chelyabinsk, Russian Federation. Latitude 44 deg. 4' 6'' N. Longitude 42 deg. 21' 24'' E. Elevation 823 m. 5 km. south of Bekesheyskaya. Past logged, now grazed. Slope 11-40%, aspect E. Light open. Soil loam, pH 7.8-8.0. Seasonally dry, mid slope, high terrace. Vegetation closed, seasonal tall and short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant shrub species Carpinus c., Q. petraea. Dominant herb/grass species Carix sp., Bothriochloa i., Festuca sp., Koeleria 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 631869. Medicago sativa var. viscosa (Rchb.) Posp.
Wild. M109; W6 18377. Collected 07/13/1995 in Russian Federation. Latitude 44 deg. 40' N. Longitude 37 deg. 54' 28'' E. Elevation 50 m. Province Novorossiysk, 5 km west of Kaberdinka. Past and current grazing. Slope 11-40%, aspect SW. Light open. Soil clay, pH 7.8-7.9.

Seasonally dry, ridgetop, cliff, rock outcrop. Vegetation closed, seasonal tall grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Juniperus sp., Quercus sp. Dominant shrub species Pistacia sp., Chus sp. Dominant herb/grass species Bothriochloa ischaemum, Festuca ovina type, Agropyron cristatum. Population distribution patchy. Growth habit semi-erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631870. Medicago sativa var. viscosa (Rchb.) Posp.
Wild. M120; W6 18385. 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 yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631871. Medicago sativa L. **subsp. sativa**
Wild. 0139; W6 18499. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 56'' N. Longitude 41 deg. 40' 27'' E. Elevation 2189 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 9 km west of Teberda. Past logged, now grazed. Slope 11-40%, aspect S. Light open. Soil loam to clay, derived from small pockets of schists, pH acidic. Moist to seasonally dry, ravine. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant shrub species Juniperus oblonga, Rosa sp., Ribes sp. Dominant herb/grass species Achillea sp., Geranium sp., Medicago f., T. ambiguum, Deschampsia c., Festuca sp., Agrostis sp., Calamagrostis sp. Population distribution patchy, abundance occasional. Growth habit semi-prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

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 631872. Medicago sativa L. **subsp. sativa**
Cultivated. X97-008; W6 20173. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 46' 30'' N. Longitude 80 deg. 55' 59'' E. Elevation 570 m. 8 km south of Chabuchar Sheep Farm, 48 km southwest of Yili City. Cultivated field sown to alfalfa landrace. Clay loam, saline. Flood

irrigated. No slope.

PI 631873. Medicago sativa L. **subsp. sativa**
Cultivated. X97-009; W6 20174. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 46' 30'' N. Longitude 80 deg. 55' 59'' E. Elevation 570 m. 8 km south of Chabuchar Sheep Farm, 48 km southwest of Yili City. Cultivated field sown to alfalfa landrace. clay loam, saline. Flood irrigated. Located 1 km east across road from collection of X97-008. No slope.

PI 631874. Medicago sativa L. **subsp. sativa**
Wild. X97-013; W6 20175. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 37' 7'' N. Longitude 81 deg. 49' 50'' E. Elevation 720 m. 5 km east of Yemadu Bridge. Hillside going down into a drainage area and near edge of drainage area. Sandy loam soil. Slope is 30% going down into drainage area.

The following were donated by Iowa Agricultural Experiment Station, Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa, United States. Received 1976.

PI 631875. Trifolium repens L.
Cultivar. "MERIT"; Iowa No. 2794; REG NO 2; NSL 4804. CV-2. Pedigree - Synthetic variety developed by combining 30 selected plants tracing to certified ladino clover from Oregon and California. Most useful for pasture in mixtures with bromegrass or orchardgrass. Outyields common ladino and is superior in winterhardiness and in tolerance to leafhopper damage and midsummer drouth. Produces more forage than common ladino and persists over a wide range of conditions. Relatively shallow root system best adapted to fertile, well-drained soils with good water-holding capacity.

Unknown source. Received 07/06/1939.

PI 631876. Trifolium hybridum L.
G 20309. Collected in United States.

The following were developed by National Agricultural Research Centre, Pakistan Agricultural Research Council, P.O. National Health Laboratories, Islamabad, Pakistan; Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Donated by Robert J. Metzger, 2655 NW Highland Dr., #99, Corvallis, Oregon 97330, United States. Received 09/05/1989.

PI 631877. Trifolium repens L.
Wild. 86PK1280-0; 86PK1280-007; W6 703; G 30025. Collected 07/23/1986 in North-West Frontier, Pakistan. Latitude 35 deg. 50' N. Longitude 74 deg. 45' E. Elevation 1300 m. Collected near Sassi, 74km southeast from Gilgit toward Skardu, Gilgit Province. Level in hilly, not transplanted area of medium stoniness, brown loam, and good drainage. Weedy species at edge of wheat field, watered by chance.

Unknown source. Received 10/09/1991.

PI 631878. Trifolium repens L.
Cultivar. G 30304. Collected in Uzbekistan.

Unknown source. Received 10/09/1991.

PI 631879. Trifolium repens L.
Cultivar. G 30307. Collected in Tajikistan.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631880. Lotus conimbricensis Brot.
Wild. KBG 5831; G 31282. Collected 06/13/1989 in Morocco. Elevation 950 m. 8km SE of Oulmes on S2516 Province=Khemisset. Moderate-poor soil drainage,in a ditch,clay loam soil,parent rock:granite,PH 6.5,hard surface,rocky,shallow,heavy grazing,700mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631881. Lotus collinus (Boiss.) Heldr.
Wild. KBG 5877; G 31301. Collected 06/19/1989 in Morocco. Latitude 34 deg. 45' N. Longitude 3 deg. 48' W. Elevation 1200 m. 23km from junction of P39+S312,on S312. Good soil drainage,canyon,shale,parent rock:shale,PH 8.5,hard surface,rocky,shallow depth,common density of specimen,heavy to mod grazing,450mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

Unknown source. Received 07/06/1939.

PI 631882. Trifolium trichocephalum M. Bieb.
S-155-4; G 31355. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631883. Trifolium repens L.
S-35-35; G 31457. Collected in France.

Unknown source. Received 07/06/1939.

PI 631884. Trifolium repens L.
S-35-36; G 31460. Collected in United States.

Unknown source. Received 07/06/1939.

PI 631885. Trifolium repens L.
S-35-43; G 31461. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631886. Trifolium repens L.
S-35-48; G 31464. Collected in Romania.

Unknown source. Received 07/06/1939.

PI 631887. Trifolium hybridum L.
S-71-20; G 31554. Collected in France.

Unknown source. Received 07/06/1939.

PI 631888. Trifolium hybridum L.
S-19-30; G 31591. Collected in Former Soviet Union.

Unknown source. Received 07/06/1939.

PI 631889. Trifolium hybridum L.
S-19-31; G 31592. Collected in Romania.

Unknown source. Received 07/06/1939.

PI 631890. Trifolium ambiguum M. Bieb.
S-4-83; G 31643. Collected in Australia.

Unknown source. Received 07/06/1939.

PI 631891. Trifolium ambiguum M. Bieb.
S-4-89; G 31649. Collected in New Zealand.

The following were donated by Clemson University, South Carolina Agric. Exp. Station, Clemson, South Carolina 29817, United States. Received 1969.

PI 631892. Trifolium repens L.
Cultivar. "TILLMAN"; REG NO 4; NSL 73041. CV-4.

Unknown source. Received 1900.

PI 631893. Trifolium medium L.
G 17812.

Unknown source. Received 1900.

PI 631894. Trifolium ambiguum M. Bieb.
G 23836.

Unknown source. Received 1900.

PI 631895. Trifolium ambiguum M. Bieb.
G 26478.

Unknown source. Received 1900.

PI 631896. Trifolium ambiguum M. Bieb.
G 26480.

Unknown source. Received 1900.

PI 631897. Trifolium repens L.
G 15460.

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 631898. Trifolium angulatum Waldst. & Kit.
Wild. 0154; W6 18308. Collected 07/09/1995 in Russian Federation. Latitude 45 deg. 20' N. Longitude 36 deg. 49' E. Elevation 104 m. Province Temrjuk/Novorossiysk, 9 km southwest of Temrjuk, village Gorelaya. Area grazed. Slope 0-5, 6-10, and 11-40%, aspect S. Light open. Soil clay, pH 5.3-basic. Seasonally dry, upper slope. Vegetation closed-open, evergreen dwarf shrub steppe savanna. Surrounding vegetation evergreen steppe. Dominant tree species mainly absent, edge of Hornbeam-Oak zone. Dominant shrub species Artemisia austriaca. Dominant herb grass species Salvia sp., Inula sp., Festuca sp., Stipa sp., Agropyron sp. Population distribution patchy, abundance frequent. 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).

Unknown source. Received 1996.

PI 631899. Trifolium ambiguum M. Bieb.
G 26479.

Unknown source. Received 1996.

PI 631900. Trifolium hybridum L.
G 18796.

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 631901. Lotus corniculatus subsp. frondosus Freyn
Wild. X97-111; W6 20200. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 37' 50'' N. Longitude 81 deg. 50' 11'' E. Elevation 750 m. 5 km east of Xemadu Bridge. Boggy road ditch, disturbed soil, very wet. Slope is 1% with east aspect.

The following were collected by T. Austin Campbell, USDA, ARS, Building 002, Room 12, BARC West, Beltsville, Maryland 20705, United States. Received 04/1998.

PI 631902. Trifolium repens L.
Wild. W6 20607. Collected 10/1996 in Yunnan, China. Latitude 26 deg. 58' 40'' N. Longitude 100 deg. 14' 20'' E. Elevation 2500 m. In ravine near grazed area. May have been escapes from WWII American airbase. Clay loam, exposure - full sun, flat, fairly stoney, drainage - slight.

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 2000.

PI 631903. Trifolium dasyphyllum Torr. & A. Gray
Uncertain. S-112-4; W6 22220.

Unknown source. Received 1939.

PI 631904. Trifolium repens L.
G 30298.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631905. Medicago suffruticosa subsp. leiocarpa (Benth.) Urb.
Wild. 554; W6 4953. Collected in Minnesota, United States. Clements.

Unknown source. Received 07/06/1939.

PI 631906. Trifolium pratense L.
G 6045; Libel. Collected in United States.

The following were collected by Danny Mowrey, USDA, ARS, Forage and Livestock Research Laboratory, P.O. Box 1199, El Reno, Oklahoma 73036, United States; T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001,

Room 339, Beltsville, Maryland 20705, United States; Larry R. Teuber, University of California, Department of Agronomy & Range Science, One Shields Avenue, Davis, California 95616-8515, United States. Donated by Larry R. Teuber, University of California, Department of Agronomy & Range Science, One Shields Avenue, Davis, California 95616-8515, United States. Received 02/03/1992.

PI 631907. Medicago ruthenica (L.) Trautv.
Wild. CTM 10; W6 9870. Collected 08/23/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 190 m. Rolling dunes and hills. Sand, few stones, good drainage, pH 6.8. Full sun to par. shade, 210 deg. aspect. Shiao Qing Valley, in sand depression, well vegetated, many shrubs. 50% ground cover. 80km S of Tongliao, Daqing Reserve. Abundant ripe seed. Galls noted on some roots. M. ruthenica may prevail where other species do not. Associated with Astragalus Adsurgens, Setaria sp., Artemisia sp., Agrostis sp., Ambrosia sp., Ulmus sp., Iris sp. Few plants sampled. 2 M. ruthenica/m.

PI 631908. Medicago ruthenica (L.) Trautv.
Wild. CTM 11; W6 9871. Collected 08/23/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 175 m. Rolling terrain. Sand, few stones, good drainage, pH 6.8. Full sun, 5 deg. slope, 180 and 310 deg. aspect. Shiao Qing Valley. Sandy flat, many have been disturbed. Vegetation sparse. 80km S of Tongliao, Daqing Reserve. Some indication M. ruthenica is one of the first species to appear in the succession. Roots demonstrate a characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. 100 plants sampled. 2 M. ruthenica/m.

PI 631909. Medicago ruthenica (L.) Trautv.
Wild. CTM 12; W6 9872. Collected 08/23/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 183 m. Rolling dunes and hills. Sand, few stones, good drainage, pH 6.8. Full sun to par. shade, 15 deg. slope, 194 deg. aspect. Shiao Qing Valley, nr elm grove, many shrubs, sparse under veg., many open spaces. 30% ground cover. 80km S of Tonglia. Roots demonstrate characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. Associated with Filifolium sibericum, Artemisia sp., Rubus sp., Setaria sp., Agrostis sp., Stipa sp., Agropyron cristatum, Solanum sp. 2 M. ruthenica/m.

PI 631910. Medicago ruthenica (L.) Trautv.
Wild. CTM 15; W6 9875. Collected 08/24/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 182 m. Roling dunes. Sand, few stones, good drainage, pH 6.9. Full sun, 5 deg. slope, 360 deg. aspect. North Daquig Res. grazed area, disturbed soil. Few trees (Acer sp.). Bottom between dunes. 50% ground cover. 80km S of Tongliao, Daqing Reserve. Roots demonstrate a characteristic darkening of stele indicating crown and root rot. Plants most likely quite old. Pods large, 4+ seed/pod on occasion. Plants partially procumbent. 200 plants sampled. 2 M. ruthenica/m.

PI 631911. Medicago ruthenica (L.) Trautv.
Wild. CTM 16; W6 9876. Collected 08/24/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 182 m. Large dunes. Sand, few stone, good drainage, pH 6.5. Full sun, slope 0-20 deg., aspect 30 deg. North Da Quig Reserve, grazed area, disturbed soil.

At base of large dune. 70% ground cover. 80km S of Tongliao, Daqing Reserve. Roots demonstrate a characteristic darkening of stele indicating crown and root rot. Plants most likely quite old. Associated with Setaria sp., Leymus sp., Lespedeza bicolor, Aster sp., Artemisia sp. 1 ha area sampled. 5 M. ruthenica/m Some larval feeding withing some of the pods. Plants prostrate to semi-erect.

PI 631912. Medicago ruthenica (L.) Trautv.
Wild. CTM 17; W6 9877. Collected 08/24/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 213 m. Large dunes. Sand, few stones, good drainage, pH 6.4. Full sun, 5-30 deg. slope, basin aspect. North Da Quig Reserve, grazed area. At base of large dune in basin, no trees present. 70% ground cover. 80km S of Tongliao, Daqing Res. Roots demonstrate a characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. Very thick stand of M. ruthenica. Associated with Artemisia sp., Setaria sp. 70 plants sampled. 20 M. ruthenica/m.

PI 631913. Medicago ruthenica (L.) Trautv.
Wild. CTM 18; W6 9878. Collected 08/24/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 200 m. Large dunes. Sand, few stones, good drainage, pH 6.8. Full sun, 10-20 deg. slope, 300 deg. aspect. North Da Quig Reserve, grazed area. At top of dune, no trees present. 80km S of Tongliao, Daquing Reserve. Roots demonstrate a characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. Very thick stand of M. ruthenica. Some leaf damage noted. Associated with Artemisia sp., Leymus sp., Setaria sp. 100 plants sampled. 10 M. ruthenica/m.

PI 631914. Medicago ruthenica (L.) Trautv.
Wild. CTM 19; W6 9879. Collected 08/24/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 198 m. Large dunes. Sand, few stones, good drainage, pH 6.8. Full sun, 0-30 deg. slope. North Da Quig Reserve, grazed area. Along sandy road beside Zea mays field on top and side of bank. Sparse-heavy veg. 40% ground cover. 80km S of Tongliao. Roots demonstrate a characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. All plants quite vigorous. Associated with Artemisia sp., Ambrosia sp., Setaria sp., Digiteria sp., Stipa sp., Xanthium sp. 8-10 plants sampled. 4 M. ruthenica/m.

PI 631915. Medicago ruthenica (L.) Trautv.
Wild. CTM 20; W6 9880. Collected 08/24/1991 in Nei Monggol, China. Latitude 42 deg. 55' N. Longitude 122 deg. 20' E. Elevation 206 m. Large dunes. Sand, few stones, good drainage, pH 6.7. Full sun, 0 deg. slope, basin aspect. North Da Quig Reserve, sandy basin or blow-out, also on rim of basin. 40% ground cover. Next to cult. area. 80km S of Tongliao, Daqing Res. Roots demonstrate a characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. Few ripe seeds. Plants quite vigorous. Associated with Artemisia sp., Setaria sp., Xanthium sp. 20 plants sampled. 8 M. ruthenica/m.

PI 631916. Medicago ruthenica (L.) Trautv.
Wild. CTM 21; W6 9881. Collected 08/27/1991 in Nei Monggol, China. Latitude 40 deg. 43' N. Longitude 11 deg. 50' E. Elevation 282 m. Grassland, flat. Sandy loam, few stones, good drainage, pH 7.4. Partial shade 0 slope. Under Populus trees near sandy road and soybean field,

inside fence. Sparse veg. heavily grazed. 20 SE of Hohhot, Grassland Res. Inst. Exp. Sta. Roots demonstrate a characteristic darkening of the stele indicating crown and root rot. Plants most likely quite old. Plants upright to partially procumbent. Aphids present.. Some plants in drainage ditch. Associated with Artemisia sp., Ambrosia sp., Medicago sativa ssp. sativa and falcata. 12 plants sampled. 2 M. ruthenica/m.

PI 631917. Medicago ruthenica (L.) Trautv.
Wild. CTM 23; W6 9883. Collected 08/27/1991 in Nei Monggol, China. Latitude 40 deg. 43' N. Longitude 111 deg. 50' E. Elevation 282 m. Grassland, flat. Sandy loam, few stones, good drainage. Full sun, 0 slope. Pasture grazed, 10 ha. 20 SE of Hohhot, Grassland Res. Inst. Exp. Sta. Plants procumbent. Associated with Setaria sp., Rubus sp., Ambrose sp., Artemisia sp. 100 plants sampled. 1 M. ruthenica/m.

PI 631918. Medicago ruthenica (L.) Trautv.
Wild. CTM 24; W6 9884. Collected 08/27/1991 in Nei Monggol, China. Latitude 40 deg. 43' N. Longitude 111 deg. 50' E. Elevation 282 m. Grassland, flat. Alluvial. Sandy loam, few stones, good drainage, pH 7.4. Partial shade, 0 slope. In and along very dry irrigation ditch. 30% ground cover. Sparse veg. grazed. 20 SE of Hohhot, Grassland Res. Inst. Exp. Sta. Plants procumbent. Associated with Artemisia sp., Setaria sp., Populus sp., Digiteria sp. 6 plants sampled. Crops in cultivation nearby. 2 M. ruthenica/m.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/24/1990.

PI 631919. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivar. "NADEZDA"; VIR-40812; W6 4785. Collected in Ukraine.

PI 631920. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivar. "VAVILOVKA"; VIR-43776; W6 4786. Collected in Ukraine.

PI 631921. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh.
Cultivated. VIR-12820; W6 4793. Collected in Russian Federation. Daghestan ASSR.

PI 631922. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh.
Cultivated. VIR-29002; W6 4795. Collected in Kazakhstan.

PI 631923. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh.
Cultivated. VIR-30079; W6 4796. Collected in Georgia.

PI 631924. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh.
Cultivated. VIR-30089; W6 4797. Collected in Armenia.

PI 631925. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh.
Cultivated. VIR-35009; W6 4798. Collected in Kazakhstan.

PI 631926. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh.
Cultivated. VIR-35013; W6 4799. Collected in Russian Federation.

The following were collected by Khassanov. Donated by P. N. D. Seymour,

University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631927. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Wild. 2035; W6 4941. Collected 1966 in Kazakhstan. Mugodzary mountains, Bercogur, Kazakhstan Province. Varigated flowers.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631928. Medicago prostrata Jacq.
Wild. 1700; W6 5618. Collected 1963 in Italy. Over Cacallo.

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. Received 01/21/1992.

PI 631929. Medicago lupulina L.
Wild. X910009; W6 9552. Collected 08/23/1991 in China. Latitude 41 deg. 49' N. Longitude 85 deg. 54' E. Elevation 870 m. In road ditch under poplar trees, 20km W of Korla, Shanghu Village.

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 03/02/1992.

PI 631930. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivated. W6 10113; SLAVINSKAYA. Collected 07/1991 in Kazakhstan. Place of production Krasnodarsky Region, Russia.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 03/23/1993.

PI 631931. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivar. "ABAIJSKAIA-183"; VIR 39958; W6 11467. Collected in Russian Federation. Latitude 52 deg. 3' N. Longitude 113 deg. 35' E. Cita.

PI 631932. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivar. "BARNAUL'SKAIA-17"; VIR 26588; W6 11468. Collected in Russian Federation. Latitude 53 deg. 27' N. Longitude 91 deg. 48' E. Altaij.

PI 631933. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivar. "BIJSKAIA-3"; VIR 32515; W6 11469. Collected in Russian Federation. Latitude 53 deg. 27' N. Longitude 91 deg. 52' E. Altaj.

PI 631934. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivar. "ISKRA"; VIR 43780; W6 11470. Collected in Russian Federation. Latitude 52 deg. 3' N. Longitude 113 deg. 35' E. Cita.

PI 631935. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "KAMALINSKAIA-530"; VIR 23425; W6 11471. Collected in Russian Federation. Latitude 56 deg. 5' N. Longitude 92 deg. 46' E. Krasnoiarsk.

PI 631936. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "KAMALINSKAIA-930"; VIR 23426; W6 11472. Collected in Russian Federation. Latitude 56 deg. 5' N. Longitude 92 deg. 46' E. Krasnoiarsk.

PI 631937. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "KAZACINSKAIA"; VIR 39952; W6 11473. Collected in Russian Federation. Latitude 56 deg. 5' N. Longitude 92 deg. 46' E. Krasnoiarsk.

PI 631938. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "NERCINSKAIA-46"; VIR 29122; W6 11474. Collected in Russian Federation. Latitude 52 deg. 3' N. Longitude 113 deg. 35' E. Cita.

PI 631939. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "OMSKAIA-8893"; VIR 20131; W6 11475. Collected in Russian Federation. Latitude 55 deg. 0' N. Longitude 73 deg. 24' E. Omsk.

PI 631940. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "ONOHOIJSKAIA-6"; VIR 26830; W6 11476. Collected in Russian Federation. Buriatskaia.

PI 631941. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "ORANZEVAIA-115"; VIR 35636; W6 11477. Collected in Russian Federation. Latitude 55 deg. 0' N. Longitude 73 deg. 24' E. Omsk.

PI 631942. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "PRIOZIORSKAIA MESTNAIA"; VIR 42675; W6 11478. Collected in Russian Federation. Latitude 59 deg. 55' N. Longitude 30 deg. 25' E. Leningrad.

PI 631943. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "TAIOZNAIA"; VIR 35377; W6 11479. Collected in Russian Federation. Latitude 52 deg. 18' N. Longitude 104 deg. 15' E. Irkutsk.

PI 631944. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "TULUNSKAIA HYBRIDNAIA"; VIR 38384; W6 11480. Collected in Russian Federation. Latitude 52 deg. 18' N. Longitude 104 deg. 15' E. Irkutsk.

PI 631945. Medicago sativa nothosubsp. varia (Martyn) Arcang. Cultivar. "ZIOLTOHYBRIDNIAI-191"; VIR 35637; W6 11483. Collected in Russian Federation. Latitude 55 deg. 0' N. Longitude 73 deg. 24' E. Omsk .

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 631946. Medicago sativa nothosubsp. varia (Martyn) Arcang. Wild. X93036; W6 12954. Collected 08/08/1993 in Xinjiang, China. Latitude 43 deg. 56' N. Longitude 86 deg. 26' E. Elevation 1040 m. Along

river drainage, 31km southwest of Dafeng, Xinjiang. Plant diversity immense.

PI 631947. Medicago sativa nothosubsp. varia (Martyn) Arcang. Uncertain. X93055; W6 12973. Collected 08/08/1993 in Xinjiang, China. Latitude 43 deg. 53' N. Longitude 86 deg. 24' E. Elevation 1200 m. Gravel soil, uncut hay pasture along river bend 36km southwest of Dafeng, Xinjiang.

PI 631948. Medicago sativa nothosubsp. varia (Martyn) Arcang. Wild. X93080; W6 12996. Collected 08/11/1993 in Xinjiang, China. Latitude 44 deg. 9' N. Longitude 84 deg. 38' E. Elevation 1620 m. Natural pasture at base of Tien Shan Mountains, approx. 65km south of Usu, Xinjiang.

PI 631949. Medicago sativa nothosubsp. varia (Martyn) Arcang. Wild. X93096; W6 13012. Collected 08/11/1993 in Xinjiang, China. Latitude 44 deg. 10' N. Longitude 84 deg. 34' E. Elevation 1500 m. Natural pasture just before Chanjing Farm, Xinjiang.

PI 631950. Medicago sativa nothosubsp. varia (Martyn) Arcang. Wild. X93186; W6 13092. 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 631951. Medicago sativa nothosubsp. varia (Martyn) Arcang. Wild. X93198; W6 13103. Collected 08/20/1993 in Xinjiang, China. Latitude 43 deg. 44' N. Longitude 89 deg. 27' E. Elevation 1400 m. Silty clay, 53km south of Chitai, very dry rolling foot hills used for winter pastures, Xinjiang. Dominate species Medicago varia. Winter pasture associated with Artemisia boralensis, Kochia postrata, and Festuca ovina .

PI 631952. Medicago sativa nothosubsp. varia (Martyn) Arcang. Uncertain. X93219; W6 13124. Collected 08/21/1993 in Xinjiang, China. Latitude 43 deg. 44' N. Longitude 89 deg. 17' E. Elevation 1500 m. 25km south of Jimsar along field margins of road, non-irrigated, Xinjiang.

PI 631953. Medicago sativa nothosubsp. varia (Martyn) Arcang. Uncertain. X93258; W6 13162. Collected 08/26/1993 in Xinjiang, China. Latitude 43 deg. 51' N. Longitude 87 deg. 56' E. Elevation 1470 m. Silty loam soil, very dry lowland, margin of dryland wheat field, 50km south and east of Urumqi, Xinjiang.

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. Received 11/30/1993.

PI 631954. Medicago sativa subsp. caerulea (Less. ex Ledeb.) Schmalh. Wild. JR-5; UT #2379; W6 14167. Collected 10/13/1985 in Pakistan. Latitude 35 deg. N. Longitude 73 deg. E. Elevation 2000 m. South of Kalam (near Peshmal), in Swat River Valley near Village of Peshmal, Northern Area. Leaflets small, one-coiled pods, flowers not seen, stems

up to one meter long. Farmers say livestock prefer this species. Obtained from stack of native meadow hay.

The following were collected by Joseph H. Kirkbride, USDA/ARS, Beltsville Ag. Research Center, Systematic Botany and Mycology Laboratory, Beltsville, Maryland 20705-0000, United States; Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States. Received 08/1989.

PI 631955. Lotus maroccanus Ball
Wild. KBG 5729; G 31268. Collected 06/06/1989 in Morocco. Latitude 33 deg. 3' N. Longitude 8 deg. 10' W. Elevation 150 m. 1km from 51313 + 11312 junction on 1313,6km from Ain Talmes Province=El Jadida. Good soil drainage,fallow microenviroment,sand,limestone,PH 8,friable,common density of specimen,heavy grazing,300mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631956. Lotus maroccanus Ball
Wild. KBG 5735; G 31269. Collected 09/06/1989 in Morocco. Latitude 32 deg. 51' N. Longitude 6 deg. 36' W. Elevation 790 m. 3km E of Oued-Zem on P13 Province=Khouribga. Good soil drainage,plantation,loam soil,limestone rock,PH 8.5+,moderately hard,rocky,shallow depth,common density of specimen,heavy grazing,480mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631957. Lotus maroccanus Ball
Wild. KBG 5853; G 31293. Collected 06/17/1989 in Morocco. Latitude 34 deg. 17' N. Longitude 6 deg. 33' W. Elevation 35 m. 2km NE of Kenitra on P2 Province=Kenitra. Good soil drainage,landfill,loam,PH 6.5,friable,stony,shallow depth,common depth,common density,heavy grazing,500mm of annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631958. Lotus maroccanus Ball
Wild. KBG 5909; G 31309. Collected 06/21/1989 in Morocco. Latitude 34 deg. 4' N. Longitude 5 deg. 35' W. Elevation 470 m. Ruins of Volubilis, 31km N of Meknes Province=Meknes. Good soil drainage,clay,parent rock:limestone,PH 8.5,hard surface,stony,challow,common density of specimen,450-500mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

PI 631959. Lotus maroccanus Ball
Wild. KBG 5922; G 31312. Collected 06/26/1989 in Morocco. Latitude 31 deg. 40' N. Longitude 5 deg. 50' W. Elevation 1860 m. 55km N of

Boumalne-du-Dades on 6901 toward Msemrir Province=Ouarzazate. Good drainage,hillside,sandy loam,parent rock:limestone,PH 8.5,friable,stony,shallow,common density of specimen,heavy grazing,200mm annual precip. Voucher specimens prepared by Dr. Joseph H. Kirkbride, UDSA-ARS. Sets of vouchers are available from: U.S. National Arboretum, Washington, D.C., Sytematic Botany and Mycology Laboratory, Beltsville, and St. Louis Botianic.

Unknown source. Received 07/06/1939.

PI 631960. Lotus pedunculatus Cav.
G 31346. Collected in Australia.

Unknown source. Received 07/06/1939.

PI 631961. Trifolium patulum Tausch
29-S-221-2; G 31403. Collected in Yugoslavia.

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 1995.

PI 631962. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Cultivated. E94262; W6 16614. Collected 09/1994 in Mongolia. Latitude 47 deg. 56' N. Longitude 106 deg. 55' E. Elevation 1442 m. Seed obtained from the Research Institute of animal Husbandry Ulaanbaatar. Cultivated.

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 631963. Medicago lupulina L.
Wild. 0172; 026; W6 18318. Collected 07/14/1995 in Belgorod, Russian Federation. Latitude 44 deg. 45' N. Longitude 39 deg. 51' 30'' E. Elevation 100 m. Province Maykop/Belorechensk. 1 km west of Belorechensk. Past and current grazing. Slope 0-5%. Open light. Sandy with round gravel, pH 7.4-7.9. Moist, floodplain. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species Quercus sp., Q. robur. Dominant shrub species Carpinus sp., Quercus sp. Dominant herb/grass species broadleaved, Trifolium sp. Population distribution patchy, abundance frequent. Growth habit prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

Unknown source. Received 01/1996.

PI 631964. Medicago lupulina L.
Wild. 090a; 0238; W6 18367.

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 631965. Medicago lupulina L.
Wild. M107; W6 18376. Collected 08/19/1995 in Russian Federation. Latitude 44 deg. 59' 35'' N. Longitude 37 deg. 13' 49'' E. Elevation 2 m. Province Amana/Novorossiysk, south of Vitisevo on Black Sea. Past and current grazing. Slope 0-5%, aspect S. Light open. Soil sand, pH basic. Seasonally dry, dune. Vegetation open, evergreen dwarf shrub steppe savanna. Surrounding vegetation open evergreen dwarf scrub with closed ground cover. Dominant tree specie Russian Olive. Dominant shrub specie Artemisia austriaca. Dominant herb/grass specie Arundo sp., Pulicaria, Phragmites, Calamagrostis, Elytrigia sp., pseudo-Phragmites. Population distribution patchy. Growth habit prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631966. Medicago lupulina L.
Wild. M122; W6 18386. 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 prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631967. Medicago lupulina L.
Wild. 0008; 0173a; W6 18432. Collected 09/01/1995 in Russian Federation. Latitude 44 deg. 5' 30'' N. Longitude 40 deg. 0' 56'' E. Elevation 1650 m. Province Maykop, 25 km southwest of Dakhovskaya. Past logged, now grazed and roadway. Slope 6-10%, aspect S. Light open. Soil loam. Moist, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open evergreen and deciduous forest with closed lower layers. Dominant tree species Fagus sp., Beech, Caprinus sp., Abies sp., Picea sp. Dominant shrub species Laurocerasus officinalis, Rhododendron. Dominant herb/grass species Trifolium sp., Plantago sp., Deschampsia cespetiosa, Alchemilla sp., Cirsium obvallatum, Rumex conferitus, Cephalaria gigantea. Population distribution patchy. Growth habit semi-prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene

(sgreene@ars-grin.gov).

PI 631968. Medicago lupulina L.
Wild. 0086; 0243; W6 18469. Collected 09/05/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 55' N. Longitude 41 deg. 14' E. Elevation 850 m. Province Cherkessk-Karachayeysk Republic, 2 km east of Pregradnayc. Past logged, now grazed, hayed. Slope 0-5%, aspect S. Light open. Soil loam, pH neutral. Moist to seasonally dry, stream terrace. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Quercus sp., Fagus o., Betula p. Dominant shrub species Laurocerasus officinalis, Ribes sp., Rosa sp. Dominant herb/grass species Achillea sp., Trifolium sp., Medicago sp., Geranium sp., Ambrosia sp., Daucus, Chicory, Dactylis g., Phleum p., Lolium p. Population distribution patchy, abundance occasional. Growth habit semi-erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631969. Medicago lupulina L.
Wild. 0098; 0255; W6 18478. Collected 09/06/1995 in Karelia, Russian Federation. Latitude 43 deg. 51' 30'' N. Longitude 41 deg. 54' 7'' E. Elevation 790 m. Province Karachayevo-Cherkesskaya Republic, 1 km northwest of Ordzhanikedevskiy. Past and current grazing. Lower slope 6-10%, upper slope 41-60%, aspect SE. Light open. Soil sandy loam, sandstone rock outcrop, pH upper 5.8, lower 6.3-6.4. Seasonally dry, lower slope, rock outcrop. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Beech, Oak, Fagus o., Quercus sp. Dominant shrub species Artemisia sp., Rosa sp. Dominant herb/grass species Achillea sp., Medicago sp., Bothriochloa i., Festuca v. Population distribution patchy, abundance frequent. Growth habit semi-erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631970. Medicago lupulina L.
Wild. 0131; 0263; W6 18488. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 28'' N. Longitude 41 deg. 40' 54'' E. Elevation 1800 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S. Light 3/4 shade to shaded. Soil loam, granitic derived. Seasonally dry, lower to mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species Pinus syl., hamata on south slope, Abies n., Picea o. on north slope. Dominant shrub species Juniperus oblonga, Rosa sp., Ribes sp. Dominant herb/grass species Achillea sp., Trifolium sp., Coronilla sp., Lotus c., Deschampsia c., Festuca sp., Agrostis sp., Calamagrostis sp. Population distribution patchy, abundance occasional. Growth habit semi-prostrate. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 631971. Medicago lupulina L.
Wild. VIR D44; W6 18582. 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. Open. Soil highly organic sod, pH 5.3-7.5. Moist to seasonally dry, lower-upper slope. 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. 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 12/1996.

PI 631972. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Wild. 96S-113; W6 18944. Collected 09/04/1996 in Mongolia. Latitude 48 deg. 10' N. Longitude 91 deg. 45' 21'' E. Elevation 1335 m. Khovd Aimag, Buyant Sum, experimental area about 10 km north of aimag center. Wide valley bottom that is currently being used for growing vegetables and making hay. Soils are alluvial and are coarse brown sandy loams. Slope - flat. Aspect - flat.

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 631973. Medicago sativa nothosubsp. varia (Martyn) Arcang.
Wild. X97-093; W6 20196. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 9' 52'' N. Longitude 81 deg. 37' 12'' E. Elevation 1320 m. 40 km east of Zhaosu County. Ungrazed meadow that will be cut for hay. Lush vegetation, silt loam soil. Slope is 2% with southwest aspect. Near Suasu River.

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 2000.

PI 631974. Trifolium willdenovii Spreng.
Uncertain. S-55-9; W6 22242.

The following were donated by Thomas A. Lumpkin, Washington State University, Department of Crop and Soil Science, 261 Johnson Hall, Pullman, Washington 99164-6420, United States. Received 02/05/1990.

PI 631975. Medicago sativa L. **subsp. sativa**
Uncertain. W6 3077. Collected in Ningxia, China.

PI 631976. Medicago sativa L. **subsp. sativa**
Uncertain. W6 3078. Collected in Ningxia, China.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/24/1990.

PI 631977. Medicago sativa L. **subsp. sativa**
Cultivar. "BEREKE"; VIR-45335; W6 4773. Collected in Kyrgyzstan.

PI 631978. Medicago sativa subsp. glomerata (Balb.) Rouy
Cultivated. VIR-16691; W6 4812. Collected in Georgia.

The following were collected by D.L. Balton. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631979. Medicago sativa L. **subsp. sativa**
Wild. 35; W6 4907. Collected 1961 in Russian Federation. Saskatoon from Lengingrad.

PI 631980. Medicago sativa L. **subsp. sativa**
Wild. 36; W6 4908. Collected 1961 in Russian Federation. Latitude 55 deg. 9' N. Longitude 71 deg. 23' E. Saskatoon from Leningrad.

The following were collected by Cornelius. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631981. Medicago sativa L. **subsp. sativa**
Wild. 2016; W6 5656. Collected in Turkey. Between Lepir Dist. and Ersurua Prov.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631982. Medicago sativa L. **subsp. sativa**
Wild. 2717; W6 5666. Collected 1974 in Morocco. Latitude 32 deg. 40' 48'' N. Longitude 8 deg. 27' W. Field, 19km to Sidi Bennour on road from Sidi Smail.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 631983. Medicago sativa L. **subsp. sativa**
Wild. 2835; W6 5667. Collected 1976 in Poland. M. Warminiska Institute Hedowli I Aklimatysacjl Roslin.

PI 631984. Medicago sativa L. **subsp. sativa**
Wild. 2836; W6 5668. Collected 1976 in Poland. M. Miechowska Institute Hedowli I Atklimatysacjl Roslin.

PI 631985. Medicago sativa L. **subsp. sativa**

Wild. 2837; W6 5669. Collected in Poland. M. Kleszczewska Institute Hedowli I Aklimatyasjl Roslin.

PI 631986. Medicago sativa L. **subsp. sativa**
Wild. 2838; W6 5670. Collected in Poland. M. Grimma Inst. Hedowli I Aklimatysacji Roslin.

PI 631987. Medicago sativa L. **subsp. sativa**
Wild. 2839; W6 5671. Collected in Turkmenistan. Turkemenian region Gulbones.

PI 631988. Medicago sativa L. **subsp. sativa**
Wild. 2843; W6 5672. Collected in Iran. Altevogt.

PI 631989. Medicago sativa L. **subsp. sativa**
Wild. 2854; W6 5673. Collected 1949 in Turkey. Blecik.

PI 631990. Medicago sativa L. **subsp. sativa**
Wild. 2855; W6 5674. Collected 1949 in Turkey. Yeslikoz.

PI 631991. Medicago sativa L. **subsp. sativa**
Wild. 2856; W6 5675. Collected 1949 in Turkey.

PI 631992. Medicago sativa L. **subsp. sativa**
Wild. 2857; W6 5676. Collected 1949 in Turkey. Latitude 40 deg. 35' N. Longitude 43 deg. 5' E. Kars.

PI 631993. Medicago sativa L. **subsp. sativa**
Wild. 2858; W6 5677. Collected 1949 in Turkey. Kazseri.

PI 631994. Medicago sativa L. **subsp. sativa**
Wild. 2859; W6 5678. Collected 1949 in Turkey. Latitude 39 deg. 57' N. Longitude 41 deg. 17' E. Erzurum.

PI 631995. Medicago sativa L. **subsp. sativa**
Wild. 2860; W6 5679. Collected 1949 in Turkey. Bazburst.

PI 631996. Medicago sativa L. **subsp. sativa**
Wild. 2861; W6 5680. Collected 1949 in Turkey. Latitude 39 deg. 44' N. Longitude 39 deg. 30' E. Erzincan.

PI 631997. Medicago sativa L. **subsp. sativa**
Wild. 2863; W6 5681. Collected 1949 in Turkey. Van.

PI 631998. Medicago sativa L. **subsp. sativa**
Wild. 2864; W6 5682. Collected 1949 in Turkey. Latitude 38 deg. 45' N. Longitude 41 deg. 30' E. Mus.

PI 631999. Medicago sativa L. **subsp. sativa**
Wild. 2865; W6 5683. Collected 1949 in Turkey. Latitude 37 deg. 46' N. Longitude 29 deg. 5' E. Denizli.

PI 632000. Medicago sativa L. **subsp. sativa**
Wild. 2866; W6 5684. Collected 1949 in Turkey. Latitude 38 deg. 41' N. Longitude 39 deg. 14' E. Elazig.

PI 632001. Medicago sativa L. **subsp. sativa**

Wild. 2868; W6 5685. Collected 1949 in Turkey. Latitude 40 deg. 35' N. Longitude 33 deg. 37' E. Cankiri.

PI 632002. Medicago sativa L. **subsp. sativa**
Wild. 2869; W6 5686. Collected 1950 in Turkey. Latitude 39 deg. 44' N. Longitude 37 deg. 1' E. Sivas.

PI 632003. Medicago sativa L. **subsp. sativa**
Wild. 503; W6 5690.

PI 632004. Medicago sativa L. **subsp. sativa**
Wild. 504; W6 5691. Collected in Iran.

PI 632005. Medicago sativa L. **subsp. sativa**
Wild. 510; W6 5695. Collected in Spain.

PI 632006. Medicago sativa L. **subsp. sativa**
Wild. 513; W6 5697. Collected in United States.

PI 632007. Medicago sativa L. **subsp. sativa**
Wild. 515; W6 5698. Collected in China.

PI 632008. Medicago sativa L. **subsp. sativa**
Wild. 517; W6 5699. Collected in Russian Federation.

PI 632009. Medicago sativa L. **subsp. sativa**
Wild. 519; W6 5701. Collected in Russian Federation.

PI 632010. Medicago sativa L. **subsp. sativa**
Wild. 520; W6 5702. Collected in France.

PI 632011. Medicago sativa L. **subsp. sativa**
Wild. 521; W6 5703. Collected in Russian Federation.

PI 632012. Medicago sativa L. **subsp. sativa**
Wild. 522; W6 5704. Collected in Russian Federation.

PI 632013. Medicago sativa L. **subsp. sativa**
Wild. 523; W6 5705. Collected in Russian Federation.

PI 632014. Medicago sativa L. **subsp. sativa**
Wild. 525; W6 5707. Collected in Russian Federation.

PI 632015. Medicago sativa L. **subsp. sativa**
Wild. 526; W6 5708.

PI 632016. Medicago sativa L. **subsp. sativa**
Wild. 527; W6 5709.

PI 632017. Medicago sativa L. **subsp. sativa**
Wild. 528; W6 5710. Collected in Bulgaria.

PI 632018. Medicago sativa L. **subsp. sativa**
Wild. 534; W6 5714. Collected in England, United Kingdom.

PI 632019. Medicago sativa L. **subsp. sativa**
Wild. 535; W6 5715. Collected in England, United Kingdom.

PI 632020. Medicago sativa L. **subsp. sativa**
Wild. 536; W6 5716. Collected in Syria.

PI 632021. Medicago sativa L. **subsp. sativa**
Wild. 537; W6 5717. Collected in Syria.

PI 632022. Medicago sativa L. **subsp. sativa**
Wild. 538; W6 5718. Collected in Cyprus.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 632023. Medicago suffruticosa Ramond ex DC.
Wild. 1545; W6 5901. Collected 1963 in Spain. Near Toses.

PI 632024. Medicago suffruticosa Ramond ex DC.
Wild. 1548b; W6 5905. Collected 1963 in Spain. Latitude 42 deg. 26' 24'' N. Longitude 1 deg. 55' 48'' E. 16km from Toses on road Toses to Puigcerda.

PI 632025. Medicago suffruticosa Ramond ex DC.
Wild. 1563; W6 5909. Collected 1963 in Spain. Latitude 42 deg. 26' 24'' N. Longitude 1 deg. 55' 48'' E. 16km before Toses from Puigcerda side.

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

PI 632026. Medicago sativa L. **subsp. sativa**
Wild. ABY-AF 1409.00; W6 9369. Collected in Turkey. Latitude 38 deg. 3' N. Longitude 37 deg. 56' E. Elevation 1300 m. Dogansehir.

PI 632027. Medicago sativa L. **subsp. sativa**
Wild. ABY-AF 1410.00; W6 9370. Collected in Turkey. Latitude 38 deg. 0' N. Longitude 36 deg. 30' E. Elevation 1300 m. Goksun.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 12/23/1991.

PI 632028. Medicago sativa subsp. glomerata (Balb.) Rouy
Cultivated. Kat. No. 2625; W6 9384. Collected in Georgia. Dikorastucsaja 2, Georgian SSR.

PI 632029. Medicago sativa L. **subsp. sativa**
Cultivated. Kat. No. 38523; W6 9385. Collected in Kazakhstan. Dikorastucsaja, Kazakh SSR.

The following were donated by I.C.C.P.T., Research Institute for Cereals, & Industrial Crops, Fundulea, Calarasi, Romania. Received 02/18/1992.

PI 632030. Medicago sativa L. **subsp. sativa**

Cultivated. W6 10034; SELENA.

PI 632031. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10035; ADONIS.

PI 632032. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10036; TRIUMF.

PI 632033. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10037; GLORIA.

PI 632034. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10038; LUTETIA.

PI 632035. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10039; LUXIN.

PI 632036. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10040; FUNDULEA 652.

PI 632037. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10041; SIGMA.

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 03/02/1992.

PI 632038. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10108; APARANSKAYA. Collected 07/1991 in Kazakhstan. Place of production Armenia.

The following were developed by Krasnovodopadskaya Breeding Station. Donated by A.T. Whittemore, Missouri Botanical Garden, Biology Department, P.O. Box 299, St. Louis, Missouri 63166-0299, United States. Received 03/02/1992.

PI 632039. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10109; KRASNOVODOPADSKAYA-8. Collected 07/1991 in Kazakhstan. Place of production Chimkent Region, Kazakh.

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 03/02/1992.

PI 632040. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10110; KAPCHAGAISKAYA 80. Collected 07/1991 in Kazakhstan . Latitude 43 deg. 9' N. Longitude 76 deg. 34' 12'' E. Place of production Alma-Ata Region, Kazakh.

The following were developed by Krasnovodopadskaya Breeding Station. Donated by A.T. Whittemore, Missouri Botanical Garden, Biology Department, P.O. Box 299, St. Louis, Missouri 63166-0299, United States. Received 03/02/1992.

PI 632041. Medicago sativa L. **subsp. sativa**

Cultivated. W6 10111; KRASNOVODOPADSKAYA SKOROSPELAYA. Collected 07/1991 in Kazakhstan. Latitude 42 deg. 10' 48'' N. Longitude 69 deg. 21' 36'' E. Place of production Chimkent Region, Kazakh.

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 03/02/1992.

PI 632042. Medicago sativa L. **subsp. sativa**
Cultivated. W6 10112; SEMIRECHINSKAYA. Collected 07/1991 in Kazakhstan. Place of production Krasnodarsky Region, Russia.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy. Received 09/30/1992.

PI 632043. Medicago sativa L. **subsp. sativa**
Uncertain. 1144; W6 11023. Collected 1988 in Yemen.

PI 632044. Medicago sativa L. **subsp. sativa**
Uncertain. 1165; W6 11024. Collected 1988 in Yemen.

PI 632045. Medicago sativa L. **subsp. sativa**
Uncertain. 1180; W6 11026. Collected 1988 in Yemen.

PI 632046. Medicago sativa L. **subsp. sativa**
Uncertain. 1192; W6 11028. Collected 1988 in Yemen.

PI 632047. Medicago sativa L. **subsp. sativa**
Uncertain. 1205; W6 11030. Collected 1988 in Yemen.

PI 632048. Medicago sativa L. **subsp. sativa**
Uncertain. 1217; W6 11032. Collected 1988 in Yemen.

PI 632049. Medicago sativa L. **subsp. sativa**
Uncertain. 1221; W6 11034. Collected 1988 in Yemen.

PI 632050. Medicago sativa L. **subsp. sativa**
Uncertain. 1233; W6 11035. Collected 1988 in Yemen.

PI 632051. Medicago sativa L. **subsp. sativa**
Uncertain. 1236; W6 11036. Collected 1988 in Yemen.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy . Received 09/30/1992.

PI 632052. Medicago sativa L. **subsp. sativa**
Uncertain. 15001; W6 11037. Collected in Saudi Arabia.

PI 632053. Medicago sativa L. **subsp. sativa**
Uncertain. 15026; W6 11038. Collected in Saudi Arabia.

PI 632054. Medicago sativa L. **subsp. sativa**
Uncertain. 15028; W6 11039. Collected in Saudi Arabia.

PI 632055. Medicago sativa L. **subsp. sativa**
Uncertain. 15056; W6 11040. Collected in Saudi Arabia.

The following were collected by Robert Klein, Washington State University, Irrigated Agriculture Res. & Ext. Center, Route 2, Box 2953-A, Prosser, Washington 99350-9687, United States. Received 11/18/1992.

PI 632056. Medicago sativa L. **subsp. sativa**
Cultivated. W6 11064. Collected 08/29/1992 in China. Latitude 48 deg. 1' 12'' N. Longitude 88 deg. 4' 48'' E. Elevation 2000 m. Approx. 20km north of Altay. Planting was a mixture of indigenous alfalfa from the Altay region.

PI 632057. Medicago sativa L. **subsp. sativa**
Cultivated. W6 11065. Collected in China. Latitude 47 deg. 52' N. Longitude 88 deg. 7' E. Elevation 2400 m. Collective farm, 10km east of Burqin, Altai, Xinjiang Prov.

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 632058. Medicago sativa L. **subsp. sativa**
Wild. PAK 24; W6 12049. Collected 04/09/1986 in Pakistan. High northern mountains of Skardin area.

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 632059. Medicago sativa L. **subsp. sativa**
Cultivated. X93077; W6 12993; Xinunu No. 1. Collected 08/10/1993 in China. Latitude 35 deg. 22' 12'' N. Longitude 111 deg. 7' 48'' E. Seed presented by Zinichuan Stud Farm, Xinjiang.

The following were collected by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/30/1993.

PI 632060. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14132. Collected 08/28/1986 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 2134 m. Karimabad, Northern Area.

PI 632061. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14133. Collected 08/28/1986 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 2499 m. Hussaini, Northern Area.

PI 632062. Medicago sativa L. **subsp. sativa**

Cultivated. W6 14134. Collected 08/28/1986 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 2469 m. Passu, Northern Area.

PI 632063. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14135. Collected 08/31/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2195 m. Skardu Forest Headquarters garden, Baltistan.

PI 632064. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14136. Collected 08/31/1993 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2225 m. Forestry plantation (Hoto Farm) near Skardu Airport, Balistan.

PI 632065. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14137. Collected 08/31/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2225 m. Lake Kachura turnoff near Skardu, Baltistan.

PI 632066. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14139. Collected 08/31/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 3277 m. Kachura Bridge near Skardu, Baltistan.

PI 632067. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14140. Collected 08/31/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2408 m. Kachura power generating station near Skardu, Baltistan.

PI 632068. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14141. Collected 09/01/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2256 m. Above Hussainabad (Ispecho) near Skardu, Baltistan.

PI 632069. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14142. Collected 09/01/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2256 m. Senkhore, 2km north of Shigar, Baltistan.

PI 632070. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14144. Collected 09/02/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2530 m. Sadpara Lake Rest House, 5km south of Skardu, Baltistan.

PI 632071. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14146. Collected 09/02/1986 in Pakistan. Latitude 35 deg. N. Longitude 76 deg. E. Elevation 2225 m. Thorgu in Skardu area, Baltistan.

PI 632072. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14147. Collected 09/05/1986 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 1920 m. Rhondu, Baltistan.

PI 632073. Medicago sativa L. **subsp. sativa**
Cultivated. W6 14148. Collected 09/05/1986 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 1463 m. Juglote, Northern Area.

PI 632074. Medicago sativa L. **subsp. sativa**

Cultivated. W6 14152. Collected 09/11/1986 in Nepal. Latitude 29 deg. N. Longitude 84 deg. E. Elevation 2682 m. From cultivated, irrigated field. 1km east of Jomsom Airport, Mustang.

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. Received 11/30/1993.

PI 632075. Medicago sativa L. **subsp. sativa**
Cultivated. JR-16; UT #2375; W6 14168. Collected 10/15/1985 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 2164 m. Steep hill alfalfa field. Escaped from cultivation found along irrigation canals. Murtazabad Village in Hunza Valley, Northern Area. Flowers purple and blue, 3-4 coils on pods. Susceptible to mildew.

PI 632076. Medicago sativa L. **subsp. sativa**
Cultivated. JR-17; UT #2377; W6 14169. Collected 10/16/1985 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 2377 m. Farm seed purchase, 40 rupees/kg. Shishket Village, 130km north of Gilgit in Hunza Valley, Northern Area. "Ishpit" alfalfa plants. Plants not seen.

PI 632077. Medicago sativa L. **subsp. sativa**
Cultivated. JR-18; UT #2373; W6 14170. Collected 10/16/1985 in Pakistan. Latitude 36 deg. N. Longitude 75 deg. E. Elevation 2164 m. Field margin, fields irrigated. Ganish Village, 120km north of Gilgit. On Karakorum Highway, Northern Area.

PI 632078. Medicago sativa L. **subsp. sativa**
Cultivated. JR-19; UT #2380; W6 14171. Collected 10/16/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 2134 m. Field margin. Jafarabad Village, north of Gilgit in Hunza Valley along Karakorum Highway, Northern Area.

PI 632079. Medicago sativa L. **subsp. sativa**
Cultivated. JR-21; UT #2381; W6 14172. Collected 10/16/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1615 m. Irrigated field border, Rahimabad Village, 35km north of Gilgit on Karakorum Highway, Northern Area.

PI 632080. Medicago sativa L. **subsp. sativa**
Cultivated. JR-22; UT #2378; W6 14173. Collected 10/16/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Market purchase in Gilgit. Grown in Punyal Valley (Gilgit area), Northern Area. Plants not seen. Large quantity of seed available. Must be many seed lots blended and cleaned. Should be very representative of alfalfa in the Punyal Valley. "Local" or "Desi" type.

PI 632081. Medicago sativa L. **subsp. sativa**
Cultivated. JR-32; UT #2371; W6 14174. Collected 10/17/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 2377 m. Mid-Naltar Valley (area protected from grazing), 42km northwest of Gilgit, Northern Area. Tall robust alfalfa, excellent seed production.

PI 632082. Medicago sativa L. **subsp. sativa**

Cultivated. JR-36; UT #2384; W6 14175. Collected 10/17/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1920 m. Abandoned field overgrown with weeds. Lower Naltar Valley, 37km northwest of Gilgit, Northern Area. Flowers purple and blue.

PI 632083. Medicago sativa L. **subsp. sativa**
Cultivated. JR-37; UT #2386; W6 14176. Collected 10/18/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1463 m. Heavily grazed area. Danyore Village, 9km east of Gilgit, Northern Area.

PI 632084. Medicago sativa L. **subsp. sativa**
Cultivated. JR-38; UT #2385; W6 14177. Collected 10/18/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1463 m. In forestry nursery, Jalalabad Village, east of Gilgit, Northern Area. Stems 1m long, dark blue flowers, badly diseased with rust. Only a few plants with many seeds.

PI 632085. Medicago sativa L. **subsp. sativa**
Cultivated. JR-39; UT #2374; W6 14178. Collected 10/18/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1524 m. 5-year-old stand, irrigated. 3km northwest of Gilgit toward Naltar Valley on road to Nomal, Northern Area.

PI 632086. Medicago sativa L. **subsp. sativa**
Cultivated. JR-41; UT #2376; W6 14179. Collected 10/18/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1676 m. Upper Busin Village, 15km west of Gilgit, Northern Area.

PI 632087. Medicago sativa L. **subsp. sativa**
Cultivated. JR-42; UT #2372; W6 14180. Collected 10/19/1985 in Pakistan. Latitude 36 deg. N. Longitude 74 deg. E. Elevation 1463 m. Field grazed by cattle. Pari Village, 25km southeast of Gilgit, Northern Area. Seed obtained from farmer, only small quantity available. Very tap-rooted with old plants having roots 5cm diameter at 5cm below crown.

PI 632088. Medicago sativa L. **subsp. sativa**
Cultivated. JR-43; UT #2383; W6 14181. Collected 10/19/1985 in Pakistan. Latitude 35 deg. N. Longitude 74 deg. E. Elevation 1311 m. 5-year-old stand. Jallipur Village, 42km south of Juglote towards Chilas on Karakorum Highway, Northern Area.

PI 632089. Medicago sativa L. **subsp. sativa**
Cultivated. JR-44; UT #2382; W6 14182. Collected 10/19/1985 in Pakistan. Latitude 35 deg. N. Longitude 74 deg. E. Market purchase, 0.5kg for 125 rupees. Gonar Farm, 30km north of Chilas on Karakorum Highway, Northern Area. "Local" alfalfa.

The following were collected by Carl S. Hoveland, University of Georgia, College of Agric. & Environmental Sci., Department of Crop and Soil Sciences, Athens, Georgia 30602-7272, United States; Ray R. Smith. Donated by Richard R. Smith, USDA, ARS, U.S. Dairy Forage Research Center, University of Wisconsin, Madison, Wisconsin 53706, United States. Received 12/30/1993.

PI 632090. Medicago sativa L. **subsp. sativa**
Wild. 93-35; W6 15068. Collected 08/04/1993 in Georgia. Latitude 41 deg. 37' N. Longitude 46 deg. 0' E. Elevation 400 m. Mountain slope near

Tznori, a village near Signachi in eastern Georgia. Rainfall 450mm. Soil pH 8.0. Associated with mixed grasses, annual medics, and herbaceous weeds.

PI 632091. Medicago sativa L. **subsp. sativa**
Wild. 93-44; W6 15069. Collected 08/04/1993 in Georgia. Latitude 41 deg. 40' N. Longitude 45 deg. 50' E. Elevation 650 m. Flat fenced grazed pasture with thick bermudagrass (Cynodon dactylon) sod with abundant alfalfa and red clover (not planted according to farmer who had pasture). About 1km south of Gurjani. Rainfall 650mm. Soil pH 6.0. Nearby cemetery of bermudagrass also contained considerable alfalfa.

PI 632092. Medicago sativa L. **subsp. sativa**
Wild. 93-47; W6 15070. Collected 08/04/1993 in Georgia. Latitude 41 deg. 40' N. Longitude 45 deg. 50' E. Elevation 650 m. Rolling topography on extensive grounds of health resort in city of Gurjani. Rainfall 650mm. Soil pH 6.0. Associated with mixed Andropogon and coool season grasses, annual medics, and birdsfoot trefoil.

PI 632093. Medicago sativa L. **subsp. sativa**
Wild. 93-53; W6 15071. Collected 08/05/1993 in Georgia. Latitude 41 deg. 50' N. Longitude 45 deg. 35' E. Elevation 600 m. Flat topography on roadside near winery at Tsinandali. Rainfall 600mm. Soil pH 5.5. Associated with mixed grasses, alfalfa rare.

PI 632094. Medicago sativa L. **subsp. sativa**
Wild. 93-55; W6 15072. Collected 08/05/1993 in Georgia. Latitude 41 deg. 50' N. Longitude 45 deg. 35' E. Elevation 600 m. Flat topography on roadside near winery at Tsinandali. Rainfall 600mm. Soil pH 5.5. Associated with mixed grasses, alfalfa rare.

PI 632095. Medicago sativa L. **subsp. sativa**
Wild. 93-56; W6 15073. Collected 08/05/1993 in Georgia. Latitude 41 deg. 54' N. Longitude 45 deg. 25' E. Elevation 1000 m. Rolling topography about 2km northwest of Telavi. Rainfall 600mm. Soil pH 6.0. Associated with overgrazed sparse dry grasses and broadleaf weeds. Alfalfa found in fence row.

PI 632096. Medicago sativa L. **subsp. sativa**
Wild. 93-77; W6 15074. Collected 08/06/1993 in Georgia. Latitude 42 deg. 5' N. Longitude 44 deg. 40' E. Elevation 700 m. Flat roadside near Dusheti north of Tbilisi. Rainfall 550mm. Soil pH 7.5. Associated with heavily grazed bermudagrass with occasional alfalfa, cool season grasses, and clovers.

PI 632097. Medicago sativa L. **subsp. sativa**
Wild. 93-112; W6 15077. Collected 09/1993 in Georgia. Latitude 42 deg. 48' N. Longitude 44 deg. 39' E. Elevation 1850 m. Grazed mountain meadow near Botanical Station, Kasbegi, in extreme north of Georgia. Rainfall 1400mm. Soil pH 4.8. Associated with clovers (T. ambiguum, T. canescens, T. medium, T. repens), Lotus, occasional alfalfa, and cool season grasses.

PI 632098. Medicago sativa L. **subsp. sativa**
Wild. 93-113; W6 15078. Collected 09/1993 in Georgia. Latitude 42 deg. 48' N. Longitude 44 deg. 39' E. Elevation 1850 m. Grazed mountain meadow near Botanical Station, Kasbegi, in extreme north of Georgia. Rainfall

1400mm. Soil pH 4.8. Associated with clovers (T. ambiguum, T. canescens, T. medium, T. repens), Lotus, occasional alfalfa, and cool season grasses.

The following were developed by James B. Moutray, ABI Alfalfa, Route 3, Ames, Iowa 50010, United States. Received 1980.

PI 632099. Medicago sativa L. **subsp. sativa**
Cultivar. "VANGARD"; LOT 457; NSL 108301. CV-111; PVP 7600024. Pedigree - 77-clone synthetic with parentage tracing to 1) Beltsville releases (85%) MSA-CW3-AN3 and MSB-CW5-AN3; and 2) cultivars (15%) Kanza, Cody, and Dawson. Adapted to the central midwest and mid-Atlantic U.S. for hay, greenchop and dehydration purposes. Flower colors are varying shades of purple with low percentage of blue and 1% cream. Growth habit is upright and moderately uniform. Resistant to bacterial wilt and anthracnose. Susceptible to Phytophthora root rot. Reaction to spotted alfalfa aphid, pea aphid and stem nematode has not been determined.

The following were collected by R.P. Murphy, Cornell University, Dept. of Plant Breeding and Biometry, Ithaca, New York 14853, United States. Received 04/13/1979.

PI 632100. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 3063; W6 16375. Collected in Chile.

PI 632101. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 4450; W6 16376. Collected in Chile.

PI 632102. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 4674; W6 16377. Collected in Chile.

PI 632103. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5074; W6 16378. Collected in Chile.

PI 632104. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5102; W6 16379. Collected in Chile.

PI 632105. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5895; W6 16380. Collected in Chile.

PI 632106. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5949; W6 16381. Collected in Chile.

PI 632107. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5857; W6 16349. Collected in Chile.

PI 632108. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5858; W6 16350. Collected in Chile.

PI 632109. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5860; W6 16352. Collected in Chile.

PI 632110. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5861; W6 16353. Collected in Chile.

PI 632111. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5862; W6 16354. Collected in Chile.

PI 632112. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5863; W6 16355. Collected in Chile.

PI 632113. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5865; W6 16357. Collected in Chile.

PI 632114. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5867; W6 16359. Collected in Chile.

PI 632115. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5868; W6 16360. Collected in Chile.

PI 632116. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5871; W6 16362. Collected in Chile.

PI 632117. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5872; W6 16363. Collected in Chile.

PI 632118. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5873; W6 16364. Collected in Chile.

PI 632119. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5876; W6 16367. Collected in Chile.

PI 632120. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5877; W6 16368. Collected in Chile.

PI 632121. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5878-1; W6 16369. Collected in Chile.

PI 632122. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5878-2; W6 16370. Collected in Chile.

PI 632123. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5878-3; W6 16371. Collected in Chile.

PI 632124. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5839; W6 16374. Collected in Chile.

PI 632125. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5822; W6 16317. Collected in Chile.

PI 632126. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5823; W6 16318. Collected in Chile.

PI 632127. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5825; W6 16320. Collected in Chile.

PI 632128. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5826; W6 16321. Collected in Chile.

PI 632129. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5828; W6 16323. Collected in Chile.

PI 632130. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5829; W6 16324. Collected in Chile.

PI 632131. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5830; W6 16325. Collected in Chile.

PI 632132. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5832; W6 16327. Collected in Chile.

PI 632133. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5834; W6 16329. Collected in Chile.

PI 632134. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5835; W6 16330. Collected in Chile.

PI 632135. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5837; W6 16331. Collected in Chile.

PI 632136. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5842; W6 16334. Collected in Chile.

PI 632137. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5843; W6 16335. Collected in Chile.

PI 632138. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5844; W6 16336. Collected in Chile.

PI 632139. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5846; W6 16338. Collected in Chile.

PI 632140. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5847; W6 16339. Collected in Chile.

PI 632141. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5852; W6 16344. Collected in Chile.

PI 632142. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5854; W6 16346. Collected in Chile.

PI 632143. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5801; W6 16301. Collected in Chile.

PI 632144. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5802; W6 16302. Collected in Chile.

PI 632145. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5803; W6 16303. Collected in Chile.

PI 632146. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5804; W6 16304. Collected in Chile.

PI 632147. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5805; W6 16305. Collected in Chile.

PI 632148. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5806; W6 16306. Collected in Chile.

PI 632149. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5810; W6 16307. Collected in Chile.

PI 632150. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5811; W6 16308. Collected in Chile.

PI 632151. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5812; W6 16309. Collected in Chile.

PI 632152. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5813; W6 16310. Collected in Chile.

PI 632153. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5814; W6 16311. Collected in Chile.

PI 632154. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5815; W6 16312. Collected in Chile.

PI 632155. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5816; W6 16313. Collected in Chile.

PI 632156. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5817; W6 16314. Collected in Chile.

PI 632157. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5819; W6 16315. Collected in Chile.

PI 632158. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5845; W6 16337. Collected in Chile.

PI 632159. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5848; W6 16340. Collected in Chile.

PI 632160. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5850; W6 16342. Collected in Chile.

PI 632161. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5853; W6 16345. Collected in Chile.

PI 632162. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5856; W6 16348. Collected in Chile.

PI 632163. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5866; W6 16358. Collected in Chile.

PI 632164. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5874; W6 16365. Collected in Chile.

PI 632165. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5879; W6 16372. Collected in Chile.

PI 632166. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5824; W6 16319. Collected in Chile.

PI 632167. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5831; W6 16326. Collected in Chile.

PI 632168. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5841; W6 16333. Collected in Chile.

PI 632169. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5851; W6 16343. Collected in Chile.

PI 632170. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5859; W6 16351. Collected in Chile.

PI 632171. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5870; W6 16361. Collected in Chile.

PI 632172. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5880; W6 16373. Collected in Chile.

PI 632173. Medicago sativa L. **subsp. sativa**
Cultivated. P.F. 5821; W6 16316. Collected in Chile.

The following were collected by Danny Mowrey, USDA, ARS, Forage and Livestock Research Laboratory, P.O. Box 1199, El Reno, Oklahoma 73036, United States; T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; Larry R. Teuber, University of California, Department of Agronomy & Range Science, One Shields Avenue, Davis, California 95616-8515, United States. Donated by Larry R. Teuber, University of California, Department of Agronomy & Range Science, One Shields Avenue, Davis, California 95616-8515, United States. Received 02/03/1992.

PI 632174. Medicago ruthenica (L.) Trautv.
Wild. CTM 25; W6 9885. Collected 08/27/1991 in Nei Monggol, China. Latitude 40 deg. 43' N. Longitude 111 deg. 50' E. Elevation 282 m. Sandy loam, few stones. 20 SE of Hohhot, Grassland Res. Inst. Exp. Sta. Associated with Setaria sp., Populus sp., Digiteria sp.

PI 632175. Medicago ruthenica (L.) Trautv.
Wild. CTM 26; W6 9886. Collected 08/27/1991 in Nei Monggol, China. Latitude 40 deg. 43' N. Longitude 111 deg. 50' E. Elevation 282 m. Sandy loam, few stones. 20 SE of Hohhot, Grassland Res. Inst. Exp. Sta. Associated with Setaria sp., Populus sp., Digiteria sp.

PI 632176. Medicago ruthenica (L.) Trautv.
Wild. CTM 27; W6 9887. Collected 08/27/1991 in Nei Monggol, China. Latitude 40 deg. 43' N. Longitude 111 deg. 50' E. Elevation 282 m. Sandy loam, few stones, pH 7.4. Full sun, 0 slope. Along main road at entrance to Exp. Sta. Near Zea mays field. Surrounded by many popular trees. Sparse understory vegetation. 20 SE of Hohhot, Grassland Res. Inst. Exp. Sta. Associated with Artemisia sp., Setaria sp., Digiteria sp. Few plants sampled. 2 M. ruthenica/m.

PI 632177. Medicago ruthenica (L.) Trautv.
Wild. CTM 28; W6 9888. Collected 08/28/1991 in Nei Monggol, China. Latitude 43 deg. 52' N. Longitude 116 deg. 5' E. Elevation 975 m. Sandy-clay loam, few stones, good drainage, pH 6.8. Full sun, 5 deg. slope, 10 deg. aspect. Coarse surface with abundant pumice outcroppings. 40% ground cover. N of HW marker 207, 10-15km S of Xlinhot. Plants very small, procumbent. Associated with Stipa sp., Agrostis sp., Setaria sp.

10 plants sampled. Slightly rolling, volcanic region on Mongolian Plateau. Extinct volcano cones nearby. 1 M. ruthenica/m.

PI 632178. Medicago ruthenica (L.) Trautv.
Wild. CTM 29; W6 9889. Collected 08/28/1991 in Nei Monggol, China. Latitude 43 deg. 28' N. Longitude 116 deg. 5' E. Elevation 1264 m. Slightly rolling area on Mongolian Plateau. Sand loam, few stones, good drainage, pH 6.6. Full sun, 5 deg. slope, 320 deg. aspect. Grassland with little grazing. 80% ground cover. Est. 2000kg/ha biomass. 50km S of Xlinhot, Hutan Lan. Plants very vigorous, upright perhaps as a response to good fertility. Pods quite large. Associated with Agropyron cristatum, Astragalus adsurgens, Quercus sp., Leymus chinensis, Artemisia sp. 100 plants sampled. 2 M. ruthenica/m.

PI 632179. Medicago ruthenica (L.) Trautv.
Wild. CTM 33; W6 9893. Collected 08/29/1991 in Nei Monggol, China. Latitude 44 deg. 20' N. Longitude 115 deg. 50' E. Elevation 807 m. Rolling area on Mongolian Plateau. Sandy-clay loam, few stones, good drainage, pH 6.4. Full sun, 3 deg. slope, 260 deg. aspect. Grassland in enclosure (less grazing). 30% ground cover. Most coll. in drainage way. 52km N of Xlinhot. Plants procumbent, moderately upright. Associated with Achnatherum sp., Agropyron cristatum, Stipa sp., Leymus chinensis, Artemisia sp. Few plants sampled. 0.5 M. ruthenica/m.

PI 632180. Medicago ruthenica (L.) Trautv.
Wild. CTM 34; W6 9894. Collected 08/29/1991 in Nei Monggol, China. Latitude 44 deg. 20' N. Longitude 115 deg. 50' E. Elevation 875 m. Rolling area on Mongolian Plateau. Sandy-clay loam, few stones, good drainage, pH 7.6. Full sun, 0 slope. Grassland inside enclosure (less grazing). 40% grazing. 52km N of [G [Xlinhot. Plants procumbent. Associated with Achnatherum sp., Stipa sp., Agropyron cristatum. Few plants sampled. 0.5 M. ruthenica/m.

PI 632181. Medicago ruthenica (L.) Trautv.
Wild. CTM 36; W6 9896. Collected 08/29/1991 in Nei Monggol, China. Latitude 44 deg. 20' N. Longitude 115 deg. 50' E. Elevation 853 m. Rolling area on Mongolian Plateau. Sandy-clay loam, few stones, good drainage, pH 7.3. Very dry in enclosure but heavily grazed. Many plants along old road. 20% ground cover. Est. 300 kg/ha biomass. 52km N of Xlinhot. Plants procumbent. Associated with Agropyron cristatum, Leymus chinensis, Achnatherum sp. Few plants sampled. 0.5 M. ruthenica/m.

PI 632182. Medicago ruthenica (L.) Trautv.
Wild. CTM 37; W6 9897. Collected 08/29/1991 in Nei Monggol, China. Latitude 44 deg. 20' N. Longitude 115 deg. 50' E. Elevation 853 m. Rolling area on Mongolian Plateau. Sandy-clay loam, few stones, good drainage, pH 7.2. Full sun, 5 deg. slope, 160 deg. aspect. Some grazing. In drainage area. 35% ground cover. 52 km N of Xlinhot. Plants procumbent. Associated with Stipa sp., Leymus chinensis, Agropyron cristatum, Artemisia sp., Agropyron mongolicum, Achnatherum sp. Few plants sampled. 1 M. ruthenica/m.

PI 632183. Medicago ruthenica (L.) Trautv.
Wild. CTM 40; W6 9900. Collected 08/30/1991 in Nei Monggol, China. Latitude 43 deg. 53' N. Longitude 116 deg. 20' E. Elevation 1188 m. Hilly area on Mongolian Plateau. Sandy loam, many stones, good drainage, pH 6.5. Full sun, 50 deg. slope, 50 deg. aspect. Grassland with large,

rolling hills. Near crest of hill. Exposu ure to wind. 30% ground cover. 40km SE of Xli. Plants procumbent. Associated with Stipa sp. Achnatherum sp., Caragana intramongolica, Leymus chinensis. Few plants sampled. 1 M. ruthenica/m.

PI 632184. Medicago ruthenica (L.) Trautv.
Wild. CTM 41; W6 9901. Collected 08/30/1991 in Nei Monggol, China. Latitude 43 deg. 53' N. Longitude 116 deg. 20' E. Elevation 1158 m. Hilly area on Mongolian Plateau. Sandy loam, few stones, good drainage, pH 6.4. Full sun, 45 deg. slope, 65 deg. aspect. Grassland with large rolling hills. Bottom of hill. Exposed to wind. 30% ground cover. 40Km SE of Xlinhot. Plants procumbent. Associated with Stipa sp., Leymus sp., M. sativa sub. sativa and falcata. Few plants sampled. 2 M. ruthenica/m.

PI 632185. Medicago ruthenica (L.) Trautv.
Wild. CTM 44; W6 9904. Collected 08/30/1991 in Nei Monggol, China. Latitude 43 deg. 53' N. Longitude 116 deg. 20' E. Elevation 1143 m. Hilly area on Mongolian Plateau. Sandy loam, few stones, good drainage, pH 6.4. Full sun, 3 deg. slope, 140 deg. aspect. Grassland with large rolling hills. On crest of hill, some grazing. 70% ground cover. 40km SE of Xlinhot. Plants procumbent to upright. Exposed to wind. Associated with Stipa sp., Agropyron cristatum, Artemisia sp. 20 plants sampled. 4 M. ruthenica/m.

PI 632186. Medicago ruthenica (L.) Trautv.
Wild. CTM 48; W6 9908. Collected 08/31/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1175 m. Rolling area on Mongolian Plateau. Sand, few stones, good drainage, pH 6.8. Full sun, 0-30 deg. slope, 180 deg. aspect. Grassland with large dunes. Very dry sandy area. 10% ground cover. Ecological reserve 75km SE of Xlinhot. Few plants, procumbent. Associated with Agropyron cristatum, Artemisia sp., Stipa sp. 10 plants sampled. .5 M. ruthenica/m .

PI 632187. Medicago ruthenica (L.) Trautv.
Wild. CTM 49; W6 9909. Collected 08/31/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1175 m. Rolling area on Mongolian Plateau. Sand, few stones, good drainage, pH 6.7. Full sun, 60 deg. slope, 10 deg. aspect. Grassland with large dunes. Very dry sandy area side & top of dune. 30% ground cover. Ecological res.75km SE of Xlinhot. Few plants, procumbent. Associated with Stipa sp., Agropyron cristatum, Agrostis sp., Unidentified shrubs. 10 plants sampled. 1 M. ruthenica/m.

PI 632188. Medicago ruthenica (L.) Trautv.
Wild. CTM 52; W6 9912. Collected 08/31/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1190 m. Rolling area on Mongolian Plateau. Sand, few stones, good drainage, pH 6.7. Full sun, 0-40 deg. slope, 250 deg. aspect. Grassland with large dunes. Very dry sandy area. 20% ground cover. Ecological reserve 75km SE of Xlinhot. Plants upright to procumbent, some vigorous. Associated with Stipa sp., Artemisia sp. 40 plants sampled. 200 kg/ha biomass. .5 M. ruthenica/m.

PI 632189. Medicago ruthenica (L.) Trautv.
Wild. CTM 53; W6 9913. Collected 08/31/1991 in Nei Monggol, China.

Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1200 m. Rolling area on Mongolian Plateau. Sand, few stones, good drainage, pH 6.7. Full sun, 40 deg. slope, 170 deg. aspect. Grassland with large dunes. Very dry sandy area. Face of dune. 15% ground cover. Ecological res. 75km SE of Xlinhot. Some plants exhibited yellowing, very few were vigorous. Associated with Artemisia sp., Stipa sp., Agropyron cristatum. Few shrubs present. 20 plants sampled. .2 M. ruthenica/m.

PI 632190. Medicago ruthenica (L.) Trautv.
Wild. CTM 55; W6 9915. Collected 09/01/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1089 m. Rolling area on Mongolian Plateau. Sandy loam, few stones, good drainage. Full sun, 30 deg. slope, 40 deg. aspect. 10km S of headquarters. Lush grassland, fenced. Near top of hill. 70% ground cover. Ecological reserve 75km SE of Xlinhot. Some plants vigorous, very little leaf damage. Associated with Stipa sp., Allium sp., Artemisia sp. 30 plants sampled. Estimated 1200 kg/ha biomass. 1 M. ruthenica/m.

PI 632191. Medicago ruthenica (L.) Trautv.
Wild. CTM 58; W6 9918. Collected 09/01/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Rolling area on Mongolian Plateau. Sandy loam, few stones, good drainage. Full sun, 3 deg. slope. 10km S of headquarters. Grassland, some grazing. 70% ground cover. Ecological reserve 75km SE of Xlinhot. Some plants fairly vigorous. Associated with Stipa sp., Agropyron cristatum, Artemisia sp., Potentilla sp., Leymus chinensis. 50 plants sampled. .l M. ruthenica/m.

PI 632192. Medicago ruthenica (L.) Trautv.
Wild. CTM 59; W6 9919. Collected 09/01/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1127 m. Rolling area on Mongolian Plateau. Sandy loam, some stones, good drainage, pH 7.4. Full sun, 10 deg. slope, 50 deg. aspect. 10km S of headquarters. Grassland, some grazing. 70% ground cover. Ecological reserve 75km SE of Xlinhot. Plants procumbent to semi-erect, dark green, little insect feeding. Very dry, 1 km from large hill. Associated with Stipa sp., Agropyron cristatum, Artemisia sp., Astragalus adsurgens. 50 plants sampled. .2 M. ruthenica/m.

PI 632193. Medicago ruthenica (L.) Trautv.
Wild. CTM 61; W6 9921. Collected 09/01/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1158 m. Rolling area on Mongolian Plateau. Sandy loam, some stones, good drainage, pH 6.9. Full sun, 50 deg. slope, 140 deg. aspect. 10km S of headquarters. Grassland, grazing. Steep hillside. 60% ground cover. Ecological res. 75km SE Xlinhot. Plants procumbent to semi-erect, dark green. Associated with Stipa sp., Agropyron cristatum. 60 plants sampled. Pumice very evident. .2 M. ruthenica/m.

PI 632194. Medicago ruthenica (L.) Trautv.
Wild. CTM 66; W6 9926. Collected 09/02/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1028 m. Rolling area on Mongolian Plateau. Sandy loam, some stones, good drainage, pH 6.7. Full sun, 10 deg. slope, 100 deg. aspect. 20km SW of headquarters. Grassland, grazed. 50% ground cover. Ecological reserve 75km SE of Xlinhot. Plants generall procumbent, some semi-upright, few vigorous. Associated with Stipa sp., Agropyron cristatum, Artemisia sp.,

Leymus chinensis, Ambrosia sp., Allium sp. Some pumice present. At change of slope at entrance to valley. stimated 1000 kg/ha biomass. 100 plants sampled. .2 M. ruthenica/m.

PI 632195. Medicago ruthenica (L.) Trautv.
Wild. CTM 73; W6 9933. Collected 09/03/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1341 m. Rolling area on Mongolian Plateau. Sandy loam, few stones, good drainage, pH 6.4. Full sun to shade, 10 deg. slope, 0 aspect. Near Shan Ya forest, 10km NE of headquarters. Top of hill. Ecological reserve 75km SE of Xlinhot. Some plants unusually vigorous. Many plants found at edge of poplar (Populus sp.) stand. 700 kg/ha biomass. 40% ground cover. Associated with Polygonum viviparum, Stipa sp., Agropyron cristatum, Caragana intramongolica. 20 plants sampled.

PI 632196. Medicago ruthenica (L.) Trautv.
Wild. CTM 75; W6 9935. Collected 09/03/1991 in Nei Monggol, China. Latitude 43 deg. 35' N. Longitude 116 deg. 15' E. Elevation 1341 m. Rolling area on Mongolian Plateau. Sandy soil, few stones, good drainage, pH 6.4. Full sun to par. shade, 0-20 deg. slope, south aspect. Near Shan Ya forest, 10km NE of headquarters. Ecological reserve 75km SE of Xlinhot. Most seeds from very vigorous plants in shade with unusually large pods. On top and sides of hill. Very dry with sparse to moderate vegetation, but many poplar (Populus sp.) trees scattered around population. 25% ground cover. Estimated 500 kg/ha biomass. Associated wtih Artemisia sp., Stipa sp., Agropyron cristatum, Allium sp., Polygonum viviparum, Ambrosia sp. 25 plants sampled.

PI 632197. Medicago ruthenica (L.) Trautv.
Wild. CTM 83; W6 9943. Collected 09/06/1991 in Nei Monggol, China. Latitude 43 deg. 58' N. Longitude 115 deg. 55' E. Elevation 975 m. Rolling grassland surrounded by mountains. Sandy soil, many stones, good drainage, pH 7.2. Full sun, 0-50 deg. slope, 360 deg. aspect. Top of hill and on steep bank. Moderate to sparse vegetation. Yue Jin Su (Xi-XR), 25km W of Xlinhot. Plants small, procumbent. Very few vigorous plants. Many large pumice outcroppings. 40% ground cover. Associated with Achnatherum sp., Artemisia sp. 75 plants sampled.

PI 632198. Medicago ruthenica (L.) Trautv.
Wild. CTM 84; W6 9944. Collected 09/06/1991 in Nei Monggol, China. Latitude 43 deg. 58' N. Longitude 115 deg. 30' E. Elevation 1051 m. Rolling grassland surrounded by mountains. Sandy loam, few stones, good drainage, pH 6.5. Full sun, 10 deg. slope, 130 deg. aspect. Moderately vegetated, grazed, very dry. 30% ground cover. Bai Da Huag, 45km W of Xlinhot. Plants small, upright, some damage. Few seeds found. 30% ground cover. 50 plants sampled.

PI 632199. Medicago ruthenica (L.) Trautv.
Wild. CTM 85; W6 9945. Collected 09/06/1991 in Nei Monggol, China. Latitude 43 deg. 58' N. Longitude 115 deg. 30' E. Elevation 1066 m. Rolling grassland surrounded by mountains. Sandy loam, few stones, good drainage, pH 6.5. Full sun, 5 deg. slope, 40 deg. aspect. Near mowed area, grazed, moderate vegetation. 20% ground cover. Bai Da Huag, 45km W of Xlinhot. Plants small, upright. Few seeds found. 50 plants sampled.

PI 632200. Medicago ruthenica (L.) Trautv.
Wild. CTM 96; W6 9956. Collected 09/12/1991 in Nei Monggol, China.

Latitude 41 deg. 53' N. Longitude 111 deg. 25' E. Elevation 1493 m. Rolling plateau. Sandy soil, few stones, good drainage, pH 6.8. Full sun, 10 deg. slope, 360 deg. aspect. Pasture, 1km NW of main road, surrounded by electric fence. Moderate vegetation and grazing. Zouhe, 78km N of Hohhot. Plants procumbent, most seed lost. 25% ground cover. Very dry. Estimated 200 kg/ha biomass. Associated with Agropyron cristatum, Agropyron mongolicum, Stipa sp., Potentilla sp., Artemisia sp. 50 plants sampled. .5 M. ruthenica/m.

PI 632201. Medicago ruthenica (L.) Trautv.
Wild. CTM 99; W6 9959. Collected 09/13/1991 in Nei Monggol, China. Latitude 41 deg. 53' N. Longitude 111 deg. 25' E. Elevation 1447 m. Rolling plateau. Sandy soil, few stones, good drainage, pH 6.8. Full sun, 3 deg. slope. 5km NE of Four Group of Zouhe Temple. Bottom of hill in area with tall grass. Collection made in low swale, 78km N of Hohhot. Some plants upright with good seed retention. 40% ground cover. Associated with Achnatherum sp., Agropyron cristatum, Agropyron mongolicum, Stipa sp., Potentilla sp., Artemisia sp. 200 kg/ha biomass. 25 plants sampled. .3 M. rutherica/m.

PI 632202. Medicago ruthenica (L.) Trautv.
Wild. CTM 102; W6 9962. Collected 09/14/1991 in Nei Monggol, China. Latitude 40 deg. 40' N. Longitude 111 deg. 15' E. Elevation 868 m. Fairly flat inter-mountain area. Sandy loam, few stones, good drainage, pH 7.2. Full sun, flat. Farm land, collection made in ditches and along planted fields. Moderate vegetation. Che Yan Sunn, 22km W of Hohhot & 6km S of Hu Bao. Plants procumbent. 20% ground cover. Associated with Setaria sp., Artemisia sp., Unidentified forbs. 20 plants sampled. .2 M. ruthenica/m.

PI 632203. Medicago ruthenica (L.) Trautv.
Wild. CTM 103; W6 9963. Collected 09/14/1991 in Nei Monggol, China. Latitude 40 deg. 40' N. Longitude 111 deg. 15' E. Elevation 868 m. Fairly flat inter-mountain area. Sandy loam, few stones, good drainage, pH 7.2. Full sun, flat. Farm land, collection made along ditch. Moderate vegetation. Che Yan Sunn, 22km W of Hohhot and 6km S of Hu Bao. Seed quality poor. 20% ground cover. Associated with Setaria sp., Artemisia sp., Unidentified forbs. 75 plants sampled. .2 M. ruthenica/m.

PI 632204. Medicago ruthenica (L.) Trautv.
Wild. CTM 106; W6 9966. Collected 09/01/1991 in Nei Monggol, China.

The following were donated by Su Jia Kai, Chinese Academy of Agricultural Science, Head of the Forage Science Department, Animal Scince Institute, Beijing, Beijing 100094, China. Received 12/04/1992.

PI 632205. Medicago ruthenica (L.) Trautv.
Uncertain. W6 11148.

PI 632206. Medicago ruthenica (L.) Trautv.
Uncertain. W6 11149.

PI 632207. Medicago ruthenica (L.) Trautv.
Uncertain. W6 11150.

PI 632208. Medicago ruthenica (L.) Trautv.

Uncertain. W6 11151.

PI 632209. Medicago ruthenica (L.) Trautv.
Uncertain. W6 11152.

Unknown source. Received 07/06/1939.

PI 632210. Trifolium pratense L.
G 12463. Collected in Canada.

Unknown source. Received 07/06/1939.

PI 632211. Trifolium pratense L.
G 19152.

Unknown source. Received 07/06/1939.

PI 632212. Trifolium pratense L.
G 20595.

Unknown source. Received 07/06/1939.

PI 632213. Trifolium pratense L.
G 20600.

Unknown source. Received 07/06/1939.

PI 632214. Trifolium pratense L.
G 21245.

Unknown source. Received 07/06/1939.

PI 632215. Trifolium pratense L.
G 21633.

Unknown source. Received 07/06/1939.

PI 632216. Trifolium pratense L.
G 21640.

Unknown source. Received 07/06/1939.

PI 632217. Trifolium pratense L.
G 24486. Collected in Norway.

Unknown source. Received 07/06/1939.

PI 632218. Trifolium pratense L.

G 24510.

Unknown source. Received 07/06/1939.

PI 632219. Trifolium pratense L.
G 24513.

Unknown source. Received 07/06/1939.

PI 632220. Trifolium pratense L.
G 24515.

The following were developed by National Agricultural Research Centre, Pakistan Agricultural Research Council, P.O. National Health Laboratories, Islamabad, Pakistan; Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Donated by Robert J. Metzger, 2655 NW Highland Dr., #99, Corvallis, Oregon 97330, United States. Received 09/05/1989.

PI 632221. Trifolium pratense L.
86PK1273-002; W6 658; G 30019. Collected 07/22/1986 in North-West Frontier, Pakistan. Latitude 36 deg. 20' N. Longitude 74 deg. 20' E. Elevation 1400 m. Village market, near Nomal, 23km north of Gilgit, Gilgit Province.

PI 632222. Trifolium pratense L.
Landrace. 86PK1277-002; W6 699; G 30020. Collected in Pakistan. Latitude 36 deg. 18' N. Longitude 74 deg. 8' E. Elevation 2040 m. Collected near Naltar Pine, 4km from Naltar Bala, north of Gilgit, Gilgit Province. Collected 07/22/1986 in North-West Frontier, Pakistan. Latitude 36 deg. 18' N. Longitude 74 deg. 8' E. Elevation 2040 m. Collected near Naltar Pine, 4km from Naltar Bala, north of Gilgit, Gilgit Province. Irrigated terraced slope, not transplanted, of medium stoniness, brown silt and sand, and good drainage. 100 plants sampled, used as fodder.

PI 632223. Trifolium pratense L.
Landrace. 86PK1317-002; W6 700; G 30021. Collected 07/30/1986 in North-West Frontier, Pakistan. Latitude 35 deg. 55' N. Longitude 74 deg. 13' E. Elevation 1320 m. Collected near Nafora Baseem, north of Gilgit, Gilgit Province. Level in irrigated, hilly, not transplanted area of brown loam, low stoniness and good drainage. A few plants and a small quanity of seed collected near irrigation ditch. Plants watered by chance.

Unknown source. Received 09/05/1989.

PI 632224. Trifolium pratense L.
Landrace. 86PK1325-007.01; W6 701; G 30022. Collected 07/31/1986 in North-West Frontier, Pakistan. Latitude 36 deg. 27' N. Longitude 73 deg. 25' E. Elevation 2260 m. Collected near Barkulti, 10km from Yasin toward Darkot, Gilgit Province. Slope in irrigated, undulating, not transplanted area of brown loam, medium stoniness and moderate drainage. Collected in wild fodder area near wheat field.

Unknown source. Received 07/06/1939.

PI 632225. Trifolium pratense L.
G 30291. Collected in Uzbekistan.

Unknown source. Received 07/06/1939.

PI 632226. Trifolium pratense L.
G 30292. Collected in Uzbekistan.

Unknown source. Received 07/06/1939.

PI 632227. Trifolium pratense L.
G 30293. Collected in Uzbekistan.

Unknown source. Received 07/06/1939.

PI 632228. Trifolium pratense L.
G 30294. Collected in Uzbekistan.

Unknown source. Received 07/06/1939.

PI 632229. Trifolium pratense L.
G 30295. Collected in Tajikistan.

Unknown source. Received 07/06/1939.

PI 632230. Trifolium pratense L.
G 30296. Collected in Tajikistan.

Unknown source. Received 07/06/1939.

PI 632231. Trifolium pratense L.
G 30297. Collected in Tajikistan.

Unknown source. Received 07/06/1939.

PI 632232. Trifolium pratense L.
G 30547. Collected in Former Soviet Union.

The following were developed by James E. Irvine, Texas A&M University System, Agricultural Experiment Station, Soil & Crop Sciences Department, Weslaco, Texas 78596-8399, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; N. Rozeff, Rio Grande Valley Sugar Growers, Inc., Santa Rosa, Texas 78593, United States; E. Hernandez, Texas A&M Research & Extension Ctr., 2415 E. Hwy 83, Weslaco, Texas 78596, United States. Received 10/18/2002.

PI 632233. Saccharum sp.
Cultivar. TCP 93-4245. CV-117. Pedigree - CP 70-321 / SP 70-1143. Higher sugar yield due to higher cane yields and a moderately high sugar content. Sugar content less than in TCP 87-3388 when harvested in September or October, but equal to or better than the early/mid-season cvs. CP 70-321 and CP 72-1210 and maintains sugar content until the end of harvest in April. Semierect cv. suitable for machine harvesting, internodes waxy, but not as much as CP 70-321. First and second-ratoon yields higher or equal to plant cane yields. Sugarcane rust (Puccinia melanocephala), leaf scald (Xanthomonas albilineans) and sorghum mosaic virus Strain H have not been observed. Resistant to ratoon stunting disease (Clavibacter xyli). Appears more resistant to Mexican rice borer (Eoreuma loftini) and sugarcane borer than Nco 310 and TCP 87-3388.

The following were developed by Robert T. Lewellen, USDA, ARS, Crop Improvement and Protection Research, 1639 E. Alisal St., Salinas, California 93905, United States; Ming H. Yu, USDA, ARS, U.S. Agricultural Research Station, 1636 East Alisal St., Salinas, California 93905, United States. Received 10/21/2002.

PI 632234. Beta vulgaris L. **subsp. vulgaris**
Breeding. M6-2. GP-237. Pedigree - Produced by inter-pollinating more than 30 plants from the 5th backcross generation progeny of hybrid between M66 (PI 586688) and sugarbeet lines, including C37 (PI 590715). From the F1BC5 generation individual plants with root-knot resistance were selected and intercrossed. Plants from this F2BC5 generation were selected and individually test crossed to a susceptible sugarbeet. Based on the result individual F2 plants that had been retained and appeared to be homozygous for resistance were inte. Multigerm, biennial, self-incompatible sugarbeet that is heterogeneous for plant type and hypocotyl color. Resistant to multiple species of root-knot nematode, including Meloidogyne incognita, M. javanica, M. arenaria, M. hapla, M. chitwoodi, and M. fallax, based on the second-stage juvenile (J2) inoculation studies.

The following were collected by Jim Ehleringer, University of Utah, Department of Biology, Salt Lake, Utah 84112, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 632235. Amaranthus palmeri S. Watson
Wild. 7745-149B; RRC 686; Ames 5370. Collected 05/01/1981 in Arizona, United States. Latitude 32 deg. 15' N. Longitude 111 deg. 0' W. Tucson. The seeds are black, flowers green, leaves shiny green. The RRC class type is: weed. It exhibited some lygus resistance and matured in the field. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

PI 632236. Amaranthus palmeri S. Watson
Wild. 7745-149F; RRC 687; Ames 5371. Collected 05/01/1981 in Arizona, United States. Latitude 32 deg. 15' N. Longitude 111 deg. 0' W. Tucson. The seeds are black, flowers green, leaves shiny green. The RRC class type is: weed. It exhibited some lygus resistance and matured in the field. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Grace's Garden Seed Co., 10 Bay Street, Westport, Connecticut 06880, United States. Received 04/15/1986.

PI 632237. Amaranthus tricolor L.
Cultivar. "Hinn Choy"; RRC 698; Ames 5376; Red Leaf. The seeds are black, leaves variegated. The RRC class type is: cultivated vegetable. 'Hin Choy' It is marked like 'tiger leaf.' There was no seed produced in the field at the RRC. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by Donald Pratt, Iowa State University, Botany Department, 353 Bessey Hall, Ames, Iowa 50011, United States. Received 10/19/2001.

PI 632238. Amaranthus acanthochiton J. D. Sauer
Wild. 209; Ames 26429. Collected 10/07/2001 in Texas, United States. Latitude 31 deg. 49' 10'' N. Longitude 106 deg. 10' 5'' W. Elevation 1243 m. Intersection of Highway 180/62 (Montana Avenue) with Desert Meadows Road, El Paso County. Sandy soil. Associated with Tidestromia, Corispermum, Malva, and Acacia.

PI 632239. Amaranthus acanthochiton J. D. Sauer
Wild. 210; Ames 26430. Collected 10/07/2001 in Texas, United States. Latitude 31 deg. 49' 30'' N. Longitude 106 deg. 7' 59'' W. Elevation 1249 m. Highway 180/62 (Montana Avenue), El Paso County. Sandy soil. Associated with Tidestromia, Artemisia, and intermixed with Amaranthus palmeri.

PI 632240. Amaranthus greggii S. Watson
Wild. 216; Ames 26433. Collected 10/10/2001 in Texas, United States. Latitude 27 deg. 37' 36'' N. Longitude 97 deg. 11' 22'' W. South end of Mustang Island, Nueces County. Dune hills of beach on windward side of island.

PI 632241. Amaranthus powellii S. Watson
Wild. 213; Ames 26434. Collected 10/08/2001 in Texas, United States. Latitude 30 deg. 42' 27'' N. Longitude 104 deg. 5' 55'' W. Elevation 1807 m. Highway 118, 0.5 mile south of picnic area, Davis Mountains, Jeff Davis County. Sandy and rocky soil of stream wash at roadside. Juniper-Oak forest.

PI 632242. Amaranthus wrightii S. Watson
Wild. 212; Ames 26436. Collected 10/08/2001 in Texas, United States. Latitude 30 deg. 37' 27'' N. Longitude 104 deg. 16' 27'' W. Elevation 1643 m. Highway 166, Davis Mountains, Jeff Davis County. Roadside wash of stream. Associated with Collection Number 211 and Amaranthus palmeri.

PI 632243. Amaranthus wrightii S. Watson
Wild. 215; Ames 26437. Collected 10/09/2001 in Texas, United States. Latitude 30 deg. 16' 10'' N. Longitude 103 deg. 33' 32'' W. Elevation 1697 m. 9 miles southeast of Alpine on Mile High Road, Brewster County.

Rocky-sandy soil. Oak-Juniper forest.

The following were collected by David Brenner, Iowa State University, Regional Plant Introduction Station, Room G212, Agronomy Building, Ames, Iowa 50011-1170, United States. Received 11/30/2001.

PI 632244. Amaranthus albus L.
Wild. DB 200125; Ames 26462. Collected 10/21/2001 in North Carolina, United States. Latitude 35 deg. 13' 39'' N. Longitude 80 deg. 50' 9'' W. Within 3 blocks of East 6th Street and North Brevard Street, Charlotte. Edges of parking lot pavement.

PI 632245. Amaranthus blitum var. pseudogracilis (Thell.) Costea
Wild. DB 200126; Ames 26463. Collected 10/21/2001 in North Carolina, United States. Latitude 35 deg. 13' 39'' N. Longitude 80 deg. 50' 9'' W. Within 3 blocks of East 6th Street and North Brevard Street, Charlotte. Fertile waste ground at edges of parking lots. Leaf blade tips notched, stems pink.

PI 632246. Amaranthus deflexus L.
Wild. DB 200127; Ames 26464. Collected 10/21/2001 in North Carolina, United States. Latitude 35 deg. 13' 39'' N. Longitude 80 deg. 50' 9'' W. Within 3 blocks of East 6th Street and North Brevard Street, Charlotte. Waste ground next to a parking lot where plants had been mowed. Plants mowed to about 15 cm tall.

PI 632247. Amaranthus hybridus L.
Wild. DB 200128; Ames 26465. Collected 10/21/2001 in North Carolina, United States. Latitude 35 deg. 13' 39'' N. Longitude 80 deg. 50' 9'' W. Within 3 blocks of East 6th Street and North Brevard Street (same location as DB 200129), Charlotte. Edges of parking lot pavement, especially next to a railroad. Associated with Amaranthus albus and A. powellii. Amaranthus hybridus is much more common than A. powellii in mixed stands. Wild, weedy plants.

PI 632248. Amaranthus spinosus L.
Wild. DB 200130; Ames 26467. Collected 10/21/2001 in North Carolina, United States. Latitude 35 deg. 13' 39'' N. Longitude 80 deg. 50' 9'' W. Within 3 blocks of East 6th Street and North Brevard Street, Charlotte. Edges of parking lot. Associated with Amaranthus hybridus. Seeds under-mature at harvest.

The following were developed by David Brenner, Iowa State University, Regional Plant Introduction Station, Room G212, Agronomy Building, Ames, Iowa 50011-1170, United States. Received 05/14/2002.

PI 632249. Amaranthus caudatus L.
Genetic. DB 2001949; Red Edulis; Ames 26847. Pedigree - Segregated from RRC 1391 (Ames 15178) as a single plant selection, in 2001. The seed lot that the selection was made from has the identification code: 90ncao01, and was planted as row 943. Inflorescence is red rather than the typical orange found on Amaranthus caudatus with this determinate "edulis" inflorescence type. 58 plants grown from original selection in Fall 2001 were also red. Seeds are white, stems have red stripes, petioles are red, and leaves are green.

The following were donated by Evergreen Y.H. Enterprises, P.O. Box 17538, Anaheim, California 92817, United States. Received 11/06/2001.

PI 632250. Perilla frutescens (L.) Britton
Cultivated. 203; Ao-Shiso; Green Leaf; Ames 26449. Developed in Japan. Annual bush plant. Grows vigorously in warm climates and produces fragrant leaves and tips. The plant has tender, flat and soft textured green leaves, that are very popular for use in Sushi. Young tips and leaves may be harvested for vegetable use at any growing stage. Plants can also be grown in containers as decoration. Average plant height is about 2 feet. Open-pollinated variety.

The following were developed by Linda Hanson, USDA-ARS, Sugarbeet Research Unit, Crops Research Lab., Fort Collins, Colorado 80526-2083, United States; Lee Panella, USDA, ARS, Crops Research Lab, Sugarbeet Research Unit, Fort Collins, Colorado 80526-2083, United States. Received 10/02/2002.

PI 632251. Beta vulgaris L.
Breeding. FC724; 19961014. GP-228. Pedigree - Originated from a cross of FC702 by selfed progeny lines from FC601/2 and selfed progeny lines from several leaf spot and the beet curly top virus (BCTV) resistant lines combined in 611100-0 (SLC122-0, US22/3, US201, US22/4, [SL92], SL202, [F2 of US35/2 x US22/41]). FC601/2 consists of selected progeny lines from SL202 x SLC122-0. Original cross was approx. 20% 611100-0, 17% FC601/2 and 63% FC702. Released 04/08/2003. O-type germplasm with 12% green hypocotyls (116 plants counted) and is segregating for monogerm (mm). Product of 9 generations of cyclic mass selection for resistance to rhizoctonia root rot and 2 cycles of recurrent selection for high general combining ability. Because the original crosses were made to male sterile plants (genetic male sterility -aa), it is possible is segregating for genetic male sterility, but no male sterile plants were observed in the last seed production (19961014). Exhibits excellent resistance to rhizoctonia root rot when tested under strong disease pressure. Also exhibits some resistance to cercospora leaf spot when tested in an artificial epiphytotic. Does not show tolerance to the beet curley top virus (BCTV).

The following were developed by Luther Talbert, Montana State University, Plant Sciences & Plant Pathology, Bozeman, Montana 59717, United States; Greg D. Kushnak, Montana State University, Western Triangle Agric. Research Center, P.O. Box 1474, Conrad, Montana 59425, United States; G.R. Carlson, Montana State University, Northern Agric. Research Center, Star Rt. 36, Havre, Montana 59501, United States; Joyce L. Eckhoff, Montana State University, Eastern Agric. Research Center, 1501 N. Central Avenue, Sidney, Montana 59270, United States; Susan P. Lanning, Montana State University, Dept. of Plant, Soil, & Env. Sciences, Bozeman, Montana 59717, United States; Robert N. Stougaard, Montana State University, Northwestern Agric. Research Center, 4570 MT Hwy 35, Kalispell, Montana 59901, United States; Ken Kephart, Montana State University, MSU Southern Ag. Research Center, 748 Railroad Highway, Huntley, Montana 59037, United States; D. Habernicht, Montana State University, Plant Sciences Dept., Bozeman, Montana 59717, United States; W.E. Grey, Montana State University, Bozeman, Montana 59717, United States. Received 10/07/2002.

PI 632252. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "OUTLOOK"; MT 9874. CV-931; PVP 200400008. Pedigree - PI 372129/2*Amidon//MT7810/MT7926. Released 2002. Hard red spring wheat with high grain yield and resistance to the Russian wheat aphid (Diuraphis noxia). Mean grain yield over a total of 29 location/years from 1999-2001 was 4891 kg ha-1, compared to 4750 for McNeal. McNeal has been the most widely grown variety in Montana from 1997-2002. Average yield over 18 dryland nurseries was 3309 kg ha-1, compared to 3238 for McNeal. Average yield at 9 irrigated sites was 7122 kg ha-1, compared to 6920 for McNeal. Mean test weight over 29 locations was 764 kg m-3, compared to 760 for McNeal. Heads approx. 0.5 days later than McNeal, which is relatively late for spring wheat cvs. grown in Montana. Plant height averages 81.2 cm over 29 locations, which is the same as McNeal. Crossing data indicates contains the Rht2 gene for semidwarf habit, as does McNeal. Grain protein over 29 locations averaged 148 g kg-1 vs 150 for McNeal. Milling and baking data from 9 locations shows flour protein 12.2 g kg-1 vs 11.9 g kg-1 for McNeal, flour yield 68.3%.

The following were developed by Jeff Pedersen, USDA, ARS, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68583-0937, United States ; John J. Toy, USDA-ARS, University of Nebraska-Lincoln, Dept. of Agronomy, Lincoln, Nebraska 68583-0937, United States. Received 10/07/2002.

PI 632253. Sorghum bicolor (L.) Moench
Breeding. RN583. GP-609. Pedigree - S8 selection from the low hydrocyanic acid (HCN)-potential population NP36. Higher grain yields than the low hydrocyanic acid (HCN)-potential check N97 at Ithaca, NE. Seedling HCN content varied from 170 ppm to 1248 ppm in three greenhouse experiments. Within individual experiments HCN content was equivalent to that of N97, and was approx. one-half the HCN content of Redlan or RTx430. Plant color purple, white seed, restores fertility in A1 cytoplasm and no pigmented testa. Averages 137 cm in ht. at Ithaca, NE, and produces hybrids 135 cm in ht. when crossed to ACK60. Average time to 50% anthesis 83 d which is equivalent to Redlan, and 6 d earlier than RTx430. A low incidence of male-sterility probably due to ms3 has been observed.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 10/16/2002.

PI 632254 PVPO. Deschampsia cespitosa (L.) P. Beauv.
Cultivar. "SHADE CHAMP". PVP 200200255.

The following were developed by California Oils Corporation, Woodland, California, United States; California Oils Corporation, Woodland, California, United States. Received 10/16/2002.

PI 632255 PVPO. Carthamus tinctorius L.
Cultivar. "S-719". PVP 200200256.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 10/16/2002.

PI 632256 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH3RC". PVP 200200257.

PI 632257 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH75K". PVP 200200258.

The following were developed by Kenneth Hignight, Advanta Seeds West, Inc., 33725 Columbus Street S.E., P.O Box 1496, Albany, Oregon 97321-0452, United States; C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, 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; Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers University, Cook College, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States; R. Stapp, Pennington Seed, Inc., P.O. Box 290, Madison, Georgia 30650, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 10/16/2002.

PI 632258. Lolium perenne L.
Cultivar. "APPLAUD". CV-231; PVP 200200259. Pedigree - Advanced generation synthetic selected from the half-sib progenies of 285 plants. Progenies of each of these plants were subjected to many cycles of phenotypic and genotypic recurrent selection in greenhouse disease screening tests, spaced-plant nurseries, and single-plant progeny turf trials. Turf-type with an attractive dark-green color, fine leaf texture, and medium-high shoot density. Showed excellent overall turf perforamnce in NTEP trials under various maintenance regimes. Exhibited very good resistance to crown rust disease and good resistance to leaf spot (Drechslera siccans), stem rust (Puccinia graminis), red thread (Laetisaria fuciformis) and dollar spot (Sclerotinia homoeocarpa) in NTEP trials.

The following were developed by NDSU Research Foundation, North Dakota, United States. Received 10/16/2002.

PI 632259 PVPO. Glycine max (L.) Merr.
Cultivar. "RG200RR". PVP 200200262.

The following were developed by University of Idaho, Bean Research Laboratory, Twin Falls, Idaho, United States. Received 10/16/2002.

PI 632260. Triticum aestivum L.
Cultivar. "ALTURAS".

PI 632261. Triticum aestivum L.
Cultivar. "MORELAND".

The following were developed by Resource Seeds, Inc., United States. Received 10/16/2002.

PI 632262 PVPO. X Triticosecale sp.
Cultivar. "2115". PVP 200200267.

PI 632263 PVPO. X Triticosecale sp.
Cultivar. "308". PVP 200200268.

PI 632264 PVPO. X Triticosecale sp.
Cultivar. "2205". PVP 200200269.

The following were developed by Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers University, Cook College, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States. Received 10/16/2002.

PI 632265. Poa pratensis L.
Cultivar. "MOONSHADOW". CV-84; PVP 200200271. Pedigree - Originated as a single, 100% apomictic plant selected from the progeny of a cross between a highly sexual maternal plant, identified as an aberrant derivative of H86-974, pollinated by C-74. Color medium dark-green, low growth habit, fine leaves and medium-high shoot density. Performed very well in most areas of Kentucky bluegrass adaptation in the U.S. Good resistance to leaf spot and melting out (Dreshclera poae), powdery mildew (Erysiphe graminis), stem rust (Puccinia graminis), and stripe smut (Ustilago striiformis) diseases. Exhibits poor color during winter months. Acceptable performance under simulated fairway conditions in New Jersey, which included a cutting height of 1.74 cm, traffice stress and Poa annua competition.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 10/16/2002.

PI 632266 PVPO. Zea mays L. **subsp. mays**
Cultivar. "PH6MN". PVP 200200272.

The following were developed by Enza Zaden De Enkhuizer Zaadhandel B.V., Enkhuizen, North Holland, Netherlands. Received 10/16/2002.

PI 632267 PVPO. Lactuca sativa L.
Cultivar. "SLUGGER". PVP 200200273.

The following were developed by Syngenta Seeds, Inc., United States. Received 10/16/2002.

PI 632268 PVPO. Phaseolus vulgaris L.
Cultivar. "SCORPIO"; SB4243. PVP 200200275.

The following were developed by J.R. Simplot Company, United States. Received 10/16/2002.

PI 632269 PVPO. Poa pratensis L.
Cultivar. "BARRISTER". PVP 200300001.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 10/16/2002.

PI 632270. Poa pratensis L.
Cultivar. "NU DESTINY". CV-81; PVP 200300002. Pedigree - Apomictic single-plant selection from the progeny of hybrid 92-4275, created in the field in June 1992. Dark green genetic color, good resistance to close mowing (25 mm or lower), traffic stress, and shade, and produces few seed stalks in mowed turf. Performs well nationwide in overall turf quality but does particularly well in the Northeastern, Transition Zone, and Midwestern states, where in 2001 was the top-scoring entry out of 173 in NTEP averaged across locations in Iowa, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Resistant to leafspot (Drechslera poae) disease and shows good resistance to leaf rust (Puccinia coronata), dollar spot (Lanzia or Moellerodiscus), and anthracnose [Colletotrichum graminicola (teleomorph: Glomerella graminicola)].

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 10/16/2002.

PI 632271 PVPO. Pisum sativum L.
Cultivar. "XP 08500566". PVP 200300003.

The following were developed by Florida Agr. Exp. Sta., Florida, United States; University of Georgia Research Foundation, Inc., Georgia, United States. Received 10/16/2002.

PI 632272 PVPO. Triticum aestivum L.
Cultivar. "AGS485". PVP 200300005.

The following were developed by Larry Robertson, University of Idaho, Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210-0530, United States; Robert S. Zemetra, University of Idaho, Department of Plant, Soil and Entomology, Moscow, Idaho 83843, United States; M. Lauver, University of Idaho, Dept. of Plant, Soil, and Ent. Sci., Moscow, Idaho 83844, United States; Katherine O'Brien, University of Idaho, Aberdeen Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210, United States; Bradford D. Brown, University of Idaho, Parma Research & Extension Center, 29603 U of I Lane, Parma, Idaho 83660, United States; Stephen O. Guy, University of Idaho, Plant, Soils, and Entomological Sciences, Moscow, Idaho 83844-2339, United States; T. Koehler, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States. Received 10/16/2002.

PI 632273. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "HUBBARD"; ID86-10420A. CV-942; PVP 200300007. Pedigree - Hill 81 / Augusta. Released 2000. Awned, tall semi-dwarf soft white common winter wheat with good to excellent yield in the intermediate to high rainfall areas of the Pacific Northwest. Tall semi-dwarf averages 6 cm taller than Lambert and 15 cm taller than Stephens. Blue-green color with erect to semi-erect flag leaves that

tend to lay perpendicular to the stem after full extension of the spike. Heading date is intermediate, similar to that observed with Madsen. Good to excellent straw strength similar to that observed in parent Hill 81. Glumes awned and seed intermediate in size, white and soft with a mid-deep crease. Good resistance to stripe rust based on three years of regional testing (1995-1997). Susceptible to cephalosporium stripe (Hymenula cerealis), strawbreaker footrot (Pseudocercosporella herpotrichoides), septoria tritici blotch (Septoria tritici), common bunt (Tilletia tritici), and dwarf bunt (T. controversa). Shows little or no physiological leaf spotting under cool, wet spring field.

The following were developed by Darrell M. Wesenberg, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United States. Received 10/17/2002.

PI 632274. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. "CREEL"; 93Ab688; NSGC 8866. Pedigree - M44/80Ab4952//79Ab10719. Six-rowed spring feed barley. Adapted to dryland production areas in Idaho, eastern Washington, and eastern Oregon. Has reasonable production under irrigation in southeastern Idaho. Early to mid-season maturity. Medium-lax, erect spikes, smooth awns, long rachilla hairs, covered seed, and white aleurone. From the cross M44/80Ab4952//79Ab10719. The parent M44 is a selection from Minnesota. The parent 80Ab4952 is from the cross 73Ab152(=Minn II/Cayuse 54-34-432)/M71-88. The parent 79Ab10719 was the original selection from which 'Colter' was selected and was from the cross 73Ab2199(Steptoe/Larker)/74Ab4302(RPB10/Sherbet).

The following were developed by James S. Quick, Colorado State University, Soil and Crop Sciences, Fort Collins, Colorado 80523, United States; O.K. Chung, USDA-ARS, U.S. Grain Marketing Research Lab., Hard Winter Wheat Quality Lab., Manhattan, Kansas 66506, United States; Frank Peairs, Colorado State University, Dept. of Bioagricultural Sciences & Pest Management, Fort Collins, Colorado 80523-1177, United States; J.B. Rudolph, Colorado State University, Dept. of Entomology, Fort Collins, Colorado 80523, United States; John Stromberger, Colorado State University, Dept. of Soil and Crop Sciences, 1170 Campus Delivery, Fort Collins, Colorado 80523, United States; B.W. Seabourn, USDA, ARS, Grain Marketing and Production Research Center, Hard Winter Wheat Quality Lab., Manhattan, Kansas 66506, United States; Scott D. Haley, Colorado State University, Soil and Crop Sciences Dept., Fort Collins, Colorado 80523, United States; J.J. Johnson, Colorado State University, Dept. of Soil and Crop Sciences, Fort Collins, Colorado 80523, United States; Sally Clayshulte, Colorado State University, Dept. of Soil and Crop Sciences, Plant Science Building W18, Fort Collins, Colorado 80523, United States; B. Clifford, Colorado State University, Dept. of Soil and Crop Sciences, Fort Collins, Colorado 80523, United States. Received 10/23/2002.

PI 632275. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "ANKOR"; CO99508. CV-939; PVP 200300333. Pedigree - Akron/Halt//4*Akron. Released 2002. Awned, white-chaffed, medium maturity, semidwarf hard red winter wheat. Good straw strength and good winterhardiness. Moderately resistant to stem rust (Puccinia gramiis), susceptible to leaf rust (P. triticina), and susceptible to both Wheat streak mosaic virus and Barley yellow dwarf virus. Susceptible to the Great Plains biotype of Hessian fly (Mayetiola destructor) and greenbug

(Schizaphis graminum), and resistant to Russian wheat aphid (RWA, Diuraphis noxia).

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Fleet N. Lee, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; R.J. Norman, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; Kenneth Gravois, Louisiana State University, Sugar Research Station, 5755 LSU Ag. Road, St. Gabriel, Louisiana 70776, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States. Received 10/22/2002.

PI 632276. Oryza sativa L.
Breeding. Pureline. KBNT 4. GP-80. Pedigree - Gamma ray induced semidwarf mutant of the cv. Kaybonnet. Released 1999. Height 76 cm tall, or 27 cm shorter, and three days later than its parent, Kaybonnet. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used sdl gene. Averaged over four tests, yielded 6120 compared to 7020 kg ha-1 for its parent. Seed dimensions and amylose content similar to the parent.

PI 632277. Oryza sativa L.
Breeding. Pureline. KBNT 5. GP-81. Pedigree - Gamma ray induced semidwarf mutant of the cv. Kaybonnet. Released 1999. Height 79 cm tall, or 24 cm shorter, and three days later than its parent, Kaybonnet. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used sdl gene. Averaged over three tests, yielded 6250 compared to 6790 kg ha-1 for its parent. Seed dimensions and amylose content similar to the parent.

PI 632278. Oryza sativa L.
Breeding. Pureline. LGRU 12. GP-82. Pedigree - Gamma ray induced semidwarf mutant of the cv. LaGrue. Released 1999. Height 82 cm tall, or 23 cm shorter, and four days later than its parent, LaGrue. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used sdl gene. Averaged over four tests, yielded 8230 compared to 8090 kg ha-1 for its parent. Seed dimensions and amylose content similar to the parent.

PI 632279. Oryza sativa L.
Breeding. Pureline. LGRU 13. GP-83. Pedigree - Gamma ray induced semidwarf mutant of the cv. LaGrue. Released 1999. Height 83 cm tall, or 22 cm shorter, and three days earlier than is parent, LaGrue. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used sdl gene. Averaged over five tests, yielded 8470 compared to 8360 kg ha-1 for its parent. Seed dimensions and amylose content were similar to the parent.

PI 632280. Oryza sativa L.
Breeding. Pureline. ADAR 10. GP-84. Pedigree - Gamma ray induced semiwarf mutant of the cv. Adair. Released 1999. Height 88 cm tall, or

16 cm shorter, and one day earlier than is parent, Adair. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used sdl gene. Averaged over two tests in 1997, yielded 8500 compared to 7600 kg ha-1 for its parent. Showed zero lodging compared to 40% for its parent. Seed dimensions and amylose content were similar to the parent.

PI 632281. Oryza sativa L.
Breeding. Pureline. ORIN 172. GP-85. Pedigree - Gamma ray induced semidwarf mutant of the cv. Orion. Released 1999. Height 83 cm tall, or 9 cm shorter, and one day later than its parent, Orion. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used sdl gene. Averaged over six tests, yielded 7710 compared to 7980 kg ha-1 for its parent. Seed dimensions and amylose content were similar to the parent.

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Fleet N. Lee, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Victor Raboy, USDA, ARS, Montana State University, 619 Leon Johnson Hall, Bozeman, Montana 59717, United States; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; James W. Gibbons, University of Arkansas, Rice Research & Ext. Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States. Received 10/22/2002.

PI 632282. Oryza sativa L.
Breeding. Pureline. KBNT lpa 1-1. GP-86. Pedigree - Gamma ray induced low phytic acid mutant of the cv. Kaybonnet. Released 2002. Phenotypically similar to its parent but has reduced phytic acid content. The phytic acid portion of seed phosphorus is reduced from 71 to 39% and the inorganic portion of seed phosphorus is increased from 5 to 32% , with little effect on total seed phosphorus. This is considered important because phytic acid phosphorus is poorly digested and utilized by humans or nonruminant livestock, and also may interfere with nutritional uptake of minerals like calcium, zinc, and iron. Grain yield about 90% of its parent.

The following were developed by J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States. Received 10/22/2002.

PI 632283. Oryza sativa L.
Breeding. Pureline. aromatic se. GP-87. Pedigree - Composite seed of 17 semidwarf, early flowering recombinants from a cross between PI 457917, a late maturing, semidwarf mutant, and PI 429861, an early maturing, tall, mutant (Kashmir Basmati). Released 2002. Semidwarf, early maturing recombinant averaging 110 cm tall, compared to the only tall parent at 160 cm. The other parent is photoperiod sensitive, and does not set seed in Arkansas. Yields of the recombinant lines ranged from 3180 to 4710 kg ha-1., compared to 5880 kg ha-1 of the tall parent. Grain dimensions

similar to the tall parent and nine other basmati's in the U.S. collection. Aroma and cooking characteristics similar to the tall parent.

The following were developed by Robert T. Lewellen, USDA, ARS, Crop Improvement and Protection Research, 1639 E. Alisal St., Salinas, California 93905, United States. Received 10/24/2002.

PI 632284. Beta vulgaris L. **subsp. vulgaris**
Breeding. CP03; P227. GP-240. Pedigree - Increase of BC6F2 backcross derived line: 87% C37, 12% C78, source of Rz; 1% WB97, source of Pm. Multigerm, self-sterile, line that segregates for resistance to powdery mildew (Erysiphe) from WB97 and rhizomania (BNYVV) (Rz) in a C37 background.

PI 632285. Beta vulgaris L. **subsp. vulgaris**
Breeding. CP04; P228. GP-241. Pedigree - Increase of BC6F2 backcross derived line: 87% C37; 12% C78, source of Rz; 1% WB242, source of Pm. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe) from WB 242 and rhizomania (BNYVV)(Rz) in a C37 background.

PI 632286. Beta vulgaris L. **subsp. vulgaris**
Breeding. CP05; P229. GP-242. Pedigree - Increase of BC7F2 backcross derived line: 94% C78; 5% C37; 1% WB97, source of Pm. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe) from WB97 and rhizomania (BNYVV)(Rz) in a C78 background.

PI 632287. Beta vulgaris L. **subsp. vulgaris**
Breeding. CP06; P230. GP-243. Pedigree - Increase of BC7F2 backcross derived line:94% C78; 5% C37; 1% WB242. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe) from WB 242 and rhizomania (BNYVV)(Rz) in a C78 background.

PI 632288. Beta vulgaris L. **subsp. vulgaris**
Breeding. CP07; P207/8. GP-244. Pedigree - Backcross derived line: 72% C78; 24% C37; 3% from C51 (sugarbeet x B. vulgaris maritime); 1% from WB97 and WB242. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe) from WB97 and WB242 and rhizomania (BNYVV)(Rz) in a C78 background. Rhizomania resistance also from C51 (Bv maritima) source that gives higher resistance under severe conditions. May be tolerant to SBCN (Heterodera).

PI 632289. Beta vulgaris L. **subsp. vulgaris**
Breeding. CP08; P118-6. GP-245. Pedigree - Derived from 1 backcross family to C37 that showed desirable agronomic traits: 73% C37; 25% C78; 2% WB242, B. vulgaris subsp. maritima source of Pm. Multigerm, self-sterile line that segregates for resistance to powdery mildew (Erysiphe) from WB242(Pm) and rhizomania (BNYVV)(Rz) in a C37 background. Shows high rhizomania resistance under severe disease conditions.

The following were developed by M. T. Moreno, Instituto Nacional de Investigaciones Ag, CIRDA 10 Apdo 240, Cordoba, Cordoba, Spain; Maria Jose Suso, CSIC, Instituto de Agricultura Sostenible, Apartado 4084, Cordoba,

Cordoba 14080, Spain; J.A. Aguilar, Instituto de Agriculture Sostenible, Apdo 4084, Cordoba, Cordoba 14080, Spain. Received 11/01/2002.

PI 632290. Vicia faba L.
Genetic. Pureline. UN 37. GS-23. Pedigree - Derived by four generations of selfing and selection of seven mother-plants of the equina accession V.F. 429 of the germplasm collection of Vicia faba Centro de Investigacion y Desarrollo Agrario de Cordoba, Spain. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a simple leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, complexity), leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height, and flower reversion.

PI 632291. Vicia faba L.
Genetic. Pureline. UN 56. GS-24. Pedigree - Derived by four generations of selfing and selection of seven mother-plants of the equina accession V.F. 429 of the germplasm collection of Vicia faba Centro de Investigacion y Desarrollo Agrario de Cordoba, Spain. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a simple leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, complexity)), leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height, and flower reversion.

PI 632292. Vicia faba L.
Genetic. Pureline. UN 88. GS-25. Pedigree - Derived by four generations of selfing and selection of seven mother-plants of the equina accession V.F. 429 of the germplasm collection of Vicia faba Centro de Investigacion y Desarrollo Agrario de Cordoba, Spain. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a simple leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, complexity), leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height, and flower reversion.

PI 632293. Vicia faba L.
Genetic. Pureline. UN 113. GS-26. Pedigree - Derived by four generations of selfing and selection of seven mother-plants of the equina accession V.F. 429 of the germplasm collection of Vicia faba Centro de Investigacion y Desarrollo Agrario de Cordoba, Spain. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a simple leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, complexity), leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height, and flower reversion.

PI 632294. Vicia faba L.
Genetic. Pureline. UN 162. GS-27. Pedigree - Derived by four generations

of selfing and selection of seven mother-plants of the equina accession V.F. 429 of the germplasm collection of Vicia faba Centro de Investigacion y Desarrollo Agrario de Cordoba, Spain. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a simple leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, coomplexity), leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height, and flower reversion.

PI 632295. Vicia faba L.
Genetic. Pureline. UN 173. GS-28. Pedigree - Derived by four generations of selfing and selection of seven mother-plants of the equina accession V.F. 429 of the germplasm collection of Vicia faba Centro de Investigaction y Desarrollo Agrario de Cordoba, Spaing. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a simple leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, complexity) leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height and flower reversion.

PI 632296. Vicia faba L.
Genetic. Pureline. UN 179. GS-29. Pedigree - Derived by four generations of selfing and selection of seven mother-plants of the equina accession V.F. 429) of the germplasm collection of Vicia faba Centro de Investigacion y Desarrollo Agrario de Cordoba, Spain. Unifoliate genetic stock characterized by a transformation of the typical compound leaf into a single leaf. Unifoliate plants are also sterile. Maintained as heterozygous and multiplied by selfing. Evaluation for morphological characteristics shows differences in leaf heteroblasty (leaf length, petiole length, complexity), leaf blade length, leaf shape among the plant axis, degree of branching (branching from basal or high nodes) plant height, and flower reversion.

The following were developed by Syngenta Seeds, Inc., United States. Received 11/01/2002.

PI 632297 PVPO. Citrullus lanatus (Thunb.) Matsum. & Nakai **var. lanatus**
Cultivar. "SP-1". PVP 200300006.

The following were developed by J.R. Simplot Company, United States. Received 11/01/2002.

PI 632298 PVPO. Poa pratensis L.
Cultivar. "PERFECTION". PVP 200300008.

PI 632299 PVPO. Poa pratensis L.
Cultivar. "AWESOME". PVP 200300009.

The following were developed by Orsetti Seed Company, Inc., United States. Received 11/01/2002.

PI 632300 PVPO. Lactuca sativa L.
Cultivar. "MARIN". PVP 200300010.

PI 632301. Lactuca sativa L.
Cultivar. "FRESH/HEART". PVP 200300011.

The following were developed by First Line Seeds Ltd., United States.
Received 11/01/2002.

PI 632302 PVPO. Hordeum vulgare L.
Cultivar. "2B96-5057". PVP 200300013.

The following were developed by Monsanto Technology LLC, United States.
Received 11/01/2002.

PI 632303 PVPO. Glycine max (L.) Merr.
Cultivar. "0088401". PVP 200300016.

PI 632304 PVPO. Glycine max (L.) Merr.
Cultivar. "SN71173". PVP 200300017.

PI 632305 PVPO. Glycine max (L.) Merr.
Cultivar. "SE71112". PVP 200300018.

PI 632306 PVPO. Glycine max (L.) Merr.
Cultivar. "SN64195". PVP 200300019.

PI 632307 PVPO. Glycine max (L.) Merr.
Cultivar. "SN76208". PVP 200300020.

PI 632308 PVPO. Glycine max (L.) Merr.
Cultivar. "SN79525". PVP 200300021.

PI 632309 PVPO. Glycine max (L.) Merr.
Cultivar. "0096008". PVP 200300022.

PI 632310 PVPO. Glycine max (L.) Merr.
Cultivar. "SW90702". PVP 200300023.

PI 632311 PVPO. Glycine max (L.) Merr.
Cultivar. "SE73224". PVP 200300024.

PI 632312 PVPO. Glycine max (L.) Merr.
Cultivar. "SN83211". PVP 200300025.

PI 632313 PVPO. Glycine max (L.) Merr.
Cultivar. "SE73206". PVP 200300026.

PI 632314 PVPO. Glycine max (L.) Merr.
Cultivar. "SE90345". PVP 200300027.

PI 632315 PVPO. Glycine max (L.) Merr.
Cultivar. "SN82691". PVP 200300028.

PI 632316 PVPO. Glycine max (L.) Merr.
Cultivar. "SW84112". PVP 200300029.

PI 632317 PVPO. Glycine max (L.) Merr.
Cultivar. "0149928". PVP 200300030.

The following were collected by John Bamberg, USDA, ARS, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States; Charles Fernandez, University of Wisconsin, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States. Received 09/27/2002.

PI 632318. Solanum stoloniferum Schltdl. & Bouche
Wild. BF 92; TEMP 1. Collected 09/20/2002 in Arizona, United States. Latitude 33 deg. 47' 48'' N. Longitude 110 deg. 57' 34'' W. Elevation 1654 m. Gila County. Tonto National Forest, Sierra Ancha Wilderness. Near Young. S of Young on 288 between mile 278 and 279, take hiking trail 160 up Parker Creek. Only in N facing rock pocket directly below dam/water gauge on S side. Green and robust to 8". About 100-200 plants. No flowers and immature fruit. Collected about 25 fruit.

PI 632319. Solanum stoloniferum Schltdl. & Bouche
Wild. BF 93; TEMP 2. Collected 09/20/2002 in Arizona, United States. Latitude 33 deg. 49' 46'' N. Longitude 110 deg. 56' 44'' W. Elevation 1829 m. Gila County. Tonto National Forest, Sierra Ancha Wilderness. Near Young. S of Young on 288 on FR 487 (Workman Creek Road). About 2 miles from 288, about 60 paces SE of picnic site along W roadside. Along roadside. Robust, green plants, about 50 in number to 10" tall with clusters of many mature fruit. Collected fruit.

PI 632320. Solanum stoloniferum Schltdl. & Bouche
Wild. BF 94; TEMP 3. Collected 09/21/2002 in Arizona, United States. Latitude 33 deg. 50' 48'' N. Longitude 110 deg. 55' 30'' W. Elevation 1914 m. Gila County. Tonto National Forest, Sierra Ancha Wilderness. Near Young. S of Young on 288, SE 4 miles on Reynold's Creek Road (jeep trail FR 410), and 50 paces down hiking trail 150, where trail crosses creek with large black boulders. Among grasses along creek in unshaded area. About 30 large (but grazed) green plants, no flowers, mature fruit. Collected fruit.

PI 632321. Solanum stoloniferum Schltdl. & Bouche
Wild. BF 95; TEMP 4. Collected 09/21/2002 in Arizona, United States. Latitude 33 deg. 50' 33'' N. Longitude 110 deg. 54' 47'' W. Elevation 2018 m. Gila County. Tonto National Forest, Sierra Ancha Wilderness. Near Young. S of Young on 288, SE 4 miles on Reynold's Creek Road (jeep trail FR 410). Down hiking trail about 1 1/4 miles. Where trail meets creek for about 200 yards. In leaf mulch under Ponderosas and brush. Many thousands of plants, green to 12" or maturing, with no flowers but mature fruit. Collected fruit.

PI 632322. Solanum jamesii Torr.
Wild. BF 96; TEMP 5. Collected 09/21/2002 in Arizona, United States. Latitude 34 deg. 29' 32'' N. Longitude 110 deg. 39' 45'' W. Elevation 2049 m. Navajo County. Apache-Sitgreaves National Forest. Near Heber. NW on FR 504 for 5 miles to FR 228, then jeep trail 997B. About one mile. Fairly abundant in moist sand under Pinyons. No flowers or fruit,

too mature for transplants. Collected tubers (set particularly far from plant).

PI 632323. Solanum jamesii Torr.
Wild. BF 97; TEMP 6. Collected 09/22/2002 in Arizona, United States. Latitude 34 deg. 10' 22'' N. Longitude 109 deg. 58' 48'' W. Elevation 2039 m. Navajo County. Sitgreaves National Forest. Near Lakeside Ranger Station. N of 73 on Porter Mountain Road about 1 mile to Porter Creek then by foot about 1/2 mile W to intersection with Show Low Creek. SE facing cliff of volcanic boulders along shallow winding stream. Among boulders with shrubs and grass in moist, black organic soil. Scattered patches of green and robust plants to 24" but often elongated from stretching out of shaded rock crevices. Collected smaller green transplants.

PI 632324. Solanum jamesii Torr.
Wild. BF 98; TEMP 7. Collected 09/22/2002 in Arizona, United States. Latitude 34 deg. 13' 31'' N. Longitude 109 deg. 50' 40'' W. Elevation 2138 m. Navajo County. Sitgreaves National Forest. About 11 miles NE of Lakeside on Porter Mountain Road near Sponseller Lake. No road to lakebed itself, must walk in (from S). Open grassy meadow S of Sponsellor Lake. In moist black soil. Very many plants in a patch about 200 feet diameter. Plants with thick stems, must have been quite large before being grazed. All plants yellowed, often with surprisingly abundant mature fruit, but tubers not mature. CPB noted. Fruit.

PI 632325. Solanum jamesii Torr.
Wild. BF 99; TEMP 8. Collected 09/22/2002 in Arizona, United States. Latitude 34 deg. 13' 57'' N. Longitude 109 deg. 50' 41'' W. Elevation 2134 m. Navajo County. Sitgreaves National Forest. About 11 miles NE of Lakeside on Porter Mountain Road near Sponseller Lake. No road to lakebed itself, must walk in (from S). Near S shore of lake near where the fence crosses the wash. In needle mulch under a few junipers. Hundreds of plants to 1 ft tall, most smaller, green, but only a few transplantable. No flowers or berries, a few mature tubers. Collected plants and a few tubers.

PI 632326. Solanum jamesii Torr.
Wild. BF 100; TEMP 9. Collected 09/22/2002 in Arizona, United States. Latitude 34 deg. 13' 42'' N. Longitude 109 deg. 50' 36'' W. Elevation 2134 m. Navajo County. Sitgreaves National Forest. About 11 miles NE of Lakeside on Porter Mountain Road near Sponseller Lake. No road to lakebed itself, must walk in (from S). Just S of fence. In shady gambel oak thicket. Large (10") yellow plants with abundant, mature fruit. Collected fruit.

PI 632327. Solanum stoloniferum Schltdl. & Bouche
Wild. BF 101; TEMP 10. Collected 09/23/2002 in Arizona, United States. Latitude 32 deg. 24' 37'' N. Longitude 110 deg. 42' 55'' W. Elevation 2414 m. Pima County. Near Tucson in Santa Catalina Mts. N on Santa Catalina Hwy toward Mt. Lemmon. At Palisades ranger station. Just below horse corral on SW side of road. Under trees in grassy ravine. Private land. Many robust green plants to 6", grazed, no flowers or fruits. Collected about 12 transplants.

The following were collected by John Bamberg, USDA, ARS, Potato Introduction

Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States; Chuck Brown, USDA, ARS, WSU Irrigated Ag. Extension Center, 24106 N. Bunn Road, Prosser, Washington 99350, United States; Joseph J. Pavek, USDA, ARS, University of Idaho, Research & Extension Center, Aberdeen, Idaho 83210, United States; Charles Fernandez, University of Wisconsin, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States. Received 09/27/2002.

PI 632328. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 102; TEMP 11. Collected 09/25/2002 in Arizona, United States. Latitude 31 deg. 26' 36'' N. Longitude 110 deg. 18' 50'' W. Elevation 1838 m. Cochise County. Near Sierra Vista in Ramsey Canyon (owned by The Nature Conservancy). Just a few hundred feet from visitor center and directly N across the creek from the Ramsey Canyon bronze plaque. In grass under an apple tree. A small colony of yellow, 6" plants. Collected a few tubers.

PI 632329. Solanum jamesii Torr.
Wild. BFBP 103; TEMP 12. Collected 09/25/2002 in Arizona, United States. Latitude 31 deg. 22' 50'' N. Longitude 110 deg. 19' 46'' W. Elevation 1829 m. Cochise County. Near Sierra Vista. Off Montezuma Canyon road in Coronado National Memorial. Ida Canyon SE of Sutherland Peak. Along road to creek bed and W at fence line to shady ravine with oaks and sycamores. In moist thick layer of leaf mulch and among grass and rocks. Very many yellow plants, widespread, without flowers or fruit. Collected tubers.

PI 632330. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 104; TEMP 13. Collected 09/26/2002 in Arizona, United States. Latitude 31 deg. 24' 46'' N. Longitude 110 deg. 18' 18'' W. Elevation 2743 m. Cochise County. Near Sierra Vista. Off 92 up Carr Canyon road (FR 368) to Carr Peak trail (107). From about 8350 ft to top of Carr Peak. N facing slope and gulch shaded under poplars and brush in rich moist organic soil. At higher elevation, under big burned Ponderosas in grass and open areas among rocks in trail. Large plants, some quite bushy and green (but grazed), often with many mature fruit.

PI 632331. Solanum jamesii Torr.
Wild. BFBP 105; TEMP 14. Collected 09/26/2002 in Arizona, United States. Latitude 31 deg. 28' 27'' N. Longitude 110 deg. 20' 55'' W. Elevation 1646 m. Cochise County. Near Sierra Vista. Fry road to Ft Huachuca and SW to Garden Canyon. To picnic area at end of paved road. E facing roack ledges on S side of road directly across creek SW of big square cement water tank. In creek bed among oaks, sycamores and brush in moist leaf mulch. Plants yellow to 12" without berries. Collected tubers.

PI 632332. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 106; TEMP 15. Collected 09/26/2002 in Arizona, United States. Latitude 31 deg. 28' 19'' N. Longitude 110 deg. 21' 11'' W. Elevation 1646 m. Cochise County. Near Sierra Vista. Fry road to Ft Huachuca and SW to Garden Canyon. To picnic area at end of paved road. At 75 paces S of first place creek crosses road SW of picnic pavillion. In creek bed among oaks, sycamores and brush in moist leaf mulch. Only a few small yellow plants. Collected one tuber.

PI 632333. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 107; TEMP 16. Collected 09/27/2002 in Arizona, United States.

Latitude 31 deg. 56' N. Longitude 109 deg. 16' 16'' W. Elevation 2134 m. Cochise County. Coronado National Forest. Chiricahua Mountains. Pinery canyon road at Pinery Campground. Along Pinery Creek on both sides of road. Along road and under Ponderosas to the E side of Campground. Small yellow and light green larger (to 8") plants, occasional fruit. Collected fruit.

PI 632334. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 108; TEMP 17. Collected 09/27/2002 in Arizona, United States. Latitude 31 deg. 55' 5'' N. Longitude 109 deg. 16' 25'' W. Elevation 2560 m. Cochise County. Coronado National Forest. Chiricahua mountains. Pinery canyon road to Barfoot Park. Just before steep decent into Barfoot park camping/picnic area. Very steep N facing slopes on both sides of road. Very many large green plants under Ponderosas and brush in leaf mulch and rich, black, rocky soil. In some places the dominant vegetation. Often grazed unless very steep and protected by brush. Occasional fruit, just mature. Fruit.

PI 632335. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 109; TEMP 18. Collected 09/27/2002 in Arizona, United States. Latitude 32 deg. 0' 52'' N. Longitude 109 deg. 19' 31'' W. Elevation 2225 m. Cochise County. Coronado National Forest. Chiricahua mountains. Chiricahua National Monument. Summit of Sugarloaf mountain. Only under the interpretive sign at the peak. Among grass in open, dry, rocky soil. Only about 10 small (4-6") yellow plants. No fruit or flowers. Collected one quite large (2 cm diameter) tuber.

PI 632336. Solanum stoloniferum Schltdl. & Bouche
Wild. BFBP 110; TEMP 19. Collected 09/27/2002 in Arizona, United States. Latitude 32 deg. 0' 24'' N. Longitude 109 deg. 18' 56'' W. Elevation 2012 m. Cochise County. Coronado National Forest. Chiricahua mountains. Chiricahua National Monument. Trail from Massai point parking lot to Totem canyon. Near midpoint of .7 mile N-S trail, where trail takes a sharp bend, meets level of creek bed. Close to small E facing canyon to W of trail. Under oak and pine shade among rocks in sandy soil. Only two small, yellow plants just off trail toward creek. Collected two small tubers.

The following were developed by Bryan Kindiger, USDA-ARS, Grazinglands Research Laboratory, 7207 West Cheyenne Street, El Reno, Oklahoma 73036, United States; Ministry of Agriculture-Japan, Forestry and Fisheries of Japan, (MAFF), Japan; K. Mizuno, Yamaguchi Agricultural Experiment Station, Oouchi-mihori, Yamaguchi 753-0214, Japan; T. Fujiwara, Yamaguchi Agricultural Experiment Station, Oouchi-mihori, Yamaguchi 753-0214, Japan; K. Kobashi, Yamaguchi Agricultural Experiment Station, Oouchi-mihori, Yamaguchi 753-0214, Japan. Received 10/31/2002.

PI 632337. Lolium multiflorum Lam.
Cultivar. "SHIWASUAOBA"; 10503. CV-228; PVP 200300058. Pedigree - A diploid form which carries several B-chromosomes. As a consequence, the chromosome number exceeds 2n=2x=14 and is not stable. However, the genetic stability is not compromised by the presence of supernumerary chromosomes. Originally developed in Japan and evaluated for release in the U.S. by the Yamaguchi Agric. Exp. Station, Oouchi-Mihori, Yamaguchi, Japan, and the USDA-ARS, Grazinglands Res. Sta., El Reno, OK. Developed by utilizing the annual ryegrass population Yamaiku No. 78 which is a su

. Leafy and annual Italian ryegrass forage cv. capable of producing early yields superior to Marshall varieties of annual ryegrass. Single hay clipping studies in Southern Oklahoma generated yields comparable to Marshall annual ryegrass. In Oklahoma, fall and spring forage performance trials have indicated superior spring yields and competitive fall yields when compared to Marshall (annual) and Linn (perennial). Distinctive feature relates to extremely early maturity and early forage production potential. When fall sown in Oct., heading usually occurs in March to April. Two weeks earlier in flowering when compared to Marshall and Ribeye and two weeks earlier than Linn. Medium resistance to Crown rust (Puccinia coronata) and appears tolerant of most other common diseases of ryegrass known to occur in the Southern Plains. The extremely early heading date makes this variety useful for growers interested in a cool-season grass forage which is rapid in growth, nutritious and.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; Gerald Seiler, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Donated by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 11/08/2002.

PI 632338. Helianthus annuus L.
Breeding. HA 429. GP-266. Pedigree - BC1F7-derived BC1F8 oilseed maintainer from the cross HA 821*2//cmsHA 89*2/Helianthus paradoxus (PAR 1673-1). Selections were made under stress environments as lines and in hybrid combinations. This line provides increased genetic diversity in soil salinity and drought tolerance for use in sunflower breeding and hybrid development programs. Normal height with black seed, no anthocyanin pigment in seed or plants, single-headed, and medium oil content.

PI 632339. Helianthus annuus L.
Breeding. HA 430. GP-267. Pedigree - BC1F7-derived BC1F8 oilseed maintainer from the cross HA 821*2//cmsHA 89*2/Helianthus paradoxus (PAR 1673-1). Selections were made under stress environments as lines and in hybrid combinations. This line provides increased genetic diversity in soil salinity and drought tolerance for use in sunflower breeding and hybrid development programs. Normal height with black seed, no anthocyanin pigment in seed or plants, is single-headed, and has medium oil content.

PI 632340. Helianthus annuus L.
Breeding. HA 431. GP-268. Pedigree - F7-derived F8 oilseed maintainer selected from the cross HA 821 (PI 599984) / Argentina Pergamino Population. Released 1986. This line provides increased genetic diversity for use in sunflower breeding and hybrid development programs. Normal height with black seed, no anthocyanin pigment in seed or plants, is single-headed and has high oil content. Hybrids show lodging resistance and the stay-green characteristic.

PI 632341. Helianthus annuus L.
Breeding. HA 432. GP-269. Pedigree - F7-derived F8 oilseed maintainer from the cross HA 821 (PI 599984) / France B-line Bulk. This line provides increased genetic diversity for use in sunflower breeding and

hybrid development programs. Shorter-height with black seed, no anthocyanin pigment in seed or plants, is single-headed, and has medium oil content. Hybrids show lodging resistance and the stay-green characteristics.

PI 632342. Helianthus annuus L.
Breeding. HA 433. GP-270. Pedigree - F7-derived F8 oilseed maintainer from the cross UC/HA 383 (PI 578872). This line provides increased genetic diversity for use in sunflower breeding and hybrid development programs. Normal height with black seed, no anthocyanin pigment in seed or plants, is single-headed, and has medium oil content. Hybrids show lodging-resistance and the stay-green characteristic and earlier flowering and maturity.

The following were developed by Bikram S. Gill, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States; Allan K. Fritz, Kansas State University, Department of Agronomy, 2004 Throckmorton Hall, Manhatttan, Kansas 66506-5501, United States; Thomas S. Cox, The Land Institute, 2440 E. Water Well Road, Salina, Kansas 67401, United States; S. Singh, Kansas State University, Dept. of Plant Pathology, Manhattan, Kansas 66506, United States. Received 11/06/2002.

PI 632343. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. KS00WGRC44. GP-744. Pedigree - TAM 107*3/TA 1715. Released 2000. Leaf rust resistant conditioned by a single dominant gene. When inoculated with 20 diverse isolates of leaf rust, the resistance gene confered a different infection type than that of all other genes previously transferred to wheat from Ae. taushii. Similar to the recurrent parent TAM 107 in height, days to heading and overall phenotype.

The following were developed by An Hang, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, 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 11/06/2002.

PI 632344. Phaseolus vulgaris L.
Cultivar. "ORCA". CV-206. Pedigree - A55 / Anasazi. Upright plant growth habit (type II-A) with resistance to lodging because of deep root system inherited from landrace Anasazi. Also has unprotected dominant I gene resistance to bean common mosaic virus and complete resistance to curly top virus. Medium to late maturing with potenial high yield. Medium plumb-black mottled shiny seed coat color, which is very attractive. Seed much larger than commercial black bean (30 vs. 20 g 100 seed-1). After cooking, the dark part of seed appears dark maroon and is similar to Anasazi parent.

The following were developed by Robert A. Graybosch, USDA-ARS, University of Nebraska, Dept. of Agronomy, 344 Keim Hall, Lincoln, Nebraska 68583, United States; C.J. Peterson, USDA, ARS, University of Nebraska, Dept. of Agronomy,

Lincoln, Nebraska 68583, United States. Received 11/19/2002.

PI 632345. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. NW97S277; NSGC 8867. Pedigree - Pronghorn/Arlin. Hard white winter wheat.

PI 632346. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. NW98S078; NSGC 8868. Pedigree - NE90518/Arlin. Hard white winter wheat.

PI 632347. Triticum aestivum L. **subsp. aestivum**
Breeding. Pureline. NW99L7042; NSGC 8869. Pedigree - KM602-90/NE89657//Arlin. Hard white winter wheat.

The following were developed by Mike Kartuz, Kartuz Greenhouses, Sunset Island Exotics, 1408 Sunset Drive, P.O. Box 790, Vista, California 92085-0790, United States. Received 04/20/1999.

PI 632348. Iochroma cyaneum (Lindl.) M. L. Green
Cultivar. "Indigo"; MIA 35577.

PI 632349. Iochroma sp.
Cultivar. "Wine Red"; MIA 35578. Though this was received as Iochroma cyaneum. DNA analysis, and morphology suggests this to be other than cyaneum. Currently an undetermined species of Iochroma.

PI 632350. Iochroma cyaneum (Lindl.) M. L. Green
Cultivar. "Royal Blue"; MIA 35579.

The following were donated by Mike Kartuz, Kartuz Greenhouses, Sunset Island Exotics, 1408 Sunset Drive, P.O. Box 790, Vista, California 92085-0790, United States. Received 04/20/1999.

PI 632351. Iochroma cyaneum (Lindl.) M. L. Green
Cultivar. "Sky King"; MIA 35580.

The following were developed by Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Lawrence D. Young, USDA, ARS, MSA Crop Genetics & Prod. Res. Unit, P.O. Box 345, Stoneville, Mississippi 38776-0345, United States. Received 11/25/2002.

PI 632352. Glycine max (L.) Merr.
Breeding. D98-1216. GP-282. Pedigree - Bedford(5) x PI 172901. Maturity Group V soybean germplasm line released to private soybean breeders with a potential parent to develop multiple-pest resistant cvs. Developed by backcrossing the gene Rps3-b into the cv. Bedford. After four backcrosses, F3 lines were evaluated for resistance to Phytophthora sojae and soybean cyst nematode (Heterodera glycines). Similar to the recurrent parent Bedford for all observable traits except hilium color is gray instead of black and has the same level of resistance to races 3 and 14 of the soybean cyst nematode.

The following were collected by Gary Nabhan, Native Seeds/SEARCH, 3950 W. New York Drive, Tucson, Arizona 85745, United States. Received 1985.

PI 632353. Phaseolus filiformis Benth.
Wild. GN 84132; W6 20130. Collected 1985 in Durango, Mexico. Latitude 25 deg. 16' N. Longitude 103 deg. 45' W. Elevation 1140 m. Presa Zarco is closest landmark. Mean plant length 200-500 cm. Indeterminate climber.

The following were donated by Corneli Seed Company, 101 Chouteau Avenue, Saint Louis, Missouri 63102, United States. Received 1961.

PI 632354. Phaseolus vulgaris L.
Cultivar. IDBBNR 4902; CANFREEZER. Literature reference for Canfreezer -- List of Vegetable Varieties by "Committee on Vegetable Breeding and Varieties" for Am. Soc. for Hort. Sc., August 1959, p. 3. No further background information available at NSSL.

The following were collected by Gene Howard, Cheyenne Hort. Field Station, PO Box 1087, Cheyenne, Wyoming, United States. Received 05/01/1982.

PI 632355. Phaseolus vulgaris L.
Cultivated. WEBBER WAX. Collected in Wyoming, United States.

The following were donated by Gene Howard, Cheyenne Hort. Field Station, PO Box 1087, Cheyenne, Wyoming, United States. Received 05/01/1982.

PI 632356. Phaseolus vulgaris L.
Cultivated. ALTOBA.

PI 632357. Phaseolus vulgaris L.
Cultivated. RED KIDNEY.

The following were developed by Garry A. Smith, USDA, ARS, Crops Research Laboratory, Colorado State University, Fort Collins, Colorado 80523, United States; Monte Rouquette, Texas A&M Research & Extension Ctr., Drawer E, Overton, Texas 75684, United States; I.J. Pemberton, Texas A&M Research & Extension Center, Overton, Texas 75684, United States. Received 12/09/2002.

PI 632358. Trifolium vesiculosum Savi
Cultivar. "APACHE". CV-216; PVP 200200203. Pedigree - 78 half-sib arrowleaf families derived from a field selection program that used the arrowleaf cvs. Yuchi, Meechee and Amclo as initial germplasm. Six cycles of recurrent selection for tolerance to BYMV in arrowleaf clover were conducted under greenhouse or field conditions using mechanical inoculation with BYMV-KY204-1. Resistant to BYMV induced lethal wilt and is highly tolerant to other components (dwarfing, chlorosis and leaf rugosity) of BYMV disease. Resistance to BYMV induced lethal wilt is controlled by a single gene and has been stable through the breeding history of this cv. Flowers 10 days earlier compared to Yuchi arrowleaf clover and also has greater forage production in the early spring months (Feb. and Mar.) than Yuchi. Seed color ranges from yellow to red to black. Same seed colors as Yuchi but with a higher percentage of black seed. Black seed occurance is about 25% compared to about 2% in Yuchi.

Seeds about 18% larger than Yuchi seed.

The following were developed by AgResearch Limited, New Zealand. Received 12/09/2002.

PI 632359 PVPO. Festuca arundinacea Schreb.
Cultivar. "GRASSLANDS FLECHA". PVP 200300012.

The following were developed by Enza Zaden De Enkhuizer Zaadhandel B.V., Enkhuizen, North Holland, Netherlands. Received 12/09/2002.

PI 632360 PVPO. Lactuca sativa L.
Cultivar. "MALAWI". PVP 200300014.

The following were developed by D. Helms, California Agr. Exp. Sta., University of California, Davis, California 95616, United States; Steven Temple, University of California, Department of Agronomy & Range, 183 Hunt Hall, Davis, California 95616, United States; W.C. Matthews, University of California, Dept. of Nematology, Riverside, California 92521-0415, United States; Philip A. Roberts, University of California, Department of Nematology, Riverside, California 92521-0415, United States. Received 12/09/2002.

PI 632361. Phaseolus lunatus L.
Cultivar. "CARIBLANCO N"; V-8. CV-212; PVP 200300015. Pedigree - Single plant selection (9399-6) made in 1993, from progeny derived from a cross between UCD Selection -144 and UCD Accession L-136 made in 1989. Indeterminate, vine type, small seeded or 'baby' lima bean. The first California cv. of baby lima beans with resistance to root-know nematodes Meloidogyne incognita and M. javanica. Carries resistance genes from the L-136 parent that suppress both reproduction and root-galling by M. incognita, and root-galling but not reproduction by M. javanica. Reproduction of M. incognita measured by eggs on root systems averaged about 10% of that produced on susceptible Henderson Bush lima bean. Root-galling by M. incognita and M. javanica is suppressed almost completely compared to that on susceptible cvs. Similar botanical and phenological characteristics as Mezcla. Similar white flowers, leaf size and shape, and green foliage and stem color with no anthocyamin pigmentation. With a May sowing date and typical growing conditions in the San Joaquin Valley, begins flowering about 45 days after sowing and matures its flush pods about 120 days from sowing. Maturity varies from 100-120.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 12/09/2002.

PI 632362 PVPO. Helianthus annuus L.
Cultivar. "D0030QM". PVP 200300031.

PI 632363 PVPO. Helianthus annuus L.
Cultivar. "D968VQM". PVP 200300032.

PI 632364 PVPO. Helianthus annuus L.

Cultivar. "PHA307". PVP 200300033.

PI 632365 PVPO. Helianthus annuus L.
Cultivar. "PHA345". PVP 200300034.

The following were developed by Elias M. Elias, North Dakota State University, Department of Plant Sciences, P.O. Box 5051, Fargo, North Dakota 58105-5051, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States; F.A. Manthey, North Dakota State University, Dept. of Cereal Science, Fargo, North Dakota 58105, United States. Received 12/09/2002.

PI 632366. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. Pureline. "PIERCE"; D941038. CV-937; PVP 200300035. Pedigree - D86117/D88289. Released 2001. High-yielding, medium kernel size, very strong gluten, average protein, and day length sensitive durum wheat. Plants medium in height and maturity. Spikes lax, awned, oblong, and inclined. Kernels amber color and medium-sized (31.0 mg). Very strong gluten and 131 g kg-1 semolina protein. Resistant to stem rust (Puccinia graminia) and leaf rust (Puccinia tritcina).

PI 632367. Triticum turgidum subsp. durum (Desf.) Husn.
Cultivar. Pureline. "DILSE"; D941261. CV-938; PVP 200300036. Pedigree - Maier/D88273. Released 2002. High-yielding, large kernel size, strong gluten, high protein, and day length sensitive durum wheat. Plants medium in height and maturity. Spikes lax, awned, oblong, and inclined. Kernels amber color and large-sized (32.6 mg). Very strong gluten and 138 g kg-1 semolina protein. Resistant to stem rust (Puccinia graminis) and leaf rust (Puccinia tritcina).

The following were developed by Advanta USA, Inc., United States. Received 12/09/2002.

PI 632368 PVPO. Poa pratensis L.
Cultivar. "Pp H7832". PVP 200300038.

PI 632369 PVPO. Poa pratensis L.
Cultivar. "Pp H7921". PVP 200300039.

The following were developed by Syngenta Seeds, Inc., United States. Received 12/09/2002.

PI 632370 PVPO. Phaseolus vulgaris L.
Cultivar. "DUSKY". PVP 200300040.

The following were developed by Agrigenetics, Inc. d/b/a/ Mycogen Seeds, United States. Received 12/09/2002.

PI 632371 PVPO. Zea mays L. **subsp. mays**
Cultivar. "4XA321". PVP 200300041.

PI 632372 PVPO. Zea mays L. **subsp. mays**
Cultivar. "MV8735". PVP 200300042.

The following were developed by Coors Brewing Company, United States. Received 12/09/2002.

PI 632373 PVPO. Hordeum vulgare L.
Cultivar. "IDAGOLD II". PVP200300043. Two row spring feed barley.

The following were developed by Agripro Wheat, Unit of Advanta USA, United States. Received 12/09/2002.

PI 632374 PVPO. Triticum aestivum L.
Cultivar. "AP502 CL". PVP 200300044. Pedigree - TXGH12588-26*4/FS2.

PI 632375 PVPO. Triticum aestivum L.
Cultivar. "AP401 CL". PVP 200300045.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 12/09/2002.

PI 632376 PVPO. Lolium perenne L.
Cultivar. "GRAND SLAM". PVP 200300046.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, United States; C.A. Rose-Fricker, Pure Seed Testing, Inc., 3057 G Street, Hubbard, Oregon 97032, United States; Melodee L. Fraser, Pure Seed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 12/09/2002.

PI 632377. Lolium perenne L.
Cultivar. "MANHATTAN 4"; PST-2CRL. CV-230; PVP 200300047. Pedigree - Parental germplasm includes plants from the PST breeding program selected for crown rust (Puccinia coronata) resistance, summer turf performance, or salt tolerance; selections from Manhattan 3 and germplasm from NJAES designated A96. Shows good turf quality in U.S. trials. Exhibits good resistance to stem rust (Puccinia graminis), crown rust (P. coronata), dollar spot (Sclerotinia homoeocarpa), red thread (Laetisaria fuciformis) and moderate leaf spot (Drechslera siccans) resistance. Maintains good turf quality under traffic stress and is recommended for sports turfs and lawns in temperate climates. Shows good turf quality in winter overseeding turf trials and is recommended for the winter overseeding of bermudagrass (Cynodon spp.). Lower growth habit, darker color, improved red thread and crown rust resistance and better turf quality compared to Manhattan 3.

The following were developed by Cerealtoscana SpA, Italy. Received 12/09/2002.

PI 632378 PVPO. Sinapis alba L.
Cultivar. "ISCI". PVP 200300048.

The following were developed by Barenbrug USA, Marketing Division, Tangent, Oregon 97389, United States. Received 12/09/2002.

PI 632379 PVPO. Festuca arundinacea Schreb.
Cultivar. "LABARINTH". PVP 200300049.

The following were developed by William D. Branch, University of Georgia, Coastal Plain Experiment Station, Department of Crop and Soil Sciences, Tifton, Georgia 31794-0748, United States. Received 12/09/2002.

PI 632380. Arachis hypogaea L.
Cultivar. "GEORGIA-02C"; GA 982508. CV-76; PVP 200300050. Pedigree - Southern Runner / gamma-irradiation induced mutation from seed of Georgia Runner. Unique from other high-oleic runner-type peanut cvs. in having a combination of higher percentage of jumbo runner seed size (riding a 8.33 x 19.05 mm slotted screen), higher total sound mature kernel percentage, tan testa color, spreading runner growth habit, medium maturity, and resistance to both Tomato spotted wilt virus and Cylindrochladium black root (Cylindrocladium parasiticum). Similar percentage of oleic, but significantly ($P<0.05$) lower percentage of linoleic fatty acid content and higher O/L ratio (32:1 vs. 24:1) for longer shelf-life and better nutrition as compared to AgraTech 201, another high-oleic runner market type cv. However, not significantly different from At 201 in 100 seed weight, blanchability, protein content, oil content, and roasted peanut flavor scores.

The following were donated by Dessert Seed Co.,Inc, P.O. Box 181, El Centro, California 92243, United States. Received 01/1960.

PI 632381. Daucus carota L.
Cultivar. "Yellow Belgian"; 20941; 30941; NSL 2873.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 09/1961.

PI 632382. Daucus carota L.
Cultivar. "Burpees Oxhart"; 02483-1; NSL 6160.

The following were donated by Burgess Seed and Plant Company, Galesburg, Michigan, United States. Received 09/1961.

PI 632383. Daucus carota L.
Cultivar. "Gold Pak"; 20951; NSL 6175.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 09/1961.

PI 632384. Daucus carota L.
Cultivar. "Goldinhart"; 20961; NSL 6177.

The following were donated by Dessert Seed Co.,Inc, P.O. Box 181, El Centro, California 92243, United States. Received 09/1961.

PI 632385. Daucus carota L.
Cultivar. "Imperator Long Type Short Top"; 20971; NSL 6180.

The following were donated by Ferry-Morse Seed Company, Inc., P.O. Box 100, Mountain View, California 94042, United States. Received 09/1961.

PI 632386. Daucus carota L.
Cultivar. "James Intermediate"; 02484-1; 03 411-1; NSL 6184.

The following were donated by Vaughan-Jacklin Corporation, 5300 Katrine Avenue, Downer'S Grove, Illinois 60515, United States. Received 09/1961.

PI 632387. Daucus carota L.
Cultivar. "Tablequeen"; 20981; NSL 6196.

PI 632388. Daucus carota L.
Cultivar. "Coreless Chantenay"; 20991; NSL 6647.

The following were donated by Sluis & Groot, P.O.B. 13, Westeinde 62, Enkhuizen, North Holland 1600 AA, Netherlands. Received 01/1966.

PI 632389. Daucus carota L.
Cultivar. "Dutch Horn"; 21001; 03 409-1; NSL 6779.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 11/1961.

PI 632390. Daucus carota L.
Cultivar. "Long Imperator II"; 21011; NSL 6972.

The following were donated by Ferry-Morse Seed Company, Inc., P.O. Box 100, Mountain View, California 94042, United States. Received 03/1963.

PI 632391. Daucus carota L.
Cultivar. "Long Imperator 58"; 21021; NSL 22913.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 06/1963.

PI 632392. Daucus carota L.
Cultivar. "New Early Coreless"; 21031; NSL 28006.

The following were donated by Pieter-Wheeler Seed Company, California, United States. Received 07/1964.

PI 632393. Daucus carota L.

Cultivar. "Waltham Hicolor"; 02485-1; 31021; NSL 32687.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 01/1968.

PI 632394. Daucus carota L.
Cultivar. "Popsicle"; 02486-1; NSL 65817.

The following were donated by Seed Research Specialists, California, United States. Received 01/1968.

PI 632395. Daucus carota L.
Cultivar. "Red Cone"; 02487-1; NSL 65818.

The following were developed by M. T. Moreno, Instituto Nacional de Investigaciones Ag, CIRDA 10 Apdo 240, Cordoba, Cordoba, Spain; Josefa Rubio, Centro de Investigacion y Formacion Agraria, Alameda del Obispo, Apdo. 3092, Cordoba, Cordoba, Spain; J. Gil, Universidad de Cordoba, Dept. de Genetics, Aptdo 3048, Cordoba, Cordoba 14080, Spain; C. Martinez, Centro de Investigacion y Formacion Agraria, Aptdo 4240, Cordoba, Cordoba 14080, Spain. Received 10/16/2002.

PI 632396. Cicer arietinum L.
Breeding. CA2969. GP-228. Pedigree - (CA2156 x JG62)F4 x ILC3279. Double podded F6:7 line, with semierect habit, early flowering and good resistance to ascochyta blight. Highest mean yield (1659 k/h)in winter sowing; Fardon was 1469 k/h. Seeds weigh 30.10 g 100 seed, which compares favorably with Fardon 26.8 g 100 seeds. In spring sowing, more productive in yield than Blanco lechoso (1107 k/h and 695 k/h respectively), however the seeds of Blanco lechoso have a greater weight (45.52 g 100 seed).

The following were developed by Gary S. Banuelos, USDA-ARS, Water Management Research Laboratory, 2021 S. Peach Avenue, Fresno, California 93727, 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 11/19/2002.

PI 632397. Lotus glaber Mill.
Breeding. ARS-NLT-SALT. GP-9. Pedigree - Developed from the broad based narrow leaf trefoil germplasm ARS-1207 using two cycles of saline condition selection during seed germination. Seeds harvested in mass from isolated increases, tested for saline and fresh water germination percentages, and the results compared with those for the base ARS-1207 population. Germination percentages in fresh water control were 74%, compared to 80% for ARS-1207. Germinated 39% in saline solution test conditions after two cycles of selection, compared to 11% in 20 dS m-1 saline conditions for ARS-1207. Under fresh water growing conditions, plants grew erect and exhibited either narrow linear-lanceolate or round-shaped leaflets. Under saline growth conditions, had abundant round-shaped, succulent leaves, compared to ARS-1207 that grew erect with narrow linear-lanceolate shaped leaflets and was stemmy, not succulent.

PI 632398. Lotus glaber Mill.
Breeding. ARS-NLT-SALT/B. GP-10. Pedigree - Developed from the broad based narrow leaf trefoil germplasm ARS-1207 using two cycles of saline condition selection during seed germination. Seeds harvested in mass from isolated increases, tested for saline and fresh water germination percentages, and the results compared with those for the base ARS-1207 population. Germination percentages in fresh water control were 77%, compared to 80% for ARS-1207. Germinated 37% in saline+B solution test conditions after two cycles of selection, compared to 16% in the 15 dS m-1 + 10 mg L-1 B saline conditions for ARS-1207. Under fresh water growing conditions, plants grew erect and exhibited either narrow linear-lanceolate or round-shaped leaflets. Under saline growth conditions, had abundant round-shaped succulent leaves, compared to ARS-1207 that grew erect with narrow linear-lanceolate shaped leaflets and was stemmy, not succulent.

The following were developed by Mark E. Sorrells, Cornell University, Dept. of Plant Breeding & Biometry, 240 Emerson Hall, Ithaca, New York 14853-1902, United States; Gary C. Bergstrom, Cornell University, Dept. of Plant Pathology, Ithaca, New York, United States; D. Benscher, Cornell University, Dept. of Plant Breeding, 252 Emerson Hall, Ithaca, New York 14853, United States. Received 12/02/2002.

PI 632399. Triticum aestivum L. **subsp. aestivum**
Cultivar. Pureline. "RICHLAND"; NY88024-117. CV-944; PVP 200300068. Pedigree - Originated as a selection from a composite population that was composed of the following F1 hybrids: 79052-'Kleiber' (PI383394)/'Houser'//Houser; 79053-Houser//Kleiber (PI383394)/Houser; 79054-Houser//Houser/Kleiber (PI345527); 79055-Houser/Kleiber (PI345527)//Houser; 79056-Houser//Houser/Kleiber (PI383394); 79057-Houser/Kleiber (PI383394)//Houser; 59076-Kleiber (PI383394)/Houser//'Geneva'; 59077-Houser/Kleiber (PI383394)//Geneva. Released 2001. Grain yield similar to Caledonia and averaged 6% higher grain yield than Geneva in 5 yrs. of regional testing in New York site. Test weight similar to Geneva and averaged 78.1 kg h1, 1 kg/h1 above Caledonia over 5 yrs. Similar in height to Geneva and averages 11 cm taller than Caledonia. Lodging resistance and winter hardiness similar to Geneva and slightly superior to Caledonia. Milling and baking characteristics are among the best for soft white winter wheats as deteremined by the USDA Soft Wheat Quality Lab., Wooster, OH. Susceptible to preharvest sprouting. Days to heading and maturity similar to most soft white winter cvs. grown in New York except Geneva which is 2 days earlier to reach anthesis. Stems and leaves yellow-green at booting and hollow white stems at maturity. At booting the flag leaf is erect and twisted and the stems have a waxy bloom. Spikes dense, tapering, and awnletted. Glumes tan, medium long, wide and have a square shoulder and an obtuse beak. Kernels.

The following were developed by Harry C. Minor, University of Missouri-Columbia, Department of Agronomy, 214 Waters Hall, Columbia, Missouri 65211, United States; Charlie L. Rife, Kansas State University, Department of Agronomy, 2004 Throckmorton Plant Science Center, Manhattan, Kansas 66506-5501, United States; Dick L. Auld, Texas Tech University, Department of Plant and Soil Sciences, P.O. Box 42122, Lubbock, Texas

79409-2122, United States; David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; W.F. Heer, Kansas State University, Kansas Agric. Exp. Station, Department of Agronomy, Manhattan, Kansas 66506, United States; D. Bordovsky, Texas A&M University, Ag. Res.-Ext. Ctr., Vernon, Texas 76384, United States; Lenis A. Nelson, University of Nebraska, Department of Agronomy, 342 Keim Hall - E. Campus, Lincoln, Nebraska 68583, United States. Donated by Charlie L. Rife, Kansas State University, Department of Agronomy, 2004 Throckmorton Plant Science Center, Manhattan, Kansas 66506-5501, United States. Received 12/10/2002.

PI 632400. Brassica napus L.
Cultivar. "Abilene". CV-21. Pedigree - Indore/Sipal//Liraglu/3/Bienvenu. Low in erucic acid (average of 9 kg-1 in the oil) and glucosinolates (average of 12 umol g-1 in the oil-free meal). Mean survival similar to Plainsman and Wichita.

The following were developed by Steve St. Martin, Ohio State University, Department of Horticulture & Crop Science, 202 Kottman Hall, Columbus, Ohio 43210-1086, United States; R.L. Cooper, USDA-ARS, Ohio State University, 1680 Madison, Wooster, Ohio 44691-4096, United States; Ron Fioritto, Ohio State University, Ohio Agricultural Research & Development Center, Dept. of Horticulture & Crop Science, Wooster, Ohio 44691, United States; Anne E. Dorrance, Ohio State University, OARDC - Department of Plant Pathology, 1680 Madison Avenue, Wooster, Ohio 44691-4096, United States; T. Mendiola, USDA, ARS, Ohio Agric. Res. and Development Ctr. (OARDC), Dept. of Hort. and Crop Sci., Wooster, Ohio 44691, United States. Received 12/09/2002.

PI 632401. Glycine max (L.) Merr.
Cultivar. "APEX". CV-449. Pedigree - HC85-607 x HC78-676BC. Determinate semidwarf (dtlel) of mid Group III maturity with specific adaptation to high yield environments (>3300 kg/ha) where lodging can be a yield limiting factor in taller indeterminate varieties. Like all semidwarf varieties, should be solid-seeded in 17 to 25cm row spacing at a seeding rate of 750,000 seeds/ha of 90%+ germ. Recommended specifically for uniformly high yielding fields and for planting in the high yielding areas within a field with variable yield potential, in site-specific-farming. Flowers purple, tawny pubescence, brown pods and shiny yellow seed with black hilum and carries the Rps1k gene for race specific resistance to Phytophthora sojae.

PI 632402. Glycine max (L.) Merr.
Cultivar. "STALWART". CV-464. Pedigree - HC85-606(4) x HC94-634REBC. Determinate semidwarf (dtlel) of mid Group III maturity with specific adaptation to high yield environments (>3300 kg/ha) where lodging can be a yield limiting factor in taller indeterminate varieties. Like all semidwarf varieties, should be solid-seeded in 17 to 25cm row spacing at a seeding rate of 750,000 seeds/ha of 90%+ germ. Recommended specifically for uniformly high yielding fields and for planting in the high yielding areas within a field with variable yield potential, in site-specific-farming. Flowers white, tawny pubescence, brown pods and shiny yellow seed with black hilum and carries the Rpslk gene for race specific resistance to Phytophthora sojae.

The following were developed by Don F. Salmon, Alberta Agriculture, Field

Crop Research Centre, 5030-50 Street, Lacombe, Alberta T4L 1W8, 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 1R1, Canada; Patricia E. Juskiw, Alberta Agriculture, Field Crop Development Centre, 5030-50 St., Lacombe, Alberta T4L 1W8, Canada; Joseph M. Nyachiro, Alberta Agriculture, Food & Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; M. Oro, Alberta Agriculture, Food and Rural Developmentt. Centre, Field Crop Development Center, Lacombe, Alberta T4L 1W8, Canada. Received 12/17/2002.

PI 632403. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. "TYTO"; HB513; T89047NX. CV-310. Pedigree - Falcon/Samson. Released 2002. Hulless, semi-dwarf, six-row, and smooth-awned feed barley. White-colored auricles, semi-compact medium size and nodding spikes. Relatively good grain yield, good seed weight and test weight and high silage production. Good resistance to surface-borne smuts, moderate resistance to stem rust and septora, intermediate resistance to scald and is susceptible to common root rot. Plants average 77 cm tall and mature at 99 days. Good resistance to lodging due to strong straw. Good seed weight, test weight and high silage production.

PI 632404. Hordeum vulgare L. **subsp. vulgare**
Cultivar. Pureline. "NIOBE"; TR651; H92031021. CV-309. Pedigree - AC Oxbow / CDC Guardian. Released 2002. Two-row, rough-awned, feed barley, with purple-colored auricles. Spikes semi-compact, medium-length, horizontal attitude, with medium-long and short-haired rachillas. Plant height about 88 cm. Matures in about 100 days and has good lodging resistance. Good disease resistance with an intermediate level of resistance to net blotch and resistance to both covered and false loose smuts. Seedling resistance to scald and intermediate adult plant resistance. Low resistance to septoria, spot blotch, common root rot and no resistance to loose smut. Tested in the Coop trials as TR651 and showed relatively high grain yield and good %plump kernels.

The following were donated by James E. Specht, University of Nebraska, Department of Agronomy, Crop,Range, Soil and Weed Sciences, Lincoln, Nebraska 68583, United States. Received 12/16/2002.

PI 632405. Glycine max (L.) Merr.
Genetic. Pureline. 93-h1054; T363; Hobbit-87-dlm; SY 215001. Pedigree - Gamma irradiated Hobbit 87. Released 1998. Mutant originating from gamma-irradiated seed of Hobbit 87 with the recessive allele dlm (disease lesion mimic).

The following were developed by J.C. Gutierrez, Instituto Nacional de Investigaciones Agrarias, Junta de Andalucia, Consejeria de Agricultura, Alcala Del Rio, Sevilla, Spain; Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; Francisco J. Morales, International Center for Tropical Agriculture, Apartado Aereo 6713, Cali, Valle, Colombia; Henry Teran, International Center for Tropical Agriculture, Apartado Aereo 6713, Cali, Valle, Colombia; Marcial Pastor-Corrales, USDA, ARS, Microbiology & Plant Pathology Laboratory, Building 011A, Room 252, BARC-West, Beltsville,

Maryland 20705-2350, United States; Howard F. Schwartz, Colorado State University, Department of Plant Pathology, C 205 Plant Science Building-BSPM, Fort Collins, Colorado 80523-1177, United States; L.O. Silva, Agencia Rural-Anapolis, Caixa Postal 608, 75000-970 Anapolis, Goias, Brazil; E.A. Moraes, Agencia Rural-Anapolis, Caixa Postal 608, 75000-970 Anapolis, Brazil; M. Thung, Nat. Res. Centre for Rice and Beans and, EMBRAPA, Arroz e Feijao, Caixa Postal 179, Goias, Brazil. Received 12/20/2002.

PI 632406. Phaseolus vulgaris L.
Cultivar. "EMGOPA 201-Ouro"; A 295. CV-205. Pedigree - Developed from single cross population BZ 73 with the pedigree A 30/Aete 1/37 at CIAT, Cali, Columbia. Indeterminate growth habit type III with a small vine. Small (23 g 100 seed-1), opaque, light beige seed. Flowers white with chordate bracteoles. Flowered in 38 d and matured in 74 d at CIAT, Palmira, Colombia. In Goias, Brazil, on average, matured in 90 d. Because partially sensitive to a long photoperiod, may flower and mature late (taking >100 d) in U.S. and Canada. Has the I gene resistance to the bean common mosaic virus. Moderately resistant to angular leaf spot, five races of the anthracnose pathogen (including races Alpha and Delta in the U.S.), common bacterial blight (Xanthomonax campestris), the race 2 of Pseudomonas syringae), causing halo blight, some races of the bean rust pathogen, Uromyces appendiculatus (including races 38 and 53 in the U.S.), and powdery mildew (Erysiphe polygoni).

The following were developed by Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; Henry Teran, International Center for Tropical Agriculture, Apartado Aereo 6713, Cali, Valle, Colombia; J. Ariel Gutierrez, Universidad Nacional de Colombia, A.A. 237, Palmira, Colombia. Received 12/20/2002.

PI 632407. Phaseolus vulgaris L.
Breeding. A 55. GP-233. Pedigree - Derived from population TC 590=TTS/77B-ICA 10303. Black small-seeded (<25 g 100 seed-1), Type II indeterminate growth habit with tall (>70 cm plant height), upright stiff-stem and branches. Has the I gene for bean common mosaic virus resistance. Moderate resistance to root rots (Fusarium solanPythium ultrimum, and Aphanomyces euteiches), and to bacterial brown spot (Pseudomonas syringeae). Resistance to races 38 and 53 of bean rust (Uromyces appendiculatus) and to fusarium yellows (Fusarium oxysporum). Moderate resistance to race Delta of Colletotrichum lindemuthianum, causing anthracnose, but is susceptible to race Alpha. In field tests in U.S and Canada, reduced disease incidence and severity under a moderate white mold (Sclerotinia sclerotiorum) pressure, but is susceptible under heavy disease pressure in field and in greenhouse straw-tests. Resistant to southern root-knot nematode (Meloidogyne incognita). Susceptible to common bacterial blight (Xanthomonas campestris) and angular leaf spot (Phaeoisariopsis griseola).

The following were developed by Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; Francisco J. Morales, International Center for Tropical Agriculture, Apartado Aereo 6713, Cali, Valle, Colombia; Henry Teran, International Center for Tropical Agriculture, Apartado Aereo 6713, Cali, Valle, Colombia; Marcial Pastor-Corrales, USDA, ARS, Microbiology & Plant Pathology Laboratory, Building 011A, Room 252, BARC-West, Beltsville,

Maryland 20705-2350, United States; Howard F. Schwartz, Colorado State University, Department of Plant Pathology, C 205 Plant Science Building-BSPM, Fort Collins, Colorado 80523-1177, United States. Received 12/20/2002.

PI 632408. Phaseolus vulgaris L.
Breeding. A 339. GP-229. Pedigree - Derived from a single-cross interracial population MX 203=*Ojo de Lievre/Brasil 2. Small (21 g 100 seed-1) cream seed, white flowers, and an indeterminate Type III growth habit. In Colombia, flowered in 41 d and matured in 82 d. Resistance to angular leaf spot, anthracnose, and possesses I gene resistnce to BCMV. Also resistant to races 38 and 53 of Uromyces appendiculatus causing rust, and possesses a moderate level of tolerance to the Race 2 of Pseudomonas syringe causing halo blight, and low soil fertility.

PI 632409. Phaseolus vulgaris L.
Breeding. MAR 1. GP-230. Pedigree - Developed from a multiple parent interracial population: BZ 5845=BAT 85//A 83/XAN 112///*Catu*//A442/Higuerillo. Medium-sized (28 g 100 seed-1) cream-speckeled seed, purple flowers, and a Type III growth habit. Flowers in 42 d and matures in 80 d in Colombia. Resistance to angular leaf spot, anthracnose, and possesses I gene resistance to BCMV. Also resistant to races 38 and 53 of Uromyces apendiculatus causing rust, and possesses a moderate level of tolerance to Race 2 of Pseudomonas syringae causing halo blight and low soil fertility.

PI 632410. Phaseolus vulgaris L.
Breeding. MAR 2. GP-231. Pedigree - Developed from a single-cross population: AR 3782=A 252/Ecuador 299 at CIAT, Popayan, Colombia. Cream-striped seed, white flowers, and an indeterminate Type III growth habit. Insensitive to long photoperiod, but flowered in 42 d and matured in 80 d in Colombia. Angular leaf spot resistance to race 63.39 of P. griseola is controled by a single dominant gene that is linked in coupling phase with random amplified polymorphic DNA marker OPED-04 at 5.8 cM. Has the I gene resistance to BCMV. Also resistant to races 38 and 5.

PI 632411. Phaseolus vulgaris L.
Breeding. MAR 3. GP-232. Pedigree - Selected from a single-cross population MX 5042=A 321/Higuerrillo at CIAT, Popayan, Colombia. Type III growth habit, small pinto-colored seed, and white flowers. Sensitive to long photoperiods (receiving a score of 8 on a 1 to 9 scale, where 1=insensitive or day-neutral, and 9=highly sensitive). Resistant to angular leaf spot (Phaeoisariopsis griseola), anthracnose, and has the I gene resistance to BCMV. Also resistant to races 38 and 53 of Uromyces appendiculatus causing rust, and possesses a moderate level of tolerance to the race 2 of Pseudomonas syringae causing halo blight, and low soil fertility.

The following were developed by K. Stewart-Williams, University of Idaho, Kimberly Res. and Ext. Ctr., 3793 North 3600 East, Kimberly, Idaho 83341, United States; R.E. Hayes, University of Idaho, Kimberly Res. and Ext. Ctr., 3793 North 3600 East, Kimberly, Idaho 83341, United States; James R. Myers, Oregon State University, Department of Horticulture, 4017 Ag Life Sciences Building, Corvallis, Oregon 97331, United States; Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; Carl A. Strausbaugh, Univerity of Idaho,

Research & Extension Center, 3793 North, 3600 East, Kimberly, Idaho 83341, United States; M.F. Dennis, University of Idaho, Kimberly Res. & Ext. Ctr., 3793 North 3600 East, Kimberly, Idaho 83341, United States. Received 12/20/2002.

PI 632412. Phaseolus vulgaris L.
Breeding. UI98-209G; 98-209G. GP-235. Pedigree - Derived from population UI 425 /BelNeb-RR-1. Type III indeterminate growth habit with semi-prostrate branches and small vine. Has resistance genes BCMV and BCMNV. Also has resistance to curly top, and a mixture of U. appendiculatus races 38, 39, 40, 41, and 43 in the fields at Beltsvile, MD, and races 38 and 53 in greenhouses at Filer, ID. Moderate resistance to halo blight (Pseudomonas syringae) and zinc deficiency, and continual bean cropping. However, susceptible to anthracnose (Colletotrichum lindemuthiamum), common bacterial blight (Xanthomonas campestris), and white mold (Sclerotinia selerotiorum).

The following were developed by Linda M. Pollak, USDA, ARS, Iowa State University, Dept. of Agronomy, Ames, Iowa 50011, United States; Kevin Montgomery, Central Golden Harvest Research, Clinton Corn Breeding, RR 3, Box 257, Clinton, Illinois 61727, United States; Richard C. Pratt, Ohio State University - OARDC, 1680 Madison Avenue, Wooster, Ohio 44691-4096, United States. Donated by Richard C. Pratt, Ohio State University - OARDC, 1680 Madison Avenue, Wooster, Ohio 44691-4096, United States. Received 12/16/2002.

PI 632413. Zea mays L. **subsp. mays**
Breeding. Partinbred. OSU 43-2; GEMS-0002; Ames 26943. GP-400. Pedigree - Selected from GEM FS8(A)S:S09 population. Released 03/24/2002. Selected from the GEM FS8(A)S:S09 population. Genetic composition of the population FS8(A)S (PI 536619) is estimated to be approx. 50% BSSS related, 21% tropical, 18% southeastern U.S., and 11% diverse Corn Belt (with a high proportion of inbred C103A). Breeder's seed of GEMS-0002 was increased by controlled full-sib pollination of the S3 in the 2002 OSU nursery. Seed from over 100 ears was bulked for distribution. It has been released to GEM cooperators following the GEM protocol. Mid-silk date is approx. one week earlier than that of B73 in Ohio, and it produces moderate amounts of pollen. Plant height is quite moderate (ave=133.2 cm) and ear placement is slightly below mid-plant height (ave=55.8 cm). Cob color is white and ears generally display 12 kernel rows (average 12.5, range 10-16). Ear width is approx. 3.8 cm (range 3.5 to 4.4 cm). Ear length is approx. 13.2 cm (range 11 to 15 cm). Kernels are yellow to yellow-orange in color and are slightly dented to flinty and.

The following were developed by R.L. Kallenbach, University of Columbia, Dept. of Agronomy, Plant Science Unit, Columbia, Missouri 65211, United States. Received 12/30/2002.

PI 632414. Cynodon dactylon (L.) Pers.
Cultivar. "OZARK"; 74X 12-6. Pedigree - Clonally propagated F1 hybrid of the cross PI 253302 / Coastal. Tall, upright growth habit. Stem diameter, shoot length, and leaf width similar to Midland and Tifton 44. Leaves tend to be longer than Midland and Tifton 44. Like most hybrid bermudagrasses, sets only a few seeds and therefore must be propagated vegetatively. Withstands cold temperatures well. Value of 8.9 deg. C in

laboratory cold tolerance tests. Survives well in the northern part of the bermudagrass belt. Stands have not shown signs of significant winterkill at any location where yield testing has been conducted. Observation plots as far north as Elsberry, MO (30 deg. 10'N 90 deg. 46' W) have persisted more than five years.

The following were developed by Jose Fernandez-Martinez, Instituto de Agricultura Sostenible, Apartado 4084, Alameda del Obispo s/n, Cordoba, Cordoba 14080, Spain; Leonardo Velasco Varo, Instituto de Agricultura Sostenible, Apartado 4084, E-14080, Cordoba, Cordoba 14080, Spain; J. Dominguez, CIFA-Junta de Andalucia, Departamento de Mejora y Agronomia, Apartado 4240, Cordoba, Cordoba, Spain; Leonardo Velasco, Institute for Sustainable Agriculture, Alameda del Obispo s/n, Apartado 4084, Cordoba, Cordoba E-14080, Spain. Received 12/05/2002.

PI 632415. Helianthus annuus L.
Breeding. T589. GP-271. Pedigree - Selected from PI 307937, in which seeds with increased beta-tocopherol content were identified. Increased levels of beta-tocopherol in the seeds. More than 30% of the total tocopherols in the seeds are in the form of beta-tocopherol. Beta-tocopherol content in the seeds ranges from 30.4% to 48.5% of the total tocopherols. When crossed to the standard line HA-89, produces F1 seeds with standard tocopherol profile and F2 progenies that segregates in a 3 standard to 1 increased beta-tocopherol ratio, indicating that increased beta-tocopherol content is controlled by recessive alleles at a single locus.

PI 632416. Helianthus annuus L.
Breeding. T2100. GP-272. Pedigree - Selected from CO-77-256, an old accession of Peredovick of the germplasm collection of the Inst. for Sustainable Agric. at Cordoba, Spain. Increased levels of gamma-tocopherol in the seeds. More than 85% of the total tocopherols in the seeds are in the form of gamma-tocopherol. Gamma-tocopherol content in the seeds ranges from 87.9% to 93.9% of the total tocopherols. When crossed to the standard line HA-89, produces F1 seeds with standard tocopherol profile and F2 progenies that segregate in a 3 standard to 1 increased gamma-tocopherol ratio, indicating that increased gamma-tocopherol content is controlled by recessive alleles at a single locus.

Species Index

Agropyron cristatum (628671-628672, 628678, 628683, 628689-628691, 628696, 628712)
Agropyron desertorum (628679-628682, 628697)
Agrostis canina (630925)
Agrostis capillaris (628720, 628996, 629009)
Allium cepa (631453-631454)
Allium cepa var. cepa (628974-628975)
Alopecurus arundinaceus (628716, 628727-628728)
Amaranthus acanthochiton (632238-632239)
Amaranthus albus (632244)
Amaranthus blitum (628778)
Amaranthus blitum var. pseudogracilis (632245)
Amaranthus caudatus (628779, 628794, 632249)
Amaranthus cruentus (628780-628785, 628793)
Amaranthus deflexus (632246)
Amaranthus greggii (632240)
Amaranthus hybridus (632247)
Amaranthus palmeri (632235-632236)
Amaranthus powellii (632241)
Amaranthus spinosus (632248)
Amaranthus tricolor (632237)
Amaranthus wrightii (632242-632243)
Angelica keiskei (631478)
Arachis hypogaea (629027, 630947-630948, 631072-631075, 631175-631177, 631390, 632380)
Aronia melanocarpa (631247)
Arrhenatherum elatius (628710)
Astragalus cicer (630975)
Avena sativa (628986, 629061-629097, 629113, 630926, 630940)
Beta vulgaris (632251)
Beta vulgaris subsp. vulgaris (628749-628760, 631354, 632234, 632284-632289)
Brassica napus (631085, 632400)
Brassica rapa (629030)
Capsicum annuum (631126-631133, 631140, 631143, 631145-631149, 631152-631153, 631355)
Capsicum annuum var. glabriusculum (631136, 631141)
Capsicum baccatum var. baccatum (631150)
Capsicum flexuosum (631154)
Capsicum frutescens (631134-631135, 631137-631139, 631142, 631144, 631151)
Carthamus tinctorius (630934, 631483, 632255)
Cicer arietinum (629017-629018, 631078, 632396)
Citrullus lanatus (629102-629103, 629107-629111)
Citrullus lanatus var. lanatus (629101, 629104-629106, 632297)
Cornus drummondii (631248)
Corylus sp. (631155)
Cucurbita maxima (628614-628618, 631479)
Cucurbita pepo (630937)
Cynodon dactylon (628792, 632414)
Daucus carota (632381-632395)
Deschampsia cespitosa (632254)
Dianthus campestris (629098)
Echinacea angustifolia (631267)
Echinacea angustifolia var. angustifolia (631261, 631268-631273,

631283-631289, 631317-631319)
Echinacea angustifolia var. strigosa (631266, 631320)
Echinacea atrorubens (631255, 631260, 631262, 631299)
Echinacea hybrid (631294, 631306)
Echinacea laevigata (631310-631312, 631314, 631316)
Echinacea pallida (631252-631254, 631256, 631259, 631274-631282, 631290-631291, 631293, 631295-631298, 631300, 631302-631303, 631309, 631315, 631322-631323)
Echinacea paradoxa var. neglecta (631263-631265)
Echinacea paradoxa var. paradoxa (631292, 631301, 631321)
Echinacea purpurea (631307, 631313)
Echinacea sanguinea (631257-631258)
Echinacea simulata (631249, 631251, 631304-631305, 631308)
Echinacea tennesseensis (631250, 631324-631326)
Elymus dahuricus (628673-628674, 628676, 628700, 628721, 628733-628737)
Elymus dentatus (628701-628702)
Elymus elymoides subsp. brevifolius (628688)
Elymus elymoides subsp. elymoides (628684-628687, 628747)
Elymus gmelinii (628724)
Elymus hoffmannii (631392)
Elymus multisetus (628746)
Elymus mutabilis (628703-628705)
Elymus nutans (628675, 628698)
Elymus sibiricus (628677, 628699, 628706, 628726)
Elytrigia repens (630974)
Festuca arundinacea (628971, 628973, 628978, 631169, 631391, 631470, 632359, 632379)
Festuca rubra subsp. fallax (631477)
Festuca rubra subsp. rubra (628995, 631469, 631471-631472)
Glycine max (628659-628669, 628797-628966, 628997-629005, 629008, 629013-629015, 630928-630933, 630984, 631086, 631122-631123, 631157, 631166-631167, 631398-631401, 631437-631438, 632259, 632303-632317, 632352, 632401-632402, 632405)
Gossypium arboreum (629321-630007)
Gossypium aridum (630985-630999)
Gossypium barbadense (630060-630180, 630941, 631000-631008)
Gossypium gossypioides (631061-631062)
Gossypium herbaceum (630008-630059)
Gossypium hirsutum (628634-628639, 628762-628777, 628969, 628976-628977, 628989-628990, 630181-630218, 630222-630673, 631009-631060, 631071, 631080-631082, 631181-631191, 631386, 631440-631442)
Gossypium hybrid (630219-630221)
Gossypium laxum (631063-631067)
Gossypium lobatum (631068)
Gossypium schwendimanii (631069-631070)
Helianthus annuus (631495-631496, 632338-632342, 632362-632365, 632415-632416)
Hordeum vulgare (631246, 632302, 632373)
Hordeum vulgare subsp. vulgare (629115-629116, 629287-629288, 631439, 632274, 632403-632404)
Iochroma cyaneum (632348, 632350-632351)
Iochroma sp. (632349)
Ipomoea batatas var. batatas (628761, 629268-629276)
Lactuca sativa (628967-628968, 630943, 631083, 631462-631465, 631487-631491, 632267, 632300-632301, 632360)
Lens culinaris (631395-631397)
Leucanthemum vulgare (629099-629100)

Lolium hybrid (628694)
Lolium multiflorum (632337)
Lolium perenne (628693, 628717, 628979-628981, 628994, 629006, 631448, 631458-631461, 631466-631468, 631484, 632258, 632376-632377)
Lolium sp. (628707-628709, 628718, 628729-628732)
Lotus arenarius (631779-631783)
Lotus collinus (631881)
Lotus conimbricensis (631880)
Lotus corniculatus (630976-630977, 631492, 631539-631542, 631598-631600, 631621-631630, 631687-631688, 631692-631693, 631695, 631710, 631712)
Lotus corniculatus subsp. frondosus (631901)
Lotus eriosolen (631784)
Lotus glaber (631716-631718, 632397-632398)
Lotus maroccanus (631955-631959)
Lotus ornithopodioides (631786)
Lotus pedunculatus (631960)
Lotus subbiflorus (631785)
Lotus uliginosus (631766-631767, 631771-631774)
Lotus unifoliolatus (631744)
Lotus weilleri (631729)
Lycopersicon esculentum (629029, 629033)
Lycopersicon sp. (629031-629032)
Malus sieversii (629296-629320)
Malva alcea (631329)
Malva moschata (631340)
Malva parviflora (631328, 631341-631343)
Malva sylvestris (631327, 631330-631331)
Malva verticillata var. chinensis (631339)
Malva verticillata var. crispa (631332, 631334-631336)
Malva verticillata var. verticillata (631333, 631337-631338)
Medicago cretacea (631721)
Medicago hybrid (631768-631770)
Medicago laciniata (631634)
Medicago lupulina (631929, 631963-631971)
Medicago minima (631788-631789)
Medicago orbicularis (631651)
Medicago papillosa (631778)
Medicago platycarpos (631751-631752)
Medicago prostrata (631928)
Medicago ruthenica (631739-631743, 631907-631918, 632174-632209)
Medicago sativa nothosubsp. tunetana (631714-631715)
Medicago sativa nothosubsp. varia (631834, 631919-631920, 631927, 631930-631953, 631962, 631972-631973)
Medicago sativa subsp. caerulea (631921-631926, 631954)
Medicago sativa subsp. falcata (631543-631597, 631601-631620, 631635-631645, 631650, 631652, 631654-631656, 631658, 631660-631661, 631663, 631666-631672, 631676-631686, 631689-631691, 631697, 631699-631701, 631704, 631707-631708, 631793-631833, 631835-631859)
Medicago sativa subsp. glomerata (631978, 632028)
Medicago sativa subsp. sativa (631443, 631860-631868, 631871-631874, 631975-631977, 631979-632022, 632026-632027, 632029-632173)
Medicago sativa var. viscosa (631869-631870)
Medicago suffruticosa (632023-632025)
Medicago suffruticosa subsp. leiocarpa (631905)
Melilotus albus (629289-629290)
Nassella viridula (628740-628741, 631162)
Ocimum basilicum (630939)

Oryza sativa (628791, 628795-628796, 628972, 629016, 629291, 631388, 631476, 632276-632283)
Perilla frutescens (632250)
Phaseolus filiformis (632353)
Phaseolus lunatus (632361)
Phaseolus vulgaris (628619-628631, 628748, 628970, 628993, 630927, 631114-631121, 631163, 631353, 631455, 631494, 632268, 632344, 632354-632357, 632370, 632406-632412)
Phleum phleoides (628695, 628711, 628719)
Phleum pratense (628738-628739)
Pisum sativum (629012, 629295, 630922-630924, 630945-630946, 630954, 631084, 631171-631174, 631360-631362, 631379, 631387, 631485, 632271)
Poa nemoralis (628725)
Poa pratensis (628714, 630942, 631076-631077, 631168, 631170, 631178-631179, 631451-631452, 632265, 632269-632270, 632298-632299, 632368-632369)
Potentilla argentea (631344)
Pseudoroegneria spicata (628742-628745)
Puccinellia intermedia (628713, 628715)
Ricinus communis (631156)
Saccharum hybrid (631180)
Saccharum sp. (632233)
Secale cereale subsp. cereale (628642-628643, 630972-630973)
Secale strictum (630955-630962)
Secale strictum subsp. africanum (630963-630964)
Secale strictum subsp. anatolicum (630965-630966)
Secale strictum subsp. ciliatoglume (630967)
Secale strictum subsp. kuprijanovii (630968-630970)
Secale strictum subsp. strictum (630971)
Silphium laciniatum (628632-628633)
Sinapis alba (632378)
Solanum acaule (631192-631196, 631218)
Solanum acaule subsp. aemulans (631197)
Solanum albicans (631198-631199)
Solanum angustifolium (631200)
Solanum candolleanum (631415)
Solanum chacoense (631202-631205, 631207-631208, 631222)
Solanum hoopesii (631223, 631228)
Solanum jamesii (632322-632326, 632329, 632331)
Solanum microdontum (631211-631212, 631226)
Solanum sparsipilum (631209-631210)
Solanum stoloniferum (631206, 631213-631217, 632318-632321, 632327-632328, 632330, 632332-632336)
Solanum tuberosum (628670, 629010, 629019-629026, 630949-630953, 631124-631125, 631230-631245, 631416-631419)
Solanum tuberosum subsp. andigenum (631219, 631227)
Solanum ugentii (631224)
Solanum violaceimarmoratum (631229)
Solanum x doddsii (631220-631221, 631225)
Solanum x juzepczukii (631201)
Sorghum bicolor (629034-629059, 631357-631359, 631497-631513, 632253)
Spiraea betulifolia (631347)
Spiraea fritschiana (631345)
Spiraea hypericifolia (631346)
Staphylea bumalda (631348)
Stipa capillata (628722-628723)
Stipa sp. (628692)
Tanacetum coccineum (631349)

Tanacetum corymbosum (631350)
Tanacetum parthenifolium (631351)
Trifolium alpestre (631787, 631791-631792)
Trifolium ambiguum (631890-631891, 631894-631896, 631899)
Trifolium angulatum (631898)
Trifolium apertum (631720, 631722)
Trifolium arvense (631420-631424)
Trifolium campestre (631425-631429)
Trifolium canescens (631633)
Trifolium dasyphyllum (631903)
Trifolium depauperatum (631430)
Trifolium diffusum (631431-631434)
Trifolium fragiferum (631631, 631646, 631653, 631657, 631659, 631662, 631664-631665, 631673-631675, 631696, 631698, 631702-631703, 631706, 631713)
Trifolium hybridum (631876, 631887-631889, 631900)
Trifolium lupinaster (631632, 631648-631649, 631694, 631705, 631709)
Trifolium medium (631893)
Trifolium montanum (631733)
Trifolium ornithopodioides (631711)
Trifolium pallescens (631776)
Trifolium pannonicum (631790)
Trifolium patulum (631961)
Trifolium pratense (629112, 631723-631728, 631730-631731, 631734-631738, 631745-631749, 631754-631765, 631906, 632210-632232)
Trifolium repens (631875, 631877-631879, 631883-631886, 631892, 631897, 631902, 631904)
Trifolium rubens (631647)
Trifolium stoloniferum (631732)
Trifolium striatum (631435)
Trifolium trichocephalum (631882)
Trifolium tumens (631719)
Trifolium velebiticum (631750, 631753)
Trifolium vesiculosum (632358)
Trifolium virginicum (631775, 631777)
Trifolium willdenovii (631436, 631974)
Trigonella foenum-graecum (628786-628790)
Triticum aestivum (628987-628988, 630935, 630938, 631087-631089, 631376, 631389, 631449-631450, 631473-631475, 631480-631482, 632260-632261, 632272, 632374-632375)
Triticum aestivum subsp. aestivum (628640, 628644-628649, 629060, 629114, 629117-629118, 629120, 629277-629281, 630978-630982, 631090-631113, 631159, 631164-631165, 631352, 631402-631414, 631445-631447, 631486, 631493, 631514-631538, 632252, 632273, 632275, 632343, 632345-632347, 632399)
Triticum aestivum subsp. compactum (628641, 630983)
Triticum aestivum subsp. spelta (631161)
Triticum turgidum subsp. durum (628650-628655, 631158, 631160, 632366-632367)
Triticum turgidum subsp. polonicum (629119)
Vicia faba (632290-632296)
X Triticosecale sp. (628656-628658, 629011, 629028, 629282-629286, 631456-631457, 632262-632264)
Zea mays (628991-628992, 629007)
Zea mays subsp. mays (628982-628985, 629121-629267, 629292-629294, 630936, 630944, 631079, 631356, 631363-631375, 631377-631378, 631380-631385, 631393-631394, 631444, 632256-632257, 632266, 632371-632372, 632413)