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February 1996

# Plant Inventory No. 203, Part I

Plant Materials Introduced  
January 1 to June 30, 1994  
(Nos. 576438 to 580184)

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R.A. Norris, editor

Norris, R.A., ed. 1996. Plant Inventory No. 203, Part I. Plant Materials Introduced January 1 to June 30, 1994, Nos. 576438 to 580184. U.S. Department of Agriculture, Agricultural Research Service, 331 pp.

Plant Inventory No. 203 is a listing of plant materials introduced into the U.S. National Plant Germplasm System during calendar year 1994. The Inventory is divided into two parts that encompass PI numbers 576438 to 584522. This is not a listing of plant material for distribution.

Questions about data organization and proper plant identifications should be directed to the editor: R.A. Norris, National Germplasm Resources Laboratory, 10300 Baltimore Blvd., Bldg. 003, 4th Floor, Beltsville, MD 20705.

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The following were developed by G. A. Kielly, Agriculture Canada, Swift Current Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada. Received 12/27/1993.

**PI 576438. *Elymus dahuricus* Turcz. ex Griseb.**  
Cultivar. "JAMES"; W6 14904. CV-169. Pedigree - Developed using pure line breeding technique from Chinese plant introduction Sc 1732. Hexaploid (2n=42) short-lived perennial caespitose grass. Leaves wide (11-15mm) and lax with long (130-235mm) leaf sheaths and internodes (130-235mm). Seed spikes (130-150mm) borne on culms 100-150cm long. Two to four spikelets per node, 3 most common. Each spikelet may contain 3-5 florets. Heads erect, green. Excellent establishment vigor, high establishment year dry matter yield and high seed yield.

The following were developed by Charles G. Cook, USDA, ARS, Subtrop. Agric. Res. Lab., 2413 E. Hwy 83, Weslaco, Texas 78596, United States; A.W. Scott, Jr., Rio Farms, Inc., Route 1, Box 326, Monte Alto, Texas 78538, United States. Received 12/27/1993.

**PI 576439. *Gossypium hirsutum* L.**  
Breeding. C21S781-2. GP-603. Pedigree - Two cycles of selection from TX-CAMD-S-7-81, a strain from crossing Tamcot SP21 and SP21S. Upland cotton line that possesses the glabrous trait for all plant parts, which reduce fiber trash content and imparts resistance to the bollworm (*Helicoverpa zea*), tobacco budworm (*Heliothis virescens*), and sweetpotato whitefly (*Bemisia tabaci*). Highly resistant to the bacterial blight pathogen, *Xanthomonas campestris* pv *malvacearum*. Good tolerance to the reniform nematode, *Rotylenchus reniformis*. Crop maturity very early. Bolls storm resistant. Plant type and fruiting habit suitable to machine harvest by picking or stripping.

The following were developed by Todd Pfeiffer, University of Kentucky, Department of Agronomy, N-122 Agricultural Science Building, Lexington, Kentucky 40546-0091, United States. Received 12/27/1993.

**PI 576440. *Glycine max* (L.) Merr.**  
Cultivar. "CALHOUN"; KY85-09073; Lot No. 86-93-S-4. CV-322; PVP 9400221. Pedigree - Ripley X Pershing. Determinate maturity group IV (relative maturity 4.4). While about 8mm taller than semi-dwarf parent Ripley, maintains good lodging resistance. Flowers purple. Pubescence gray. Pods tan. Seeds yellow with buff hila and positive seed peroxidase activity. Resistant to race 1 and susceptible to race 7 of phytophthora rot (*Phytophthora sojae*).

The following were developed by Fred B. Maas, USDA-ARS, Purdue University, Dept. of Entomology, West Lafayette, Indiana 47907, United States. Received 12/27/1993.

**PI 576441. *Triticum aestivum* L., nom. cons.**  
Breeding. IN93HF265-4; 92984BX-3-4; 93ID17. Pedigree - PSR EXP. A916/IN8686A1-8. The IN 8686A1-8 is from a complex cross involving Parker 76 as the H18 donor. Soft red winter wheat line that has the H18 gene for resistance to biotype 'L' of the Hessian fly (*Mayetiola destructor*). Awned with white glumes at maturity. During the breeding procedure, selections were grown with minimal vernalization (less than seven days) and most of the plants should flower without a long vernalization period. Some winter segregates may occur. Segregation for plant height, straw strength, milling and baking quality, and various

disease resistance genes may be observed.

**PI 576442. *Triticum aestivum* L., nom. cons.**  
Breeding. IN93HF307-1; 92944BX-2-1; 93ID3. Pedigree - Boone/FL85267-G15-PG9-3 (FL85267-G15-PG9-3 is from Ella//74265/7924/3/Florida303 sib). Soft red winter wheat line that has the H9 gene for resistance to biotype 'L' of the Hessian fly (*Mayetiola destructor*). Awned with white glumes at maturity. During the breeding procedure, selections were grown with minimal vernalization (less than seven days) and most of the plants should flower without a long vernalization period. Some winter segregates may occur. Segregation for plant height, straw strength, milling and baking quality, and various disease resistance genes may be observed.

**PI 576443. *Triticum aestivum* L., nom. cons.**  
Breeding. IN93HF391; 92646D2-7; 93ID40. Pedigree - FL85238-G94-6\*3/KS86HF012-23-6. Soft red winter wheat line that has the H21 gene (rye translocation 2BS/2RL) for resistance to biotype 'L' of the Hessian fly (*Mayetiola destructor*). Awned with white glumes at maturity. During the breeding procedure, selections were grown with minimal vernalization (less than seven days) and most of the plants should flower without a long vernalization period. Some winter segregates may occur. Segregation for plant height, straw strength, milling and baking quality, and various disease resistance genes may be observed.

**PI 576444. *Triticum aestivum* L., nom. cons.**  
Breeding. IN93HF407; 92669A1-3; 93ID41. Pedigree - Boone/3/FL7925-G47-J10-L1-N1//KS86HF012-23-6/FL85238-G28-G4. Soft red winter wheat line that has the H21 gene (rye translocation 2BS/2RL) for resistance to biotype 'L' of the Hessian fly (*Mayetiola destructor*). Awned with white glumes at maturity. During the breeding procedure, selections were grown with minimal vernalization (less than seven days) and most of the plants should flower without a long vernalization period. Some winter segregates may occur. Segregation for plant height, straw strength, milling and baking quality, and various disease resistance genes may be observed.

**PI 576445. *Triticum aestivum* L., nom. cons.**  
Breeding. IN93HF622; 92690A4-7; 93ID27. Pedigree - Pioneer 2580//FL85238-G94-6\*2/KSHF012-23-6. Soft red winter wheat line that has the H21 gene (rye translocation 2BS/2RL) for resistance to biotype 'L' of the Hessian fly (*Mayetiola destructor*). Awned with white glumes at maturity. During the breeding procedure, selections were grown with minimal vernalization (less than seven days) and most of the plants should flower without a long vernalization period. Some winter segregates may occur. Segregation for plant height, straw strength, milling and baking quality, and various disease resistance genes may be observed.

The following were developed by Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Lavone Lambert, USDA, ARS, P.O. Box 225, Stoneville, Mississippi 38776, United States. Received 12/27/1993.

**PI 576446. *Glycine max* (L.) Merr.**  
Breeding. D89-9121. GP-166. Pedigree - Sharkey X T83-5367. T83-5367 is from Hampton 266A X PI 171451. Maturity Group VII. Potential parent to develop multiple pest resistant cultivar. Resistant to soybean looper (*Pseudoplusia includens*), velvetbean caterpillar (*Anticarsia gemmatalis*), corn earworm (*Helicoverpa zea*). Resistant to phytophthora rot (*Phytophthora sojae*), and stem canker (*Diaporthe phaseolorum*). Determinate growth habit. Flowers white. Pubescence tawny. Pods tan.

Seed yellow with brown hila.

The following were donated by T. Badra, National Horticultural Research Institute, (NIHORT), FAO, Ibadan, Oyo, Nigeria. Received 08/23/1985.

- PI 576447. *Amaranthus cruentus* L.  
Cultivated. Unidentified I; Ames 13446. An African vegetable type.
- PI 576448. *Amaranthus cruentus* L.  
Cultivated. ED /1019C; Ames 13449. An African vegetable type.
- PI 576449. *Amaranthus cruentus* L.  
Cultivated. ED 82/1021A; Ames 13452. An African vegetable type.
- PI 576450. *Amaranthus cruentus* L.  
Cultivated. ED 82/1025A; Ames 13453. An African vegetable type.
- PI 576451. *Amaranthus cruentus* L.  
Cultivated. ED 82/1029A; Ames 13454. An African vegetable type.
- PI 576452. *Amaranthus cruentus* L.  
Cultivated. ED 82/1031A; Ames 13455. An African vegetable type.
- PI 576453. *Amaranthus cruentus* L.  
Cultivated. ED 82/1044A; Ames 13456. An African vegetable type.
- PI 576454. *Amaranthus cruentus* L.  
Cultivated. NHA /1B; Ames 13461. An African vegetable type.
- PI 576455. *Amaranthus cruentus* L.  
Cultivated. NHA /2A; Ames 13462. An African vegetable type.
- PI 576456. *Amaranthus cruentus* L.  
Cultivated. NHA /9A; Ames 13463. An African vegetable type.
- PI 576457. *Amaranthus cruentus* L.  
Cultivated. NHA /13A/; Ames 13464. An African vegetable type.
- PI 576458. *Amaranthus cruentus* L.  
Cultivated. NHA /14; Ames 13465. An African vegetable type.
- PI 576459. *Amaranthus cruentus* L.  
NHA /15A; Ames 13467. An African vegetable type.
- PI 576460. *Amaranthus cruentus* L.  
Cultivated. NHA /16B; Ames 13469. An African vegetable type.
- PI 576461. *Amaranthus cruentus* L.  
Cultivated. NHA /18A; Ames 13470. An African vegetable type, uniform.
- PI 576462. *Amaranthus cruentus* L.  
Cultivated. TB 81/790B; Ames 13471. Collected 09/23/1919 in Nigeria. Latitude 8 deg. 50' N. Longitude 5 deg. 33' E. Lafiagi, Kwara. An African vegetable type.
- PI 576463. *Amaranthus cruentus* L.  
Cultivated. NHA /23A; Ames 13472. An African vegetable type.
- PI 576464. *Amaranthus cruentus* L.  
Cultivated. NHA /25A; Ames 13473. An African vegetable type with unusual speckles on seedling leaves.
- PI 576465. *Amaranthus cruentus* L.

- Cultivated. NHA /25B; Ames 13474. An African vegetable type with unusual speckles on seedling leaves.
- PI 576466. *Amaranthus cruentus* L.  
Cultivated. NHA /30A; Ames 13476. An African vegetable type, uniform.
- PI 576467. *Amaranthus cruentus* L.  
Cultivated. NHA /32A; Ames 13477. An African vegetable type.
- PI 576468. *Amaranthus cruentus* L.  
Cultivated. NHA /34B; Ames 13479. An African vegetable type.
- PI 576469. *Amaranthus cruentus* L.  
Cultivated. NHA /39A; Ames 13480. An African vegetable type.
- PI 576470. *Amaranthus cruentus* L.  
Cultivated. NHA /48A; Ames 13481. An African vegetable type.
- PI 576471. *Amaranthus cruentus* L.  
Cultivated. NHA /69B; Ames 13483. An African vegetable type.
- PI 576472. *Amaranthus cruentus* L.  
Cultivated. NHA /100A; Ames 13484. An African vegetable type.
- PI 576473. *Amaranthus cruentus* L.  
Cultivated. NHA /118A; Ames 13485. An African vegetable type.
- PI 576474. *Amaranthus cruentus* L.  
Cultivated. NHA /158; Ames 13486. An African vegetable type.
- PI 576475. *Amaranthus cruentus* L.  
Cultivated. TE 81/14; Ames 13487. Collected 03/24/1981 in Nigeria. Ilorin, Kwara. An African vegetable type. Seed dark brown.
- PI 576476. *Amaranthus cruentus* L.  
Cultivated. TE 81/24; Ames 13488. Collected 03/24/1981 in Nigeria. Latitude 8 deg. 30' N. Longitude 4 deg. 26' E. Ilorin, Kwara. An African vegetable type. Seed dark brown.
- PI 576477. *Amaranthus cruentus* L.  
Cultivated. TE 81/27A; Ames 13489. Collected 03/24/1981 in Nigeria. Latitude 8 deg. 30' N. Longitude 4 deg. 26' E. Ilorin, Kwara. An African vegetable type. Plants green, short.
- PI 576478. *Amaranthus cruentus* L.  
Cultivated. TE 81/28; Ames 13490. Collected 03/24/1981 in Nigeria. Latitude 8 deg. 30' N. Longitude 4 deg. 26' E. Ilorin, Kwara. An African vegetable type.
- PI 576479. *Amaranthus cruentus* L.  
Cultivated. TE 81/146; Ames 13492. Collected 03/26/1981 in Nigeria. Latitude 8 deg. 18' N. Longitude 4 deg. 48' E. Omupo, Kwara. An African vegetable type with red speckles on the seedling leaf blades.
- PI 576480. *Amaranthus cruentus* L.  
Cultivated. TE 81/760A; Ames 13493. Collected 09/04/1981 in Nigeria. Latitude 8 deg. 30' N. Longitude 4 deg. 26' E. Ilorin, Kwara. An African vegetable type.

The following were collected by Samuel Sanchez-Dominguez, Universidad Autonoma Chapingo, Departamento de Fitotecnia, Chapingo 56230, Mexico, Mexico ; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United

States. Donated by David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/23/1992.

**PI 576481. *Amaranthus cruentus* L.**

Landrace. DEW & SSD 1212; 1212; Ames 20097; alegria disciplinada. Collected 11/05/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 30' W. Elevation 1670 m. Edo. de Puebla, Mpio. Huaquechula, Santiago Tetla. Herb, 1.60m tall. Inflorescence yellowish with purple tips. Seeds pale. Cultivated for grain.

**PI 576482. *Amaranthus cruentus* L.**

Landrace. DEW & SSD 1213; 1213; Ames 20098; alegria morada,; alegria guinda. Collected 11/05/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 30' W. Elevation 1670 m. Edo. de Puebla, Mpio. Huaquechula, Santiago Tetla. Herb, 1.60m tall. Inflorescence shorter and fuller than 1212, deep purple. Seeds pale. Cultivated for grain.

The following were donated by T. Badra, National Horticultural Research Institute, (NIHORT), FAO, Ibadan, Oyo, Nigeria. Received 08/23/1985.

**PI 576483. *Amaranthus dubius* C. Martius ex Thell.**

J 82/645; Ames 13448.

**PI 576484. *Amaranthus dubius* C. Martius ex Thell.**

NHA /29A; Ames 13475.

The following were donated by Subodh Jain, University of California, Department of Agronomy, Davis, California 95616, United States; Ingrid Peters, Centro Nacional de Pesquisa de Floresta, EMBRAPA/CNPQ, Caixa Postal 3319, Curitiba, Parana 80001, Brazil. Received 11/07/1989.

**PI 576485. *Amaranthus hypochondriacus* L.**

Ames 10843. Collected in California, United States. Elevation 1000 m. Originally collected from Dehra Dun, Uttar Pradesh, India. Pedigree - A male fertile selection of UC 116.

**PI 576486. *Amaranthus hypochondriacus* L.**

Ames 10847. Collected in California, United States. Elevation 2500 m. Originally collected en route to Badrinath, Uttar Pradesh, India. Pedigree - A male fertile selection of UC 126.

**PI 576487. *Amaranthus hypochondriacus* L.**

Ames 12664. Collected in California, United States. Elevation 2500 m. Originally collected en route to Badrinath, Uttar Pradesh, India. Pedigree - A male sterile selection of UC 126.

**PI 576488. *Amaranthus hypochondriacus* L.**

Ames 12665. Collected in California, United States. Elevation 2500 m. Originally collected en route to Badrinath, Uttar Pradesh, India. Pedigree - A male fertile selection of UC 127.

**PI 576489. *Amaranthus hypochondriacus* L.**

Ames 12670. Collected in California, United States. Elevation 2500 m. Originally collected en route to Badrinath, Uttar Pradesh, India. Pedigree - A male sterile selection of UC 127.

The following were donated by Marc J. Ellenby, LNB Groves, 25250 S.W. 194 Ave., Homestead, Florida 33031, United States. Received 12/15/1993.

**PI 576490. *Averrhoa carambola* L.**

Cultivar. "KARY"; MIA 34824. Open pollinated.

The following were donated by J.R. Brooks & Son, United States. Received 12/15/1993.

PI 576491. *Averrhoa carambola* L.

Cultivar. "ARKIN"; MIA 34825. Open pollinated.

The following were donated by TREC, Homestead, Florida, United States. Received 12/15/1993.

PI 576492. *Mangifera indica* L.

Cultivar. "LIPPENS"; MIA 34826.

PI 576493. *Mangifera indica* L.

Cultivar. "POPE"; MIA 34827.

The following were collected by J.L. Sharp, United States. Received 12/15/1993.

PI 576494. *Dimocarpus longan* Lour.

MIA 34828. Collected in Thailand. Northern Thailand.

PI 576495. *Nephelium ramboutan-ake* (Labill.) Leenh.

MIA 34829. Collected in Thailand. Northern Thailand.

PI 576496. *Ziziphus mauritiana* Lam.

MIA 34830. Collected in Thailand. Northern Thailand.

The following were collected by David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 11/16/1993.

PI 576497. *Annona cherimola* Miller

Cultivated. 1245; MIA 34849; papausa. Collected 10/10/1993 in Mexico. Latitude 16 deg. 45' N. Longitude 93 deg. 6' W. Elevation 550 m. City market, Tuxtla Gutierrez, Mpio. Tuxtla Gutierrez, Edo. Chiapas.

The following were donated by Volcani Center Experiment Sta., Bet Dagan, Israel. Received 11/19/1993.

PI 576498. *Persea americana* Miller

Cultivar. "Miramas de Monte"; MIA 34852.

PI 576499. *Persea americana* Miller

Cultivar. "Tela"; MIA 34853.

PI 576500. *Persea americana* Miller

Cultivar. "Progreso 1"; MIA 34854.

PI 576501. *Persea americana* Miller

Cultivar. "San Sebastian 11"; MIA 34855.

PI 576502. *Persea americana* Miller

Cultivar. "Orizaba 4"; MIA 34856.

PI 576503. *Persea americana* Miller

Cultivar. "Antigua"; MIA 34858.

PI 576504. *Persea americana* Miller  
Cultivar. "Toro blanco"; MIA 34859.

PI 576505. *Persea americana* Miller  
Cultivar. "Novillero"; MIA 34860.

PI 576506. *Persea americana* Miller  
Cultivar. "Avocatosa"; MIA 34861.

PI 576507. *Persea americana* Miller  
Cultivar. "Guzman"; MIA 34862.

PI 576508. *Persea americana* Miller  
Cultivar. "El Venado"; MIA 34863.

PI 576509. *Persea americana* Miller  
Cultivar. "Orizaba 6"; MIA 34864.

PI 576510. *Persea americana* Miller  
Cultivar. "Rirotonga A"; MIA 34865.

PI 576511. *Persea americana* Miller  
Cultivar. "Day"; MIA 34866.

PI 576512. *Persea americana* Miller  
Cultivar. "Galvan"; MIA 34867.

PI 576513. *Persea americana* Miller  
Cultivar. "Avocatosa 3"; MIA 34868.

PI 576514. *Persea americana* Miller  
Cultivar. "Costa Rica 4"; MIA 34869.

PI 576515. *Persea americana* Miller  
Cultivar. "Tantima 2"; MIA 34870.

PI 576516. *Persea americana* Miller  
Cultivar. "Orizaba 3"; MIA 34871.

PI 576517. *Persea americana* Miller  
Cultivar. "Honalindo 1"; MIA 34872.

PI 576518. *Persea americana* Miller  
Cultivar. "Miramas de Soro"; MIA 34873.

PI 576519. *Persea americana* Miller  
Cultivar. "Toro Kanion"; MIA 34878.

PI 576520. *Persea americana* Miller  
Cultivar. "IB Chalam S"; MIA 34879.

PI 576521. *Persea americana* Miller  
Cultivar. "Las Nubes 2"; MIA 34883.

PI 576522. *Persea americana* Miller  
Cultivar. "lb chalam B"; MIA 34884.

PI 576523. *Persea americana* Miller  
Cultivar. "San Jeirer 1"; MIA 34887.

PI 576524. *Persea americana* Miller  
Cultivar. "San Jeirer 8"; MIA 34888.

PI 576525. *Persea americana* Miller

- Cultivar. "La pischina"; MIA 34889.
- PI 576526. *Persea americana* Miller  
Cultivar. "El cercado"; MIA 34890.
- PI 576527. *Persea americana* Miller  
Cultivar. "Angui 1"; MIA 34891.
- PI 576528. *Persea americana* Miller  
Cultivar. "Egami"; MIA 34892.
- PI 576529. *Persea americana* Miller  
Cultivar. "Leyad Aero"; MIA 34893.
- PI 576530. *Persea americana* Miller  
Cultivar. "Argui 3"; MIA 34894.
- PI 576531. *Persea americana* Miller  
Cultivar. "El charco 2"; MIA 34895.
- PI 576532. *Persea americana* Miller  
Cultivar. "El charco 1"; MIA 34896.
- PI 576533. *Persea americana* Miller  
Cultivar. "Arbol 2"; MIA 34897.
- PI 576534. *Persea americana* Miller  
Cultivar. "San Rafael"; MIA 34898.
- PI 576535. *Persea borbonia* (L.) Sprengel  
Cultivated. MIA 34885.
- PI 576536. *Persea floccosa* Mez  
Cultivated. MIA 34851.
- PI 576537. *Persea americana* var. *nubigena* (L. O. Williams) L.  
Kopp  
Cultivated. MIA 34882.
- PI 576538. *Persea indica* (L.) Sprengel  
Cultivated. MIA 34886.
- PI 576539. *Persea longipes* (Schldl.) Meissner  
Cultivated. MIA 34876.
- PI 576540. *Persea americana* var. *nubigena* (L. O. Williams) L.  
Kopp  
Cultivated. MIA 34880.
- PI 576541. *Persea americana* var. *nubigena* (L. O. Williams) L.  
Kopp  
Cultivated. MIA 34881.
- PI 576542. *Persea schiedeana* Nees  
Cultivated. MIA 34874.
- PI 576543. *Persea schiedeana* Nees  
Cultivated. MIA 34875.
- PI 576544. *Persea* sp.  
Cultivated. MIA 34857.
- PI 576545. *Persea* sp.  
Cultivated. MIA 34877.

The following were donated by Francis T. Zee, USDA, ARS, National Germplasm Repository, P.O. Box 4487, Hilo, Hawaii 96720, United States. Received 12/15/1993.

- PI 576546. *Mangifera indica* L.  
Cultivar. "AH PING"; MIA 34831.
- PI 576547. *Mangifera indica* L.  
Cultivar. "AMIN ABRAHIMPUR"; MIA 34832.
- PI 576548. *Mangifera indica* L.  
Cultivar. "CHERUKURASAM"; MIA 34833.
- PI 576549. *Mangifera indica* L.  
Cultivar. "EXCEL"; MIA 34834.
- PI 576550. *Mangifera indica* L.  
Cultivar. "FAZLI ZAFRANI"; MIA 34835.
- PI 576551. *Mangifera indica* L.  
Cultivar. "FIJI LONG"; MIA 34836.
- PI 576552. *Mangifera indica* L.  
Cultivar. "FIJI SHORT"; MIA 34837.
- PI 576553. *Mangifera indica* L.  
Cultivar. "HIMAYUDDIN"; MIA 34838.
- PI 576554. *Mangifera indica* L.  
Cultivar. "KENSINGTON"; MIA 34839.
- PI 576555. *Mangifera indica* L.  
Cultivar. "MULGOA"; MIA 34840.
- PI 576556. *Mangifera indica* L.  
Cultivar. "MUN"; MIA 34841.
- PI 576557. *Mangifera indica* L.  
Cultivar. "OKRUNG"; MIA 34842.
- PI 576558. *Mangifera indica* L.  
Cultivar. "OTT"; MIA 34843.
- PI 576559. *Mangifera indica* L.  
Cultivar. "PIRIE"; MIA 34844.
- PI 576560. *Mangifera indica* L.  
Cultivar. "PULI HORA"; MIA 34845.
- PI 576561. *Mangifera indica* L.  
Cultivar. "R8T3"; MIA 34846.
- PI 576562. *Mangifera indica* L.  
Cultivar. "RAPOZA"; MIA 34847.
- PI 576563. *Mangifera indica* L.  
Cultivar. "ZARDALU"; MIA 34848.

The following were donated by Int. Network for the Improvement of Banana and Plantain, Parc Scientifique Agropolis, Bat 7-Boulevard de la Lironde, Montferrier-Sur-Lez, France. Received 12/15/1993.

PI 576564. *Musa acuminata* Colla  
Cultivar. "ESPERMO"; MIA 34899; ITC-0042 ABB.

PI 576565. *Musa acuminata* Colla  
Cultivar. "UBOK IBA"; MIA 34900; ITC-0114.

PI 576566. *Musa acuminata* Colla  
Cultivar. "OBINO I'EWAI"; MIA 34901; ITC-0109.

PI 576567. *Musa acuminata* Colla  
Cultivar. "PISANG AWAK"; MIA 34902; ITC-0213 ABB. Triploid. Seedy if  
pollinated.

PI 576568. *Musa acuminata* Colla  
Cultivar. "MATAVIA"; MIA 34903; ITC-0032.

PI 576569. *Musa acuminata* Colla  
Cultivar. "WINE PLANTAIN"; MIA 34904; ITC-0325 AAB.

PI 576570. *Musa acuminata* Colla  
Cultivar. "PISANG ABU PERAK"; MIA 34905; ITC-0056 ABB.

PI 576571. *Musa acuminata* Colla  
Cultivar. "MONTHAN"; MIA 34906; ITC-0046 ABB.

PI 576572. *Musa acuminata* Colla  
Cultivar. "BOM"; MIA 34907; ITC-0053.

PI 576573. *Musa acuminata* Colla  
Cultivar. "MADORANGA"; MIA 34908; ITC-0035.

PI 576574. *Musa acuminata* Colla  
Cultivar. "B VERT"; MIA 34909; ITC-1127.

PI 576575. *Musa acuminata* Colla  
Cultivar. "GIPUNGUSI"; MIA 34910; ITC-0173.

PI 576576. *Musa acuminata* Colla  
Cultivar. "RAJAPURI INDIA"; MIA 34911; ITC-0280.

PI 576577. *Musa acuminata* Colla  
Cultivar. "NTANGA"; MIA 34912; ITC-0113.

PI 576578. *Musa acuminata* Colla  
Cultivar. "BOBBY TANNAP"; MIA 34913; ITC-0112.

PI 576579. *Musa acuminata* Colla  
Cultivar. "CACAMBOU"; MIA 34914; ITC-0058 ABB.

PI 576580. *Musa acuminata* Colla  
Cultivar. "ICE CREAM"; MIA 34915; ITC-0020 ABB.

PI 576581. *Musa acuminata* Colla  
Cultivar. "CURARE"; MIA 34916; ITC-0558.

PI 576582. *Musa acuminata* Colla  
Cultivar. "MURACHO"; MIA 34917; ITC-0036.

PI 576583. *Musa acuminata* Colla  
Cultivar. "BLUE TORRES STRAIT ISLAND"; MIA 34918; ITC-0338.

PI 576584. *Musa acuminata* Colla  
Cultivar. "FOUGAMOU 1"; MIA 34919; ITC-0101.

- PI 576585. *Musa acuminata* Colla  
Cultivar. "BIG EBANGA"; MIA 34920; ITC-1129.
- PI 576586. *Musa acuminata* Colla  
Cultivar. "DARE"; MIA 34921; ITC-0331.
- PI 576587. *Musa acuminata* Colla  
Cultivar. "SABA"; MIA 34922; ITC-1138 BBB.
- PI 576588. *Musa acuminata* Colla  
Cultivar. "PELIPITA"; MIA 34923; ITC-0472 ABB.
- PI 576589. *Musa acuminata* Colla  
Cultivar. "KINGALA NO. 1"; MIA 34924; ITC-0737.
- PI 576590. *Musa acuminata* Colla  
Cultivar. "GIA HUI"; MIA 34925; ITC-1143.
- PI 576591. *Musa acuminata* Colla  
Cultivar. "BISE EGNOME"; MIA 34926; ITC-0209.
- PI 576592. *Musa acuminata* Colla  
Cultivar. "AGBAGBA"; MIA 34927; ITC-0111 AAB. Plantain.
- PI 576593. *Musa acuminata* Colla  
Cultivar. "FOULAH 4"; MIA 34928; ITC-0051.
- PI 576594. *Musa acuminata* Colla  
Cultivar. "LAKNAU"; MIA 34929; ITC-0332 AAB. Plantain.
- PI 576595. *Musa acuminata* Colla  
Cultivar. "IHITISIM"; MIA 34930; ITC-0121.
- PI 576596. *Musa acuminata* Colla  
Cultivar. "BAE AHO UKOM"; MIA 34931; ITC-0228.
- PI 576597. *Musa acuminata* Colla  
Cultivar. "CARDABA"; MIA 34932; ITC-0394 BBB.

The following were collected by David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/29/1992.

- PI 576598. *Arachis hypogaea* L. var. *hypogaea*  
Landrace. 1193; setenton. Collected 04/15/1992 in Bolivia. Latitude 14 deg. 28' S. Longitude 67 deg. 34' W. Elevation 235 m. Village of Carmen Florida, 7km upriver from Rurrenabaque, Ballivian Province, Beni Dept. Plants said to be runner type. Fruits 2-seeded, 2.5cm long, straight, slight to medium constriction, one hump, no beak or keel, prominent reticulation. Seeds medium large, tan. Seed brought from Tumupasa. Not recognized as a local race by an elderly Tacana peanut farmer.
- PI 576599. *Arachis hypogaea* L. var. *hypogaea*  
Landrace. 1195; mani rojo. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 32' S. Longitude 67 deg. 25' W. Elevation 595 m. Colonia Tupiza, 5km above Sapecho, road to Yucumo, Sapecho, Sud Yungas, Province, La Paz Dept. Plants runner type. Fruits 5-6cm long 1.5-2cm diam., straight, little or no constriction, with humps but no keel or beak, prominent reticulation, containing 2-3 large red seeds. Cultivated by colonist from Apolo from locally obtained seed. Said to mature in 5-6 months. Growing in upland swidden plot with yuca, plantain, papaya, and gualusa.

- PI 576600. *Arachis hypogaea* L. var. *hypogaea*  
Landrace. 1196; mani blanco. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 32' S. Longitude 67 deg. 25' W. Elevation 595 m. Colonia Tupiza, 5km above Sapecho, road to Yucumo, Sapecho, Sud Yungas, Province, La Paz Dept. Plants said to be runner type. Fruits 3-4cm long, 1.5-2cm diam., straight, slightly constricted, with 1 hump, slight keel and beak, sharp reticulation, containing 1-2 white seeds. Said to mature in 5-6 months. Small amount of seed purchased from farmer, a mono-lingual Quechua speaker from Apolo.
- PI 576601. *Arachis hypogaea* L. var. *hypogaea*  
Landrace. 1198; mani colombiano. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 47' S. Longitude 66 deg. 58' W. Elevation 560 m. Covendo, Sud Yungas Province, La Paz Dept. Plants prostrate. Fruits 3-4.5cm long, 1.5-2cm diam., straight, little or no constriction, with humps, slight keel and beak, sharp reticulation, containing 2, 1, 3 red or white seeds. Said to mature in 6 months or more.
- PI 576602. *Arachis hypogaea* L. var. *hypogaea*  
Landrace. 1201; mani rojo. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 47' S. Longitude 66 deg. 58' W. Elevation 560 m. Covendo, Sud Yungas Province, La Paz Dept. Plants prostrate. Fruits 3-4.5cm long, 1.5-2cm diam., fairly straight, slight or no constriction, humps, slight keel and beak, reticulation evident but rounded, containing 2-3 red seeds. Seed said to have come originally from Cochabamba. Seed from last year's harvest.
- PI 576603. *Arachis hypogaea* L. var. *fastigiata*  
Landrace. 1194; mani blanco. Collected 04/17/1992 in Bolivia. Latitude 14 deg. 28' S. Longitude 67 deg. 34' W. Elevation 235 m. Village of Carmen Florida, 7km upriver from Rurrenabaque, Ballivian Province, Beni Dept. Fruits 4.5-5.5cm long, 1.5-2.0cm diam., straight or slightly curved, with humps and beak, little or no constriction. Reticulation evident but not sharp, containing 3-4 white seeds that turn pinkish with age.
- PI 576604. *Arachis hypogaea* L. var. *fastigiata*  
Landrace. 1197; mani blanco. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 41' S. Longitude 67 deg. 5' W. Elevation 500 m. Simayuni village 15km SE of San Miguel de Huachi, on road to Covendo, Sud Yungas Province, La Paz Dept. Plants erect. Fruits 4-7cm long, 1.5-2cm diam., curved, little or no constriction, with humps, keel and beak. Reticulation slight to almost smooth, containing 3-4 white seeds. Cultivated in upland swidden plot.
- PI 576605. *Arachis hypogaea* L. var. *fastigiata*  
Landrace. 1199; mani criollo. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 47' S. Longitude 66 deg. 58' W. Elevation 560 m. Covendo, Sud Yungas Province, La Paz Dept. Plants erect. Fruits 4.5-6.5cm long, 1.5-2cm diam., straight or curved, with humps, keel and beak. Reticulation evident but rounded or smooth. Seeds mixed, mostly white, some red. Said to mature in 3 months.
- PI 576606. *Arachis hypogaea* L. var. *fastigiata*  
Landrace. 1200; mani criollo. Collected 04/20/1992 in Bolivia. Latitude 15 deg. 47' S. Longitude 66 deg. 58' W. Elevation 560 m. Covendo, Sud Yungas Province, La Paz Dept. Plants erect. Fruits 4.5-6.5cm long, 2cm diam., straight or curved, with humps, keel and beak. Reticulation evident but subdued, containing mostly red seeds, some white. Seed from last year's harvest, some insect infestation. Said to mature in 3 months.
- PI 576607. *Arachis hypogaea* L. var. *fastigiata*

Landrace. 1202; mani blanco. Collected 04/21/1992 in Bolivia. Latitude 15 deg. 47' S. Longitude 66 deg. 58' W. Elevation 560 m. Covendo, Sud Yungas Province, La Paz Dept. Fruits 4-5.5cm long, 2cm diam., straight or curved, with little or no constriction, with humps, keel and beak. Reticulation rounded to almost smooth, containing 3, 4 white seeds.

The following were collected by Samuel Sanchez-Dominguez, Universidad Autonoma Chapingo, Departamento de Fitotecnia, Chapingo 56230, Mexico, Mexico ; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Donated by David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/29/1992.

**PI 576608. *Arachis hypogaea* L. var. *fastigiata***

Landrace. 1223; cacahuete chocolin. Collected 11/07/1992 in Mexico. Latitude 18 deg. 40' N. Longitude 98 deg. 32' W. Elevation 1450 m. Tlapanala, Edo. de Puebla. Plant erect. Pods 4.5-6.0cm long, fairly straight. Constriction slight to moderate. Humps pronounced. Beak and reticulation moderate. 3-4 red seeds. Matures in 4 1/2 months. Non-commercial variety planted for home consumption, usually boiled. Said to have been grown here for about 20 years.

**PI 576609. *Arachis hypogaea* L. var. *fastigiata***

Landrace. 1224; cacahuete colorado. Collected 11/07/1992 in Mexico. Latitude 18 deg. 38' N. Longitude 98 deg. 41' W. Elevation 1400 m. Edo. de Puebla, Mpio. Tepexco, Tepexco. Plant erect with light green leaves. Pods 4.0-6.0cm long, straight. Constriction slight. Humps, beak and reticulation prominent. 4 red seeds. Most widely cultivated variety in this town.

**PI 576610. *Arachis hypogaea* L. var. *fastigiata***

Landrace. 1231; cacahuete chino. Collected 11/08/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 46' W. Elevation 1600 m. Edo. de Morelos, Mpio. Temoac, Huazulco. Pods 4.5-7.0cm long, fairly straight. Constriction slight to moderate. Humps and beak pronounced. Reticulation prominent but not sharp. 4 red seeds.

**PI 576611. *Arachis hypogaea* L. var. *fastigiata***

Landrace. 1233; cacahuete colorado. Collected 11/08/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 46' W. Elevation 1600 m. Edo. de Morelos, Mpio. Temoac, Huazulco. Plant said to be erect. 3-4 red seeds. Said that this variety was brought here years ago from Tepexco, Puebla.

**PI 576612. *Arachis hypogaea* var. *hirsuta* Kohler**

Landrace. 1209; cacahuete criollo. Collected 11/05/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 30' W. Elevation 1680 m. Cacaloxuchil, Mpio. Huaquechula, Edo. de Puebla. Plant said to be runner type. Pods 3.5-4.5cm long, fairly straight, with little or no constriction. Humps and beak slight. Reticulation pronounced but not sharp, containing 3 dark purple seeds. Common.

**PI 576613. *Arachis hypogaea* var. *hirsuta* Kohler**

Landrace. 1210; cacahuete criollo morado. Collected 11/05/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 30' W. Elevation 1670 m. Edo. de Puebla, Mpio. Huaquechula, Santiago Tetla. Plant prostrate. Pods 3.0-4.5cm long, straight, little or no constriction. Humps slight. Beak small. Reticulation deep and sharp. 3 purple seeds. Said to be the original local variety cultivated here since the time of the "abuelos." Matures in 5 months.

**PI 576614. *Arachis hypogaea* var. *hirsuta* Kohler**

- Landrace. 1214; cacahuete criollo. Collected 11/05/1992 in Mexico. Latitude 18 deg. 43' N. Longitude 98 deg. 31' W. Elevation 1650 m. Edo. de Puebla, Mpio. Huaquechula, Tezonteopan de Bonilla. Pods 5.0-7.0cm long. Constriction slight to moderate. Humps and beak prominent. Reticulation prominent, sharp. Pods have "curly" appearance. 3 purple seeds.
- PI 576615. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1216; cacahuete criollo. Collected 11/06/1992 in Mexico. Latitude 18 deg. 43' N. Longitude 98 deg. 31' W. Elevation 1650 m. Mpio. Huaquechula, Tezonteopan de Bonilla. Plants prostrate. Lateral branches 45cm long. Mainstem erect 30cm tall, some foliar disease. Flowers orange with purple on standard. Fruits 4.0-5.5cm long. Constriction slight to moderate. Humps and beak slight. Reticulation prominent but not sharp. 3 purple seeds. Harvested after 5 months.
- PI 576616. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1219; cacahuete criollo. Collected 11/06/1992 in Mexico. Latitude 18 deg. 47' N. Longitude 98 deg. 26' W. Elevation 1800 m. Edo. de Puebla, Mpio. Huaquechula, San Juan Huiluco. Plants prostrate. Pods 5.0-6.0cm long, 1.5cm wide. Humps and beak prominent. Constriction moderate. Reticulation deep and sharp. Pods have "curly" appearance. 3-4 purple seeds. Pegs weak, obliging farmers to harvest fruits by hand. Harvested after 6 months. Considered to be healthier for children to eat because it is less oily.
- PI 576617. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1220; cacahuete huazulqueno. Collected 11/06/1992 in Mexico. Latitude 18 deg. 47' N. Longitude 98 deg. 26' W. Elevation 1800 m. Edo. de Puebla, Mpio. Huaquechula, San Juan Huiluco. Plants prostrate. Pods 3.5-6.0cm long, 1.5-2.0cm wide. Humps and beak pronounced. Constriction slight to moderate. Reticulation deep and sharp. 2-3 purple seeds. Harvested in 6 months. Rare.
- PI 576618. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1222; cacahuete criollo morado. Collected 11/07/1992 in Mexico. Latitude 18 deg. 40' N. Longitude 98 deg. 32' W. Elevation 1450 m. Tlapanala, Edo. de Puebla. Pods 4.5-5.5cm long. Constriction slight to moderate. Reticulation very prominent and sharp. Humps and beak pronounced. Pods have "curly" appearance. 3 dark purple seeds.
- PI 576619. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1234; cacahuete criollo. Collected 11/15/1992 in Mexico. Latitude 20 deg. 13' N. Longitude 100 deg. 53' W. Elevation 1798 m. Market, Salvatierra, Mpio. Salvatierra, Edo. de Guanajuato. Plant runner type. Pods 4.0-7.0cm long. Humps and beak prominent. Reticulation prominent, sharp. Little or no constriction. Pods have "curly" appearance. 3-4 light purple seeds. Common.
- PI 576620. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1236; cacahuete criollo. Collected 11/15/1992 in Mexico. Latitude 20 deg. 18' N. Longitude 100 deg. 55' W. Elevation 1770 m. Edo. de Gto., Mpio. Salvatierra, San Isidro. Plant decumbent, much branched, 1.15m wide. Leaves dark green. Nearly free of foliar disease. Flowers with purple on standard. Fruits deeply reticulated, curly, with 3-4 purple seeds. Pegs long, ca. 10cm. Grown in very heavy, black clayey soil.
- PI 576621. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1237; cacahuete criollo. Collected 11/15/1992 in Mexico. Latitude 20 deg. 15' N. Longitude 101 deg. 0' W. Elevation 1780 m. Edo. de Gto, Mpio. Salvatierra, El Sabino. Plant runner type. Pods 4.0-6.0cm long, with humps, and beak. Reticulation prominent, sharp, "curly" appearance. 3-4 purple seeds. Matures in 6 months. Common.

- PI 576622. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1238; cacahuate criollo. Collected 11/16/1992 in Mexico. Latitude 20 deg. 15' N. Longitude 100 deg. 40' W. Elevation 1790 m. Tarimoro, Mpio. Tarimoro, Edo. Guanajuato. Pods 4.0-6.0cm long. Humps and beak prominent. Reticulation prominent, sharp. 3-4 dark purple seeds. Common variety traditionally and almost exclusively cultivated in the region.
- PI 576623. *Arachis hypogaea* var. *hirsuta* Kohler**  
Landrace. 1240; cacahuate criollo. Collected 11/17/1992 in Mexico. Latitude 20 deg. 1' N. Longitude 100 deg. 31' W. Elevation 2050 m. Farmer's field, Tarandacuao, Mpio. Tarandacuao, Edo. de Guanajuato. Plant runner type, 80cm in diam. Mainstem erect, 20cm tall. Pods 4.0-6.0cm long, with humps and beak. Reticulated strongly. 3-4 purple seeds. Harvested after 6-8 months. Common.
- PI 576624. *Arachis hypogaea* L. var. *hypogaea***  
Cultivated. 1211; cacahuate boludo; cacahuate guero. Collected 11/05/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 30' W. Elevation 1680 m. Cacaloxuchil, Mpio. Huaquechula, Edo. de Puebla. Plant prostrate. Pods 2-seeded, somewhat constricted. Seeds pink. Common.
- PI 576625. *Arachis hypogaea* L. var. *hypogaea***  
Cultivated. 1221; cacahuate boludo. Collected 11/07/1992 in Mexico. Latitude 18 deg. 40' N. Longitude 98 deg. 32' W. Elevation 1450 m. Tlapanala, Edo. de Puebla. Pods 3.0-4.0cm long. Constriction slight to moderate. Beak slight. Reticulation moderate. 2 pink seeds. Common.
- PI 576626. *Arachis hypogaea* L. var. *hypogaea***  
Landrace. 1225; cacahuata. Collected 11/07/1992 in Mexico. Latitude 18 deg. 38' N. Longitude 98 deg. 41' W. Elevation 1400 m. Edo. de Puebla, Mpio. Tepexco, Tepexco. Plant bunch type, leaves dark green. Pods large and bulky, 4.0-5.0cm long, 1.5-2.0cm diam., bi-modal. Constriction moderate. Beak and reticulation slight. 2 large pink seeds. Cultivated especially for the Christmas season-ingredient for holiday pinatas.
- PI 576627. *Arachis hypogaea* L. var. *hypogaea***  
Landrace. 1226; cacahuate criollo. Collected 11/08/1992 in Mexico. Latitude 18 deg. 41' N. Longitude 98 deg. 46' W. Elevation 1400 m. Chalcatzingo, Mpio. Jonacatepec, Edo. de Morelos. Pods moderately constricted, 2 seeds.
- PI 576628. *Arachis hypogaea* L. var. *hypogaea***  
Landrace. 1228; cacahuata. Collected 11/08/1992 in Mexico. Latitude 18 deg. 41' N. Longitude 98 deg. 46' W. Elevation 1400 m. Chalcatzingo, Mpio. Jonacatepec, Edo. de Morelos. Pods large and bulky, 4.0-5.0cm long, 1.5-2.0cm diam. Constriction moderate. Beak and reticulation slight. 2 large pink seeds.
- PI 576629. *Arachis hypogaea* L. var. *hypogaea***  
Landrace. 1229; cacahuata. Collected 11/08/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 46' W. Elevation 1600 m. Edo. de Morelos, Mpio. Temoac, Huazulco. Plant said to be bunch type. Pods large and bulky, 4.0-5.0cm long, 1.5-2.0cm diam. Constriction moderate. Beak and reticulation slight. 2 large pink seeds.
- PI 576630. *Arachis hypogaea* L. var. *hypogaea***  
Cultivar. 1230; runner,; florunner. Collected 11/08/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 46' W. Elevation 1600 m. Edo. de Morelos, Mpio. Temoac, Huazulco. 2 pink seeds. Cultivated with machinery in Pto. Escondido, Oaxaca, and trucked here for industrialization, primarily confectionary. Grown from original U.S.

introduction ca. 15 years ago.

PI 576631. *Arachis hypogaea* L. var. *hypogaea*  
Landrace. 1232; cacahuata. Collected 11/08/1992 in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 46' W. Elevation 1600 m. Edo. de Morelos, Mpio. Temoac, Huazulco. Plant said to be runner type. Pods large and bulky 5.0-6.0cm long, 2.0cm diam. Constriction and reticulation moderate. 2 large pink seeds.

PI 576632. *Arachis hypogaea* L. var. *hypogaea*  
Cultivated. 1239; cacahuete de bolita. Collected 11/17/1992 in Mexico. Latitude 20 deg. 3' N. Longitude 100 deg. 42' W. Elevation 1947 m. Market, Acambaro, Mpio. Acambaro, Edo. de Guanajuato. Pods bulky, 3.5-5.0cm long, 1.0-2.0cm diam. Constriction, beak and reticulation moderate. 2 pink seeds.

The following were collected by Samuel Sanchez-Dominguez, Universidad Autonoma Chapingo, Departamento de Fitotecnia, Chapingo 56230, Mexico, Mexico . Received 01/12/1994.

PI 576633. *Arachis hypogaea* var. *hirsuta* Kohler  
Landrace. SSD 1. Collected in Mexico. Latitude 18 deg. 47' N. Longitude 98 deg. 26' W. Elevation 1800 m. Huiluco, Mpio. Huaquechula, Puebla.

PI 576634. *Arachis hypogaea* var. *hirsuta* Kohler  
Landrace. SSD 2. Collected in Mexico. Latitude 18 deg. 45' N. Longitude 98 deg. 30' W. Elevation 1670 m. Santiago Tetla, Mpio. Huaquechula, Puebla.

PI 576635. *Arachis hypogaea* var. *hirsuta* Kohler  
Landrace. SSD 3. Collected in Mexico. Latitude 18 deg. 43' N. Longitude 98 deg. 31' W. Elevation 1650 m. Tezonteopan de Bonilla, Mpio. Huaquechula, Puebla.

PI 576636. *Arachis hypogaea* var. *hirsuta* Kohler  
Landrace. SSD 4. Collected in Mexico. Latitude 20 deg. 1' N. Longitude 100 deg. 31' W. Elevation 2050 m. Tarandacua, Mpio. Tarandacua, Guanajuato.

PI 576637. *Arachis hypogaea* var. *hirsuta* Kohler  
Landrace. SSD 5. Collected in Mexico. Latitude 20 deg. 15' N. Longitude 100 deg. 40' W. Elevation 1790 m. Tarimoro, Mpio. Tarimoro, Guanajuato.

PI 576638. *Arachis hypogaea* var. *hirsuta* Kohler  
Landrace. SSD 6. Collected in Mexico. Latitude 20 deg. 13' N. Longitude 100 deg. 53' W. Elevation 1798 m. Salvatierra, Mpio. Salvatierra, Guanajuato.

The following were collected by L.B. Mohamed Ben Salah, Tunisia. Received 01/14/1994.

PI 576639. *Triticum aestivum* L., nom. cons.  
Landrace. 2262-12; 92ABWHSP-85; NSGC 1606. Collected in Tunisia. A Zaoueit-El Arab.

The following were collected by J.R. Harlan, USDA-ARS, Plant Industry Station, Crops Research Division, Beltsville, Maryland 20705-2350, United States; V. Taysi, Agricultural Institute, Ankara, Turkey. Received 01/14/1994.

PI 576640. *Triticum aestivum* L., nom. cons.

- Landrace. 773; 92ABWHSP-257; NSGC 1607; SERT. Collected in Ankara, Turkey. Haymana. 'Sert' in Turkish means 'hard'.
- PI 576641. *Triticum aestivum* L., nom. cons.  
Landrace. 780; 92ABWHSP-259; NSGC 1608; AK. Collected in Kirsehir, Turkey. Avanos. 'Ak' is Turkish for 'white'.
- PI 576642. *Triticum aestivum* L., nom. cons.  
Landrace. 783; 92ABWHSP-261; NSGC 1609; SERT. Collected in Kirsehir, Turkey. Avanos. 'Sert' in Turkish means 'hard'.
- PI 576643. *Triticum aestivum* L., nom. cons.  
Landrace. 798; 92ABWHSP-263; NSGC 1610; SARIBURSA. Collected in Yozgat, Turkey. Yerkoy. 'Sari' in Turkish means 'pale, yellow'.
- PI 576644. *Triticum aestivum* L., nom. cons.  
Landrace. 973; 92ABWHSP-269; NSGC 1611; SARI. Collected in Isparta, Turkey. Sarkikaraagac.
- PI 576645. *Triticum aestivum* L., nom. cons.  
Landrace. 1016; 92ABWHSP-273; NSGC 1612; PAMUCAK. Collected in Kutahya, Turkey.
- PI 576646. *Triticum aestivum* L., nom. cons.  
Landrace. 1093; 92ABWHSP-275; NSGC 1613; SERT. Collected in Eskisehir, Turkey. Beylikahir. 'Sert' in Turkish means 'hard'.
- PI 576647. *Triticum aestivum* L., nom. cons.  
Landrace. 1122; 92ABWHSP-277; NSGC 1614; KARISIK. Collected in Afyonkarahisar, Turkey. Afyon. 'Karisik' in Turkish means 'mixed'.
- PI 576648. *Triticum aestivum* L., nom. cons.  
Landrace. 1143; 92ABWHSP-279; NSGC 1615; TOHURLUK SARI. Collected in Afyonkarahisar, Turkey. Ihsaniye. 'Sari' in Turkish means 'pale, yellow'.
- PI 576649. *Triticum aestivum* L., nom. cons.  
Landrace. 1144; 92ABWHSP-281; NSGC 1616; SARI ARI. Collected in Afyonkarahisar, Turkey. 'Sari' in Turkish means 'pale, yellow'.
- PI 576650. *Triticum aestivum* L., nom. cons.  
Landrace. 1148; 92ABWHSP-283; NSGC 1617; AK. Collected in Afyonkarahisar, Turkey. 'Ak' is Turkish for 'white'.
- PI 576651. *Triticum aestivum* L., nom. cons.  
Landrace. 1287; 92ABWHSP-285; NSGC 1618; ASURE. Collected in Tunceli, Turkey. Cemisgezek. 'Asure' in Turkish refers to a sweet dish prepared for a festival.
- PI 576652. *Triticum aestivum* L., nom. cons.  
Landrace. 1306; 92ABWHSP-287; NSGC 1619; CANKESME. Collected in Gumushane, Turkey. Bayburt.
- PI 576653. *Triticum aestivum* L., nom. cons.  
Landrace. 1335; 92ABWHSP-289; NSGC 1620. Collected in Tokat, Turkey. Artova.
- PI 576654. *Triticum aestivum* L., nom. cons.  
Landrace. 1367; 92ABWHSP-291; NSGC 1621; KARISIK. Collected in Cankiri, Turkey. 'Karisik' in Turkish means 'mixed'.

The following were collected by J.R. Harlan, USDA-ARS, Plant Industry Station, Crops Research Division, Beltsville, Maryland 20705-2350, United

States. Received 01/14/1994.

PI 576655. *Triticum aestivum* L., nom. cons.  
Landrace. 8734; 92ABWHSP-309; NSGC 1622; MENCEKI. Collected 09/1948 in Elazig, Turkey. Zeyhhaci.

PI 576656. *Triticum aestivum* L., nom. cons.  
Landrace. 8016; 92ABWHSP-317; NSGC 1623; MENCEKI. Collected 09/1948 in Elazig, Turkey. Halvenk.

The following were collected by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy; John Giles Waines, University of California, Department of Botany & Plant Science, Riverside, California 92521, United States. Received 01/14/1994.

PI 576657. *Triticum aestivum* L., nom. cons.  
Cultivated. 19/14; 92ABWHSP-867; NSGC 1717. Collected 06/1987 in Turkey.

PI 576658. *Triticum aestivum* L., nom. cons.  
Cultivated. 56/2; 92ABWHSP-871; NSGC 1718. Collected 06/11/1987 in Adiyaman, Turkey. Latitude 37 deg. 33' N. Longitude 38 deg. 13' E. Elevation 555 m. farmland, valley bottom, .5 km southeast edge of Barbaci village by a spring.

PI 576659. *Triticum aestivum* L., nom. cons.  
Cultivated. 59/1; 92ABWHSP-873; NSGC 1719. Collected 06/11/1987 in Adiyaman, Turkey. Latitude 37 deg. 35' N. Longitude 38 deg. 20' E. Elevation 615 m. farmland, summit, roadside, 1 km northeast of Kisla by fig trees and vineyard.

PI 576660. *Triticum aestivum* L., nom. cons.  
Cultivated. 62/4; 92ABWHSP-875; NSGC 1720. Collected 06/12/1987 in Adiyaman, Turkey. Latitude 37 deg. 38' N. Longitude 38 deg. 21' E. Elevation 480 m. farmland, plain, roadside, next to durum and lentil field, east side of Ziyane River from Merr, 5 km south of Disbudak.

PI 576661. *Triticum aestivum* L., nom. cons.  
Cultivated. 71/5; 92ABWHSP-877; NSGC 1721. Collected 06/13/1987 in Adiyaman, Turkey. Latitude 37 deg. 35' N. Longitude 33 deg. 33' E. Elevation 460 m. farmland, valley slope, sides of dry stream, 4 km northeast of Kovanoluk.

PI 576662. *Triticum aestivum* L., nom. cons.  
Cultivated. 80/1; 92ABWHSP-881; NSGC 1722. Collected 06/14/1987 in Adiyaman, Turkey. Latitude 37 deg. 41' N. Longitude 38 deg. 51' E. Elevation 515 m. farmland, arable summit, lentil fields, .5 km south of Merdi village, north side of Firat.

The following were collected by Sakti Jana, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, Saskatoon, Saskatchewan S7N 0W0, Canada; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

PI 576663. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK001.0-001.1; 92ABWHSP-889; NSGC 1724. Collected 06/1984 in Mugla, Turkey. Elevation 450 m. 1 km north of Selimiye.

PI 576664. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK005.015.1; 92ABWHSP-891; NSGC 1726. Collected 06/1984 in Mugla, Turkey. Elevation 410 m. Yatagan, across road from power plant.

- PI 576665. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK019.044.1; 92ABWHSP-893; NSGC 1728. Collected 06/1984 in Antalya, Turkey. Elevation 500 m. Agullu village, 8 km northeast of Kas.
- PI 576666. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK020-049.1; 92ABWHSP-895; NSGC 1730. Collected 06/1984 in Antalya, Turkey. Elevation 190 m. 8 km north of Elmali-Finike road junction toward Elmali.
- PI 576667. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK046-118.1; 92ABWHSP-897; NSGC 1732. Collected 06/1984 in Icel, Turkey. Elevation 150 m. Adkere village, 31 km southwest of Silifke.
- PI 576668. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK055-139.1; 92ABWHSP-899; NSGC 1734. Collected 06/1984 in Hatay, Turkey. Elevation 350 m. 8 km southeast of Iskenderum.
- PI 576669. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK056-140.1; 92ABWHSP-901; NSGC 1736. Collected 06/1984 in Hatay, Turkey. Elevation 180 m. 10 km southwest of Antakya.
- PI 576670. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK058-156.1; 92ABWHSP-903; NSGC 1738. Collected 06/1984 in Hatay, Turkey. Elevation 175 m. 13 km south of Samandag village.
- PI 576671. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK059-159.1; 92ABWHSP-905; NSGC 1740. Collected 06/1984 in Hatay, Turkey. Elevation 320 m. 18 km south of Samandag village.
- PI 576672. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK060-160.1; 92ABWHSP-907; NSGC 1742. Collected 06/1984 in Hatay, Turkey. Elevation 350 m. 22 km south of Samandag village.
- PI 576673. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK070-001.1; 92ABWHSP-909; NSGC 1744. Collected 06/1984 in Gaziantep, Turkey. Elevation 940 m. 2 km north of Gaziantep toward Yavuzeli.
- PI 576674. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK080-049.1; 92ABWHSP-911; NSGC 1746. Collected 06/1984 in Adiyaman, Turkey. Elevation 600 m. 10 km north of Bensi.
- PI 576675. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK080-050.1; 92ABWHSP-913; NSGC 1748. Collected 06/1984 in Adiyaman, Turkey. Elevation 600 m. 10 km north of Bensi.
- PI 576676. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK084-064.1; 92ABWHSP-915; NSGC 1750. Collected 06/1984 in Adiyaman, Turkey. Elevation 850 m. 6 km south of Narance village.
- PI 576677. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK093-028.1; 92ABWHSP-919; NSGC 1753. Collected 06/1984 in Diyarbakir, Turkey. Elevation 800 m. 18 km southwest of Diyarbakir.
- PI 576678. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK096-030.1; 92ABWHSP-921; NSGC 1755. Collected 06/1984 in Diyarbakir, Turkey. Elevation 825 m. 19 km southeast of Diyarbakir-Bismil junction on way to Bismil.
- PI 576679. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK100-031.1; 92ABWHSP-923; NSGC 1757. Collected 06/1984 in Diyarbakir, Turkey. Elevation 900 m. 28 km north of Diyarbakir-Bingol

road junction.

- PI 576680. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK101-036.1; 92ABWHSP-925; NSGC 1759. Collected 06/1984 in Diyarbakir, Turkey. Elevation 1000 m. 48 km north of Diyarbakir-Bingol road junction.
- PI 576681. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK102-043.1; 92ABWHSP-927; NSGC 1761. Collected 06/1984 in Diyarbakir, Turkey. Elevation 1000 m. 8 km east of Hani-Lice road junction.
- PI 576682. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK103-046.1; 92ABWHSP-929; NSGC 1763. Collected 06/1984 in Diyarbakir, Turkey. Elevation 925 m. 24 km southwest of Hani.
- PI 576683. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK106-060.1; 92ABWHSP-931; NSGC 1765. Collected 06/1984 in Diyarbakir, Turkey. Elevation 950 m. 8 km southwest of Dicle.
- PI 576684. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK107-069.1; 92ABWHSP-933; NSGC 1768. Collected 06/1984 in Diyarbakir, Turkey. Elevation 1100 m. 11 km northeast of Ergani.
- PI 576685. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK115-115.1; 92ABWHSP-935; NSGC 1770. Collected 06/1984 in Urfa, Turkey. Elevation 600 m. 3 km southwest of Hilvan.
- PI 576686. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK118-120.1; 92ABWHSP-937; NSGC 1772. Collected 06/1984 in Urfa, Turkey. Elevation 350 m. 7 km northeast of Harrun ruins-Urfa road junction.
- PI 576687. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK122-009.1; 92ABWHSP-939; NSGC 1774. Collected 06/1984 in Urfa, Turkey. Elevation 600 m. 5 km north of Urfa.
- PI 576688. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK136-017.1; 92ABWHSP-941; NSGC 1776. Collected 06/1984 in Urfa, Turkey. Elevation 500 m. 5 km northwest of Urfa-Diyarbakir road junction.
- PI 576689. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK137-017.1; 92ABWHSP-943; NSGC 1778. Collected 06/1984 in Adiyaman, Turkey. Elevation 600 m. 5 km north of Nimrud-Diyarbakir road junction enroute to Narince village.
- PI 576690. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK138-024.1; 92ABWHSP-945; NSGC 1780. Collected 06/1984 in Adiyaman, Turkey. Elevation 500 m. 9 km north of Nimrud-Diyarbakir road junction enroute to Narince village.
- PI 576691. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK139-025.1; 92ABWHSP-947; NSGC 1782. Collected 06/1984 in Adiyaman, Turkey. Elevation 525 m. 3 km northeast of Narince village on Nimrud road.
- PI 576692. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK142-035.1; 92ABWHSP-951; NSGC 1786. Collected 06/1984 in Maras, Turkey. Elevation 800 m. 16 km northeast of Pazarcik.
- PI 576693. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK150-001.1; 92ABWHSP-953; NSGC 1788. Collected 06/1984 in Manisa, Turkey. Elevation 490 m. 10 km east of road junction to Selemdi

on Izmir highway.

The following were collected by Gordon Kimber, University of Missouri, Department of Agronomy, 205 Curtis Hall, Columbia, Missouri 65211, United States; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576694. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK160-051.1; 92ABWHSP-955; NSGC 1790. Collected 06/1984 in Denizli, Turkey. Elevation 385 m. 13 km north of Buldan road junction.
- PI 576695. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK161-054.1; 92ABWHSP-957; NSGC 1792. Collected 06/1984 in Manisa, Turkey. Elevation 320 m. 23 km north of Buldan road junction; or 12 km south of Sarigol.

The following were collected by Gordon Kimber, University of Missouri, Department of Agronomy, 205 Curtis Hall, Columbia, Missouri 65211, United States; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576696. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK204-003.1; 92ABWHSP-959; NSGC 1793. Collected 07/1984 in Izmir, Turkey. Elevation 20 m. 12 km northwest of Dikili junction.
- PI 576697. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK277-002.1; 92ABWHSP-967; NSGC 1800. Collected 07/1984 in Bolu, Turkey. Elevation 20 m. 10 km east of Akcakoca.
- PI 576698. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK280-002.1; 92ABWHSP-975; NSGC 1804. Collected 07/1984 in Zonguldak, Turkey. Elevation 500 m. 7 km west of Devrek.
- PI 576699. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK280-003.1; 92ABWHSP-977; NSGC 1806. Collected 07/1984 in Zonguldak, Turkey. Elevation 500 m. 7 km west of Devrek.
- PI 576700. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK293-008.1; 92ABWHSP-981; NSGC 1808. Collected 07/1984 in Bolu, Turkey. Elevation 820 m. 2 km south of Delice village, or 2 km north of junction of Abantag road and road returning to Bolu.
- PI 576701. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK310-002.1; 92ABWHSP-983; NSGC 1809. Collected 07/1984 in Corum, Turkey. Elevation 300 m. highway junction and sign to Karacaoglan village, or 6 km south of Corum-Sinop provinces border.
- PI 576702. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK314-004.1; 92ABWHSP-987; NSGC 1812. Collected 07/1984 in Sinop, Turkey. Elevation 400 m. 6 km south of Boyabat, Samsun-Boyabat junction.
- PI 576703. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK319-002.1; 92ABWHSP-989; NSGC 1814. Collected 07/1984 in Sinop, Turkey. Elevation 630 m. 19 km southeast of Ayancik.
- PI 576704. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK320-002.1; 92ABWHSP-991; NSGC 1815. Collected 07/1984 in Sinop, Turkey. Elevation 460 m. 16 km southeast of Ayancik.

- PI 576705. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK324-002.1; 92ABWHSP-993; NSGC 1816. Collected 07/1984 in Sinop, Turkey. Elevation 300 m. 16 km southeast of Yenikonak-Boyabat junction.
- PI 576706. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK325-002.1; 92ABWHSP-995; NSGC 1817. Collected 07/1984 in Sinop, Turkey. Elevation 50 m. 1 km south of Boyabat-Gerze junction.
- PI 576707. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK332-004.1; 92ABWHSP-999; NSGC 1820. Collected 07/1984 in Ankara, Turkey. Elevation 1150 m. Haymana Exp. Farm.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576708. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK507-002.1; 92ABWHSP-1001; NSGC 1821. Collected 08/1984 in Van, Turkey. Elevation 2240 m. 10 km southeast of Guzelsu.
- PI 576709. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK512-001.1; 92ABWHSP-1003; NSGC 1822. Collected 08/1984 in Van, Turkey. Elevation 1700 m. 42 km southeast of Guzelsu.
- PI 576710. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK557-001.1; 92ABWHSP-1005; NSGC 1823. Collected 08/1984 in Hakkari, Turkey. Elevation 1520 m. Harmanti Koyu.
- PI 576711. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK659-002.1; 92ABWHSP-1037; NSGC 1824. Collected 08/1984 in Kars, Turkey. Elevation 1800 m. 11 km northwest of junction at Kagizman.

The following were collected by Sakti Jana, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, Saskatoon, Saskatchewan S7N 0W0, Canada; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576712. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK061-162.1; 92ABWHSP-1055; NSGC 1826. Collected 06/1984 in Hatay, Turkey. Elevation 110 m. 5 km from Syrian border (Reyhanli), east of Yenisehir.
- PI 576713. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK146-001.1; 92ABWHSP-1059; NSGC 1829. Collected 06/1984 in Gaziantep, Turkey. Elevation 1000 m. 30 km northwest of Gaziantep.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576714. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK497-002.1; 92ABWHSP-1061; NSGC 1830. Collected 08/1984 in Van, Turkey. Elevation 1875 m. 39 km east of Van, or 23 km west of Ozalp, which is 20 km from west of Iran border.

PI 576715. *Triticum aestivum* L., nom. cons.  
Cultivated. 84TK652-001.1; 92ABWHSP-1063; NSGC 1831. Collected 08/1984  
in Kars, Turkey. Elevation 1675 m. 9 km south of Arpacay.

The following were collected by H.V. Harlan, Bureau of Plant Industry - USDA,  
Division of Cereal Crops & Diseases, Washington, District of Columbia, United  
States. Received 01/14/1994.

PI 576716. *Triticum durum* Desf.  
Landrace. 340; 92ABWHSP-9; NSGC 1604. Collected 11/1923 in Shewa,  
Ethiopia. market in Addis Ababa.

The following were collected by E.L. Smith, Oklahoma Agr. Exp. Sta., Oklahoma  
State University, Stillwater, Oklahoma 74078, United States. Received  
01/14/1994.

PI 576717. *Triticum durum* Desf.  
Landrace. ELS 6404-99; 92ABWHSP-73; NSGC 1605. Collected in Ethiopia.

The following were collected by International Board for Plant Genetic  
Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received  
01/14/1994.

PI 576718. *Triticum durum* Desf.  
Landrace. MG 18125; 92ABWHSP-631; NSGC 1628; Biskri. Collected  
06/26/1976 in Tunisia. Elevation 540 m.

PI 576719. *Triticum durum* Desf.  
Landrace. MG 18127; 92ABWHSP-635; NSGC 1629; Biskri. Collected  
06/26/1976 in Tunisia. Elevation 420 m.

PI 576720. *Triticum durum* Desf.  
Landrace. MG 18128; 92ABWHSP-637; NSGC 1630; Biskri. Collected  
06/27/1976 in Tunisia. Elevation 470 m.

PI 576721. *Triticum durum* Desf.  
Landrace. MG 18129; 92ABWHSP-639; NSGC 1631. Collected 06/27/1976 in  
Tunisia. Elevation 520 m.

PI 576722. *Triticum durum* Desf.  
Landrace. MG 18134; 92ABWHSP-643; NSGC 1632; Chili. Collected 06/27/1976  
in Tunisia. Elevation 480 m.

PI 576723. *Triticum durum* Desf.  
Landrace. MG 18140; 92ABWHSP-645; NSGC 1633. Collected 06/28/1976 in  
Tunisia. Elevation 505 m.

PI 576724. *Triticum durum* Desf.  
Landrace. MG 18151; 92ABWHSP-661; NSGC 1634. Collected 06/29/1976 in  
Tunisia. Elevation 900 m.

PI 576725. *Triticum durum* Desf.  
Landrace. MG 18152; 92ABWHSP-663; NSGC 1635. Collected 06/29/1976 in  
Tunisia. Elevation 920 m.

PI 576726. *Triticum durum* Desf.  
Landrace. MG 18154; 92ABWHSP-667; NSGC 1636. Collected 1976 in Tunisia.

PI 576727. *Triticum durum* Desf.  
Landrace. MG 18159; 92ABWHSP-675; NSGC 1637. Collected 06/29/1976 in

- Tunisia. Elevation 1030 m.
- PI 576728. *Triticum durum* Desf.  
Landrace. MG 18160; 92ABWHSP-677; NSGC 1638. Collected 06/29/1976 in Tunisia. Elevation 1030 m.
- PI 576729. *Triticum durum* Desf.  
Landrace. MG 18169; 92ABWHSP-681; NSGC 1639. Collected 07/06/1976 in Algeria. Elevation 40 m.
- PI 576730. *Triticum durum* Desf.  
Landrace. MG 18170; 92ABWHSP-683; NSGC 1640. Collected 07/06/1976 in Algeria. Elevation 40 m.
- PI 576731. *Triticum durum* Desf.  
Landrace. MG 18171; 92ABWHSP-685; NSGC 1641. Collected 07/06/1976 in Algeria. Elevation 60 m.
- PI 576732. *Triticum durum* Desf.  
Landrace. MG 18172; 92ABWHSP-687; NSGC 1642. Collected 07/06/1976 in Algeria. Elevation 100 m.
- PI 576733. *Triticum durum* Desf.  
Landrace. MG 18173; 92ABWHSP-689; NSGC 1643; Oved Zenati. Collected 07/06/1976 in Algeria. Elevation 70 m.
- PI 576734. *Triticum durum* Desf.  
Landrace. MG 18174; 92ABWHSP-691; NSGC 1644. Collected 07/06/1976 in Algeria. Elevation 70 m.
- PI 576735. *Triticum durum* Desf.  
Cultivated. MG 18175; 92ABWHSP-693; NSGC 1645; Bidi 17. Collected 07/06/1976 in Algeria. Elevation 195 m.
- PI 576736. *Triticum durum* Desf.  
Cultivated. MG 18176; 92ABWHSP-695; NSGC 1646; Bidi 17. Collected 07/07/1976 in Algeria. Elevation 285 m.
- PI 576737. *Triticum durum* Desf.  
Landrace. MG 18180; 92ABWHSP-699; NSGC 1647. Collected 07/07/1976 in Algeria. Elevation 1000 m.
- PI 576738. *Triticum durum* Desf.  
Landrace. MG 18184; 92ABWHSP-705; NSGC 1648; Hedba. Collected 07/08/1976 in Algeria. Elevation 825 m.
- PI 576739. *Triticum durum* Desf.  
Landrace. MG 18186; 92ABWHSP-709; NSGC 1649. Collected 07/08/1976 in Algeria. Elevation 950 m.
- PI 576740. *Triticum durum* Desf.  
Landrace. MG 18187; 92ABWHSP-711; NSGC 1650. Collected 07/08/1976 in Algeria. Elevation 1020 m.
- PI 576741. *Triticum durum* Desf.  
Landrace. MG 18188; 92ABWHSP-713; NSGC 1651; Hedba. Collected 07/08/1976 in Algeria. Elevation 940 m.
- PI 576742. *Triticum durum* Desf.  
Landrace. MG 18189; 92ABWHSP-715; NSGC 1652. Collected 07/08/1976 in Algeria. Elevation 1000 m.
- PI 576743. *Triticum durum* Desf.  
Landrace. MG 18190; 92ABWHSP-717; NSGC 1653; Hedba. Collected 08/09/1976

in Algeria. Elevation 870 m.

- PI 576744. *Triticum durum* Desf.  
Landrace. MG 18191; 92ABWHSP-719; NSGC 1654. Collected 08/09/1976 in  
Algeria. Elevation 930 m.
- PI 576745. *Triticum durum* Desf.  
Landrace. MG 18192; 92ABWHSP-721; NSGC 1655. Collected 07/09/1976 in  
Algeria. Elevation 1100 m.
- PI 576746. *Triticum durum* Desf.  
Landrace. MG 18193; 92ABWHSP-723; NSGC 1656. Collected 07/09/1976 in  
Algeria. Elevation 1000 m.
- PI 576747. *Triticum durum* Desf.  
Landrace. MG 18194; 92ABWHSP-725; NSGC 1657. Collected 07/09/1976 in  
Algeria. Elevation 930 m.
- PI 576748. *Triticum durum* Desf.  
Landrace. MG 18195; 92ABWHSP-727; NSGC 1658. Collected 07/09/1976 in  
Algeria. Elevation 870 m.
- PI 576749. *Triticum durum* Desf.  
Landrace. MG 18197; 92ABWHSP-731; NSGC 1659. Collected 07/09/1976 in  
Algeria. Elevation 820 m.
- PI 576750. *Triticum durum* Desf.  
Landrace. MG 18200; 92ABWHSP-737; NSGC 1660. Collected 07/09/1976 in  
Algeria. Elevation 740 m.
- PI 576751. *Triticum durum* Desf.  
Landrace. MG 18201; 92ABWHSP-739; NSGC 1661; Hedba. Collected 07/09/1976  
in Algeria. Elevation 810 m.
- PI 576752. *Triticum durum* Desf.  
Landrace. MG 18202; 92ABWHSP-741; NSGC 1662. Collected 07/10/1976 in  
Algeria. Elevation 850 m.
- PI 576753. *Triticum durum* Desf.  
Landrace. MG 18203; 92ABWHSP-743; NSGC 1663. Collected 07/10/1976 in  
Algeria. Elevation 850 m.
- PI 576754. *Triticum durum* Desf.  
Landrace. MG 18204; 92ABWHSP-745; NSGC 1664. Collected 07/10/1976 in  
Algeria. Elevation 850 m.
- PI 576755. *Triticum durum* Desf.  
Landrace. MG 18205; 92ABWHSP-747; NSGC 1665. Collected 07/10/1976 in  
Algeria. Elevation 1000 m.
- PI 576756. *Triticum durum* Desf.  
Landrace. MG 18206; 92ABWHSP-749; NSGC 1666. Collected 07/10/1976 in  
Algeria. Elevation 1000 m.
- PI 576757. *Triticum durum* Desf.  
Landrace. MG 18207; 92ABWHSP-751; NSGC 1667. Collected 07/10/1976 in  
Algeria. Elevation 1000 m.
- PI 576758. *Triticum durum* Desf.  
Landrace. MG 18208; 92ABWHSP-753; NSGC 1668. Collected 07/15/1976 in  
Algeria. Elevation 830 m.
- PI 576759. *Triticum durum* Desf.  
Landrace. MG 18209; 92ABWHSP-755; NSGC 1669. Collected 07/15/1976 in

- Algeria. Elevation 880 m.
- PI 576760. *Triticum durum* Desf.  
Landrace. MG 18210; 92ABWHSP-757; NSGC 1670. Collected 07/15/1976 in  
Algeria. Elevation 940 m.
- PI 576761. *Triticum durum* Desf.  
Landrace. MG 18212; 92ABWHSP-759; NSGC 1671. Collected 07/15/1976 in  
Algeria. Elevation 1000 m.
- PI 576762. *Triticum durum* Desf.  
Landrace. MG 18213; 92ABWHSP-761; NSGC 1672. Collected 07/15/1976 in  
Algeria. Elevation 1020 m.
- PI 576763. *Triticum durum* Desf.  
Landrace. MG 18214; 92ABWHSP-763; NSGC 1673. Collected 07/15/1976 in  
Algeria. Elevation 1090 m.
- PI 576764. *Triticum durum* Desf.  
Landrace. MG 18215; 92ABWHSP-765; NSGC 1674. Collected 07/15/1976 in  
Algeria. Elevation 1240 m.
- PI 576765. *Triticum durum* Desf.  
Landrace. MG 18220; 92ABWHSP-767; NSGC 1675. Collected 07/16/1976 in  
Algeria. Elevation 985 m.
- PI 576766. *Triticum durum* Desf.  
Landrace. MG 18222; 92ABWHSP-769; NSGC 1676. Collected 07/16/1976 in  
Algeria. Elevation 900 m.
- PI 576767. *Triticum durum* Desf.  
Landrace. MG 18223; 92ABWHSP-771; NSGC 1677. Collected 07/16/1976 in  
Algeria. Elevation 890 m.
- PI 576768. *Triticum durum* Desf.  
Landrace. MG 18225; 92ABWHSP-773; NSGC 1678. Collected 07/17/1976 in  
Algeria. Elevation 820 m.
- PI 576769. *Triticum durum* Desf.  
Landrace. MG 18228; 92ABWHSP-775; NSGC 1679. Collected 07/01/1976 in  
Algeria.
- PI 576770. *Triticum durum* Desf.  
Landrace. MG 18230; 92ABWHSP-777; NSGC 1680. Collected 1976 in Algeria.
- PI 576771. *Triticum durum* Desf.  
Landrace. MG 18232; 92ABWHSP-779; NSGC 1681. Collected 07/01/1976 in  
Algeria. Elevation 220 m.
- PI 576772. *Triticum durum* Desf.  
Landrace. MG 18235; 92ABWHSP-781; NSGC 1682. Collected 07/02/1976 in  
Algeria. Elevation 225 m.
- PI 576773. *Triticum durum* Desf.  
Landrace. MG 18236; 92ABWHSP-783; NSGC 1683. Collected 07/02/1976 in  
Algeria. Elevation 360 m.
- PI 576774. *Triticum durum* Desf.  
Landrace. MG 18237; 92ABWHSP-785; NSGC 1684. Collected 07/02/1976 in  
Algeria.
- PI 576775. *Triticum durum* Desf.  
Landrace. MG 18238; 92ABWHSP-787; NSGC 1685. Collected 07/02/1976 in  
Algeria.

- PI 576776. *Triticum durum* Desf.  
Landrace. MG 18239; 92ABWHSP-789; NSGC 1686. Collected 07/02/1976 in  
Algeria. Elevation 420 m.
- PI 576777. *Triticum durum* Desf.  
Landrace. MG 18240; 92ABWHSP-791; NSGC 1687. Collected 07/02/1976 in  
Algeria.
- PI 576778. *Triticum durum* Desf.  
Landrace. MG 18242; 92ABWHSP-793; NSGC 1688. Collected 1976 in Algeria.
- PI 576779. *Triticum durum* Desf.  
Landrace. MG 18243; 92ABWHSP-795; NSGC 1689. Collected 07/03/1976 in  
Algeria. Elevation 600 m.
- PI 576780. *Triticum durum* Desf.  
Landrace. MG 18244; 92ABWHSP-797; NSGC 1690; Hedba. Collected 07/03/1976  
in Algeria. Elevation 630 m.
- PI 576781. *Triticum durum* Desf.  
Landrace. MG 18246; 92ABWHSP-801; NSGC 1691. Collected 07/03/1976 in  
Algeria. Elevation 730 m.
- PI 576782. *Triticum durum* Desf.  
Landrace. MG 18248; 92ABWHSP-805; NSGC 1692. Collected 07/03/1976 in  
Algeria. Elevation 650 m.
- PI 576783. *Triticum durum* Desf.  
Landrace. MG 18249; 92ABWHSP-807; NSGC 1693. Collected 07/03/1976 in  
Algeria. Elevation 690 m.
- PI 576784. *Triticum durum* Desf.  
Landrace. MG 18250; 92ABWHSP-809; NSGC 1694. Collected 07/03/1976 in  
Algeria. Elevation 850 m.
- PI 576785. *Triticum durum* Desf.  
Landrace. MG 18251; 92ABWHSP-811; NSGC 1695. Collected 07/03/1976 in  
Algeria. Elevation 850 m.
- PI 576786. *Triticum durum* Desf.  
Landrace. MG 18252; 92ABWHSP-813; NSGC 1696. Collected 07/11/1976 in  
Algeria. Elevation 350 m.
- PI 576787. *Triticum durum* Desf.  
Landrace. MG 18253; 92ABWHSP-815; NSGC 1697. Collected 07/11/1976 in  
Algeria. Elevation 680 m.
- PI 576788. *Triticum durum* Desf.  
Landrace. MG 18255; 92ABWHSP-817; NSGC 1698. Collected 07/12/1976 in  
Algeria. Elevation 600 m.
- PI 576789. *Triticum durum* Desf.  
Landrace. MG 18261; 92ABWHSP-819; NSGC 1699. Collected 07/12/1976 in  
Algeria. Elevation 920 m.
- PI 576790. *Triticum durum* Desf.  
Landrace. MG 18262; 92ABWHSP-821; NSGC 1700. Collected 07/12/1976 in  
Algeria. Elevation 520 m.
- PI 576791. *Triticum durum* Desf.  
Cultivated. MG 18263; 92ABWHSP-823; NSGC 1701; Bidi 17. Collected  
07/13/1976 in Algeria. Elevation 750 m.

- PI 576792. *Triticum durum* Desf.  
Landrace. MG 18264; 92ABWHSP-825; NSGC 1702. Collected 07/13/1976 in  
Algeria. Elevation 850 m.
- PI 576793. *Triticum durum* Desf.  
Landrace. MG 18265; 92ABWHSP-827; NSGC 1703. Collected 07/13/1976 in  
Algeria. Elevation 980 m.
- PI 576794. *Triticum durum* Desf.  
Landrace. MG 18266; 92ABWHSP-829; NSGC 1704. Collected 07/13/1976 in  
Algeria. Elevation 980 m.
- PI 576795. *Triticum durum* Desf.  
Landrace. MG 18267; 92ABWHSP-831; NSGC 1705. Collected 07/13/1976 in  
Algeria. Elevation 930 m.
- PI 576796. *Triticum durum* Desf.  
Landrace. MG 18268; 92ABWHSP-833; NSGC 1706. Collected 07/13/1976 in  
Algeria. Elevation 980 m.
- PI 576797. *Triticum durum* Desf.  
Landrace. MG 26408; 92ABWHSP-835; NSGC 1707. Collected 04/24/1978 in  
Egypt. Elevation 60 m.
- PI 576798. *Triticum durum* Desf.  
Landrace. MG 26409; 92ABWHSP-837; NSGC 1708. Collected 04/24/1978 in  
Egypt. Elevation 60 m.
- PI 576799. *Triticum durum* Desf.  
Landrace. MG 26415; 92ABWHSP-839; NSGC 1709. Collected 04/25/1978 in  
Egypt. Elevation 60 m.
- PI 576800. *Triticum durum* Desf.  
Landrace. MG 26417; 92ABWHSP-841; NSGC 1710. Collected 04/26/1978 in  
Egypt. Elevation 70 m.
- PI 576801. *Triticum durum* Desf.  
Landrace. MG 26418; 92ABWHSP-843; NSGC 1711. Collected 04/26/1978 in  
Egypt. Elevation 70 m.
- PI 576802. *Triticum durum* Desf.  
Landrace. MG 26425; 92ABWHSP-849; NSGC 1712. Collected 04/27/1978 in  
Egypt.
- PI 576803. *Triticum durum* Desf.  
Landrace. MG 26429; 92ABWHSP-853; NSGC 1713. Collected 04/27/1978 in  
Egypt.

The following were collected by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy; John Giles Waines, University of California, Department of Botany & Plant Science, Riverside, California 92521, United States. Received 01/14/1994.

- PI 576804. *Triticum durum* Desf.  
Cultivated. 14/15; 92ABWHSP-859; NSGC 1714; Bugday. Collected 06/1987 in  
Adiyaman, Turkey. Latitude 37 deg. 30' N. Longitude 38 deg. 21' E.  
Elevation 415 m. farmland, valley slope, grassland, stream bed and NE  
slope that flows into Ziyaret River.
- PI 576805. *Triticum durum* Desf.  
Cultivated. 14/16; 92ABWHSP-861; NSGC 1715; Bugday. Collected 06/10/1987  
in Adiyaman, Turkey. Latitude 37 deg. 30' N. Longitude 38 deg. 21' E.  
Elevation 415 m. farmland, valley slope, grassland, stream bed and NE

slope that flows into Ziyaret River.

**PI 576806. *Triticum durum* Desf.**

Cultivated. 14/17; 92ABWHSP-863; NSGC 1716. Collected 06/10/1987 in Adiyaman, Turkey. Latitude 37 deg. 30' N. Longitude 38 deg. 21' E. Elevation 415 m. Farmland, valley slope, grassland, stream bed and NE slope that flows into Ziyaret River.

The following were collected by A. Mokkadem, Institut National de la Recherche Agronomique, Guyancourt, Ville-de-Paris, France. Received 01/14/1994.

**PI 576807. *Triticum durum* Desf.**

Landrace. 1015; 92ABWHSP-883; NSGC 1723. Collected 06/19/1988 in Algeria. Latitude 23 deg. 0' N. Longitude 6 deg. 0' E. Elevation 1300 m. Irrigated agriculture in wadi bed, Tahifet, Hoggar Province.

The following were collected by Sakti Jana, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, Saskatoon, Saskatchewan S7N 0W0, Canada; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

**PI 576808. *Triticum durum* Desf.**

Cultivated. 84TK001.0-001.2; 92ABWHSP-889; NSGC 1725. Collected 06/1984 in Mugla, Turkey. Elevation 450 m. 1 km north of Selimiye.

**PI 576809. *Triticum durum* Desf.**

Cultivated. 84TK005.015.2; 92ABWHSP-891; NSGC 1727. Collected 06/1984 in Mugla, Turkey. Elevation 410 m. Yatagan, across road from power plant.

**PI 576810. *Triticum durum* Desf.**

Cultivated. 84TK019.044.2; 92ABWHSP-893; NSGC 1729. Collected 06/1984 in Antalya, Turkey. Elevation 500 m. Agullu village, 8 km northeast of Kas.

**PI 576811. *Triticum durum* Desf.**

Cultivated. 84TK020-049.2; 92ABWHSP-895; NSGC 1731. Collected 06/1984 in Antalya, Turkey. Elevation 190 m. 8 km north of Elmali-Finike road junction toward Elmali.

**PI 576812. *Triticum durum* Desf.**

Cultivated. 84TK046-118.2; 92ABWHSP-897; NSGC 1733. Collected 06/1984 in Icel, Turkey. Elevation 150 m. Adkere village, 31 km southwest of Silifke.

**PI 576813. *Triticum durum* Desf.**

Cultivated. 84TK055-139.2; 92ABWHSP-899; NSGC 1735. Collected 06/1984 in Hatay, Turkey. Elevation 350 m. 8 km southeast of Iskenderum.

**PI 576814. *Triticum durum* Desf.**

Cultivated. 84TK056-140.2; 92ABWHSP-901; NSGC 1737. Collected 06/1984 in Hatay, Turkey. Elevation 180 m. 10 km southwest of Antakya.

**PI 576815. *Triticum durum* Desf.**

Cultivated. 84TK058-156.2; 92ABWHSP-903; NSGC 1739. Collected 06/1984 in Hatay, Turkey. Elevation 175 m. 13 km south of Samandag village.

**PI 576816. *Triticum durum* Desf.**

Cultivated. 84TK059-159.2; 92ABWHSP-905; NSGC 1741. Collected 06/1984 in Hatay, Turkey. Elevation 320 m. 18 km south of Samandag village.

- PI 576817. *Triticum durum* Desf.  
Cultivated. 84TK060-160.2; 92ABWHSP-907; NSGC 1743. Collected 06/1984 in Hatay, Turkey. Elevation 350 m. 22 km south of Samandag village.
- PI 576818. *Triticum durum* Desf.  
Cultivated. 84TK070-001.2; 92ABWHSP-909; NSGC 1745. Collected 06/1984 in Gaziantep, Turkey. Elevation 940 m. 2 km north of Gaziantep toward Yavuzeli.
- PI 576819. *Triticum durum* Desf.  
Cultivated. 84TK080-049.2; 92ABWHSP-911; NSGC 1747. Collected 06/1984 in Adiyaman, Turkey. Elevation 600 m. 10 km north of Bensi.
- PI 576820. *Triticum durum* Desf.  
Cultivated. 84TK080-050.2; 92ABWHSP-913; NSGC 1749. Collected 06/1984 in Adiyaman, Turkey. Elevation 600 m. 10 km north of Bensi.
- PI 576821. *Triticum durum* Desf.  
Cultivated. 84TK084-064.2; 92ABWHSP-915; NSGC 1751. Collected 06/1984 in Adiyaman, Turkey. Elevation 850 m. 6 km south of Narance village.
- PI 576822. *Triticum durum* Desf.  
Cultivated. 84TK085-030.2; 92ABWHSP-917; NSGC 1752. Collected 06/1984 in Diyarbakir, Turkey. Elevation 820 m. Regional Agric. Research Station, Diyarbakir.
- PI 576823. *Triticum durum* Desf.  
Cultivated. 84TK093-028.2; 92ABWHSP-919; NSGC 1754. Collected 06/1984 in Diyarbakir, Turkey. Elevation 800 m. 18 km southwest of Diyarbakir.
- PI 576824. *Triticum durum* Desf.  
Cultivated. 84TK096-030.2; 92ABWHSP-921; NSGC 1756. Collected 06/1984 in Diyarbakir, Turkey. Elevation 825 m. 19 km southeast of Diyarbakir-Bismil junction on way to Bismil.
- PI 576825. *Triticum durum* Desf.  
Cultivated. 84TK100-031.2; 92ABWHSP-923; NSGC 1758. Collected 06/1984 in Diyarbakir, Turkey. Elevation 900 m. 28 km north of Diyarbakir-Bingol road junction.
- PI 576826. *Triticum durum* Desf.  
Cultivated. 84TK101-036.2; 92ABWHSP-925; NSGC 1760. Collected 06/1984 in Diyarbakir, Turkey. Elevation 1000 m. 48 km north of Diyarbakir-Bingol road junction.
- PI 576827. *Triticum durum* Desf.  
Cultivated. 84TK102-043.2; 92ABWHSP-927; NSGC 1762. Collected 06/1984 in Diyarbakir, Turkey. Elevation 1000 m. 8 km east of Hani-Lice road junction.
- PI 576828. *Triticum durum* Desf.  
Cultivated. 84TK103-046.2; 92ABWHSP-929; NSGC 1764. Collected 06/1984 in Diyarbakir, Turkey. Elevation 925 m. 24 km southwest of Hani.
- PI 576829. *Triticum durum* Desf.  
Cultivated. 84TK106-060.2; 92ABWHSP-931; NSGC 1766. Collected 06/1984 in Diyarbakir, Turkey. Elevation 950 m. 8 km southwest of Dicle.
- PI 576830. *Triticum durum* Desf.  
Cultivated. 84TK107-069.2; 92ABWHSP-933; NSGC 1769. Collected 06/1984 in Diyarbakir, Turkey. Elevation 1100 m. 11 km northeast of Ergani.
- PI 576831. *Triticum durum* Desf.  
Cultivated. 84TK115-115.2; 92ABWHSP-935; NSGC 1771. Collected 06/1984 in

Urfa, Turkey. Elevation 600 m. 3 km southwest of Hilvan.

- PI 576832. *Triticum durum* Desf.  
Cultivated. 84TK118-120.2; 92ABWHSP-937; NSGC 1773. Collected 06/1984 in Urfa, Turkey. Elevation 350 m. 7 km northeast of Harrun ruins-Urfa road junction.
- PI 576833. *Triticum durum* Desf.  
Cultivated. 84TK122-009.2; 92ABWHSP-939; NSGC 1775. Collected 06/1984 in Urfa, Turkey. Elevation 600 m. 5 km north of Urfa.
- PI 576834. *Triticum durum* Desf.  
Cultivated. 84TK136-017.2; 92ABWHSP-941; NSGC 1777. Collected 06/1984 in Urfa, Turkey. Elevation 500 m. 5 km northwest of Urfa-Diyarbakir road junction.
- PI 576835. *Triticum durum* Desf.  
Cultivated. 84TK137-017.2; 92ABWHSP-943; NSGC 1779. Collected 06/1984 in Adiyaman, Turkey. Elevation 600 m. 5 km north of Nimrud-Diyarbakir road junction enroute to Narince village.
- PI 576836. *Triticum durum* Desf.  
Cultivated. 84TK138-024.2; 92ABWHSP-945; NSGC 1781. Collected 06/1984 in Adiyaman, Turkey. Elevation 500 m. 9 km north of Nimrud-Diyarbakir road junction enroute to Narince village.
- PI 576837. *Triticum durum* Desf.  
Cultivated. 84TK139-025.2; 92ABWHSP-947; NSGC 1783. Collected 06/1984 in Adiyaman, Turkey. Elevation 525 m. 3 km northeast of Narince village on Nimrud road.
- PI 576838. *Triticum durum* Desf.  
Cultivated. 84TK140-026.2; 92ABWHSP-949; NSGC 1785. Collected 06/1984 in Adiyaman, Turkey. Elevation 670 m. 20 km east of Golbasi.
- PI 576839. *Triticum durum* Desf.  
Cultivated. 84TK142-035.2; 92ABWHSP-951; NSGC 1787. Collected 06/1984 in Maras, Turkey. Elevation 800 m. 16 km northeast of Pazarcik.
- PI 576840. *Triticum durum* Desf.  
Cultivated. 84TK150-001.2; 92ABWHSP-953; NSGC 1789. Collected 06/1984 in Manisa, Turkey. Elevation 490 m. 1 km east of road junction to Selemdi on Izmir highway.

The following were collected by Gordon Kimber, University of Missouri, Department of Agronomy, 205 Curtis Hall, Columbia, Missouri 65211, United States; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576841. *Triticum durum* Desf.  
Cultivated. 84TK160-051.2; 92ABWHSP-955; NSGC 1791. Collected 06/1984 in Denizli, Turkey. Elevation 385 m. 13 km north of Buldan road junction.

The following were collected by Gordon Kimber, University of Missouri, Department of Agronomy, 205 Curtis Hall, Columbia, Missouri 65211, United States; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

- PI 576842. *Triticum durum* Desf.

Cultivated. 84TK204-003.2; 92ABWHSP-959; NSGC 1794. Collected 07/1984 in Izmir, Turkey. Elevation 20 m. 12 km northwest of Dikili junction.

PI 576843. *Triticum durum* Desf.

Cultivated. 84TK277-002.2; 92ABWHSP-967; NSGC 1801. Collected 07/1984 in Bolu, Turkey. Elevation 20 m. 10 km east of Akcakoca.

PI 576844. *Triticum durum* Desf.

Cultivated. 84TK278-002.2; 92ABWHSP-971; NSGC 1803. Collected 07/1984 in Zonguldak, Turkey. Elevation 60 m. 6 km east of junction or 17 km east of Eregli, enroute to Devrek.

PI 576845. *Triticum durum* Desf.

Cultivated. 84TK280-002.2; 92ABWHSP-975; NSGC 1805. Collected 07/1984 in Zonguldak, Turkey. Elevation 500 m. 7 km west of Devrek.

PI 576846. *Triticum durum* Desf.

Cultivated. 84TK280-003.2; 92ABWHSP-977; NSGC 1807. Collected 07/1984 in Zonguldak, Turkey. Elevation 500 m. 7 km west of Devrek.

PI 576847. *Triticum durum* Desf.

Cultivated. 84TK310-002.2; 92ABWHSP-983; NSGC 1810. Collected 07/1984 in Corum, Turkey. Elevation 300 m. Highway junction and sign to Karacaoglan village, or 6 km south of Corum-Sinop provinces border.

PI 576848. *Triticum durum* Desf.

Cultivated. 84TK312-004.2; 92ABWHSP-985; NSGC 1811. Collected 07/1984 in Sinop, Turkey. Elevation 350 m. 14 km north of Sinop-Corum provinces border.

PI 576849. *Triticum durum* Desf.

Cultivated. 84TK314-004.2; 92ABWHSP-987; NSGC 1813. Collected 07/1984 in Sinop, Turkey. Elevation 400 m. 6 km south of Boyabat, Samsun-Boyabat junction.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

PI 576850. *Triticum durum* Desf.

Cultivated. 84TK659-002.2; 92ABWHSP-1037; NSGC 1825. Collected 08/1984 in Kars, Turkey. Elevation 1800 m. 11 km northwest of junction at Kagizman.

The following were collected by Sakti Jana, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, Saskatoon, Saskatchewan S7N 0W0, Canada; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

PI 576851. *Triticum durum* Desf.

Cultivated. 84TK061-162.2; 92ABWHSP-1055; NSGC 1827. Collected 06/1984 in Hatay, Turkey. Elevation 110 m. 5 km from Syrian border (Reyhanli), east of Yenisehir.

PI 576852. *Triticum durum* Desf.

Cultivated. 84TK106-068.2; 92ABWHSP-1057; NSGC 1828. Collected 06/1984 in Diyarbakir, Turkey. Elevation 950 m. 8 km southwest of Dicle.

The following were collected by Institute for Small Grains, Kragujevac, Serbia, Yugoslavia. Received 01/14/1994.

**PI 576853. *Triticum timopheevii* (Zhuk.) Zhuk.**  
Landrace. 126-III/10; 92ABWHSP-377; NSGC 1626. Collected in Serbia, Yugoslavia. Belobaba-Prijepolje.

The following were collected by Sakti Jana, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, Saskatoon, Saskatchewan S7N 0W0, Canada; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 01/14/1994.

**PI 576854. *Triticum turanicum* Jakubz.**  
Cultivated. 84TK106-060.3; 92ABWHSP-931; NSGC 1767. Collected 06/1984 in Diyarbakir, Turkey. Elevation 950 m. 8 km southwest of Dicle.

The following were developed by Donald C. Rasmusson, University of Minnesota, Dept. of Agronomy & Plant Genetics, 411 Borlaug Hall, 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; S.R. Simmons, University of Minnesota, Dept. of Agronomy and Plant Genetics, St. Paul, Minnesota 55108, United States; E. Schiefelbein, University of Minnesota, Dept. of Agronomy and Plant Genetics, St. Paul, Minnesota 55108, United States. Received 01/12/1994.

**PI 576855. *Hordeum vulgare* L. ssp. *vulgare***  
Cultivar. "ROYAL". CV-245; PVP 9400059. Pedigree - Morex/Bonanza//M32/3/Robust/4/Azure. Blue-aleurone, six-row barley intended for use as a forage-companion crop and grain-feed cultivar. Neutral detergent fiber, acid detergent fiber, and acid detergent lignin concentrations of 47.0, 29.0, and 3.2%, respectively, compared to 51.4, 31.7, and 4.0% for conventional height Robust when harvested at soft dough stage of maturity. Lodging resistance superior to Robust; in nine trails lodging percentage was 19% compared to 36% for Robust. Possesses the ND B112 gene for resistance to spot blotch. Has the Rpg1 (T) gene for resistance to stem rust.

The following were developed by Phil Miklas, Tropical Agricultural Research Station, P.O. Box 70, USDA, ARS, Mayaguez, Puerto Rico; Jim Beaver, University of Puerto Rico, Mayaguez Camp, Department of Agronomy & Soils, P. O. Box 5000, Mayaguez, Puerto Rico; Ken Grafton, North Dakota State University, Department of Agronomy, Fargo, North Dakota 58105-5051, United States; G.F. Freytag, USDA-ARS, National Seed Storage Laboratory, Fort Collins, Colorado 80521-4500, United States. Received 01/12/1994.

**PI 576856. *Phaseolus vulgaris* L.**  
Breeding. "TARS VCI-4B"; W6 14993. GP-124. Pedigree - F7 composite of three F4:6 sister lines derived from an F4 bulk population of an interspecific hybrid between two recurrent selection populations, one for each species, *Phaseolus vulgaris* x *P. coccineus*. Adapted to tropical and temperate regions. Varies from a semi-upright Type IIB indeterminate short-vine to prostrate Type III long-vine plant. Maturity averages 90 days in Puerto Rico and 95 days in North Dakota, indicating insensitivity to photoperiod. Plants stay green and succulent at harvest maturity. Seed coat has yellow corona and will darken with storage. Weight of 100 seeds is 6 grams below market class. Resistant to *Xanthomonas campestris* pv. *phaseoli*, *Sclerotinia sclerotiorum*, *Uromyces appendiculatus* (Ur-3 gene), and common mosaic virus (I gene).

The following were developed by Lawrence D. Young, USDA, ARS, West Tennessee Experiment Station, 605 Airways Blvd., Jackson, Tennessee 38301, United States; Edgar E. Hartwig, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States. Received 01/12/1994.

PI 576857. *Glycine max* (L.) Merr.  
Cultivar. "LYON". CV-323. Pedigree - D82-2218 X D82-3185 (Lamar).  
D82-2218 is a selection from Bedford X Tracy-M. Productivity high.  
Resistant to bacterial pustule, phytophthora rot, stem canker, soybean cyst nematode, two species of root knot nematode, and soybean looper.  
Broader range pest resistance than any previously released variety.  
Flowers white, tawny pubescence, and pod walls tan at maturity. Seed yellow with black hila averaging 3500 per pound. Seed protein and oil average 41.3 and 20.4 percent on a dry matter basis. Maturity group VI.

The following were donated by Jimmie D. Miller, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 01/19/1994.

PI 576858. *Saccharum spontaneum* L.  
Cultivated. IND. 81-198. Collected in India. Coimbatore.

PI 576859. *Saccharum spontaneum* L.  
Cultivated. IND. 81-30. Collected in India.

PI 576860. *Saccharum spontaneum* L.  
Cultivated. IND. 81-38. Collected in India. Tamil Nadu.

PI 576861. *Saccharum spontaneum* L.  
Cultivated. IND. 81-16. Collected in Unknown.

PI 576862. *Saccharum spontaneum* L.  
Cultivated. IND. 81-121. Collected in India. Coimbatore.

PI 576863. *Saccharum spontaneum* L.  
Cultivated. IND. 81-136. Collected in India. Tamil Nadu.

PI 576864. *Saccharum spontaneum* L.  
Cultivated. IND. 81-150. Collected in India. Tamil Nadu.

PI 576865. *Saccharum spontaneum* L.  
Cultivated. SHAOGUAN. Collected in China.

PI 576866. *Saccharum spontaneum* L.  
Cultivated. PTAR 84-7. Collected in Philippines. Quezon City.

PI 576867. *Saccharum spontaneum* L.  
Cultivated. IND. 82-311. Collected in India. Coimbatore.

PI 576868. *Saccharum spontaneum* L.  
Cultivated. IND. 82-257. Collected in India. Coimbatore.

PI 576869. *Saccharum spontaneum* L.  
Cultivated. IND. 82-144. Collected in India. Coimbatore.

PI 576870. *Saccharum spontaneum* L.  
Cultivated. IND. 81-327. Collected in India. Coimbatore.

PI 576871. *Saccharum spontaneum* L.  
Cultivated. SAUDI ARABIA; CANE 1911. Collected in India. Coimbatore.

The following were developed by M. F. Kolding, Oregon State University, Columbia Basin Agric. Research Center, Pendleton, Oregon 97801, United States . Received 01/19/1994.

PI 576872. *Hordeum vulgare* L. ssp. *vulgare*  
Cultivar. "HOODY"; Fbw1001hdd. Pedigree -  
SC714662/Nebar/4/Dicktoo/Cascade/2/Hiproly/3/FB73826,7010, Missouri  
Early Beardless/CI 10432. Mid-tall, mid-season, winter. Spike six-row,  
normal, mid-dense. Basil rachis short, straight. Collar closed to Vee  
shaped. Glume normal, hooded awn. Rachis edge short hairs. Kernel  
covered. Lemma nerves appear smooth. Rachilla short hair, abortive. Hull  
white. Aleurone white. Good BYDV tolerance. Moderate cold hardy.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 09/03/1989.

PI 576873. *Allium altaicum* Pallas  
W6 9967. Collected in Germany.

PI 576874. *Allium altaicum* Pallas  
TAX 1667; W6 9968. Collected in Nei Monggol, China.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576875. *Allium altynolicum* N. V. Frizen  
Wild. W6 4300. Collected 1988 in Russian Federation. Altai.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 10/28/1989.

PI 576876. *Allium ampeloprasum* L.  
583; W6 2152. Collected in Germany.

PI 576877. *Allium ampeloprasum* L.  
566-85-76; W6 9970. Collected in Germany.

PI 576878. *Allium ampeloprasum* L.  
TARE; W6 9971. Collected in Iran.

PI 576879. *Allium ampeloprasum* L.  
All 552/73; W6 9972. Collected in Germany.

PI 576880. *Allium ampeloprasum* L.  
561-85-76; W6 9973. Collected in Germany.

PI 576881. *Allium ampeloprasum* L.  
Pearl onion; S 2208; W6 9975. Collected in Netherlands.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576882. *Allium amphibolum* Ledeb.  
Wild. W6 4277. Collected 1988 in Russian Federation. Altai.

PI 576883. *Allium angulosum* L.

Wild. W6 4255. Collected in Former Soviet Union. Siberia.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Russian Federation. Received 12/23/1991.

PI 576884. *Allium angulosum* L.

Cultivated. W6 9374; Kat. No. 3066. Collected in Germany.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576885. *Allium anisopodium* Ledeb.

Wild. W6 4278. Collected in Russian Federation. Tuva r. Tes-Hem.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576886. *Allium atrovioleaceum* Boiss.

MSU 31572; W6 9977.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576887. *Allium austrosibiricum* N. V. Frizen

Wild. W6 4279. Collected in Russian Federation. Tuva r. Kargi.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 10/18/1989.

PI 576888. *Allium caeruleum* Pallas

W6 1954.

The following were collected by John F. Swenson, 245 Hawthorn Avenue, Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576889. *Allium caesium* Schrenk

Wild. U088; W6 1899. Collected 07/26/1989 in Uzbekistan. Latitude 70 deg. 20' N. Longitude 41 deg. 20' E. Elevation 1650 m. 100km E Tashkent, Uzbek. Twenty plants sampled from population of 1000.

PI 576890. *Allium caesium* Schrenk

Wild. U100; W6 1906. Collected 07/30/1989 in Kazakhstan. Latitude 70 deg. 10' N. Longitude 42 deg. 0' E. Elevation 1700 m. AKsu-Djabagly Reserve, Kazakh. Twenty plants sampled from population of 1000.

PI 576891. *Allium caesium* Schrenk

Wild. U105; W6 1911. Collected 07/1989 in Kazakhstan. Latitude 70 deg. 10' N. Longitude 42 deg. 0' E. Elevation 1700 m. AKsu-Djabagly Reserve, Kazakh. Twenty plants sampled from population of 1000.

The following were collected by J. Swenson, 245 Hawthorne Ave., Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576892. *Allium caesium* Schrenk  
Wild. U115; W6 1916. Collected 08/01/1989 in Former Soviet Union.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/01/1989.

PI 576893. *Allium carinatum* ssp. *pulchellum* Bonnier & Layens

P146; W6 10004.

PI 576894. *Allium cepa* L.  
"yellow multiplier"; W6 9979.

PI 576895. *Allium cepa* L.  
270785-05; W6 9980. Collected in Turkey.

PI 576896. *Allium cepa* L.  
W6 9982.

PI 576897. *Allium cepa* L.  
"potato onion"; W6 9983.

PI 576898. *Allium cepa* L.  
"potato onion"; W6 9984.

PI 576899. *Allium cepa* L.  
"Odetta white multiplier"; W6 9985.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 01/01/1989.

PI 576900. *Allium cepa* L.  
PAK 66; W6 9981. Collected 04/09/1986 in Pakistan. Purchased in market (Bazar), Peshawar.

The following were collected by John F. Swenson, 245 Hawthorn Avenue, Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576901. *Allium ericoaleum* Vved.  
U122; W6 1923. Collected 08/01/1989 in Former Soviet Union. Latitude 70 deg. 20' N. Longitude 41 deg. 20' E. Chatkal Reserve.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation; Central Siberian Botanical Garden, Siberian Dept., Russian Acad. of Sci., Zolotodolirskaia St., 101, Novosibirsk, 90, Russian Federation. Received 05/14/1990. \*

PI 576902. *Allium fistulosum* L.

Wild. W6 4254. Collected in Former Soviet Union. Siberia.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 05/01/1984.

PI 576903. *Allium galanthum* Karelin & Kir.

C 565; 60117; W6 9992. Collected in Former Soviet Union.

PI 576904. *Allium galanthum* Karelin & Kir.

256-85; W6 9993. Collected in Germany.

PI 576905. *Allium galanthum* Karelin & Kir.

GA-C-76; 60118; W6 9994.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/14/1990.

PI 576906. *Allium hymenorrhizum* Ledeb.

Wild. W6 4258. Collected in Former Soviet Union. Siberia.

PI 576907. *Allium hymenorrhizum* Ledeb.

Wild. W6 4301. Collected 1988 in Russian Federation. Altai.

The following were collected by John F. Swenson, 245 Hawthorn Avenue, Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576908. *Allium jodanthum* Vved.

Wild. U107; W6 1913. Collected 07/19/1989 in Kazakhstan. Latitude 70 deg. 10' N. Longitude 42 deg. 0' E. Elevation 1700 m. Aksu Djabagly Reserve, Kazakh. Twenty plant sampled from population of 1000.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/14/1990.

PI 576909. *Allium ledebourianum* Roemer & Schultes

Wild. W6 4259. Collected in Former Soviet Union. Siberia.

PI 576910. *Allium ledebourianum* Roemer & Schultes

Wild. W6 4280. Collected 1988 in Russian Federation. Altai.

PI 576911. *Allium ledebourianum* Roemer & Schultes

Wild. W6 4281. Collected in Russian Federation. Sverdlovsk.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576912. *Allium libani* Boiss.

MSU 32072; W6 9996.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/14/1990.

PI 576913. *Allium lineare* L.

Wild. W6 4260. Collected in Former Soviet Union. Siberia.

The following were collected by John F. Swenson, 245 Hawthorn Avenue, Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576914. *Allium longicuspis* Regel

Wild. U085; W6 1896. Collected 07/25/1989 in Uzbekistan. Latitude 70 deg. 20' N. Longitude 41 deg. 20' E. Elevation 1400 m. 100km E Tashkent, Uzbek. Twenty plants sampled from population >100.

PI 576915. *Allium motor* Kamelin & Levichev

Wild. U080; W6 1891. Collected 07/24/1989 in Uzbekistan. Latitude 70 deg. 20' N. Longitude 41 deg. 20' E. Elevation 1300 m. Zindon Camp, Chaktal, Uzbek. Twenty plants sampled from large population.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/14/1990.

PI 576916. *Allium nutans* L.

Wild. W6 4261. Collected in Former Soviet Union. Siberia.

PI 576917. *Allium nutans* L.

Wild. W6 4302. Collected 1988 in Russian Federation. Altai.

PI 576918. *Allium obliquum* L.

Wild. W6 4262. Collected in Former Soviet Union. Siberia.

PI 576919. *Allium obliquum* L.

Wild. W6 4303. Collected 1988 in Russian Federation. Novosibirsk Altai.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/01/1989.

PI 576920. *Allium oreophilum* C. A. Mey.

W6 9999.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576921. *Allium platyspathum* Schrenk

MSU 32272; W6 10000.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 09/03/1989.

PI 576922. *Allium pskemense* Fedch.

TAX 514; W6 10001. Collected in Germany.

PI 576923. *Allium pskemense* Fedch.

S 3606; W6 10002. Collected in Netherlands.

PI 576924. *Allium pskemense* Fedch.  
W6 10003. Collected in Germany.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576925. *Allium pyrenaicum* Costa & Vayr.  
MSU 32472; W6 10005.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576926. *Allium ramosum* L.  
Wild. W6 4282. Collected in Russian Federation. Tuva r. Tes-Hem.

PI 576927. *Allium ramosum* L.  
Wild. W6 4305. Collected 1988 in Russian Federation. Krasnoyarsk.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576928. *Allium ramosum* L.  
MSU 22572; W6 9998.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576929. *Allium rubens* Schrader ex Willd.  
Wild. W6 4283. Collected in Russian Federation. Altai Chihkochev Range.

PI 576930. *Allium rubens* Schrader ex Willd.  
Wild. W6 4306. Collected in Russian Federation. Novosibirsk.

PI 576931. *Allium saxatile* M. Bieb.  
Wild. W6 4257. Collected in Former Soviet Union. Siberia.

The following were collected by John F. Swenson, 245 Hawthorn Avenue, Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576932. *Allium scabriscapum* Boiss. & Kotschy  
Wild. U022; W6 1857. Collected 07/15/1919 in Turkmenistan. Latitude 57 deg. 30' N. Longitude 38 deg. 20' E. 105km WNW Ashkhabad, Turkmen.  
Twenty plants sampled from population of 5000.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/14/1990.

PI 576933. *Allium schoenoprasum* L.  
Wild. W6 4265. Collected in Former Soviet Union. Siberia.

PI 576934. *Allium schoenoprasum* L.

Wild. W6 4266. Collected in Former Soviet Union. Siberia.

PI 576935. *Allium schoenoprasum* L.

Wild. W6 4286. Collected 1988 in Russian Federation. Altai.

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 576936. *Allium scorodoprasum* L.

Wild. B92-61; W6 10740. Collected 06/28/1992 in Bulgaria. Elevation 0 m. Off seaside road 1km N of Albena. Composite of same *Allium* species from a population of plants at this location.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576937. *Allium scorodoprasum* ssp. *rotundum* (L.) Stearn  
MSU 32572; W6 10006.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/30/1986.

PI 576938. *Allium scorodoprasum* ssp. *rotundum* (L.) Stearn  
TAX 523/85; W6 10007. Collected in Former Soviet Union.

PI 576939. *Allium scorodoprasum* ssp. *rotundum* (L.) Stearn  
TAX 245/85; W6 10008. Collected in Romania.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576940. *Allium senescens* L.

Wild. W6 4307. Collected 1988 in Russian Federation. Tuva.

The following were collected by John F. Swenson, 245 Hawthorn Avenue, Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576941. *Allium* sp.

Wild. U042; W6 1866. Collected 07/1989 in Uzbekistan. Latitude 67 deg. 20' N. Longitude 39 deg. 0' E. Elevation 1800 m. 95km ESE Kitab, on Karl Marx State farm on Aksu (White River), Uzbek. Two plants sampled.

PI 576942. *Allium* sp.

Wild. U057; W6 1869; Anzur Piuz (Uzbeki language). Collected 07/20/1989 in Uzbekistan. Latitude 66 deg. 50' N. Longitude 39 deg. 10' E. Elevation 1450 m. 5km E Shakhriyabz, Uzbek. Six plants sampled from population of 50.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State

University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 05/15/1984.

**PI 576943. Allium sp.**

S 2205; W6 9987. Collected in Yugoslavia.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

**PI 576944. Allium sp.**

MSU 21872; W6 9988.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/01/1989.

**PI 576945. Allium sp.**

W6 9995.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

**PI 576946. Allium sp.**

MSU 31172; W6 10009.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/01/1989.

**PI 576947. Allium sp.**

570-85-76; W6 10010. Collected in Germany.

**PI 576948. Allium sp.**

190785; W6 10011. Collected in Turkey.

**PI 576949. Allium sp.**

270785-01; W6 10013. Collected in Turkey.

**PI 576950. Allium sp.**

240785-03; W6 10014. Collected in Turkey.

**PI 576951. Allium sp.**

CFA 8603; W6 10015.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 01/01/1989.

**PI 576952. Allium sp.**

PAK 2; W6 10017. Collected 04/04/1986 in Pakistan. Purchased in Friday (Jomah) market, Islamabad.

The following were collected by John F. Swenson, 245 Hawthorn Avenue,

Glencoe, Illinois 60022, United States; Leonard M. Pike, Texas A&M University, Department of Horticulture, College Station, Texas 77843, United States; Philipp W. Simon, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/06/1989.

PI 576953. *Allium stipitatum* Regel  
Wild. U098; W6 1904. Collected 07/29/1989 in Kazakhstan. Latitude 70 deg. 10' N. Longitude 42 deg. 0' E. Elevation 1400 m. Aksu Djabagly Reserve, Kazakh. Twenty plants sampled from population of 1000.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576954. *Allium strictum* Schrader  
Wild. W6 4287. Collected in Russian Federation. Altai Korgonsky Range.

PI 576955. *Allium strictum* Schrader  
Wild. W6 4308. Collected 1988 in Russian Federation. Altai.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576956. *Allium suaveolens* Jacq.  
MSU 23372; W6 10019.

The following were collected by Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/04/1991.

PI 576957. *Allium tuberosum* Rottler ex Sprengel  
Wild. 7086; W6 8256. Collected 06/24/1991 in Kyrgyzstan. Market stalls of Dzungar store holders, Bishkek.

The following were donated by H. N. Metcalf, Montana State University, Plant and Soil Science Department, Bozeman, Montana, United States. Received 01/01/1989.

PI 576958. *Allium tuberosum* Rottler ex Sprengel  
MSU 32772; W6 10021.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/01/1989.

PI 576959. *Allium vavilovii* Popov & Vved.  
60124; W6 10022.

PI 576960. *Allium vavilovii* Popov & Vved.  
C 566; 60124; W6 10023. Collected in Former Soviet Union.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Russian Federation. Received 01/16/1990.

PI 576961. *Astragalus cicer* L.  
Cultivated. VIR-16155; W6 2837. Collected in Armenia.

PI 576962. *Astragalus cicer* L.  
Cultivated. VIR-37780; W6 2838. Collected in Germany.

PI 576963. *Astragalus cicer* L.  
Cultivated. VIR-30663; W6 4767. Collected in Georgia.

PI 576964. *Astragalus cicer* L.  
Cultivated. VIR-37792; W6 4768. Collected in Russian Federation.  
Krasnodar Territory.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576965. *Astragalus cicer* L.  
Wild. W6 4309. Collected in Former Soviet Union. Novosibirsk, Minsk, Siberia.

The following were developed by Dept. of Scientific and Industrial Res., Grasslands Division, Private Bag, Palmerston North, New Zealand. Donated by C. E. Townsend, USDA, ARS, Crops Research Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States. Received 02/12/1991.

PI 576966. *Astragalus glycyphyllos* L.  
Wild. AL3589; W6 6609. Collected 1989 in Georgia. Chobiskhevi, Georgia, USSR. 1989 Caucasus Expedition SPN 7210, Site 35.

PI 576967. *Astragalus cicer* L.  
Wild. AL3591; W6 6611. Collected 1989 in Armenia. Yehegnadzor, Armenia, USSR. 1989 Caucasus Expedition SPN 7562(a), Site 50.

PI 576968. *Astragalus cicer* L.  
Wild. AL3592; W6 6612. Collected 1989 in Armenia. Yehegnadzor, Armenia, USSR. 1989 Caucasus Expedition SPN 7562(b), Site 50.

The following were donated by C. E. Townsend, USDA, ARS, Crops Research Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States. Received 01/15/1991.

PI 576969. *Astragalus complanatus* R. Br. ex Bunge  
Cultivated. W6 8422.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Russian Federation. Received 01/16/1990.

PI 576970. *Astragalus falcatus* Lam.  
Cultivated. VIR-27659; W6 2839. Collected in Georgia.

The following were donated by Central Siberian Botanical Garden, Siberian Branch of the Academy of Sci., Russian Federation. Received 05/22/1990.

PI 576971. *Astragalus falcatus* Lam.  
Wild. W6 4310. Collected in Russian Federation. Altai, Korgonsky Range.

The following were collected by Dave Stout, Washington State University, Regional Plant Introduction Station, Johnson Hall, Room 61, Pullman, Washington 99164-6402, United States; A. M. Davis, USDA, ARS, Regional Plant Introduction Station, 59 Johnson Hall, Pullman, Washington 99164-6402, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional

Plant Introduction Station, Pullman, Washington 99164-6402, United States; Douglas Rains, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Donated by Dave Stout, Washington State University, Regional Plant Introduction Station, Johnson Hall, Room 61, Pullman, Washington 99164-6402, United States  
Received 09/06/1990.

**PI 576972. *Astragalus canadensis* L.**

Wild. W6 4875. Collected 09/06/1990 in Washington, United States.  
Latitude 46 deg. 7' N. Longitude 117 deg. 22' W. Elevation 1580 m. South slope of road #40, flat, rocky, gravel area near Misery Springs, Blue Mountains (Asotin County), shade of Ponderosa Pine and Douglas Fir. T.7 N., R.43 E. section 6. Plants large, up to 1 foot tall.

The following were collected by D.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, Crops Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Crops Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/10/1991.

**PI 576973. *Astragalus* sp.**

Wild. DJ-3902; W6 8200. Collected 08/12/1989 in Russian Federation. Elevation 1010 m. North side of Cheketeman Pass, Gorno Altay A.O., near the 656km marker. Top Oxytropis? Top of Cheketeman Pass. Decumbent stems to 20cm.

The following were developed by R. P. Knowles, Agriculture Canada, Saskatoon Research Station, 107 Science Crescent, Saskatoon, Saskatchewan, Canada. Received 01/02/1991.

**PI 576974. *Bromus inermis* Leysser ssp. *inermis***

Genetic. S-7288; W6 6552. Seedling pubescence used as a genetic marker. Glabrous leaf sheath type is recessive to pubescent leaf sheath type.

**PI 576975. *Bromus inermis* Leysser ssp. *inermis***

Genetic. S-9077; W6 6554. Seedling pubescence used as a genetic marker. This glabrous leaf sheath type is recessive over pubescent leaf sheath type.

**PI 576976. *Bromus inermis* Leysser ssp. *inermis***

Genetic. S-9040; W6 6560. Seedling pubescence used as a genetic marker. Pubescent leaf sheath type is dominant over glabrous strains. Yellow-leaved strain which segregates about two thirds yellow to one third green.

The following were donated by P. Hu, Beijing Agricultural University, Department of Animal Science, Beijing, China. Received 05/15/1991.

**PI 576977. *Bromus inermis* Leysser ssp. *inermis***

Cultivated. W6 7337. Collected in China. Northeast China.

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

**PI 576978. *Bromus inermis* Leysser ssp. *inermis***

Cultivar. W6 7369; Yu-T-1. Collected in Yugoslavia.

The following were collected by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Received 01/30/1989.

**PI 576979. *Carthamus tinctorius* L.**

Cultivated. BJ-26; W6 242; Honghua. Collected 11/1978 in Fujian, China. Xiapu County, Fujian Province. Growing period duration 93 days. Plants 48.0cm tall. Leaves dentated and spiny. Head angle 44 degrees. Head diameter-2.4cm. Flowers orange. Oil content-18.99%. Linoleic acid-60.2%. Oleic acid-32.4%. Stearic acid-1.6%. Palmitic acid 5.9%.

**PI 576980. *Carthamus tinctorius* L.**

Cultivated. BJ-94; W6 1835. Collected 06/1980 in Italy. Milan. 100 seed weight-4.1g.

The following were collected by Y. Han. Donated by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Received 01/30/1989.

**PI 576981. *Carthamus tinctorius* L.**

Cultivated. BJ-2157; ZW-973; W6 1836. Collected 01/1986 in Gansu, China. Zhangye County, Gansu Province. Plants spineless. Flowers orange. Hull striped.

The following were collected by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Received 01/30/1989.

**PI 576982. *Carthamus tinctorius* L.**

Cultivated. BJ-233; W6 1837; Honghua. Collected 09/1981 in Hebei, China. Yongnian County, Hebei Province. Growing period 107 days. Plants 83cm tall. Branching angle 49 degrees. Head diameter-2.21cm. 100 seed weight-5.07g. Oil content-22.93%. Linoleic acid-74.6%. Oleic acid-16.0%. Stearic acid-2.2%. Palmitic acid-7.1%.

**PI 576983. *Carthamus tinctorius* L.**

Cultivated. BJ-177; W6 1838; Honghua. Collected 02/1981 in Hebei, China. Qinghe County, Hebei Province. Growing period 103 days. Plants 73.7cm tall, spiny. Branching angle 52 degrees. Head diameter-2.21cm. Flowers red. 100 seed weight-5.8g. Oil content-23.20%.

**PI 576984. *Carthamus tinctorius* L.**

Cultivated. BJ-151; W6 1839; Honghua. Collected 10/1980 in Ningxia, China. Yinchuan city, Ningxia Province. Plants 109cm tall. 100 seed weight-3.6g.

The following were collected by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Developed by Jardins Botaniques de La Ville, et De L'universite, Nancy, France. Received 01/30/1989.

**PI 576985. *Carthamus tinctorius* L.**

Cultivated. BJ-157; W6 1840. Collected 10/1980 in France.

The following were collected by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Received 01/30/1989.

**PI 576986. *Carthamus tinctorius* L.**

Cultivated. BJ-161; W6 1841. Collected 09/1980 in Jiangsu, China. Hongze County, Jiangsu Province.

**PI 576987. *Carthamus tinctorius* L.**

Cultivated. BJ-163; W6 1842. Collected 09/1980 in Yunnan, China. Mengzi County, Yunnan Province. Growing period 100 days. Plants 77cm tall, spiny. Head diameter 2.35cm. Flowers orange. 100 seed weight-5.0g. Oil content-25.5%. Linoleic acid 72.8%. Oleic acid-18.2%. Stearic acid-3.0%. Palmitic acid-6%.

PI 576988. *Carthamus tinctorius* L.

Cultivated. BJ-168; W6 1843; Honghua. Collected 09/1980 in Hunan, China. Huanxian County, Hunan Province. Growing period 103 days. Plants 61.8cm tall, spineless, Branching angle 49 degrees. Head diameter-2.18cm. Flowers red. 100 seed weight-5.0g. Oil content-25.49%. Linoleic acid -76.8%. Oleic acid 14.2%. Stearic acid-2.1%. Palmitic acid- 4.9%.

The following were collected by Y. Han. Donated by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Received 01/30/1989.

PI 576989. *Carthamus tinctorius* L.

Cultivated. BJ-629; W6 1844. Collected 05/1986 in Yunnan, China. Weishan County, Yunnan Province.

The following were donated by C. Lehmann, Zentralinst. für Genetik & Kulturpflanz., DDR 4325, Gatersleben, Germany. Received 09/12/1989.

PI 576990. *Carthamus tinctorius* L.

SLOWAKEI U MAHREN 1974, NO. 16; CART 64/82; W6 1949. Collected 1974 in Czechoslovakia. Sobotiste, Weiskarpaten.

PI 576991. *Carthamus tinctorius* L.

CART 67/83; W6 1950. Collected in Germany. Spreewald.

PI 576992. *Carthamus tinctorius* L.

CART 72/86; W6 1951. Collected 1985 in Korea, North. Korean collection trip, DVR 1985.

The following were donated by Dajue Li, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Science, Beijing, China. Received 02/14/1991.

PI 576993. *Carthamus tinctorius* L.

W6 6655.

PI 576994. *Carthamus tinctorius* L.

W6 6703.

PI 576995. *Carthamus tinctorius* L.

W6 6730.

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

PI 576996. *Carthamus tinctorius* L.

Cultivar. "ALCAIDIA"; W6 9480. Collected 04/01/1991 in Cordoba, Spain.

The following were donated by Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 11/22/1989.

PI 576997. *Cicer arietinum* L.

Cultivated. W6 2881; FLIP 87-88. Has shown some resistance to Ascochyta

blight.

- PI 576998. *Cicer arietinum* L.  
Cultivated. W6 2954; FLIP 88-83. Has shown some resistance to Ascochyta blight.
- PI 576999. *Cicer arietinum* L.  
Cultivated. W6 10134; FLIP 83-77. Has shown some resistance to Ascochyta blight.
- PI 577000. *Cicer arietinum* L.  
Cultivated. W6 10135; FLIP 84-79. Has shown some resistance to Ascochyta blight.
- PI 577001. *Cicer arietinum* L.  
Cultivated. W6 10137; FLIP 84-82. Has shown some resistance to Ascochyta blight.
- PI 577002. *Cicer arietinum* L.  
Cultivated. W6 10141; ICC 12004. Has shown some resistance to Ascochyta blight.
- PI 577003. *Cicer arietinum* L.  
Cultivated. W6 10142; ICC 4475. Has shown some resistance to Ascochyta blight.

The following were donated by Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 07/05/1990.

- PI 577004. *Cicer arietinum* L.  
ICC-H35M; W6 4576.

The following were developed by ENEA, Centro Ricerche Energia Casaccia, Via Anguillarese 301, 00060 S. Maria di Galeria, Rome, Italy. Donated by P. Crino, ENEA, Centro Ricerche Energia Casaccia, Via Anguillarese 301, 00060 S. Maria di Galeria, Rome, Italy. Received 10/24/1991.

- PI 577005. *Cicer arietinum* L.  
Breeding. 2687; W6 8232. Italian ecotype. Kabuli type. 100 seed weight = 50 grams. large, beige, smooth seeded high yielder.
- PI 577006. *Cicer arietinum* L.  
Breeding. 3093; W6 8235. Italian ecotype. Kabuli type. 100 seed weight = 40 grams. medium, beige, rough seeded high yielder.

The following were donated by A.I. Abbas, Int. Center for Agricultural Research in the Dry Areas, Amman Office, P.O. Box 950764, Amman, Jordan. Received 11/22/1991.

- PI 577007. *Cicer arietinum* L.  
Cultivated. W6 8340; IQ 215001. Collected in Iraq.
- PI 577008. *Cicer arietinum* L.  
Cultivated. W6 8342; IQ 215003. Collected in Iraq.
- PI 577009. *Cicer arietinum* L.  
Cultivated. W6 8348; IQ 215009. Collected in Iraq.
- PI 577010. *Cicer arietinum* L.  
Cultivated. W6 8361; IQ 215023. Collected in Iraq.

The following were collected by D. Bruce, BNP Lentil Company, Farmington, Washington 98128, United States. Received 10/19/1992.

- PI 577011. *Cicer arietinum* L.  
Cultivated. W6 11049. Collected in Greece. Seeds of a large (8.5mm) salmon colored chickpea line.
- PI 577012. *Cicer arietinum* L.  
Cultivated. W6 11050. Collected in Greece. Seeds of a large (9.0mm) salmon colored chickpea line.

The following were donated by D. Bruce, BNP Lentil Company, Farmington, Washington 98128, United States. Received 01/11/1993.

- PI 577013. *Cicer arietinum* L.  
Landrace. Italian Chickpea; W6 11360. Collected in Italy. Gran Sasso d'Italia region approx. 80 miles northeast of Rome. Brown seeded desi. Cultivated. Cost \$6 per kilo.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States. Received 03/03/1993.

- PI 577014. *Cicer arietinum* L.  
Cultivar. "PORQUERO NEGRO"; M93-4; W6 11374. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo, Sonora State. Small black-seeded desi line used as pig feed in Mexico.
- PI 577015. *Cicer arietinum* L.  
Cultivated. M93-5; W6 11375. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo, Sonora State. Small-seeded kabuli line used as pig feed in Mexico.
- PI 577016. *Cicer arietinum* L.  
Cultivar. "BLANCO SINALOA"; M93-6; W6 11376. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo, Sonora State. Large white-seeded cultivar, but not as white as cv. Blanco Lechoso.
- PI 577017. *Cicer arietinum* L.  
Cultivar. "DORADO 88"; M93-7; W6 11377. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo Sonora State. Seed large, cream color.
- PI 577018. *Cicer arietinum* L.  
Cultivar. "KINO"; M93-9; W6 11379. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo, Sonora State. Seed large, cream color.
- PI 577019. *Cicer arietinum* L.  
Cultivar. "MOCORITO 88"; M93-10; W6 11380. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo, Sonora State. Seed large, cream color.

**PI 577020. *Cicer arietinum* L.**

Cultivar. "TUBUTAMA 88"; M93-11; W6 11381. Collected 02/19/1993 in Sonora, Mexico. Obtained from Ing. Jose Antonio Morales-Gomez, chickpea breeder, Campo Experimental Costa de Hermosillo, Hermosillo, Sonora State. Seed large, cream color.

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 577021. *Cicer arietinum* L.**

PAK 9; W6 12035. Collected 04/13/1986 in North-West Frontier, Pakistan. Elevation 456 m. Farmer's field near Ag. Research Station, Ahmad Wala Korak District, North-West Frontier Province. Seeds desi type.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Developed by Nuclear Inst. for Agr. and Biology, Faisalbad, North-West Frontier, Pakistan. Received 06/26/1989.

**PI 577022. *Cicer arietinum* L.**

Cultivar. "CM1913"; PAK 10; W6 12036. Collected 04/14/1986 in North-West Frontier, Pakistan. Elevation 456 m. Ag. Res. Sta., Ahmad Wala (Korak), Korak District, North-West Frontier Province. Good condition at station

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 577023. *Cicer arietinum* L.**

PAK 11D; W6 12037. Collected 04/14/1986 in North-West Frontier, Pakistan. Purchased in Bannu Market, Bannu District, North-West Frontier Province. Shop owner said came from Sind Province. Seeds desi type.

**PI 577024. *Cicer arietinum* L.**

PAK 11K; W6 12038. Collected 04/14/1986 in North-West Frontier, Pakistan. Purchased in Bannu Market, Bannu District, North-West Frontier Province. Shop owner said came from Sind Province. Seeds kabuli type.

**PI 577025. *Cicer arietinum* L.**

PAK 62; W6 12060. Collected 03/29/1986 in Andhra Pradesh, India. Mondha market, Secunderabad, Andhra Pradesh. Seeds large, brown, desi type.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Developed by Nat. Inst. for Ag. and Biology, Ahmad Wala, Karak District, North-West Frontier, Pakistan. Received 06/26/1989.

**PI 577026. *Cicer arietinum* L.**

Cultivar. "CM-1"; PAK 64; W6 12062. Collected 04/14/1986 in North-West Frontier, Pakistan. Elevation 456 m. Sandy soil, Ag. Res. Sta., Ahmad Wala, Karak District, North-West Frontier. Plants erect, heavy yielding, good condition, desi line.

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

- PI 577027. *Dactylis glomerata* L.  
Cultivar. W6 7370; Yu-B-1. Collected in Yugoslavia.
- PI 577028. *Dactylis glomerata* L.  
Cultivar. W6 7371; Yu-B-15. Collected in Yugoslavia.
- PI 577029. *Dactylis glomerata* L.  
Cultivar. W6 7372; Yu-B-17. Collected in Yugoslavia.
- PI 577030. *Dactylis glomerata* L.  
Cultivar. W6 7373; Yu-B-17. Collected in Yugoslavia.
- PI 577031. *Dactylis glomerata* L.  
Cultivar. W6 7374; Yu-BL-18. Collected in Yugoslavia.
- PI 577032. *Dactylis glomerata* L.  
Cultivar. W6 7375; Yu-D-1. Collected in Yugoslavia.
- PI 577033. *Dactylis glomerata* L.  
Cultivar. W6 7376; Yu-D-2. Collected in Yugoslavia.
- PI 577034. *Dactylis glomerata* L.  
Cultivar. W6 7377; Yu-Exp.s.B-R-I. Collected in Yugoslavia.
- PI 577035. *Dactylis glomerata* L.  
Cultivar. W6 7378; Yu-Exp.s.B-R-II. Collected in Yugoslavia.
- PI 577036. *Dactylis glomerata* L.  
Cultivar. W6 7379; Yu-Exp.s.PC-1. Collected in Yugoslavia.
- PI 577037. *Dactylis glomerata* L.  
Cultivar. W6 7380; Yu-F-1. Collected in Yugoslavia.
- PI 577038. *Dactylis glomerata* L.  
Cultivar. W6 7381; Yu-G-1. Collected in Yugoslavia.
- PI 577039. *Dactylis glomerata* L.  
Cultivar. W6 7382; Yu-G-II. Collected in Yugoslavia.
- PI 577040. *Dactylis glomerata* L.  
Cultivar. W6 7383; Yu-H-1. Collected in Yugoslavia.
- PI 577041. *Dactylis glomerata* L.  
Cultivar. W6 7384; Yu-L-1. Collected in Yugoslavia.
- PI 577042. *Dactylis glomerata* L.  
Cultivar. W6 7385; Yu-L-2. Collected in Yugoslavia.
- PI 577043. *Dactylis glomerata* L.  
Cultivar. W6 7386; Yu-L-3. Collected in Yugoslavia.
- PI 577044. *Dactylis glomerata* L.  
Cultivar. W6 7387; Yu-P-1. Collected in Yugoslavia.
- PI 577045. *Dactylis glomerata* L.  
Cultivar. W6 7388; Yu-T-II. Collected in Yugoslavia.
- PI 577046. *Dactylis glomerata* L.  
Cultivar. W6 7389; Yu.Exp.s.B-R-III. Collected in Yugoslavia.
- PI 577047. *Dactylis glomerata* L.  
Cultivar. W6 7390; Yu.Exp.s.B-R-IV. Collected in Yugoslavia.

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

- PI 577048. *Dactylis glomerata* L.  
ABY-BC 5233.81; W6 9059. Collected in Spain. Latitude 43 deg. 23' N.  
Longitude 5 deg. 11' W. Arriondas.
- PI 577049. *Dactylis glomerata* L.  
ABY-BC 5450.81; W6 9066. Collected in France. Latitude 44 deg. 1' N.  
Longitude 3 deg. 9' E. Elevation 900 m. Cavalerie.
- PI 577050. *Dactylis glomerata* L.  
ABY-BC 5480.71; W6 9071. Collected in Switzerland. Latitude 46 deg.  
28' N. Longitude 6 deg. 51' E. Elevation 1360 m. Vevey.
- PI 577051. *Dactylis glomerata* L.  
ABY-BC 5971.79; W6 9079. Collected in Sweden. Latitude 63 deg. 9' N.  
Longitude 17 deg. 15' E. Elevation 152 m. Solleftea.
- PI 577052. *Dactylis glomerata* L.  
ABY-BC 6915.80; W6 9085. Collected in Spain. Latitude 42 deg. 23' N.  
Longitude 8 deg. 15' W. Elevation 600 m. Avion.
- PI 577053. *Dactylis glomerata* L.  
ABY-BC 6924.80; W6 9090. Collected in Spain. Latitude 42 deg. 32' N.  
Longitude 8 deg. 6' W. Elevation 550 m. Irijo.
- PI 577054. *Dactylis glomerata* L.  
ABY-BC 6940.80; W6 9100. Collected in Spain. Latitude 43 deg. 13' N.  
Longitude 7 deg. 17' W. Elevation 750 m. Meira.
- PI 577055. *Dactylis glomerata* L.  
ABY-BC 6955.80; W6 9107. Collected in Spain. Latitude 42 deg. 47' N.  
Longitude 7 deg. 25' W. Elevation 920 m. Sarria.
- PI 577056. *Dactylis glomerata* L.  
ABY-BC 6968.80; W6 9115. Collected in Spain. Latitude 42 deg. 21' N.  
Longitude 7 deg. 10' W. Elevation 520 m. Laroco.
- PI 577057. *Dactylis glomerata* L.  
ABY-BC 7044.80; W6 9124. Collected in Wales, United Kingdom. Latitude  
52 deg. 29' N. Longitude 4 deg. 3' W. Elevation 5 m. Borth.
- PI 577058. *Dactylis glomerata* L.  
ABY-BC 7048.80; W6 9128. Collected in Wales, United Kingdom. Latitude  
52 deg. 29' N. Longitude 3 deg. 59' W. Elevation 150 m. Talybont.
- PI 577059. *Dactylis glomerata* L.  
ABY-BC 7104.83; W6 9132. Collected in Ireland. Latitude 51 deg. 34' N.  
Longitude 9 deg. 28' W. Ballydehob.
- PI 577060. *Dactylis glomerata* L.  
ABY-BC 6894.79; W6 9134. Collected in Spain. Latitude 42 deg. 40' N.  
Longitude 8 deg. 6' W. Elevation 600 m. Lalin.
- PI 577061. *Dactylis glomerata* L.  
ABY-BC 6900.79; W6 9137. Collected in Spain. Latitude 42 deg. 28' N.  
Longitude 8 deg. 16' W. Elevation 700 m. Beariz.
- PI 577062. *Dactylis glomerata* L.  
ABY-BC 6904.80; W6 9140. Collected in Spain. Latitude 42 deg. 15' N.  
Longitude 8 deg. 13' W. Elevation 400 m. Melon.

- PI 577063. *Dactylis glomerata* L.  
 ABY-BC 6959.79; W6 9150. Collected in Spain. Latitude 42 deg. 32' N.  
 Longitude 7 deg. 48' W. Elevation 710 m. Carballedo.
- PI 577064. *Dactylis glomerata* L.  
 ABY-BC 7052.80; W6 9156. Collected in Spain. Latitude 42 deg. 32' N.  
 Longitude 8 deg. 6' W. Elevation 550 m. Irijo.
- PI 577065. *Dactylis marina* Borrill  
 ABY-BC 5215.80; W6 9158. Collected in Portugal. Latitude 37 deg. 1' N.  
 Longitude 8 deg. 59' W. Elevation 23 m. Sao Vicente, C. De.
- PI 577066. *Dactylis marina* Borrill  
 ABY-BC 5217.79; W6 9159. Collected in Portugal. Latitude 38 deg. 50'  
 N. Longitude 9 deg. 28' W. Praia Das Macas.
- PI 577067. *Deschampsia cespitosa* (L.) P. Beauv.  
 Wild. ABY-BS 3685.81; W6 9160. Collected in Wales, United Kingdom.  
 Latitude 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 410 m.  
 Ponterwyd.
- PI 577068. *Deschampsia cespitosa* (L.) P. Beauv.  
 Wild. ABY-BS 3690.81; W6 9161. Collected in Wales, United Kingdom.  
 Latitude 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 274 m.  
 Ponterwyd.
- PI 577069. *Deschampsia cespitosa* (L.) P. Beauv.  
 Wild. ABY-BS 3695.81; W6 9162. Collected in Wales, United Kingdom.  
 Latitude 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 360 m.  
 Ponterwyd.
- PI 577070. *Deschampsia cespitosa* (L.) P. Beauv.  
 Wild. ABY-BS 3696.81; W6 9163. Collected in Wales, United Kingdom.  
 Latitude 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 351 m.  
 Ponterwyd.
- PI 577071. *Deschampsia flexuosa* (L.) Trin.  
 ABY-BS 3679.81; W6 9164. Collected in Wales, United Kingdom. Latitude  
 52 deg. 29' N. Longitude 3 deg. 59' W. Elevation 150 m. Talybont.
- PI 577072. *Deschampsia flexuosa* (L.) Trin.  
 ABY-BS 3684.81; W6 9165. Collected in Wales, United Kingdom. Latitude  
 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 330 m. Ponterwyd.
- PI 577073. *Deschampsia flexuosa* (L.) Trin.  
 ABY-BS 3687.81; W6 9166. Collected in Wales, United Kingdom. Latitude  
 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 412 m. Ponterwyd.
- PI 577074. *Deschampsia flexuosa* (L.) Trin.  
 ABY-BS 3691.81; W6 9167. Collected in Wales, United Kingdom. Latitude  
 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 460 m. Ponterwyd.
- PI 577075. *Deschampsia flexuosa* (L.) Trin.  
 ABY-BS 3698.81; W6 9168. Collected in Wales, United Kingdom. Latitude  
 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 381 m. Ponterwyd.
- PI 577076. *Deschampsia flexuosa* (L.) Trin.  
 ABY-BS 3707.81; W6 9169. Collected in Wales, United Kingdom. Latitude  
 52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 351 m. Ponterwyd.

The following were donated by Peter Gray, Washington State University, Plant Pathology, Johnson Hall, Pullman, Washington 99164-6430, United States. Received 05/19/1991.

PI 577077. *Eragrostis mexicana* (Hornem.) Link  
Wild. W6 7244. Increased in greenhouse 1978.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 03/10/1992.

PI 577078. *Eschscholzia californica* Cham.  
Cultivated. W6 10168. Collected 09/1989 in Washington, United States.  
Latitude 46 deg. 43' N. Longitude 117 deg. 10' W. Elevation 780 m. Orion Drive, Pullman. Flowers yellow.

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

PI 577079. *Festuca arundinacea* Schreber  
Cultivar. W6 7391; Yu-71/2. Collected in Yugoslavia.

PI 577080. *Festuca arundinacea* Schreber  
Cultivar. W6 7393; Yu-B-14. Collected in Yugoslavia.

PI 577081. *Festuca arundinacea* Schreber  
Cultivar. W6 7394; Yu-BL-1. Collected in Yugoslavia.

PI 577082. *Festuca arundinacea* Schreber  
Cultivar. W6 7396; Yu-BL-29-4. Collected in Yugoslavia.

PI 577083. *Festuca arundinacea* Schreber  
Cultivar. W6 7397; Yu-BL-I. Collected in Yugoslavia.

PI 577084. *Festuca arundinacea* Schreber  
Cultivar. W6 7398; Yu-BL-II. Collected in Yugoslavia.

PI 577085. *Festuca arundinacea* Schreber  
Cultivar. W6 7400; Yu-IV-41-238. Collected in Yugoslavia.

PI 577086. *Festuca arundinacea* Schreber  
Cultivar. W6 7401; Yu-IV-41-239. Collected in Yugoslavia.

PI 577087. *Festuca arundinacea* Schreber  
Cultivar. W6 7402; Yu-L-1. Collected in Yugoslavia.

PI 577088. *Festuca arundinacea* Schreber  
Cultivar. W6 7403; Yu-M-1. Collected in Yugoslavia.

PI 577089. *Festuca arundinacea* Schreber  
Cultivar. W6 7404; Yu-O-1. Collected in Yugoslavia.

PI 577090. *Festuca arundinacea* Schreber  
Cultivar. W6 7405; Yu-R-1. Collected in Yugoslavia.

PI 577091. *Festuca arundinacea* Schreber  
Cultivar. W6 7406; Yu-R-1. Collected in Yugoslavia.

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

PI 577092. *Festuca arundinacea* Schreber  
ABY-BN 853.71; W6 9175. Collected in France. Latitude 48 deg. 17' N.

- Longitude 6 deg. 8' E. Elevation 290 m. Mattaincourt.
- PI 577093. *Festuca arundinacea* Schreber  
ABY-BN 945.72; W6 9176. Collected in France. Latitude 47 deg. 6' N.  
Longitude 5 deg. 16' E. Elevation 120 m. St. Jean-De Losne.
- PI 577094. *Festuca arundinacea* Schreber  
ABY-BN 947.73; W6 9177. Collected in Switzerland. Latitude 46 deg.  
17' N. Longitude 7 deg. 22' E. Elevation 870 m. Saviese.
- PI 577095. *Festuca arundinacea* Schreber  
ABY-BN 275.66; FAO 3437; W6 9181. Collected in Morocco. Latitude 32  
deg. 54' N. Longitude 5 deg. 3' W. Elevation 1600 m. Itzer, NR. Midelt,  
S slope of Moyen Atlas.
- PI 577096. *Festuca arundinacea* ssp. *atlantigena* (St.-Yves) Aug.  
ABY-BN 865.84; W6 9179.
- PI 577097. *Festuca mairei* St. -yves  
ABY-BS 3065.80; CPI 24269; W6 9182. Collected in France.
- PI 577098. *Festuca ovina* L.  
ABY-BL 2647.83; W6 9186. Collected in Wales, United Kingdom. Latitude  
52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 274 m. Ponterwyd.
- PI 577099. *Festuca ovina* L.  
ABY-BL 2651.83; W6 9189. Collected in Wales, United Kingdom. Latitude  
52 deg. 25' N. Longitude 3 deg. 50' W. Elevation 330 m. Ponterwyd.
- PI 577100. *Festuca ovina* L.  
ABY-BL 2686.84; W6 9194. Collected in England, United Kingdom.  
Latitude 53 deg. 8' N. Longitude 1 deg. 32' W. Elevation 400 m. Matlock.
- PI 577101. *Festuca pratensis* Hudson  
ABY-BF 945.71; W6 9195. Collected in Italy. Latitude 44 deg. 5' N.  
Longitude 7 deg. 48' E. Elevation 1400 m. Mendatica.
- PI 577102. *Festuca pratensis* Hudson  
ABY-BF 959.73; W6 9197. Collected in Switzerland. Latitude 46 deg.  
11' N. Longitude 6 deg. 52' E. Elevation 1600 m. Champéry.
- PI 577103. *Festuca pratensis* Hudson  
ABY-BF 1200.81; W6 9206. Collected in England, United Kingdom.  
Latitude 51 deg. 25' N. Longitude 1 deg. 20' W. Elevation 60 m. Newbury.
- PI 577104. *Festuca pratensis* Hudson  
ABY-BF 1204.81; W6 9210. Collected in Romania. Latitude 47 deg. 37' N.  
Longitude 26 deg. 18' E. Elevation 360 m. Suceava.
- PI 577105. *Festuca pratensis* Hudson  
ABY-BF 1225.82; W6 9217. Collected in Norway. Latitude 58 deg. 17' N.  
Longitude 6 deg. 40' E. Elevation 50 m. Flekkefjord.
- PI 577106. *Festuca pratensis* Hudson  
ABY-BF 1230.82; W6 9221. Collected in Norway. Latitude 61 deg. 8' N.  
Longitude 8 deg. 33' E. Elevation 525 m. Grindaheim.
- PI 577107. *Festuca pratensis* Hudson  
ABY-BF 1236.82; W6 9225. Collected in Norway. Latitude 61 deg. 30' N.  
Longitude 10 deg. 12' E. Elevation 450 m. Ringebu.
- PI 577108. *Festuca pratensis* ssp. *apennina* (De Notaris) Hegi

ABY-BF 1065.E76; W6 9233. Collected in Italy. Latitude 44 deg. 9' N.  
Longitude 7 deg. 34' E. Elevation 1340 m. Colle Di Tende.

PI 577109. *Festuca rubra* L.

ABY-BL 2663.83; W6 9238. Collected in Norway. Latitude 58 deg. 17' N.  
Longitude 6 deg. 40' E. Elevation 50 m. Flekkefjord.

PI 577110. *Festuca rubra* L.

ABY-BL 2667.83; W6 9240. Collected in Ireland. Latitude 52 deg. 10' N.  
Longitude 8 deg. 15' W. Elevation 170 m. Kilworth, Cork.

PI 577111. *Festuca rubra* L.

ABY-BL 2690.83OP; W6 9242. Collected in Wales, United Kingdom.  
Latitude 52 deg. 39' N. Longitude 3 deg. 50' W. Elevation 250 m. Corris.

The following were donated by Robert J. Metzger, USDA, ARS, Oregon State  
University, Dept. of Crop Science, Corvallis, Oregon 97331, United States.  
Received 01/01/1987.

PI 577112. *Henrardia persica* (Boiss.) C. E. Hubb.

Wild. 84TK429-006; W6 7254; H85-613. Collected in Turkey. Elevation 1550  
m. 4km W of Gurun, Sivas Province.

PI 577113. *Henrardia persica* (Boiss.) C. E. Hubb.

Wild. 84TK510-001; W6 7255; H85-672. Collected in Turkey. Elevation 2090  
m. 30km SE of Guzelsu, Van Province.

The following were donated by M. Schultz, 143 Charles, Monroe, Washington  
98272-2302, United States. Received 03/08/1990.

PI 577114. *Lactuca sativa* L.

Cultivar. "KWEIK"; W6 3702.

PI 577115. *Lactuca sativa* L.

Cultivar. "MAGNET"; W6 3704.

PI 577116. *Lactuca sativa* L.

Cultivar. "MESCHER"; W6 3705.

PI 577117. *Lactuca sativa* L.

Cultivar. "PERELLA GREEN"; W6 3710.

PI 577118. *Lactuca sativa* L.

Cultivar. "PRADO"; W6 3711.

PI 577119. *Lactuca sativa* L.

Cultivar. "REGINA DI MAGGIO"; W6 3715.

PI 577120. *Lactuca sativa* L.

Cultivar. "ROMANA VERDE"; W6 3717.

PI 577121. *Lactuca sativa* L.

Cultivar. "ROUGE D'HIVER"; W6 3721.

PI 577122. *Lactuca sativa* L.

Cultivar. "TROCADERO"; W6 3733.

PI 577123. *Lactuca sativa* L.

Cultivar. "WINTER"; W6 3736.

PI 577124. *Lactuca sativa* L.

Cultivar. "BARCAROLE COS"; W6 3740.

- PI 577125. *Lactuca sativa* L.  
Cultivar. "CINDY"; W6 3746.
- PI 577126. *Lactuca sativa* L.  
Cultivar. "DU BON JARDINIÈRE"; W6 3753.
- PI 577127. *Lactuca sativa* L.  
Cultivar. "MEDIA/MIDIA"; W6 3773.
- PI 577128. *Lactuca sativa* L.  
Cultivar. "MERA VIGLIA DELLE QUATRO STAGIONI"; W6 3774.
- PI 577129. *Lactuca sativa* L.  
Cultivar. "MORGANA"; W6 3776.
- PI 577130. *Lactuca sativa* L.  
Cultivar. "PERELLA RED"; W6 3778.
- PI 577131. *Lactuca sativa* L.  
Cultivar. "RED BOSTON"; W6 3781.
- PI 577132. *Lactuca sativa* L.  
Cultivar. "REINE DES GLACES"; W6 3786.
- PI 577133. *Lactuca sativa* L.  
Cultivar. "RIGOLETTO"; W6 3788.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 09/15/1989.

- PI 577134. *Lathyrus hierosolymitanus* Boiss.  
Wild. 090689-0305; W6 2076. Collected 06/09/1989 in Siirt, Turkey. Latitude 37 deg. 56' N. Longitude 42 deg. 20' E. Elevation 1450 m. Oak scrub. Partially grazed, sunny openings of deep red soils dominated by *Aegilops* sp. and *Triticum* sp. 63.1km E of Siirt on road to Pervari or 7.6km E of road to Doganca. Plants long (60-70cm), viny.

The following were donated by Martin Steen, Seed Laboratory, Crop and Soil Science, Washington State University, Pullman, Washington 99164-6420, United States. Received 03/07/1990.

- PI 577135. *Lathyrus pratensis* L.  
W6 3510. Collected in Former Soviet Union.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 09/15/1989.

- PI 577136. *Lathyrus sativus* L.  
Cultivated. 140689-0301; W6 2122. Collected 06/14/1989 in Elazig, Turkey. Latitude 38 deg. 33' N. Longitude 39 deg. 14' E. Elevation 950 m. Fine

grained, brownish soils. Area of intensive agriculture. 17.5km S of Elazig on the Diyarbakir-Elazig road. Cultivated for forage. Flowers blue, not irrigated.

**PI 577137. *Lathyrus sativus* L.**

Cultivated. 140689-0401; W6 2123. Collected 06/14/1989 in Elazig, Turkey . Latitude 38 deg. 28' N. Longitude 38 deg. 58' E. Elevation 1250 m. Area of intensive agriculture, fine grained, brownish soil. Elazig-Malatya road, 16.3km before the Firat River (Euphrates River). Cultivated for forage, not irrigated.

The following were donated by M.I. Mihov, Institute for Wheat & Sunflower, Dobroudja near General Toshevo, Bulgaria. Received 02/27/1992.

**PI 577138. *Lathyrus sativus* L.**

Cultivated. STRANDJA; W6 10048. Seeds were produced in the field.

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

**PI 577139. *Lathyrus sativus* L.**

Wild. B92-103; W6 10794. Collected 07/02/1992 in Bulgaria. Institute of Wheat and Sunflower (IWS) Guest house. Landrace.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/01/1987.

**PI 577140. *Lathyrus* sp.**

W6 2653. Collected in Turkey.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 02/13/1990.

**PI 577141. *Lathyrus* sp.**

2423; W6 3128. Collected in Nepal.

**PI 577142. *Lathyrus* sp.**

Wild. 2033b; W6 3676. Collected in Nepal.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 09/15/1989.

**PI 577143. *Lens culinaris* Medikus**

Cultivated. 060689-0301; W6 2033. Collected 06/06/1989 in Mardin, Turkey . Latitude 37 deg. 32' N. Longitude 41 deg. 7' E. Elevation 1100 m. Cultivated, unharvested lentil field. Short, dry and poor yield. Weedy. 3.6km E of Icorem or 10.7km NW of Senkoy on road to Senkoy from Savur. Cotyledon small, red. Poor stand due to drought.

**PI 577144. *Lens culinaris* Medikus**

Cultivated. 120689-0201; W6 2106. Collected 06/12/1989 in Siirt, Turkey. Latitude 37 deg. 55' N. Longitude 41 deg. 8' E. Elevation 630 m. Level field, fine soil, weedy, poor yielding due to droughty conditions. Across from airport. 6.3km N of Batman on the Batman-Silvan road. Estimated yield 20% of normal. Plants short 10-15cm tall.

The following were collected by George S. Abawi, Cornell University, Department of Plant Pathology, New York Agr. Exp. Sta., Geneva, New York 14456-0462, United States. Received 11/08/1988.

**PI 577145. *Lens culinaris* Medikus**

Abawi# 1; W6 3094. Collected in Peru.

**PI 577146. *Lens culinaris* Medikus**

Abawi# 2; W6 3095. Collected in Peru.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 02/13/1990.

**PI 577147. *Lens culinaris* Medikus**

2340; W6 3134. Collected in Nepal.

The following were collected by Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 03/07/1990.

**PI 577148. *Lens culinaris* Medikus**

Cultivated. USSR-05-04; W6 3502. Collected 09/1989 in Tajikistan. Latitude 38 deg. 35' N. Longitude 68 deg. 48' E. Dushanbe market.

**PI 577149. *Lens culinaris* Medikus**

Cultivated. USSR-05-05; W6 3503. Collected 09/1989 in Tajikistan. Latitude 38 deg. 35' N. Longitude 68 deg. 48' E. Dushanbe market.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States. Developed by Shanxi Academy of Agricultural Sciences, Yang Ling, Shanxi, China. Received 07/12/1990.

**PI 577150. *Lens culinaris* Medikus**

Cultivated. WJK-PRC-8; W6 4466; Gray lentil. Collected 05/25/1990 in Shanxi, China.

**PI 577151. *Lens culinaris* Medikus**

Cultivated. WJK-PRC-10; W6 4468; Red lentil. Collected 05/25/1990 in Shanxi, China.

**PI 577152. *Lens culinaris* Medikus**

Cultivated. WJK-PRC-11; W6 4469; Red lentil. Collected 05/25/1990 in Shanxi, China.

The following were donated by A.I. Abbas, Int. Center for Agricultural Research in the Dry Areas, Amman Office, P.O. Box 950764, Amman, Jordan. Received 11/22/1991.

- PI 577153. *Lens culinaris* Medikus  
Cultivated. W6 8362; IQ 210001. Collected in Iraq.
- PI 577154. *Lens culinaris* Medikus  
Cultivated. W6 8363; IQ 210002. Collected in Iraq.
- PI 577155. *Lens culinaris* Medikus  
Cultivated. W6 8365; IQ 210004. Collected in Iraq.
- PI 577156. *Lens culinaris* Medikus  
Cultivated. W6 8366; IQ 210005. Collected in Iraq.
- PI 577157. *Lens culinaris* Medikus  
Cultivated. W6 8367; IQ 210007. Collected in Iraq.
- PI 577158. *Lens culinaris* Medikus  
Cultivated. W6 8368; IQ 210008. Collected in Iraq.
- PI 577159. *Lens culinaris* Medikus  
Cultivated. W6 8371; IQ 210011. Collected in Iraq.
- PI 577160. *Lens culinaris* Medikus  
Cultivated. W6 8372; IQ 210012. Collected in Iraq.
- PI 577161. *Lens culinaris* Medikus  
Cultivated. W6 8374; IQ 210015. Collected in Iraq.
- PI 577162. *Lens culinaris* Medikus  
Cultivated. W6 8375; IQ 210016. Collected in Iraq.
- PI 577163. *Lens culinaris* Medikus  
Cultivated. W6 8376; IQ 210017. Collected in Iraq.
- PI 577164. *Lens culinaris* Medikus  
Cultivated. W6 8377; IQ 210018. Collected in Iraq.
- PI 577165. *Lens culinaris* Medikus  
Cultivated. W6 8378; IQ 210020. Collected in Iraq.
- PI 577166. *Lens culinaris* Medikus  
Cultivated. W6 8379; IQ 210021. Collected in Iraq.
- PI 577167. *Lens culinaris* Medikus  
Cultivated. W6 8380; IQ 210022. Collected in Iraq.
- PI 577168. *Lens culinaris* Medikus  
Cultivated. W6 8381; IQ 210023. Collected in Iraq.

The following were donated by Miho Mihov, Institute for Wheat and Sunflower, 'Dobroudja' near General Toshevo, Bulgaria. Received 12/11/1991.

- PI 577169. *Lens culinaris* Medikus  
Cultivated. SH 89-22-1; W6 8424. Pedigree - F3 generation of IWS  
accession numbers 48/HC972. Obr.chiflik 7/Jana.
- PI 577170. *Lens culinaris* Medikus  
Cultivated. SH 89-33-1; W6 8426. Pedigree - F3 generation of IWS  
accession numbers 329/48. Mizia/Obr. Chiflik 7.
- PI 577171. *Lens culinaris* Medikus  
Cultivated. SH 89-50-1; W6 8428. Pedigree - F3 generation of IWS  
accession numbers 337/HC972. Red chief/Jana.

- PI 577172. *Lens culinaris* Medikus  
Cultivated. SH 88-4-1; W6 8430. Pedigree - F4 generation of IWS  
accession numbers 48/10. Obr.chiflil 7/var. melanosperma.
- PI 577173. *Lens culinaris* Medikus  
Cultivated. SH 88-45-5-1; W6 8431. Pedigree - F4 generation of IWS  
accession numbers HC1414/48. Naslada/Obr.chiflik 7.
- PI 577174. *Lens culinaris* Medikus  
Cultivated. SH 88-47-1-1; W6 8432. Pedigree - F4 generation of IWS  
accession numbers 329/337. Mizia/Red chief.
- PI 577175. *Lens culinaris* Medikus  
Cultivated. SH 88-49-1; W6 8433. Pedigree - F4 generation of IWS  
accession numbers 332/HC1414. 1121 Chile/Naslada.
- PI 577176. *Lens culinaris* Medikus  
Cultivated. SH 88-57-3; W6 8434. Pedigree - F4 generation of IWS  
accession numbers HC1414/337. Naslada/Red chief.
- PI 577177. *Lens culinaris* Medikus  
Cultivated. SH 87-1-5-2; W6 8437. Pedigree - F5M4 generation of IWS  
accession numbers HC1414/38. (Naslada/Tadj. 95)/50Gy.
- PI 577178. *Lens culinaris* Medikus  
Cultivated. SH 87-13-3-3; W6 8438. Pedigree - F5 generation of IWS  
accession numbers HC1414/38. Naslada/Tadj. 95.
- PI 577179. *Lens culinaris* Medikus  
Cultivated. SH 87-22-2-3; W6 8439. Pedigree - F5M4 generation of IWS  
accession numbers 48/HC1414. Obr.chiflik7/Naslada.
- PI 577180. *Lens culinaris* Medikus  
Cultivated. SH 87-45-2-3; W6 8441. Pedigree - F5 generation of IWS  
accession numbers 337/HC1414. Red chief/Naslada.
- PI 577181. *Lens culinaris* Medikus  
Cultivated. SH 87-86-2; W6 8442. Pedigree - F5 generation of IWS  
accession numbers HC125/HC1414. Stela/Naslada.
- PI 577182. *Lens culinaris* Medikus  
Cultivated. SH 85-35-1-8-3-1; W6 8449. Pedigree - F7 generation of IWS  
accession numbers 1414/38. Naslada/Tadjik. 95.
- PI 577183. *Lens culinaris* Medikus  
Cultivated. SH 83-57-2; W6 8450. Pedigree - F9 generation of IWS  
accession numbers 1414/337. Haslada/Red chief.
- PI 577184. *Lens culinaris* Medikus  
Cultivated. SH 82-7-2-2; W6 8451. Pedigree - F10 generation of IWS  
accession numbers 335/38. Laird/Tadjikskaya 95.
- PI 577185. *Lens culinaris* Medikus  
Cultivated. SH 82-7-14-13; W6 8453. Pedigree - F10 generation of IWS  
accession numbers 335/38. Laird/Tadjikskay 95.
- PI 577186. *Lens culinaris* Medikus  
Cultivated. SH 81-16-2-2-17; W6 8454. Pedigree - F10 generation of IWS  
accession numbers 38/2. Tadjik. 95/Du Puy 2.
- PI 577187. *Lens culinaris* Medikus  
Cultivated. SH 89-3-1; W6 8455. Pedigree - F3 generation of IWS  
accession numbers 10/48 Var. melanosperma/Obr.chiflik 7.

- PI 577188. *Lens culinaris* Medikus  
Cultivated. SH 89-4-1; W6 8456. Pedigree - F3 generation of IWS  
accession numbers 10/50 Var. melanosp./Greece CA.
- PI 577189. *Lens culinaris* Medikus  
Cultivated. SH 89-6-1; W6 8457. Pedigree - F3 generation of IWS  
accession numbers 10/614/81. Var. melanosp. c USSR line.
- PI 577190. *Lens culinaris* Medikus  
Cultivated. SH 89-24-2; W6 8460. Pedigree - F3 generation of IWS  
accession numbers 50/38. Greece CA/Tadjik.95.
- PI 577191. *Lens culinaris* Medikus  
Cultivated. SH 89-25-1; W6 8461. Pedigree - F3 generation of IWS  
accession numbers 50/HC972. Greece CA/Jana.
- PI 577192. *Lens culinaris* Medikus  
Cultivated. SH 89-33-1; W6 8462. Pedigree - F3 generation of IWS  
accession numbers 329/48. Mizia/Obr.chiflik 7.
- PI 577193. *Lens culinaris* Medikus  
Cultivated. SH 89-34-2; W6 8463. Pedigree - F3 generation of IWS  
accession numbers 329/337. Mizia/Red chief.
- PI 577194. *Lens culinaris* Medikus  
Cultivated. SH 89-30-1; W6 8464. Pedigree - F3 generation of IWS  
accession numbers HC135/1962. Bulgarian lines.
- PI 577195. *Lens culinaris* Medikus  
Cultivated. SH 89-10-1; W6 8465. Pedigree - F3 generation of IWS  
accession numbers 38/335. Tadjik. 95/Laird.
- PI 577196. *Lens culinaris* Medikus  
Cultivated. SH 89-15-1; W6 8466. Pedigree - F3M2 generation of IWS  
accession numbers 38 100Gy/337. Tadjik. 95/Red chief.
- PI 577197. *Lens culinaris* Medikus  
Cultivated. SH 89-22-1; W6 8467. Pedigree - F3 generation of IWS  
accession numbers 48/HC972. Obr.chif.7/Jana.
- PI 577198. *Lens culinaris* Medikus  
Cultivated. SH 89-23-1; W6 8468. Pedigree - F3 generation of IWS  
accession numbers 48/1414. Obr.chif.7/Naslada.
- PI 577199. *Lens culinaris* Medikus  
Cultivated. SH 89-27-2; W6 8469. Pedigree - F3 generation of IWS  
accession numbers HC125/50. Stela/Greece CA.
- PI 577200. *Lens culinaris* Medikus  
Cultivated. SH 89-41-1; W6 8472. Pedigree - F3 generation of IWS  
accession numbers 337/38. Red chief/Tadjik. 95.
- PI 577201. *Lens culinaris* Medikus  
Cultivated. SH 89-46-1; W6 8473. Pedigree - F3 generation of IWS  
accession numbers 335/1414. Laird/Naslada.
- PI 577202. *Lens culinaris* Medikus  
Cultivated. SH 89-50-1; W6 8474. Pedigree - F3 generation of IWS  
accession numbers 337/972. Red chief/Jana.
- PI 577203. *Lens culinaris* Medikus  
Cultivated. SH 89-51-1; W6 8475. Pedigree - F3 generation of IWS  
accession numbers 337/1414. Red chief/Naslada.

- PI 577204. *Lens culinaris* Medikus  
Cultivated. SH 89-52-1; W6 8476. Pedigree - F3 generation of IWS  
accession numbers 338/HCl25. Chilean' 78/Stela.
- PI 577205. *Lens culinaris* Medikus  
Cultivated. SH 89-60-1; W6 8477. Pedigree - F3 generation of IWS  
accession numbers 610/81/614/81. Russian lines.
- PI 577206. *Lens culinaris* Medikus  
Cultivated. SH 89-74-1; W6 8478. Pedigree - F3 generation of IWS  
accession numbers 1414/337. Naslada/Red chief.
- PI 577207. *Lens culinaris* Medikus  
Cultivated. SH 89-79-1; W6 8479. Pedigree - F3 generation of IWS  
accession numbers 1005/337. Diana/Red chief.
- PI 577208. *Lens culinaris* Medikus  
Cultivated. SH 82-7-1-1; W6 8480. Pedigree - F10 generation of IWS  
accession numbers 335/38. Laird/Tadjik. 95.
- PI 577209. *Lens culinaris* Medikus  
Cultivated. SH 82-7-2-19; W6 8482. Pedigree - F10 generation of IWS  
accession numbers 335/38. Laird/Tadjik. 95.
- PI 577210. *Lens culinaris* Medikus  
Cultivated. SH 82-20-1-31-5; W6 8483. Pedigree - F10 generation of IWS  
accession numbers 2/337. Du Puy 2/Red chief.
- PI 577211. *Lens culinaris* Medikus  
Cultivated. SH 82-20-1-6; W6 8484. Pedigree - F10 generation of IWS  
accession numbers 2/337. Du Puy 2/Red chief.
- PI 577212. *Lens culinaris* Medikus  
Cultivated. SH 82-20-3-6; W6 8485. Pedigree - F10 generation of IWS  
accession numbers 2/337. Du Puy 2/Red chief.
- PI 577213. *Lens culinaris* Medikus  
Cultivated. SH 82-26-10-12; W6 8486. Pedigree - F10 generation of IWS  
accession numbers 38/2. Tadjik. 95/Du Puy 2.
- PI 577214. *Lens culinaris* Medikus  
Cultivar. "TADJIKSKAYA 95"; W6 8487. Collected in Former Soviet Union.
- PI 577215. *Lens culinaris* Medikus  
Cultivar. "STELA"; W6 8489.
- PI 577216. *Lens culinaris* Medikus  
Cultivar. "JANA"; W6 8490.
- PI 577217. *Lens culinaris* Medikus  
Cultivated. W6 10050; SH 90-8. Pedigree - Tadjikskaya 95/Precoz, F2  
generation. Seeds were produced in the greenhouse.
- PI 577218. *Lens culinaris* Medikus  
Cultivated. W6 10053; SH 88-4-1. Pedigree - Obr.chiflik/var.  
melanosperma, F4 generation. Seeds were produced in the field.
- PI 577219. *Lens culinaris* Medikus  
Cultivated. W6 10054; SH 88-45-5-2. Pedigree - Naslada/Obr.chiflik 7, F4  
generation. Seeds were produced in the field.
- PI 577220. *Lens culinaris* Medikus  
Cultivated. W6 10059; SH 89-8-3. Pedigree - Tadj. 95/Obr.chiflik 7, F3  
generation. Seeds were produced in the field.

The following were donated by M.I. Mihov, Institute for Wheat & Sunflower, Dobroudja near General Toshevo, Bulgaria. Received 02/27/1992.

- PI 577221. *Lens culinaris* Medikus  
Cultivated. W6 10060; SH 89-9-2. Pedigree - (Tadj. 95/50Gy)/Obr.chiflik 7, F3 generation. Seeds were produced in the field.
- PI 577222. *Lens culinaris* Medikus  
Cultivated. W6 10061; SH 89-49-2. Pedigree - Red Chief/Greece CA, F3 generation. Seeds were produced in the field.
- PI 577223. *Lens culinaris* Medikus  
Cultivated. W6 10062; SH 89-22-1. Pedigree - Obr.chiflik 7/Jana, F3 generation. Seeds were produced in the field.
- PI 577224. *Lens culinaris* Medikus  
Cultivated. W6 10063; SH 89-46-2. Pedigree - Laird/Naslada, F3 generation. Seeds were produced in the field.
- PI 577225. *Lens culinaris* Medikus  
Cultivated. W6 10064; SH 89-51-2. Pedigree - Red Chief/Naslada, F3 generation. Seeds were produced in the field.
- PI 577226. *Lens culinaris* Medikus  
Cultivated. W6 10065; SH 89-80-2. Pedigree - Diana/Chilean' 78, F3 generation. Seeds were produced in the field.
- PI 577227. *Lens culinaris* Medikus  
Cultivated. W6 10066; SH 81-16-10-12. Pedigree - Tadj. 95/Du Puy, F11 generation. Seeds were produced in the field.
- PI 577228. *Lens culinaris* Medikus  
Cultivated. W6 10067; SH 81-22-3-21. Pedigree - Du Puy 2/Veseletz 2, F11 generation. Seeds were produced in the field.
- PI 577229. *Lens culinaris* Medikus  
Cultivated. W6 10068; SH 82-7-1-1. Pedigree - Laird/Tadjikskaya 95, F10 generation. Seeds were produced in the field.
- PI 577230. *Lens culinaris* Medikus  
Cultivated. W6 10070; SH 82-7-1-13. Pedigree - Laird/Tadjikskaya 95, F10 generation. Seeds were produced in the field.
- PI 577231. *Lens culinaris* Medikus  
Cultivated. W6 10071; SH 82-20-1-31-6. Pedigree - Du Puy 2/Red Chief, F10 generation. Seeds were produced in the field.
- PI 577232. *Lens culinaris* Medikus  
Cultivated. W6 10072; SH 82-20-1-56. Pedigree - Du Puy 2/Red Chief, F10 generation. Seeds were produced in the field.
- PI 577233. *Lens culinaris* Medikus  
Cultivated. W6 10073; SH 82-20-9-10. Pedigree - Du Puy 2/Red Chief, F10 generation. Seeds were produced in the field.
- PI 577234. *Lens culinaris* Medikus  
Cultivated. W6 10074; SH 83-29-12. Pedigree - HC1053/HC124, F10 generation. Seeds were produced in the field.
- PI 577235. *Lens culinaris* Medikus  
Cultivated. MIZIA; W6 10075. Seeds were produced in the field.

- PI 577236. *Lens culinaris* Medikus  
Cultivated. OBRAZTZOV CHIFLIK 7; W6 10076. Seeds were produced in the field.
- PI 577237. *Lens culinaris* Medikus  
Cultivated. NASLADA; W6 10077. Seeds were produced in the field.
- PI 577238. *Lens culinaris* Medikus  
Cultivated. JANA; W6 10078. Seeds were produced in the field.
- PI 577239. *Lens culinaris* Medikus  
Cultivated. STELA; W6 10079. Seeds were produced in the field.
- PI 577240. *Lens culinaris* Medikus  
Cultivated. TADJIKSKAYA 95; W6 10080. Collected in Former Soviet Union. Seeds were produced in the field.

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

- PI 577241. *Lolium multiflorum* Lam.  
ABY-BB 1652.75; W6 9245. Collected in Italy. Latitude 44 deg. 50' N. Longitude 7 deg. 35' E. Elevation 242 m. Pancalieri.
- PI 577242. *Lolium multiflorum* Lam.  
ABY-BB 1654.78; W6 9246. Collected in Italy. Latitude 44 deg. 50' N. Longitude 7 deg. 35' E. Elevation 240 m. Pancalieri.
- PI 577243. *Lolium multiflorum* Lam.  
ABY-BB 1662.75; W6 9250. Collected in Italy. Latitude 45 deg. 18' N. Longitude 7 deg. 53' E. Caluso.
- PI 577244. *Lolium multiflorum* Lam.  
ABY-BB 1668.75; W6 9253. Collected in Italy. Latitude 44 deg. 28' N. Longitude 7 deg. 52' E. Elevation 364 m. Carru.
- PI 577245. *Lolium multiflorum* Lam.  
ABY-BB 1675.75; W6 9255. Collected in Italy. Latitude 44 deg. 39' N. Longitude 7 deg. 23' E. Elevation 350 m. Revello.
- PI 577246. *Lolium multiflorum* Lam.  
ABY-BB 1689.75; W6 9259. Collected in Italy. Latitude 45 deg. 34' N. Longitude 9 deg. 45' E. Elevation 160 m. Martinengo.
- PI 577247. *Lolium multiflorum* Lam.  
ABY-BB 1706.76; W6 9265. Collected in Belgium. Latitude 50 deg. 2' N. Longitude 5 deg. 50' E. Elevation 500 m. Longvilly.
- PI 577248. *Lolium multiflorum* Lam.  
ABY-BB 1711.75; W6 9269. Collected in Belgium. Latitude 50 deg. 32' N. Longitude 5 deg. 53' E. Elevation 300 m. Polleur.
- PI 577249. *Lolium multiflorum* Lam.  
ABY-BB 1716.75; W6 9272. Collected in Belgium. Latitude 51 deg. 2' N. Longitude 4 deg. 10' E. Baasrode.

The following were donated by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 01/01/1987.

- PI 577250. *Lolium perenne* L.  
Wild. 79TK021-121; W6 7258; H80-190. Collected in Turkey. Elevation 650

m. Regional Agricultural Research Station, 10km N of Diyarbakir.

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

PI 577251. *Lolium perenne* L.  
Cultivar. W6 7407; Yu-BL-1. Collected in Yugoslavia.

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

PI 577252. *Lolium perenne* L.  
ABY-BA 8605.00; W6 9276. Collected in Italy. Latitude 44 deg. 2' N.  
Longitude 7 deg. 52' E. Elevation 1387 m. Rezzo.

PI 577253. *Lolium perenne* L.  
ABY-BA 9068.81; W6 9281. Collected in Belgium. Latitude 50 deg. 34' N.  
Longitude 5 deg. 24' E. Elevation 300 m. Clermont.

PI 577254. *Lolium perenne* L.  
ABY-BA 9073.72; W6 9284. Collected in Luxembourg. Latitude 49 deg. 13' N.  
Longitude 6 deg. 6' E. Elevation 280 m. Bettembourg.

PI 577255. *Lolium perenne* L.  
ABY-BA 9081.81; W6 9287. Collected in France. Latitude 47 deg. 34' N.  
Longitude 4 deg. 10' E. Elevation 240 m. Vassy.

PI 577256. *Lolium perenne* L.  
ABY-BA 9089.81; W6 9291. Collected in Switzerland. Latitude 46 deg.  
39' N. Longitude 6 deg. 45' E. Elevation 870 m. Peney Le Jorat.

PI 577257. *Lolium perenne* L.  
ABY-BA 9111.82; W6 9299. Collected in France. Latitude 48 deg. 12' N.  
Longitude 5 deg. 58' E. Elevation 330 m. Vittel.

PI 577258. *Lolium perenne* L.  
ABY-BA 9247.00; W6 9302. Collected in Netherlands. Latitude 53 deg. 7' N.  
Longitude 7 deg. 2' E. Winschoten.

PI 577259. *Lolium perenne* L.  
ABY-BA 9794.81; W6 9308. Collected in Wales, United Kingdom. Latitude  
52 deg. 25' N. Longitude 3 deg. 55' W. Goginan.

PI 577260. *Lolium perenne* L.  
ABY-BA 9797.80; W6 9310. Collected in Wales, United Kingdom. Latitude  
51 deg. 53' N. Longitude 3 deg. 59' W. Elevation 120 m. Llandeilo.

PI 577261. *Lolium perenne* L.  
ABY-BA 9804.80; W6 9315. Collected in Wales, United Kingdom. Latitude  
52 deg. 8' N. Longitude 4 deg. 28' W. Elevation 50 m. Sarnau.

PI 577262. *Lolium perenne* L.  
ABY-BA 9811.80; W6 9320. Collected in Wales, United Kingdom. Latitude  
52 deg. 23' N. Longitude 3 deg. 51' W. Elevation 300 m. Devil's Bridge.

PI 577263. *Lolium perenne* L.  
ABY-BA 9816.80; W6 9325. Collected in Wales, United Kingdom. Latitude  
52 deg. 10' N. Longitude 3 deg. 40' W. Elevation 300 m. Abergwesyn.

PI 577264. *Lolium perenne* L.  
ABY-BA 9828.82; W6 9333. Collected in Wales, United Kingdom. Latitude

52 deg. 4' N. Longitude 3 deg. 7' W. Elevation 285 m. Hay.

PI 577265. *Lolium perenne* L.

ABY-BA 9960.82; W6 9342. Collected in England, United Kingdom.  
Latitude 51 deg. 14' N. Longitude 2 deg. 49' W. Wedmore.

PI 577266. *Lolium perenne* L.

ABY-BA 9976.81; W6 9347. Collected in Romania. Latitude 47 deg. 12' N.  
Longitude 27 deg. 0' E. Elevation 150 m. Tirgu Frumos.

PI 577267. *Lolium perenne* L.

ABY-BA 9981.81; W6 9350. Collected in Romania. Latitude 47 deg. 39' N.  
Longitude 24 deg. 40' E. Elevation 800 m. Borsa.

PI 577268. *Lolium perenne* L.

ABY-BA 10008.82; W6 9355. Collected in England, United Kingdom.  
Latitude 52 deg. 20' N. Longitude 0 deg. 12' W. Huntingdon.

PI 577269. *Lolium perenne* L.

ABY-BA 10104.82; W6 9361. Collected in Norway. Latitude 58 deg. 43' N.  
Longitude 5 deg. 40' E. Elevation 20 m. Bryne.

PI 577270. *Lolium perenne* L.

ABY-BA 10108.82; W6 9363. Collected in Norway. Latitude 58 deg. 53' N.  
Longitude 5 deg. 36' E. Elevation 25 m. Sola.

PI 577271. *Lolium perenne* L.

ABY-BA 10415.00; W6 9368. Collected in Wales, United Kingdom. Latitude  
52 deg. 44' N. Longitude 3 deg. 53' W. Elevation 108 m. Dolgellau.

The following were collected by Sakti Jana, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, Saskatoon, Saskatchewan S7N 0W0, Canada; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Donated by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 09/14/1989.

PI 577272. *Lolium perenne* L.

Wild. 84TK024-060; W6 1680. Collected 1984 in Turkey. Elevation 1150 m.  
7km NE Gombe, Antalya province.

PI 577273. *Lolium perenne* L.

Wild. 84TK028-073; W6 1681. Collected 1984 in Turkey. Elevation 900 m.  
10km E Korkuteli, Antalya province.

PI 577274. *Lolium* sp.

Wild. 84TK149-004; W6 1734. Collected 1984 in Turkey. Elevation 900 m.  
10km E Usak, Usak province.

PI 577275. *Lolium* sp.

Wild. 84TK293-003; W6 1780. Collected 1984 in Turkey. Elevation 820 m.  
2km E Delice Village, Bolu province.

PI 577276. *Lolium* sp.

Wild. 84TK296-001; W6 1782. Collected 1984 in Turkey. Elevation 1200 m.  
6km W Cerkes Jct., Cankiri province.

PI 577277. *Lolium* sp.

Wild. 84TK348-002; W6 1792. Collected 1984 in Turkey. Elevation 1300 m.  
36km NE Beysehir, Konya province.

- PI 577278. *Lolium* sp.  
Wild. 84TK356-001; W6 1796. Collected 1984 in Turkey. Elevation 950 m.  
17km SW Gelendost, Isparta province.
- PI 577279. *Lolium* sp.  
Wild. 84TK368-005; W6 1800. Collected 1984 in Turkey. Elevation 1230 m.  
32km S Denizli (Jct. Tavas), Denizli province.
- PI 577280. *Lolium* sp.  
Wild. 84TK407-004; W6 1805. Collected 1984 in Turkey. Elevation 1100 m.  
4km SE Akpınar village, Kirsehir province.
- PI 577281. *Elytrigia* sp.  
Wild. 84TK534-002; W6 1817. Collected 1984 in Turkey. Elevation 1500 m.  
34km NE Hakkari, Hakkari province.
- PI 577282. *Lolium* sp.  
Wild. 84TK566-002; W6 1823. Collected 1984 in Turkey. Elevation 1125 m.  
21km SW Semdinli, Hakkari province.
- PI 577283. *Lolium* sp.  
Wild. 84TK570-015; W6 1824. Collected 1984 in Turkey. Elevation 1710 m.  
2km N Van, Van province.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 08/20/1993.

- PI 577284. *Lupinus argenteus* Pursh  
Wild. W6 12545. Collected 07/28/1993 in Idaho, United States. Elevation 2128 m. Near intersection of Newman Creek Road and Baker Creek Road, Sawtooth National Forest near Baker Creek. Perennial pods and seeds from several plants. This year there is a heavy crop of pods with reddish-colored seeds. Also collected some leaves with leaf spot lesions. Very few plants have leaves with lesions.

The following were collected by R.J. Anthony. Donated by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States. Received 09/26/1990.

- PI 577285. *Lupinus arizonicus* (S. Watson) S. Watson  
Wild. XDL-900008; W6 4880. Collected in United States. Herbaceous plants with palmately compound leaves. Flowers rose pink to purple. Blooming January to May.

The following were collected by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States; W. Bearly; D. Covalinski. Donated by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States. Received 09/26/1990.

- PI 577286. *Lupinus argenteus* var. *palmeri* (S. Watson) Barneby  
Wild. XDL-890302; W6 4881. Collected 09/19/1989 in Arizona, United States. Elevation 2432 m. Mt. Lemmon Highway, adjacent to the Loma Linda picnic area, Santa Catalina Mountains, Pima County, Arizona. Plants suffrutescent with palmate leaves. Stems, leaves and pods fuzzy. Flowers

purple, blooming April to October. Growing in pine forest with *Pinus ponderosa*, *Ceanothus fendleri* and grasses. Pods readily dehiscent. Abundant in sunny areas.

The following were collected by S&S Seeds. Donated by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States. Received 09/26/1990.

**PI 577287. *Lupinus perennis* L.**

Wild. XDL-900333; W6 4882. Collected in United States. Herbs with digitately palmate leaves.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 08/20/1993.

**PI 577288. *Lupinus* sp.**

Wild. W6 12550. Collected 08/12/1993 in Idaho, United States. Elevation 2432 m. Rocky soil near trailhead to Baker Lake in Sawtooth National Forest at the end of Baker Creek Road and Hwy 75. Yellow-flowered. Most seeds reddish color.

The following were collected by S. Luebbermann. Donated by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States. Received 09/26/1990.

**PI 577289. *Lupinus sparsiflorus* Benth.**

Wild. XDL-900240; W6 4879. Collected 04/22/1990 in Arizona, United States. West end of Aravaipa Canyon, Pinal County, Arizona. Locally common herbaceous spring wild flower. Plant height 5.5m. Leaves palmate with fuzzy leaflets. Flowers blue-purple in terminal racemes, occasionally white. Blooming February to May. Explosively dehiscent pods.

The following were collected by R.J. Anthony. Donated by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States. Received 09/26/1990.

**PI 577290. *Lupinus succulentus* Douglas ex K. Koch**

Wild. XDL-900007; W6 4884. Collected in United States. Herbaceous. Leaves palmately compound, thickened. Flowers blue-violet. Blooming March to April.

The following were collected by S&S Seeds. Donated by M.B. Johnson, Boyce Thompson Southwestern Aboretum, Desert Legume Program, College Station P.O. Box 3607, Tucson, Arizona 85722-3607, United States. Received 09/26/1990.

**PI 577291. *Lupinus texensis* Hook.**

Wild. XDL-900334; W6 4885. Collected in Texas, United States. Herb. Plant height up to 0.5m. Leaves digitate. Flowers blue in terminal racemes. Pods dehisce at maturity.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577292. *Medicago ciliaris* (L.) All.**

Wild. 1032; W6 5936. Collected in Sardinia, Italy. En route to Cagliari.

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 577293. *Medicago italica* (Miller) Fiori  
Wild. 1070; W6 4713. Collected 1963 in Sardinia, Italy. Capoterra.

PI 577294. *Medicago italica* (Miller) Fiori  
Wild. 1509b; W6 4714. Collected 1963 in France. Mount Baron.

PI 577295. *Medicago italica* (Miller) Fiori  
Wild. 1576; W6 4715. Collected 1963 in Spain. Near Cadiz.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577296. *Medicago italica* (Miller) Fiori  
Wild. 1590c; W6 4717. Collected 1963 in Spain. Cadiz.

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 577297. *Medicago italica* (Miller) Fiori  
Wild. 1681; W6 4718. Collected 1963 in Italy. Ostia-Lido.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577298. *Medicago italica* (Miller) Fiori  
Cultivated. 1910; W6 4720. Collected 1965 in Czechoslovakia.

PI 577299. *Medicago italica* (Miller) Fiori  
Cultivated. 1911; W6 4721. Collected 1965 in Georgia, United States.

PI 577300. *Medicago italica* (Miller) Fiori  
Cultivated. 1913; W6 4722. Collected 1965 in Denmark.

PI 577301. *Medicago italica* (Miller) Fiori  
Cultivated. 1915; W6 4723. Collected 1965 in Czechoslovakia.

PI 577302. *Medicago italica* (Miller) Fiori  
Wild. 2041; W6 4725. Collected in Australia. Inst. of Agri. Univ. West. Australia, Nedlands.

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 577303. *Medicago italica* (Miller) Fiori  
Wild. 2396; W6 4727. Collected 1964 in Cyprus. Taken out of #1306.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577304. *Medicago italica* (Miller) Fiori

Wild. 2620a; W6 4728. Collected 1974 in Algeria. Elevation 900 m.  
Between El Omaria and Ouled Brahim. Pods without spines.

**PI 577305. *Medicago italica* (Miller) Fiori**

Wild. 2620b; W6 4729. Collected 1974 in Algeria. Elevation 900 m.  
Between El Omaria and Ouled Brahim. Pods without spines.

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 577306. *Medicago italica* (Miller) Fiori**

Wild. 2708; W6 4730. Collected 1974 in Morocco. Sandy road side, 24km to  
S Smail, on road from El-Jadida.

**PI 577307. *Medicago italica* (Miller) Fiori**

Wild. 2752; W6 4731. Collected 1974 in Morocco. Red sand top, below  
hard, 58km to El-Jadida, on road from Boulmane.

**PI 577308. *Medicago italica* (Miller) Fiori**

Wild. 2782; W6 4732. Collected 1974 in Morocco. Red sandy soil, on road  
from Temara to Ainel Aouda.

**PI 577309. *Medicago italica* (Miller) Fiori**

Wild. 1069; W6 5919. Collected 1963 in Sardinia, Italy. Capoterra.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577310. *Medicago italica* (Miller) Fiori**

Wild. 1589; W6 5920. Collected 1963 in Cadiz, Spain.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

**PI 577311. *Medicago italica* (Miller) Fiori**

Wild. 1589a; W6 5921. Collected 1963 in Cadiz, Spain. Chiclana.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577312. *Medicago italica* (Miller) Fiori**

Wild. 1590a; W6 5923. Collected 1963 in Cadiz, Spain. Chiclana.

**PI 577313. *Medicago italica* (Miller) Fiori**

Wild. 1870; W6 5928. Collected in Morocco. Rabat.

**PI 577314. *Medicago italica* (Miller) Fiori**

Wild. 1871; W6 5929. Collected in Morocco. Rabat.

**PI 577315. *Medicago italica* (Miller) Fiori**

Cultivated. 1918; W6 5934. Collected in Italy.

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 577316. *Medicago littoralis* Rohde ex Lois.**

Wild. 1073; W6 4955. Collected 1963 in Italy. Capotera.

PI 577317. *Medicago littoralis* Rohde ex Lois.

Wild. 1148; W6 4961. Collected 1963 in Crete, Greece. Malia.

PI 577318. *Medicago littoralis* Rohde ex Lois.

Wild. 1307; W6 4966. Collected 1964 in Cyprus. Galatos Mountains.

PI 577319. *Medicago littoralis* Rohde ex Lois.

Wild. 1574; W6 4967. Collected 1963 in Cadiz, Spain.

PI 577320. *Medicago littoralis* Rohde ex Lois.

Wild. 1574a; W6 4968. Collected 1963 in Cadiz, Spain.

PI 577321. *Medicago littoralis* Rohde ex Lois.

Wild. 1603; W6 4974. Collected 1963 in France. Near mouth of Lazeretz.

PI 577322. *Medicago littoralis* Rohde ex Lois.

Wild. 1769; W6 4985. Collected 1962 in Turkey. Mersin.

PI 577323. *Medicago littoralis* Rohde ex Lois.

Cultivated. 2054; W6 4991. Collected 1968 in Malta. Argotti Botanic Garden.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577324. *Medicago littoralis* Rohde ex Lois.

Cultivated. 2179; W6 4993. Collected in Australia. University of Nedlands.

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 577325. *Medicago littoralis* Rohde ex Lois.

Wild. 2455; W6 4997. Collected 1974 in Tunisia. 1km to Sfax, on road from Gabes.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577326. *Medicago littoralis* Rohde ex Lois.

Cultivated. 258; W6 4999. Collected 1958 in Coimbra, Portugal. Hortus Botanical.

PI 577327. *Medicago littoralis* Rohde ex Lois.

Cultivated. 260; W6 5000. Collected 1959 in Coimbra, Portugal. Hortus Botanical.

PI 577328. *Medicago littoralis* Rohde ex Lois.

Wild. 266; W6 5005. Collected 1958 in Czechoslovakia. Fabriada.

PI 577329. *Medicago littoralis* Rohde ex Lois.

Wild. 2702; W6 5009.

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 577330. *Medicago littoralis* Rohde ex Lois.  
Wild. 2803; W6 5012. Collected 1975 in Algeria. 20km from Ain  
Temouchent, on way to Tlemcen.

PI 577331. *Medicago littoralis* Rohde ex Lois.  
Wild. 2841; W6 5014. Collected 1974 in Morocco. On road to Lalla Mimouna  
(to Souk-el-Arba 82km to Rabat 69km).

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577332. *Medicago littoralis* Rohde ex Lois.  
Wild. 647; W6 5016. Collected 1962 in Adana, Turkey. Kanligeat Osmaniye.

PI 577333. *Medicago lupulina* L.  
Wild. 1799; W6 4577. Collected 1961 in Ontario, Canada. Weed Nursery CEF  
Ottawa.

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 577334. *Medicago lupulina* L.  
Wild. 2443; W6 4579. Collected 1976 in Morocco. Av Ifrane.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577335. *Medicago lupulina* L.  
Cultivated. 285; W6 4580. Collected in Latvia. Botanical Garden, Kign.

PI 577336. *Medicago lupulina* L.  
Wild. 292; W6 4582. Collected in Bulgaria.

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 577337. *Medicago lupulina* L.  
Wild. 300; W6 4584. Collected 1959 in Netherlands. Helmond, Holland.

PI 577338. *Medicago lupulina* L.  
Wild. 311; W6 4585. Collected 1959 in Austria. Melke.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577339. *Medicago lupulina* L.  
Wild. 318; W6 4586. Collected in Hungary. Godollo.

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 577340. *Medicago lupulina* L.  
Wild. 805; W6 4587. Collected 1962 in Sicily, Italy. Palermo.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577341. *Medicago minima* (L.) Bartal.  
Wild. 132; W6 5081.

PI 577342. *Medicago minima* (L.) Bartal.  
Wild. 1663; W6 5899. Collected 1963 in Spain. Aleria, Corse.

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 577343. *Medicago orbicularis* (L.) Bartal.  
Wild. 1029; W6 4588. Collected 1963 in Sardinia, Italy. Algeri airport.

PI 577344. *Medicago orbicularis* (L.) Bartal.  
Wild. 1277; W6 4589. Collected 1963 in Cyprus. Cape Andreas before Monaster.

PI 577345. *Medicago orbicularis* (L.) Bartal.  
Wild. 1509; W6 4590. Collected 1963 in France. Mount Baron, Nice.

PI 577346. *Medicago orbicularis* (L.) Bartal.  
Wild. 1517; W6 4591. Collected 1963 in France. Mount St. Antoenne, Cannes.

PI 577347. *Medicago orbicularis* (L.) Bartal.  
Wild. 1660; W6 4592. Collected 1963 in France. Island of Corsica, Aleria.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577348. *Medicago orbicularis* (L.) Bartal.  
Wild. 1991; W6 4593. Collected in Hungary.

PI 577349. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 2189; W6 4594. Collected in Georgia. Botanical Garden, Tblisi.

PI 577350. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 357; W6 4595. Collected 1958 in Uppsala, Sweden. Botanical Garden.

PI 577351. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 366; W6 4598. Collected in Romania. Botanical Garden.

PI 577352. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 369; W6 4600. Collected in England, United Kingdom. KEW Botanical Garden.

PI 577353. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 370; W6 4601. Collected in England, United Kingdom. KEW Botanical Garden.

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 577354. *Medicago orbicularis* (L.) Bartal.

Wild. 771; W6 4604. Collected 1962 in Sicily, Italy. Collesano.

PI 577355. *Medicago orbicularis* (L.) Bartal.

Wild. 989; W6 4606. Collected 1962 in Italy. On road to Blue Grotto, Capri.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577356. *Medicago orbicularis* (L.) Bartal.

Cultivated. 371; W6 5083. Collected in Sicily, Italy. Botanical Garden, Palermo, Fiesole. Prostrata.

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 577357. *Medicago orbicularis* (L.) Bartal.

Wild. 1633; W6 5106. Collected 1963 in France. 5km from Estagal to St. Paul du Fe.

PI 577358. *Medicago orbicularis* (L.) Bartal.

Wild. 1290; W6 5107. Collected 1963 in Cyprus. Between Nicosia and Peristerana.

PI 577359. *Medicago orbicularis* (L.) Bartal.

Wild. 1355; W6 5109. Collected 1964 in Lebanon. Fayadish.

PI 577360. *Medicago orbicularis* (L.) Bartal.

Cultivated. 1600; W6 5119. Collected 1963 in Madrid, Spain. Botanical Garden.

The following were collected by Klukova. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577361. *Medicago orbicularis* (L.) Bartal.

Wild. 1847; W6 5132. Collected 1964 in Former Soviet Union.

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 577362. *Medicago orbicularis* (L.) Bartal.

Cultivated. 2062; W6 5136. Collected 1968 in Malta. Argotti Botanic Garden.

PI 577363. *Medicago orbicularis* (L.) Bartal.

Wild. 2088; W6 5138. Collected 1968 in Sicily, Italy. Agrigento.

PI 577364. *Medicago orbicularis* (L.) Bartal.

Wild. 2406; W6 5162. Collected 1974 in Tunisia. 8km to Bou Arada, on road to Pont du Fahs.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577365. *Medicago orbicularis* (L.) Bartal.

Wild. 2412; W6 5163.

PI 577366. *Medicago orbicularis* (L.) Bartal.  
Wild. 2473; W6 5171. Collected 1974 in Algeria. 10-15km from Saida, on  
road to Sidi Bel Abbas.

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 577367. *Medicago orbicularis* (L.) Bartal.  
Wild. 2649; W6 5192. Collected 1974 in Morocco. 27km to Khemissel, on  
road from Meknes.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577368. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 360; W6 5199. Collected in Former Soviet Union. Botanical  
Garden.

PI 577369. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 363; W6 5202. Collected in Bremen, Germany. Botanical  
Garden, Brehmen.

PI 577370. *Medicago orbicularis* (L.) Bartal.  
Cultivated. 381; W6 5214. Collected 1918 in England, United Kingdom. KEW  
Botanical Garden.

PI 577371. *Medicago pironae* Vis.  
Cultivated. 1908; W6 5249. Collected in Yugoslavia.

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 577372. *Medicago pironae* Vis.  
Wild. 382; W6 5250. Collected 1959 in Italy. Botanical Garden, Trieste.

The following were collected by D.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, Crops Research  
Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B.  
Jensen, USDA, ARS, Utah State University, Crops Research Laboratory, Logan,  
Utah 84322-6300, United States. Received 10/10/1991.

PI 577373. *Medicago platycarpus* (L.) Trautv.  
Cultivated. DJ-4200; W6 8202. Collected 08/28/1989 in Russian Federation  
. From the field plots of Prof. Rosita Plennick at the Central Siberian  
Botanical Garden, Academy Town, Novosibirsk. 1977 seed.

PI 577374. *Medicago platycarpus* (L.) Trautv.  
Cultivated. DJ-4201; W6 8203. Collected 08/28/1989 in Russian Federation  
. From the field plots of Prof. Rosita Plennick at the Central Siberian  
Botanical Garden, Academy Town, Novosibirsk. 1971 seed.

The following were donated by International Livestock Centre for Africa, P.O.  
Box 5689, Addis Ababa, Ethiopia. Received 05/04/1990.

PI 577375. *Medicago polymorpha* L.

ILCA 7542; W6 4213.

PI 577376. *Medicago polymorpha* L.  
ILCA 8569; W6 4235.

PI 577377. *Medicago polymorpha* L.  
ILCA 8634; W6 4240.

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 577378. *Medicago polymorpha* L.  
Wild. 1262; W6 4610. Collected 1963 in Cyprus. Near Kythrea.

PI 577379. *Medicago polymorpha* L.  
Wild. 1346; W6 4611. Collected 1963 in Lebanon. Hammana.

PI 577380. *Medicago polymorpha* L.  
Wild. 1354; W6 4612. Collected 1963 in Lebanon. Fayadish, just above Beirut.

PI 577381. *Medicago polymorpha* L.  
Wild. 1357; W6 4613. Collected 1963 in Lebanon.

PI 577382. *Medicago polymorpha* L.  
Wild. 1392; W6 4615. Collected 1963 in Lebanon. Khalde.

PI 577383. *Medicago polymorpha* L.  
Wild. 1448; W6 4616. Collected 1963 in Greece. Between Thessaloniki-Serrai.

PI 577384. *Medicago polymorpha* L.  
Wild. 1505; W6 4617. Collected 1963 in France. Mount Baron, Nice.

PI 577385. *Medicago polymorpha* L.  
Wild. 1527; W6 4618. Collected 1963 in Italy. Badulucco.

PI 577386. *Medicago polymorpha* L.  
Wild. 1614a; W6 4619. Collected 1963 in France. Near Biarritz.

PI 577387. *Medicago polymorpha* L.  
Wild. 1615; W6 4620. Collected 1963 in France. Toulouse.

PI 577388. *Medicago polymorpha* L.  
Wild. 1657; W6 4621. Collected 1963 in Corsica, France. Bigugha.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577389. *Medicago polymorpha* L.  
Wild. 1779; W6 4622. Collected 1963 in Turkey. Biguglia. D.R. Cornelius Collection.

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 577390. *Medicago polymorpha* L.  
Wild. 1785; W6 4623. Collected 1963 in Lebanon. Beirut-Hammana.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577391. *Medicago polymorpha* L.  
Wild. 1895; W6 4624. Collected 1965 in California, United States. Panoche Hills.
- PI 577392. *Medicago polymorpha* L.  
Wild. 1896; W6 4625. Collected 1965 in California, United States. Albany Hills.
- PI 577393. *Medicago polymorpha* L.  
Wild. 1897; W6 4626. Collected 1965 in California, United States. Albany Hills.
- PI 577394. *Medicago polymorpha* L.  
Wild. 1899; W6 4627. Collected 1965 in California, United States. Edge of Trifolium nursery.
- PI 577395. *Medicago polymorpha* L.  
Wild. 1900; W6 4628. Collected in California, United States. Bear Creek, 8 miles north.
- PI 577396. *Medicago polymorpha* L.  
Wild. 1901; W6 4629. Collected in California, United States. Bear Creek, 8 miles north.
- PI 577397. *Medicago polymorpha* L.  
Wild. 1902; W6 4630. Collected in California, United States. Bear Creek, 8 miles north.

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 577398. *Medicago polymorpha* L.  
Cultivated. 2057; W6 4632. Collected 1968 in Malta. Argotti Botanic Garden.
- PI 577399. *Medicago polymorpha* L.  
Wild. 2083; W6 4633. Collected 1968 in Malta. Kalafrana.
- PI 577400. *Medicago polymorpha* L.  
Wild. 2085; W6 4635. Collected 1968 in Sicily, Italy. Agrigento.
- PI 577401. *Medicago polymorpha* L.  
Wild. 2449; W6 4637. Collected 1976 in Tunisia. Cemetery.
- PI 577402. *Medicago polymorpha* L.  
Wild. 2492; W6 4638. Collected 1974 in Algeria. Dali Ibrahim, on way to Algiers.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577403. *Medicago polymorpha* L.  
Wild. 2575; W6 4639. Collected 1974 in Algeria. 60km to Constantine, on road from Annaba.

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 577404. *Medicago polymorpha* L.**

Wild. 2643; W6 4640. Collected 1974 in Morocco. On road from Fez to Ras-al-Ma.

**PI 577405. *Medicago polymorpha* L.**

Wild. 2750; W6 4641. Collected 1974 in Morocco. Roadside to Rommani.

**PI 577406. *Medicago polymorpha* L.**

Wild. 2755; W6 4642. Collected 1974 in Morocco. 47km to Qued-zem from Ez-Zhilga road side.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577407. *Medicago polymorpha* L.**

Wild. 2771; W6 4643. Collected 1974 in Morocco. Roadside, black, heavy soil, 16km to Kasaba-de-Boulaomane, on road from Settat.

**PI 577408. *Medicago polymorpha* L.**

Wild. 2777; W6 4644. Collected 1974 in Morocco. Hard, stony, red soil on way to Ainel Aouda.

The following were collected by K.H. Rechinger. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577409. *Medicago polymorpha* L.**

Wild. 393; W6 4645. Collected 1957 in Iraq. Persian frontier, Khanaquin.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577410. *Medicago polymorpha* L.**

Cultivated. 399; W6 4647. Collected in Poland. Botanical Garden, Barsariensis.

**PI 577411. *Medicago polymorpha* L.**

Cultivated. 408; W6 4648. Collected in Saxony-Anhalt, Germany. Botanical Garden, Halle.

**PI 577412. *Medicago polymorpha* L.**

Cultivated. 410; W6 4649. Collected in England, United Kingdom. Botanical Garden.

**PI 577413. *Medicago polymorpha* L.**

Wild. 413; W6 4650. Collected in Romania. Botanical Garden, Cly.

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 577414. *Medicago polymorpha* L.**

Wild. 716; W6 4652. Collected 1962 in Italy. Priverno-Fossanova.

**PI 577415. *Medicago polymorpha* L.**

Wild. 758; W6 4653. Collected 1962 in Sicily, Italy. Collesano.

- PI 577416. *Medicago polymorpha* L.  
Wild. 786; W6 4654. Collected 1962 in Sicily, Italy. Pedna degli Albanesi.
- PI 577417. *Medicago polymorpha* L.  
Wild. 928; W6 4655. Collected 1962 in Greece. Mount Lycabettus, Athens.
- PI 577418. *Medicago polymorpha* L.  
Wild. 948; W6 4656. Collected 1962 in Greece. Korinthos, Athens.
- PI 577419. *Medicago polymorpha* L.  
Wild. 1039; W6 5259. Collected 1963 in Sardinia, Italy. Between Domusnova-Iglesias.
- PI 577420. *Medicago polymorpha* L.  
Wild. 1126; W6 5272. Collected 1963 in Crete, Greece. Before Malia.
- PI 577421. *Medicago polymorpha* L.  
Wild. 1256; W6 5294. Collected 1963 in Cyprus. Before Kythrea.
- PI 577422. *Medicago polymorpha* L.  
Wild. 1292; W6 5299. Collected 1963 in Cyprus. Between Nicosia and Peristerana.
- PI 577423. *Medicago polymorpha* L.  
Wild. 1317; W6 5303. Collected 1963 in Cyprus. Curium Apollo Temple.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577424. *Medicago polymorpha* L.  
Wild. 1332; W6 5304. Collected 1963 in Lebanon. Between Duhr el Buidar and Tubal Knisth of Fabougha road.

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 577425. *Medicago polymorpha* L.  
Wild. 1566; W6 5324. Collected 1963 in Spain. O del Estany, Santa Maria.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577426. *Medicago polymorpha* L.  
Wild. 1732; W6 5331. Collected 1962 in Maras, Turkey. D.R. Cornelius Collection.
- PI 577427. *Medicago polymorpha* L.  
Wild. 1904; W6 5338. Collected in California, United States. 8 miles N, Bear Creek.
- PI 577428. *Medicago polymorpha* L.  
Cultivated. 1945; W6 5342. Collected 1962 in Australia.
- PI 577429. *Medicago polymorpha* L.  
Cultivated. 1953; W6 5350. Collected 1962 in Former Soviet Union.
- PI 577430. *Medicago polymorpha* L.  
Cultivated. 1992; W6 5354. Collected in Bucharest, Romania. Hortus Botanicus.

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 577431. *Medicago polymorpha* L.  
Cultivated. 2058; W6 5360. Collected 1968 in Malta. Argotti Botanic Garden.

PI 577432. *Medicago polymorpha* L.  
Wild. 2125; W6 5369. Collected 1968 in Malta. Marsalforn Gozo.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577433. *Medicago polymorpha* L.  
Wild. 2438; W6 5412. Collected 1976 in Tunisia. Seashore close to Tunis, ruins of Basilique, Saint Cyprian.

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 577434. *Medicago truncatula* Gaertner  
Wild. 2462; W6 5415. Collected 1976 in Tunisia. Maktar ruins.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577435. *Medicago polymorpha* L.  
Wild. 2474; W6 5418. Collected 1974 in Algeria. 10-15km from Saida, on road to Sidi Bel Abbas.

PI 577436. *Medicago polymorpha* L.  
Wild. 2639; W6 5456. Collected 1974 in Morocco. On road to Nkheila, on side of mountains.

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 577437. *Medicago polymorpha* L.  
Wild. 2846; W6 5504. Collected 1976 in Pakistan. Islamabad Club golf course.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577438. *Medicago polymorpha* L.  
Cultivated. 386; W6 5511. Collected in Sicily, Italy. Botanical Garden, Palermo.

PI 577439. *Medicago polymorpha* L.  
Cultivated. 390; W6 5515. Collected in Coimbra, Portugal. Botanical Garden.

The following were collected by K.H. Rechinger. Donated by P. N. D. Seymour,

University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577440. *Medicago polymorpha* L.  
Wild. 405; W6 5525. Collected 1957 in Iraq. 70km S of Amara, Al Azair.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577441. *Medicago polymorpha* L.  
Cultivated. 425; W6 5539. Collected in Poland. Botanical Garden,  
Varsariensis.

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 577442. *Medicago polymorpha* L.  
Wild. 695; W6 5585. Collected 1962 in Italy. 126km S of Rome, Itri.

PI 577443. *Medicago polymorpha* L.  
Wild. 733; W6 5594. Collected 1962 in Sicily, Italy. San Martino.

PI 577444. *Medicago polymorpha* L.  
Wild. 934; W6 5606. Collected 1962 in Greece. Acropolis, Athens.

PI 577445. *Medicago prostrata* Jacq.  
Wild. 1683; W6 5616. Collected 1963 in Italy. Pacentro.

PI 577446. *Medicago prostrata* Jacq.  
Wild. 1686; W6 5617. Collected 1963 in Italy. Campo di Joeve.

PI 577447. *Medicago prostrata* Jacq.  
Wild. 1701; W6 5619. Collected 1963 in Italy. Casa Cantoniera.

PI 577448. *Medicago prostrata* Jacq.  
Wild. 1703; W6 5620. Collected 1963 in Italy. Casa Cantoniera.

PI 577449. *Medicago prostrata* Jacq.  
Wild. 1712; W6 5621. Collected 1963 in Italy. Pacentro near Sulmona.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577450. *Medicago prostrata* Jacq.  
Wild. 2286; W6 5622.

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 577451. *Medicago prostrata* Jacq.  
Wild. 463; W6 5623. Collected 1959 in Italy. Between Trieste and Grotto.

PI 577452. *Medicago prostrata* Jacq.  
Wild. 464; W6 5624. Collected 1959 in Italy. Montefalcone.

PI 577453. *Medicago prostrata* Jacq.  
Wild. 962; W6 5627. Collected 1962 in Greece. Vourinos.

PI 577454. *Medicago prostrata* Jacq.  
Wild. 961; W6 5628. Collected 1962 in Greece. Vourinos.

The following were developed by PARC, 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 577455. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1279-005; W6 663. Collected 07/23/1986 in North-West Frontier, Pakistan. Latitude 35 deg. 5' N. Longitude 74 deg. 4' E. Elevation 1280 m. Collected at Hanuchal, 62km southeast from Gilgit toward Skardu, Gilgit Province. Irrigated hilly level site, not transplanted, brown sand, medium stoniness, and good drainage.

PI 577456. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1283-003; W6 665. Collected 07/23/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 5' N. Longitude 75 deg. 0' E. Elevation 1740 m. Farmland near Talu, 86km northwest of Skardu on the Skardu-Gilgit road, Gilgit Province. 50 plants sampled.

PI 577457. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1285-003; W6 666. Collected 07/24/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 25' N. Longitude 75 deg. 30' E. Elevation 2020 m. Farmland at Shringrela Checkpost, 24km northwest of Skazrdu Skardu, Baltistan Province.

PI 577458. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1288-004; W6 669. Collected 07/24/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 17' N. Longitude 75 deg. 42' E. Elevation 2080 m. Collected at Hussain Abad, 3km northeast from Skardu to Shigar, Baltistan Province. Mountainous irrigated farmland level, not transplanted, of brown sand, low stoniness and moderate drainage. One plant with white flowers collected.

PI 577459. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1291-004; W6 673. Collected 07/24/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 24' N. Longitude 75 deg. 46' E. Elevation 2060 m. Collected at Kothan Bala, 4km before Shigar, Baltistan Province. Level on irrigated, hilly area, not transplanted of brown sand, low stoniness and good drainage. One plant collected, seed may be too green.

PI 577460. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1295-003; W6 676. Collected 07/25/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 15' N. Longitude 75 deg. 37' E. Collected at Hajigam, 3km from Skardu toward Satpra, Baltistgan Province. Level on irrigated, hilly farmland, medium stoniness, brown loam, and good drainage. Plants have white flowers.

PI 577461. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1295-004; W6 677. Collected 07/25/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 15' N. Longitude 75 deg. 37' E. Elevation 2160 m. Collected at Hajigam, 3km from Skardu toward Satpra on Das Road, Baltistan Province. Level on irrigated, hilly farmland, not terraced, of medium stoniness, brown loam, and good drainage. Plants collected at border of wheat field. Flowers white (packet says yellow).

PI 577462. *Medicago sativa* L. *ssp. sativa*  
Wild. 86PK1298-005; W6 680. Collected 07/25/1986 in Azad Kashmir, Pakistan. Latitude 35 deg. 12' N. Longitude 75 deg. 40' E. Elevation 2150 m. Collected at Skardu, at Skardu EADA grounds, Baltistan Province. High plateau level close to the Indus River (possible flood plain at one time), irrigated but not transplanted or terraced, of low stoniness,

brown loam and good drainage. Flowers cream colored.

**PI 577463. *Medicago sativa* L. ssp. *sativa***

Landrace. 86PK1322-002; W6 690. Collected 07/31/1986 in North-West Frontier, Pakistan. Latitude 36 deg. 24' N. Longitude 73 deg. 25' E. Elevation 2200 m. Collected at Tawos Bala, 6km from Yasin toward Thui Road, Gilgit Province. Hilly, terraced, irrigated slope, not transplanted, of rocky stoniness, brown sandy loam and good drainage. Collection from haystack with mostly immature pods.

**PI 577464. *Medicago sativa* L. ssp. *sativa***

Landrace. 86PK1329-006; W6 694. Collected 08/01/1986 in North-West Frontier, Pakistan. Latitude 36 deg. 13' N. Longitude 73 deg. 19' E. Elevation 1910 m. Collected at Hakis, 3km from Gupis toward Gilgit, Gilgit Province. Hilly, terraced, irrigated slope, not transplanted, of low stoniness, brown loam and good drainage. Collection from border of wheat field, plants green, had been cut for hay.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577465. *Medicago sativa* L. ssp. *sativa***

Wild. 1883; W6 4943. Collected 1946 in Russian Federation. Leningrad.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577466. *Medicago sativa* L. ssp. *sativa***

Wild. 2036; W6 4944. Collected 1953 in Kyrgyzstan. Feraghana [Kirghizia].

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 577467. *Medicago sativa* L. ssp. *sativa***

Wild. 255; W6 4945. Collected 1945 in Russian Federation. Leningrad Jugum Ferghanicum, Kara Alma.

**PI 577468. *Medicago sativa* L. ssp. *sativa***

Wild. 255a; W6 4946. Collected 1945 in Russian Federation. Leningrad Jugum Ferghanicum, Kara Alma.

**PI 577469. *Medicago sativa* L. ssp. *sativa***

Wild. 255b; W6 4947. Collected 1945 in Russian Federation. Leningrad Jugum Ferghanicum, Kara Alma.

**PI 577470. *Medicago sativa* L. ssp. *sativa***

Wild. 256; W6 4948. Collected 1945 in Russian Federation. Leningrad Jugum Ferghanicum, Kara Alma.

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 577471. *Medicago sativa* L. ssp. *sativa***

Wild. 2566; W6 4949. Collected 1974 in Algeria. Bouchegouf. Logged as intertextal at Bouchegouf.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577472. *Medicago sativa* L. ssp. *sativa*  
Wild. 256a; W6 4950. Collected 1945 in Russian Federation. Leningrad Jugum Ferghanicum, Kara Alma.

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 577473. *Medicago sativa* L. ssp. *sativa*  
Wild. 1335; W6 5638. Collected 1963 in Lebanon. Across from police house, after Sofari.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577474. *Medicago sativa* L. ssp. *sativa*  
Wild. 1436; W6 5640. Collected in Turkey.

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 577475. *Medicago sativa* L. ssp. *sativa*  
Wild. 1542; W6 5641. Collected 1963 in Spain. 10km before Ribas.

PI 577476. *Medicago sativa* L. ssp. *sativa*  
Wild. 1555; W6 5642. Collected 1963 in Spain. Around Puigcerda, Mount Pyrenean.

PI 577477. *Medicago sativa* L. ssp. *sativa*  
Wild. 1556; W6 5643. Collected 1963 in Spain. Around Puigcerda, Mount Pyrenean.

PI 577478. *Medicago sativa* L. ssp. *sativa*  
Wild. 1628; W6 5644. Collected 1963 in France. 5km from Estagal, to St. Paul du Fe.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577479. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 1834; W6 5647. Collected in Spain.

PI 577480. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 1835; W6 5648. Collected in Spain.

PI 577481. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 1836; W6 5649. Collected in Sweden.

PI 577482. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 1837; W6 5650. Collected in Turkey.

PI 577483. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 1839; W6 5651. Collected in Turkey.

PI 577484. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 1840; W6 5652. Collected in Iran.

PI 577485. *Medicago sativa* L. *ssp. sativa*  
Cultivated. 1841; W6 5653. Collected in Iran.

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 577486. *Medicago sativa* L. *ssp. sativa*  
Wild. 2013; W6 5654. Collected in Turkey. Kurweava 1500m Majas Province.

PI 577487. *Medicago sativa* L. *ssp. sativa*  
Wild. 2015; W6 5655. Collected in Turkey. Between Lepir District and  
Ersurua Province.

PI 577488. *Medicago sativa* L. *ssp. sativa*  
Wild. 2017; W6 5657. Collected in Turkey. 28km E of Agri.

PI 577489. *Medicago sativa* L. *ssp. sativa*  
Wild. 2018; W6 5658. Collected in Turkey. 28km E of Agri.

PI 577490. *Medicago sativa* L. *ssp. sativa*  
Wild. 2019; W6 5659. Collected in Turkey. Kecili.

PI 577491. *Medicago sativa* L. *ssp. sativa*  
Wild. 2024; W6 5660. Collected in Turkey. Sakarya river.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577492. *Medicago sativa* L. *ssp. sativa*  
Wild. 2174; W6 5661. Collected 1933 in Uzbekistan. Tashkent.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577493. *Medicago sativa* L. *ssp. sativa*  
Cultivated. 218; W6 5662. Collected in Russian Federation. Leningrad.

PI 577494. *Medicago sativa* L. *ssp. sativa*  
Wild. 219; W6 5663. Collected in Former Soviet Union.

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 577495. *Medicago sativa* L. *ssp. sativa*  
Wild. 2428; W6 5664. Collected 1974 in Tunisia. Gabes.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577496. *Medicago sativa* L. *ssp. sativa*  
Wild. 2470; W6 5665. Collected 1974 in Tunisia. Maktar-Kasserine 10km  
from Maktar-4km from place where *M. tunatana* was growing.

PI 577497. *Medicago sativa* L. *ssp. sativa*  
Wild. 2870; W6 5687. Collected 1950 in Turkey. Sivias.

- PI 577498. *Medicago sativa* L. ssp. *sativa*  
Wild. 2872; W6 5688. Collected 1950 in Turkey. Sivas.
- PI 577499. *Medicago sativa* L. ssp. *sativa*  
Wild. 507; W6 5693. Collected in Armenia.
- PI 577500. *Medicago sativa* L. ssp. *sativa*  
Wild. 508; W6 5694. Collected in Iran.
- PI 577501. *Medicago sativa* L. ssp. *sativa*  
Wild. 518; W6 5700. Collected in Italy.
- PI 577502. *Medicago sativa* L. ssp. *sativa*  
Wild. 524; W6 5706. Collected in Latvia.
- PI 577503. *Medicago sativa* L. ssp. *sativa*  
Wild. 529; W6 5711. Collected in Romania.
- PI 577504. *Medicago sativa* L. ssp. *sativa*  
Wild. 532; W6 5713. Collected in Italy.
- PI 577505. *Medicago sativa* L. ssp. *sativa*  
Wild. 886; W6 5719. Collected in Turkey.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577506. *Medicago sativa* nothosp. *tunetana* Murb.  
Wild. 2193; W6 4920. Collected in Italy. Fergan Mountains, 2km from Kara Alma.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577507. *Medicago sativa* nothosp. *tunetana* Murb.  
Wild. 383; W6 5251. Collected 1956 in Georgia. Tbilisi.

The following were collected by Madison. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577508. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.  
Cultivated. 84; W6 4918. Collected 1933 in Georgia. Botanical Garden.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577509. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.  
Wild. 86; W6 4919. Collected 1962 in Russian Federation. Leningrad thru Balton, Saskatoon.
- PI 577510. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.  
Wild. 1866; W6 4926. Collected in Former Soviet Union.

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 577511. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 2020; W6 4927. Collected in Turkey. Rocky roadside, Erpeler Koyu.

PI 577512. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 2025; W6 4928. Collected in Former Soviet Union. Mihar Koyu, Erzincan Province.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577513. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 226; W6 4930. Collected in Russian Federation. Leningrad.

PI 577514. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 227; W6 4931. Collected in Russian Federation. Leningrad.

PI 577515. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 228; W6 4932. Collected in Russian Federation. Leningrad.

PI 577516. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 229; W6 4933. Collected in Georgia.

PI 577517. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 232; W6 4935. Collected in Russian Federation. Leningrad thru Balton, Saskatoon.

PI 577518. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 233; W6 4936. Collected in Russian Federation. Leningrad.

PI 577519. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 234; W6 4937. Collected in Russian Federation. Leningrad.

PI 577520. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Cultivated. 235; W6 4938. Collected in Former Soviet Union. Transcaucasus Mts.

PI 577521. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 1861; W6 5108. Collected in Former Soviet Union.

The following were collected by Vesselczenko. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577522. *Medicago sativa* nothosp. *varia* (T. Martyn) Arcang.

Wild. 1857; W6 5911. Collected 1961 in Former Soviet Union. Elevation 1900 m. Jugum Telassicum reservation Aksu-Zhabagly.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577523. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 1858; W6 5912. Collected 1952 in Kyrgyzstan. Elevation 1850 m. Kirghistan area (Tien Shan).

PI 577524. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 557; W6 5913. Collected 1952 in Kyrgyzstan. Leningrad org. Aksu-Zhabagly (Tien Shan).

PI 577525. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 558; W6 5914. Collected 1952 in Kyrgyzstan. Leningrad org. Aksu-Zhabagly (Tien Shan).

PI 577526. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 559; W6 5915. Collected in Kyrgyzstan. Leningrad org. Aksu-Zhabagly (Tien Shan).

PI 577527. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 560; W6 5916. Collected in Russian Federation. Moscow.

PI 577528. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 561; W6 5917. Collected in Former Soviet Union. Kanadarja.

PI 577529. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Cultivated. 562; W6 5918. Collected in Stockholm, Sweden. Bot. Garden Bergianus.

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 577530. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Wild. 2039; W6 5960. Collected 1964 in Former Soviet Union. Amon-Bukhtar.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577531. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Cultivated. 566; W6 5961. Collected in Kazakhstan. Tetraploid.

The following were collected by K.A. Lesins. Developed by Academy of Science, Georgia. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577532. *Medicago sativa nothosp. varia* (T. Martyn) Arcang.

Cultivated. 585; W6 6138. Collected in Georgia.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577533. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 1846; W6 4922.

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 577534. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 2022; W6 4923. Collected in Turkey. Along river, Harava-Gumushane Province.

PI 577535. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 2023; W6 4924. Collected in Turkey. Sakarya River Valley.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577536. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 236; W6 4925.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577537. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 1853; W6 5721. Collected 1964 in Former Soviet Union. Archikula.

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 577538. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 2010; W6 5722. Collected in Turkey. Foot of Mt. Ararat, Dogubeyazit.

PI 577539. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 2011; W6 5723. Collected in Turkey. Foot of Mt. Ararat, Dogubeyazit.

PI 577540. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.  
Wild. 2012; W6 5724. Collected in Turkey. Foot of Mt. Ararat, Dogubeyazit.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577541. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Wild. 213; W6 5725. Collected in Kazakhstan.

PI 577542. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Wild. 215; W6 5726. Collected in Former Soviet Union. Daremendckan.

PI 577543. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Wild. 216; W6 5727. Collected 1956 in Georgia. Tbilisi.

PI 577544. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Wild. 217; W6 5728. Collected 1953 in Russian Federation. Ciscaucasia,  
Stavropol.

PI 577545. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 2186; W6 5729. Collected in Former Soviet Union. Botanical  
garden, Tjilis.

PI 577546. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 220; W6 5730. Collected in Georgia.

PI 577547. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 221; W6 5731. Collected in Georgia.

PI 577548. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 222; W6 5732. Collected in Russian Federation. Hortus Bot.  
Prin., Moscow.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577549. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Wild. 223; W6 5733. Collected 1940 in Georgia. Tbilisi.

PI 577550. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Wild. 223a; W6 5734. Collected 1940 in Georgia. Tbilisi.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577551. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 2284; W6 5735. Collected in Manitoba, Canada. Brandon  
Experimental Farm.

PI 577552. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 2284a; W6 5736. Collected in Manitoba, Canada. Brandon  
Experimental Farm.

PI 577553. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.)  
Schmalh.

Cultivated. 2284b; W6 5737. Collected in Manitoba, Canada. Brandon Experimental Farm.

PI 577554. *Medicago sativa* ssp. *caerulea* (Less. ex Ledeb.) Schmalh.

Cultivated. 2285; W6 5738. Collected in Manitoba, Canada. Brandon Experimental Farm.

PI 577555. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. 497; W6 5634. Collected 1952 in Ukraine. Sivash.

PI 577556. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Cultivated. 498; W6 5635. Collected 1961 in Bulgaria. From cultivated plant in Sofia.

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 577557. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. 556; W6 5910. Collected 1961 in Bulgaria. East Bulgaria Black sea, seaside near town of Sozopol.

The following were collected by D.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, Crops Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Crops Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/10/1991.

PI 577558. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. DJ-3825; W6 8205. Collected 08/08/1989 in Russian Federation. Elevation 250 m. Rocky outcrop next to the Katun River. 79km S of Biysk on Highway M-52.

PI 577559. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. DJ-3851; W6 8206. Collected 08/10/1989 in Russian Federation. Elevation 350 m. On rocky outcrop periodically under water. Along the Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.).

PI 577560. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. DJ-3854; W6 8207. Collected 08/10/1989 in Russian Federation. Elevation 350 m. Along the Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.). Single plant, large, erect.

PI 577561. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. DJ-3867; W6 8208. Collected 08/11/1989 in Russian Federation. Elevation 1000 m. Near 656km marker on Highway M-52 beyond Onguday toward Cheketeman Pass, Gorno Altay A.O. Large population. Very common.

PI 577562. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. DJ-3904; W6 8209. Collected 08/12/1989 in Russian Federation. Elevation 1250 m. North side of Cheketeman Pass, Gorno Altay A.O., near the 656km marker. Single robust plant with prostrate stems to 100cm.

PI 577563. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Wild. DJ-4052; W6 8210. Collected 08/21/1989 in Russian Federation. Elevation 540 m. Mountainside west of the Kamlak Field Station of the Central Siberian Botanical Garden (Gorno Altay A.O.). Open foothills at 580 meters.

PI 577564. *Medicago sativa* ssp. *falcata* (L.) Arcang.  
Wild. DJ-4077; W6 8211. Collected 08/24/1989 in Russian Federation.  
Elevation 230 m. Near the 147km marker on Highway M-52 south of  
Novosibirsk, RSFSR.

PI 577565. *Medicago sativa* ssp. *falcata* (L.) Arcang.  
Cultivar. "KOSHAGACHSKAYA"; DJ-4171; W6 8212. Collected 08/1989 in  
Former Soviet Union.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577566. *Medicago sativa* ssp. *glomerata* (Balbis) Rouy  
Wild. 1976; W6 4921. Collected in Former Soviet Union. Arak-dala-Terek,  
Caucasus Mountains.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577567. *Medicago sativa* ssp. *glomerata* (Balbis) Rouy  
Wild. 1530; W6 5895. Collected 1963 in Italy. Mt. Madonna Delle Nave,  
Badolucco.

PI 577568. *Medicago sativa* ssp. *glomerata* (Balbis) Rouy  
Wild. 1531; W6 5896. Collected 1963 in Italy. Mt. Madonna Delle Nave,  
Badolucco.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577569. *Medicago sativa* L. ssp. *sativa*  
Wild. 33; W6 4886. Collected 1938 in Former Soviet Union. Jugum  
Ferghanicum Ak-Terex.

PI 577570. *Medicago sativa* L. ssp. *sativa*  
Wild. 34; W6 4887. Collected 1953 in Former Soviet Union. Jugum  
Ferghanicum Ak-Terex.

PI 577571. *Medicago sativa* L. ssp. *sativa*  
Wild. 2174; W6 5080. Collected 1968 in Uzbekistan. Tashkent.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577572. *Medicago sativa* L. ssp. *sativa*  
Wild. 1887; W6 5957. Collected 1964 in Tajikistan. Tadzikistan.

The following were collected by L. Vassilczenko. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577573. *Medicago sativa* L. ssp. *sativa*  
Wild. 1977; W6 5958. Collected 1951 in Uzbekistan. Uzbekistania  
Hissavoce Taccabagvic/Tasch-kurgham.

The following were donated by P. N. D. Seymour, University of Alberta,

Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577574. *Medicago sativa* L. ssp. *sativa*  
Wild. 565; W6 5959. Collected 1946 in Tajikistan. Tadzikistan,  
Gissariana Mountains.

The following were collected by Richard R. Smith, USDA, ARS, U.S. Dairy  
Forage Research Center, University of Wisconsin, Madison, Wisconsin 53706,  
United States. Received 03/20/1991.

PI 577575. *Medicago sativa* L. ssp. *sativa*  
Yu-BL-1; W6 7177. Collected in Yugoslavia.

PI 577576. *Medicago sativa* L. ssp. *sativa*  
Yu-BL-2; W6 7178. Collected in Yugoslavia.

PI 577577. *Medicago sativa* L. ssp. *sativa*  
Yu-BL-422; W6 7179. Collected in Yugoslavia.

PI 577578. *Medicago sativa* L. ssp. *sativa*  
W6 7180. Collected in Yugoslavia.

The following were collected by Nigel Maxted, Univ. of Southampton - Dept. of  
Biology, Med. & Biological Science Building, Bassett Crecent East,  
Southampton, England S09 3TU, United Kingdom; Calvin R. Sperling, USDA, ARS,  
Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West,  
Beltsville, Maryland 20705-2350, United States. Received 10/04/1991.

PI 577579. *Medicago sativa* L. ssp. *sativa*  
Cultivated. 8155b; 918262; W6 8313. Collected 06/03/1991 in Uzbekistan.  
Latitude 39 deg. 44' N. Longitude 68 deg. 5' E. Elevation 1580 m.  
Experimental plots (seed taken from storage) Uzbek Cereal Institute  
Field Station near Muzbuzulak.

The following were collected by L. Guarino, International Plant Genetic  
Resources Institute, Rome, Italy. Donated by International Board for Plant  
Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy.  
Received 09/30/1992.

PI 577580. *Medicago sativa* L. ssp. *sativa*  
1168; W6 11025. Collected 1988 in Yemen.

PI 577581. *Medicago sativa* L. ssp. *sativa*  
1187; W6 11027. Collected 1988 in Yemen.

PI 577582. *Medicago sativa* L. ssp. *sativa*  
1201; W6 11029. Collected 1988 in Yemen.

The following were collected by Kosaharov. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577583. *Medicago sativa* var. *viscosa* (Reichb.) Posp.  
Wild. 1833; W6 4912. Collected 1963 in Bulgaria. In rocks near Pleven.

The following were collected by Bushice. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577584. *Medicago sativa* var. *viscosa* (Reichb.) Posp.  
Wild. 2027; W6 4913. Collected 1963 in Bulgaria. In log as gaetula.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577585. *Medicago sativa* var. *viscosa* (Reichb.) Posp.  
Wild. 78; W6 4914. Collected 1958 in Bulgaria.

The following were collected by Kosaharov. Donated by P. N. D. Seymour,  
University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada.  
Received 02/11/1990.

PI 577586. *Medicago sativa* var. *viscosa* (Reichb.) Posp.  
Wild. 79; W6 4915. Collected 1960 in Bulgaria. Valley or r. Dunav.

PI 577587. *Medicago sativa* var. *viscosa* (Reichb.) Posp.  
Wild. 80; W6 4916. Collected 1960 in Bulgaria. Valley or r. Dunav.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577588. *Medicago sativa* var. *viscosa* (Reichb.) Posp.  
Wild. 81; W6 4917. Collected 1961 in Bulgaria. Valley or r. Dunav.

PI 577589. *Medicago soleirolii* Duby  
Cultivated. 1957; W6 5900. Collected in Malta.

The following were collected by D.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, Crops Research  
Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B.  
Jensen, USDA, ARS, Utah State University, Crops Research Laboratory, Logan,  
Utah 84322-6300, United States. Received 10/10/1991.

PI 577590. *Medicago* sp.  
Cultivated. DJ-3802; W6 8213. Collected 08/05/1989 in Russian Federation  
. Field plots of O. & A. Agafonov in Central Siberian Botanical Garden,  
Academy Town, Novosibirsk, RSFSR. Plants erect, with stems to 90cm.  
Leaves large. Pods black.

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 577591. *Medicago suffruticosa* Ramond ex DC.  
Wild. 1547; W6 5902. Collected 1910 in Spain. 5km after Rugas on road  
Rihas, Puigcerda.

PI 577592. *Medicago suffruticosa* Ramond ex DC.  
Wild. 1548; W6 5903. Collected 1963 in Spain. 16km from Toses on road  
Teses to Puigcerda.

PI 577593. *Medicago suffruticosa* Ramond ex DC.  
Wild. 1548a; W6 5904. Collected 1963 in Spain. 16km from Toses on road  
Teses to Puigcerda.

PI 577594. *Medicago suffruticosa* Ramond ex DC.  
Wild. 1549; W6 5906. Collected 1963 in Spain. 2-3km from Toses, on road

Toses to Puigcerda.

- PI 577595. *Medicago suffruticosa* Ramond ex DC.  
Wild. 1550; W6 5907. Collected 1963 in Spain. 2-3km from Toses, on road  
Toses to Puigcerda.
- PI 577596. *Medicago suffruticosa* Ramond ex DC.  
Wild. 1561; W6 5908. Collected 1963 in Spain. Elevation 685 m. 5km  
before Ripoll.
- PI 577597. *Medicago truncatula* Gaertner  
Wild. 1001; W6 4657. Collected 1962 in Sardinia, Italy. Ana Capri.
- PI 577598. *Medicago truncatula* Gaertner  
Wild. 1068; W6 4659. Collected 1963 in Sardinia, Italy. Between Sanluri  
and Cagliari.
- PI 577599. *Medicago truncatula* Gaertner  
Wild. 1128; W6 4660. Collected 1963 in Crete, Greece. 34km south of  
Iraklion.
- PI 577600. *Medicago truncatula* Gaertner  
Wild. 1152; W6 4662. Collected 1963 in Crete, Greece. Around Nikolaos.
- PI 577601. *Medicago truncatula* Gaertner  
Wild. 1175; W6 4663. Collected 1963 in Crete, Greece. Mitropoli at  
Apollo Temple.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577602. *Medicago truncatula* Gaertner  
Wild. 1224; W6 4664. Collected 1963 in Greece. 21-22km from Rhodes on  
road to Kaminos.

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 577603. *Medicago truncatula* Gaertner  
Wild. 1264; W6 4665. Collected 1963 in Cyprus. Near Kythrea.
- PI 577604. *Medicago truncatula* Gaertner  
Wild. 1291; W6 4666. Collected 1963 in Cyprus. Between Nicosia and  
Peristerana.
- PI 577605. *Medicago truncatula* Gaertner  
Wild. 1302; W6 4667. Collected 1963 in Cyprus. Between Leskoniko and  
Boghaz.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

- PI 577606. *Medicago truncatula* Gaertner  
Wild. 1352; W6 4668. Collected 1963 in Lebanon. Fayadish-just above  
Beirut 6km from French college.

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 577607. *Medicago truncatula* Gaertner  
Wild. 1367a; W6 4669. Collected 1963 in Lebanon. Maksch-Idita.

PI 577608. *Medicago truncatula* Gaertner  
Wild. 1506; W6 4670. Collected 1963 in France. Mount Baron.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577609. *Medicago truncatula* Gaertner  
Cultivated. 1725a; W6 4671. Collected in Sweden. Stockholm Herbarium.

PI 577610. *Medicago truncatula* Gaertner  
Cultivated. 1884; W6 4672. Collected in Georgia, United States.

PI 577611. *Medicago truncatula* Gaertner  
Cultivated. 1968; W6 4673. Collected in Germany.

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 577612. *Medicago truncatula* Gaertner  
Wild. 2133; W6 4674. Collected 1968 in Malta. Ghajn Tuffiema.

PI 577613. *Medicago truncatula* Gaertner  
Wild. 2148; W6 4675. Collected 1968 in Italy. Pantelleria Island.

PI 577614. *Medicago truncatula* Gaertner  
Wild. 2155; W6 4676. Collected 1968 in Malta. Gozo fungus rock.

PI 577615. *Medicago truncatula* Gaertner  
Wild. 2157; W6 4677. Collected 1968 in Italy. Mount Argentario near Port  
Ercole.

The following were collected by Philipp W. Simon, USDA, ARS, University of  
Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United  
States. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic  
Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577616. *Medicago truncatula* Gaertner  
Cultivated. 2195; W6 4678. Collected in Australia. Inst. Agric. Univ.  
West. Australia, Nedlands. Without spines.

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 577617. *Medicago truncatula* Gaertner  
Wild. 2357; W6 4680. Collected 1973 in Crete, Greece. At Saint Nikolaos  
roadside.

PI 577618. *Medicago truncatula* Gaertner  
Wild. 2388; W6 4681. Collected 1973 in Greece. Soon turning to Mount  
Colla, Karpathos Is.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577619. *Medicago truncatula* Gaertner  
Wild. 2439; W6 4682. Collected 1974 in Tunisia. Ruins of Basilique,  
Saint Cyprien seashore, close to Tunis.

PI 577620. *Medicago truncatula* Gaertner  
Wild. 2454; W6 4683. Collected 1974 in Tunisia. 10-15km from Saida on  
road to Sidi Bel Abbas.

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 577621. *Medicago truncatula* Gaertner  
Wild. 2488; W6 4684. Collected 1974 in Algeria. On road to Saida (10km).

PI 577622. *Medicago truncatula* Gaertner  
Wild. 2503; W6 4685. Collected 1974 in Algeria. Elevation 500 m. Road  
side valley to Medea from Algiers.

PI 577623. *Medicago truncatula* Gaertner  
Wild. 2580; W6 4686. Collected 1974 in Algeria. A few km (app.10) past  
Sig on road to Saida.

PI 577624. *Medicago truncatula* Gaertner  
Wild. 2619; W6 4687. Collected 1974 in Algeria. Elevation 900 m. Between  
El Omaria and Qued Brahim (N23).

PI 577625. *Medicago truncatula* Gaertner  
Wild. 2701; W6 4688. Collected 1974 in Algeria. 40km to Marrakech under  
eucalyptus trees. Soil hard.

PI 577626. *Medicago truncatula* Gaertner  
Wild. 2757; W6 4689. Collected 1974 in Algeria. 18km to Katourerte off  
road Qued Zem.

PI 577627. *Medicago truncatula* Gaertner  
Wild. 2812; W6 4690. Collected 1974 in Algeria. 8km past Termi.

PI 577628. *Medicago truncatula* Gaertner  
Wild. 2850a; W6 4691. Collected 1975 in Spain. Majorca.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577629. *Medicago truncatula* Gaertner  
Cultivated. 653; W6 4692. Collected in Sardinia, Italy. Botanical  
garden, Cagliari.

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 577630. *Medicago truncatula* Gaertner  
Wild. 995; W6 4695. Collected 1962 in Italy. On way to Blue Grotto.

PI 577631. *Medicago truncatula* Gaertner  
Wild. 1004; W6 5962. Collected 1962 in Italy. On way to the Blue Grotto,  
Capri.

PI 577632. *Medicago constricta* Durieu

Wild. 1105; W6 5967. Collected 1963 in Crete, Greece. Iraklion.

PI 577633. *Medicago truncatula* Gaertner  
Wild. 1179; W6 5975. Collected 1963 in Crete, Greece. At Palace of  
Phaestos on road to Vari.

PI 577634. *Medicago truncatula* Gaertner  
Wild. 1254a; W6 5982. Collected 1963 in Cyprus. Before Kythrea.

PI 577635. *Medicago truncatula* Gaertner  
Wild. 1508; W6 5989. Collected 1963 in France. Mount Baron, Nice.

PI 577636. *Medicago truncatula* Gaertner  
Wild. 1578; W6 5993. Collected 1963 in Spain. Cadiz.

PI 577637. *Medicago truncatula* Gaertner  
Wild. 1592; W6 5994. Collected 1963 in Spain. Chiclana, Cadiz.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577638. *Medicago truncatula* Gaertner  
Wild. 160a; W6 5995. Collected in Sweden.

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 577639. *Medicago truncatula* Gaertner  
Wild. 160b; W6 5996. Collected 1950 in Sweden. 2km S from Eketorp,  
Degerhamn.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577640. *Medicago truncatula* Gaertner  
Cultivated. 1960; W6 6005. Collected in United States.

PI 577641. *Medicago truncatula* Gaertner  
Cultivated. 1961; W6 6006. Collected in Australia. Red patch in leaves,  
clockwise.

PI 577642. *Medicago truncatula* Gaertner  
Cultivated. 1962; W6 6007. Collected in Germany.

PI 577643. *Medicago truncatula* Gaertner  
Cultivated. 1969; W6 6013. Collected in Malta.

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 577644. *Medicago turbinata* (L.) All.  
Wild. 1129; W6 6121. Collected 1963 in Crete, Greece. 34km S of  
Iraklion.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577645. *Medicago truncatula* Gaertner  
Wild. 2407; W6 6045. Collected 1974 in Tunisia. 8km to Bou Arada on road  
to Pont Du Fahs.

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 577646. *Medicago truncatula* Gaertner  
Wild. 2418; W6 6046. Collected 1974 in Tunisia. Elevation 300 m. 28km to  
Tadjerounie on road from El Kef. 350mm rainfall.

PI 577647. *Medicago doliata* var. *muricata* Heyn  
Wild. 2475; W6 6051. Collected 1974 in Algeria. Zoubiria (Brozza),  
between Berrouaghia and Boghari.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577648. *Medicago truncatula* Gaertner  
Wild. 575; W6 6101. Collected in Morocco. Moyen Oum-er-Rhiba, Tabla.

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 577649. *Medicago turbinata* (L.) All.  
Wild. 1237; W6 4696. Collected 1963 in Greece. 44km from Rhodes high in  
mountains, pine woody.

PI 577650. *Medicago turbinata* (L.) All.  
Wild. 1273; W6 4697. Collected 1963 in Cyprus. Before Monastery Andreas.

PI 577651. *Medicago turbinata* (L.) All.  
Wild. 1358; W6 4698. Collected in Lebanon. Beirut.

PI 577652. *Medicago turbinata* (L.) All.  
Wild. 1373; W6 4699. Collected 1963 in Lebanon. Chtauras.

PI 577653. *Medicago turbinata* (L.) All.  
Wild. 1397a; W6 4700. Collected 1963 in Lebanon. Mey on Mey.

PI 577654. *Medicago turbinata* (L.) All.  
Wild. 1402; W6 4701. Collected 1963 in Lebanon. Ghazir.

The following were donated by P. N. D. Seymour, University of Alberta,  
Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577655. *Medicago turbinata* (L.) All.  
Cultivated. 2280; W6 4705. Collected 1975 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 577656. *Medicago turbinata* (L.) All.  
Wild. 2386; W6 4706. Collected 1973 in Greece. Soon turning to Mt.  
Colla, Island of Karpathos.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

PI 577657. *Medicago turbinata* (L.) All.  
Wild. 580; W6 4707. Collected in France. Naturella-Culture, Paris.

PI 577658. *Medicago turbinata* (L.) All.  
Cultivated. 582; W6 4708. Collected in Hungary. Botanical Garden, Tapioszele.

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 577659. *Medicago turbinata* (L.) All.  
Wild. 669; W6 4710. Collected 1962 in Turkey. 9km south of Maras.

PI 577660. *Medicago turbinata* (L.) All.  
Wild. 730; W6 4711. Collected 1962 in Italy. Priverno-Fossanova.

PI 577661. *Medicago turbinata* (L.) All.  
Wild. 862; W6 4712. Collected 1962 in Turkey. Mersin Itrys.

PI 577662. *Medicago turbinata* (L.) All.  
Wild. 1358b; W6 6122. Collected in Lebanon. Beirut.

PI 577663. *Medicago turbinata* (L.) All.  
Wild. 1393; W6 6123. Collected 1963 in Lebanon. Khalde.

PI 577664. *Medicago turbinata* (L.) All.  
Wild. 615; W6 6134. Collected 1962 in Turkey. Mihmander.

PI 577665. *Medicago turbinata* (L.) All.  
Wild. 676; W6 6135. Collected 1962 in Turkey. 3km N of Erdimli.

The following were collected by D.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, Crops Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Crops Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/10/1991.

PI 577666. *Onobrychis arenaria* ssp. *sibirica* (Sirj.) P. Ball

Cultivated. DJ-4195; W6 8214. Collected 08/28/1989 in Russian Federation . From the field plots of Prof. Rosita Plennick at the Central Siberian Botanical Garden, Academy Town, Novosibirsk. Cultivar from hybridization of Altai and Hakassia ecotypes.

PI 577667. *Hedysarum gmelinii* Ledeb.  
Wild. DJ-3927; W6 8216. Collected 08/12/1989 in Russian Federation. Elevation 1010 m. North side of Cheketeman Pass, Gorno Altay A.O., near the 656km marker. Plants short, stems to 25cm. Prevalent in dry area of meadow.

PI 577668. *Onobrychis* sp.  
Wild. DJ-3963; W6 8217. Collected 08/14/1989 in Russian Federation. Elevation 1330 m. Town square in Aktash, Gorno Altay A.O. Spikes dense, large.

PI 577669. *Onobrychis* sp.

Wild. DJ-4048; W6 8218. Collected 08/21/1989 in Russian Federation. Elevation 540 m. Moist ravine at 540 meters. Mountainside west of the Kamlak Field Station of the Central Siberian Botanical Garden (Gorno Altay A.O.). Moist ravine at 540 meters.

The following were collected by Melvin D. Rumbaugh, USDA/ARS, Utah State University, Forage & Range Research Lab, Logan, Utah 84322-6300, United States; D.A. Johnson, USDA, ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 01/21/1992.

**PI 577670. *Onobrychis viciifolia* Scop.**

Cultivated. W6 9595; X910080. Collected 09/04/1991 in China. Seed donated by Y. Zhuomeng, August 1st Agricultural College, AFAC, Urumqi.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Z. Kutlu. Received 08/08/1989.

**PI 577671. *Papaver somniferum* L.**

Cultivated. 010689-0106; W6 127. Collected 06/01/1989 in Turkey. Central market store, town of Malatya, Malatya Province. Seed for sale for planting.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Z. Kutlu. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/08/1989.

**PI 577672. *Papaver somniferum* L.**

Cultivated. 170689-0104; W6 185. Collected 06/17/1989 in Turkey. Latitude 38 deg. 5' N. Longitude 30 deg. 13' E. Elevation 1050 m. Collected from seed storage of Ziya Kutlu's relatives. Cultivated in local areas. 5km NE of Dinar in Karakuyu village, Afyon Province.

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

**PI 577673. *Pascopyrum smithii* (Rydb.) A. Love**

Wild. 1341; W6 3278. Collected 1979 in North Dakota, United States. Elevation 578 m. McIntosh County. LD: NWNW36 129N 67W.

**PI 577674. *Pascopyrum smithii* (Rydb.) A. Love**

Wild. 58; W6 3294. Collected 1979 in North Dakota, United States. Elevation 608 m. Divide County. LD: SESE27 160N 97W.

**PI 577675. *Pascopyrum smithii* (Rydb.) A. Love**

Wild. 734; W6 3299. Collected 1979 in South Dakota, United States. Elevation 730 m. Ziebach County. LD: SWSE36 13N 20E.

The following were donated by Masaru Iwanaga, International Center for Tropical Agriculture, Apdo Aereo 6713, Cali, Colombia. Received 05/25/1990.

- PI 577676. *Phaseolus vulgaris* L.  
AYACUCHO 169; G 12117A; W6 4289. Collected in Peru.
- PI 577677. *Phaseolus vulgaris* L.  
NUNA PLOMA; G 12575; W6 4290. Collected in Peru.
- PI 577678. *Phaseolus vulgaris* L.  
NUNA AROMA; G 12578; W6 4291. Collected in Peru.
- PI 577679. *Phaseolus vulgaris* L.  
NUNA MANI ROJA; G 12582; W6 4292. Collected in Peru.
- PI 577680. *Phaseolus vulgaris* L.  
NUNA FRONTINA NEGRA; G 12585; W6 4293. Collected in Peru.
- PI 577681. *Phaseolus vulgaris* L.  
G 16110; W6 4294. Collected in Peru.
- PI 577682. *Phaseolus vulgaris* L.  
NUNA CONDORCITA; G 19645; W6 4295. Collected in Peru.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States. Received 07/12/1990.

- PI 577683. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-26; W6 4484. Collected 05/26/1990 in Shanxi, China. Market vendor, Xian, from northern Shanxi Province. Red beans. Seed quality poor.
- PI 577684. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-27; W6 4485. Collected 05/26/1990 in Shanxi, China. Market vendor, Xian, from central Shanxi Province. Bean mixture of different colors, shapes and sizes. Seed quality poor.
- PI 577685. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-88; W6 4546. Collected 06/06/1990 in Yunnan, China. Elevation 1900 m. Market in Kunming, Yunnan Province. White-seeded with size and shape of 'Great Northern'. Grown locally.
- PI 577686. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-89; W6 4547. Collected 06/06/1990 in Yunnan, China. Elevation 1900 m. Market in Kunming, Yunnan Province. Large, purple-seeded bean. Grown locally.
- PI 577687. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-90; W6 4548. Collected 06/06/1990 in Yunnan, China. Elevation 1900 m. Market in Kunming, Yunnan Province. Brown seed coat with black stripes. Grown locally.
- PI 577688. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-92; W6 4550. Collected 06/06/1990 in Yunnan, China. Elevation 1900 m. Market in Kunming, Yunnan Province. Plants bush type. Seeds large, brown speckled. Grown locally.
- PI 577689. *Phaseolus vulgaris* L.  
Cultivated. WJK-PRC-94; W6 4552. Collected 06/06/1990 in Yunnan, China. Elevation 1900 m. Market in Kunming, Yunnan Province. Plants bush type

with cranberry type seeds. Grown locally.

**PI 577690. Phaseolus vulgaris L.**

Cultivated. WJK-PRC-95; W6 4553. Collected 06/06/1990 in Yunnan, China. Elevation 1900 m. Market in Kunming, Yunnan Province. Seeds large black-seeded type. Possibly not *P. vulgaris*. Grown locally.

The following were donated by Guoxuan Li, Washington State University, Department of Plant Pathology, Johnson Hall, Pullman, Washington 99164, United States. Received 12/13/1990.

**PI 577691. Phaseolus vulgaris L.**

GL-6; W6 6352. Collected in Xinjiang, China.

The following were donated 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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States. Received 05/28/1990.

**PI 577692. Phaseolus vulgaris L.**

Wild. WJK-PRC-26.2; W6 6545. Collected 05/28/1990 in China. Market, Xian, Shaanxi Province. Seed black.

The following were donated by M. Iizuka, Chiba University, Faculty of Horticulture, Matsudo-shi, Chiba-Ken, Japan. Received 08/01/1991.

**PI 577693. Phaseolus vulgaris L.**

Wild. I-86b; W6 8152; Bhatmash. Collected 11/15/1984 in Nepal. Elevation 2350 m. 3.0km W of Jumia, Khala Chaur village.

The following were collected by Nigel Maxted, Univ. of Southampton - Dept. of Biology, Med. & Biological Science Building, Bassett Crescent East, Southampton, England SO9 3TU, United Kingdom; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/04/1991.

**PI 577694. Phaseolus vulgaris L.**

Cultivated. 8248; 918248; W6 8315. Collected 06/22/1991 in Uzbekistan. Latitude 42 deg. 28' N. Longitude 78 deg. 25' E. Elevation 1680 m. Seed taken from storage at Dzungar Breakfast Bar kitchen garden near Przhevalsk.

The following were developed by Beijing Vegetable Research Centre, Beijing,, China. Donated by Richard W. Robinson, Cornell University, Dept. of Horticultural Sci., Hedrick Hall, Geneva, New York 14456-0462, United States. Received 11/15/1991.

**PI 577695. Phaseolus vulgaris L.**

Cultivar. "85-85"; W6 9396. Collected in China. Pole type.

**PI 577696. Phaseolus vulgaris L.**

Cultivated. W6 9397. Collected in China. Pole type.

The following were donated by Horace Shaw, Sweetwater Farms, Route 1, Box 27, Weston, Oregon 97886, United States. Received 01/29/1992.

**PI 577697. Phaseolus vulgaris L.**

Cultivar. "ADVENTIST BEAN"; W6 9859.

The following were collected by Dave Eder, USDA-ARS, Western Regional Plant Introduction Sta., Washington State University, Pullman, Washington 99164-6402, United States. Received 03/03/1992.

- PI 577698. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-02; W6 10120. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed yellow brown.
- PI 577699. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-03; W6 10121. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed tan with brown or red mottling.
- PI 577700. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-04; W6 10122. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed red white.
- PI 577701. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-05; W6 10123. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed brown speckled tan.
- PI 577702. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-06; W6 10124. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed off-white speckled yellow.
- PI 577703. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-07; W6 10125. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed black.
- PI 577704. *Phaseolus vulgaris* L.  
Cultivated. DE-CH92-09; W6 10127. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed brown.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 07/21/1992.

- PI 577705. *Phaseolus vulgaris* L.  
Cultivar. "ANASAZI"; W6 10548.

The following were donated by J.R. Baggett, Oregon State University, Dept. of Horticulture, Cordley Hall 2042, Corvallis, Oregon 97331-2911, United States. Received 09/09/1992.

- PI 577706. *Phaseolus vulgaris* L. var. *vulgaris*  
Cultivated. W6 10961. Collected in Czechoslovakia. Cranberry type.  
Cooks quick. Low flatulence.

The following were collected by Dave Stout, Washington State University, Regional Plant Introduction Station, Johnson Hall, Room 61, Pullman, Washington 99164-6402, United States; A. M. Davis, USDA, ARS, Regional Plant Introduction Station, 59 Johnson Hall, Pullman, Washington 99164-6402, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Douglas Rains, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Donated by Dave Stout, Washington State University, Regional Plant Introduction

Station, Johnson Hall, Room 61, Pullman, Washington 99164-6402, United States  
. Received 09/06/1990.

**PI 577707. *Polemonium pulcherrimum* Hook.**

Wild. W6 4876. Collected 09/06/1990 in Washington, United States.  
Latitude 46 deg. 7' N. Longitude 117 deg. 22' W. Elevation 1672 m. Along  
road #40, flat, rocky, gravel area near Misery Springs, Blue Mountains  
(Asotin County), shade of Douglas Fir stand. T.7 N., R.43 E., section 6.  
Plants small, approx. 3" tall. Associated plants: blue bonnet, lupine,  
yarrow, manzanita, elk sedge.

The following were collected by Gordon Kimber, University of Missouri,  
Department of Agronomy, 205 Curtis Hall, Columbia, Missouri 65211, United  
States; Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop  
Science, Corvallis, Oregon 97331, United States. Donated by Gordon Kimber,  
University of Missouri, Department of Agronomy, 205 Curtis Hall, Columbia,  
Missouri 65211, United States. Received 05/31/1990.

**PI 577708. *Taeniatherum caput-medusae* (L.) Nevski**

Wild. 84TK201-0003; W6 4334. Collected 07/05/1984 in Turkey. Elevation  
60 m. 0.5km east of Aliaga, east edge of village.

**PI 577709. *Taeniatherum caput-medusae* (L.) Nevski**

Wild. 84TK204-0002; W6 4335. Collected 07/05/1984 in Turkey. Elevation  
20 m. 12km northwest of Dakili Junction.

The following were collected by Alan A. Atchley, USDA-ARS, Plant Genetics &  
Germplasm Institute, Building 001 Room 307A BARC-WEST, Beltsville, Maryland  
20705, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm  
Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland  
20705-2350, United States; D. Eser; H.H. Gecit. Donated by C. Sperling,  
USDA-ARS, Plant Exploration Office, Bldg 001, BARC-West, Beltsville, Maryland  
20705-2350, United States; Ankara University, Ankara, Turkey. Received  
10/15/1989.

**PI 577710. *Taeniatherum caput-medusae* (L.) Nevski**

Wild. TU86-02-03; W6 9044. Collected 07/02/1986 in Hakkari, Turkey.  
Latitude 37 deg. 16' N. Longitude 44 deg. 39' E. Elevation 1440 m. Steep  
S facing scree slopes above Pesan Stream, oak scrub forest region, 17km  
SE of Semdinli on road to Alan, (1 km E of road junction to Kayalar),  
Hakkari Province. Triticeae. Weedy, in full sun and shade. Sperling  
Herbarium Voucher no. 6867.

The following were donated by Dajue Li, Beijing Botanical Garden, Institute  
of Botany, Chinese Academy of Science, Beijing, China. Received 01/30/1989.

**PI 577711. *Trigonella foenum-graecum* L.**

M89-30; W6 344. Collected 04/19/1989 in Morocco. Latitude 33 deg. 53'  
N. Longitude 4 deg. 57' W. Market place in city of Meknes.

**PI 577712. *Trigonella foenum-graecum* L.**

M89-29; W6 345. Collected 04/19/1989 in Morocco. Latitude 33 deg. 53'  
N. Longitude 5 deg. 37' W. Market place in city of Meknes.

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

**PI 577713. *Trigonella foenum-graecum* L.**

W6 9524. Collected 04/01/1991 in Madrid, Spain. Navarro region.

PI 577714.

Wild. WKT 27; 260785-40; W6 11460. Collected 07/26/1985 in Kutahya, Turkey. Elevation 1360 m. Disturbed soil in pine forest on Murat dagi (Murat Mt.), approx. 25km from Gediz town, Kutahya Province.

PI 577715.

Wild. WKT 20; 110785-05; W6 11461. Collected 07/11/1985 in Elazig, Turkey. Elevation 1200 m. 21km after Maden going toward Elazig, Elazig Province. Shrub approx. 1m tall, bushy with many pods (inflated).

The following were donated by M.I. Mihov, Institute for Wheat and Sunflower, Bulgaria. Received 12/11/1991.

PI 577716. *Vicia ervilia* (L.) Willd.

Cultivated. SH 87-3-3-1; W6 8436. Pedigree - F5 generation of IWS accession numbers 1574/78. (*V.ervilia*)Borina/Manastiritza.

The following were donated by M.I. Mihov, Institute for Wheat & Sunflower, Dobroudja near General Toshevo, Bulgaria. Received 02/27/1992.

PI 577717. *Vicia ervilia* (L.) Willd.

Cultivated. BORINA; W6 10097. Seeds were produced in the field.

PI 577718. *Vicia ervilia* (L.) Willd.

Cultivated. RODOPI; W6 10098. Seeds were produced in the field.

The following were collected by George S. Abawi, Cornell University, Department of Plant Pathology, New York Agr. Exp. Sta., Geneva, New York 14456-0462, United States. Received 11/08/1988.

PI 577719. *Vicia faba* L.

Abawi# 1; W6 3113. Collected in Peru.

PI 577720. *Vicia faba* L.

Abawi# 4; W6 3116. Collected in Peru.

The following were donated by Guoxuan Li, Washington State University, Department of Plant Pathology, Johnson Hall, Pullman, Washington 99164, United States. Received 12/13/1990.

PI 577721. *Vicia faba* L.

GL-8; W6 6354. Collected in Xinjiang, China.

PI 577722. *Vicia faba* L.

GL-9; W6 6355. Collected in Xinjiang, China.

The following were collected by Nigel Maxted, Univ. of Southampton - Dept. of Biology, Med. & Biological Science Building, Bassett Crescent East, Southampton, England SO9 3TU, United Kingdom; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/04/1991.

PI 577723. *Vicia faba* L.

Wild. 8257; 918257; W6 8319. Collected 06/24/1991 in Kyrgyzstan. Market stalls of Dzungar store holders, Bishkek.

The following were donated by A.I. Abbas, Int. Center for Agricultural

Research in the Dry Areas, Amman Office, P.O. Box 950764, Amman, Jordan.  
Received 11/22/1991.

- PI 577724. *Vicia faba* L.  
Cultivated. W6 8385; IQ 220004. Collected in Iraq.
- PI 577725. *Vicia faba* L.  
Cultivated. W6 8388; IQ 220007. Collected in Iraq.
- PI 577726. *Vicia faba* L.  
Cultivated. W6 8391; IQ 220010. Collected in Iraq.
- PI 577727. *Vicia faba* L.  
Cultivated. W6 8394; IQ 220013. Collected in Iraq.
- PI 577728. *Vicia faba* L.  
Cultivated. W6 8399; IQ 220018. Collected in Iraq.

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

- PI 577729. *Vicia faba* L.  
ALBOREDA; W6 9525. Collected 04/01/1991 in Cordoba, Spain.
- PI 577730. *Vicia faba* L.  
MS-200; W6 9526. Collected 04/01/1991 in Cordoba, Spain.
- PI 577731. *Vicia faba* L.  
PALACIO; W6 9527. Collected 04/01/1991 in Cordoba, Spain.
- PI 577732. *Vicia faba* L.  
BROCAL; W6 9528. Collected 04/01/1991 in Cordoba, Spain.
- PI 577733. *Vicia faba* L.  
W6 9530. Collected 02/16/1991 in Granada, Spain. Purchased in market.  
Cultivar unknown but a very large-seeded line.

The following were collected by Dave Eder, USDA-ARS, Western Regional Plant Introduction Sta., Washington State University, Pullman, Washington 99164-6402, United States. Received 03/03/1992.

- PI 577734. *Vicia faba* L.  
Cultivated. DE-CH92-11; W6 10131. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed brown.
- PI 577735. *Vicia faba* L.  
Cultivated. DE-CH92-12; W6 10132. Collected 02/05/1992 in Chile.  
Elevation 500 m. Public market, Temuco. Seed black purple.

The following were donated by M.A. Tolba, Agricultural Research Center, Food Legume Research Section, Giza, Cairo, Egypt. Received 03/10/1992.

- PI 577736. *Vicia faba* L.  
Wild. NA 52a; W6 10166. Resistant to Bean Yellow mosaic virus.
- PI 577737. *Vicia faba* L.  
Wild. NA 190; W6 10167. Resistant to Bean Yellow mosaic virus.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State

University, Regional Plant Introduction Station, Pullman, Washington  
99164-6402, United States. Received 06/01/1992.

**PI 577738. *Vicia faba* L.**

Cultivated. E92-5; W6 10478. Collected in Egypt. Market, Nubaria area of the north Delta area.

**PI 577739. *Vicia faba* L.**

Cultivated. E92-15; W6 10488. Collected 04/17/1992 in Egypt. Bazaar in Cairo.

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 577740. *Vicia faba* L.**

Cultivated. PDF 92007; W6 10517; Bakula. Collected in Nepal. Latitude 29 deg. 35' N. Longitude 81 deg. 15' E. Elevation 1338 m.

**PI 577741. *Vicia faba* L.**

Cultivated. PDF 92008; W6 10518; Bakula. Collected in Nepal. Latitude 29 deg. 35' N. Longitude 81 deg. 15' E. Elevation 1338 m. Bajhang District.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 07/20/1992.

**PI 577742. *Vicia faba* L.**

Solomon 87001; W6 10546.

**PI 577743. *Vicia faba* L.**

Solomon 89002; W6 10547.

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, 303 Johnson Hall, Pullman, Washington 99164-6434, United States. Received 07/12/1990.

**PI 577744. *Vicia faba* L. var. *fabia***

Cultivated. WJK-PRC-47; W6 4505. Collected 05/28/1990 in Sichuan, China. Market vendor, Chengdu, Sichuan Province. Medium to large sized seeds.

**PI 577745. *Vicia faba* L. var. *fabia***

Cultivated. WJK-PRC-48; W6 4506. Collected 05/28/1990 in Sichuan, China. Market vendor, Chengdu, Sichuan Province. Small to medium sized seeds.

**PI 577746. *Vicia faba* L. var. *fabia***

Cultivated. WJK-PRC-57; W6 4515. Collected 05/30/1990 in Sichuan, China. Elevation 450 m. Open air market in Leshan, Sichuan Province. Small to medium-sized seeds.

**PI 577747. *Vicia faba* L. var. *fabia***

Cultivated. WJK-PRC-61; W6 4519. Collected 05/30/1990 in Sichuan, China. Obtained from a farmer in Leshan City, Quan Miao County, (about 10km from Leshan) Sichuan Province. There may be a mixture of seed types, small to medium size.

**PI 577748. *Vicia faba* L. var. *fabia***

Cultivated. WJK-PRC-70; W6 4528. Collected 06/01/1990 in Sichuan, China. Farm in Chengdu, Shuanliu County, Sichuan Province (about 15km south of

Chengdu). Seeds small. Used as animal feed.

**PI 577749. *Vicia faba* L. var. *faba***

Wild. WJK-PRC-83; W6 4541. Collected 06/05/1990 in Yunnan, China. Elevation 2500 m. Field near Houshan village, between markers 368km and 370km on road from Dali to Kuming. Collected from dried plants.

The following were collected by Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; D. Eser; H.H. Gecit. Donated by Ankara University, Ankara, Turkey; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 01/1986.

**PI 577750. *Vicia sativa* L.**

Cultivated. TU85-090-02; W6 9440; CS-42. Collected 08/17/1985 in Kars, Turkey. Latitude 41 deg. 8' N. Longitude 42 deg. 39' E. Elevation 1780 m. Level plain, 5km NW of river crossing in Ardahan village, Kars Province. Abundant in field of cultivated field pea, apparently planted with crop. Producing subterranean flowers and fruit also. Sperling Herbarium Voucher no. 6861.

The following were collected by Cascade Product Marketing, Ltd.. Donated by H. Blain, Washington/Idaho Dry Pea, and Lentil Commission, Moscow, Idaho 83843, United States. Received 12/18/1991.

**PI 577751. *Vicia sativa* L. ssp. *sativa***

Cultivated. CPM 0119-15-716; W6 9393. Collected in China. Inner Mongolia. Grown and exported in China.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 01/01/1987.

**PI 577752. *Vicia* sp.**

290685-01; W6 3513. Collected in Turkey.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 08/20/1993.

**PI 577753. *Vicia villosa* Roth**

Wild. W6 12551. Collected 08/12/1993 in Washington, United States. Elevation 730 m. Hall Drive near True Street, Pullman.

The following were collected by E. Porceddu, Consiglio Nazionale delle Ricerche, Laboratorio del Germoplasma, Bari, Italy; E. Bennett, Istituto del Germoplasma, Bari, Apulia, Italy. Received 09/01/1993.

**PI 577754. *Triticum aestivum* L., nom. cons.**

Cultivated. MG 4468; NSGC 4916. Collected 1971 in Sicily, Italy.

**PI 577755. *Triticum aestivum* L., nom. cons.**

Cultivated. MG 4471; NSGC 4917. Collected 1971 in Sicily, Italy.

- PI 577756. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 4480; NSGC 4918. Collected 1971 in Sicily, Italy.
- PI 577757. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 4483; NSGC 4919. Collected 1971 in Sicily, Italy.
- PI 577758. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 4485; NSGC 4920. Collected 1971 in Sicily, Italy.
- PI 577759. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 4486; NSGC 4921. Collected 1971 in Sicily, Italy.

The following were collected by Istituto del Germoplasma, Consiglio Nazionale delle Ricerche, Via G Amendola, 165A, 70126 Bari, Italy. Received 09/01/1993.

- PI 577760. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 7698; NSGC 4922. Collected 12/06/1973 in Shewa, Ethiopia.  
Latitude 9 deg. 13' N. Longitude 38 deg. 25' E. Elevation 2720 m.
- PI 577761. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 7876; NSGC 4923. Collected 12/12/1973 in Ethiopia.  
Elevation 2710 m.
- PI 577762. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 7878; NSGC 4924. Collected 12/12/1973 in Ethiopia.  
Elevation 2420 m.
- PI 577763. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 7911; NSGC 4925. Collected 12/12/1973 in Ethiopia.  
Elevation 2280 m.
- PI 577764. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17964; NSGC 4927. Collected 05/28/1975 in Algeria.  
Latitude 33 deg. 27' N. Longitude 5 deg. 41' E. Elevation 150 m.
- PI 577765. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17965; NSGC 4928. Collected 05/28/1975 in Algeria.  
Latitude 33 deg. 27' N. Longitude 5 deg. 41' E. Elevation 150 m.
- PI 577766. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17972; NSGC 4929. Collected 05/31/1975 in Algeria.  
Latitude 34 deg. 40' N. Longitude 6 deg. 30' E. Elevation 10 m.
- PI 577767. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17975; NSGC 4930. Collected 06/07/1975 in Algeria.  
Latitude 33 deg. 53' N. Longitude 2 deg. 32' E. Elevation 880 m.
- PI 577768. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17977; NSGC 4931. Collected 06/28/1975 in Algeria.  
Latitude 36 deg. 5' N. Longitude 1 deg. 23' E. Elevation 110 m.
- PI 577769. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17981; NSGC 4932. Collected 06/28/1975 in Algeria.  
Latitude 36 deg. 11' N. Longitude 1 deg. 1' E. Elevation 450 m.
- PI 577770. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17983; NSGC 4933. Collected 06/29/1975 in Algeria.  
Latitude 36 deg. 23' N. Longitude 1 deg. 16' E. Elevation 200 m.
- PI 577771. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17990; NSGC 4934. Collected 06/30/1975 in Algeria.  
Latitude 35 deg. 43' N. Longitude 0 deg. 25' E. Elevation 85 m.

- PI 577772. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17994; NSGC 4935. Collected 07/01/1975 in Algeria.  
Latitude 35 deg. 28' N. Longitude 0 deg. 32' E. Elevation 80 m.
- PI 577773. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 17998; NSGC 4936. Collected 07/01/1975 in Algeria.  
Latitude 35 deg. 42' N. Longitude 0 deg. 21' E. Elevation 20 m.
- PI 577774. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18009; NSGC 4937. Collected 07/04/1975 in Algeria.  
Latitude 35 deg. 23' N. Longitude 0 deg. 55' E. Elevation 70 m.
- PI 577775. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18011; NSGC 4938. Collected 07/04/1975 in Algeria.  
Latitude 35 deg. 22' N. Longitude 0 deg. 52' E. Elevation 70 m.
- PI 577776. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18012; NSGC 4939. Collected 07/06/1975 in Algeria.  
Latitude 34 deg. 50' N. Longitude 3 deg. 40' E. Elevation 640 m.
- PI 577777. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18017; NSGC 4940. Collected 07/07/1975 in Algeria.  
Latitude 35 deg. 12' N. Longitude 0 deg. 12' E. Elevation 430 m.
- PI 577778. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18026; NSGC 4941. Collected 07/10/1975 in Algeria.  
Latitude 35 deg. 10' N. Longitude 1 deg. 12' E. Elevation 1060 m.
- PI 577779. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18027; NSGC 4942. Collected 07/10/1975 in Algeria.  
Latitude 35 deg. 34' N. Longitude 1 deg. 2' E. Elevation 670 m.
- PI 577780. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18029; NSGC 4943. Collected 07/10/1975 in Algeria.  
Latitude 35 deg. 29' N. Longitude 1 deg. 6' E. Elevation 540 m.
- PI 577781. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18042; NSGC 4944. Collected 07/13/1975 in Algeria.  
Latitude 36 deg. 17' N. Longitude 2 deg. 42' E. Elevation 730 m.
- PI 577782. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18043; NSGC 4945. Collected 07/13/1975 in Algeria.  
Latitude 36 deg. 16' N. Longitude 2 deg. 41' E. Elevation 620 m.
- PI 577783. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18045; NSGC 4946. Collected 07/13/1975 in Algeria.  
Latitude 35 deg. 54' N. Longitude 2 deg. 43' E. Elevation 850 m.
- PI 577784. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18053; NSGC 4947. Collected 07/15/1975 in Algeria.  
Latitude 36 deg. 13' N. Longitude 2 deg. 55' E. Elevation 1060 m.
- PI 577785. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18054; NSGC 4948. Collected 07/15/1975 in Algeria.  
Latitude 36 deg. 14' N. Longitude 2 deg. 57' E. Elevation 1000 m.
- PI 577786. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18058; NSGC 4949. Collected 07/17/1975 in Algeria.  
Latitude 34 deg. 13' N. Longitude 2 deg. 23' E. Elevation 1300 m.
- PI 577787. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18062; NSGC 4950. Collected 07/17/1975 in Algeria.  
Latitude 34 deg. 2' N. Longitude 2 deg. 1' E. Elevation 1400 m.

PI 577788. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18065; NSGC 4951. Collected 07/18/1975 in Algeria.  
Latitude 34 deg. 29' N. Longitude 3 deg. 15' E. Elevation 1200 m.

PI 577789. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18067; NSGC 4952. Collected 07/18/1975 in Algeria.  
Latitude 34 deg. 44' N. Longitude 3 deg. 11' E. Elevation 1000 m.

PI 577790. *Triticum aestivum* L., nom. cons.  
Cultivated. MG 18068; NSGC 4953. Collected 07/18/1975 in Algeria.  
Latitude 34 deg. 48' N. Longitude 3 deg. 7' E. Elevation 960 m.

PI 577791. *Triticum dicoccon* Schrank  
Cultivated. MG 15880; NSGC 4926. Collected 12/14/1973 in Shewa, Ethiopia  
. Latitude 9 deg. 7' N. Longitude 38 deg. 23' E. Elevation 2620 m.

The following were developed by Van Waveren-Pflanzenzucht GmbH, Germany.  
Received 02/01/1994.

PI 577792. *Pisum sativum* L.  
Cultivar. "JUNE". PVP 9200026.

The following were developed by Agripro Biosciences Inc., 6700 Antioch,  
Shawnee Mission, Kansas 66204, United States. Received 02/01/1994.

PI 577793. *Triticum aestivum* L., nom. cons.  
Cultivar. "PECOS". PVP 9200183. Pedigree - Vona/W76-1141//Arkan. Pecos  
is well adapted to the central and southern hard red winter wheat  
production region. It provides adequate protection to the currently  
prevalent races of stem and 1: leaf rust, and good protection to Hessian  
fly.

The following were developed by Pro-Seeds Marketing, Inc., Seaboard Seed Co.,  
Smith Seed Services, United States. Received 02/01/1994.

PI 577794. *Lolium perenne* L.  
Cultivar. "STALLION SELECT". PVP 9400042.

The following were developed by Seaview Growers, Inc., United States.  
Received 02/01/1994.

PI 577795. *Apium graveolens* var. *dulce* (Miller) Pers.  
Cultivar. "SV 1". PVP 9400044.

The following were developed by T.M. Ford, Grassland West, P.O. Box 10,  
Huntsville, Utah 84317, United States; C.R. Funk, New Jersey Agr. Exp. Sta.,  
Rutger University, Cook College, New Brunswick, New Jersey 08903, United  
States; Grassland West, United States; R.F. Bara, New Jersey Agr. Exp. Sta.,  
Rutgers University, Cook College, New Brunswick, New Jersey 08903, United  
States; Suichang Sun, Jacklin Seed Company, 5300 West Riverbend Avenue, Post  
Falls, Idaho 83854-9499, United States. Received 02/01/1994.

PI 577796. *Lolium perenne* L.  
Cultivar. Population. "AFFINITY"; GEN-90; 098-3453. CV-176; PVP 9400045.  
Pedigree - Advanced generation synthetic selected from maternal half-sib  
progenies of 28 clones, each containing *Acremonium* endophyte. Half-sib  
progenies of 5 additional endophyte-free clones served as added pollen  
parents. Maturity medium, leafy, medium-low growing, improved turf type.

Mature plant height 26.7cm in nursery near Uniontown, WA. Excels in mowability, fall density, and winter color under close mowing. Seed 100% infected with the endophyte *Acremonium lolii*. Resistance good to common insect pests and common fungal pathogens associated with turfgrasses, including crown rust incited by *Puccinia coronata*. Over 95% of parental germplasm traces origin to plants selected from old turfs in the Northeastern U.S.

The following were developed by Grassland West, United States. Received 02/01/1994.

PI 577797. *Festuca rubra* L.  
Cultivar. "PROFORMER". PVP 9400046.

The following were developed by J. M. Ferris, Purdue University, Department of Entomology, West Lafayette, Indiana 47907-1158, United States; T. Scott Abney, Purdue University, Department of Botany and Plt. Path., Lilly Hall of Life Sciences Bldg., West Lafayette, Indiana 47907, United States; James R. Wilcox, USDA, ARS, Purdue University, Department of Agronomy, West Lafayette, Indiana 47907, United States; Jamal Faghihi, Purdue University, Dept. of Entomology, West Lafayette, Indiana 47907, United States. Received 02/01/1994.

PI 577798. *Glycine max* (L.) Merr.  
Cultivar. "BRONSON"; CI804. CV-330; PVP 9400047. Pedigree - F3-derived line from Bradley x L80-4323. L80-4323 is selection from Williams 82 (2) x PI 88788. Indeterminate maturity Group IV. Flowers white. Pubescence tawny. Pods tan when mature. Seeds yellow with shiny seedcoat luster, black hila, and high peroxidase activity in the seedcoat. Susceptible to race 1, moderately susceptible to race 2, moderately resistant to race 3, resistant to race 4, moderately susceptible to race 5 and moderately resistant to race 14 of the soybean cyst nematode. Seedlings resistant to race 1 of *Phytophthora sojae* when inoculated in the hypocotyl.

The following were developed by Brinker Orsetti Seed Company, Inc., United States. Received 02/01/1994.

PI 577799. *Capsicum annuum* L.  
Cultivar. "LORIBELLE". PVP 9400048.

The following were developed by Sure-Grow Seed, Inc., United States. Received 02/01/1994.

PI 577800. *Gossypium hirsutum* L.  
Cultivar. "SURE-GROW 404". PVP 9400049.

The following were developed by Texas Agric. Exp. Station, Texas, United States. Received 02/01/1994.

PI 577801. *Allium cepa* L.  
Cultivar. "TEXAS EARLY WHITE". PVP 9400050.

The following were developed by David Fisher, Del Monte Corp. Agricultural Research, 850 Thornton Street, Box 36, San Leandro, California 94577, United States. Received 02/01/1994.

PI 577802. *Phaseolus vulgaris* L.  
Cultivar. "DMC 04-19". PVP 9400051.

The following were developed by Pure-Seed Testing, Inc., United States.  
Received 02/01/1994.

PI 577803. *Festuca rubra* L. ssp. *rubra*  
Cultivar. "SHADEMASTER II". PVP 9400053.

The following were developed by Rogers NK Seed Company, United States.  
Received 02/01/1994.

PI 577804. *Pisum sativum* L.  
Cultivar. "SP363-1-1-5-1". PVP 9400054.

PI 577805. *Pisum sativum* L.  
Cultivar. "SP110-1-2-7-2". PVP 9400055.

PI 577806. *Pisum sativum* L.  
Cultivar. "SP704-3-8". PVP 9400056.

The following were developed by New Zealand Pastoral Agr. Res. Inst. Ltd, New Zealand. Received 02/01/1994.

PI 577807. *Dactylis glomerata* L.  
Cultivar. "GRASSLANDS TEKAPO". PVP 9400057.

The following were developed by Research and Development Institute, Inc., United States. Received 02/01/1994.

PI 577808. *Carthamus tinctorius* L.  
Cultivar. "MONTOLA 2001". PVP 9400058.

The following were developed by FFR Cooperative, United States. Received 02/01/1994.

PI 577809. *Glycine max* (L.) Merr.  
Cultivar. "293". PVP 9400060.

PI 577810. *Glycine max* (L.) Merr.  
Cultivar. "381". PVP 9400061.

The following were developed by Sure-Grow Seed, Inc., United States. Received 02/01/1994.

PI 577811. *Gossypium hirsutum* L.  
Cultivar. "SURE-GROW 125". PVP 9400063.

The following were developed by Northrup King Company, United States.  
Received 02/01/1994.

PI 577812. *Zea mays* L. ssp. *mays*  
Cultivar. "907". PVP 9400064.

The following were developed by Fysicon, Netherlands. Received 02/01/1994.

PI 577813. *Tagetes hybrid*  
Cultivar. "POLYNEMA"; NEMA-N1. PVP 9400065. Pedigree - *Tagetes minuta*/T.

patula.

The following were developed by Crites Moscow Growers, Inc., Moscow, Idaho, United States. Received 02/01/1994.

PI 577814. *Pisum sativum* L.  
Cultivar. "SNAKE". PVP 9400066.

The following were developed by Asgrow Seed Company, United States. Received 02/01/1994.

PI 577815. *Zea mays* L. ssp. *mays*  
Cultivar. "6022". PVP 9400067.

PI 577816. *Zea mays* L. ssp. *mays*  
Cultivar. "3087". PVP 9400068.

The following were developed by Virginia Polytechnic Inst. & State University, United States. Received 02/01/1994.

PI 577817. *Glycine max* (L.) Merr.  
Cultivar. "MFL-551". PVP 9400069.

The following were developed by Asgrow Seed Company, United States. Received 02/01/1994.

PI 577818. *Lactuca sativa* L.  
Cultivar. "PATRIOT". PVP 9400070.

The following were developed by S.L. Dwivedi, Int. Crops Res. Inst. for the Semi-Arid Tropics, Genetic Resources Program, Patancheru P.O., Andhra Pradesh 502 324, India; S.N. Nigam, Int. Crops Res. Inst. for the Semi-Arid Tropics, Legumes Program, Patancheru, Andhra Pradesh 502 324, India; Y.L.C. Rao, Int. Crops Res. Inst. for the Semi-Arid Tropics, Legumes Program, Patancheru, Andhra Pradesh 502324, India; R.W. Gibbons, Int. Crops Res. Inst. for the Semi-Arid Tropics, 12 Restormel Close, Putnoe, Bedford, MK41 8 PA, England, United Kingdom. Received 08/25/1993.

PI 577819. *Arachis hypogaea* ssp. *fastigiata* Waldron  
Cultivar. "ICGS 35". GP-67. Pedigree - From single plant selected from a natural hybrid population of Indian cultivar Robut 33-1. Growth habit erect. Flowering sequential. Leaves medium-size elliptic dark green. Flowers orange. Pods 2-seeded with deep constriction. Seeds tan with 100-seed mass of 44 g. Contains 53% oil and 24% protein.

The following were developed by Instituto Colombiano Agropecuario, Programa Maiz Y Sorgo, Colombia. Received 12/1992.

PI 577820. *Zea mays* L. ssp. *mays*  
ANT 333B; Antioquia 333B; NSL 286360.

PI 577821. *Zea mays* L. ssp. *mays*  
GUA 324; Guajira 324; NSL 286380.

PI 577822. *Zea mays* L. ssp. *mays*  
TOL 418; Tolima 418; NSL 286389.

PI 577823. *Zea mays* L. ssp. *mays*

TOL 419; Tolima 419; NSL 286390.

PI 577824. *Zea mays* L. *ssp. mays*  
TOL 420; Tolima 420; NSL 286391.

PI 577825. *Zea mays* L. *ssp. mays*  
TOL 421; Tolima 421; NSL 286392.

The following were developed by M. Crespo, Centro de Investigaciones, Fitoecogeneticas de Pairumani, Casilla 128, Cochabamba, Bolivia. Received 12/1993.

PI 577826. *Zea mays* L. *ssp. mays*  
BOZM 0017; NSL 288201; BOZM-0017.

PI 577827. *Zea mays* L. *ssp. mays*  
BOZM 1153; NSL 288203; BOZM-1153.

PI 577828. *Zea mays* L. *ssp. mays*  
BOZM 1155; NSL 288204; BOZM-1155.

PI 577829. *Zea mays* L. *ssp. mays*  
BOZM 1168; NSL 288205; BOZM-1168.

PI 577830. *Zea mays* L. *ssp. mays*  
BOZM 1209; NSL 288206; BOZM-1209.

PI 577831. *Zea mays* L. *ssp. mays*  
BOZM 1218; NSL 288207; BOZM-1218.

PI 577832. *Zea mays* L. *ssp. mays*  
BOZM 1224; NSL 288208; BOZM-1224.

PI 577833. *Zea mays* L. *ssp. mays*  
BOZM 1348; NSL 288209; BOZM-1348.

PI 577834. *Zea mays* L. *ssp. mays*  
BOZM 1357; NSL 288210; BOZM-1357.

PI 577835. *Zea mays* L. *ssp. mays*  
BOZM 1358; NSL 288211; BOZM-1358.

PI 577836. *Zea mays* L. *ssp. mays*  
BOZM 1367; NSL 288212; BOZM-1367.

PI 577837. *Zea mays* L. *ssp. mays*  
BOZM 1369; NSL 288213; BOZM-1369.

PI 577838. *Zea mays* L. *ssp. mays*  
BOZM 1374; NSL 288214; BOZM-1374.

PI 577839. *Zea mays* L. *ssp. mays*  
BOZM 0020; NSL 288202.

PI 577840. *Zea mays* L. *ssp. mays*  
BOZM 1379; NSL 288215.

PI 577841. *Zea mays* L. *ssp. mays*  
BOZM 1437; NSL 288216.

PI 577842. *Zea mays* L. *ssp. mays*  
BOZM 1439; NSL 288217.

- PI 577843. *Zea mays* L. ssp. *mays*  
BOZM 1440; NSL 288218.
- PI 577844. *Zea mays* L. ssp. *mays*  
BOZM 1443; NSL 288219.
- PI 577845. *Zea mays* L. ssp. *mays*  
BOZM 1444; NSL 288220.
- PI 577846. *Zea mays* L. ssp. *mays*  
BOZM 1445; NSL 288221.
- PI 577847. *Zea mays* L. ssp. *mays*  
BOZM 1446; NSL 288222.
- PI 577848. *Zea mays* L. ssp. *mays*  
BOZM 1447; NSL 288223.
- PI 577849. *Zea mays* L. ssp. *mays*  
BOZM C.R.CHUNC U; NSL 288224.
- PI 577850. *Zea mays* L. ssp. *mays*  
BOZM C.R.CUBAN O; NSL 288225.
- PI 577851. *Zea mays* L. ssp. *mays*  
BOZM C.R.CUBAN O; NSL 288226.

The following were collected by Robert A. Forsberg, University of Wisconsin-Madison, Dept of Agronomy, 1575 Linden Drive, Madison, Wisconsin 53706, United States; M. D. Simons, USDA, ARS, Iowa State University, Department of Plant Pathology, Ames, Iowa 50011, United States; C. Tuten, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Received 10/01/1986.

- PI 577852. *Avena* hybrid  
Wild. 27b-1; 90Ab-108; NSGC 3887. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 15 km southwest of Sinop toward Erfelek; mixture in wheat field. Apparently derived from a sativa/sterilis hybrid: sterilis- type plants but with sativa-type spikelet disarticulation. This accession has 2-3 awns/spikelet and dark kernels. Separated from single collected plant 27b.
- PI 577853. *Avena* hybrid  
Wild. 27b-2; 90Ab-100; NSGC 4967. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 15 km southwest of Sinop toward Erfelek; mixture in wheat field. Apparently derived from a sativa/sterilis hybrid: sterilis- type plants but with sativa-type spikelet disarticulation. This accession has 1 awn/spikelet and white kernels. Separated from single collected plant 27b.
- PI 577854. *Avena* hybrid  
Wild. 27b-3; 90Ab-103-2; NSGC 4968. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 15 km southwest of Sinop toward Erfelek; mixture in wheat field. Apparently derived from a sativa/sterilis hybrid: sterilis- type plants but with sativa-type spikelet disarticulation. This accession has 1 awn/spikelet, white kernels, and thicker, non-curving culms. Separated from single collected plant 27b.
- PI 577855. *Avena* hybrid  
Wild. 27b-4; 90Ab-103-1; NSGC 4969. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 15 km southwest of Sinop toward Erfelek; mixture in wheat field. Apparently derived from a sativa/sterilis hybrid: sterilis- type plants but with sativa-type spikelet disarticulation. This accessions has 1 awn/spikelet, white kernels, and

variable for fine culms. Separated from single collected plant 27b.

- PI 577856. *Avena sativa* L.  
Cultivated. 2a-1; 90Ab-1; NSGC 3832. Collected 07/22/1986 in Eskisehir, Turkey. Elevation 940 m. 11 km southwest of Sivrihisar. Cultivated oat field. Separated from original bulk collection 2a.
- PI 577857. *Avena sativa* L.  
Cultivated. 2a-2; 90Ab-4; NSGC 4961. Collected 07/22/1986 in Eskisehir, Turkey. Elevation 940 m. 11 km southwest of Sivrihisar. Cultivated oat field. Separated from original bulk collection 2a. Better straw.
- PI 577858. *Avena sativa* L.  
Cultivated. 2a-3; 90Ab-8; NSGC 4962. Collected 07/22/1986 in Eskisehir, Turkey. Elevation 940 m. 11 km southwest of Sivrihisar. Cultivated oat field. Separated from original bulk collection 2a. Tall, weak-strawed plants.
- PI 577859. *Avena sativa* L.  
Cultivated. 2b; 90Ab-21; NSGC 3833. Collected 07/22/1986 in Eskisehir, Turkey. Elevation 940 m. 11 km southwest of Sivrihisar. Cultivated oat field. Derived from single collected panicle 2b.
- PI 577860. *Avena sativa* L.  
Cultivated. 5a-1; 90Ab-46; NSGC 3842. Collected 07/23/1986 in Ankara, Turkey. 21 km northwest of Ankara, just south of Kizilcahamam. Cultivated oat field. Separated from original bulk collection 5a.
- PI 577861. *Avena sativa* L.  
Cultivated. 5a-2; 90Ab-53; NSGC 4963. Collected 07/23/1986 in Ankara, Turkey. 21 km northwest of Ankara, just south of Kizilcahamam. Cultivated oat field. Separated from original bulk collection 5a. Weak-strawed plants.
- PI 577862. *Avena sativa* L.  
Cultivated. 5a-3; 90Ab-42; NSGC 4964. Collected 07/23/1986 in Ankara, Turkey. 21 km northwest of Ankara, just south of Kizilcahamam. Cultivated oat field. Separated from original bulk collection 5a. Tall plants.
- PI 577863. *Avena sativa* L.  
Cultivated. 5a-4; 90Ab-41; NSGC 4965. Collected 07/23/1986 in Ankara, Turkey. 21 km northwest of Ankara, just south of Kizilcahamam. Cultivated oat field. Separated from original bulk collection 5a.
- PI 577864. *Avena sativa* L.  
Cultivated. 15a-1; 90Ab-61; NSGC 3859. Collected 07/24/1986 in Kastamonu, Turkey. Elevation 750 m. 3 km northeast of Arac. Cultivated mixture of oat and einkorn wheat. Separated from original bulk 15a. Late-flowering, winter-habit plants from spring planting.
- PI 577865. *Avena sativa* L.  
Cultivated. 15a-2; 90Ab-62; NSGC 4966. Collected 07/24/1986 in Kastamonu, Turkey. Elevation 750 m. 3 km northeast of Arac. Cultivated mixture of oat and einkorn wheat. Separated from original bulk 15a. Variable, late-flowering, winter-habit plants from spring planting.
- PI 577866. *Avena sativa* L.  
Cultivated. 20e; 90Ab-82; NSGC 3876. Collected 07/25/1986 in Kastamonu, Turkey. Elevation 750 m. 20 km northeast of Arac on road south of Kanligol village; west of Kastamonu and east of Arac. Derived from single collected plant 20e.
- PI 577867. *Avena sativa* L.

Cultivated. 28c-1; 90Ab-118; 28c.1; NSGC 3895. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Separated from original bulk collection 28c. Late-flowering, winter-habit plants from spring planting.

PI 577868. *Avena sativa* L.

Cultivated. 28c.2; 90Ab-122; NSGC 4970. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Separated from original bulk collection 28c. Earlier maturing, non-winter plants.

PI 577869. *Avena sativa* L.

Cultivated. 28c.3; 90Ab-119; NSGC 4971. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Late, winter type plants from spring planting. Separated from original bulk collection 28c.

PI 577870. *Avena sativa* L.

Cultivated. 28c-2; 90Ab-151; NSGC 3897. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Derived from original single collected plant 28c-2. Late, winter type plants from spring planting.

PI 577871. *Avena sativa* L.

Cultivated. 28c-3; 90Ab-166; NSGC 3898. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Derived from original single collected plant 28c-3. Late, winter type plants from spring planting.

PI 577872. *Avena sativa* L.

Cultivated. 28c-4; 90Ab-185; NSGC 3899. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Derived from original single collected plant 28c-4.

PI 577873. *Avena sativa* L.

Cultivated. 28c-5-1; 90Ab-203; NSGC 3900. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Separated from original single plant collection 28c-5. Late, winter type plants from spring planting.

PI 577874. *Avena sativa* L.

Cultivated. 28c-5-2; 90Ab-202; NSGC 4972. Collected 07/26/1986 in Sinop, Turkey. Elevation 500 m. 17 km southwest of Sinop on road to Erfelek. Roadside. Separated from original single plant collection 28c-5. Very late, winter type plants from spring planting.

PI 577875. *Avena sativa* L.

Cultivated. 29a-1-1; 90Ab-218; NSGC 3901. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original single plant collection 29a-1.

PI 577876. *Avena sativa* L.

Cultivated. 29a-1-2; 90Ab-222; NSGC 4973. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original single plant collection 29a-1. Tall, late-flowering plants.

PI 577877. *Avena sativa* L.

Cultivated. 29a-2-1; 90Ab-244; NSGC 3902. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-2.

PI 577878. *Avena sativa* L.

Cultivated. 29a-2-2; 90Ab-238-1; NSGC 4974. Collected 07/26/1986 in

Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-2. Tall, weak straw, later-flowering plants.

**PI 577879. *Avena sativa* L.**

Cultivated. 29a-2-3; 90Ab-238-3; NSGC 4975. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-2. Shorter plants.

**PI 577880. *Avena sativa* L.**

Cultivated. 29a-2-4; 90Ab-239-1; NSGC 4976. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-2. Variable, some plants with long rachillas.

**PI 577881. *Avena sativa* L.**

Cultivated. 29a-3-1; 90Ab-257; NSGC 3903. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-3.

**PI 577882. *Avena sativa* L.**

Cultivated. 29a-3-2; 90Ab-258; NSGC 4977. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-3. Tall, later-flowering plants.

**PI 577883. *Avena sativa* L.**

Cultivated. 29a-3-3; 90Ab-262; NSGC 4978. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-3. Shorter plants.

**PI 577884. *Avena sativa* L.**

Cultivated. 29a-4-1; 90Ab-288; NSGC 3904. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-4. Productive plants.

**PI 577885. *Avena sativa* L.**

Cultivated. 29a-4-2; 90Ab-285; NSGC 4979. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-4. Shorter plants with better straw.

**PI 577886. *Avena sativa* L.**

Cultivated. 29a-4-3; 90Ab-279; NSGC 4980. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-4. Tall, weak-strawed plants.

**PI 577887. *Avena sativa* L.**

Cultivated. 29a-4-4; 90Ab-277; NSGC 4981. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29a-4.

**PI 577888. *Avena sativa* L.**

Cultivated. 29b-1; 90Ab-296; NSGC 3905. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29b. Tall, later-flowering, weak-strawed plants.

**PI 577889. *Avena sativa* L.**

Cultivated. 29b-2; 90Ab-297; NSGC 4982. Collected 07/26/1986 in Sinop,

Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29b. Shorter plants with better straw.

- PI 577890. *Avena sativa* L.  
Cultivated. 29b-3; 90Ab-301; NSGC 4983. Collected 07/26/1986 in Sinop, Turkey. Elevation 1000 m. 21 km southwest of Sinop-Boyabat junction. Cliff side. Separated from original bulk collection 29b.
- PI 577891. *Avena sativa* L.  
Cultivated. 30d-1; 90Ab-316; NSGC 3910. Collected 07/26/1986 in Sinop, Turkey. Elevation 1250 m. 27 km northeast of Boyabat. Hillside along road. Separated from original bulk collection 39d. Tall, later-flowering plants.
- PI 577892. *Avena sativa* L.  
Cultivated. 30d-2; 90Ab-318; NSGC 4984. Collected 07/26/1986 in Sinop, Turkey. Elevation 1250 m. 27 km northeast of Boyabat. Hillside along road. Separated from original bulk collection 30d. Weak-strawed plants.
- PI 577893. *Avena sativa* L.  
Cultivated. 30d-3; 90Ab-324; NSGC 4985. Collected 07/26/1986 in Sinop, Turkey. Elevation 1250 m. 27 km northeast of Boyabat. Hillside along road. Separated from original bulk collection 30d. Tall, weak-strawed plants.
- PI 577894. *Avena sativa* L.  
Cultivated. 30d-4; 90Ab-322; NSGC 4986. Collected 07/26/1986 in Sinop, Turkey. Elevation 1250 m. 27 km northeast of Boyabat. Hillside along road. Separated from original bulk collection 30d. Tall, weak-strawed plants.
- PI 577895. *Avena sativa* L.  
Cultivated. 30e-1; 90Ab-339; NSGC 3911. Collected 07/26/1986 in Sinop, Turkey. Elevation 1250 m. 27 km northeast of Boyabat. Hillside along road. Separated from original single plant collection 30e. Productive plants with better straw.
- PI 577896. *Avena sativa* L.  
Cultivated. 30e-2; 90Ab-336; NSGC 4987. Collected 07/26/1986 in Sinop, Turkey. Elevation 1250 m. 27 km northeast of Boyabat. Hillside along road. Separated from original single plant collection 30e. Weak-strawed, later-flowering plants.
- PI 577897. *Avena sativa* L.  
Cultivated. 31b-1; 90Ab-354; NSGC 3913. Collected 07/26/1986 in Sinop, Turkey. Elevation 1050 m. 24 km northeast of Boyabat near Garandii village. Cultivated hillside along road. Separated from original single plant collection 31b.
- PI 577898. *Avena sativa* L.  
Cultivated. 31b-2; 90Ab-346; NSGC 4988. Collected 07/26/1986 in Sinop, Turkey. Elevation 1050 m. 24 km northeast of Boyabat near Garandii village. Cultivated hillside along road. Separated from original single plant collection 31b. Variable height and maturity.
- PI 577899. *Avena sativa* L.  
Cultivated. 31c-1; 90Ab-360; NSGC 3914. Collected 07/26/1986 in Sinop, Turkey. Elevation 1050 m. 24 km northeast of Boyabat near Garandii village. Cultivated hillside along road. Separated from original single plant collection 31c. Plants with slightly better straw.
- PI 577900. *Avena sativa* L.  
Cultivated. 31c-2; 90Ab-359; NSGC 4989. Collected 07/26/1986 in Sinop,

- Turkey. Elevation 1050 m. 24 km northeast of Boyabat near Garandii village. Cultivated hillside along road. Separated from original single plant collection 31c. Weak-strawed plants.
- PI 577901. *Avena sativa* L.  
Cultivated. 37c-1-1; 90Ab-379; NSGC 3924. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-1.
- PI 577902. *Avena sativa* L.  
Cultivated. 37c-1-2; 90Ab-383; NSGC 4990. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-1. Plants with better straw.
- PI 577903. *Avena sativa* L.  
Cultivated. 37c-1-3; 90Ab-378; NSGC 4991. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-1. Tall, weak-strawed, later-flowering plants.
- PI 577904. *Avena sativa* L.  
Cultivated. 37c-1-4; 90Ab-380; NSGC 4992. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-1. Shorter plants.
- PI 577905. *Avena sativa* L.  
Cultivated. 37c-1-5; 90Ab-392; NSGC 4993. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-1. Earlier maturing plants.
- PI 577906. *Avena sativa* L.  
Cultivated. 37c-2-1; 90Ab-397; NSGC 3925. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-2. Non-shattering, dark kernels.
- PI 577907. *Avena sativa* L.  
Cultivated. 37c-2-2; 90Ab-400; NSGC 4994. Collected 07/27/1986 in Corum, Turkey. Elevation 1650 m. 27 km southeast of Tosya. Mixture in barley field. Separated from original bulk collection 37c-2. Segregating for kernel color and shattering (fatua-type sucker mouth) vs. non-shattering.
- PI 577908. *Avena sativa* L.  
Cultivated. 46b-1; 90Ab-417; NSGC 3943. Collected 07/28/1986 in Corum, Turkey. Elevation 1100 m. Between Corum and Alaca; 19 km south of junction to Alaca. Along edge of harvested lentil field. Separated from original bulk collection 46b.
- PI 577909. *Avena sativa* L.  
Cultivated. 46b-2; 90Ab-424; NSGC 4995. Collected 07/28/1986 in Corum, Turkey. Elevation 1100 m. Between Corum and Alaca; 19 km south of junction to Alaca. Along edge of harvested lentil field. Separated from original bulk collection 46b. Tall plants.
- PI 577910. *Avena sativa* L.  
Cultivated. 46b-3; 90Ab-428; NSGC 4996. Collected 07/28/1986 in Corum, Turkey. Elevation 1100 m. Between Corum and Alaca; 19 km south of junction to Alaca. Along edge of harvested lentil field. Separated from original bulk collection 46b. Weak-strawed plants.
- PI 577911. *Avena sativa* L.

- Cultivated. 57a-1; 90Ab-437; NSGC 3966. Collected 07/29/1986 in Tokat, Turkey. Elevation 650 m. 17 km south of Tokat. Cultivated mixture of oat and barley. Separated from original bulk collection 57a.
- PI 577912. *Avena sativa* L.  
Cultivated. 57a-2; 90Ab-438; NSGC 4997. Collected 07/29/1986 in Tokat, Turkey. Elevation 650 m. 17 km south of Tokat. Cultivated mixture of oat and barley. Separated from original bulk collection 57a. Tall, weak-strawed, later-flowering plants.
- PI 577913. *Avena sativa* L.  
Cultivated. 57a-3; 90Ab-439; NSGC 4998. Collected 07/29/1986 in Tokat, Turkey. Elevation 650 m. 17 km south of Tokat. Cultivated mixture of oat and barley. Separated from original bulk collection 57a. Shorter, earlier maturing plants.
- PI 577914. *Avena sativa* L.  
Cultivated. 67a-1; 90Ab-457; NSGC 3989. Collected 07/29/1986 in Samsun, Turkey. 4 km northeast of Kavak. Edge of harvested oat field. Separated from original bulk collection 67a.
- PI 577915. *Avena sativa* L.  
Cultivated. 67a-2; 90Ab-466; NSGC 4999. Collected 07/29/1986 in Samsun, Turkey. 4 km northeast of Kavak. Edge of harvested oat field. Separated from original bulk collection 67a. Weak-strawed plants.
- PI 577916. *Avena sativa* L.  
Cultivated. 67a-3; 90Ab-459; NSGC 5000. Collected 07/29/1986 in Samsun, Turkey. 4 km northeast of Kavak. Edge of harvested oat field. Separated from original bulk collection 67a. Plants with better straw.
- PI 577917. *Avena sativa* L.  
Cultivated. 67a-4; 90Ab-461; NSGC 5001. Collected 07/29/1986 in Samsun, Turkey. 4 km northeast of Kavak. Edge of harvested oat field. Separated from original bulk collection 67a. Tall, later-flowering plants.
- PI 577918. *Avena sativa* L.  
Cultivated. 67a-5; 90Ab-467; NSGC 5002. Collected 07/29/1986 in Samsun, Turkey. 4 km northeast of Kavak. Edge of harvested oat field. Separated from original bulk collection 67a. Segregating for dark tan kernel.
- PI 577919. *Avena sativa* L.  
Cultivated. 69; 90Ab-477; NSGC 3992. Collected 07/31/1986 in Ordu, Turkey. Elevation 20 m. 20 km southeast of Unye. Fencerow between soybean fields. Derived from original bulk collection 69.
- PI 577920. *Avena sativa* L.  
Cultivated. 70-1; 90Ab-500; NSGC 3993. Collected 07/31/1986 in Ordu, Turkey. Elevation 600 m. Tekkiray village, south of Unye. Cultivated oat field on steep hillside. Separated from original bulk collection 70. Tall, later-flowering plants.
- PI 577921. *Avena sativa* L.  
Cultivated. 70-2; 90Ab-497; NSGC 5003. Collected 07/31/1986 in Ordu, Turkey. Elevation 600 m. Tekkiray village, south of Unye. Cultivated oat field on steep hillside. Separated from original bulk collection 70. Later-flowering plants.
- PI 577922. *Avena sativa* L.  
Cultivated. 70-3; 90Ab-495; NSGC 5004. Collected 07/31/1986 in Ordu, Turkey. Elevation 600 m. Tekkiray village, south of Unye. Cultivated oat field on steep hillside. Separated from original bulk collection 70. Plants have some basal pubescence. Some shattering.

- PI 577923. *Avena sativa* L.  
Cultivated. 70-4; 90Ab-502; NSGC 5005. Collected 07/31/1986 in Ordu, Turkey. Elevation 600 m. Tekkiray village, south of Unye. Cultivated oat field on steep hillside. Separated from original bulk collection 70. Tall, weak-strawed plants.
- PI 577924. *Avena sativa* L.  
Cultivated. 70-5; 90Ab-505; NSGC 5006. Collected 07/31/1986 in Ordu, Turkey. Elevation 600 m. Tekkiray village, south of Unye. Cultivated oat field on steep hillside. Separated from original bulk collection 70.
- PI 577925. *Avena sativa* L.  
Cultivated. 71-1; 90Ab-516; NSGC 3994. Collected 07/31/1986 in Ordu, Turkey. Elevation 750 m. 3 km southwest of Tekkiray village. Harvested oat field on mountainside. Separated from original bulk collection 71. Tall, weak-strawed plants.
- PI 577926. *Avena sativa* L.  
Cultivated. 71-2; 90Ab-519; NSGC 5007. Collected 07/31/1986 in Ordu, Turkey. Elevation 750 m. 3 km southwest of Tekkiray village. Harvested oat field on mountainside. Separated from original bulk collection 71. Earlier maturing plants.
- PI 577927. *Avena sativa* L.  
Cultivated. 71-3; 90Ab-528; NSGC 5008. Collected 07/31/1986 in Ordu, Turkey. Elevation 750 m. 3 km southwest of Tekkiray village. Harvested oat field on mountainside. Separated from original bulk collection 71. Tall plants with better straw.
- PI 577928. *Avena sativa* L.  
Cultivated. 71-4; 90Ab-515; NSGC 5009. Collected 07/31/1986 in Ordu, Turkey. Elevation 750 m. 3 km southwest of Tekkiray village. Harvested oat field on mountainside. Separated from original bulk collection 71.
- PI 577929. *Avena sativa* L.  
Cultivated. 71-5; 90Ab-517; NSGC 5010. Collected 07/31/1986 in Ordu, Turkey. Elevation 750 m. 3 km southwest of Tekkiray village. Harvested oat field on mountainside. Separated from original bulk collection 71. Weak-strawed plants.
- PI 577930. *Avena sativa* L.  
Cultivated. 72-1; 90Ab-542; NSGC 3995. Collected 07/31/1986 in Ordu, Turkey. Elevation 1100 m. 12 km southwest of Tekkiray village. Cultivated oat field. Separated from original bulk collection 72.
- PI 577931. *Avena sativa* L.  
Cultivated. 72-2; 90Ab-544; NSGC 5011. Collected 07/31/1986 in Ordu, Turkey. Elevation 1100 m. 12 km southwest of Tekkiray village. Cultivated oat field. Separated from original bulk collection 72. Tall plants.
- PI 577932. *Avena sativa* L.  
Cultivated. 72-3; 90Ab-549; NSGC 5012. Collected 07/31/1986 in Ordu, Turkey. Elevation 1100 m. 12 km southwest of Tekkiray village. Cultivated oat field. Separated from original bulk collection 72.
- PI 577933. *Avena sativa* L.  
Cultivated. 72-4; 90Ab-534; NSGC 5013. Collected 07/31/1986 in Ordu, Turkey. Elevation 1100 m. 12 km southwest of Tekkiray village. Cultivated oat field. Separated from original bulk collection 72. Tall plants.
- PI 577934. *Avena sativa* L.  
Cultivated. 72-5; 90Ab-535; NSGC 5014. Collected 07/31/1986 in Ordu,

- Turkey. Elevation 1100 m. 12 km southwest of Tekkiray village. Cultivated oat field. Separated from original bulk collection 72. Weak-strawed plants.
- PI 577935. *Avena sativa* L.  
Cultivated. 72-6; 90Ab-541; NSGC 5015. Collected 07/31/1986 in Ordu, Turkey. Elevation 1100 m. 12 km southwest of Tekkiray village. Cultivated oat field. Separated from original bulk collection 72. Earlier maturing plants.
- PI 577936. *Avena sativa* L.  
Cultivated. 74c-1; 90Ab-554; NSGC 4000. Collected 07/31/1986 in Ordu, Turkey. Elevation 1000 m. 11 km south of Akkus. Wheat field. Separated from original single plant collection 74c.
- PI 577937. *Avena sativa* L.  
Cultivated. 74c-2; 90Ab-571; NSGC 5016. Collected 07/31/1986 in Ordu, Turkey. Elevation 1000 m. 11 km south of Akkus. Wheat field. Separated from original single plant selection 74c. Shorter plants.
- PI 577938. *Avena sativa* L.  
Cultivated. 87a-1; 90Ab-577; NSGC 4018. Collected 08/01/1986 in Sivas, Turkey. Elevation 1600 m. 27 km northwest of Koyulhisar. Mixture in barley field. Separated from original bulk collection 87a. Tall, weak-strawed plants.
- PI 577939. *Avena sativa* L.  
Cultivated. 87a-2; 90Ab-582; NSGC 5017. Collected 08/01/1986 in Sivas, Turkey. Elevation 1600 m. 27 km northwest of Koyulhisar. Mixture in barley field. Separated from original bulk collection 87a. Earlier maturing plants.
- PI 577940. *Avena sativa* L.  
Cultivated. 87a-3; 90Ab-578; NSGC 5018. Collected 08/01/1986 in Sivas, Turkey. Elevation 1600 m. 27 km northwest of Koyulhisar. Mixture in barley field. Separated from original bulk collection 87a. Weak-strawed plants.
- PI 577941. *Avena sativa* L.  
Cultivated. 87a-4; 90Ab-574; NSGC 5019. Collected 08/01/1986 in Sivas, Turkey. Elevation 1600 m. 27 km northwest of Koyulhisar. Mixture in barley field. Separated from original bulk collection 87a. Somewhat better straw and somewhat earlier maturity.
- PI 577942. *Avena sativa* L.  
Cultivated. 87a-5; 90Ab-583; NSGC 5020. Collected 08/01/1986 in Sivas, Turkey. Elevation 1600 m. 27 km northwest of Koyulhisar. Mixture in barley field. Separated from original bulk collection 87a.
- PI 577943. *Avena sativa* L.  
Cultivated. 89c-1; 90Ab-609; NSGC 4023. Collected 08/01/1986 in Ordu, Turkey. Elevation 1100 m. 3 km northwest of Mesudiye. Mixture in barley field. Separated from original bulk collection 89c.
- PI 577944. *Avena sativa* L.  
Cultivated. 89c-2; 90Ab-610; NSGC 5021. Collected 08/01/1986 in Ordu, Turkey. Elevation 1100 m. 3 km northwest of Mesudiye. Mixture in barley field. Separated from original bulk collection 89c. Shorter plants.
- PI 577945. *Avena sativa* L.  
Cultivated. 89c-3; 90Ab-594; NSGC 5022. Collected 08/01/1986 in Ordu, Turkey. Elevation 1100 m. 3 km northwest of Mesudiye. Mixture in barley field. Separated from original bulk collection 89c.

- PI 577946. *Avena sativa* L.  
Cultivated. 117a-1; 90Ab-617; NSGC 4067. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a. Slightly earlier maturing plants.
- PI 577947. *Avena sativa* L.  
Cultivated. 117a-2; 90Ab-623; NSGC 5023. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a. Earlier maturing plants with better straw.
- PI 577948. *Avena sativa* L.  
Cultivated. 117a-3; 90Ab-625; NSGC 5024. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a. Slightly shorter plants.
- PI 577949. *Avena sativa* L.  
Cultivated. 117a-4; 90Ab-629; NSGC 5025. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a.
- PI 577950. *Avena sativa* L.  
Cultivated. 117a-5; 90Ab-618; NSGC 5026. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a.
- PI 577951. *Avena sativa* L.  
Cultivated. 117a-6; 90Ab-622; NSGC 5027. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a.
- PI 577952. *Avena sativa* L.  
Cultivated. 117a-7; 90Ab-626; NSGC 5028. Collected 08/04/1986 in Erzurum, Turkey. Elevation 1880 m. 18 km east of Askale. Cultivated oat field. Separated from original bulk collection 117a.
- PI 577953. *Avena sativa* L.  
Cultivated. 127c.1; 90Ab-634; NSGC 4082. Collected 08/06/1986 in Kars, Turkey. Elevation 1950 m. 8 km southeast of Sarikamis. Mixture in barley field. Separated from original bulk collection 127c. Shorter, earlier maturing plants.
- PI 577954. *Avena sativa* L.  
Cultivated. 127c.2; 90Ab-637; NSGC 5029. Collected 08/06/1986 in Kars, Turkey. Elevation 1950 m. 8 km southeast of Sarikamis. Mixture in barley field. Separated from original bulk collection 127c.
- PI 577955. *Avena sativa* L.  
Cultivated. 127c.3; 90Ab-635; NSGC 5030. Collected 08/06/1986 in Kars, Turkey. Elevation 1950 m. 8 km southeast of Sarikamis. Mixture in barley field. Separated from original bulk collection 127c. Tall plants.
- PI 577956. *Avena sativa* L.  
Cultivated. 127c.4; 90Ab-646; NSGC 5031. Collected 08/06/1986 in Kars, Turkey. Elevation 1950 m. 8 km southeast of Sarikamis. Mixture in barley field. Separated from original bulk collection 127c.
- PI 577957. *Avena sativa* L.  
Cultivated. 127c-1; 90Ab-654; NSGC 4085. Collected 08/06/1986 in Kars, Turkey. Elevation 1950 m. 8 km southeast of Sarikamis. Mixture in barley field. Derived from original single plant collection 127c-1.

- PI 577958. *Avena sativa* L.  
Cultivated. 132a-1; 90Ab-674; NSGC 4090. Collected 08/06/1986 in Kars, Turkey. Elevation 1700 m. 6 km southwest of Kars. Mixture in barley field. Separated from original bulk collection 132a.
- PI 577959. *Avena sativa* L.  
Cultivated. 132a-2; 90Ab-676; NSGC 5032. Collected 08/06/1986 in Kars, Turkey. Elevation 1700 m. 6 km southwest of Kars. Mixture in barley field. Separated from original bulk collection 132a. Tall plants.
- PI 577960. *Avena sativa* L.  
Cultivated. 132a-3; 90Ab-679; NSGC 5033. Collected 08/06/1986 in Kars, Turkey. Elevation 1700 m. 6 km southwest of Kars. Mixture in barley field. Separated from original bulk collection 132a. Tall, weak-strawed, later-flowering plants.
- PI 577961. *Avena sativa* L.  
Cultivated. 132a-4; 90Ab-684; NSGC 5034. Collected 08/06/1986 in Kars, Turkey. Elevation 1700 m. 6 km southwest of Kars. Mixture in barley field. Separated from original bulk collection 132a.
- PI 577962. *Avena sativa* L.  
Cultivated. 135b-1; 90Ab-694; NSGC 4095. Collected 08/07/1986 in Kars, Turkey. Elevation 1700 m. 12 km north of Kars. Mixture in barley field. Separated from original bulk collection 135b. Earlier maturing plants.
- PI 577963. *Avena sativa* L.  
Cultivated. 135b-2; 90Ab-703; NSGC 5035. Collected 08/07/1986 in Kars, Turkey. Elevation 1700 m. 12 km north of Kars. Mixture in barley field. Separated from original bulk collection 135b. Weak-strawed plants.
- PI 577964. *Avena sativa* L.  
Cultivated. 135b-3; 90Ab-697; NSGC 5036. Collected 08/07/1986 in Kars, Turkey. Elevation 1700 m. 12 km north of Kars. Mixture in barley field. Separated from original bulk collection 135b. Tall, earlier maturing plants.
- PI 577965. *Avena sativa* L.  
Cultivated. 135b-4; 90Ab-699; NSGC 5037. Collected 08/07/1986 in Kars, Turkey. Elevation 1700 m. 12 km north of Kars. Mixture in barley field. Separated from original bulk collection 135b. Tall, later-flowering plants.
- PI 577966. *Avena sativa* L.  
Cultivated. 135b-5; 90Ab-712; NSGC 5038. Collected 08/07/1986 in Kars, Turkey. Elevation 1700 m. 12 km north of Kars. Mixture in barley field. Separated from original bulk collection 135b.
- PI 577967. *Avena sativa* L.  
Cultivated. 139b-1; 90Ab-715; NSGC 4100. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. Kars-Gole-Susuy junction. Mixture in barley field. Separated from original bulk collection 139b. Tall, weak-strawed, earlier maturing plants.
- PI 577968. *Avena sativa* L.  
Cultivated. 139b-2; 90Ab-725; NSGC 5039. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. Kars-Gole-Susuy junction. Mixture in barley field. Separated from original bulk collection 139b. Earlier maturing plants with better straw.
- PI 577969. *Avena sativa* L.  
Cultivated. 139b-3; 90Ab-714; NSGC 5040. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. Kars-Gole-Susuy junction. Mixture in barley field. Separated from original bulk collection 139b. Earlier maturing

plants.

- PI 577970. *Avena sativa* L.  
Cultivated. 139b-4; 90Ab-719; NSGC 5041. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. Kars-Gole-Susuy junction. Mixture in barley field. Separated from original bulk collection 139b. Tall, weak-strawed plants.
- PI 577971. *Avena sativa* L.  
Cultivated. 139b-5; 90Ab-718; NSGC 5042. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. Kars-Gole-Susuy junction. Mixture in barley field. Separated from original bulk collection 139b.
- PI 577972. *Avena sativa* L.  
Cultivated. 139b-6; 90Ab-721; NSGC 5043. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. Kars-Gole-Susuy junction. Mixture in barley field. Separated from original bulk collection 139b. Shorter plants.
- PI 577973. *Avena sativa* L.  
Cultivated. 144c-1; 90Ab-735; NSGC 4109. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. 8 km south of Hanak. Mixture in barley field. Separated from original bulk collection 144c. Weak-strawed plants.
- PI 577974. *Avena sativa* L.  
Cultivated. 144c-2; 90Ab-743; NSGC 5044. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. 8 km south of Hanak. Mixture in barley field. Separated from original bulk collection 144c. Tall plants.
- PI 577975. *Avena sativa* L.  
Cultivated. 144c-3; 90Ab-734; NSGC 5045. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. 8 km south of Hanak. Mixture in barley field. Separated from original bulk collection 144c. Weak-strawed plants.
- PI 577976. *Avena sativa* L.  
Cultivated. 144c-4; 90Ab-750; NSGC 5046. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. 8 km south of Hanak. Mixture in barley field. Separated from original bulk collection 144c. Earlier maturing plants.
- PI 577977. *Avena sativa* L.  
Cultivated. 144c-5; 90Ab-749; NSGC 5047. Collected 08/07/1986 in Kars, Turkey. Elevation 1750 m. 8 km south of Hanak. Mixture in barley field. Separated from original bulk collection 144c. Later flowering plants.
- PI 577978. *Avena sativa* L.  
Cultivated. 151c-1; 90Ab-772; NSGC 4121. Collected 08/09/1986 in Artvin, Turkey. Elevation 400 m. 8 km north of Artvin-Yusufeli-Olur junction. Under shrubs at roadside. Separated from original bulk collection 151c. Tall plants.
- PI 577979. *Avena sativa* L.  
Cultivated. 151c-2; 90Ab-754; NSGC 5048. Collected 08/09/1986 in Artvin, Turkey. Elevation 400 m. 8 km north of Artvin-Yusufeli-Olur junction. Under shrubs at roadside. Separated from original bulk collection 151c.
- PI 577980. *Avena sativa* L.  
Cultivated. 157c-1; 90Ab-774; NSGC 4135. Collected 08/09/1986 in Erzurum, Turkey. Elevation 1700 m. 1 km west of Narman. Mixture in wheat field. Separated from original single plant collection 157c.
- PI 577981. *Avena sativa* L.  
Cultivated. 157c-2; 90Ab-778; NSGC 5049. Collected 08/09/1986 in Erzurum, Turkey. Elevation 1700 m. 1 km west of Narman. Mixture in wheat field. Separated from original single plant collection 157c. Tall plants.

- PI 577982. *Avena sativa* L.  
Cultivated. 157c-3; 90Ab-781; NSGC 5050. Collected 08/09/1986 in Erzurum, Turkey. Elevation 1700 m. 1 km west of Narman. Mixture in wheat field. Separated from original single plant collection 157c. Weak-strawed plants.
- PI 577983. *Avena sativa* L.  
Cultivated. 157c-4; 90Ab-776; NSGC 5051. Collected 08/09/1986 in Erzurum, Turkey. Elevation 1700 m. 1 km west of Narman. Mixture in wheat field. Separated from original single plant collection 157c. Segregating for plant height.
- PI 577984. *Avena sativa* L.  
Cultivated. 157c-5; 90Ab-779; NSGC 5052. Collected 08/09/1986 in Erzurum, Turkey. Elevation 1700 m. 1 km west of Narman. Mixture in wheat field. Separated from original single plant collection 157c. Shorter plants.
- PI 577985. *Avena sativa* L.  
Cultivated. 169-1; 90Ab-795; NSGC 4152. Collected 08/10/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Hafik. Small field of cultivated oat. Separated from original bulk collection 169. Tall plants.
- PI 577986. *Avena sativa* L.  
Cultivated. 169-2; 90Ab-798; NSGC 5053. Collected 08/10/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Hafik. Small field of cultivated oat. Separated from original bulk collection 169.
- PI 577987. *Avena sativa* L.  
Cultivated. 169-3; 90Ab-794; NSGC 5054. Collected 08/10/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Hafik. Small field of cultivated oat. Separated from original bulk collection 169. Later-flowering plants.
- PI 577988. *Avena sativa* L.  
Cultivated. 170c-1; 90Ab-814; NSGC 4155. Collected 08/10/1986 in Sivas, Turkey. Elevation 1350 m. 14 km northeast of Sivas. Cultivated oat field. Separated from original bulk collection 170c. Tall plants.
- PI 577989. *Avena sativa* L.  
Cultivated. 170c-2; 90Ab-828; NSGC 5055. Collected 08/10/1986 in Sivas, Turkey. Elevation 1350 m. 14 km northeast of Sivas. Cultivated oat field. Separated from original bulk collection 170c. Slightly shorter plants.
- PI 577990. *Avena sativa* L.  
Cultivated. 172b-1; 90Ab-834; NSGC 5056. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 9 km southeast of Yildizeli. Harvested lentil field. Separated from original single plant collection 172b.
- PI 577991. *Avena sativa* L.  
Cultivated. 172b-2; 90Ab-852; NSGC 5057. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 9 km southeast of Yildizeli. Harvested lentil field. Separated from original single plant collection 172b.
- PI 577992. *Avena sativa* L.  
Cultivated. 175b-1; 90Ab-854; NSGC 4162. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Yildizeli. Mixture in barley field. Separated from original bulk collection 175b.
- PI 577993. *Avena sativa* L.  
Cultivated. 175b-2; 90Ab-860; NSGC 5058. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Yildizeli. Mixture in barley

field. Separated from original bulk collection 175b. Slightly later maturing plants.

**PI 577994. *Avena sativa* L.**

Cultivated. 175b-3; 90Ab-866; NSGC 5059. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Yildizeli. Mixture in barley field. Separated from original bulk collection 175b. Slightly taller plants.

**PI 577995. *Avena sativa* L.**

Cultivated. 175b-4; 90Ab-863; NSGC 5060. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Yildizeli. Mixture in barley field. Separated from original bulk collection 175b. Shorter plants.

**PI 577996. *Avena sativa* L.**

Cultivated. 175b-5; 90Ab-859; NSGC 5061. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Yildizeli. Mixture in barley field. Separated from original bulk collection 175b. Slightly shorter plants.

**PI 577997. *Avena sativa* L.**

Cultivated. 175b-6; 90Ab-865; NSGC 5062. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 7 km west of Yildizeli. Mixture in barley field. Separated from original bulk collection 175b. Vigorous plants.

**PI 577998. *Avena sativa* L.**

Cultivated. 176b-1; 90Ab-877; NSGC 4163. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 22 km west of Yildizeli. Cultivated oat field. Separated from original bulk collection 176b.

**PI 577999. *Avena sativa* L.**

Cultivated. 176b-2; 90Ab-882; NSGC 5063. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 22 km west of Yildizeli. Cultivated oat field. Separated from original bulk collection 176b. Tall plants.

**PI 578000. *Avena sativa* L.**

Cultivated. 176b-3; 90Ab-874; NSGC 5064. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 22 km west of Yildizeli. Cultivated oat field. Separated from original bulk collection 176b. Shorter plants.

**PI 578001. *Avena sativa* L.**

Cultivated. 176b-4; 90Ab-876; NSGC 5065. Collected 08/11/1986 in Sivas, Turkey. Elevation 1350 m. 22 km west of Yildizeli. Cultivated oat field. Separated from original bulk collection 176b.

The following were developed by Paul Gibson, Southern Illinois University, Department of Plant and Soil Science, Carbondale, Illinois 62901-4415, United States; Sam Anand, University of Missouri, P. O. Box 160, Portageville, Missouri 63873, United States; S.C. Anand, University of Missouri, Delta Center, P.O. Box 160, Portageville, Missouri 63873, United States; G.R. Buss, Virginia Polytechnic Inst. & State Univ., Department of Agronomy, Blacksburg, Virginia 24061, United States. Received 02/14/1994.

**PI 578002. *Glycine max* (L.) Merr.**

Breeding. S89-2122. GP-168. Pedigree - Essex(2) x PI 90763. Flowers purple. Pubescence gray. Plant type determinate. Maturity group V and matures six days later than Essex. Plant height 86cm and 13cm taller than Essex. Resistant to Race 3 and moderately resistant to Race 5 of soybean cyst nematode (*Heterodera glycines*).

**PI 578003. *Glycine max* (L.) Merr.**

Breeding. S88-1608. GP-167. Pedigree - Essex(2) x PI 89772. Flowers white. Pubescence gray. Plant type determinate. Maturity group V and

matures five days later than Essex. Plant height 85cm and 12cm taller than Essex. Resistant to Race 3 and moderately resistant to Race 5 of soybean cyst nematode (*Heterodera glycines*).

The following were developed by Clarence E. Watson, Mississippi Agric. & Forestry Exp. Sta., Mississippi State University, Dept. of Agronomy, Mississippi State, Mississippi 39762, United States; L.R.F. M'Ragwa, Kenya Agric. Res. Inst., Natl. Dryland Farming Res. Ctr. (NDFRC), Katumani, Machakos, Kenya. Received 02/15/1994.

**PI 578004. *Panicum miliaceum* L. ssp. *miliaceum***

Cultivar. "KAT/PRO-1"; N40101. CV-166. Pedigree - Selected from introduction N40101 from the USSR via Nepal and ICRISAT. Self-pollinated. Flowers in approx. 40-50 d. Matures in 65-80 d. Height 80cm. Panicles open. Seed color cream. Mean grain yield 1400kg/ha at 12 environments in Kenya, which was 50% greater than local cultivars.

**PI 578005. *Pennisetum glaucum* (L.) R. Br.**

Cultivar. "KAT/PM-1"; KNP28. CV-6. Pedigree - Developed from Serere composite constituted from 68 bristled lines. Open-pollinated. Height approx. 180-190cm. Flowers in 48-59 d. Matures 80-100 d and 80% of earheads are bristled. Earheads compact, cylindrical in shape, 14-26cm in length, and bristles 0-3cm in length. Seed gray. 1000 seed weight 16g. Grain yield potential 2860kg/ha and mean yield 1900kg/ha at 18 environments in Kenya. Crude protein, ash, and fiber 16%, 1.35%, and 6.4% on dry grain weight basis, respectively. May be grown between 50 to 1500m altitude in Kenya.

**PI 578006. *Eleusine coracana* (L.) Gaertner**

Cultivar. "KAT/FM-1"; Ekalakala. CV-167. Pedigree - Approximately 191 single plant selections made from local collection Ekalakala and subjected to 5 cycles of mass selection. Self-pollinated. Height 60cm. Flowers 75 d. Matures 90-115 d. Tillers 3-4 erect. Panicles 4-9 fingers which are 6-10cm in length. Ears straw color when mature. Seed color brown. Mean grain yield 1400kg/ha, which was 45% greater than mean of local cultivars. May be grown between 50 to 2000m altitude, and especially in semi-arid areas of Kenya.

The following were developed by D.L. Sharma, Himachal Pradesh Krishi Vishvavidyalaya, Regional Research Station, Bajaura, Himachal Pradesh 175125, India; K.C. Jain, Int. Crops Res. Inst. for the Semi-Arid Tropics, Genetic Enhancement, Patancheru, Andhra Pradesh 502 324, India; M.V. Reddy, Int. Crops Res. Inst. for the Semi-Arid Tropics, Crops Protection Division, Patancheru, Andhra Pradesh 502 324, India; R.P. Ariyanayagam, University of the West Indies, Department of Biological Sciences, Saint Augustine, Trinidad, Trinidad and Tobago; D.G. Faris, University of California, Davis, California, United States; Y.L. Nene, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; J. Kannaiyan, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; M. Chenchu Reddy; Laxman Singh, Int. Crops Res. Inst. for the Semi-Arid Tropics, Pigeon Pea Program, Patancheru, Andhra Pradesh 503 234, India. Received 03/01/1994.

**PI 578007. *Cajanus cajan* (L.) Millsp.**

Cultivar. "ICPL 87119"; Asha. CV-115. Pedigree - Bulk pedigree from C 11/ICP 1-6-W3X-W1X no. ICPX 78143-WB-WB-WB-WB-W27-B. Morphologically semi-spreading with indeterminate growth habit. Plant height ranges from 1.4 to 2.3m. Stem color green. Leaves lanceolate. Flowers yellow with red veins in back of vexillum. Pods green with maroon streaks. Time to 50% flowering ranges from 110 to 124 days and maturity from 141 to 202 days. Seeds large (10.2 to 11.2g/100 seeds) brown colored. Mean protein content of 21.2%. Resistant to wilt and sterility mosaic diseases.

The following were developed by Thomas Gulya, USDA, ARS, North Dakota State University, Northern Crops Research Laboratory, Fargo, North Dakota 58105, United States; Jerry F. Miller, USDA, ARS, Northern Crops Research Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 02/14/1994.

**PI 578008. Helianthus annuus L.**

Breeding. RHA 386. GP-193. Pedigree - S6 fertility restorer line selected from population 82 Rom. R-line Bulk. Homozygous for resistance to Race 2 downy mildew (*Plasmopara halstedii*). Hybrids with cmsHA 89, cmsHA 821, and cmsHA 372 exhibited 160cm plant height, 66 days from planting to flowering, 104 days from planting to maturity, and oil content (dry weight basis) 476g kg<sup>-1</sup>. Upper stem branching conditioned by a recessive gene. Genes for fertility restoration of PET1 cytoplasm male sterility.

The following were developed by Thomas Gulya, USDA, ARS, North Dakota State University, Northern Crops Research Laboratory, Fargo, North Dakota 58105, United States; Jerry F. Miller, USDA, ARS, Northern Crops Research Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Donated by Jerry F. Miller, USDA, ARS, Northern Crops Research Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 02/14/1994.

**PI 578009. Helianthus annuus L.**

Breeding. RHA 387. GP-194. Pedigree - F5-derived F7 fertility restorer line selected from cross RHA 274/83 Rom. R-line Bulk. Homozygous for resistance to Race 2 downy mildew (*Plasmopara halstedii*). Hybrids with cmsHA 89, cmsHA 821, and cmsHA 372 exhibited 168cm plant height, 63 days from planting to flowering, 103 days from planting to maturity, and oil content (dry weight basis) 478g kg<sup>-1</sup>. Upper stem branching conditioned by a recessive gene. Genes for fertility restoration of PET1 cytoplasm male sterility.

**PI 578010. Helianthus annuus L.**

Breeding. RHA 388. GP-195. Pedigree - F5-derived F7 fertility restorer line selected from cross RHA 274/Felix. Homozygous for resistance to Race 2 downy mildew (*Plasmopara halstedii*). Hybrids with cmsHA 89, cmsHA 821 and cmsHA 372 exhibited 165cm plant height, 65 days from planting to flowering, 101 days from planting to maturity, and oil content (dry weight basis) 478g kg<sup>-1</sup>. Upper stem branching conditioned by a recessive gene. Genes for fertility restoration of PET1 cytoplasm male sterility.

**PI 578011. Helianthus annuus L.**

Breeding. RHA 389. GP-196. Pedigree - S6 fertility restorer line selected from Cycle 3 of Downy Mildew Resistant R-line Synthetic (DMRRS). Homozygous for resistance to Race 2 downy mildew (*Plasmopara halstedii*). Hybrids with cmsHA 89, cmsHA 821, and cmsHA 372 exhibited 170cm plant height, 66 days from planting to flowering, 104 days from planting to maturity, and oil content (dry weight basis) 484g kg<sup>-1</sup>. Significantly higher oil content than check hybrids-894 and cmsHA 821/RHA 274. Upper stem branching conditioned by a recessive gene. Genes for fertility restoration of PET1 cytoplasm male sterility.

The following were developed by William Branch, University of Georgia, Coastal Plain Experiment Station, Department of Agronomy, Tifton, Georgia 31793-0748, United States. Received 02/14/1994.

**PI 578012. Arachis hypogaea L.**

Genetic. CURLY-LEAF; Georgia Peanut GS-97. GS-3. Pedigree - Arose as aberrant off-type plant in progeny row of Chico/ Florigiant. Single

recessive gene, *cur*, for Curly-leaf characteristic. Decumbent or intermediate growth habit. Maturity about one week earlier than Florigiant in south Georgia. Testa color pink. Seed weight approx. 44g 100 seed-1.

The following were developed by David Evans, Washington State University-Prosser, Route 2, Box 2953A, Prosser, Washington 99350-9687, United States; Richard N. Peadar, USDA, ARS, Irrigated Agricultural Research, & Extension Center, Prosser, Washington 99350, United States; James H. Elgin, USDA, ARS, Room 326, Building 005, BARC-West, 10300 Baltimore Avenue, Beltsville, Maryland 20705-2350, United States. Received 02/14/1994.

**PI 578013. *Medicago sativa* L. ssp. *sativa***

Breeding. W12SR(2)W(1)FU(1). GP-280. Pedigree - Recurrent phenotypic sel. in Beltsville 72 [Saranac An(2)W(4)]. Alfalfa synthetic with 73% resistance to *Clavibacter michiganensis* sub sp. *insidiosus*, 52 and 20% resistance to races 1 and 2 of *Colletotrichum trifolii*, 64% resistance to *Ditylenchus dispaci*, 14% resistance to *Phytophthora megasperma* sp. *medicaginis*, 16% resistance to *Verticillium albo atrum*, 61% resistance to *Fusarium oxysporum*, 50% resistance to *Meloidogyne hapla*. Poor host of race 2 of *Meloidogyne chitwoodi* (reproduction factor < 2). Dormancy class 4. Syn 2 seed produced for release after selection.

The following were developed by Asgrow Seed Company, United States. Received 02/09/1994.

**PI 578014. *Pisum sativum* L.**

Cultivar. "XPF 266". PVP 9400074.

**PI 578015. *Pisum sativum* L.**

Cultivar. "XPF 274". PVP 9400075.

**PI 578016. *Pisum sativum* L.**

Cultivar. "XPF 291". PVP 9400076.

**PI 578017. *Pisum sativum* L.**

Cultivar. "XPF 292". PVP 9400077.

**PI 578018. *Phaseolus vulgaris* L.**

Cultivar. "HIGHWAY". PVP 9400078.

**PI 578019. *Phaseolus vulgaris* L.**

Cultivar. "RUSHMORE". PVP 9400079.

**PI 578020. *Phaseolus vulgaris* L.**

Cultivar. "SALOU". PVP 9400080.

**PI 578021. *Phaseolus vulgaris* L.**

Cultivar. "XPB286". PVP 9400081.

The following were developed by Asgrow Seed Company, United States. Donated by Nunhems Seed Corporation, United States. Received 02/09/1994.

**PI 578022. *Pisum sativum* L.**

Cultivar. "TARGHEE". PVP 9400082.

The following were developed by Ferry-Morse Seed Company, United States. Received 02/09/1994.

**PI 578023. *Lactuca sativa* L.**

Cultivar. "VANFALL". PVP 9400083.

The following were developed by Ferry-Morse Seed Company, United States.  
Donated by Seed Research of Oregon, Inc., United States. Received 02/09/1994.

PI 578024. *Festuca rubra* var. *commutata* Gaudin  
Cultivar. "SR 5100". PVP 9400084.

The following were developed by Pure-Seed Testing, Inc., United States.  
Received 02/09/1994.

PI 578025. *Festuca rubra* var. *littoralis* Vasey  
Cultivar. "SEABREEZE". PVP 9400085.

The following were developed by Petroseed Company, Inc., United States.  
Donated by Petroseed Company, Inc., United States. Received 02/09/1994.

PI 578026. *Capsicum annuum* L.  
Cultivar. "R&C CAYENNE". PVP 9400086.

The following were developed by Pure-Seed Testing, Inc., United States.  
Received 02/09/1994.

PI 578027. *Dactylis glomerata* L.  
Cultivar. "ELSIE". PVP 9400087.

The following were developed by Busch Agricultural Resources, Inc., 3515 East  
County Road 52, Fort Collins, Colorado 80524, United States. Received  
02/09/1994.

PI 578028. *Hordeum vulgare* L. ssp. *vulgare*  
Cultivar. "B2912"; 6B84-2912. PVP 9400088. Pedigree -  
Robust//Morex/Six-Row Composite. Six-rowed malting barley adapted to the  
spring barley producing areas of Minnesota, North and South Dakota, and  
the Canadian provinces of Manitoba and Saskatchewan. It is also adapted  
to the irrigated malt barley producing areas of Idaho, Montana, Wyoming,  
Colorado, and Alberta, Canada. Malting quality is similar to Morex,  
however, it has a plumper seed and 10% higher yield.

The following were developed by Pioneer Hi-Bred International, Inc., United  
States. Received 02/09/1994.

PI 578029. *Zea mays* L. ssp. *mays*  
Cultivar. "PHBB3". PVP 9400089.

PI 578030. *Zea mays* L. ssp. *mays*  
Cultivar. "PHEG9". PVP 9400090.

PI 578031. *Zea mays* L. ssp. *mays*  
Cultivar. "PHAA0". PVP 9400091.

PI 578032. *Zea mays* L. ssp. *mays*  
Cultivar. "PHEM7". PVP 9400092.

PI 578033. *Zea mays* L. ssp. *mays*  
Cultivar. "PHHB4". PVP 9400093.

PI 578034. *Zea mays* L. ssp. *mays*

- Cultivar. "PHTE4". PVP 9400094.
- PI 578035. *Zea mays* L. ssp. *mays*  
Cultivar. "PHTD5". PVP 9400095.
- PI 578036. *Zea mays* L. ssp. *mays*  
Cultivar. "PHRD6". PVP 9400096.
- PI 578037. *Zea mays* L. ssp. *mays*  
Cultivar. "PHKM5". PVP 9400097.
- PI 578038. *Glycine max* (L.) Merr.  
Cultivar. "9362". PVP 9400098.
- PI 578039. *Glycine max* (L.) Merr.  
Cultivar. "9393". PVP 9400099.

The following were developed by Ron D. Barnett, North Florida Res. & Ed. Center, R #3, Box 4370, Quincy, Florida 32351, United States. Received 02/16/1994.

- PI 578040. *Triticum aestivum* L., nom. cons.  
Breeding. FL 8150-J9-K1. Pedigree - Coker 762/FL7271A22-4-2-B1-G3. Plant height short, bearded, white chaff.
- PI 578041. *Triticum aestivum* L., nom. cons.  
Breeding. FL 85238-G76. Pedigree - FL8172-G116/FL 303. Test weight exceptional, low vernalization requirement, bearded, white chaff.
- PI 578042. *Triticum aestivum* L., nom. cons.  
Breeding. FL 85238-G3-G2. Pedigree - FL8172-G116/FL 303. Low vernalization requirement, bearded, white chaff.

The following were developed by Lloyd R. Nelson, Texas Agricultural Experiment Station, The Texas A&M University System, Agricultural Research and Extension Center, Overton, Texas 75684-0290, United States. Received 02/16/1994.

- PI 578043. *Triticum aestivum* L., nom. cons.  
Breeding. TX 85-264. Pedigree - Gov-Pc1 "S"/VEE"S". Selection from CIMMYT cross. High yield potential. Plant height about 36 inches. Resistant to powdery mildew. Moderately resistant to *Septoria nodorum*. Susceptible to leaf rust and Hessian fly.
- PI 578044. *Triticum aestivum* L., nom. cons.  
Breeding. TX 86-106H. Pedigree - Pioneer 2157/FL 302. High yield potential. Plant height about 38 inches. Resistant to powdery mildew. Moderately resistant to *Septoria nodorum*. Susceptible to leaf rust and Hessian fly.

The following were developed by K.E. Miskin, AgriPro Biosciences, Inc., P.O. Box 411, Brookston, Indiana 47923, United States. Received 02/16/1994.

- PI 578045. *Triticum aestivum* L., nom. cons.  
Breeding. ABI 89-4584A. Pedigree - Pike/FL 302. Broadly adapted in the soft red winter wheat region. High yield potential. Susceptible to stem rust.
- PI 578046. *Triticum aestivum* L., nom. cons.  
Breeding. ABI 89-4476. Pedigree - Choti Lerma/Funk 5215//Arthur 71. Adapted to the mid-south in the soft red wheat region. Good milling,

excellent baking quality.

The following were developed by Carl A. Griffey, VPI & SU, Dept. of Crop, Soil, & Environmental Sciences, 334-A Smyth Hall, Blacksburg, Virginia 24061-0404, United States. Received 02/16/1994.

**PI 578047. *Triticum aestivum* L., nom. cons.**

Breeding. VA 90-52-26. Pedigree - Lovrin 29/Tyler//Redcoat\*2/Gaines. 1B/1R translocation. Lr26 and moderately resistant to powdery mildew. Excellent yield potential and good test weight. Moderately wide adaptation.

The following were developed by B. Glaz, USDA, ARS, Sugarcane Field Station, Canal Point, Florida 33438, United States; P.Y.P. Tai, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; Christopher W. Deren, University of Florida, Institute of Food and Agriculture, EREC Box 8003, Belle Glade, Florida 33430, United States; Jimmie D. Miller, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; J.M. Shine, Jr., Florida Sugar Cane League, Inc., Clewiston, Florida 33440, United States; Jack C. Comstock, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 02/11/1993.

**PI 578048. *Saccharum* hybrid**

Cultivar. "CP 81-1238"; M00607; Q 30827. CV-95. Pedigree - Selected from polycross 78P8 with CP 71-1027 as its female parent. Recommended for production on sandy soils. Resistance to sugarcane mosaic virus, eye spot (*Bipolaris sacchari*), and smut (*Ustilago scitaminea*). Low levels of sporulating pustules of rust (*Puccinia melanocephala*) and low levels of leaf scald (*Xanthomonas albilineans*); but no evidence of economic impact from either disease. Millability rating of 0.99 and fiber content of 9.5%.

**PI 578049. *Saccharum* hybrid**

Cultivar. "CP 84-1198"; M00758; Q 32835. CV-96. Pedigree - CP 70-1133/CP 72-2086. Sugar content 8-10% higher than the check varieties at beginning of harvest season. Resistance to sugarcane mosaic virus, eye spot (*Bipolaris sacchari*), rust (*Puccinia melanocephala*) and smut (*Ustilago scitaminea*). Resistant to leaf scald (*Xanthomonas albilineans*) although naturally infected plants occasionally seen in the field. Millability rating of 0.98 and fiber content of 9.7%.

**PI 578050. *Saccharum* hybrid**

Cultivar. "CP 85-1432"; M00761; Q 32838. CV-97. Pedigree - Polycross 82P26 with CP 70-1527 as the female parent. Maturity late. Improved sucrose content and cane yield. Resistance to sugarcane mosaic virus, leaf scald (*Xanthomonas albilineans*), eye spot (*Bipolaris sacchari*), and smut (*Ustilago scitaminea*). A few sporulating pustules of rust (*Puccinia melanocephala*) have been seen, but no evidence of economic impact. Millability rating of 0.96 and fiber content of 10.4%.

**PI 578051. *Saccharum* hybrid**

Cultivar. "CP 85-1491"; M00762; Q 32839. CV-98. Pedigree - CP 75-1553/CP 72-2086. Stalks light green under leaf sheaths but turn reddish in areas exposed to sunlight. Resistance to sugarcane mosaic virus, leaf scald (*Xanthomonas albilineans*), eye spot (*Bipolaris sacchari*), and smut (*Ustilago scitaminea*), and rust (*Puccinia melanocephala*). Millability rating of 1.00 and fiber content of 10.4%.

The following were developed by Ken H. Quesenberry, University of Florida, Department of Agronomy, 304 Newell Hall, Gainesville, Florida 32611-0500,

United States; Richard R. Smith, USDA, ARS, U.S. Dairy Forage Research Center, University of Wisconsin, Madison, Wisconsin 53706, United States. Received 02/18/1994.

**PI 578052. *Trifolium pratense* L.**

Breeding. NEWRC. GP-21. Pedigree - A synthetic (Syn 2) developed by applying 5 cycles of recurrent phenotypic sel. for increased plant regeneration from cv. Arlington. Fifty-three cycle 4 plants intercrossed to prod. cycle 5 (Syn 1). Approx. 3000 Syn 1 pl. intercrossed. High plant regeneration from callus tissue culture (72%) and has use in genetic transformation and breeding research. Good general agronomic adaptation and relatively good resistance to *Kabatiella caulivora*.

The following were developed by Wayne Smith, Texas A&M University, Department of Soil & Crop Science, College Station, Texas 77843, United States; G.A. Niles, Texas A & M University, Dept. of Soil and Crop Sci., College Station, Texas 77843, United States. Received 02/18/1994.

**PI 578053. *Gossypium hirsutum* L.**

Breeding. TAM 87D3-24; 87D3-24. GP-599. Pedigree - PD 6992/79-XX-15 (a high strength line of unknown parentage). Similar to Stoneville 825 in plant height and phenology when grown under irrigation at College Station, Texas. Plants require about same length growing season as Stoneville 825. Leaves and stems pubescent. Mature bolls have storm resistance similar to most delta type cotton cultivars and not sufficient for commercial production in most of Texas. Fiber bundle strength 37% higher than Deltapine 50 and fiber length 6% higher when averaged over several years in Central and South Texas. Fiber properties similar to recent New Mexico Acala cultivars.

**PI 578054. *Gossypium hirsutum* L.**

Breeding. TAM 87G3-27; 87G3-24. GP-600. Pedigree - AET-108/1209-619-2s-77 (a breeding line)//PD 6992. Similar to Stoneville 825 in plant height and phenology when grown under irrigation at College Station, Texas. Plants require about same length growing season as Stoneville 825. Leaves and stems pubescent. Mature bolls have storm resistance similar to most delta type cotton cultivars and not sufficient for commercial production in most of Texas. Fiber bundle strength 14% higher than Deltapine 50 and fiber length 5% longer when averaged over several environments in Central and South Texas.

**PI 578055. *Gossypium hirsutum* L.**

Breeding. TAM 87D3-2527; D3-2527. GP-601. Pedigree - PD 6992/79-XX-15 (a high strength line of unknown parentage). Similar to Stoneville 825 in plant height and phenology when grown under irrigation at College Station, Texas. Plants require about same length growing season as Stoneville 825. Leaves and stems pubescent. Mature bolls have storm resistance similar to most delta type cotton cultivars and not sufficient for commercial production in most of Texas. Fiber bundle strength 33% higher than Deltapine 50 and fiber length 4% longer when averaged over several years in Central and South Texas. Fiber properties similar to recent New Mexico Acala cultivars.

**PI 578056. *Gossypium hirsutum* L.**

Breeding. TAM 86G3-30; 86G3-30. GP-602. Pedigree - PD 6520/Acala 1517-70//1656-71-2c-1-1/Delcot 277. Similar to delta cotton phenotype with the exception of shorter fruiting branch internodes. Plants similar to Stoneville 453 in height and maturity. Sufficient storm resistant open bolls for dryland production in Central and South Texas. Susceptible to all of the insects and diseases that normally attack cotton in Central and South Texas. Significantly stronger fiber bundle strength than Deltapine 50, with other fiber properties similar to Deltapine 50.

The following were developed by Dennis Thomas, University of Illinois, Department of Agronomy, 1102 S. Goodwin Avenue, Urbana, Illinois 61801, United States; C.D. Nickell, University of Illinois, Department of Agronomy, 1102 S. Goodwin Avenue, Urbana, Illinois 61801, United States; Greg Noel, USDA-ARS, University of Illinois, Department of Plant Pathology, Urbana, Illinois 61801, United States; P.A. Owen, Missouri Agr. Exp. Sta., University of Missouri, Columbia, Missouri 65211, United States; K. Frey, University of Illinois, Department of Agronomy, 1102 S. Goodwin Avenue, Urbana, Illinois 61801, United States. Received 02/18/1994.

PI 578057. *Glycine max* (L.) Merr.  
Cultivar. "SALINE". CV-324. Pedigree - F4 selection from Sherman x Fayette. Flowers white. Pubescence gray. Pods tan at maturity. Seeds dull yellow with buff hila. 100-seed weight 14.4g with 40.2% seed protein and 22.2% oil. Group III maturity (relative maturity 3.9). Plant height 102cm. Resistant to soybean cyst nematode (*Heterodera glycines*) Races 3 and 14. Moderately resistant to Races 2 and 4 and susceptible to Races 1 and 5.

The following were developed by R.C. Leffel, USDA, ARS, Soybean and Alfalfa Res. Lab., PSI, Bldg. 011, HH 19, BARC-West, Beltsville, Maryland 20705, United States. Received 02/18/1994.

PI 578058. *Glycine max* (L.) Merr.  
Genetic. BARC-12; MD 91L-048. GP-169. Pedigree - N85 - 2176 X N85 - 2124. Both lines from N78-2245 X PI 123440. N78-2245 derived from a 5th cycle of recurrent selection for high oleic acid. Linolenic acid low (18:3) in the oil. Group III maturity. Flowers white. Pubescence tawny. Stem termination determinate. Seed yellow with black hila.

The following were donated by Jimmie D. Miller, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 02/01/1994.

PI 578059. *Saccharum spontaneum* L.  
Cultivated. S 66-101. Collected in Taiwan.

PI 578060. *Saccharum spontaneum* L.  
Cultivated. IK 76-112. Collected in Australia. Brisbane.

PI 578061. *Saccharum spontaneum* L.  
Cultivated. IND. 82-318. Collected in India. Coimbatore.

PI 578062. *Saccharum spontaneum* L.  
Cultivated. MOL 1032. Collected in Queensland, Australia.

PI 578063. *Saccharum spontaneum* L.  
Cultivated. IJ 76-125. Collected in Queensland, Australia.

The following were developed by Jimmie D. Miller, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 02/01/1994.

PI 578064. *Saccharum spontaneum* L.  
Cultivated. IS 76-171. Collected in Indonesia.

The following were developed by K. B. Singh, Int. Center For Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; M.V. Reddy, Int.

- PI 578065. *Cicer arietinum* L.  
Breeding. "FLIP 90-98C". GP-128. Pedigree - FLIP 83-7C/FLIP 8U-92C.  
Maturity early. Plant height normal (40cm). Growth habit bushy. Seed  
size medium (29g per 100 seeds), kabuli-type. Resistant to six races of  
*Ascochyta rabiei* identified from Syria and Lebanon. Tolerance of cold.  
Resistant to iron-deficiency chlorosis.
- PI 578066. *Cicer arietinum* L.  
Breeding. "FLIP 91-2C". GP-131. Pedigree - FLIP 85-1C/FLIP 8U-81C.  
Maturity medium. Plant height normal (43cm). Growth habit bushy. Seed  
size large (49g per 100 seeds), kabuli-type, ram-head shaped, beige  
colored. Resistant to six races of *Ascochyta rabiei* identified from  
Syria and Lebanon. Tolerant of cold in the Mediterranean basin.  
Resistant to iron-deficiency chlorosis.
- PI 578067. *Cicer arietinum* L.  
Breeding. "FLIP 91-18C". GP-135. Pedigree - ILC 1919/ FLIP 8U-79C.  
Maturity early. Plant height tall (49cm). Growth habit semi-erect. Seed  
large (45g per 100 seeds), kabuli-type, ram-head shaped, beige colored.  
Resistant to six races of *Ascochyta rabiei* identified from Syria and  
Lebanon. Tolerant of cold in the Mediterranean basin. Resistant to  
iron-deficiency chlorosis.
- PI 578068. *Cicer arietinum* L.  
Breeding. "FLIP 91-22C". GP-129. Pedigree - ILC 1919/ FLIP 8U-99C.  
Maturity early. Plant height normal (44cm). Growth habit bushy. Seed  
size medium (24g per 100 seeds), kabuli-type, beige colored. Resistant  
to six races of *Ascochyta rabiei* identified from Syria and Lebanon.  
Tolerant of cold. Resistant to iron-deficiency chlorosis.
- PI 578069. *Cicer arietinum* L.  
Breeding. "FLIP 91-24C". GP-132. Pedigree - FLIP 8U-17C/ILC 4921.  
Maturity medium. Plant height mid-tall (47cm), growth habit bushy. Seed  
size large (46g per 100 seeds), kabuli-type, ram-head shaped, beige  
colored. Resistant to six races of *Ascochyta rabiei* identified from  
Syria and Lebanon. Tolerance to cold in Mediterranean basin. Resistant  
to iron-deficiency chlorosis.
- PI 578070. *Cicer arietinum* L.  
Breeding. "FLIP 91-46C". GP-130. Pedigree - FLIP 81-293C/FLIP 8U-93C.  
Maturity early. Plant height mid-tall (45cm). Growth habit bushy. Seed  
size medium (36g per 100 seeds), kabuli-type, ram-head shaped, beige  
colored. Resistant to six races of *Ascochyta rabiei* identified from  
Syria and Lebanon. Tolerance to cold in Mediterranean basin. Resistant  
to iron-deficiency chlorosis.
- PI 578071. *Cicer arietinum* L.  
Breeding. "FLIP 91-50C". GP-133. Pedigree - FLIP 85-42C/FLIP 86-93C.  
Maturity medium. Plant height mid-tall (46cm). Growth habit bushy. Seed  
size large (51g per 100 seeds), kabuli type, ram-head shaped, beige  
colored. Resistant to six races of *Ascochyta rabiei* identified from  
Syria and Lebanon. Tolerance to cold in Mediterranean basin. Resistant  
to iron-deficiency chlorosis.
- PI 578072. *Cicer arietinum* L.  
Breeding. "FLIP 91-54C". GP-134. Pedigree - (ILC 519/FLIP 83-47C)/ILC  
519. Maturity early. Plant height tall (51cm). Growth habit semi-erect.  
Seed size large (40g per 100 seeds), kabuli-type, ram-head shaped, beige  
colored. Resistant to six races of *Ascochyta rabiei* identified from  
Syria and Lebanon. Tolerance of cold in Mediterranean basin. Resistant  
to iron-deficiency chlorosis.

The following were developed by David D. Baltensperger, University of Nebraska, Panhandle Res. & Ext. Center, 4502 Avenue I, Scottsbluff, Nebraska 69361-4939, United States. Received 02/25/1994.

**PI 578073. *Panicum miliaceum* L.**

Cultivar. "EARLYBIRD"; 87041. CV-170. Pedigree - Increase of white proso F3 derived F4 line from Minco/NE76010/Rise/NE79017. NE760101 is sel. from Dawn/ Panhandle and NE79017 is sel. from Dawn/NE760101. Seed coat (lemma and palea) white. Panicle compactum type (closed). Foliage green in color and similar to Sunup. Cool growing conditions increase incidence of red pigmentation in foliage. Yield potential similar to Sunup, 6% more than Rise, and 41% more than Dawn. Seed size (684 seeds per 5g) larger than all previously released cultivars. Average 4% larger seed size compared to Dawn, and 6% larger than Sunup and Snowbird. Straw strength similar to Sunup and better than other cultivars with similar plant height. Maturity intermediate between Dawn and Sunup.

The following were developed by L.A. Nelson, Nebraska Agr. Exp. Sta., University of Nebraska-Lincoln, Lincoln, Nebraska 68583-0915, United States; David D. Baltensperger, University of Nebraska, Panhandle Res. & Ext. Center, 4502 Avenue I, Scottsbluff, Nebraska 69361-4939, United States; G.E. Frickel, Panhandle Res. and Ext. Center, University of Nebraska, Scottsbluff, Nebraska 69361, United States; R.L. Anderson, USDA, ARS, Central Great Plains Res. Station, Akron, Colorado 80720, United States. Received 02/25/1994.

**PI 578074. *Panicum miliaceum* L.**

Cultivar. Pureline. "HUNTSMAN"; 870063. CV-175. Pedigree - Increase of white proso F3 derived F4 line from NE79012/NE79017/3/Cope//Dawn/Common. NE79012 is sel. from Dawn/NE76004 and NE79017 is sel. from Dawn NE76010. NE76004 is sel. fr Dawn/Min 402 & NE76010 is sel. fr Dawn/Panhandle. Seed coat white. Panicle compactum closed type. Foliage green and similar to Sunup. Yield potential similar to Sunup, 11% more than Rise, and 46% more than Dawn. Maturity intermediate between Cope and Sunup and later in maturity than all previous Nebraska releases. Seed size (711 seeds per 5g) larger than all previously released cultivars except Dawn. Averaged 2% larger seed size than Sunup & Snowbird and 5% larger than Rise. Straw strength similar to Sunup & better than other cvs. with similar plant height. Plant height intermediate between Rise & Sunup.

The following were developed by William F. Grant, Macdonald Campus of McGill University, Department of Plant Science, P.O. Box 4000, Ste Anne De Bellevue, Quebec H9X 3V9, Canada; R.B. McDougall. Received 02/25/1994.

**PI 578075. *Lotus corniculatus* L.**

Breeding. H401-4-4-2. GP-136. Pedigree - Field selection originating from in vitro herbicide exposure. Source of resistance to the sulfonylurea (SU) herbicide thifensulfuron-methyl (Du Pont, DPX-M6316; Harmony; 3-[[[(4-methoxy-6methyl-1,3,5, triazine-2-y1) amino] carbonyl] amino] sulfonyl-2-thiophenecarboxylate). Field selection originating from in vitro herbicide exposure. Callus was tested on selection media (10<sup>-7</sup>, 2.5 x 10<sup>-7</sup>, 5 x 10<sup>-7</sup>, 7.5 x 10<sup>-7</sup>, 10<sup>-6</sup>, and 2.5 x 10<sup>-6</sup> M SU) for six passages. Tolerant lines were field tested with 0.0, 30.0, 60.0, and 100.0g SU a.i./ha. Tolerant to 100g SU a.i./ha. The trait is heritable.

The following were developed by J.D. Kelly, Michigan Agr. Exp. Sta., Michigan State University, Dept. of Crop and Soil Sciences, East Lansing, Michigan 48824-1325, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824, United States; Greg Varner, Dry Edible Bean Research, Advisory Board, 3066 S.

Thomas Road, Saginaw, Michigan 48603, United States; J. Taylor, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States; R.A. Long, County Extension, 151 E. Huron Avenue, Rogers City, Michigan 49779, United States; M.A. Uebersax, Michigan State University, Dept. of Food Sci. and Human Nutrition, East Lansing, Michigan 48824, United States. Received 02/25/1994.

**PI 578076. *Phaseolus vulgaris* L.**

Cultivar. "ISLES"; K86012; W6 15062. CV-113; PVP 9500062. Pedigree - X82405/Isabella. X82405 is an anthracnose resistant dark red kidney bean from MSU. Full season dark red kidney (DRK) bean with unique adaptation to Northern Michigan. Growth habit type I determinate. Plants 48cm in height. Flower color pink. Flowers in 44 days and matures in 96 days after planting. Carries I gene resistance to BCMV, A and Are gene combination for anthracnose resistance and is tolerant to Michigan isolates of rust. Seed size 60g per 100 seeds and exhibits excellent canning quality after processing.

The following were developed by J.D. Kelly, Michigan Agr. Exp. Sta., Michigan State University, Dept. of Crop and Soil Sciences, East Lansing, Michigan 48824-1325, United States; Mary Brothers, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824, United States; Greg Varner, Dry Edible Bean Research, Advisory Board, 3066 S. Thomas Road, Saginaw, Michigan 48603, United States; J. Taylor, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States; M.A. Uebersax, Michigan State University, Dept. of Food Sci. and Human Nutrition, East Lansing, Michigan 48824, United States. Received 02/25/1994.

**PI 578077. *Phaseolus vulgaris* L.**

Cultivar. "HURON"; N90563; W6 15063. CV-112; PVP 9500063. Pedigree - C-20/Harokent. Mid-season, high yielding Navy bean. Growth habit erect type II indeterminate. Plants averaging 45cm in height. Flowers in 42 days and matures in 92 days after planting. Carries I gene resistance to BCMW, Are gene resistance to anthracnose, Ur-3 gene resistance to rust, and exhibits high levels of tolerance to white mold. Seed size 22g per 100 seeds and exhibits excellent canning quality after processing.

The following were developed by J.D. Kelly, Michigan Agr. Exp. Sta., Michigan State University, Dept. of Crop and Soil Sciences, East Lansing, Michigan 48824-1325, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824, United States; Greg Varner, Dry Edible Bean Research, Advisory Board, 3066 S. Thomas Road, Saginaw, Michigan 48603, United States; J. Taylor, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States; M.A. Uebersax, Michigan State University, Dept. of Food Sci. and Human Nutrition, East Lansing, Michigan 48824, United States; S.D. Haley, South Dakota State University, Plant Science Dept., Brookings, South Dakota 57007, United States. Received 02/25/1994.

**PI 578078. *Phaseolus vulgaris* L.**

Cultivar. "RAVEN"; B90222; W6 15064. CV-114; PVP 9500064. Pedigree - N84004/B85009. N84004 is an anthracnose resistance navy bean breeding line from MSU. B85009 is a BCMV resistant black bean breeding line from MSU. Growth habit erect type-II indeterminate with excellent lodging resistance. Plants 50cm in height. Flower color purple. Flowers in 42 days and matures in 94 days after planting. Carries the combination of I gene and bc-3 gene for resistance to all strains of BCMV, A gene for resistance to alpha anthracnose, Ur-3 gene resistance to rust. Seed size 16g per 100 seeds, which is equivalent to commercial black bean cultivars.

The following were donated by Robert T. Lewellen, USDA, ARS, U.S. Agricultural Research Station, 1639 E. Alisal St., Salinas, California 93905, United States. Received 02/25/1994.

**PI 578079. Beta vulgaris L.**

Breeding. C918; 3918; 3918(Sp). Pedigree - Composite crosses and selections within C37 and C46 type germplasm that had genetic ms and Sf incorporated. Rz resistance to rhizomania was also incorporated. Multigerm, self-fertile (Sf), random-mated population facilitated by genetic male sterility (A:aa). Segregates for resistance to rhizomania (Rz). Based upon its pedigree and per se performance, has genetic variability and moderate resistance to virus yellows, curly top, Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*) and bolting. An increase through genetic male sterile segregates of S1 lines selected based upon per se performance for nonbolting, disease resistance, and % sucrose. S1 lines from popn-913 and popn-915.

**PI 578080. Beta vulgaris L.**

Breeding. C909-34; 3903-34. Pedigree - Increase of an S1 line from popn-909. Popn-909 is similar to C918. Selected on the basis of performance under rhizomania conditions. Narrowly based line with resistance to Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*), and rhizomania (BNYVV) (Rz). Tolerant to virus yellows (BYV & BWYV) and curly top virus. Moderate resistance to bolting.

**PI 578081. Beta vulgaris L.**

Breeding. C909-37; 3909-37. Pedigree - Increase of an S1 line from popn-909. Popn-909 is similar to C918. Selected on basis of performance under rhizomania conditions. Sister line to C909-34. Narrowly based with resistance to Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*), and rhizomania (BNYVV) (Rz). Tolerant to virus yellows (BYV & BWYV) and curly top virus. Moderate resistance to bolting.

**PI 578082. Beta vulgaris L.**

Breeding. C911-4; 3911-4. Pedigree - From popn-911. Half-sib family selected on basis of resistance to rhizomania, virus yellows, Erwinia, and bolting and for sugar yield performance. Narrowly based line with Rz for resistance to rhizomania (BNYVV). Segregates M:mm. Moderately resistant to Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*), virus yellows (BYV & BWYV), curly top virus, and bolting. Performance traits good for sugar yield.

**PI 578083. Beta vulgaris L.**

Breeding. C911-12; 3911-12. Pedigree - From popn-911. Half-sib family selected on basis of resistance to rhizomania, virus yellows, Erwinia, and bolting and for sugar yield performance. Sister line to C911-4. Narrowly based with Rz for resistance to rhizomania (BNYVV). Segregates M:mm. Moderately resistant to Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*), virus yellows (BYV & BWYV), curly top virus, and bolting. Performance traits good for sugar yield.

**PI 578084. Beta vulgaris L.**

Breeding. C911-14; 3911-14. Pedigree - From popn-911. Half-sib family selected on basis of resistance to rhizomania, virus yellows, Erwinia, and bolting and for sugar yield performance. Sister line to C911-4. Narrowly based with Rz for resistance to rhizomania (BNYVV). Segregates M:mm. Moderately resistant to Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*), virus yellows (BYV & BWYV), curly top virus, and bolting. Performance traits good for sugar yield.

**PI 578085. *Beta vulgaris* L.**

Breeding. C911-50; 3911-50. Pedigree - From popn-911. Half-sib family selected on basis of resistance to rhizomania, virus yellows, Erwinia, and bolting and for sugar yield performance. Sister line to C911-4. Narrowly based with Rz for resistance to rhizomania (BNYVV). Segregates M:mm. Moderately resistant to Erwinia (*E. carotovora beta vasculorum*), powdery mildew (*Erysiphe polygoni*), virus yellows (BYV & BWYV), curly top virus, and bolting. Performance traits good for sugar yield.

**PI 578086. *Beta vulgaris* L.**

Breeding. C76-43; R376-43-#(C); R376-43 (Iso). Pedigree - Selected from pair crosses between C31-43 and R76 that had the best per se performance for nonbolting and % sucrose. Eight selected pair crosses were recombined. R76 is the Rz near isoline of C31/6. Multigerm, self-sterile line. Traits similar to C31-43 but has the Rz resistance to rhizomania. Agronomic performance traits good. Moderately resistant to virus yellows (BYV, & BWYV). Moderately susceptible to curly top. High per se performance. Widely adapted in California. Useful as an advanced breeding line from which to make selections for potential parental lines

**PI 578087. *Beta vulgaris* L.**

Breeding. C76-89; R376-89-#(C); R376-89 (Iso). Pedigree - Selected from pair crosses between C31-89 and R76 that had the best per se performance for nonbolting and % sucrose. Six selected pair crosses were recombined. R76 is the Rz near isoline of C31/6. Multigerm, self-sterile line. Traits similar to C31-89 but has the Rz resistance to rhizomania. Similar to C76-43.

The following were developed by Robert T. Lewellen, USDA, ARS, U.S. Agricultural Research Station, 1639 E. Alisal St., Salinas, California 93905, United States. Received 02/25/1994.

**PI 578088. *Beta vulgaris* L.**

Breeding. "C604"; N304; N204. GP-159. Pedigree - From homozygous cyst nematode resistant S2 line derived from a cross between population 909 and B883. Homozygous, nematode (*Heterodera schachtii*) resistant line. Multigerm and self-fertile (Sf). Greatest value is as bridge from the cyst nematode resistant source B883 that has very poor agronomic and disease resistance traits to breeding material with nematode resistance adapted to the western USA. Hypocotyl color homozygous red.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; Ayla Sencor, Aegean Agric. Res. Inst. Gene Bank, Menemen, Izmir, Turkey; James A. Hoffman, USDA, ARS, Utah State University, Logan, Utah 84322, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Donated by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 02/28/1994.

**PI 578089. *Secale cereale* L. ssp. *cereale***

Cultivated. 79TK077-412; NSGC 5067. Collected 1979 in Van, Turkey. Elevation 1760 m. 9 km northwest of Ercis.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States; M. Kanbertay, Aegean Agric. Res. Inst., Menemen, Izmir, Turkey. Donated by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 02/28/1994.

**PI 578090. *Secale cereale* L. ssp. *cereale***  
Cultivated. 84Tk589-003.8; NSGC 5068. Collected 1984 in Bitlis, Turkey.  
Elevation 2750 m. Grazed area east side of Nemrut Lake.

**PI 578091. *Secale* sp.**  
Cultivated. 84TK498-001; NSGC 5069. Collected 1984 in Van, Turkey.  
Elevation 1900 m. Akdamar Landing.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States.  
Received 02/28/1994.

**PI 578092. *Secale* sp.**  
Cultivated. 86PK1262-003; NSGC 5070. Collected 1986 in North-West Frontier, Pakistan.

The following were donated by USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Washington, District of Columbia 20002, United States.  
Received 06/08/1990.

**PI 578093. *Alnus maximowiczii* Callier ex C. Schneider**  
Wild. NA 61803; NEKG 204; Ames 13824. Collected in Korea, South.  
Latitude 37 deg. 29' N. Longitude 130 deg. 49' E. Elevation 460 m.  
Kyong-san-puk-do, Ullung-gun, above Nam Yang. Growing on south facing slope with *Pinus parviflora*, *Fagus multinervis*, *Tsuga sieboldii*, and various others.

The following were donated by Karl-Marx-Universitat, Sektion Biowissenschaften, Botanischer Garten, Linnestrassse 1, Leipzig, Germany.  
Received 06/12/1990.

**PI 578094. *Althaea armeniaca* Ten.**  
Cultivated. 1763; Ames 13800.

The following were collected by G. Kosa. Donated by Research Inst. of Ecology and Botany, Hungarian Academy of Science, Botanical Garden, Vacratot, Hungary.  
. Received 06/03/1992.

**PI 578095. *Althaea officinalis* L.**  
Wild. No. 37; Ames 19116. Collected in Hungary. Alkaline sand-steppes, Festuco-puccinellietalia, near Orgovany and Fulopaszallas, Kiskunsag. Part of Great Hungarian Plain between Duna, Danube and Tisza Rivers.

The following were donated by USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Washington, District of Columbia 20002, United States.  
Received 06/08/1990.

**PI 578096. *Aronia arbutifolia* (L.) Pers.**  
Wild. GU 103; NA 61235; Ames 13825. Collected in Virginia, United States  
. Collected in George Washington National Forest/Blue Ridge Parkway.  
Magnolia swamp, Augusta County, VA.

The following were donated by Robert Kleiman, USDA, ARS, National Center for Agric., Utilization Research (NCAUR), Peoria, Illinois 61604, United States.  
Received 01/30/1992.

**PI 578097. *Calendula arvensis* L.**

Wild. NU 44356; Ames 18455; TURKEY 1140. Collected in Turkey.

The following were donated by L.J.M. van Soest, Center for Genetic Resources, the Netherlands, P.O. Box 224, Wageningen, Gelderland 6700 AE, Netherlands. Received 08/31/1992.

PI 578098. *Calendula arvensis* L.

Cultivated. 880547; Ames 19369. Collected in Sweden.

PI 578099. *Calendula arvensis* L.

883073; Ames 19370. Collected in Morocco.

PI 578100. *Calendula arvensis* L.

883107; Ames 19371. Collected in Spain.

PI 578101. *Calendula hybrid*

Cultivated. CPRO-880583; Ames 19067. Pedigree - There is a continuum of floral fruit and vegetative types from *C. suffruticosa* to *C. officinalis*.

PI 578102. *Calendula hybrid*

883109; Ames 19377. Collected in Hungary. Pedigree - Is clearly not *arvensis*. There is a continuum of floral fruit vegetative types from *C. suffruticosa* to *C. officinalis*.

PI 578103. *Calendula hybrid*

883108; Ames 19381. Collected in Hungary. Pedigree - Probable outcrossing between *C. suffruticosa* and *C. officinalis*.

PI 578104. *Calendula meuselii* Ohle

883076; Ames 19376. Collected in Morocco.

The following were donated by Alan Whittmore, USDA/ARS, University of Georgia, Regional Plant Introduction Station, Griffin, Georgia 30223-1797, United States. Received 02/28/1992.

PI 578105. *Calendula officinalis* L.

Cultivated. Ames 19025. Collected 07/23/1991 in Kazakhstan. Kok-Uzek.

PI 578106. *Calendula officinalis* L.

Cultivated. Ames 19026. Collected 07/20/1991 in Kazakhstan. Government store, Alma Ata, Kazakh Republic.

The following were donated by L.J.M. van Soest, Center for Genetic Resources, the Netherlands, P.O. Box 224, Wageningen, Gelderland 6700 AE, Netherlands. Received 02/05/1992.

PI 578107. *Calendula officinalis* L.

Wild. CPRO-880608; Ames 19066; 880608; Ames 19368. Collected in Germany.

The following were donated by Instituto Nacional de Tecnologia Agropecuaria, EEA El Colorado, Formosa R.A.C.C. 5 3603, Argentina. Received 07/30/1991.

PI 578108. *Solanum vernei* Bitter & Wittm.

Wild. SCL 4620 x SCL 4619; Q 28560. Pedigree - *Solanum vernei*/ *Solanum vernei*. Seed obtained from Hyb S, Year 04/12/90, Lot 9079 x 9078.

The following were donated by L.J.M. van Soest, Center for Genetic Resources, the Netherlands, P.O. Box 224, Wageningen, Gelderland 6700 AE,

Netherlands. Received 08/31/1992.

PI 578109. *Calendula suffruticosa* M. Vahl  
883077; Ames 19379. Collected in Algeria.

PI 578110. *Calendula suffruticosa* ssp. *lusitanica* (Boiss.) Ohle  
891136; Ames 19375. Collected in Czech Republic.

PI 578111. *Calendula suffruticosa* ssp. *tomentosa* Murb.  
883074; Ames 19374. Collected in Germany.

The following were donated by Instytut Hodowlii, Aklimatyzacji Roslin, Ogród Botaniczny, ul. Jezdziecka, Bydgoszcz, Poland. Received 06/17/1991.

PI 578112. *Consolida regalis* Gray  
Wild. 145; Ames 15749. Collected in Poland. Morzewiec, Bydgoszcz, Poland.

The following were collected by N.B. Alexeeva; A.V. Cholopova; G.A. Firsov; V.M. Reinwald; N.P. Vassiljev. Donated by V.L. Komarov Botanical Institute, Academy of Science, Popov Street 2, Saint Petersburg, Russian Federation. Received 09/29/1992.

PI 578113. *Gypsophila pacifica* V. Komarov  
Wild. 3235; Ames 20030. Collected in Russian Federation. In the vicinity of the village Chassan in the region Primorij, Far East.

The following were donated by Chollipo Arboretum, Korea, South. Received 07/05/1985.

PI 578114. *Kolkwitzia amabilis* Graebner  
Cultivated. 120; Ames 4402. Collected in Korea, South. Chollipo Arboretum, South Korea.

The following were collected by M. Holub; M. Lhotska; L. Moravcova. Donated by Zdenek Blahnik, Czechoslovak Academy of Sciences, Botanical Institute, Pruhonice, Czechoslovakia. Received 03/16/1990.

PI 578115. *Petrorhagia prolifera* (L.) P. Ball & Heyw.  
Wild. 268; Ames 13167. Collected in Czechoslovakia. Elevation 120 m. Komarno - sandy sites near Chotin village.

The following were collected by E. Krauseova-sajverova. Donated by Botanical Institute, Czechoslovak Academy of Science, 252 43, Pruhonice, Czechoslovakia. Received 03/16/1990.

PI 578116. *Potentilla argentea* L.  
Wild. 428; Ames 13191. Collected in Poland. Elevation 153 m. Kunow - surroundings of the village, Slezsko region.

The following were donated by Hortus Botanicus, Universitatis Posnaniensis, Dabrowskiego 165, Poznan, Poland. Received 08/16/1991.

PI 578117. *Spergula arvensis* L.  
Wild. 236; Ames 17768. Collected in Poland. Slawa Wielkopolska, Wojewosztwo (distr.) poznanskie.

The following were donated by G. Sampo, Instituto de Botanica, Universidade Do Porto, 1191 Rua do Campo Alegre, Porto, Portugal. Received 08/13/1992.

**PI 578118. *Spergula arvensis* L.**

Wild. No. 55; Ames 19359. Collected in Portugal. Lordelo, Porto, Douro Litoral Province.

The following were donated by USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Washington, District of Columbia 20002, United States. Received 10/08/1991.

**PI 578119. *Spiraea miyabei* Koidz.**

Wild. NA 61766; No. 164; Ames 20056. Collected 10/11/1989 in Korea, South. Latitude 38 deg. 5' N. Longitude 128 deg. 25' E. Elevation 700 m. Collected along trail to mineral spring in an open woodland on the road to Osaek, Rt. 44. Kang-won Do, Korea. Multi-stem shrub, .75 to 1.0m tall. Leaves dull green, acuminate. Flowers inflorescence, flat-topped. Growing with *Magnolia sieboldii*, *Taxus cuspidata*, *Quercus*, *Abies holophylla*, *Ulmus*, *Betula*, *Acer pseudosieboldianum* and *Stephanandra*.

The following were collected by Normand Cornellier, Jardin Botanique de Montreal, 4101, Rue Sherbrooke Est, Montreal, Quebec H1X 2B2, Canada; C. Picotte, Montreal Botanic Garden, Svc. Loisirs Development Communautaire, 4101 Rue Sherbrooke Est., Montreal, Quebec H1X 2B2, Canada; Lucille Savoie. Donated by University of Alberta, Devonian Botanical Garden, Edmonton, Alberta T6G 2E1, Canada. Received 03/16/1990.

**PI 578120. *Spiraea tomentosa* L.**

Wild. Ames 13144. Collected 09/27/1989 in Quebec, Canada. Bolton, Co. Brome, Quebec.

The following were donated by University of Turku, Botanical Garden, Turku, Turku ja Pori SF 20500, Finland. Received 04/22/1992.

**PI 578121. *Vaccaria hispanica* (Miller) Rauschert**

Cultivar. "PINK BEAUTY"; No. 185; Ames 19083.

The following were developed by Colorado State University, Colorado Agr. Exp. Station, Colorado, United States; C. E. Townsend, USDA, ARS, Crops Research Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States. Received 03/04/1994.

**PI 578122. *Astragalus cicer* L.**

Breeding. "C-22"; W6 15065. GP-125. Pedigree - 35 parental clones trace to a 304-plant population from Monarch used to develop Windsor. Two cycles of recurrent selection for extended plant height and herbage yield. Improved plant height and forage yield due to the absence of the dormancy-type response to the decreasing photoperiods of mid- to late summer. Mean extended height of the 35 parental clones was 126, 121, and 144% of that of the cultivar Monarch for the first, second, and third harvests, respectively. Mean total herbage yield and mean plant spread of the clones were 145 and 107% of that of Monarch, respectively. Mean seed weight similar to that of Monarch and ranged from 3.54 to 4.67 g/1000 seeds.

**PI 578123. *Astragalus cicer* L.**

Breeding. "C-23"; W6 15066. GP-126. Pedigree - 21 parental clones trace to a 304-plant population from Monarch used to develop Windsor. Two cycles of recurrent selection for extended plant height and herbage

yield. Improved plant height and forage yield due to the absence of the dormancy-type response to the decreasing photoperiods of mid- to late summer. Mean extended height of the 21 parental clones was 118, 120, and 140% of that of the cultivar Monarch for the first, second, and third harvests, respectively. Mean total herbage yield and mean plant spread of the clones were 164 and 140% of that of Monarch, respectively. Mean seed weight similar to that of Monarch and ranged from 3.79 to 4.99 g/1000 seeds.

**PI 578124. *Astragalus cicer* L.**

Breeding. "C-24"; W6 15067. GP-127. Pedigree - 11 parental clones trace to a 304-plant population from Monarch used to develop Windsor. Two cycles of recurrent selection for extended plant height and herbage yield. Improved plant height and forage yield due to the absence of the dormancy-type response to the decreasing photoperiods of mid- to late summer. Mean extended height of the 11 parental clones was 129, 134, and 153% of that of the cultivar Monarch for the first, second, and third harvests, respectively. Mean total herbage yield and mean plant spread of the clones were 121 and 65% of that of Monarch, respectively. Mean seed weight similar to that of Monarch and ranged from 3.48 to 4.71 g/1000 seeds.

The following were donated by David W. Davis, University of Minnesota, Department of Horticultural Sciences, 305 Alderman Hall, St. Paul, Minnesota 55108, United States. Received 03/04/1994.

**PI 578125. *Zea mays* L. ssp. *mays***

Breeding. "AS12". Developed in United States. Pedigree - Developed from composite of 11 U.S. sweet corn and 17 latin races and cultigens by recurrent phenotypic selection, with recombination, followed by pedigree selection and final bulking. Open pollinated sugary (su) population having high resistance to common leaf rust (*Puccinia sorghi*), typically scoring 1.5 to 2.5 on a 0 to 9 visual scale where 0 = absence of symptoms and 1 to 9 = 0.68, 2.1, 5.7, 11.5, 20, 36, 55, 80 and 96% diseased leaf area, respectively. Plants generally single stalked, narrow leaved, and possess medium vigor under Minnesota conditions. Ears darked-silked, possess 14-16 rows. Flowers at about 1200 heat units. Kernels small, medium yellow.

The following were developed by Asgrow Seed Company, United States. Received 03/03/1994.

**PI 578126. *Allium cepa* L.**

Cultivar. "SERRANA". PVP 9400071.

**PI 578127. *Allium cepa* L.**

Cultivar. "REGIA". PVP 9400072.

**PI 578128. *Allium cepa* L.**

Cultivar. "XP6702". PVP 9400073.

The following were developed by Northrup King Company, United States. Received 03/03/1994.

**PI 578129. *Zea mays* L. ssp. *mays***

Cultivar. "910". PVP 9400100.

The following were developed by FFR Cooperative, United States. Received 03/03/1994.

PI 578130. *Festuca arundinacea* Schreber  
Cultivar. "STARGRAZER". PVP 9400101.

The following were developed by Northrup King Company, United States.  
Received 03/03/1994.

PI 578131. *Nicotiana tabacum* L.  
Cultivar. "K730". PVP 9400102.

The following were developed by Challenge Seeds Limited, New Zealand. Donated  
by Challege Seeds Limited, United States. Received 03/03/1994.

PI 578132. *Trifolium ambiguum* M. Bieb.  
Cultivar. "ENDURA". PVP 9400103. Collected in New Zealand.

The following were developed by John Shanahan, Colorado State University,  
Department of Agronomy, Fort Collins, Colorado 80523, United States; D.R.  
Wood, Colorado State University, Department of Agronomy, Fort Collins,  
Colorado 80523, United States; Mark A. Brick, Colorado State University,  
Department of Agronomy, Fort Collins, Colorado 80521, United States; H.F.  
Schwartz, Colorado State University, Dept. of Plant Pathology and Weed  
Science, Fort Collins, Colorado 80523, United States; C.H. Pearson, Colorado  
State University, Fruita Research Center, 1910 L Rd., Fruita, Colorado 80523,  
United States; J.B. Ogg, Colorado State University, Dept. of Soil and Crop  
Sciences, Fort Collins, Colorado 80523, United States; M. Ballarin, Plant  
Trademark and Copyright Office, 1320 Harbor Bay Parkway, Alameda, California  
94501, United States. Received 03/03/1994.

PI 578133. *Phaseolus vulgaris* L.  
Cultivar. Pureline. "ARAPAHO". CV-126; PVP 9400104. Pedigree - UI  
114/MO19///1367-1/N203//Ouray, F4. Field tolerance to white mold disease  
(*Sclerotinia sclerotiorum*). Plants upright (Type II) in most  
environments but in highly productive environments may produce vine.  
Mean plant maturity, seed weight and yield were 97 d, 36.7g 100-1 seeds,  
and 2961kg ha-1.

The following were developed by R.H. Bailey Seed, Inc., United States.  
Received 03/03/1994.

PI 578134. *Lolium perenne* L.  
Cultivar. "ELF". PVP 9400105.

The following were developed by The Regents of Univ. of California,  
California, United States. Received 03/03/1994.

PI 578135. *Apium graveolens* L.  
Cultivar. "PROMISE". PVP 9400108.

The following were developed by Keith Jones, Delta & Pine Land Company,  
Scott, Mississippi 38772, United States. Received 03/03/1994.

PI 578136. *Gossypium hirsutum* L.  
Cultivar. "DP 6100 ACALA". PVP 9400109.

The following were developed by Robert E. Allan, USDA-ARS, 209 Johnson Hall,  
Washington State Univ., Pullman, Washington 99164, United States. Received  
03/04/1994.

**PI 578137. *Triticum aestivum* L., nom. cons.**

Cultivar. "RULO"; REA939; REA938; WA 7622. Pedigree - Tyee//Roazon/Tres. One gene (Rht2) white chaff awnletted club with soft white grain tested in Western Regional SWW Nursery (1988-93). Maturity midseason. Has Pch1 gene for resistance to *Pseudocercosporella herpotrichoides*. Moderate resistance to current biotypes of *Puccinia striiformis*, *P. recondita*, *P. graminis*. Coldhardiness and emergence similar to Tres. Lodging resistance superior to Tres. 5-10 HMW glutenin subunits on Glu-D1. Quality: superior to Tres for ash, milling score; equal to Tres for cookie dia.; poorer than Tres for sponge cake vol., absorption and flour viscosity.

The following were developed by M. C. Engelke, Texas A&M University, Research and Extension Center, 17360 Coit Road, Dallas, Texas 75252, United States; Virginia Lehman, Lofts Seed, 315 Edgewater Drive, Lebanon, Oregon 97355, United States; J.A. Reinert, Texas A & M University, Dept. of Soil and Crop Sciences, College Station, Texas 77843-6599, United States; C. Mays; P.F. Colbaugh; W.E. Knoop. Received 03/11/1994.

**PI 578138. *Agrostis stolonifera* var. *palustris* (Hudson) Farw.**

Cultivar. "CATO"; SYN4-88; TAMU88-4. CV-7; PVP 9400219. Pedigree - Six-clone synthetic with parental clones selected from plants which survived environmental stresses under golf course conditions. Six individual clones from a population of 96 plants were selected in 1988. Developed to extend the range of adaptation of creeping bentgrass into the Southern U.S. as well as to maintain utility throughout the region wherever creeping bentgrass is used for turf. Summer performance and quality good. Fine-textured, upright, dark green color. Recommended for use in areas where creeping bentgrass is well-adapted on golf course putting greens, fairways, tees, and other areas where a high-quality, closely mown turf is desirable.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; A.O. Scariot, EMBRAPA-CENARGEN, Brasilia, Brazil. Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 04/27/1990.

**PI 578139. *Cuphea calophylla* Cham. & Schldl.**

Wild. BRA 001309; AOS-WWR 347; Ames 13520; AOS 347. Collected 02/05/1989 in Minas Gerais, Brazil. Latitude 21 deg. 13' S. Longitude 43 deg. 54' W. Elevation 1210 m. Roadside slope in between brush and latosols 141km E of Lavras toward Barbacena on BR 265.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; G. Pedralli, Centro Internacional de Mejoramiento de Maiz y Trigo, Brazil. Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 05/06/1991.

**PI 578140. *Cuphea calophylla* Cham. & Schldl.**

Wild. GP-WWR 003081; BRA 002674; Ames 15489. Collected 11/09/1989 in Santa Catarina, Brazil. Latitude 27 deg. 18' S. Longitude 49 deg. 44' W. Elevation 410 m. Large scattered population, roadside ditch, heavy vegetation, brown loam soil 20km W Rio do Sul, Rio do Sul. 100+ seed collected.

**PI 578141. *Cuphea calophylla* Cham. & Schldl.**

Wild. GP-WWR 003083; BRA 002658; Ames 15490. Collected 11/10/1989 in Santa Catarina, Brazil. Latitude 26 deg. 59' S. Longitude 48 deg. 37' W. Elevation 10 m. Coastal grassland about 50-100m above beach and sands at Peru, S of Camboriu. 100+ seed collected.

**PI 578142. *Cuphea calophylla* Cham. & Schldl. var. *calophylla***

Wild. GP-WWR 003085; BRA 002682; Ames 15491. Collected 11/11/1989 in Santa Catarina, Brazil. Latitude 27 deg. 27' S. Longitude 48 deg. 42' W. Elevation 50 m. Along partially shaded trail 50m W of road, degraded quartz sands, gravels and rocks 29km N Florenopolis on BR 101, Biguacu. 100+ seed collected.

**PI 578143. *Cuphea calophylla* Cham. & Schldl. var. *calophylla***

Wild. GP-WWR 003087; BRA 002691; Ames 15492. Collected 11/11/1989 in Santa Catarina, Brazil. Latitude 27 deg. 15' S. Longitude 48 deg. 47' W. Elevation 25 m. Moderate scattered population, roadside to brushy pasture, sandy soil 3km NW Canelinha toward Brusque, Canelinha. 100+ seed collected.

**PI 578144. *Cuphea calophylla* Cham. & Schldl. var. *calophylla***

Wild. GP-WWR 003089; BRA 002712; Ames 15493. Collected 11/11/1989 in Santa Catarina, Brazil. Latitude 27 deg. 13' S. Longitude 48 deg. 41' W. Elevation 425 m. Large scattered population, steep mountain side along road and up into rocky hillside 20km NW Canelinha toward Brusque, near roadside grotto, Brusque. 100+ seed collected.

**PI 578145. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.**

Wild. GP-WWR 003111; BRA 002879; Ames 15501. Collected 11/14/1989 in Santa Catarina, Brazil. Latitude 28 deg. 22' S. Longitude 49 deg. 31' W. Elevation 455 m. Small scattered population, steep open grassland, moderate vegetation, sandy to silt loam soils 25km W Orleaes toward Sao Joaquin, Lauro Muller. 100+ seed collected.

**PI 578146. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.**

Wild. GP-WWR 003256; BRA 003778; Ames 15514. Collected 12/04/1989 in Parana, Brazil. Latitude 25 deg. 56' S. Longitude 50 deg. 15' W. Elevation 840 m. Large scattered population, roadside to near drainage ditch to wetlands, 20km E Sao Mateus do Sul toward Curitiba on BR476, Agua Amarela. 100+ seed collected.

**PI 578147. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.**

Wild. GP-WWR 003080; BRA 002631; Ames 15488. Collected 11/09/1989 in Santa Catarina, Brazil. Latitude 27 deg. 20' S. Longitude 50 deg. 14' W. Elevation 780 m. Steep roadside cut, red loam soils, 55km E Curitiba toward Rio do Sul on BR 470, Sao Cristovao do Sul. 100+ seed collected.

**PI 578148. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.**

Wild. GP-WWR 003136; BRA 002941; Ames 15502. Collected 11/16/1989 in Santa Catarina, Brazil. Latitude 29 deg. 14' S. Longitude 49 deg. 53' W. Elevation 500 m. Moderate population, steep roadside ditch either side of road, red clay soils at W entrance to Parque Aparados da Serra Aparados da Serra. 100+ seed collected.

**PI 578149. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.**

Wild. GP-WWR 003260; BRA 003905; Ames 15515. Collected 12/04/1989 in Parana, Brazil. Latitude 25 deg. 55' S. Longitude 50 deg. 2' W.

Elevation 905 m. Large scattered population, open grassland, mixed vegetation, silt loam soils, 63km E Sao Mateus do Sul toward Curitiba on BR476, Campinas. 100+ seed collected.

PI 578150. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003138; BRA 002968; Ames 15503. Collected 11/17/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 20' S. Longitude 49 deg. 43' W. Elevation 0 m. Along edges of grass and brush, sandy soils. Parque Estaaval de Torres, Torres. 100+ seed collected.

PI 578151. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003265; BRA 003956; Ames 15516. Collected 12/05/1989 in Parana, Brazil. Latitude 25 deg. 28' S. Longitude 49 deg. 45' W. Elevation 915 m. Roadside north of park into open grasslands either side of the river. Rio Papaguio & BR 277, near roadside park, Sao Luis do Puruna. 100+ seed, possibly same as 3021 collected.

PI 578152. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003141; BRA 002984; Ames 15504. Collected 11/17/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 21' S. Longitude 49 deg. 48' W. Elevation 10 m. Large scattered population, open grassland in sandy soils 3km SW Torres, near Mato Sr. Clemente, Mato Sr. Clemente. 100+ seed collected.

PI 578153. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003271; BRA 004014; Ames 15517. Collected 12/05/1989 in Parana, Brazil. Latitude 25 deg. 30' S. Longitude 49 deg. 40' W. Elevation 1200 m. Open grassland above roadway into pasture among rocky outcropping, dark silt loam to light sandy soils, 9km E inter. BR376 & BR277 toward Curitiba, Sao Luis do Puruna. 100+ seed collected.

PI 578154. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003143; BRA 003000; Ames 15505. Collected 11/17/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 22' S. Longitude 49 deg. 48' W. Elevation 0 m. Moderate population, roadside up into steep rocky hillside, open grassland, sandy soil, 10km SW Torres, at N edge of Lagoa Itapeya, Lagoa Itapega. 100+ seed collected.

PI 578155. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003274; BRA 004049; Ames 15518. Collected 12/06/1989 in Parana, Brazil. Latitude 24 deg. 45' S. Longitude 50 deg. 0' W. Elevation 1030 m. Small population, open grassland to drained wetlands, clay soils, 57km N Ponte Grossa toward Jaguariaiva on PR151, Pirai do Sul. 100+ seed collected.

PI 578156. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003148; BRA 003034; Ames 15506. Collected 11/18/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 23' S. Longitude 49 deg. 50' W. Elevation 90 m. Large scattered population along open grassland and road to small creek, clay loam soils, 17km from inter. BR101 and road to Morro Azul, NW of Morro Azul, Morro Azul. 100+ seed collected.

PI 578157. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003151; BRA 003051; Ames 15507. Collected 11/18/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 20' S. Longitude 50 deg. 3' W. Elevation 540 m. Moderate population, open pasture near small pond, clay

loam soil, 13km from inter. BR101 & road to Morro Azul, NW Morro Azul, Morro Azul. 100+ seed collected.

PI 578158. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003091; BRA 002721; Ames 15494. Collected 11/11/1989 in Santa Catarina, Brazil. Latitude 27 deg. 6' S. Longitude 48 deg. 53' W. Elevation 65 m. Roadside open grassland to bare ground, sandy soil, 6km NE Brusque toward Gaspar, Brusque. 100+ seed collected.

PI 578159. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003154; BRA 003077; Ames 15508. Collected 11/19/1989 in Rio Grande do Sul, Brazil. Latitude 29 deg. 53' S. Longitude 50 deg. 16' W. Elevation 380 m. Steep roadside cut, red sands to gravels along road near and below communications tower above Osorio, Osorio. 100+ seed collected.

PI 578160. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003096; BRA 002771; Ames 15496. Collected 11/12/1989 in Santa Catarina, Brazil. Latitude 27 deg. 34' S. Longitude 48 deg. 29' W. Elevation 320 m. Large scattered population, roadside in rocky ditch, red clay soil, TV tower above Florenopolis, Florenopolis. 100+ seed collected.

PI 578161. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003227; BRA 003654; Ames 15510. Collected 12/01/1989 in Santa Catarina, Brazil. Latitude 27 deg. 15' S. Longitude 50 deg. 27' W. Elevation 900 m. Small scattered population, grassland along river bank, moderate brush, 29km S inter. BR470 & BR116 toward Lages on BR 116, Ponte Alta do Norte. 100+ seed collected.

PI 578162. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003108; BRA 002844; Ames 15499. Collected 11/13/1989 in Santa Catarina, Brazil. Latitude 28 deg. 23' S. Longitude 49 deg. 4' W. Elevation 55 m. Open disturbed area above wet lands. 32km NW Tubarao, between Gravatal and Braco do Norte, Gravatal. 88 seed collected. One plant.

PI 578163. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003231; BRA 003697; Ames 15511. Collected 12/01/1989 in Santa Catarina, Brazil. Latitude 27 deg. 1' S. Longitude 50 deg. 30' W. Elevation 1180 m. Small scattered population, open grassland, moderate slope, clay loam soils, 9km W inter. BR116 and road to Lebon Regis, Santa Cecilia. 99 seed collected.

PI 578164. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003109; BRA 002852; Ames 15500. Collected 11/13/1989 in Santa Catarina, Brazil. Latitude 28 deg. 21' S. Longitude 49 deg. 19' W. Elevation 150 m. Large scattered population along shaded trail off roadway, sands to gravels soils, 25km W Braco do Norte between Orleaes and Lauro Muller, Orleaes. 100+ seed collected.

PI 578165. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.

Wild. GP-WWR 003255; BRA 003867; Ames 15513. Collected 12/03/1989 in Parana, Brazil. Latitude 25 deg. 6' S. Longitude 50 deg. 28' W. Elevation 860 m. Moderate widely scattered population. Open grassland to along roadside, clay soils, 26km SE Sao Mateus do Sul on BR476,

Fluviopolis. 100+ seed collected.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; A.O. Scariot, EMBRAPA-CENARGEN, Brasilia, Brazil. Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 04/27/1990.

PI 578166. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. BRA 000221; AOS-WWR 379; Ames 13538. Collected 02/08/1989 in Minas Gerais, Brazil. Latitude 20 deg. 42' S. Longitude 42 deg. 29' W. Elevation 960 m. Steep roadside in valley, 2km E Arapanaga on road to Ferve dourou, near Arapanaga, Serra do Grama.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; T.B. Cavalcanti, CENARGEN, Brazil; Taciana Barbosa Cavalcanti, EMBRAPA-CENARGEN, SAIN - Parque Rural, Caixa Postal 10.2372, Brasilia, Brazil. Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 04/27/1990.

PI 578167. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. BRA 000477; TEC-WWR 265; Ames 13631. Collected 02/19/1989 in Minas Gerais, Brazil. Latitude 18 deg. 29' S. Longitude 44 deg. 27' W. Elevation 470 m. Swampy area below roadway, 73km NNW Curvelo toward Montes Claros.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; G. Pedralli, EMBRAPA-CENARGEN, Brasilia, Brazil. Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 05/06/1991.

PI 578168. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. GP-WWR 003257; BRA 003875; Ames 15472. Collected 12/04/1989 in Parana, Brazil. Latitude 25 deg. 56' S. Longitude 50 deg. 15' W. Elevation 840 m. Small scattered population, roadside to near drainage ditch to wetlands, 20km E Sao Mateus do Sul toward Curitiba on BR476, Agua Amarela. 21 seed collected.

PI 578169. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. GP-WWR 003000; BRA 002259; Ames 15437. Collected 10/28/1989 in Sao Paulo, Brazil. Latitude 24 deg. 27' S. Longitude 47 deg. 45' W. Elevation 80 m. Along roadside near atlantic forest, heavy clay loam soils, 3km NE Rio Ribeiro do Iguaye on BR116 km 440 marker, Registro. 4 seed collected.

PI 578170. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. GP-WWR 003084; BRA 002666; Ames 15449. Collected 11/10/1989 in Santa Catarina, Brazil. Latitude 26 deg. 59' S. Longitude 48 deg. 37' W. Elevation 10 m. Coastal grassland about 50-100m above beach, sands soil, at Peru, S of Camboriu, Peru. 100+ seed collected.

PI 578171. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. GP-WWR 003161; BRA 003131; Ames 15467. Collected 11/21/1989 in Rio Grande do Sul, Brazil. Latitude 30 deg. 23' S. Longitude 50 deg. 1' W. Elevation 0 m. Small scattered population along road in open area between heavey vegetation, sandy soils. South shore of Lagoa Negra, SE of Porto Alegre, Lagoa Negra. 45 seed collected.

PI 578172. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. GP-WWR 003251; BRA 003841; Ames 15471. Collected 12/03/1989 in Parana, Brazil. Latitude 26 deg. 5' S. Longitude 51 deg. 18' W. Elevation 820 m. Small scattered population, river bank in light colored clay soils, 31km NW inter. Uniao da Vitoria and road to Cruz Machado toward Cruz Machado at Rio Palmital. 14 seed collected.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Alvaro Campos, Universidad Nacional Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico; Neelam Campos, NBPGR, Regional Station, Cazri Campus, Jodhpur, India. Donated by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Neelam Campos, NBPGR, Regional Station, Cazri Campus, Jodhpur, India. Received 09/30/1991.

PI 578173. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.  
Wild. WR-AC 3522; Ames 17801. Collected 09/17/1991 in Oaxaca, Mexico. Latitude 16 deg. 57' N. Longitude 95 deg. 7' W. Elevation 24 m. Small scattered population, roadside ditch open areas in clay loams, 2.2km W San Juan Guichicovi toward El Zacatal.

The following were collected by Shirley A. Graham, Kent State University, Dept. of Biological Sciences, Kent, Ohio 44242-0001, United States. Received 09/25/1989.

PI 578174. *Cuphea koehneana* Rose  
Wild. Graham 1002; Ames 10731. Collected in Guerrero, Mexico. Elevation 1700 m. 2km south of Taxco on Hwy 95.

The following were collected by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, Corvallis, Oregon 97331, United States. Received 01/12/1989.

PI 578175. *Cuphea leptopoda* Hemsley  
Wild. 82486123; LE022; Ames 10129. Collected 08/24/1986 in Mexico. Elevation 878 m. 30km south of Uxapan on Hwy 37.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Alvaro Campos, Universidad Nacional Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico; Neelam Campos, NBPGR, Regional Station, Cazri Campus, Jodhpur, India. Donated by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Neelam Campos, NBPGR, Regional Station, Cazri Campus, Jodhpur, India. Received 09/30/1991.

PI 578176. *Cuphea lutea* Rose  
Wild. WR-AC 3501; Ames 17781. Collected 09/10/1991 in Veracruz, Mexico. Latitude 18 deg. 41' N. Longitude 97 deg. 20' W. Elevation 139 m. Moderate population, roadside ditch, silt loam soils 6.1km SE Acultzingo Centro along Mex 150.

PI 578177. *Cuphea lutea* Rose  
Wild. WR-AC 3510; Ames 17790. Collected 09/13/1991 in Oaxaca, Mexico. Latitude 17 deg. 9' N. Longitude 96 deg. 46' W. Elevation 160 m. Very small population along rocky roadside ditch N of road up into weedy pasture S of road, 1.2km E Mex 190 toward San Pablo Etla, N of Oaxaca.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; T.B. Cavalcanti, CENARGEN, Brazil; Taciana Barbosa Cavalcanti, EMBRAPA-CENARGEN, SAIN - Parque Rural, Caixa Postal 10.2372, Brasilia, Brazil . Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 04/27/1990.

**PI 578178. *Cuphea micrantha* Kunth**

Wild. BRA 000442; TBC-WWR 240; Ames 13628. Collected 02/17/1989 in Minas Gerais, Brazil. Latitude 18 deg. 8' S. Longitude 43 deg. 32' W. Elevation 760 m. North facing slope with dispersed vegetation to brush, gray sands, 27km NW Diamantina on BR 367.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States. Received 10/06/1992.

**PI 578179. *Cuphea viscosissima* Jacq.**

Wild. WWR 3551; Ames 20050. Collected 10/06/1991 in Missouri, United States. Latitude 38 deg. 34' N. Longitude 90 deg. 40' W. Elevation 185 m. Roadside ditch at edge of elm-ash forest in Rockwood Wildlife Reserve. 100m NW MO DOC Hdq Glencoe Rd, 2.7km from Hwy 109, Eureka Quad, T44 R3E Sec. 10, St. Louis Co. Associated with Euphorbia, Oxalis, Partheocissus, and Elymus.

**PI 578180. *Cuphea viscosissima* Jacq.**

Wild. WWR 3552; Ames 20051. Collected 10/06/1991 in Missouri, United States. Latitude 38 deg. 36' N. Longitude 90 deg. 44' W. Elevation 176 m. Roadside ditch 0.6km NW of intersection of County Road. 'T' and DeHardt Rd. on NE side of Hardt Farm Rd. Eureka Quad, T44N R3E Sec. 6, St. Louis Co. Associated with giant ragweed, Aster pilosus, fesque, elm, pawpaw, and white ash.

The following were developed by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Donated by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, Corvallis, Oregon 97331, United States. Received 03/17/1987.

**PI 578181. *Cuphea wrightii* A. Gray var. *wrightii***  
Breeding. WR054; Ames 8096.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; G. Pedralli, Centro Internacional de Mejoramiento de Maiz y Trigo, Brazil. Donated by Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa, Agropecuaria, Brasilia, Federal District, Brazil. Received 05/06/1991.

**PI 578182. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.**

Wild. GP-WWR 003015; BRA 002305; Ames 15477. Collected 10/30/1989 in Parana, Brazil. Latitude 25 deg. 35' S. Longitude 48 deg. 55' W. Elevation 380 m. Roadside slope, mixed vegetation, light colored sands and gravels. 14km SW inter road Morretes to Paranagua and BR 277 toward Curitiba. Paranagua. 100+ seed collected.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Alvaro Campos, Universidad Nacional Autonoma de Mexico, Department of

Botany, Mexico City, Federal District, Mexico; Campos. Donated by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Neelam Campos, NBPGR, Regional Station, Cazri Campus, Jodhpur, India. Received 09/30/1991.

**PI 578183. *Cuphea lutea* Rose**

Wild. WR-AC 3508; Ames 17788. Collected 09/13/1991 in Oaxaca, Mexico. Latitude 17 deg. 17' N. Longitude 96 deg. 55' W. Elevation 183 m. Large population. Roadside ditch, gravely clay loam 93.3km SE Junction Mex 190 and Mex 125 S Huajuapán on Mex 190 toward Oaxaca. Near Huitzo.

**PI 578184. *Cuphea lutea* Rose**

Wild. WR-AC 3518; Ames 17797. Collected 09/16/1991 in Oaxaca, Mexico. Latitude 16 deg. 56' N. Longitude 96 deg. 28' W. Elevation 144 m. Large population. Brushy hillside E of road among brush where protected from grazing. Rocky clay soil 1.0 km S Mex 190 along road to Dainzu ruins. Just S of Dainzu site. Near Oaxaca.

**PI 578185. *Cuphea lutea* Rose**

Wild. WR-AC 3521; Ames 17800. Collected 09/16/1991 in Oaxaca, Mexico. Latitude 17 deg. 6' N. Longitude 96 deg. 50' W. Elevation 145 m. Very small population in grass among shrubs protected from grazing. Gravels, very dry 0.5km E Guadalupe Etla on north face of the furthestmost E of 2 mounds. A large flowered variant with pale to white upper petals found at field edge N of mound. Only 2 plants and no seed, no samples taken.

**PI 578186. *Cuphea lutea* Rose**

Wild. WR-AC 3534; Ames 17813. Collected 09/24/1991 in Oaxaca, Mexico. Latitude 17 deg. 2' N. Longitude 96 deg. 31' W. Elevation 145 m. Large scattered population. Rocky gravely clay 3.5km NE Mex 190 on road to Teotitlán del Valle on hillside W of road.

**PI 578187. *Cuphea lutea* Rose**

Wild. WR-AC 3535; Ames 17814. Collected 09/24/1991 in Oaxaca, Mexico. Latitude 16 deg. 57' N. Longitude 96 deg. 29' W. Elevation 144 m. Large scattered population. Among sparse vegetation and brush. Rocky, gravely clay on hillside, E edge of Tlacoahuay.

The following were collected by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; T.B. Cavalcanti, CENARGEN, Brazil; Taciana Barbosa Cavalcanti, EMBRAPA-CENARGEN, SAIN - Parque Rural, Caixa Postal 10.2372, Brasília, Brazil. Donated by Centro Nacional de Recursos Genéticos, Empresa Brasileira de Pesquisa, Agropecuária, Brasília, Federal District, Brazil. Received 04/27/1990.

**PI 578188. *Cuphea micrantha* Kunth**

Wild. BRA 000574; TBC-WWR 383; Ames 13640. Collected 03/07/1989 in Goiás, Brazil. Latitude 13 deg. 59' S. Longitude 47 deg. 29' W. Elevation 1400 m. Open pasture, moderate slope, wet sands. 18km N Alto Paraíso de Goiás on GO 118.

The following were donated by Gudrun M. Christenson, 1691 North Foxburrow Loop, Crystal River, Florida 32629, United States. Received 01/10/1990.

**PI 578189. *Cuphea* sp.**

Wild. Ames 12680.

**PI 578190. *Cuphea* sp.**

Wild. Ames 12681.

The following were donated by G. Eisenbeiss, USDA-ARS, National Arboretum, 3501 New York Ave., N.E., Washington, District of Columbia 20002, United States. Received 03/23/1994.

**PI 578191. Ilex hybrid**

Cultivar. "Scepter"; NA 28273. Pedigree - Ilex [integra x (x altaclerensis Hodginsii)]. Red fruited evergreen tree to 30 feet with soft, spineless to weakly spined leaves.

**PI 578192. Ilex hybrid**

Cultivar. "Geisha"; NA 31369. Pedigree - Female parent PI 231948, NA 10815 a yellow fruited plant from Japan. Male parent NA 10822 a F2 backcross of a male seedling of NA 10815, back crossed to 10815. Evergreen shrub with extremely small convex leaves and yellow fruit.

The following were collected by Carl W. Johnson, California Cooperative Rice Research Foundation, Inc., P.O. Box 306, Biggs, California 95917, United States. Received 02/14/1994.

**PI 578193. Oryza sativa L.**

Cultivated. CHILSEONGBYEO; 93/12133; NSGC 5071. Collected in California, United States.

**PI 578194. Oryza sativa L.**

Cultivated. DONGIN; 93/12134; NSGC 5072. Collected in California, United States.

**PI 578195. Oryza sativa L.**

Cultivated. DONGJINBYEO; 93/12136; NSGC 5073. Collected in California, United States.

**PI 578196. Oryza sativa L.**

Cultivated. JANGSEONGBYEO; 93/12128; NSGC 5074. Collected in California, United States.

**PI 578197. Oryza sativa L.**

Cultivated. NAENGDO; 93/12130; NSGC 5075. Collected in California, United States.

**PI 578198. Oryza sativa L.**

Cultivated. NAGDONGBYEO; 93/12131; NSGC 5076. Collected in California, United States.

**PI 578199. Oryza sativa L.**

Cultivated. NAKDONG; 93/12138; NSGC 5077. Collected in California, United States.

**PI 578200. Oryza sativa L.**

Cultivated. NAMPUNGBYEO; 93/12129; NSGC 5078. Collected in California, United States.

**PI 578201. Oryza sativa L.**

Cultivated. WHASEONG; 93/12139; NSGC 5079. Collected in California, United States.

**PI 578202. Oryza sativa L.**

Cultivated. YONGMOONBYEO; 93/12125; NSGC 5080. Collected in California, United States.

The following were developed by Phillip M. Banks, Queensland Wheat Research Institute, P.O. Box 2282, Toowoomba, Queensland QLD 4350, Australia; Phillip J. Larkin, CSIRO, Division of Plant Industry, P.O. Box 1600, Canberra, Austr.

- PI 578203. *Triticum aestivum* L., nom. cons.  
Breeding. TC5. GP-413. Pedigree - Sunstar\*2//L1/Millewa. Resistance to Barley Yellow Dwarf Virus (BYDV). The genetic factor associated with reduced virus accumulation following infection was transferred from a group 7 Thinopyrum (Agropyron) intermedium chromosome (7Ai-1) by cell culture induced recombination. Resistance is conferred by an independent translocation. The genetic factor responsible for BYDV resistance in this germplasm has an additive effect and is inherited as a simple Mendelian factor.
- PI 578204. *Triticum aestivum* L., nom. cons.  
Breeding. TC6. GP-414. Pedigree - Sunstar\*2//L1/Millewa. Resistance to Barley Yellow Dwarf Virus (BYDV). The genetic factor associated with reduced virus accumulation following infection was transferred from a group 7 Thinopyrum (Agropyron) intermedium chromosome (7Ai-1) by cell culture induced recombination. Resistance is conferred by an independent translocation. The genetic factor responsible for BYDV resistance in this germplasm has an additive effect and is inherited as a simple Mendelian factor.
- PI 578205. *Triticum aestivum* L., nom. cons.  
Breeding. TC7. Pedigree - Sunstar\*2//L1/Millewa. Resistance to Barley Yellow Dwarf Virus (BYDV). The genetic factor associated with reduced virus accumulation following infection was transferred from a group 7 Thinopyrum (Agropyron) intermedium chromosome (7Ai-1) by cell culture induced recombination. Resistance is conferred by an independent translocation. The genetic factor responsible for BYDV resistance in this germplasm has an additive effect and is inherited as a simple Mendelian factor.
- PI 578206. *Triticum aestivum* L., nom. cons.  
Breeding. TC9. GP-415. Pedigree - Sunstar/4/Vulcan cms//L1/Sunstar/3/Restorer R35733. Resistance to Barley Yellow Dwarf Virus (BYDV). The genetic factor associated with reduced virus accumulation following infection was transferred from a group 7 Thinopyrum (Agropyron) intermedium chromosome (7Ai-1) by cell culture induced recombination. Resistance is conferred by an independent translocation. The genetic factor responsible for BYDV resistance in this germplasm has an additive effect and is inherited as a simple Mendelian factor.

The following were developed by Phillip M. Banks, Queensland Wheat Research Institute, P.O. Box 2282, Toowoomba, Queensland QLD 4350, Australia; Chen Xiao, Chinese Academy of Agric. Sciences, Institute of Crop Breeding & Cultivation, Beijing, Beijing, China; Phillip J. Larkin, CSIRO, Division of Plant Industry, P.O. Box 1600, Canberra, Austr. Capital Terr. ACT 2601, Australia. Received 03/23/1994.

- PI 578207. *Triticum aestivum* L., nom. cons.  
Genetic. Z1. GS-61. Pedigree - Zhong 7606\*4/Zhong5. Disomic addition line (2n=44) to wheat derived by backcrossing from the partial amphiploid line called Zhong 5 (2n=56, wheat x Thinopyrum (Agropyron) intermedium). The Thinopyrum chromosome is a homoeologous group 2 chromosome and confers resistance to Barley Yellow Dwarf Virus (BYDV).
- PI 578208. *Triticum aestivum* L., nom. cons.  
Genetic. Z2. GS-62. Pedigree - Wan 7107\*3/Zhong5. Disomic addition line (2n=44) to wheat derived by backcrossing from the partial amphiploid line called Zhong 5 (2n=56, wheat x Thinopyrum (Agropyron) intermedium). The Thinopyrum chromosome is a homoeologous group 2 chromosome and confers resistance to Barley Yellow Dwarf Virus (BYDV).

- PI 578209. *Triticum aestivum* L., nom. cons.**  
 Genetic. Z3. GS-63. Pedigree - Wan 7107\*4/Zhong5. Disomic addition line (2n=44) to wheat derived by backcrossing from the partial amphiploid line called Zhong 5 (2n=56, wheat x *Thinopyrum* (*Agropyron*) intermedium).
- PI 578210. *Triticum aestivum* L., nom. cons.**  
 Genetic. Z4. GS-64. Pedigree - Wan 7107\*3/Zhong5. Disomic addition line (2n=44) to wheat derived by backcrossing from the partial amphiploid line called Zhong 5 (2n=56, wheat x *Thinopyrum* (*Agropyron*) intermedium). The *Thinopyrum* chromosome is a homoeologous group 7 and confers resistance to leaf, stem and stripe rust.
- PI 578211. *Triticum aestivum* L., nom. cons.**  
 Genetic. Z5. GS-65. Pedigree - Wan 7107\*4/Zhong5. Disomic addition line (2n=44) to wheat derived by backcrossing from the partial amphiploid line called Zhong 5 (2n=56, wheat x *Thinopyrum* (*Agropyron*) intermedium). The *Thinopyrum* chromosome is of unknown homoeology and confers resistance to leaf and stem rust.
- PI 578212. *Triticum aestivum* L., nom. cons.**  
 Genetic. Z6. GS-66. Pedigree - Zhong 8423\*3/Zhong5. Disomic addition line (2n=44) to wheat derived by backcrossing from the partial amphiploid line called Zhong 5 (2n=56, wheat x *Thinopyrum* (*Agropyron*) intermedium). The *Thinopyrum* chromosome is a homoeologous group 2 chromosome and confers resistance to Barley Yellow Dwarf Virus (BYDV).

The following were developed by James A. Webster, USDA-ARS, Plant Science Research Laboratory, 1301 N. Western Street, Stillwater, Oklahoma 74075, United States; E.L. Smith, Oklahoma Agr. Exp. Sta., Oklahoma State University, Stillwater, Oklahoma 74078, United States; E.E. Sebesta, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States; E.A. Wood, Jr., USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States; David R. Porter, USDA, ARS, Plant Science and Water Conservation Laboratory, 1301 North Western Street, Stillwater, Oklahoma 74075, United States. Received 03/28/1994.

- PI 578213. *Triticum aestivum* L., nom. cons.**  
 Breeding. AMIGO; CI 17609; OK 73G132X5. GP-408. Pedigree - Teewon sib, OK66C3190/6/Gaucha/4/Tascosa/3/Wichita//Wichita/ Teewon/5/2\*Teewon. Hard red winter wheat. Resistant to greenbug (*Schizaphis graminum*) biotype B and C controlled by a single dominant gene located on the translocated 1RS arm that was originally detected in a strain of Insave F.A. rye and was transferred to wheat through an x-ray-induced chromosomal translocation. Also resistant to wheat curl mite, powdery mildew, leaf rust, and stem rust. Carries a rye protein marker gene on 1RS and is missing wheat endosperm storage protein genes located on 1AS.

The following were developed by E.L. Smith, Oklahoma Agr. Exp. Sta., Oklahoma State University, Stillwater, Oklahoma 74078, United States; J.M. Crane, Oregon State University, Dept. of Crop and Soil Science, Crop Science Bldg, Rm. 107, Corvallis, Oregon 97331, United States; E.E. Sebesta, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States; David R. Porter, USDA, ARS, Plant Science and Water Conservation Laboratory, 1301 North Western Street, Stillwater, Oklahoma 74075, United States; H. C. Young, Oklahoma State University, Department of Plant Pathology, Stillwater, Oklahoma 74074, United States. Received 03/28/1994.

- PI 578214. *Triticum aestivum* L., nom. cons.**  
 Breeding. TEEWON; CI 15320; OK 66C3003; TAP 408. GP-409. Pedigree - C1tr 13014/Wichita//Wichita/3/Triumph 64. Homozygous for an x-ray induced translocation involving a *Agropyron* chromosome. Dominant resistance to

leaf rust in the seedling and adult plant stages.

The following were developed by Northrup King Company, United States.  
Received 03/28/1994.

PI 578215. *Zea mays* L. *ssp. mays*  
Cultivar. "899". PVP 9400106.

PI 578216. *Zea mays* L. *ssp. mays*  
Cultivar. "901". PVP 9400107.

The following were developed by Mitsubishi Corporation, Japan. Received  
03/28/1994.

PI 578217. *Oryza sativa* L.  
Cultivar. "HAREYAKA". PVP 9400110.

The following were developed by Scotia Pharmaceuticals Ltd., England, United  
Kingdom. Received 03/28/1994.

PI 578218. *Oenothera biennis* L.  
Cultivar. "RIGEL". PVP 9400111.

The following were developed by University of California, California Agr.  
Exp. Sta., California, United States. Received 03/28/1994.

PI 578219. *Buchloe dactyloides* (Nutt.) Engelm.  
Cultivar. "UHL-1". PVP 9400112.

The following were developed by Goertzen Seed Research, United States.  
Received 03/28/1994.

PI 578220. *Triticum aestivum* L., *nom. cons.*  
Cultivar. "GSR 2500". PVP 9400113.

The following were developed by Tanimura & Antle, Inc., United States.  
Received 03/28/1994.

PI 578221. *Apium graveolens* var. *dulce* (Miller) Pers.  
Cultivar. EXP 2-400; "T&A PRIDE". PVP 9400114.

The following were developed by Coors Brewing Company, United States.  
Received 03/28/1994.

PI 578222. *Hordeum vulgare* L. *ssp. vulgare*  
Cultivar. "C-14". PVP 9400115.

The following were developed by Delta and Pine Land Company, United States.  
Received 03/28/1994.

PI 578223. *Gossypium hirsutum* L.  
Cultivar. "DP 5611". PVP 9400116.

PI 578224. *Gossypium hirsutum* L.  
Cultivar. "OP 9911 PIMA". PVP 9400117.

The following were developed by Louisiana Agr. Exp. Sta., United States.  
Received 03/28/1994.

PI 578225. *Gossypium hirsutum* L.  
Cultivar. "LA 1215". PVP 9400118.

PI 578226. *Gossypium hirsutum* L.  
Cultivar. "LA 1220". PVP 9400119.

PI 578227. *Gossypium hirsutum* L.  
Cultivar. "LA 1244". PVP 9400120.

The following were developed by Seed Research of Oregon, Inc., Corvallis,  
Oregon, United States. Received 03/28/1994.

PI 578228. *Agrostis capillaris* L.  
Cultivar. "SR 7100". PVP 9400121.

The following were developed by Agricultural Research Organization, The  
Volcani Center, Ministry of Agriculture, Israel. Received 03/28/1994.

PI 578229. *Arachis hypogaea* L.  
Cultivar. "SHOSH". PVP 9400123.

The following were developed by Rogers NK Seed Company, United States.  
Received 03/28/1994.

PI 578230. *Phaseolus vulgaris* L. var. *vulgaris*  
Cultivar. "HB357-6-7-1". PVP 9400124.

PI 578231. *Phaseolus vulgaris* L. var. *vulgaris*  
Cultivar. "HB495-1-2-1". PVP 9400125.

The following were developed by David Fisher, Del Monte Corp. Agricultural  
Research, 850 Thornton Street, Box 36, San Leandro, California 94577, United  
States. Received 03/28/1994.

PI 578232. *Pisum sativum* L. ssp. *sativum*  
Cultivar. "DMC 50-74". PVP 9400126.

The following were developed by Northrup King Company, United States.  
Received 03/28/1994.

PI 578233. *Medicago sativa* L. ssp. *sativa*  
Cultivar. "SPREDOR 3". PVP 9400127.

The following were collected by John Bamberg, USDA, ARS, Potato Introduction  
Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United  
States. Received 03/29/1994.

PI 578234. *Solanum fendleri* A. Gray ssp. *fendleri*  
Wild. BAM 001. Collected 10/05/1993 in Arizona, United States. Latitude  
32 deg. 25' N. Longitude 110 deg. 44' W.  
Elevation 2320 m. In wash by horse corral (about 5  
miles from SBV 001) at Coronado National Forest  
Visitor's Center past mile 19 of Santa Catalina  
Highway on road to Mount Lemmon, near Tucson, Pima

County. Plants small, yellow. Very dry. Tubers hard to find. Collected 7 fruits. Found to be infested with seed grub.

- PI 578235. *Solanum fendleri* A. Gray ssp. *fendleri*  
Wild. BAM 002. Collected 10/08/1993 in New Mexico, United States. Latitude 33 deg. 23' N. Longitude 108 deg. 46' W. Elevation 2100 m. About 3.1 miles east of the 9 mile marker at the town of Mogollon (just past where stream crosses the road) on upper side roadcut (about 0.6 miles past SBV 18), Catron County. Six plants. Collected many mature fruit in soil under plants. No flowering.
- PI 578236. *Solanum jamesii* Torrey  
Wild. BAM 003. Collected 10/08/1993 in New Mexico, United States. Latitude 33 deg. 41' N. Longitude 108 deg. 51' W. Elevation 1950 m. Beside road under large Ponderosa pines in straw mulch over newly landscaped roadside (near SBV 22) on highway 80, 1.6 miles south of junction with highway 12, Catron County. Plants small with tubers only. Plants rare. Collected 5 tubers.
- PI 578237. *Solanum jamesii* Torrey  
Wild. BAM 004. Collected 10/09/1993 in Arizona, United States. Elevation 1830 m. Disturbed sand under pines, Overgaard, on north side of restaurant and grocery store parking lot, Navajo County. Many small to 20cm plants in this spot. No flowers. Mother and daughter tubers. Collected 6 daughter tubers.
- PI 578238. *Solanum jamesii* Torrey  
Wild. BAM 005. Collected 10/09/1993 in Arizona, United States. Elevation 1960 m. Confined area of disturbed sand under Pinon pines west of Heber at mile 320.7 on Route 260 at hilltop pulloff, Navajo County. Plants abundant, small, green, to about 20cm. No flowers. Mother and daughter tubers abundant. Collected about 30 daughter tubes.

The following were developed by Darrell M. Wesenberg, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United States. Received 03/28/1994.

- PI 578239. *Avena sativa* L.  
Breeding. 76Ab7215. Pedigree - K71473/3/Otana//Coker X848-1-1-2/Cayuse. Yield good. Groat content relatively high.
- PI 578240. *Avena sativa* L.  
Breeding. 78Ab3965. Pedigree - Selection from Aurora NYCRR Composite. Good yielding selection from Cornell University crown rust resistant composite population.
- PI 578241. *Avena sativa* L.  
Breeding. 80Ab988. Pedigree - 74Ab1952/74Ab2608. Yield good. Straw relatively short. Lodging resistance good.
- PI 578242. *Avena sativa* L.  
Breeding. 80Ab4725. Pedigree - Cayuse/74Ab1956. Yield good. Straw relatively short. Lodging resistance good.
- PI 578243. *Avena sativa* L.  
Breeding. 86Ab4219. Pedigree - 80Ab5339/Ogle. Maturity relatively early. Yield, test weight, and lodging good. Height intermediate to tall.
- PI 578244. *Avena nuda* L.  
Breeding. 88AbC301. Pedigree - Selection from segregating Coker Pedigreed Seed Co. material. Straw short. Yield good. Moderate expression of hullless character.

**PI 578245. *Avena nuda* L.**

Breeding. 88AbC321. Pedigree - Selection from Coker 86-16. Straw short. Yield good. Moderate expression of hulless character.

The following were developed by Edgar E. Hartwig, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States. Received 04/04/1994.

**PI 578246. *Glycine max* (L.) Merr.**

Breeding. D85-10404. GP-170. Pedigree - Tracy-M X J77-339. Maturity Group VI released to provide a line to help identify additional genes for resistance to stem canker (*Diaporthe phaseolorum*). Has gene Rdc-1 controlling resistance to stem canker, and genes Rps1-c and Rps3 controlling resistance to phytophthora rot (*Phytophthora sojae*). Growth habit determinate. Flowers white. Pubescence tawny. Pods tan. Seed yellow with black hila.

The following were developed by Edgar E. Hartwig, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States. Donated by Mississippi Agr. and Forestry Exp. Sta., Mississippi State University, State College, Mississippi, United States; Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States. Received 04/04/1994.

**PI 578247. *Glycine max* (L.) Merr.**

Breeding. D85-10412. GP-171. Pedigree - Tracy-M X J77-339. Maturity Group VI released to provide a line to help identify additional genes for resistance to stem canker (*Diaporthe phaseolorum*). Has gene Rdc-2 controlling resistance to stem canker, and gene Rps1-b controlling resistance to phytophthora rot (*Phytophthora sojae*). Growth habit determinate. Flowers white. Pubescence tawny. Pods tan. Seed yellow with black hila.

The following were developed by T. Tsuchiya, USDA, ARS, Colorado State University, Department of Agronomy, Fort Collins, Colorado 80523, United States; C. E. Townsend, USDA, ARS, Crops Research Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States; S. Wang, University of Nanking, Dept. of Agronomy, Nanking, Jiangsu, China. Received 04/04/1994.

**PI 578248. *Medicago sativa* ssp. *falcata* (L.) Arcang.**

Breeding. C-25; W6 15089. GP-273. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were selected for improved plant vigor and yellow flowers for 3 cycles. Traces to 41 seedlings selected from the polycross progenies of 7 tetraploid plants. The 75 most vigorous plants with yellow flowers were selected from an 1800 spaced-plant population of the yellow- and purple-flowered complex. Chromosome counts showed that seven of the 75 plants were tetraploid. Forty-one seedlings from the seven tetraploid polycross progenies were selected for vigor. Flower color ranged from light to dark yellow with some showing a purplish-tinge in the bud stage. Most pods falcate in shape but a few had one coil. Seed weight 1.23 g/1000 seeds.

**PI 578249. *Medicago sativa* ssp. *falcata* (L.) Arcang.**

Breeding. C-26; W6 15090. GP-274. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were selected for improved plant vigor and yellow flowers for 3 cycles. Traces to the 23 most vigorous diploid plants. The 75 most vigorous plants with yellow flowers were selected from an 1800 spaced-plant population of the

yellow- and purple-flowered complex. Chromosome counts showed that 68 of the 75 plants were diploid. The 23 most vigorous diploid plants were selected. Flower color ranged from light yellow to orange and pod shape was falcate. Growth habit upright and leaflets small. Seed weight 1.23 g/1000 seeds.

**PI 578250. *Medicago sativa* ssp. *falcata* (L.) Arcang.**

Breeding. C-27; W6 15091. GP-275. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were selected for improved plant vigor and yellow flowers for 3 cycles. Traces to the 27 plants with greatest tendency to spread. About 50 plants showed evidence to spread in an 1800 spaced-plant population of the yellow- and purple-flowered complex. The best 27 phenotypes were selected. Flower color ranged from light to dark yellow with some plants showing a purplish-tinge in the bud stage. Most pods falcate in shape but a few had one coil. Seed weight 1.34 g/1000 seeds. Pods with greater tendency to coil than C-25.

The following were developed by C. E. Townsend, USDA, ARS, Crops Research Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States. Received 04/04/1994.

**PI 578251. *Medicago sativa* ssp. *falcata* (L.) Arcang.**

Breeding. C-28; W6 15092. GP-276. Pedigree - All available plant introductions with adequate seed supply from the yellow- & purple-flowered complex were evaluated. Ten years after establishment, falcate-shaped seed pods were collected from plants throughout the nursery and composited. Seventy-three accessions of the yellow- and purple-flowered complex were evaluated for persistence in a 300mm precipitation zone in the central Great Plains. There were many purple-flowered plants in these accessions. Twelve years after establishment percent stand ranged from 5 to 88 with a mean of 49. Because of the management practices used and the absence of new seedling establishment, essentially all of the persisting plants were believed to be survivors of the original seeding.

**PI 578252. *Medicago sativa* ssp. *falcata* (L.) Arcang.**

Breeding. C-29; W6 15093. GP-277. Pedigree - All available plant introductions with adequate seed supply from the yellow- & purple-flowered complex were evaluated. Ten yrs. after establishment, seed pos with 1 or more coils were coll. from plants throughout the nursery and composited. Seventy-three accessions of the yellow- and purple-flowered complex were evaluated for persistence in a 300mm precipitation zone in the central Great Plains. There were many purple-flowered plants in these accessions. Twelve years after establishment percent stand ranged from 5 to 88 with a mean of 49. Because of the management practices used and the absence of new seedling establishment, essentially all of the persisting plants were believed to be survivors of the original seeding.

**PI 578253. *Medicago sativa* ssp. *falcata* (L.) Arcang.**

Breeding. C-30; W6 15094. GP-278. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were sel. for improved plant vigor & yellow flowers for 3 cycles. 10 yrs. after estab., falcate-shaped seed pods harvested throughout the nursery & composited. Traces to 105 accessions of the yellow- and purple-flowered complex. The yellow-flowered plants were permitted to interpollinate after the purple- and variegated-flowered plants were rogued. A composite seed lot from the yellow- flowered plants was evaluated for persistence in the 300mm precipitation zone of the central Great Plains. Persistence was excellent following 10 years of evaluation. Most plants had yellow flowers but a few had variegated flowers. Seed weight 1.82 g/1000 seeds.

PI 578254. *Medicago sativa* ssp. *falcata* (L.) Arcang.

Breeding. C-31; W6 15095. GP-279. Pedigree - All available plant introductions from the yellow- & purple- flowered complex were sel. for improved plant vigor & yellow flowers for 3 cycles. 10 yrs. after estab., seed pods with 1 or more coils were coll. throughout the nursery & composited. Traces to 105 accessions of the yellow- and purple-flowered complex. The yellow-flowered plants were permitted to interpollinate after the purple-and variegated-flowered plants were rogued. A composite seed lot from the yellow- flowered plants was evaluated for persistence in the 300mm precipitation zone of the central Great Plains. Persistence was excellent following 10 years of evaluation. Most plants had yellow flowers but a few had variegated flowers. Seed weight 1.84 g/1000 seeds.

The following were developed by Milton E. McDaniel, Texas A&M University, Dept. of Soil & Crops Sciences, College Station, Texas 77843, United States; E. C. Gilmore, Texas A & M University, Agr. Res. and Extension Centers, P.O. Box 1658, Vernon, Texas 76384, United States; K.B. Porter, Texas Agr. Exp. Sta., Texas A&M University, P.O. Drawer O, Bushland, Texas, United States; W.D. Worrall, Texas A&M University Agric. Res. & Ext. Ctr., P.O. Box 1658, Vernon, Texas 76385, United States. Received 04/04/1994.

PI 578255. *Triticum aestivum* L., nom. cons.

Cultivar. Pureline. "TAM-200". CV-806. Pedigree - (391-56-D8/TASCOSA//CENTURK)\*3/AMIGO. Semidwarf, awned, white chaffed, hard red winter wheat. Yields and test weights higher than standard check cultivars over a wide range of environments. Resistant to biotype C of greenbug (*Schizaphis graminum*), wheat curl mite (*Eriophyes tulipae*), powdery mildew (*Erysiphe graminis*) and stem rust (*Puccinia graminis*). Moderately resistant to leaf rust (*Puccinia recondita*).

The following were developed by Milton E. McDaniel, Texas A&M University, Dept. of Soil & Crops Sciences, College Station, Texas 77843, United States; E. C. Gilmore, Texas A & M University, Agr. Res. and Extension Centers, P.O. Box 1658, Vernon, Texas 76384, United States; K.B. Porter, Texas Agr. Exp. Sta., Texas A&M University, P.O. Drawer O, Bushland, Texas, United States; W.D. Worrall, Texas A&M University Agric. Res. & Ext. Ctr., P.O. Box 1658, Vernon, Texas 76385, United States; L.W. Rooney, Texas A&M University Agric. Res. & Ext. Ctr., 17360 Coit Road, Dallas, Texas 75252, United States. Received 04/04/1994.

PI 578256. *Triticum aestivum* L., nom. cons.

Cultivar. Pureline. "TAM-201". CV-807. Pedigree - (TAMW-101/CENTURK)\*3/AMIGO. Semidwarf, awned, white chaffed, hard red winter wheat. Maturity early. Productive. Two year average grain yield 3767kg/ha compared to 3295kg/ha for Scout 66 and 3777kg/ha for TAM-105. Resistant to stem rust (*Puccinia graminis*). Growth habit semi-upright during vegetative stage making it more susceptible to winter injury. Insensitive to photoperiod. Mixed for resistance to powdery mildew (*Erysiphe graminis*).

The following were developed by M.V. Reddy, Int. Crops Res. Inst. for the Semi-Arid Tropics, Crops Protection Division, Patancheru, Andhra Pradesh 502 324, India; Melak H. Mengesha, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; Y.L. Nene, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; J. Kannaiyan, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; P. Remanandan, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502 324, India; K.S. Amin, Pulses Research Center, Kanpur, India; T.N. Raju. Received 04/04/1994.

- PI 578257. *Cajanus cajan* (L.) Millsp.  
Breeding. ICP 8863. GP-137. Pedigree - IC-WR-SEL-P-15-3-3. Maturity medium, 120 days to 50% flowering. Growth habit semi-spreading and medium statured (150-180cm). Seeds brown, oval shape with seed mass of 9.5g. Resistant to Fusarium wilt.
- PI 578258. *Cajanus cajan* (L.) Millsp.  
Breeding. ICP 11292. GP-138. Pedigree - IC-WR-SEL-C-11. Maturity medium, 135 days to 50% flowering. Growth habit semi-spreading and medium statured (150-170cm). Seeds red brown, oval shape with seed mass of 9.9g. Resistant to Fusarium wilt.
- PI 578259. *Cajanus cajan* (L.) Millsp.  
Breeding. ICP 11299. GP-139. Pedigree - IC-WR-SEL-BORI-1. Maturity late, 145 days to 50% flowering. Growth habit compact and tall (170-190cm). Seeds brown, oval shape with seed mass of 10.6g. Resistant to Fusarium wilt.
- PI 578260. *Cajanus cajan* (L.) Millsp.  
Breeding. ICP 12745. GP-140. Pedigree - IC-WR-SEL-PI 396233. Maturity late, 145 days to 50% flowering. Growth habit semi-spreading and tall (170-190cm). Seeds light brown, oval shape with seed mass of 6.8g. Resistant to Fusarium wilt.

The following were developed by John M. Kraft, USDA, ARS, Irrigated Agricultural Research & Extension Center, Route 2, Box 2953-A, Prosser, Washington 99350, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; D.W. Burke, USDA, ARS, Irrigated Agriculture Research and Extension Center, Prosser, Washington 99350, United States; H.H. Koehler, Washington State University, Dept. of Food Science & Human Nutrition, Pullman, Washington 99164, United States. Received 04/11/1994.

- PI 578261. *Phaseolus vulgaris* L.  
Cultivar. "VICTOR"; 6R-122; NW-122; W6 15554. CV-119. Pedigree - F6 selection from same parentage as Viva, i.e. Sutter Pink/3/Red Mexican UI 35/PI 203958/2/Red Mexican UI 35. Resistant to curly top virus plus the Type and NY-15 strains of bean common mosaic virus (BCMV). Tolerant to root rot (*Fusarium solani*) and comparatively drought tolerant. Vines vigorous, short, mature about 90 days after planting. Seeds similar in size (3.0-3.2 seeds/g) and color to Sutter Pink. Food quality similar to that of other Pink cultivars.
- PI 578262. *Phaseolus vulgaris* L.  
Cultivar. "HAROLD"; Gh-1053; NW-1053; W6 15555. CV-120. Pedigree - F6 selection from Victor/Aurora. Resistant to curly top virus plus the Type and NY-15 strains of bean common mosaic virus (BCMV). Tolerant to root rot (*Fusarium solani*) and comparatively drought tolerant. Vines vigorous, upright, short, matures about 90 days after planting. Seeds similar in size (3.0-3.2 seeds/g) and color to Sutter Pink. Food quality similar to that of other Pink cultivars.

The following were developed by J.P. Meiners, USDA-ARS, Applied Plant Path. Lab., Rm 201 Bldg 004 BARC-West, Beltsville, Maryland 20705, United States; John M. Kraft, USDA, ARS, Irrigated Agricultural Research & Extension Center, Route 2, Box 2953-A, Prosser, Washington 99350, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; D.W. Burke, USDA, ARS, Irrigated Agriculture Research and Extension Center, Prosser, Washington 99350, United States; H.H. Koehler, Washington State University, Dept. of Food Science & Human Nutrition, Pullman, Washington 99164, United States. Received

04/11/1994.

**PI 578263. Phaseolus vulgaris L.**

Breeding. "GH-196"; GH-196-2; W6 15556. GP-143. Pedigree - F5 selection from Pinto UI-114/2/Pinto UI-114/PI 203958/3/ Pinto UI-114/4/Red Mexican UI-35/PI 203958/5/red-seeded early-maturing Japanese bush bean (name unknown). Seeds uniform, similar to UI-114. Produces heavy midset of pods on moderately spreading vine and matures 90 to 95 days from planting. One of the highest-yielding cultivars under stresses of Fusarium root rot (*Fusarium solani*) and drought, and is also resistant to curly top virus, and has bc2(2) resistance to bean common mosaic virus (BCMV). The bc2(2) resistance is effective against all strains of BCMV except those in pathogroup 7, like the recently described US-10.

**PI 578264. Phaseolus vulgaris L.**

Breeding. "JM-126"; W6 15557. GP-144. Pedigree - F6 selection from Pinto NW-410/2/Nep II/NW-410 (2). Nep II is a white-seeded strong bush bean developed in Costa Rica that carries the dominant "I" gene for resistance to BCMV. Unique among pinto beans in having "I" gene (hypersensitive) resistance to BCMV. Also resistant to curly top virus and tolerant of Fusarium root rot. Matures in 95-100 days, large leaves, and erect to sprawling indeterminate plant height. When it sprawls, seems to be more susceptible than other pinto beans to Sclerotinia wilt. Produces attractive large, plump seeds (2.5-2.8 seeds/g). Leaves and seeds measurably larger than those of either parent.

**PI 578265. Phaseolus vulgaris L.**

Breeding. "UNS-117"; W6 15558. GP-145. Pedigree - F10 selection from Viva /3/Pinto UI-114/Luna Pinto/2/PI 203958. Seeds larger (2.7-2.9 seeds/g) than most pink beans, and uniform in size and color. Consistently one of the highest-yielding beans under all conditions in which it has been tested. Among the most tolerant to Fusarium root rot and drought. Resistant to curly top virus and bean common mosaic virus strains Type and NY15. Bush vines compact, upright, indeterminate with midset long pods. Matures 85-95 days.

**PI 578266. Phaseolus vulgaris L.**

Breeding. "6R-42"; W6 15559. GP-146. Pedigree - F6 selection from Viva Pink/4/Sutter Pink/3/Red Mexican UI-35/PI 203958/2/Red Mexican UI-35. Excellent uniform and persistent seed color. Relatively late-maturing with larger vines and more foliage covering the pods than occurs with most pink beans. Less "sunburn" of pods and seeds than occurs in early-maturing beans. Resistant to curly top virus plus the Type and NY-15 strains of bean common mosaic virus.

**PI 578267. Phaseolus vulgaris L.**

Breeding. "JM-24"; W6 15560. GP-147. Pedigree - F6 selection from Pinto NW-410/2/Nep II/NW-410 (2). Nep II is a white-seeded strong bush bean developed in Costa Rica that carries the dominant "I" gene for resistance to BCMV. Seeds plump, white great northern-size (2.9-3.1 seeds/g) on short upright indeterminate bush-vine. Resistant to curly top and to bean common mosaic virus on the basis of "I" gene. In Interregional Cooperative Dry Bean Nurseries, was one of the highest yielding great northern. Under stress of Fusarium root rot is consistently among the highest-yielding selections in its market class. Usually matures about 95 days after planting.

The following were developed by John M. Kraft, USDA, ARS, Irrigated Agricultural Research & Extension Center, Route 2, Box 2953-A, Prosser, Washington 99350, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; D.W. Burke, USDA, ARS, Irrigated Agriculture Research and Extension Center, Prosser, Washington 99350, United States; H.H. Koehler, Washington State

**PI 578268. Phaseolus vulgaris L.**

Cultivar. "OTHELLO"; W6 15561. CV-121. Pedigree - F7 selection from NW-410 Pinto/2/Victor Pink/Aurora. (NW410 = UI-114 Pinto/Sutter; Victor = VI-35 Red Mexican/1/ PI 203958/2/UI-35/3/Sutter Pink/4/Aurora Small White). Unique combination of qualities: Maturity very early; Short vigorous, high-yielding mid-set vines; Effective resistance to root rot (*Fusarium solani*); Resistance to Curly Top Virus and to all strains of the Bean Common Mosaic Virus prevalent in North America; Even though plants are small and very early maturing, is one of the highest yielding bean cvs.; and Seeds large, plump and bright with a cooked flavor and nutritional quality equal to the best in its market class.

**PI 578269. Phaseolus vulgaris L.**

Cultivar. "KARDINAL"; W6 15562. CV-122. Pedigree - F10 selection from Manitou/5/UI-114 Pinto/3/UI-112 Pinto/2/ UI-112/PI 203958/4/Jacob's Cattle. Resistant to curly top virus (CTV) and has the dominant "I" gene hypersensitive resistance to bean common mosaic virus (BCMV). Like other kidney cultivars, susceptible to *Fusarium* root rot. Bush habit determinate, strong, upright and matures in 90-100 days. Seed yields, size, color and cooked characteristics comparable to those of the best cultivars.

**PI 578270. Phaseolus vulgaris L.**

Cultivar. "KAMIakin"; W6 15563. CV-123. Pedigree - F11 selection from Royal Red/Redkote. Resistant to curly top virus (CTV) and has the dominant "I" gene hypersensitive resistance to bean common mosaic virus (BCMV). Like other kidney cultivars, susceptible to *Fusarium* root rot. Bush habit determinate, strong, upright and matures in 90-100 days. Seed yields, size, color and cooked characteristics comparable to those of the best cultivars.

**PI 578271. Phaseolus vulgaris L.**

Cultivar. "HYDEN"; W6 15564. CV-124. Pedigree - F6 selection from Aurora/Pinto UI-114. Habit upright, indeterminate. Pods long purple-splashed, set high in the midst of plant, matures in 90-95 days. Yields well under stresses of *Fusarium* root rot and drought, and is resistant to curly top virus and bean common mosaic virus ("I" gene). Seeds white, buff pigmentation near the hilum opposite the micropyle; uniform in size (4.8-5.2 seeds/g) and slightly more oblong and flattened than standard pea beans. Satisfactory in cooking nutrient composition and sensory evaluations.

**PI 578272. Phaseolus vulgaris L.**

Breeding. "K-42"; W6 15565. GP-148. Pedigree - F6 selection from Mecosta/6/Manitou/5/Jacob's Cattle/4/ Tenderlong 15/3/710-5/1831/2/stiff bush breeding line/ California Dark Red Kidney. Resistant to curly top virus (CTV), has dominant "I" gene resistance to bean common mosaic virus (BCMV), and showed halo blight resistance in field trials. Bush habit strong, upright, determinate, and ranges in rate of maturity from 85 to 100 days in Washington and Idaho. Competitive in yielding ability with present commercial cultivars. Seed size, shape, and color considered acceptable for commercial use. Pods tend to shatter when dry. Cooking quality comparable to that of commercial cultivars.

**PI 578273. Phaseolus vulgaris L.**

Breeding. "K-59"; W6 15566. GP-149. Pedigree - F6 selection from Mecosta/2/Royal Red/Redkote. Resistant to curly top virus (CTV) and has dominant "I" gene resistance to bean common mosaic virus (BCMV). Inoculation tests in stems, leaves, and pods have shown resistance to race 2 of the halo blight bacterium. Bush habit strong, upright, determinate and ranges in maturity from 85 to 100 days. Competitive in

yielding ability with present commercial cultivars. Seed size, shape, and color acceptable for commercial use. Cooking quality comparable to that of commercial cultivars.

**PI 578274. *Phaseolus vulgaris* L.**

Breeding. "K-407"; W6 15567. GP-150. Pedigree - DRK F7 selection from Royal Red/2/27R/Royal Red. Resistant to curly top virus (CTV) and has dominant "I" gene resistance to bean common mosaic virus (BCMV). Bush habit strong upright, determinate, and ranges in maturity from 85 to 100 days in Washington and Idaho. Competitive in yielding ability with present commercial cultivars. Seed size, shape, and color acceptable for commercial use. Cooking quality comparable to that of commercial cultivars.

The following were donated by Joseph Snider, USDA-SCS, Jamie L. Whitten Plant Materials Ctr., Route 3, Box 215-A, Coffeetown, Mississippi 38922-9263, United States. Received 04/11/1994.

**PI 578275. *Tripsacum dactyloides* (L.) L.**

Breeding. 9062761. Pedigree - Composite of seed harvested from 64 accessions. Part of an assembly of 72 accessions collected over the southeastern United States from Oklahoma to North Carolina. This assembly represents a wide genetic range of plant variation including foliage color, foliage height and width, stem size and density, lodging resistance, vigor, etc. Most accessions in this assembly thought to be tetraploids and apomictic with very little change of sexual genetic manipulation.

The following were developed by Edward J. Souza, University of Idaho, Aberdeen R&E Center, P.O. Box AA, Aberdeen, Idaho 83210, United States; Blair J. Goates, USDA-ARS, PO Box 307, Aberdeen, Idaho 83210, United States; J.M. Windes, Idaho Agr. Exp. Sta., Univ. of Idaho, Plant, Soils, and Entomological Sci., Aberdeen Research and Extension Ctr., Aberdeen, Idaho 83210, United States; D.W. Sunderman, USDA-ARS, Univ. of Idaho Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210, United States. Received 04/04/1994.

**PI 578276. *Triticum aestivum* L., nom. cons.**

Breeding. IDAHO 364; A1818W-P-13. GP-421. Pedigree - Unknown short wheat//Scout/Comanche/3/2\*Itana or 2\* Cheyenne or 2\*McCall/Citr 14106/4/Arbon/3/DM/Clement//Burt/ PI 178383. Hard red winter resistant to dwarf bunt (causal organism *Tilletia controversa*), and adapted to dryland production conditions of the Pacific Northwest. Semi-dwarf F4 head selection germplasm derived from asymptomatic plants sel. in F3 generation from segregating populations inoculated with a mixture of *Tilletia caries* races which included among others R43. In the F4 generation, headrows were again reinfected with *T. caries*. Awned, bronze chaffed having average dryland plant height of 31 inches. Carries resistance to Pacific Northwest races of stripe rust and leaf rust.

**PI 578277. *Triticum aestivum* L., nom. cons.**

Breeding. IDAHO 443; A1818W-P-13. GP-422. Pedigree - PI 476212/Tendoy//3\*Itana/PI 178383/5/DM/PI 178383//Clement/ 4/DM/3/UT 175a-53//Norin 10/Brevor. Hard red winter resistant to dwarf bunt (causal organism *Tilletia controversa*), and adapted to dryland production conditions of the Pacific Northwest. F6 head selection of a semi-dwarf plant derived from cross A791207W. Germplasm derived from asymptomatic plants sel. in F3 generation from segregating populations inoculated with mixture of *Tilletia caries* races which included among others R43. In the F4 generation, headrows again reinfected with *T. caries*. Awned, white chaffed having average dryland pl. height-28 inches. Carries resist. to Pacific Northwest races of stripe rust.

PI 578278. *Triticum aestivum* L., nom. cons.  
Breeding. IDAHO 444; A1818W-P-13. GP-423. Pedigree - Utah  
216c-12-10/Cheyenne/5/PI 476212/4/Burt/3/Rio/Rex// Nebred//6//Utah  
216c-12-10/Cheyenne/5/PI 476212/4/Burt/3/Rio /Rex//Nebred. Hard red  
winter resistant to dwarf bunt (causal organism *Tilletia controversa*),  
and adapted to dryland production conditions of the Pacific Northwest.  
Derived from a 1985 F9 snow mold tolerant plant selection at Tetonia,  
Idaho. Sister line to Blizzard. Distinguishable from Blizzard by its  
high molecular weight glutenin pattern. Significantly better snow mold  
tolerance than Blizzard. Awne, white chaffed having average dryland  
plant height of 28 inches. Carries resistance to Pacific Northwest races  
of stripe rust.

The following were donated by T. Badra, National Horticultural Research  
Institute, (NIHORT), FAO, Ibadan, Oyo, Nigeria. Received 08/23/1985.

PI 578279. *Amaranthus cruentus* L.  
Cultivated. 386; Ames 13457. An African vegetable type.

PI 578280. *Amaranthus cruentus* L.  
Cultivated. NHA /15; Ames 13466. An African vegetable type.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State  
University, Dept. of Crop Science, Corvallis, Oregon 97331, United States;  
International Maize & Wheat Improvement Center, Apdo. Postal 6-641, Lisboa  
27, Mexico City, Federal District 06600, Mexico; Aegean Regional Agricultural  
Res. Inst., P.O. Box 9, Menemen, Izmir, Turkey; 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 578281. *Melilotus albus* Medikus  
Wild. 84TK536-001; W6 698; Ames 14939. Collected 08/12/1984 in Hakkari,  
Turkey. Latitude 37 deg. 40' N. Longitude 44 deg. 10' E.  
Elevation 1830 m. Edge of ungrazed irrigated level  
wheat field, high plateau terrace, loam soil,  
moderate drainage, low stoniness, near Yuksekova,  
21km southeast of Yuksekova Road Junction or 9km  
northwest of Yuksekova, Hakkari Province. One plant collected. Flowers  
white. Not transplanted.

The following were developed by Arnel Hallauer, Iowa State University,  
Department of Agronomy, Ames, Iowa 50011, United States. Received 04/18/1994.

PI 578282. *Zea mays* L. ssp. *mays*  
Breeding. BS30; Iodent. GP-297. Pedigree - Developed by intermating 19  
Iodent inbred lines including I159(A), I159, I173(A), I197, I198, I205,  
I211, I222(A2), I223(A), I224(A1), I225(A1), I234, I238, I242(A2), I253,  
I254, I261(A), I262, and I267. Nineteen lines developed from the Iodent  
open-pollinated variety with initial selfing made in 1922. Some lines  
used in double-cross hybrids produced in 1930s and 1940s. Plants  
vigorous. Kernels yellow dent. Ears large, girthy.

The following were developed by K. B. Singh, Int. Center For Agricultural  
Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; C.L.L. Gowda, Int.  
Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh 502  
324, India; Onkar Singh, Int. Crops Res. Inst. for the Semi-Arid Tropics,  
Legumes Program, Patancheru, Andhra Pradesh 502 324, India; S.C. Sethi; B.V.  
Rao. Received 04/18/1994.

PI 578283. *Cicer arietinum* L.  
Cultivar. "ICCV 10"; Bharati; Barichchola 2. CV-117. Pedigree - P 1231/P 1265. Semi-erect with long fruiting branches. Maturity 95-100 days at ICRISAT Asia Center, Patancheru, Andhra Pradesh, India (18 deg. N latitude). Stem purplish green. Leaves dark green, compound with medium sized leaflets. Flower color pink. Pods light yellow. Seeds yellowish brown, ram's head shaped. Seed size medium with a 100-seed mass of 16.3g. Resistant to fusarium wilt. Tolerant to dry root rot. Drought tolerance good. Tolerance to high temperatures.

The following were developed by The J.C. Robinson Seed Company, United States . Received 04/18/1994.

PI 578284. *Zea mays* L. *ssp. mays*  
Cultivar. "Z88710". PVP 9400128.

The following were developed by Pure-Seed Testing, Inc., United States. Received 04/18/1994.

PI 578285. *Poa pratensis* L.  
Cultivar. "A83-865". PVP 9400129.

The following were developed by D'Arrigo Bros. Company of California, United States. Received 04/18/1994.

PI 578286. *Brassica ruvo* L. Bailey  
Cultivar. "D'ARRIGO 63". PVP 9400130.

PI 578287. *Brassica ruvo* L. Bailey  
Cultivar. "D'ARRIGO 130". PVP 9400131.

The following were developed by CAS Custom Farming, Inc., dba Holland Cottonseed, United States. Received 04/18/1994.

PI 578288. *Gossypium hirsutum* L.  
Cultivar. "HOLLAND 850". PVP 9400132.

PI 578289. *Gossypium hirsutum* L.  
Cultivar. "HYPERFORMER HY007". PVP 9400133.

The following were developed by Barenburg Holland B.V., United States. Received 04/18/1994.

PI 578290. *Festuca brevipila* Tracey  
Cultivar. "BARDUR". PVP 9400134.

The following were developed by Pure-Seed Testing, Inc., United States. Received 04/18/1994.

PI 578291. *Festuca arundinacea* Schreber  
Cultivar. "APACHE II". PVP 9400135.

The following were developed by Dairyland Seed Company, United States. Received 04/18/1994.

PI 578292. *Trifolium pratense* L.  
Cultivar. "SCARLETT". PVP 9400136.

The following were developed by Northrup King Company, United States.  
Received 04/18/1994.

PI 578293. *Glycine max* (L.) Merr.  
Cultivar. "S09-95". PVP 9400137.

PI 578294. *Glycine max* (L.) Merr.  
Cultivar. "S16-60". PVP 9400138.

PI 578295. *Glycine max* (L.) Merr.  
Cultivar. "S29-11". PVP 9400139.

PI 578296. *Glycine max* (L.) Merr.  
Cultivar. "S39-41". PVP 9400140.

PI 578297. *Glycine max* (L.) Merr.  
Cultivar. "S42-60". PVP 9400141.

The following were developed by SeedTec International, Inc., United States.  
Received 04/18/1994.

PI 578298. *Carthamus tinctorius* L.  
Cultivar. "S-710". PVP 9400142.

The following were developed by SeedTec International, Inc., United States.  
Donated by SeedTec International, Inc., Woodland, California, United States.  
Received 04/18/1994.

PI 578299. *Carthamus tinctorius* L.  
Cultivar. "S-730". PVP 9400143.

The following were developed by Pure Seed Testing, Inc., United States.  
Received 04/18/1994.

PI 578300. *Poa pratensis* L.  
Cultivar. "BLUE STAR". PVP 9400144.

The following were developed by Shamrock Seed Company, United States.  
Received 04/18/1994.

PI 578301. *Allium cepa* L.  
Cultivar. "SSC 6026B". PVP 9400145.

The following were developed by Pure-Seed Testing, Inc., United States.  
Received 04/18/1994.

PI 578302. *Lolium perenne* L.  
Cultivar. "SHINING STAR". PVP 9400146.

The following were developed by AgriPro Biosciences Inc., United States.  
Received 04/18/1994.

PI 578303. *Gossypium hirsutum* L.  
Cultivar. "DP 2156". PVP 9400147.

The following were developed by University of Florida, Florida Agr. Exp. Sta., Florida, United States. Received 04/18/1994.

PI 578304. *Arachis hypogaea* L.  
Cultivar. "F1250". PVP 9400148.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578305. *Glycine max* (L.) Merr.  
Cultivated. I-44; Bhatmash. Collected in Nepal. Jumia.

Unknown source. Received 04/19/1994.

PI 578305 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578305 B. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578306. *Glycine max* (L.) Merr.  
Cultivated. I-61; Bhatmash. Collected in Nepal. Jumia.

Unknown source. Received 04/19/1994.

PI 578306 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578306 B. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578307. *Glycine max* (L.) Merr.  
Cultivated. I-62; Bhatmash. Collected in Nepal. Jumia.

Unknown source. Received 04/19/1994.

PI 578307 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578307 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578307 C. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578308. *Glycine max* (L.) Merr.

Cultivated. I-63; Bhatmash. Collected in Nepal. Jumia.

Unknown source. Received 04/19/1994.

PI 578308 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578308 B. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578309. *Glycine max* (L.) Merr.

Cultivated. I-64; Bhatmash. Collected in Nepal. Jumia.

PI 578310. *Glycine max* (L.) Merr.

Cultivated. I-65; Bhatmash. Collected in Nepal. Jumia.

PI 578311. *Glycine max* (L.) Merr.

Cultivated. I-86; Bhatmash. Collected in Nepal. Khala Chaur.

Unknown source. Received 04/19/1994.

PI 578311 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578311 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578311 C. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578312. *Glycine max* (L.) Merr.  
Cultivated. I-98; Bhatmash. Collected in Nepal. Garjankot.

PI 578313. *Glycine max* (L.) Merr.  
Cultivated. I-99; Bhatmash. Collected in Nepal. Garjankot.

Unknown source. Received 04/19/1994.

PI 578313 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578313 B. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578314. *Glycine max* (L.) Merr.  
Cultivated. I-837; Bhatta. Collected in Nepal. Ghorahl.

PI 578315. *Glycine max* (L.) Merr.  
Cultivated. 2130a; Bhatmas. Collected in Nepal. Lankhua.

Unknown source. Received 04/19/1994.

PI 578315 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578315 B. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578316. *Glycine max* (L.) Merr.  
Cultivated. 2130b; Bhatmas. Collected in Nepal. Lankhua.

Unknown source. Received 04/19/1994.

PI 578316 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578316 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578316 C. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578317. *Glycine max* (L.) Merr.

Cultivated. 2130c; Bhatmas. Collected in Nepal. Lankhua.

PI 578318. *Glycine max* (L.) Merr.

Cultivated. 2160b. Collected in Nepal.

Unknown source. Received 04/19/1994.

PI 578318 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578318 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578318 C. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578318 D. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578318 E. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578319. *Glycine max* (L.) Merr.

Cultivated. 2176. Collected in Nepal.

Unknown source. Received 04/19/1994.

PI 578319 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578319 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578319 C. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578319 D. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578319 E. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578319 F. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578320. *Glycine max* (L.) Merr.  
Cultivated. 2188b. Collected in Nepal.

PI 578321. *Glycine max* (L.) Merr.  
Cultivated. 2225; Bhatmas. Collected in Nepal. Bayarbas.

PI 578322. *Glycine max* (L.) Merr.  
Cultivated. 8055a; Kalo bhatta. Collected in Nepal. Kothiya.

PI 578323. *Glycine max* (L.) Merr.  
Cultivated. 2063. Collected in Nepal.

Unknown source. Received 04/19/1994.

PI 578323 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578323 B. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578324. *Glycine max* (L.) Merr.  
Cultivated. 2290. Collected in Nepal.

Unknown source. Received 04/19/1994.

PI 578324 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 C. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 D. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 E. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 F. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 G. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578324 H. *Glycine max* (L.) Merr.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 04/19/1994.

PI 578325. *Glycine max* (L.) Merr.  
Cultivated. 8006a. Collected in Nepal.

PI 578326. *Glycine max* (L.) Merr.  
Cultivated. 8006b. Collected in Nepal.

The following were donated by Kentaro Naito, Japanese Nat. Federation of Agriculture, Co-operative Association, 8-3, Ohtemachi 1-Chome, Chiyoda-Ku, Tokyo, Japan. Received 04/19/1994.

PI 578327. *Glycine max* (L.) Merr.  
Cultivar. "Tamba". Collected 1991 in Japan. Near Kyoto. Seeds large (73

cg/seed), black.

The following were donated by Julio S. Ferrarotti, Organizacion Ferrarotti para el Campo, (OFPEC), 200 Rosario (S.Fe), Buenos Aires 2415, Argentina. Received 04/19/1994.

PI 578328. *Glycine max* (L.) Merr.  
Cultivar. "Dona Flor 58". Pedigree - LEO 939 X Essex. Commercial variety. Released in 1989. Good performance in sandy soils.

Unknown source. Received 04/19/1994.

PI 578328 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578328 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578328 C. *Glycine max* (L.) Merr.

The following were donated by Julio S. Ferrarotti, Organizacion Ferrarotti para el Campo, (OFPEC), 200 Rosario (S.Fe), Buenos Aires 2415, Argentina. Received 04/19/1994.

PI 578329. *Glycine max* (L.) Merr.  
Cultivar. "OFPEC Cordobesa". Pedigree - Prata X Hood. Commercial variety. Released in 1991. Excellent performance in sandy soils and dry climates.

Unknown source. Received 04/19/1994.

PI 578329 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578329 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578329 C. *Glycine max* (L.) Merr.

The following were donated by Julio S. Ferrarotti, Organizacion Ferrarotti para el Campo, (OFPEC), 200 Rosario (S.Fe), Buenos Aires 2415, Argentina. Received 04/19/1994.

PI 578330. *Glycine max* (L.) Merr.  
Cultivar. "OFPEC Nortena". Pedigree - Hardee X Asgrow5618. Commercial

variety. Released in 1991. Good performance in clay soils.

PI 578331. *Glycine max* (L.) Merr.  
Cultivar. "OFPEC Rendidora 627". Pedigree - (ONO X Doonett) X Wabash.  
Commercial variety. Released in 1980. Resistance to *Melodogine incognita*  
and *M. javanica*.

PI 578332. *Glycine max* (L.) Merr.  
Cultivar. "OFPEC Rendidora 801". Pedigree - Halesoy 71 X Bragg.  
Commercial variety. Released in 1982. Same as OFPEC Rendidora 627.  
Resistance to lodging.

Unknown source. Received 04/19/1994.

PI 578332 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578332 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578332 C. *Glycine max* (L.) Merr.

The following were donated by Julio S. Ferrarotti, Organizacion Ferrarotti  
para el Campo, (OFPEC), 200 Rosario (S.Fe), Buenos Aires 2415, Argentina.  
Received 04/19/1994.

PI 578333. *Glycine max* (L.) Merr.  
Cultivar. "OFPEC Rendidora Juan Fe". Pedigree - Halesoy 71 X Bragg.  
Commercial variety. Released in 1982. Same as OFPEC Rendidora 627.  
Adapted for plant after winter crops.

PI 578334. *Glycine max* (L.) Merr.  
Cultivar. "OFPEC Vencedora". Pedigree - (Hood X Hill) X SRF450.  
Commercial variety. Released in 1991. Resistance to *Diaporthe phaeolorum*  
var. *meridionalis*.

PI 578335. *Glycine max* (L.) Merr.  
Cultivar. "Perla 25". Pedigree - Henry X Mack. Commercial variety.  
Released in 1984. Adapted by escape for dry conditions.

Unknown source. Received 04/19/1994.

PI 578335 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578335 B. *Glycine max* (L.) Merr.

The following were donated by Vavilov Research Institute, Far Eastern  
Experiment Station, Vavilov Road, House #9, Vladivostok, Russian Federation.

Received 04/19/1994.

- PI 578336. **Glycine soja** Siebold & Zucc.  
Wild. L.18; VIR 8431. Collected in Russian Federation. Amur region.
- PI 578337. **Glycine soja** Siebold & Zucc.  
Wild. L.33; VIR 8434. Collected in Russian Federation. Amur region.
- PI 578338. **Glycine soja** Siebold & Zucc.  
Wild. L.416; VIR 8476. Collected in Russian Federation. Primorskaya region.
- PI 578339. **Glycine soja** Siebold & Zucc.  
Wild. L.421; VIR 8478. Collected in Russian Federation. Primorskaya region.
- PI 578340. **Glycine soja** Siebold & Zucc.  
Wild. L.518; VIR 8510. Collected in Russian Federation. Habarovsk region.
- PI 578341. **Glycine soja** Siebold & Zucc.  
Wild. L.521; VIR 8512. Collected in Russian Federation. Habarovsk region.
- PI 578342. **Glycine soja** Siebold & Zucc.  
Wild. L.525; VIR 8515. Collected in Russian Federation. Habarovsk region.
- PI 578343. **Glycine soja** Siebold & Zucc.  
Wild. L.534; VIR 8517. Collected in Russian Federation. Habarovsk region.
- PI 578344. **Glycine soja** Siebold & Zucc.  
Wild. L.535; VIR 8518. Collected in Russian Federation. Habarovsk region.
- PI 578345. **Glycine soja** Siebold & Zucc.  
Wild. L.546; VIR 8524. Collected in Russian Federation. Habarovsk region.
- PI 578346. **Glycine soja** Siebold & Zucc.  
Wild. L.515; VIR 8836. Collected in Russian Federation. Primorskaya region.
- PI 578347. **Glycine soja** Siebold & Zucc.  
Wild. Line 446; VIR 8490. Collected in Russian Federation. Primorskaya region.
- PI 578348. **Glycine soja** Siebold & Zucc.  
Wild. Line 535; VIR 5818. Collected in Russian Federation. Habarovsk region.
- PI 578349. **Glycine soja** Siebold & Zucc.  
Wild. Line 598; VIR 8926. Collected in Russian Federation. Amur region.
- PI 578350. **Glycine soja** Siebold & Zucc.  
Wild.

The following were donated by Lenin All-Union Academy of Agr. Sci., Far East Dept. All-Russian Soybean Inst., Ignatyevskoye Shosse, 19, Blagoveshchensk, Russian Federation. Received 04/19/1994.

- PI 578351. **Glycine soja** Siebold & Zucc.

Wild. KA-1400/91.

PI 578352. *Glycine soja* Siebold & Zucc.  
Wild. KA-1444/91.

PI 578353. *Glycine soja* Siebold & Zucc.  
Wild. KB-119/91.

PI 578354. *Glycine soja* Siebold & Zucc.  
Wild. KB-224/91.

PI 578355. *Glycine soja* Siebold & Zucc.  
Wild. KT-156/912.

PI 578356. *Glycine soja* Siebold & Zucc.  
Wild. KZ-671/912.

PI 578357. *Glycine soja* Siebold & Zucc.  
Wild. KZ-6352/91.

The following were donated by National Scientific Committee, Beijing, China.  
Received 04/19/1994.

PI 578358. *Glycine max* (L.) Merr.  
Cultivar. "Guan yun da hei dou".

PI 578359. *Glycine max* (L.) Merr.  
Cultivar. "Guan yun da hong dou".

PI 578360. *Glycine max* (L.) Merr.  
Cultivar. "Guan nan chun hei dou".

PI 578361. *Glycine max* (L.) Merr.  
Cultivar. "Yi chang hei huang dou".

PI 578362. *Glycine max* (L.) Merr.  
Cultivar. "Chun hei dou".

PI 578363. *Glycine max* (L.) Merr.  
Cultivar. "Wu chun liu yue bao".

PI 578364. *Glycine max* (L.) Merr.  
Cultivar. "Wu yue huang".

PI 578365. *Glycine max* (L.) Merr.  
Cultivar. "Tian men niu mao hong".

PI 578366. *Glycine max* (L.) Merr.  
Cultivar. "Hong hu liu yue bao".

The following were donated by Institute of Crop Germplasm Resources, Chinese  
Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received  
04/19/1994.

PI 578367. *Glycine max* (L.) Merr.  
Cultivated. 164-4-19; 00002.

PI 578368. *Glycine max* (L.) Merr.  
Cultivated. 164-4-32; 00003.

PI 578369. *Glycine max* (L.) Merr.  
Cultivated. 274-2; 00004.

- PI 578370. *Glycine max* (L.) Merr.  
Cultivated. 6-5; 00005.
- PI 578371. *Glycine max* (L.) Merr.  
Cultivar. "Aai hui ben di zhong"; 00006.
- PI 578372. *Glycine max* (L.) Merr.  
Cultivar. "Aan da 37-1"; 00007.
- PI 578373. *Glycine max* (L.) Merr.  
Cultivar. "An da bai mei"; 00008.
- PI 578374. *Glycine max* (L.) Merr.  
Cultivar. "Aan tu bai hua lu da dou"; 00010.
- PI 578375. *Glycine max* (L.) Merr.  
Cultivar. "Aan tu dang di hei dou"; 00011.

Unknown source. Received 04/19/1994.

- PI 578375 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

- PI 578375 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

- PI 578376. *Glycine max* (L.) Merr.  
Cultivar. "Aantu hei se da dou"; 00012.
- PI 578377. *Glycine max* (L.) Merr.  
Cultivar. "Aan tu niu mao huang"; 00013.
- PI 578378. *Glycine max* (L.) Merr.  
Cultivar. "Bai pi dou"; 00025.
- PI 578379. *Glycine max* (L.) Merr.  
Cultivar. "Bai pi zi"; 00026.
- PI 578380. *Glycine max* (L.) Merr.  
Cultivar. "Bai qi"; 00027.

Unknown source. Received 04/19/1994.

- PI 578380 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

- PI 578380 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

- PI 578381. *Glycine max* (L.) Merr.  
Cultivar. "Bai qi kuai dou"; 00028.
- PI 578382. *Glycine max* (L.) Merr.  
Cultivar. "Bai qi xiao jin huang"; 00029.
- PI 578383. *Glycine max* (L.) Merr.  
Cultivar. "Bai tie jia"; 00031.
- PI 578384. *Glycine max* (L.) Merr.  
Cultivar. "Bai tie jia qing"; 00032.
- PI 578385. *Glycine max* (L.) Merr.  
Cultivar. "Bao qing xiao jin huang"; 00033.
- PI 578386. *Glycine max* (L.) Merr.  
Cultivar. "Bao xian dou"; 00034.
- PI 578387. *Glycine max* (L.) Merr.  
Cultivar. "Bei feng 3 hao"; 00036.
- PI 578388. *Glycine max* (L.) Merr.  
Cultivar. "Bei man 217"; 00037.

Unknown source. Received 04/19/1994.

- PI 578388 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

- PI 578388 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

- PI 578389. *Glycine max* (L.) Merr.  
Cultivar. "Bei man 41"; 00038.
- PI 578390. *Glycine max* (L.) Merr.  
Cultivar. "Beng pi"; 00039.
- PI 578391. *Glycine max* (L.) Merr.  
Cultivar. "Bian da li"; 00040.
- PI 578392. *Glycine max* (L.) Merr.  
Cultivar. "Cai zhong pu"; 00041.

Unknown source. Received 04/19/1994.

- PI 578392 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578392 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578393. *Glycine max* (L.) Merr.  
Cultivar. "Feng shou 11 hao"; 00110.

PI 578394. *Glycine max* (L.) Merr.  
Cultivar. "Feng shou 11 xuan"; 00111.

PI 578395. *Glycine max* (L.) Merr.  
Cultivar. "Feng shou 12 hao"; 00112.

PI 578396. *Glycine max* (L.) Merr.  
Cultivar. "Feng shou 13 hao"; 00113.

PI 578397. *Glycine max* (L.) Merr.  
Cultivar. "Feng shou 14 hao"; 00114.

PI 578398. *Glycine max* (L.) Merr.  
Cultivar. "Feng shou 15 hao"; 00115.

PI 578399. *Glycine max* (L.) Merr.  
Cultivar. "Fu ding zhu"; 00118.

Unknown source. Received 04/19/1994.

PI 578399 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578399 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578400. *Glycine max* (L.) Merr.  
Cultivar. "Fu dou"; 00119.

PI 578401. *Glycine max* (L.) Merr.  
Cultivar. "Fu shou"; 00120.

Unknown source. Received 04/19/1994.

PI 578401 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578401 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578401 C. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578401 D. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578402. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5201-18"; 00135.

PI 578403. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5202-4"; 00136.

PI 578404. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5601-1"; 00137.

PI 578405. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5603-2"; 00138.

PI 578406. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5610-1"; 00139.

PI 578407. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5610-2"; 00140.

PI 578408. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5610-3"; 00141.

PI 578409. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 5919-1"; 00142.

Unknown source. Received 04/19/1994.

PI 578409 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578409 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578410. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 6005-2"; 00143.

PI 578411. *Glycine max* (L.) Merr.

Cultivar. "Gong jiao 6005-3"; 00144.

PI 578412. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 6308-1"; 00145.

PI 578413. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 6309-1"; 00146.

PI 578414. *Glycine max* (L.) Merr.  
Cultivar. "Gong jiao 6309-2"; 00147.

PI 578415. *Glycine max* (L.) Merr.  
Cultivar. "Guan shi suo da dou"; 00150.

PI 578416. *Glycine max* (L.) Merr.  
Cultivar. "Guo yu 98"; 00153.

PI 578417. *Glycine max* (L.) Merr.  
Cultivar. "Guo yu 84"; 00154.

Unknown source. Received 04/19/1994.

PI 578417 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578417 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578418. *Glycine max* (L.) Merr.  
Cultivar. "Guo yu 85"; 00155.

PI 578419. *Glycine max* (L.) Merr.  
Cultivar. "Guo yu 86"; 00156.

Unknown source. Received 04/19/1994.

PI 578419 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578419 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578420. *Glycine max* (L.) Merr.  
Cultivar. "Ha 1 hao"; 00157.

PI 578421. *Glycine max* (L.) Merr.

Cultivar. "Ha 3 hao"; 00161.

PI 578422. *Glycine max* (L.) Merr.  
Cultivar. "Hai lun du lu dou"; 00168.

PI 578423. *Glycine max* (L.) Merr.  
Cultivar. "He feng 1 hao"; 00169.

PI 578424. *Glycine max* (L.) Merr.  
Cultivar. "He feng 5 hao"; 00170.

PI 578425. *Glycine max* (L.) Merr.  
Cultivar. 00171.

PI 578426. *Glycine max* (L.) Merr.  
Cultivar. "He feng 14 hao"; 00172.

PI 578427. *Glycine max* (L.) Merr.  
Cultivar. "He feng 15 hao"; 00173.

PI 578428. *Glycine max* (L.) Merr.  
Cultivar. "He feng 16 hao"; 00174.

Unknown source. Received 04/19/1994.

PI 578428 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578428 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578429. *Glycine max* (L.) Merr.  
Cultivar. "He feng 17 hao"; 00175.

PI 578430. *Glycine max* (L.) Merr.  
Cultivar. "He feng 22 hao"; 00176.

PI 578431. *Glycine max* (L.) Merr.  
Cultivar. "He jiao 6 hao"; 00177.

PI 578432. *Glycine max* (L.) Merr.  
Cultivar. "He jiao 8 hao"; 00178.

Unknown source. Received 04/19/1994.

PI 578432 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578432 B. *Glycine max* (L.) Merr.

The following were donated by Institute of Crop Germplasm Resources, Chinese Academy of Agric. Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 04/19/1994.

PI 578433. *Glycine max* (L.) Merr.  
Cultivar. "He jiao 11 hao"; 00179.

PI 578434. *Glycine max* (L.) Merr.  
Cultivar. "He jiao 13 hao"; 00180.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578435. *Glycine max* (L.) Merr.  
Landrace. Can tho 1. Collected in Vietnam. Can Tho. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color greyish white. Pod color brown.

PI 578436. *Glycine max* (L.) Merr.  
Landrace. Can tho 4. Collected in Vietnam. Can Tho. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color greyish white. Pod color brown.

PI 578437. *Glycine max* (L.) Merr.  
Landrace. Cao qua dia hoa tim. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color yellow. Pod color brown.

Unknown source. Received 04/19/1994.

PI 578437 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578437 B. *Glycine max* (L.) Merr.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578438. *Glycine max* (L.) Merr.  
Landrace. Chi thao te den. Collected in Vietnam. North Vietnam. Hypocotyl color green. Flower color white. Seed coat yellow. Hilu color dark brown. Pubescence color white.

PI 578439. *Glycine max* (L.) Merr.  
Landrace. Coc hong phuong a. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color greyish white. Pod color yellow.

PI 578440. *Glycine max* (L.) Merr.  
Landrace. Cuc luc ngan. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color greyish white. Pod color brown.

PI 578441. *Glycine max* (L.) Merr.  
Landrace. DH4 nau. Collected in Vietnam. Can Tho. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown.

Pubescence color brownish yellow. Pod color yellow.

PI 578442. *Glycine max* (L.) Merr.  
Landrace. DH4 xanh. Collected in Vietnam. Can Tho. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence color brownish yellow. Pod color yellow.

PI 578443. *Glycine max* (L.) Merr.  
Landrace. Da bo bong tim. Collected in Vietnam. Dong thap. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown.

PI 578444. *Glycine max* (L.) Merr.  
Landrace. Da trau bong tim. Collected in Vietnam. Dong thap. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown.

Unknown source. Received 04/19/1994.

PI 578444 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578444 B. *Glycine max* (L.) Merr.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578445. *Glycine max* (L.) Merr.  
Landrace. Da trang Khanh An. Collected in Vietnam. Dong thap. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown.

PI 578446. *Glycine max* (L.) Merr.  
Landrace. Da trang bo vang. Collected in Vietnam. Dong thap. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown.

Unknown source. Received 04/19/1994.

PI 578446 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578446 B. *Glycine max* (L.) Merr.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578447. *Glycine max* (L.) Merr.  
Landrace. Dau ban tay. Collected in Vietnam. Minh hai. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence greyish white. Pod color brown.

PI 578448. *Glycine max* (L.) Merr.  
Landrace. Dau ghep. Collected in Vietnam. Cuu long. Hypocotyl color

purple. Flower color purple. Seed coat yellow. Hilu color dark brown.  
Pubescence yellow. Pod color yellow.

PI 578449. *Glycine max* (L.) Merr.

Landrace. Den bac Lieu. Collected in Vietnam. Minh hai. Hypocotyl color purple. Flower color purple. Seed coat black. Hilu color black.  
Pubescence brown-yellow.

PI 578450. *Glycine max* (L.) Merr.

Landrace. Den dong xuan. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat black. Hilu color black.

PI 578451. *Glycine max* (L.) Merr.

Landrace. Den Trung quoc. Collected in Vietnam. North Vietnam.  
Hypocotyl color purple. Flower color purple. Seed coat black. Hilu color black. Pubescence brown-yellow. Pod color yellow.

PI 578452. *Glycine max* (L.) Merr.

Landrace. Hau giang 1. Collected in Vietnam. Can Tho. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown.

PI 578453. *Glycine max* (L.) Merr.

Landrace. Hau giang 2. Collected in Vietnam. Can Tho. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown.

PI 578454. *Glycine max* (L.) Merr.

Landrace. Hong ngu. Collected in Vietnam. Dong thap. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown.  
Pubescence color greyish white. Pod color brown.

PI 578455. *Glycine max* (L.) Merr.

Landrace. Mat hong Long Khan. Collected in Vietnam. Dong nai. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown.  
Pubescence color greyish white. Pod color brown.

Unknown source. Received 04/19/1994.

PI 578455 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578455 B. *Glycine max* (L.) Merr.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578456. *Glycine max* (L.) Merr.

Landrace. Mat trang Dong Nai. Collected in Vietnam. Dong nai. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color greyish white. Pod color yellow.

PI 578457. *Glycine max* (L.) Merr.

Landrace. May den. Collected in Vietnam. An giang. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color black.  
Pubescence color greyish white. Pod color brown.

Unknown source. Received 04/19/1994.

PI 578457 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578457 B. *Glycine max* (L.) Merr.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578458. *Glycine max* (L.) Merr.

Landrace. May trang. Collected in Vietnam. An giang. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence color brownish yellow. Pod color brown.

PI 578459. *Glycine max* (L.) Merr.

Landrace. Nau tua chua. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown.

PI 578460. *Glycine max* (L.) Merr.

Landrace. Ngoc dong. Collected in Vietnam. North Vietnam. Hypocotyl color green. Flower color white. Seed coat black. Hilu color grey. Pubescence color brownish yellow. Pod color brown.

Unknown source. Received 04/19/1994.

PI 578460 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578460 B. *Glycine max* (L.) Merr.

The following were donated by Tri D. Vuong, Can Tho University, Dept. of Genetics & Plant Breeding, Can Tho, Vietnam. Received 04/19/1994.

PI 578461. *Glycine max* (L.) Merr.

Landrace. Phi hai. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color brownish yellow. Pod color brown.

PI 578462. *Glycine max* (L.) Merr.

Landrace. Phu tam. Collected in Vietnam. Soc trang. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color dark brown. Pubescence color greyish white. Pod color brown.

PI 578463. *Glycine max* (L.) Merr.

Landrace. Phuc hoa. Collected in Vietnam. North Vietnam. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence color brownish yellow. Pod color dark brown.

PI 578464. *Glycine max* (L.) Merr.

Landrace. Viet khai 1. Collected in Vietnam. Minh hai. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence color brownish yellow. Pod color brown.

PI 578465. *Glycine max* (L.) Merr.

Landrace. Viet khai 4. Collected in Vietnam. Minh hai. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence color brownish yellow. Pod color brown.

PI 578466. *Glycine max* (L.) Merr.

Landrace. Viet khai 7. Collected in Vietnam. Minh hai. Hypocotyl color purple. Flower color purple. Seed coat yellow. Hilu color brown. Pubescence color brownish yellow. Pod color brown.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States. Received 04/19/1994.

PI 578467. *Glycine max* (L.) Merr.

Cultivar. "Baimongjie 2(I)". Collected in China.

PI 578468. *Glycine max* (L.) Merr.

Cultivar. "Baimongjie 2(IV)". Collected in China.

PI 578469. *Glycine max* (L.) Merr.

Cultivar. "Baimongjie II". Collected in China.

PI 578470. *Glycine max* (L.) Merr.

Cultivar. "Dabingchin". Collected in China. Sensitive to flood conditions.

PI 578471. *Glycine max* (L.) Merr.

Cultivar. "XU89-2". Collected in China. Tolerant to flood conditions.

Unknown source. Received 04/19/1994.

PI 578471 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578471 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578471 C. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578471 D. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578471 E. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States. Received 04/19/1994.

PI 578472. *Glycine max* (L.) Merr.  
Cultivar. "Tai-Lake Black". Collected in China. Sensitive to flood conditions.

Unknown source. Received 04/19/1994.

PI 578472 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578472 B. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States. Received 04/19/1994.

PI 578473. *Glycine max* (L.) Merr.  
Cultivar. "Tai-Lake Yellow". Collected in China. Sensitive to flood conditions.

Unknown source. Received 04/19/1994.

PI 578473 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578473 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578473 C. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578473 D. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States. Received 04/19/1994.

PI 578474. *Glycine max* (L.) Merr.  
Cultivar. "S864-1". Collected in China. Tolerant to flood conditions.

Unknown source. Received 04/19/1994.

PI 578474 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578474 B. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States. Received 04/19/1994.

PI 578475. *Glycine max* (L.) Merr.

Cultivar. "Mao bon qing". Collected in China. Tolerant to flood conditions.

PI 578476. *Glycine max* (L.) Merr.

Cultivar. "Huai 80-h33". Collected in China. Tolerant to flood conditions.

PI 578477. *Glycine max* (L.) Merr.

Cultivar. "Huai 810". Collected in China. Sensitive to flood conditions

Unknown source. Received 04/19/1994.

PI 578477 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578477 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578477 C. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States. Received 04/19/1994.

PI 578478. *Glycine max* (L.) Merr.

Cultivar. "Huai 823". Collected in China. Sensitive to flood conditions

Unknown source. Received 04/19/1994.

PI 578478 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578478 B. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage

Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States.  
Received 04/19/1994.

PI 578479. *Glycine max* (L.) Merr.  
Cultivar. "Huai 833". Collected in China. Sensitive to flood conditions

PI 578480. *Glycine max* (L.) Merr.  
Cultivar. "Huai 849". Collected in China. Tolerant to flood conditions.

PI 578481. *Glycine max* (L.) Merr.  
Cultivar. "Nizhen No. 1". Collected in China.

PI 578482. *Glycine max* (L.) Merr.  
Cultivar. "Tai xin Black Bean". Collected in China.

Unknown source. Received 04/19/1994.

PI 578482 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578482 B. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578482 C. *Glycine max* (L.) Merr.

The following were donated by Tara T. Van Toai, USDA, ARS, Soil Drainage  
Research Unit, 590 Woody Hayes Drive, Columbus, Ohio 43210, United States.  
Received 04/19/1994.

PI 578483. *Glycine max* (L.) Merr.  
Cultivar. "Hou zi mao". Collected in China. Summer cultivar.

PI 578484. *Glycine max* (L.) Merr.  
Cultivar. "Hou zi mao". Collected in China. GH(summer cultivar).

PI 578485. *Glycine max* (L.) Merr.  
Cultivar. "Sui dao huang". Collected in China. GH(summer cultivar).

Unknown source. Received 04/19/1994.

PI 578485 A. *Glycine max* (L.) Merr.

Unknown source. Received 04/19/1994.

PI 578485 B. *Glycine max* (L.) Merr.

The following were donated by K. C. Pant, National Bureau for Plant Genetic  
Resources, Regional Station, Bhowali, India. Received 04/19/1994.

PI 578486. *Glycine soja* Siebold & Zucc.  
Wild. Collected in India. Lohaghat (Pithoragarh, U.P.). Local variety.  
Leaf size, canopy, and pod size bold. Plant height same as other  
varieties. Seed size more than double prevalent cultivated varieties.  
Taste sweet, palatable.

The following were donated by Institute of Crop Germplasm Resources, Chinese  
Academy of Agric. Science, 30 Bai Shi Qiao Road, Beijing, China. Received  
04/19/1994.

PI 578487. *Glycine soja* Siebold & Zucc.  
Landrace. Feng shou No. 6; ZDD 0030.

PI 578488. *Glycine soja* Siebold & Zucc.  
Landrace. Feng xian sui dao huang; ZDD 5476.

PI 578489. *Glycine soja* Siebold & Zucc.  
Landrace. He jiao 13; ZDD 0053.

PI 578490. *Glycine soja* Siebold & Zucc.  
Landrace. He nan zao feng No. 1; ZDD 10084.

PI 578491. *Glycine soja* Siebold & Zucc.  
Landrace. Hua xian da lu dou; ZDD 10129.

PI 578492. *Glycine soja* Siebold & Zucc.  
Landrace. Hui chun dou; ZDD 0548.

PI 578493. *Glycine soja* Siebold & Zucc.  
Landrace. Huang bao zhu; ZDD 0380.

PI 578494. *Glycine soja* Siebold & Zucc.  
Landrace. Jin dou No. 1; ZDD 1963.

PI 578495. *Glycine soja* Siebold & Zucc.  
Landrace. Jin dou No. 4; ZDD 8676.

PI 578496. *Glycine soja* Siebold & Zucc.  
Landrace. Jin shan pu; ZDD 0081.

PI 578497. *Glycine soja* Siebold & Zucc.  
Landrace. Jin yuan; ZDD 0815.

PI 578498. *Glycine soja* Siebold & Zucc.  
Landrace. Ju xuan 23; ZDD 02615.

PI 578499. *Glycine soja* Siebold & Zucc.  
Landrace. Lu yue bai; ZDD 6017.

PI 578500. *Glycine soja* Siebold & Zucc.  
Landrace. Qun xuan No. 1; ZDD 0369.

PI 578501. *Glycine soja* Siebold & Zucc.  
Landrace. Sui nong No. 4; ZDD 6834.

PI 578502. *Glycine soja* Siebold & Zucc.  
Landrace. Tie 5621; ZDD 1131.

PI 578503. *Glycine soja* Siebold & Zucc.  
Landrace. Tie jia si li huang; ZDD 0494.

PI 578504. *Glycine soja* Siebold & Zucc.  
Landrace. Xiang dou No. 3; ZDD 6514.

PI 578505. *Glycine soja* Siebold & Zucc.  
Landrace. Xiao jin huang No. 1; ZDD 0375.

PI 578506. *Glycine soja* Siebold & Zucc.  
Landrace. Yuan bao jin; ZDD 0079.

The following were developed by Darrell M. Wesenberg, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United States. Received 04/13/1994.

PI 578507. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 81Ab11770. Pedigree - 81Ab1180/Hector. Two-rowed, dryland barley.

PI 578508. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 83Ab6656. Pedigree - 78Ab6871/78Ab10264. Two-rowed, dryland barley.

PI 578509. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 85SR32. Pedigree - 79Ab12902//PI-125/Morex. Six-rowed, malting barley.

PI 578510. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 85SR40. Pedigree - ND4242//Morex/Karla. Six-rowed, malting barley.

PI 578511. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 87Ab9561. Pedigree - 79Ab10740/Lewis. Two-rowed, malting barley.

PI 578512. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 86Ab549. Pedigree - 80Ab4266/Gus. Six-rowed barley.

PI 578513. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 78Ab10264. Pedigree - 60Ab1810-53/Hector. Two-rowed, dryland barley.

PI 578514. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 80Ab1001. Pedigree - Steve/75Ab5866. Six-rowed, short-strawed barley.

PI 578515. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 79Ab10591. Pedigree - 60Ab1810-53/Hector. Two-rowed barley.

PI 578516. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 79Ab13597. Pedigree - 74Ab4099/Glenn. Six-rowed barley.

PI 578517. *Hordeum vulgare* L. *ssp. vulgare*  
Breeding. 80Ab4952. Pedigree - 73Ab152/M71-88. Six-rowed, short-strawed barley.

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578518. *Agropyron cristatum* (L.) Gaertner  
A 1770. Collected in Turkey.

The following were donated by Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1975.

PI 578519. *Agropyron cristatum* (L.) Gaertner  
RUFF.

The following were donated by Agriculture Canada, Ottawa Research Station,  
Central Experiment Station, Ottawa, Ontario K1A 0C6, Canada. Received 1966.

PI 578520. *Agropyron desertorum* (Fischer ex Link) Schultes  
SUMMIT.

The following were donated by USDA-SCS, New Mexico Plant Materials Center,  
Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578521. *Agropyron desertorum* (Fischer ex Link) Schultes  
A 1874-R1.

The following were donated by Utah Agr. Exp. Sta., Utah State University,  
Logan, Utah 84322, United States. Received 1978.

PI 578522. *Agropyron hybrid*  
HYBRID. Pedigree - TRACHYCAULUM X HORD.

The following were developed by Kay H. Asay, USDA, ARS, Forage & Range  
Research Unit, Utah State University - UMC 6300, Logan, Utah  
84322-6300, United States; D.R. Dewey, USDA-ARS, Forage and Range Research  
Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States.  
Received 1980.

PI 578523. *Agropyron hybrid*  
Breeding. "RS-1". GP-11. Pedigree - *Agropyron repens*/A. *spicatum*.  
Essentially caespitose with very limited rhizome development. Best  
adapted for range seedings in the 30- to 45-cm precipitation zones and  
for hay or pasture under irrigation. Readily accepted by sheep and  
cattle.

PI 578524. *Agropyron hybrid*  
Breeding. "RS-2". GP-12. Pedigree - *Agropyron repens*/A. *spicatum*.  
Moderate rhizomes. Best adapted for range seedings in the 30- to 45-cm  
precipitation zones and for hay or pasture under irrigation. Readily  
accepted by sheep and cattle.

The following were donated by USDA-SCS, New Mexico Plant Materials Center,  
Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578525. *Agropyron sp.*  
A 12477 SIL F4.

The following were donated by University of Rhode Island, Rhode Island Agr.  
Exp. Sta., Kingston, Rhode Island 02881, United States. Received 1964.

PI 578526. *Agrostis canina* L.  
KINGSTOWN.

The following were donated by Oregon State University, Oregon Agr. Exp. Sta.,  
Corvallis, Oregon 97331, United States. Received 1961.

PI 578527. *Agrostis capillaris* L.  
ASTORIA.

The following were donated by University of Rhode Island, Rhode Island Agr. Exp. Sta., Kingston, Rhode Island 02881, United States. Received 1964.

PI 578528. *Agrostis capillaris* L.  
EXETER.

The following were donated by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Received 1961.

PI 578529. *Agrostis stolonifera* var. *palustris* (Hudson) Farw.  
SEASIDE.

The following were donated by O.M. Scott and Sons Company, Marysville, Ohio 43040, United States. Received 1961.

PI 578530. *Agrostis stolonifera* var. *palustris* (Hudson) Farw.  
BLUETAG SEASIDE BENTGRASS.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1977.

PI 578531. *Alopecurus pratensis* L.  
P-5903.

The following were donated by USDA-ARS, Aberdeen, Idaho 83210, United States. Received 1965.

PI 578532. *Bromus biebersteinii* Roemer & Schultes  
REGAR. Collected in Turkey.

The following were developed by Mississippi Agr. Exp. Sta., Delta Branch Exp. Sta., Stoneville, Mississippi, United States. Donated by USDA, ARS, California Agr. Exp. Station, California, United States; Mississippi Agr. Exp. Sta., Delta Branch Exp. Sta., Stoneville, Mississippi, United States. Received 1961.

PI 578533. *Bromus catharticus* M. Vahl  
Cultivar. "LAMONT"; W6 985. CV-7. Pedigree - Selection from PI 193144 (La Estanzuela 157/49) from Uruguay. Forage yields higher or equal to other varieties of rescuegrass. Resistant to smut. Contain a high percentage of biennial or short-lived perennials. Adapted well to sandy loam soils.

The following were donated by University of Georgia, Georgia Agr. Exp. Sta., Athens, Georgia 30602, United States. Received 1963.

PI 578534. *Bromus catharticus* M. Vahl  
GASEL; W6 986.

The following were developed by Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States. Received 1964.

PI 578535. *Bromus inermis* Leysser ssp. *inermis*

Cultivar. "MARTIN". CV-2. Pedigree - Synthetic composed of 21 clonal lines selected from seed collected in 1936 from a long-lived stand in Martin County, Minnesota. Intermediate in growth characteristics between southern strains (Lincoln, Achebach, Fischer) and Canadian Commercial. High forage yields and relatively free from leaf diseases.

The following were donated by Kansas Agr. Exp. Sta., Kansas State University, Manhattan, Kansas 66506, United States. Received 1961.

PI 578536. *Bromus inermis* Leysser ssp. *inermis*  
ACHENBACH.

The following were developed by Nebraska Agr. Exp. Sta., Lincoln, Nebraska, United States. Donated by USDA, ARS, California Agr. Exp. Station, California, United States; Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1975.

PI 578537. *Bromus inermis* Leysser ssp. *inermis*  
Cultivar. "LYON". CV-6. Pedigree - Mass selection from a farmer's field of Lincoln brome grass. High yields. Excellent seed quality. High seedling vigor and ease of establishment. More uniform plant type than Lincoln.

The following were donated by Fort Lincoln Nursery, Fort Lincoln, North Dakota, United States. Received 1961.

PI 578538. *Bromus inermis* Leysser ssp. *inermis*  
NO 1308.

The following were donated by Iowa Agr. Exp. Sta., Iowa State University, Ames, Iowa 50011, United States. Received 1976.

PI 578539. *Bromus inermis* Leysser ssp. *inermis*  
FISCHER; W6 979.

The following were developed by Nebraska Agr. Exp. Sta., Lincoln, Nebraska, United States. Donated by USDA, ARS, California Agr. Exp. Station, California, United States; Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1962.

PI 578540. *Bromus inermis* Leysser ssp. *inermis*  
Cultivar. "LANCASTER". CV-4. Pedigree - Developed in 1943 by field hybridizations of clones from 5 unrelated sources. Leafy, vigorous strain with fine stems and somewhat drooping panicles. Relatively free of diseases. High forage and seed yields.

The following were donated by Kansas Agr. Exp. Sta., Kansas State University, Manhattan, Kansas 66506, United States. Received 1963.

PI 578541. *Bromus inermis* Leysser ssp. *inermis*  
JEANNERET; W6 983.

The following were developed by Cornell University, New York Agr. Exp. Station, Geneva, New York 14456, United States. Received 1965.

PI 578542. *Bromus inermis* Leysser ssp. *inermis*  
Cultivar. "SARATOGA". CV-8. Pedigree - Developed from 5 selected,

relatively self-incompatible clones. Excellent seedling vigor with early spring growth. High yield and recovery. Resistance to brown spot and scald similar to Lincoln. Adapted to New York environment.

The following were donated by Agriculture Canada, Agricultural Research Station, Regina, Saskatchewan, Canada. Received 1966.

**PI 578543. Bromus inermis Leysser ssp. inermis**  
REDPATCH; W6 984.

The following were developed by H.L. Thomas. Donated by Minnesota Agr. Exp. Sta., Minnesota, United States. Received 1968.

**PI 578544. Bromus inermis Leysser ssp. inermis**  
Cultivar. "FOX". CV-14. Pedigree - 5-clone synthetic (B-15, C-6, 2-25 and 8-81 trace to a polycross nursery established in 1945 from broad germplasm, and 23-29 is selected from Fisher). Similar to Lincoln in maturity and forage yield. Superior to other cultivars in seedling vigor, seedling resistance to *Rhizoctonia solani*, root rot and resistance to certain races of leaf spot disease (*Helminthosporium* spp.). Adapted to Minnesota and probably adjacent states and Canada.

The following were developed by Oklahoma Agr. Exp. Sta., Oklahoma State University, Department of Agronomy, Stillwater, Oklahoma 74074, United States . Received 1973.

**PI 578545. Bromus inermis Leysser ssp. inermis**  
Cultivar. "SOUTHLAND". CV-9. Pedigree - Composite of 5 selected open-pollinated progeny lines on the Agronomy Farm at Stillwater, Oklahoma. Coarse, broad-leaved, heavy-stemmed plants with vigorous rhizomes. Rather variable. Higher yielding, greater seedling vigor and somewhat greater resistance to leaf diseases than other southern varieties. Good seed yield with adequate nitrogen.

The following were donated by R. Loiselle, Agriculture Canada, Central Office for Plant Gene Resources, Ottawa Research Station, Ottawa, Ontario K1A 0C6, Canada. Received 1979.

**PI 578546. Bromus inermis Leysser ssp. inermis**  
STRAIN S-7133E PGR8486.

The following were donated by J. Moutray, North American Plant Breeders, Inc., Rural Route #3, Ames, Iowa 50010, United States. Received 1980.

**PI 578547. Bromus inermis Leysser ssp. inermis**  
BAYLOR; W6 7093.

**PI 578548. Bromus inermis Leysser ssp. inermis**  
BLAIR.

The following were donated by Land O' Lakes, Inc, Research Farm, R. R. 2, Weber City, Iowa 50595, United States. Received 1980.

**PI 578549. Bromus inermis Leysser ssp. inermis**  
BEACON.

The following were developed by F.M. Mederick, Agricultural Canada, Field

Crops Branch, Bag Service #47, Lacombe, Alberta T0C 1S0, Canada. Received 1984.

**PI 578550. *Bromus inermis* Leysser ssp. *inermis***

Cultivar. "BRAVO". CV-16. Pedigree - 11 clone synthetic tracing back to northern and southern types of unknown origin obtained from Brandon Research Station, Manitoba, Canada. Erect, leafy hay-type similar in maturity to Baylor and Saratoga. Less strongly creeping than Carlton. Good resistance to leaf diseases. Seed yield similar to Saratoga. Adapted to areas similar to Baylor, Saratoga and Carlton.

The following were developed by Idaho Agr. Exp. Sta., Aberdeen, Idaho, United States. Donated by USDA-ARS, Western Regional P.I. Sta., Washington State University, Pullman, Washington 99164, United States. Received 1969.

**PI 578551. *Bromus inermis* Leysser ssp. *inermis***

Cultivar. "MANCHAR". CV-10. Pedigree - Selection from PI 109812 (from Manchuria in 1935). Mild, sod-forming, northern-type. Higher yields than common southern strains. Strong seedling vigor. Produces leafy hay. Used in alfalfa-grass mixtures for pasture and hay. Adapted to the Pacific Northwest. Resistant to most common grass diseases.

The following were developed by Washington Agr. Exp. Sta., Pullman, Washington, United States. Donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1977.

**PI 578552. *Bromus marginatus* Nees ex Steudel**

Cultivar. "BROMAR". CV-1. Pedigree - Mass selection from seed collected in 1933 on the campus of Washington State University, Pullman. Short-lived perennial bunchgrass. Maturity 2 weeks later than commercial mountain bromegrass. Leafy, medium coarse stems. Erect growth habit. Early seedling vigor. Seed size large. High seed yield. Highly resistant to head smut. Best adapted to eastern Washington and northern Idaho.

The following were developed by USDA-ARS, Field Crops Research Branch, Beltsville, Maryland 20705, United States. Received 1975.

**PI 578553. *Dactylis glomerata* L.**

Cultivar. "POTOMAC". CV-1. Pedigree - Traces to plants collected in 1935 from pastures in Maryland, Virginia, and Pennsylvania. Dark green, leafy, erect variety similar to commercial seed lots in height. Somewhat leafier at all stages of growth, and leaves maintain their green color better with approaching maturity than do leaves in commercial types. Maturity 3 days later than commercial except in northern latitudes. Superior persistence and rust resistance.

The following were developed by R.W. Cleveland. Donated by Pennsylvania State University, Pennsylvania Agr. Exp. Sta., University Park, Pennsylvania 16802, United States. Received 1961.

**PI 578554. *Dactylis glomerata* L.**

Cultivar. "PENNLATE". CV-3. Pedigree - Developed from 4 parent clones. Two parents derived from Tammisto (Finland) and Tardus II (Sweden). The other parents selected from open-pollinated progenies of introductions grown at SCS Nursery, Big Flats, NY. Origins unknown. High yielding, late maturing variety compatible in alfalfa mixtures. Produces higher total seasonal forage yields and particularly higher first-cutting yields than S-37 orchard grass.

The following were developed by R. C. Buckner, University of Kentucky, Agronomy Department, Lexington, Kentucky 40546, United States. Donated by Kentucky Agr. Exp. Sta., University of Kentucky, Department of Agronomy, Lexington, Kentucky 40506, United States; Agricultural Research Service -- USDA. Received 1961.

PI 578555. *Dactylis glomerata* L.  
Cultivar. "BOONE". CV-4. Pedigree - Mass selection of plants from naturalized strains that trace to farms in orchardgrass seed producing areas of Kentucky. Well adapted to Central and South-Central portion of the U.S. Yields well in new stands and is outstanding in yield and persistence in older sods.

The following were donated by Kentucky Agr. Exp. Sta., University of Kentucky, Department of Agronomy, Lexington, Kentucky 40506, United States; Agricultural Research Service -- USDA. Received 1961.

PI 578556. *Dactylis glomerata* L.  
KENTUCKY SELECT. Collected in Iran.

The following were developed by Robert Kalton, Land O'Lakes Research Farm, R.R.2, Webster City, Iowa 50595, United States; I.T. Carlson. Received 1976.

PI 578557. *Dactylis glomerata* L.  
Cultivar. "STERLING". CV-5. Pedigree - Synthetic developed from five selected clones. Forage yields consistently high. Superior winter hardiness. Excelled in stand establishment in a season of drought and high temperatures. Survival under heavy clipping, drought and high temperatures has been outstanding. Well suited for pasture use in grass-legume mixtures. Medium-early, blooming 1 to 2 days later than Missouri or Virginia and Potomac in Iowa. Moderately leafy heading, partly because of great capacity for head and seed production. Leaves generally intermediate in length and width.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1961.

PI 578558. *Dactylis glomerata* L.  
P-8775 (S-143).

The following were donated by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Received 1975.

PI 578559. *Dactylis glomerata* L.  
CLATSOP.

The following were donated by USDA-SCS, Idaho Plant Materials Center, Aberdeen, Idaho 83210, United States. Received 1967.

PI 578560. *Dactylis glomerata* L.  
POMAR.

The following were donated by USDA, ARS, California Agr. Exp. Station, California, United States; USDA-SCS, Pullman Plant Materials Center, Pullman, Washington 99163, United States; Washington Agr. Exp. Sta.. Received 1968.

PI 578561. *Dactylis glomerata* L.  
Cultivar. "LATAR". CV-2. Pedigree - Selection from PI 111536.

Late-maturing hay-type. Blooms and matures seed an average of 10-14 days later than commercial varieties. Well adapted to grow in a mixture with alfalfa for hay or pasture. Leaves abundant, broad, well-distributed, noticeably light green in color. Vigorous and high in vegetative production, with rapid recovery after harvest. In the Pacific Northwest, where it is best adapted, most winter-hardy among leafier varieties. Of 7 orchardgrass varieties, lowest in lignin content & higher in digestibility. Disease resistant particularly more resistant to leaf spot than many varieties.

The following were developed by J.L. Starling. Donated by Pennsylvania State University, Pennsylvania Agr. Exp. Sta., University Park, Pennsylvania 16802, United States; U.S. Regional Pasture Laboratory. Received 1969.

**PI 578562. *Dactylis glomerata* L.**

Cultivar. "PENNMEAD". CV-6. Pedigree - 4-clone synthetic made up of clones from a group of selections originally made at the Pasture Laboratory. One clone traces back to Danish variety Roskilde. The other 3 from domestic collections made in NY, PA, and MD. Maturity intermediate between early Potomac and late Pennlate. Highest yielding in tests in Pennsylvania in both total annual yield as well as in aftermath production. Resistance to leaf streak (*Scolecotrichum graminis*) similar to Pennlate and Potomac. Rust reaction similar to Pennlate.

The following were developed by R.M. Love, University of California, Department of Agronomy, Davis, California 95616, United States. Received 1969.

**PI 578563. *Dactylis glomerata* L.**

Cultivar. "PALESTINE". CV-7. Pedigree - Increase of introduction received in 1947 from Dahlia in the Carmel Mountains of Samaria, Israel. Tufted perennial tetraploid ( $2n=28$ ): culms 100-160cm high; blades mostly flat, 2 to 5mm wide; panicle 13 to 18cm long; dense cluster of spikelets 1 cm or less broad; florets mostly tight; much less shattering than typical pasture varieties. Summer dormant, drought escaping. Adapted to Mediterranean-type climate having 250mm or more of precipitation.

The following were donated by Barzen of Minneapolis, Minneapolis, Minnesota, United States. Received 1969.

**PI 578564. *Dactylis glomerata* L.  
BRAGE.**

The following were donated by Stebbins Genetic Collection, Davis, California, United States. Received 1970.

**PI 578565. *Dactylis glomerata* L.  
501. Collected in Spain.**

**PI 578566. *Dactylis glomerata* L.  
507P. Collected in Spain.**

**PI 578567. *Dactylis glomerata* L.  
563. Collected in Iran.**

**PI 578568. *Dactylis glomerata* L.  
567B. Collected in Iran.**

- PI 578569. *Dactylis glomerata* L.  
567C. Collected in Iran.
- PI 578570. *Dactylis glomerata* L.  
5425. Collected in Algeria.
- PI 578571. *Dactylis glomerata* L.  
18842-386. Collected in Morocco.
- PI 578572. *Dactylis glomerata* L.  
18843-401. Collected in Morocco.
- PI 578573. *Dactylis glomerata* L.  
18844-416. Collected in Morocco.
- PI 578574. *Dactylis glomerata* L.  
18881-328. Collected in Algeria.
- PI 578575. *Dactylis glomerata* L.  
18886-364. Collected in Morocco.
- PI 578576. *Dactylis glomerata* L.  
18887-366. Collected in Morocco.
- PI 578577. *Dactylis glomerata* L.  
18889-391. Collected in Morocco.
- PI 578578. *Dactylis glomerata* L.  
18891-373. Collected in Morocco.
- PI 578579. *Dactylis glomerata* L.  
18894-382. Collected in Morocco.
- PI 578580. *Dactylis glomerata* L.  
18895-393. Collected in Morocco.
- PI 578581. *Dactylis glomerata* L.  
18896-349. Collected in Morocco.
- PI 578582. *Dactylis glomerata* L.  
18898-413. Collected in Morocco.
- PI 578583. *Dactylis glomerata* L.  
18899-419. Collected in Morocco.
- PI 578584. *Dactylis glomerata* L.  
18902-431. Collected in Morocco.
- PI 578585. *Dactylis glomerata* L.  
18904-444. Collected in Morocco.
- PI 578586. *Dactylis glomerata* L.  
18909-477. Collected in Morocco.
- PI 578587. *Dactylis glomerata* L.  
18913-513. Collected in Portugal.
- PI 578588. *Dactylis glomerata* L.  
18914-520. Collected in Portugal.
- PI 578589. *Dactylis glomerata* L.  
18915-531. Collected in Portugal.
- PI 578590. *Dactylis glomerata* L.

- 18918-544. Collected in Portugal.
- PI 578591. *Dactylis glomerata* L.  
18919-558. Collected in Portugal.
- PI 578592. *Dactylis glomerata* L.  
18923-579. Collected in Portugal.
- PI 578593. *Dactylis glomerata* L.  
18925-585; W6 987. Collected in Portugal.
- PI 578594. *Dactylis glomerata* L.  
18935-646. Collected in Greece.
- PI 578595. *Dactylis glomerata* L.  
18940-679. Collected in Italy.
- PI 578596. *Dactylis glomerata* L.  
DAG. Collected in Iran.
- PI 578597. *Dactylis glomerata* L.  
DCG 236. Collected in Israel.
- PI 578598. *Dactylis glomerata* L.  
DCG 301. Collected in Spain.
- PI 578599. *Dactylis glomerata* L.  
DCG 310. Collected in Morocco.
- PI 578600. *Dactylis glomerata* L.  
DCG 348. Collected in Yugoslavia.
- PI 578601. *Dactylis glomerata* L.  
DCG 349. Collected in Yugoslavia.
- PI 578602. *Dactylis glomerata* L.  
DCG 514. Collected in Spain.
- PI 578603. *Dactylis glomerata* L.  
DCG 902. Collected in Cyprus.
- PI 578604. *Dactylis glomerata* L.  
DCG 5457. Collected in Spain.
- PI 578605. *Dactylis glomerata* L.  
DCG 567D; W6 989. Collected in Spain.
- PI 578606. *Dactylis glomerata* L.  
DCG P506. Collected in Spain.
- PI 578607. *Dactylis glomerata* L.  
DCG P507. Collected in Spain.
- PI 578608. *Dactylis glomerata* L.  
DCG P508. Collected in Spain.
- PI 578609. *Dactylis glomerata* L.  
DCG P581. Collected in Algeria.
- PI 578610. *Dactylis glomerata* L.  
DCS. Collected in Algeria.
- PI 578611. *Dactylis glomerata* L.  
DG 1-606-3X. Collected in Portugal.

- PI 578612. *Dactylis glomerata* L.  
DOGM 242. Collected in Portugal.
- PI 578613. *Dactylis glomerata* L.  
LETHRIDGE 924. Collected in Portugal.
- PI 578614. *Dactylis glomerata* L.  
LETHRIDGE 925. Collected in Portugal.
- PI 578615. *Dactylis glomerata* L.  
LETHRIDGE 926. Collected in Portugal.
- PI 578616. *Dactylis glomerata* L.  
LETHRIDGE 932. Collected in Yugoslavia.
- PI 578617. *Dactylis glomerata* L.  
CURNIA. Collected in Algeria.
- PI 578618. *Dactylis glomerata* L.  
NEPTUNE.
- PI 578619. *Dactylis glomerata* L.  
FRODE. Collected in Sweden.
- PI 578620. *Dactylis glomerata* L.  
18845-433. Collected in Morocco.
- PI 578621. *Dactylis glomerata* L.  
18846-525. Collected in Portugal.
- PI 578622. *Dactylis glomerata* L.  
18848-58. Collected in Libya.
- PI 578623. *Dactylis glomerata* L.  
18852-76. Collected in Libya.
- PI 578624. *Dactylis glomerata* L.  
18855-93. Collected in Libya.
- PI 578625. *Dactylis glomerata* L.  
18856-95. Collected in Algeria.
- PI 578626. *Dactylis glomerata* L.  
18861-145. Collected in Algeria.
- PI 578627. *Dactylis glomerata* L.  
18862. Collected in Algeria.
- PI 578628. *Dactylis glomerata* L.  
18864-165. Collected in Algeria.
- PI 578629. *Dactylis glomerata* L.  
18865-168. Collected in Algeria.
- PI 578630. *Dactylis glomerata* L.  
18866-172. Collected in Algeria.
- PI 578631. *Dactylis glomerata* L.  
18868-192. Collected in Algeria.
- PI 578632. *Dactylis glomerata* L.  
18873-221. Collected in Algeria.

- PI 578633. *Dactylis glomerata* L.  
18885-361. Collected in Morocco.
- PI 578634. *Dactylis glomerata* L.  
18897-404. Collected in Morocco.
- PI 578635. *Dactylis glomerata* L.  
18900-427. Collected in Morocco.
- PI 578636. *Dactylis glomerata* L.  
18901-430. Collected in Morocco.
- PI 578637. *Dactylis glomerata* L.  
18903-435. Collected in Morocco.
- PI 578638. *Dactylis glomerata* L.  
18905-453. Collected in Morocco.
- PI 578639. *Dactylis glomerata* L.  
18906-462. Collected in Morocco.
- PI 578640. *Dactylis glomerata* L.  
18910-481. Collected in Morocco.
- PI 578641. *Dactylis glomerata* L.  
18912-508. Collected in Portugal.
- PI 578642. *Dactylis glomerata* L.  
18926-587. Collected in Portugal.
- PI 578643. *Dactylis glomerata* L.  
18928-595. Collected in Portugal.
- PI 578644. *Dactylis glomerata* L.  
18930-621. Collected in Greece.
- PI 578645. *Dactylis glomerata* L.  
18931-622. Collected in Greece.
- PI 578646. *Dactylis glomerata* L.  
18934-638. Collected in Greece.
- PI 578647. *Dactylis glomerata* L.  
18936-647. Collected in Greece.
- PI 578648. *Dactylis glomerata* L.  
DCG 231. Collected in Israel.
- PI 578649. *Dactylis glomerata* L.  
DCG 249. Collected in Yugoslavia.
- PI 578650. *Dactylis glomerata* L.  
DCG 385 386; W6 988. Collected in Portugal.
- PI 578651. *Dactylis glomerata* L.  
DCJD 401-6. Collected in Israel.
- PI 578652. *Dactylis glomerata* L.  
DCM 410. Collected in Iran.
- PI 578653. *Dactylis glomerata* L.  
DEG 567C. Collected in Iran.
- PI 578654. *Dactylis glomerata* L.

DELHO 306. Collected in India.

PI 578655. *Dactylis glomerata* L.  
DESA 5454; W6 990. Collected in Algeria.

PI 578656. *Dactylis glomerata* L.  
DIG 567B. Collected in Iran.

PI 578657. *Dactylis glomerata* L.  
LETHRIDGE 348. Collected in Yugoslavia.

PI 578658. *Dactylis glomerata* L.  
18880-283. Collected in Algeria.

PI 578659. *Dactylis glomerata* L.  
18883-354. Collected in Morocco.

PI 578660. *Dactylis glomerata* L.  
DCJA P501. Collected in Spain.

PI 578661. *Dactylis glomerata* L.  
DGJ M-1. Collected in Jamaica.

The following were developed by Northrup King Company, United States.  
Received 1978.

PI 578662. *Dactylis glomerata* L.  
Cultivar. "ORBIT". PVP 7600070.

The following were donated by USDA, ARS, California Agr. Exp. Station,  
California, United States. Received 1978.

PI 578663. *Dactylis glomerata* L.  
BERBER.

The following were developed by Robert J. Buker, 5808 N.W. Alki, Vancouver,  
Washington 98663, United States; S. J. Baluch, FFR Cooperative, 4112 East  
State Road 225, West Lafayette, Indiana 47906, United States; S. D. Stratton,  
FFR Coop, 4112 East State Road #225, West Lafayette, Indiana 47906, United  
States. Donated by S. J. Baluch, FFR Cooperative, 4112 East State Road 225,  
West Lafayette, Indiana 47906, United States. Received 1979.

PI 578664. *Dactylis glomerata* L.  
Cultivar. "ABLE". CV-9. Pedigree - Four parent clone from diverse  
germplasm of several sources. Area of adaptation is similar to Boone and  
Potomac. Equals late cultivars such as Pennlate in forage and seed  
yield, and has shown good persistence. Leaf disease resistance equal to  
that of Pennlate and superior to early maturing cultivars. 1 to 2 days  
earlier in maturity than Pennlate. 10 days later than Hallmark, 13 days  
later than Potomac, and 15 days later than Boone.

The following were donated by J. Moutray, North American Plant Breeders,  
Inc., Rural Route #3, Ames, Iowa 50010, United States. Received 1980.

PI 578665. *Dactylis glomerata* L.  
NAPIER.

PI 578666. *Dactylis glomerata* L.  
DAYTON.

PI 578667. *Dactylis glomerata* L.  
CROWN.

PI 578668. *Dactylis glomerata* L.  
HAWK.

The following were developed by C.W. Edminster, International Seeds, Inc., P.O. Box 168, Halsey, Oregon 97348, United States; S. D. Stratton, FFR Coop, 4112 East State Road #225, West Lafayette, Indiana 47906, United States; R.R. Ronnenkamp. Donated by S. D. Stratton, FFR Coop, 4112 East State Road #225, West Lafayette, Indiana 47906, United States. Received 1984.

PI 578669. *Dactylis glomerata* L.  
Cultivar. "RANCHO". CV-11. Pedigree - Clones selected in 1967 & 1970 from public cultivars, experimental lines and plant introductions at West Lafayette IN. Polycross seed used to establish solid-seeded progeny plots. 7 clones sel. in 1974 based on yield & disease resist. Higher levels of resistance to stem rust (*Puccinia graminis*) than Able or Potomac resulting in more green material for late summer and fall harvests. Use as hay and pasture.

The following were developed by Reed Barker, USDA, ARS, Forage Seed & Cereal Research, 3450 S.W. Campus Way, OSU, Corvallis, Oregon 97331-7102, United States; John D. Berdahl, USDA, ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; J.M. Krupinsky; D.W. Meyer; W.T. Barker; P.E. Nyren; L.L. Manske. Donated by John D. Berdahl, USDA, ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; North Dakota Agr. Exp. Sta., North Dakota, United States. Received 1984.

PI 578670. *Dactylis glomerata* L.  
Breeding. "ND-ORD812". GP-35. Pedigree - Derived from broad base population of 294 orchardgrass accessions grown at Mandan, ND. 90 plant sel. made in 1977. 27 polycross families sel. and bulked in 1981. Winter-hardy. Higher winter survival than winter-hardy Avon. Resistance to natural field infections of leaf spot diseases (*Cochliobolus sativus*, *Pyrenophora trichostoma*, *Myrothecium roridum*, and *Leptosphaeria* spp.).

PI 578671. *Dactylis glomerata* L.  
Breeding. "ND-ORD811". GP-34. Pedigree - Derived from 80 plants selected in 1977 from survivors of Avon that had been seeded in 1970 at a dryland, exposed site near Mandan, ND, where drought and winter stresses were severe. Polycross seed of 26 selected clones bulked. Winter-hardy. Higher winter survival than the winter-hardy Avon. Resistance to natural field infections of leaf spot diseases (*Cochliobolus sativus*, *Pyrenophora trichostoma*, *Myrothecium roridum*, and *Leptosphaeria* spp.).

The following were developed by Eugene F. McClain, Clemson University, Dept. of Agronomy and Soils, Clemson, South Carolina 29631, United States. Received 1986.

PI 578672. *Dactylis glomerata* L.  
Cultivar. "PIEDMONT". CV-12. Pedigree - Four-clone synthetic developed from SC91, SC92, SC93, and SC94. Attains 50% anthesis approx. 10 days later than Potomac and produces fewer panicles. Stand persistence superior to cvs. of comparable maturity. Exhibits superior retention of green color during drought in South Carolina. Resistance to rust (*Puccinia* spp.).

The following were donated by University of California, California Agr. Exp.

Sta., Davis, California 95616, United States. Received 1961.

PI 578673. *Ehrharta calycina* Smith  
CALIFORNIA CERTIFIED LOT 1958; W6 7116. Collected in Australia.

The following were developed by R.M. Love, University of California, Department of Agronomy, Davis, California 95616, United States. Received 1963.

PI 578674. *Ehrharta calycina* Smith  
Cultivar. "MISSION"; W6 7117. CV-10. Pedigree - Nine-clone synthetic derived by selection from a nonshattering strain of perennial veldtgrass received from University of Western Australia in 1950. Panicle much contracted or compact with shorter panicle branches than the open panicle of typical veldt. Seeds large, heavy, dark brown in color, and do not readily shatter at maturity. Plant shorter than typical veldt. Plant habit and growth form about as variable as typical veldt. Used in wildlands to help prevent soil erosion and grazed by domestic animals and big game.

The following were donated by USDA, ARS, California Agr. Exp. Station, California, United States. Received 1975.

PI 578675. *Elymus canadensis* L.  
MANDAN; W6 991.

The following were donated by USDA-SCS, Elsberry Plant Materials Center, Route 1, Box 9, Elsberry, Missouri 63343, United States. Received 1966.

PI 578676. *Elymus canadensis* L.  
IOCAN; W6 992.

The following were donated by USDA-SCS, Idaho Plant Materials Center, Aberdeen, Idaho 83210, United States. Received 1962.

PI 578677. *Elymus lanceolatus* (Scribner & J. G. Smith) Gould  
SODAR.

PI 578678. *Elymus lanceolatus* (Scribner & J. G. Smith) Gould  
P-14943; "BANNOCK"; W6 993.

The following were developed by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Donated by USDA, ARS, California Agr. Exp. Station, California, United States; USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States; Washington Agr. Exp. Sta.. Received 1979.

PI 578679. *Elymus trachycaulus* (Link) Gould ex Shinn.  
Cultivar. "PRIMAR". CV-1. Pedigree - Mass selection from a native grass seed collection made near Beebe, Montana. Long-lived perennial bunch grass best adapted to conditions of eastern Washington, northern Idaho, and northeastern Oregon. Maturity early and early spring growth, and produces large yield of forage and seed. Rapid early growth is favorable to the growing of slender wheatgrass in association with sweetclover. Resistant to leaf stem, and stripe rusts and is superior to Mecca in resistance to head smut.

The following were donated by Colorado State University, Colorado Agr. Exp. Sta., Fort Collins, Colorado 80523, United States. Received 1961.

PI 578680. *Elytrigia elongata* (Host) Nevski  
COMMON COMMERCIAL.

The following were donated by Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1979.

PI 578681. *Elytrigia elongata* (Host) Nevski  
NEBRASKA 98526.

PI 578682. *Elytrigia elongata* (Host) Nevski  
CHEYENNE.

PI 578683. *Elytrigia elongata* (Host) Nevski  
PLATTE.

PI 578684. *Elytrigia elongata* (Host) Nevski  
NEBRASKA 98.

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578685. *Elytrigia elongata* (Host) Nevski  
LARGO.

The following were developed by T. Lawrence, Agriculture Canada, Swift Current Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada. Donated by Agriculture Canada, Agricultural Research Station, Regina, Saskatchewan, Canada. Received 1977.

PI 578686. *Elytrigia elongata* (Host) Nevski  
Cultivar. "ORBIT". CV-11. Pedigree - Composite of nine winter-hardy high seed yielding, open-pollinated lines plus one winter-hardy high yielding, three clone synthetic. Nursery established with seed from locally selected strains and USDA PI 98526. Well adapted to wet saline soils in all parts of Canada.

The following were donated by Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1961.

PI 578687. *Elytrigia intermedia* (Host) Nevski  
NEBRASKA 50; W6 3055.

The following were donated by Missouri SCS, Missouri, United States. Received 1963.

PI 578688. *Elytrigia intermedia* (Host) Nevski  
M2 10820; W6 3057.

The following were donated by New Mexico SCS, New Mexico, United States. Received 1963.

PI 578689. *Elytrigia intermedia* (Host) Nevski  
A 12496.

PI 578690. *Elytrigia intermedia* (Host) Nevski  
AMUR.

The following were donated by USDA, ARS, California Agr. Exp. Station, California, United States; USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States; Washington Agr. Exp. Sta.. Received 1969.

PI 578691. *Elytrigia intermedia* (Host) Nevski  
Cultivar. "GREENAR". CV-3. Pedigree - Selection in 1937 from PI 98568 introduced from USSR. Vigorously growing, mild sod-forming, late-maturing, leafy, dark-green, broad-leaved, high-producing, disease-resistant wheatgrass. Seedling vigor good. Good grass companion crop with alfalfa. Plants variable, but over 90% are green. Less than 5% show trace of pubescence. Spring recovery early and abundant and fall recovery good. Widely adapted to well-drained soils in dryland and irrigated areas in the Pacific Northwest. Suitable for both pasture and hay seedings, either along or in association with alfalfa.

The following were donated by USDA, ARS, Idaho Agr. Exp. Sta., Idaho, United States. Received 1970.

PI 578692. *Elytrigia intermedia* (Host) Nevski  
TEGMAR.

The following were developed by L.C. Newell, Pioneers' Park, Nebraska, United States. Donated by USDA, ARS, California Agr. Exp. Station, California, United States; Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1970.

PI 578693. *Elytrigia intermedia* (Host) Nevski  
Cultivar. "SLATE". CV-10. Pedigree - Synthetic produced from two parental strains. A slate-colored strain of Nebraska 50, developed from seed increase of 60 clones, and 1 of Amur, from 57 clones. Winter-hardy perennial forage replacing Nebraska 50 for seed production and use primarily in the central Great Plains. Used principally as a cool-season pasture crop and sometimes hay. In central latitudes, growth begins early and extends into the summer grazing season, with good forage quality and acceptance by cattle. Seedling growth good and establishes well during cool weather of fall or spring. Plants strongly spreading by rhizomes. Show reasonable uniformity in height, leaf color, and time of flowering.

The following were developed by T. Lawrence, Agriculture Canada, Swift Current Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada. Received 1982.

PI 578694. *Elytrigia intermedia* (Host) Nevski  
Cultivar. "CLARKE". CV-81. Pedigree - 20-clone synthetic from a recurrent selection tracing back through four to eight cycles of selection. Well adapted for hay and pasture use on either dry-land or under irrigation in the Canadian Prairie region. Outyields bromegrass and reed canary grass when grown on fertile well-drained irrigated land and will equal crested wheatgrass and outyield bromegrass under drought conditions on dryland. Winterhardiness.

The following were developed by J. S. Rice, South Carolina Agr. Exp. Sta., Clemson University, Dept. of Agronomy and Soils, Clemson, South Carolina 29631, United States. Received 1982.

**PI 578695. *Elytrigia intermedia* (Host) Nevski**  
Breeding. "SC81E". GP-2. Pedigree - Two cycles of selection from material composed of 50 USDA Plant Introductions (PI), one experimental synthetic, and three released cultivars. 30% of plants pubescent. No disease observed. Adapted to southeastern U.S. Potential for forage production.

The following were donated by Ken P. Vogel, USDA, ARS, University of Nebraska, Dept. of Agronomy, Lincoln, Nebraska 68583-0937, United States. Received 1983.

**PI 578696. *Elytrigia intermedia* (Host) Nevski**  
REE.

The following were donated by USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States. Received 1984.

**PI 578697. *Elytrigia intermedia* (Host) Nevski**  
MANDAN 759.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States. Received 1962.

**PI 578698. *Elytrigia intermedia* (Host) Nevski ssp.**  
***intermedia***

Cultivar. "TOPAR". CV-8. Pedigree - Selection from PI 107330 introduced from Tashkent, Turkistan, USSR in 1934. Rapid spreading, open sod forming, rhizomatous, vigorous, late maturing, drought resistant, 42-chromosome wheat grass. Leaves, sheaths, and seed heads pubescent. Pubescence is distinctly noticeable on margins of leaves and edges of glumes and lemmas. Widely adapted to Pacific Northwest and Great Basin states at elevations of 100 to 1800m on well drained, medium to heavy textured soils where annual precipitation averages 25 to 40cm. Used as pasture grass in range plantings, dryland waterways, burned-over timber seedlings and in dryland mixtures with alfalfa.

The following were donated by USDA, SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

**PI 578699. *Elytrigia intermedia* (Host) Nevski ssp.**  
***intermedia***  
A 1488.

The following were developed by Glenn C. Niner. Donated by USDA, SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

**PI 578700. *Elytrigia intermedia* (Host) Nevski ssp.**  
***intermedia***

Cultivar. "LUNA". CV-6. Pedigree - Mass selection of spaced plants following intense roguing through two generations of PI 106831, a collection made in Turkey in 1934. Seed heads may appear almost glabrous and resemble *A. intermedium*, but basal leaves always hairy, particularly on margins. Leaves wide, lax, and dark green. Herbage production high and more palatable than intermediate wheatgrass. Seedling vigor and ease of establishment outstanding. Best suited for dryland pasture on deeper soils of the Rocky Mountains and Inter-mountain region.

The following were developed by S. Smoliak; D.B. Wilson, Canada. Donated by Agriculture Canada, Lethbridge Research Station, Lethbridge, Alberta T1J 4B1, Canada. Received 1978.

**PI 578701. *Elytrigia intermedia* (Host) Nevski ssp. *intermedia***

Cultivar. "GREENLEAF". CV-12. Pedigree - Derived from stands of commercial seed obtained from Davenport, WA and Bismarck, ND. Of 2,024 sel. placed in observation nursery 57 superior types grown in greenhouse. Of highest yielding 14 evaluated & 12 formed synthetic strain. Winterhardy for pasture and hay production on dryland or irrigated land in southern Alberta. Seedling vigor good and some tolerance to saline soils and areas of low soil moisture. Perennial, creeping-rooted, sod-forming grass, and adapted to the Brown and Dark Brown Chernozemic soils. Glumes, lemmas, and rachis more pubescent than Topar. Foliage green to bright green.

The following were donated by USDA-ARS, Western Regional P.I. Station, Pullman, Washington 99164, United States. Received 1970.

**PI 578702. *Elytrigia juncea* (L.) Nevski ssp. *juncea*  
MEDITERRANEAN I; W6 3059. Collected in Israel.**

The following were donated by New Mexico Crop Imp. Assoc., New Mexico, United States. Received 1961.

**PI 578703. *Eragrostis curvula* (Schrader) Nees  
WEeping LOVE GRASS; W6 3061.**

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

**PI 578704. *Eragrostis curvula* (Schrader) Nees  
A-12752. Collected in South Africa.**

The following were developed by L. N. Wright, Arizona Agric. Exp. Station, University of Arizona, Tucson, Arizona 85721, United States. Donated by P. T. Williams, USDA-SCS, 3241 N. Romero Road, Tucson, Arizona 85705, United States; Arizona Agr. Exp. Sta., Arizona, United States; USDA, ARS, California Agr. Exp. Station, California, United States. Received 1980.

**PI 578705. *Eragrostis lehmanniana* Nees**  
Cultivar. "PUHUIMA". CV-50. Pedigree - Single apomictic aberrant plant selection from PI 106088. Superior to all Lehmann lovegrass sources for seedling drought tolerance. Stand establishment and survival density comparatively lower than Kuivato and A-68 Lehmann lovegrass, yet forage yield 15% greater than A-68. Yield to density ratio characteristic outstanding (105% greater than A-68). Forage yield superior to common Lehmann lovegrass. Excellent seed producer with good reseeding characteristics under natural environments. Developed for stress environments of the Southwest. Adapted to semiarid and arid grasslands for seeding deteriorated rangeland sites.

The following were donated by New Mexico SCS, New Mexico, United States. Received 1963.

**PI 578706. *Eragrostis trichodes* (Nutt.) Alph. Wood  
A 11527; W6 1005.**

PI 578707. *Eragrostis trichodes* (Nutt.) Alph. Wood  
TEMPRANO.

The following were donated by Kansas SCS, Kansas, United States. Received 1979.

PI 578708. *Eragrostis trichodes* (Nutt.) Alph. Wood  
BEND.

The following were donated by New Mexico SCS, New Mexico, United States. Received 1963.

PI 578709. *Festuca arizonica* Vasey  
PM-NM-5/JEMEZ; W6 636.

The following were donated by Kentucky USDA, ARS, Kentucky, United States. Received 1961.

PI 578710. *Festuca arundinacea* Schreber  
KENTUCKY SYNTHETIC; W6 637.

PI 578711. *Festuca arundinacea* Schreber  
45-50; W6 188.

The following were developed by USDA, ARS, Oregon Agr. Exp. Station, Corvallis, Oregon 97331, United States. Received 1962.

PI 578712. *Festuca arundinacea* Schreber  
Cultivar. "ALTA". CV-1. Pedigree - Plant selection in 1923 from a 4-year old planting. Superior over commercial meadow fescue for forage purposes. Long-lived perennial and when compared with common meadow fescue, a short-lived perennial, is found to have broader and coarser leaves, heavier forage producer, and more resistant to both cold and summer drought, as it produces good growth throughout summer months. Adapted to the Pacific northwestern states and has been successfully used for forage and turf purposes in midwestern and northeastern states. Considerable promise for turf purposes.

The following were donated by Montana State University, Montana Agr. Exp. Sta., Department of Plant and Soil Science, Bozeman, Montana 59717, United States; USDA-SCS, Florida Plant Materials Center, Florida, United States. Received 1963.

PI 578713. *Festuca arundinacea* Schreber  
FLAGLER; W6 189.

The following were donated by Montana State University, Montana Agr. Exp. Sta., Montana, United States. Received 1963.

PI 578714. *Festuca arundinacea* Schreber  
KENMONT; W6 190.

The following were developed by R.V. Frakes, Oregon Agr. Exp. Sta., Found. Seed & Pl. Mat. Proj., 103 Farm Crops Annex, Corvallis, Oregon 97331, United States; J.R. Cowan, Oregon Agr. Exp. Sta., Oregon State University, Corvallis, Oregon 97331, United States. Donated by J.R. Cowan, Oregon Agr.

Exp. Sta., Oregon State University, Corvallis, Oregon 97331, United States.  
Received 1968.

**PI 578715. *Festuca arundinacea* Schreber**  
Cultivar. "FAWN". CV-8. Pedigree - Eight-clone synthetic from detailed study of 9,000 plants resulting in selection of 90 genotypes. Seedling vigor, spring growth, and regrowth after clipping good. Produces more forage than other varieties. Superior to Alta and Kentucky 31 in seed production.

The following were developed by R.V. Frakes, Oregon Agr. Exp. Sta., Found. Seed & Pl. Mat. Proj., 103 Farm Crops Annex, Corvallis, Oregon 97331, United States. Received 1981.

**PI 578716. *Festuca arundinacea* Schreber**  
Breeding. "FORTUNE". GP-10. Pedigree - Six genotypes from PI 231563 and one genotype from PI 231564 mutually pollinated in polycross fashion. Turf-type tall fescue, dark green in color, fine leaves, and short growing habit. Responds to high fertility and frequent clipping heights of less than 5cm. At maturity, shorter in height than other tall fescue varieties, such as Fawn, Alta, Goar, and Kentucky 31. Emergence slow and does not maintain active growth during hot weather.

The following were developed by Joseph H. Bouton, University of Georgia, Department of Crop & Soil Sciences, 3111 Plant Sciences Building, Athens, Georgia 30602, United States; J.D. Powell, SCS, Americus, Georgia, United States. Donated by Joseph H. Bouton, University of Georgia, Department of Crop & Soil Sciences, 3111 Plant Sciences Building, Athens, Georgia 30602, United States. Received 1981.

**PI 578717. *Festuca arundinacea* Schreber**  
Breeding. "GAFES 1". GP-13. Pedigree - Developed from initial population of 25 seedlings of 89 USDA Plant Introductions (PI) and 6 other germplasm sources. Better summer survival in hot, humid environments. Adapted to the southern U.S.

The following were donated by R. C. Buckner, University of Kentucky, Agronomy Department, Lexington, Kentucky 40546, United States. Received 1982.

**PI 578718. *Festuca arundinacea* Schreber**  
G1-320.

The following were developed by Nichole O'Neill, USDA-ARS, Germplasm Quality & Enhancement Lab., Building 001 Room 337 BARC West, Beltsville, Maryland 20705, United States; J.J. Murray, USDA-ARS, Field Crops Laboratory, PGGI, BARC-West, Beltsville, Maryland 20705, United States. Donated by J.J. Murray, USDA-ARS, Field Crops Laboratory, PGGI, BARC-West, Beltsville, Maryland 20705, United States. Received 1983.

**PI 578719. *Festuca arundinacea* Schreber**  
Breeding. "BELTSVILLE 16-1". GP-24. Pedigree - Developed from 46 Plant Introductions (PI) from 21 countries and 53 clones selected from an old BARC nursery and from turf areas in Maryland, Virginia, and North Carolina. Growth habit semiprostrate, medium leaf texture, moderate vertical growth rate, and medium-dark green color. Resistance good to crown rust (*Puccinia coronata*). Moderate resistance to leafspot (*Drechslera dictyoides*) and brown patch (*Rhizoctonia solani*). Drought and heat tolerance good. Color retention very good under low temperatures in fall and rapid greenup in spring.

The following were donated by J. F. Pedersen, Alabama Agr. Exp. Sta., Auburn University, Dept. of Agronomy & Soils, Auburn, Alabama 36849, United States. Received 1983.

PI 578720. *Festuca arundinacea* Schreber  
AF-7 (BREEDING LINE).

The following were developed by International Seeds Inc., P.O. Box 168, Halsey, Oregon 97348, United States. Received 1983.

PI 578721. *Festuca arundinacea* Schreber  
Cultivar. "BROOKSTON". PVP 8400004.

The following were donated by C. R. Funk, Rutgers University, Cook College, Dept. of Soils and Crops, New Brunswick, New Jersey 08903, United States. Received 1984.

PI 578722. *Festuca arundinacea* Schreber  
MUSTANG (PICKSEED RP-1).

The following were developed by International Seeds Inc., P.O. Box 168, Halsey, Oregon 97348, United States. Received 1985.

PI 578723. *Festuca arundinacea* Schreber  
Cultivar. "SOUTHLAND". PVP 8500184.

The following were donated by Eugene F. McClain, Clemson University, Dept. of Agronomy and Soils, Clemson, South Carolina 29631, United States. Received 1986.

PI 578724. *Festuca arundinacea* Schreber  
G82C-Syn 1.

The following were donated by Kentucky Agr. Exp. Sta., University of Kentucky, Department of Agronomy, Lexington, Kentucky 40506, United States. Received 1986.

PI 578725. *Festuca arundinacea* Schreber  
866G1-343.

The following were developed by University of Missouri, Missouri, United States. Donated by University of Missouri, Columbia, Missouri 65211, United States. Received 1987.

PI 578726. *Festuca arundinacea* Schreber  
Cultivar. "MARTIN". PVP 8700162.

The following were developed by Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States. Received 1989.

PI 578727. *Festuca arundinacea* Schreber  
Cultivar. "THOROUGHbred". PVP 8900167.

The following were developed by Daehnfeltdt, Inc., United States. Received 1989.

PI 578728. *Festuca arundinacea* Schreber  
Cultivar. "COURTENAY". PVP 8900220.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1977.

PI 578729. *Festuca idahoensis* Elmer  
P-6435; W6 193.

The following were donated by R. D. Ensign, University of Idaho, Moscow, Idaho 83343, United States. Received 1984.

PI 578730. *Festuca idahoensis* Elmer  
SYN A (JOSEPH); W6 194.

PI 578731. *Festuca idahoensis* Elmer  
SYN C (NEZPURS); W6 195.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States; A.G. Law; A.L. Hafenrichter. Donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1965.

PI 578732. *Festuca longifolia* Thuill.  
Cultivar. "DURAR". CV-4. Pedigree - Developed by recurrent selection. Originally collected in 1934 from an old planting on the Eastern Oregon Br. Exp. Sta., Union, Oregon. Moderately tall, semierect, densely tufted fine-leaved perennial bunchgrass. More uniform, drought resistant, and shade tolerant than chewing fescue. Leaves abundant, long, narrow, lax, basal, somewhat harsh. Culms numerous, fine, average production of seed 700 pounds per acre. Adapted to dryland areas of the west and northwest in rainfall zones of 12 to 30 inches and on well drained soil under irrigation.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States; James R. Carlson, Washington State University, Associate Director, Agricultural Experiment Station, Pullman, Washington 99164-6402, United States; A.G. Law; C.A. Kelley. Donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1980.

PI 578733. *Festuca ovina* L.  
Cultivar. "COVAR". CV-16. Pedigree - Originated from PI 109497, collected south of Konya, Turkey. Dwarf, blue-green, densely tufted, erect-growing perennial with abundant fine stems. Leaves narrow, short, stiff, basal, and abundant. Shorter, more uniform and has deeper blue color than other sheep fescue selections. Slow to establish but once established very persistent, winter-hardy, drought-tolerant, and resistant to common turf diseases.

The following were developed by H.B. Musser. Donated by Pennsylvania State University, Pennsylvania Agr. Exp. Sta., University Park, Pennsylvania 16802, United States. Received 1961.

PI 578734. *Festuca rubra* L.  
Cultivar. "PENNLAWN". CV-3. Pedigree - Synthetic variety originating from 3 outstanding strains identified as F-55(38), F-74(38), and F-78(38). Better foliage density and faster rate of spread by

underground root stocks than other varieties of red fescue. While not immune to leaf spot diseases, greater tolerance, not attacked as severely, and recovers from such injury more rapidly. Greater ability to withstand close clipping. Same degree of tolerance to shade, soil fertility, and moisture conditions as Chewings or the commercial types of red fescue.

The following were donated by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Received 1961.

PI 578735. *Festuca rubra* L.  
TEST NO 20318F; W6 196.

The following were donated by Northrup, King & Co, 1500 Jackson N.E., Minneapolis, Minnesota 55413, United States. Received 1962.

PI 578736. *Festuca rubra* L.  
ILLAHEE.

The following were donated by USDA, ARS, Oregon Agr. Exp. Station, Oregon, United States. Received 1962.

PI 578737. *Festuca rubra* L.  
RAINIER; W6 197.

The following were donated by Northrup, King & Co, 1500 Jackson N.E., Minneapolis, Minnesota 55413, United States. Received 1968.

PI 578738. *Festuca rubra* L.  
RUBY.

The following were donated by Michigan State University, Michigan Agr. Exp. Sta., East Lansing, Michigan 48824, United States. Received 1968.

PI 578739. *Festuca rubra* L.  
WINTERGREEN.

The following were donated by Agriculture Canada, Ottawa Research Station, Central Experiment Station, Ottawa, Ontario K1A 0C6, Canada. Received 1971.

PI 578740. *Festuca rubra* L.  
DURLAWN.

The following were developed by Danish Plant Breeding Ltd., Denmark. Donated by A. Kleinhout, Danish Plant Breeding Ltd., Boelshoj, 4660 Store Heddinge, Denmark. Received 1984.

PI 578741. *Festuca rubra* L.  
Cultivar. "PERNILLE". PVP 8100126.

The following were developed by International Seeds Inc., P.O. Box 168, Halsey, Oregon 97348, United States. Received 1987.

PI 578742. *Festuca rubra* L.  
Cultivar. "ENJOY". PVP 8700076.

The following were donated by Rudy-Patrick Seed Company, Missouri, United States. Received 1968.

**PI 578743. *Festuca rubra* var. *commutata* Gaudin**  
HIGHLIGHT; W6 199.

The following were developed by R.V. Frakes, Oregon Agr. Exp. Sta., Found. Seed & Pl. Mat. Proj., 103 Farm Crops Annex, Corvallis, Oregon 97331, United States. Received 1981.

**PI 578744. *Festuca rubra* var. *commutata* Gaudin**  
Cultivar. "CHECKER". CV-14. Mild-spreading turf-type with acceptable dark green color and fine leaf texture. Exhibits less seedling vigor than certain chewings and red fescue cultivars, but maintains good ground cover when established.

**PI 578745. *Festuca rubra* var. *commutata* Gaudin**  
Cultivar. "CASCADE". CV-9. Pedigree - Established seed fields of chewings fescue, tracing to a New Zealand source, served as original material. Seed from 16 seed fields were examined. Equal amounts of seed from 12 of the fields were used to establish the basic seed source. Noncreeping turf-type with dark green color and fine-leaf texture. Performs as the original Oregon chewings ecotype in that it responds similarly to fertility, clipping height, and turf management as other red and chewing fescues.

The following were developed by T. Lawrence, Agriculture Canada, Swift Current Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada. Donated by Agriculture Canada, Swift Current Research Station, Swift Current, Saskatchewan S9H 3X2, Canada. Received 1978.

**PI 578746. *Leymus angustus* (Trin.) Pilger**  
Cultivar. "PRAIRIELAND". CV-55. Pedigree - 22-clone synthetic. Source material from two Russian introductions; one from the Steppe of Kustanay and the other from Voronezh. Well-adapted for dryland pastures in the Canadian prairie region, especially for late fall and winter grazing. Deep root system penetrates soil at least 3.5m and allows this grass to use of water at greater depths than most grasses. Tolerates salinity nearly as well as tall wheatgrass (*Agropyron elongatum*).

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

**PI 578747. *Leymus cinereus* (Scribner & Merr.) A. Love**  
PM-C-43; W6 200.

**PI 578748. *Leymus salinus* (M. E. Jones) A. Love**  
PM-C-28; W6 202.

The following were donated by USDA, SCS, Montana Plant Materials Center, Montana, United States. Received 1970.

**PI 578749. *Leymus triticoides* (Buckley) Pilger**  
P 15594; W6 3063.

The following were donated by USDA-SCS, Pullman Plant Materials Center, Pullman, Washington 99163, United States. Received 1977.

PI 578750. *Leymus triticoides* (Buckley) Pilger  
P-2741.

The following were donated by Mississippi USDA, ARS, Stoneville, Mississippi 38776, United States. Received 1965.

PI 578751. *Lolium multiflorum* Lam.  
STONEVILLE NO 3.

The following were donated by University of Florida, Florida Agr. Exp. Sta., Department of Agronomy, Gainesville, Florida 32611, United States. Received 1962.

PI 578752. *Lolium multiflorum* Lam.  
FLORIDA RUST RESISTANT.

The following were donated by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Received 1964.

PI 578753. *Lolium multiflorum* Lam.  
ASTOR.

The following were donated by Mississippi USDA, ARS, Stoneville, Mississippi 38776, United States. Received 1971.

PI 578754. *Lolium multiflorum* Lam.  
STATE COLLEGE 7.

The following were donated by J. Moutray, North American Plant Breeders, Inc., Rural Route #3, Ames, Iowa 50010, United States. Received 1980.

PI 578755. *Lolium multiflorum* Lam.  
MERITRA.

The following were developed by National Seed Dev. Organisation, Ltd., United Kingdom. Received 1984.

PI 578756. *Lolium multiflorum* Lam.  
Cultivar. "LYRA". PVP 7400042.

The following were developed by J. Joordens Zaadhandel B.V., Netherlands. Received 1984.

PI 578757. *Lolium multiflorum* Lam.  
Cultivar. "VENLONA". PVP 7700041.

The following were donated by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Received 1961.

PI 578758. *Lolium perenne* L.  
PERENNIAL RYEGRASS.

PI 578759. *Lolium perenne* L.  
NEW ZEALAND.

The following were donated by Northrup, King & Co, 1500 Jackson N.E., Minneapolis, Minnesota 55413, United States. Received 1967.

PI 578760. *Lolium perenne* L.  
NK 100; W6 3064.

PI 578761. *Lolium perenne* L.  
PELO.

The following were developed by C.R. Funk, Hubbard Seed and Supply Company, P.O. Box 310, Hubbard, Oregon 97032, United States; K.J. McVeigh, Willamette Valley Plant Breeders, Inc., Brownsville, Oregon, United States; F.B. Ledebor; W.K. Dickson, New Jersey Agr. Exp. Sta., Cook College, Rutgers University, Plant Science Department, New Brunswick, New Jersey 08903, United States. Donated by Loft's Pedigreed Seed, Inc., One Chimney Rock Road, P.O. Box 146, Bound Brook, New Jersey 08805, United States. Received 1976.

PI 578762. *Lolium perenne* L.  
Cultivar. "DIPLOMAT". CV-48; PVP 7400055. Pedigree - 26-clone synthetic sel. from a population of turf-type perennial ryegrasses, which included derivatives of clones selected in old turf areas in the northeastern U.S. and progenies of intercrosses between certain of these clones. Attractive, moderately dark green, turf-type that produces a leafy, persistent turf of greater density, finer texture and a slower rate of vertical growth than many other perennial ryegrasses. Moderately good resistance to both the late fall and winter brown blight disease (*Helminthosporium siccans*) and the larger brown patch disease (*Rhizoctonia solani*). Good seedling vigor and establishes well on a wide range of soils.

PI 578763. *Lolium perenne* L.  
Cultivar. "YORKTOWN". CV-44; PVP 7400056. Pedigree - Five-clone synthetic from germplasm obtained from the New Jersey Agr. Exp. Sta. Attractive, leafy, moderately persistent, turf-type that produces moderately dark-green turf of finer texture, greater density and a slower rate of vertical growth than many other perennial ryegrass cultivars. Moderate resistance to *Rhizoctonia* brown patch disease (*Rhizoctonia solani*). Resistance good to winter brown blight disease (*Helminthosporium siccans*) being superior to most other turf-type ryegrass cvs. in this attribute.

The following were developed by J. Joordens Zaadhandel B.V., Netherlands. Received 1980.

PI 578764. *Lolium perenne* L.  
Cultivar. "GAME". PVP 7100045.

The following were donated by R.H. Hurley, Lofts Seed, Inc., P.O. Box 146, Bound Brook, New Jersey 08805, United States. Received 1982.

PI 578765. *Lolium perenne* L.  
PALMER (GT-1).

The following were developed by Mommersteeg International B.V., Netherlands. Received 1983.

PI 578766. *Lolium perenne* L.  
Cultivar. "CROWN". PVP 8200041.

PI 578767. *Lolium perenne* L.

Cultivar. "ACCLAIM". PVP 8000051.

The following were developed by B. S. Ahloowalia, Agricultural Institute, Plant Breeding Department, Oak Park Res. Ctr., Carlow, Ireland. Received 1984.

PI 578768. *Lolium perenne* L.

Cultivar. "GREEN ISLE". CV-92. Pedigree - Developed by doubling chromosome numbers of cvs. Irish Commercial, New Zealand Selection, Otofte and Viris. Ten maternal plants were selected. Ramets of the selected plants polycrossed & the synthetic pop. multiplied 3 generations. Early type with heading date in mid-May. Leaves dark, long. Exceptional early growth in spring and yet maintains high summer and autumn production. Ranks high in dry matter production and is among the top yielding cvs. of the early group in the Irish List of Recommended Herbage Varieties. Reasonable persistence and highly resistant to disease crown rust.

The following were donated by E. S. Horner, University of Florida, Agronomy Department, Gainesville, Florida 32631, United States. Received 1986.

PI 578769. *Lolium perenne* L.

F1 80; W6 4088.

The following were developed by International Seeds Inc., P.O. Box 168, Halsey, Oregon 97348, United States. Received 1989.

PI 578770. *Lolium perenne* L.

Cultivar. "VANTAGE". PVP 8900265.

The following were developed by Challenge Seeds Ltd., New Zealand. Received 1989.

PI 578771. *Lolium x hybridum* Hausskn.

Cultivar. "CONCORD". PVP 8900275.

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578772. *Lycurus phleoides* Kunth

A 13285; W6 3066. Collected in Mexico.

PI 578773. *Achnatherum hymenoides* (Roemer & Schultes) Barkworth

PM-NM-168; W6 3069.

PI 578774. *Achnatherum hymenoides* (Roemer & Schultes) Barkworth

PM-NM-15; W6 3070.

PI 578775. *Achnatherum hymenoides* (Roemer & Schultes) Barkworth

PALOMA; W6 6144.

The following were donated by USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States. Received 1984.

PI 578776. *Achnatherum hymenoides* (Roemer & Schultes) Barkworth

MANDAN 57-2.

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1977.

PI 578777. *Pascopyrum smithii* (Rydb.) A. Love  
PM C 30.

The following were donated by USDA-SCS, Kansas Plant Materials Center, Kansas, United States. Received 1974.

PI 578778. *Pascopyrum smithii* (Rydb.) A. Love  
BARTON.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1977.

PI 578779. *Pascopyrum smithii* (Rydb.) A. Love  
P 727.

The following were developed by R.E. Baker, U.S. Operations Mission, Taipei, Taiwan; E. T. Jacobson, USDA, SCS, Midwest Nat'l Technical Center, 100 Centennical Mall North, Lincoln, Nebraska 68508, United States; John D. Berdahl, USDA, ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States. Donated by R. E. Barker, USDA-ARS, Northern Great Plains Res. Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; North Dakota Agr. Exp. Sta., North Dakota, United States; USDA-SCS. Received 1984.

PI 578780. *Pascopyrum smithii* (Rydb.) A. Love  
Cultivar. "RODAN". CV-14. Pedigree - Originated from a 30-ha seed increase field of western wheatgrass of unknown origin grown in the Missouri River bottoms near Mandan. Rhizomatous and forms dense blue-green sward. Leaves less heavily veined and thinner than other western wheatgrass cvs. Average yield of 200 kg/ha more forage than other western wheatgrass cvs. Similar to Rosana in area of adaptation but more productive than Rosana on coarse-textured soils. Seed has short awn that distracts from seed quality but is similar to Rosana in seed yield. Moderate to good resistance to stem rust (*Puccinia graminis*)

The following were donated by University of California, California Agr. Exp. Sta., Oakland, California 94612-3560, United States. Received 1961.

PI 578781. *Phalaris aquatica* L.  
STENOPTERN; W6 4205.

The following were donated by Texas A&M University, Texas Agricultural Exp. Station, College Station, Texas 77841, United States. Received 1969.

PI 578782. *Phalaris aquatica* L.  
WINTERGREEN.

The following were donated by USDA-ARS, Western Regional P.I. Station, Pullman, Washington 99164, United States. Received 1975.

PI 578783. *Phalaris aquatica* L.  
FALOUJA. Collected in Israel.

The following were developed by Tom Adams, Escagenetics Corp., 830 Bransten Road, San Carlos, California 94070-3305, United States; R.M. Love, University of California, Department of Agronomy, Davis, California 95616, United States; Robert S. MacLauchlan. Donated by USDA, SCS, Pleasanton, California, United States. Received 1978.

PI 578784. *Phalaris aquatica* L.  
Cultivar. "PERLA". CV-33. Pedigree - Developed from PI 202480 originating from Morocco. Superior to hardinggrass for range improvement in California. Establishment easier because of stronger seedlings. Superior ability to reseed naturally and palatability compared with hardinggrass.

The following were developed by Carl S. Hoveland, University of Georgia, College of Agric. & Environmental Sci., Department of Crop and Soil Sciences, Athens, Georgia 30602-7272, United States; Charles D. Berry, Stoneville Pedigreed Seed Company, P.O. BOX 167, Stoneville, Mississippi 38776, United States; J.F. Pedersen, Auburn University, Dept. of Agronomy & Soils, Auburn, Alabama 36849, United States; R.L. Haaland, Shell Toomer Pkwy., Auburn, Alabama 36830, United States. Received 1983.

PI 578785. *Phalaris aquatica* L.  
Breeding. "AU 1". GP-26. Pedigree - Open-pollinated population assembled from 36-clones selected from 3630 plants (30 plants each of 12 PI accessions). Superior persistence, vigor, and adaptation to the conditions common to the Southeastern U.S.

The following were developed by Eugene F. McClain, Clemson University, Dept. of Agronomy and Soils, Clemson, South Carolina 29631, United States. Received 1986.

PI 578786. *Phalaris aquatica* L.  
Breeding. "SCG82A". GP-48. Pedigree - 40-clone Syn-1. Parental clones represent 26 polycross families and 19 original accessions (PI).

PI 578787. *Phalaris aquatica* L.  
Breeding. "SCG82B". GP-49. Pedigree - 40-clone Syn-1. Parental clones represent 25 polycross families derived from 17 original accessions (PI)

PI 578788. *Festuca arundinacea* Schreber  
Breeding. SCG82C. GP-50. Pedigree - 40-clone Syn-1. Parental clones derived from 11 original accessions (PI) and 5 cultivars. Duplicate of PI 578724.

The following were donated by Missouri USDA, ARS, Columbia, Missouri 65201, United States. Received 1968.

PI 578789. *Phalaris arundinacea* L.  
ML 4694 IOREED.

The following were donated by University of Arkansas, Arkansas Agr. Exp. Sta., Fayetteville, Arkansas 72701, United States. Received 1962.

PI 578790. *Phalaris arundinacea* L.  
ARKANSAS UPLAND; W6 7083.

The following were donated by USDA, SCS, Wisconsin Plant Materials Center, Wisconsin, United States. Received 1962.

PI 578791. *Phalaris arundinacea* L.  
SYN 4 IOREED; W6 7084.

The following were donated by Oregon State University, Oregon Agr. Exp. Sta., Corvallis, Oregon 97331, United States. Received 1962.

PI 578792. *Phalaris arundinacea* L.  
SUPERIOR; W6 7085.

The following were developed by A. Hovin; H.L. Thomas; I.T. Carlson. Donated by Minnesota Agr. Exp. Sta., University of Minnesota, St. Paul, Minnesota 55108, United States. Received 1973.

PI 578793. *Phalaris arundinacea* L.  
Breeding. "NCRC1". GP-5. Pedigree - Two cycles of intercrossing of plants that trace to 30 foreign introductions, 20 domestic collections, 2 cultivars, 3 experimental strains, and 31 progenies from breeding materials.

The following were developed by Iowa Agr. and Home Econ. Exp. Station, Iowa State University, Ames, Iowa 50011, United States. Donated by USDA-ARS, Iowa State University, Ames, Iowa 50010, United States. Received 1976.

PI 578794. *Phalaris arundinacea* L.  
Cultivar. "VANTAGE". PVP 7500063.

The following were donated by USDA, SCS, California Agr. Exp. Station, California, United States. Received 1978.

PI 578795. *Phalaris arundinacea* L.  
CANA; W6 7086.

The following were donated by J. Moutray, North American Plant Breeders, Inc., Rural Route #3, Ames, Iowa 50010, United States. Received 1980.

PI 578796. *Phalaris arundinacea* L.  
RISE.

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; A. Hovin. Received 1983.

PI 578797. *Phalaris arundinacea* L.  
Breeding. "MN-76". GP-25. Pedigree - Four-clone double cross (R302/R304)/(R328/R332). In Minnesota forage yield tests, yielded up to 16% less dry matter per unit area than Rise and up to 9% less than Vantage. However, in Indiana, yielded as well as Rise and Vantage. Heading date similar to Flare (about days earlier than Vantage and Rise). Moderate seed producer. In 4 harvest years produced about 60% as much seed as Rise and Vantage.

The following were developed by R. G. Robinson, University of Minnesota,

Agronomy Department, St. Paul, Minnesota 55108, United States. Donated by Minnesota Agr. Exp. Sta., University of Minnesota, St. Paul, Minnesota 55108, United States. Received 1973.

**PI 578798. *Phalaris canariensis* L.**

Cultivar. "ALDEN". CV-30. Pedigree - Originated from PI 251390 from Iran. Maturity late, yield high, head large suitable for feeding both caged and wild birds. Like other annual canarygrass, tillers profusely and lodges severely when soil fertility is high and moisture plentiful. Can be sown with a grain drill and combine-harvested either direct or from the window. Panicles compact, oval shaped, spike-like, retain seed firmly so that shattering losses usually small.

The following were developed by R. G. Robinson, University of Minnesota, Agronomy Department, St. Paul, Minnesota 55108, United States. Donated by Minnesota Agr. Exp. Sta., Minnesota, United States. Received 1979.

**PI 578799. *Phalaris canariensis* L.**

Cultivar. "KEET". CV-56. Pedigree - Selection from PI 250741 from Iran. Averaged 3 days earlier maturity and 12% higher yield than Alden, the only cultivar grown in Minnesota and North Dakota. Lodged less than Alden and seed is of higher test weight. Appearance uniform. Panicle compact, oval-shaped, spike-like. Seed firmly retained so that shattering losses are small. Tillers profusely and lodges moderately when soil fertility is high and moisture plentiful. Plants head about 61 days after planting and mature about 103 days after planting. Height at maturity 84cm. Seed cream-colored, 0.72 g/100 and 62hg/hl.

The following were donated by R. G. Robinson, University of Minnesota, Agronomy Department, St. Paul, Minnesota 55108, United States. Received 1983.

**PI 578800. *Phalaris canariensis* L.**

Cultivar. "ELIAS". CV-87. Pedigree - Selection from PI 170622. Exceeds Alden and Keet in seed yield and test weight and average yield of 1707 kg/ha exceeded Keet by 11% and Alden by 27%. Test weight of 664 kg/m<sup>3</sup> was highest of the 3 cultivars. Equal in lodging resistance to Keet and same Alden in height and maturity. Appearance uniform with compact, oval-shaped, spikelike panicles. Panicles retain seed firmly so that shattering losses usually small. Plants head about 64 days after planting and mature about 104 days after planting. Height at maturity about 91cm. Seeds cream-colored, and caryopses brown.

The following were donated by USDA-ARS, Western Regional P.I. Station, Pullman, Washington 99164, United States. Received 1970.

**PI 578801. *Piptatherum coerulescens* (Desf.) P. Beauv.**

MT CARMEL; W6 3067. Collected in Israel.

**PI 578802. *Piptatherum holciforme* (M. Bieb.) Roemer & Schultes**

MT CARMEL STR; W6 3068. Collected in Israel.

The following were donated by University of California, California Agr. Exp. Sta., Oakland, California 94612-3560, United States. Received 1961.

**PI 578803. *Piptatherum miliaceum* (L.) Cosson**

LOT 51; W6 6146.

The following were donated by USDA-ARS, Western Regional P.I. Station,

Pullman, Washington 99164, United States. Received 1977.

PI 578804. *Piptatherum miliaceum* (L.) Cosson  
BROWN STRAIN. Collected in Israel.

The following were donated by USDA, SCS, California Agr. Exp. Station, California, United States. Received 1978.

PI 578805. *Piptatherum miliaceum* (L.) Cosson  
PL-183-68-77; W6 6145.

The following were donated by Kansas SCS, Kansas, United States. Received 1963.

PI 578806. *Poa arida* Vasey  
RENO.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States; A.G. Law. Donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1965.

PI 578807. *Poa glauca* M. Vahl  
Cultivar. "DRAYLAR". CV-3. Pedigree - Developed from PI 109350 which was collected in Chorsum, Turkey in 1935 by Westover and Enlow. Apomictic,  $2n=50(4,5)$ . Perennial, loosely tufted, glaucous bunchgrass. Slow tillering. Culms numerous, compressed, fine, wiry and ascending. Leaf blades numerous, flat, short, dark green and well distributed on culms. Seed heads lax, numerous, nodding at maturity. Seeds small. Resembles Canada bluegrass but produces 50-100% more seed. More lodging resistant. Persistent, low dense growth, adapted to low fertility soils and resistant to common stem and leaf rusts. Used primarily for roadsides and ditchbank ground cover.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1964.

PI 578808. *Poa hybrid*  
P-14094. Pedigree - AMPLA X PRATENSIS.

PI 578809. *Poa hybrid*  
P-14970. Pedigree - SCAB. X PRA. X AMP.

PI 578810. *Poa hybrid*  
P-14971. Pedigree - AMPLA X PRATENSIS.

PI 578811. *Poa hybrid*  
P-14972. Pedigree - AMPLA X PRATENSIS.

PI 578812. *Poa hybrid*  
P-14973. Pedigree - AMPLA X PRATENSIS.

PI 578813. *Poa hybrid*  
P-14974. Pedigree - AMPLA X PRATENSIS.

PI 578814. *Poa hybrid*  
P-14975. Pedigree - AMPLA X PRATENSIS.

PI 578815. *Poa hybrid*  
P-14976. Pedigree - AMPLA X PRATENSIS.

PI 578816. *Poa hybrid*  
P-14977; W6 6204. Pedigree - AMPLA X PRATENSIS.

PI 578817. *Poa hybrid*  
P-15391. Pedigree - AMPLA X ALPIGENA.

PI 578818. *Poa hybrid*  
LITTLE ENCHANTRESS. Pedigree - AMPLA X PRATENSIS.

The following were developed by W.M. Meyers, USDA-ARS, Bureau of Plant Industry, Soils, and Agricultural Engineering, Beltsville, Maryland 20705-2350, United States. Donated by Pennsylvania State University, Pennsylvania Agr. Exp. Sta., University Park, Pennsylvania 16802, United States. Received 1961.

PI 578819. *Poa pratensis* L.  
Cultivar. "MERION". CV-1. Pedigree - From a single plant selection made by the Superintendent of the Merion Golf Club, Ardmore, PA in 1936. Compared to common Kentucky bluegrass, Merion has a high degree of resistance to *Helminthosporium* leafspot and the ability to withstand close mowing. Low-growing type. Leaves short, 3-5 mm wide. Numerous, vigorous rhizomes. Resists crabgrass invasion.

The following were developed by H.L. Thomas. Donated by Minnesota Agr. Exp. Sta., University of Minnesota, St. Paul, Minnesota 55108, United States. Received 1975.

PI 578820. *Poa pratensis* L.  
Cultivar. "PARK". CV-4. Pedigree - Developed by selection among 281 vigorous single plants collected in 1937 from 60 old pastures and waste areas in Minnesota. 15 superior spomictic clones were combined in 1953. Good seedling vigor, high clipping yield and some tolerance to rust and leaf spot diseases. Denser stand than Merion. Superior to other cultivars in stand establishment and persistence in the Upper Midwest. Used primarily for turf but also recommended for pastures.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States; A.G. Law; J. Clausen. Donated by Washington Agr. Exp. Sta., Washington State University, Pullman, Washington 99164, United States; USDA-SCS. Received 1961.

PI 578821. *Poa pratensis* L.  
Cultivar. "NEWPORT". CV-2. Pedigree - Single plant selection from a maritime race collected near Newport, Oregon by W.E. Lawrence. Tolerant to a wide range of climatic conditions. Turfgrass variety. Leaves wide, dark green. Vigorous sodding habit producing dense turf. Visual turf quality equal to Merion and greatly superior to Delta. Slightly susceptible to stem and leaf rusts.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1961.

PI 578822. *Poa pratensis* L.  
DELTA; W6 6205.

The following were donated by O.M. Scott and Sons Company, Marysville, Ohio 43040, United States. Received 1961.

PI 578823. *Poa pratensis* L.  
WINDSOR.

The following were donated by Ed Mangelsdorf & Bro., Missouri, United States. Received 1962.

PI 578824. *Poa pratensis* L.  
ARBORETUM.

The following were donated by Pennsylvania State University, Pennsylvania Agr. Exp. Sta., University Park, Pennsylvania 16802, United States. Received 1975.

PI 578825. *Poa pratensis* L.  
PENNSTAR.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States; A.G. Law; R.L. Goss. Donated by Washington Agr. Exp. Sta., Washington State University, Pullman, Washington 99164, United States; USDA-SCS. Received 1965.

PI 578826. *Poa pratensis* L.  
Cultivar. "COUGAR". CV-7. Pedigree - Composite of 3 apomictic clones, 602, 402 and 205 that trace to FC 22190 introduced from Demark by the USDA. Low-growing, strongly rhizomatous turf type. Dark green color when fertilized with nitrogen. Good resistance to stripe smut (*Ustilago striiformis*) and mildew in the Pacific Northwest.

The following were donated by Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583, United States. Received 1965.

PI 578827. *Poa pratensis* L.  
NU DWARF.

The following were donated by Kentucky Agr. Exp. Sta., University of Kentucky, Department of Agronomy, Lexington, Kentucky 40506, United States. Received 1967.

PI 578828. *Poa pratensis* L.  
KENBLUE; W6 6206.

The following were developed by A. Hovin. Donated by Minnesota Agr. Exp. Sta., University of Minnesota, St. Paul, Minnesota 55108, United States. Received 1970.

PI 578829. *Poa pratensis* L.  
Breeding. "MINN 1255". GP-1. Pedigree - Apomictic selection from a pasture near Rochester, Minnesota. Wide, dark green leaves, moderate vigor, erect and dense growth habit, early heading, small seed size and good seed yield. Tolerant to powdery mildew, rust, *Helminthosporium* leaf spot and heat stress.

PI 578830. *Poa pratensis* L.  
Breeding. "MINN 1920". GP-2. Pedigree - Apomictic selection from a roadside near Staples, Minnesota. Narrow, very dark green leaves, tolerant to close mowing, moderate vigor, early heading, small seed size and good seed yield. Tolerant to powdery mildew, *Helminthosporium* leaf spot, rust and heat stress.

**PI 578831. *Poa pratensis* L.**

Breeding. "MINN 5769". GP-3. Pedigree - Apomictic selection from a roadside near Platteville, Wisconsin. Medium wide, dark green leaves, moderate vigor, early heading, small seed size and low seed yield. Tolerant to powdery mildew, rust, Helminthosporium leaf spot and heat stress.

**PI 578832. *Poa pratensis* L.**

Breeding. "MINN 8344". GP-4. Pedigree - Apomictic selection from near Faribault, Minnesota. Medium wide, dark green leaves, dense growth habit, moderate vigor, large seed size and medium seed yield. Tolerant to powdery mildew, rust, Helminthosporium leaf spot and heat stress.

**PI 578833. *Poa pratensis* L.**

Breeding. "MINN 8911". GP-5. Pedigree - Apomictic selection from near Randolph, Minnesota. Medium wide, very dark green leaves, good quality turf of good vigor, particularly on mineral soil, late heading, medium-large seed size and high seed yield. Tolerant to powdery mildew, rust, Helminthosporium leaf spot and heat stress.

**PI 578834. *Poa pratensis* L.**

Breeding. "MINN 15241". GP-6. Pedigree - Apomictic selection from a collection near Detroit Lakes, Minnesota. Medium leaf width, aggressive plant growth, medium-late heading, small seed size and medium seed yield. Tolerant to powdery mildew, rust, Helminthosporium leaf spot and heat stress.

The following were donated by Warrens Turf Nurseries, Illinois, United States . Received 1971.

**PI 578835. *Poa pratensis* L.**

A-34.

The following were developed by Van Engelen Zaden B.V., Netherlands. Received 1975.

**PI 578836. *Poa pratensis* L.**

Cultivar. "ENMUNDI". PVP 7400017.

The following were developed by O. Bohnert, Bohnert Farms, 4270 Grant Road, Central Point, Oregon 97502, United States. Donated by Oregon State University, Oregon Agr. Exp. Sta., Oregon, United States; O. Bohnert, Bohnert Farms, 4270 Grant Road, Central Point, Oregon 97502, United States. Received 1976.

**PI 578837. *Poa pratensis* L.**

Cultivar. "SCENIC". CV-21; PVP 7500059. Pedigree - Single plant selection from a field of Merion Kentucky bluegrass at the Bohnert Farm, Oregon. Slightly less prostrate, finer and darker green leaves than Merion. Good seedling vigor. Drought tolerant and holds green color under low soil fertility. Hardy, grows and spreads rapidly. Same density as Merion. Resistant to stripe smut and powdery mildew. Some tolerance to leafspot and crown rot when grown in the western U.S. Tolerant to pink snowmold, snow scald, stripe rust and leaf rust. Adapted to areas where Merion is grown. Used for turf purposes.

The following were developed by O. Bohnert, Bohnert Farms, 4270 Grant Road, Central Point, Oregon 97502, United States; J.A. Yungen. Donated by Oregon State University, Oregon Agr. Exp. Sta., Oregon, United States; O. Bohnert,

Bohnert Farms, 4270 Grant Road, Central Point, Oregon 97502, United States.  
Received 1976.

**PI 578838. *Poa pratensis* L.**

Cultivar. "PACIFIC". CV-78; PVP 7500058. Pedigree - Single plant selected in 1966 by Bohnert Farms from field in production of foundation seed of Merion Kentucky bluegrass. Leaves wider, more prostrate in growth habit, slightly darker green in leaf color, and begins spring growth earlier than Merion. Some decumbent leaves in turf plantings. Seedling vigor and density of the two bluegrasses are approx. equal. Maintains green color well under conditions of low soil fertility, and quite drought tolerant. Slightly more resistant to some races of stripe smut (*Ustilago striiformis*) than Merion. In Pennsylvania and Oregon, tolerance to leaf spot and crown rot disease. Moderate resistance to leaf rust and stripe rust in Oregon.

The following were developed by C. R. Funk, Rutgers University, Cook College, Dept. of Soils and Crops, New Brunswick, New Jersey 08903, United States; A.M. Radko; T.E. Rewinski; W.K. Wiley; M.C. Pick. Donated by Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States. Received 1976.

**PI 578839. *Poa pratensis* L.**

Cultivar. "TOUCHDOWN". CV-14; PVP 7400066. Pedigree - Selected from 9th fairway of the National Gold Links of America, Southhampton, NY. Moderately low-growing, turf-type, bright moderately dark green color, good density and medium texture. Attractive, persistent, good density and vigor. High level of apomictic reproduction. Good resistance to leaf spot and crown rot disease, strip smut and leaf rust. Moderate to good resistance to many races of powdery mildew. Susceptible to stem rust. Adapted to regions where Kentucky bluegrass is suitable.

The following were donated by O.M. Scott and Sons Company, Marysville, Ohio 43040, United States. Received 1977.

**PI 578840. *Poa pratensis* L.**

VANTAGE.

**PI 578841. *Poa pratensis* L.**

VICTA.

The following were developed by M. Hanna, Agriculture Canada, Research Station, Lethbridge, Alberta T1J 4B1, Canada; J.B. Lebeau. Received 1978.

**PI 578842. *Poa pratensis* L.**

Cultivar. "BANFF". CV-13; PVP 7900012. Pedigree - Selection from a green at the Banff Springs Golf Course in Banff National Park, Alberta in 1968. Dwarf. Good vigor, excellent tolerance to close clipping and heavy traffic. Dark green color persists into the fall. Resistant to cold injury, weed invasion, thatch accumulation and many important turfgrass diseases. Compares favorably to Baron, Fylking and Merion.

The following were donated by W. H. Daniel, Purdue University, Department of Agronomy, W. Lafayette, Indiana 47907, United States. Received 1980.

**PI 578843. *Poa pratensis* L.**

WABASH.

The following were donated by E.F. Burlingham & Sons, 1936 19th Avenue, P.O.

Box 217, Forest Grove, Oregon 97116, United States. Received 1980.

PI 578844. *Poa pratensis* L.  
"SYDSPORT". PVP 7200041. Collected in Sweden.

PI 578845. *Poa pratensis* L.  
"BIRKA". PVP 7200127. Collected in Sweden.

The following were developed by Zelder B.V., Netherlands. Received 1981.

PI 578846. *Poa pratensis* L.  
Cultivar. "APART". PVP 8100012.

The following were developed by Cebeco-Handelsraad, Netherlands. Received 1983.

PI 578847. *Poa pratensis* L.  
Cultivar. "CARDINAL". PVP 8100127.

The following were developed by Danish Plant Breeding Ltd., Denmark. Received 1983.

PI 578848. *Poa pratensis* L.  
Cultivar. "CHARLOTTE". PVP 8100125.

The following were developed by D.J. van der Have B.V., Netherlands. Received 1984.

PI 578849. *Poa pratensis* L.  
Cultivar. "MONA". PVP 7900068.

The following were developed by J.L. Schwendiman, USDA-SCS, Pullman, Washington 99163, United States. Donated by USDA-SCS, Plant Materials Center, Pullman, Washington 99163, United States. Received 1961.

PI 578850. *Poa secunda* J. S. Presl  
Cultivar. "SHERMAN". CV-6. Pedigree - Developed after several generations of mass selection from plants collected near Grass Valley, Oregon. Leafy, long-lived apomictic, perennial bunchgrass with long, flat leaves and broad, flat ligules. Panicles erect with abundant seed. Seeds shatter easily. Early spring growth. Chromosome number 63. Adapted to native ranges of Pacific Northwest and Great Basin States on well-drained soil, elevations 91-2400 m, and 25-50 cm average annual rainfall. Used for range, hay and forage conservation.

The following were donated by USDA-SCS, Washington Plant Materials Center, Pullman, Washington 99163, United States. Received 1977.

PI 578851. *Poa secunda* J. S. Presl  
P-8903; W6 6203.

The following were developed by J. Joordens Zaadhandel B.V., Netherlands. Received 1977.

PI 578852. *Poa trivialis* L.  
Cultivar. "PO-LIS". PVP 7100047.

The following were developed by S. Smoliak. Donated by Agriculture Canada, Lethbridge Research Station, Lethbridge, Alberta T1J 4B1, Canada. Received 1979.

PI 578853. *Psathyrostachys juncea* (Fischer) Nevski  
Cultivar. "CABREE". CV-45. Pedigree - Six-clone synthetic with original selection made from field seeded with commercial seed of unknown origin. Yields 9% more dry matter and 4% less seed than Sawki in forage production and seed production. Shattering losses, however, 23%, compared to 44% for Sawki. More resistant than Sawki to powdery mildew and spot blotch. More resistant than Mayak to leaf rust. Rated well in evaluation for emergence and seedling vigor. Culms taller and leaves longer than Sawki.

The following were developed by T. Lawrence, Agriculture Canada, Swift Current Research Station, Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada. Received 1980.

PI 578854. *Psathyrostachys juncea* (Fischer) Nevski  
Cultivar. "SWIFT". CV-65. Pedigree - 26-clone synthetic tracing back to Sawki, progenies of five of the clones included in Sawki, and an introduction, North Dakota line 1546 from the Northern Great Plains Res. Center, Mandan, North Dakota. Establishment vigor good. Resistance to leaf spot diseases. Seed quality good. Forage yield and seed yield high.

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578855. *Pseudoroegneria spicata* (Pursh) A. Love  
PMC29; W6 3060.

The following were donated by J. Echols, Colorado State University, Agronomy Dept., Plant Science Bldg., Fort Collins, Colorado 80523, United States. Received 1980.

PI 578856. *Puccinellia distans* (Jacq.) Parl.  
FULTS STRAIN.

The following were donated by USDA-SCS, New Mexico Plant Materials Center, Los Lunas, New Mexico 87031, United States. Received 1963.

PI 578857. *Sporobolus airoides* (Torrey) Torrey  
PUEBLO.

PI 578858. *Achnatherum scribneri* (Vasey) Barkworth  
PM-NM-104.

The following were donated by USDA, SCS, California Agr. Exp. Station, California, United States. Received 1978.

PI 578859. *Vulpia myuros* (L.) C. Gmelin  
ZORRO.

The following were developed by Danish Plant Breeding Ltd., Denmark. Donated by A. Kleinhout, Danish Plant Breeding Ltd., Boelshoj, 4660 Store Heddinge, Denmark. Received 1984.

PI 578860. X *Festulolium ascendens* (Retz.) Asch. & Graebn.  
Cultivar. "KEMAL". PVP 8100124.

The following were donated by USDA-ARS, Northern Great Plains Research Lab.,  
P.O. Box 459, Mandan, North Dakota 58554, United States. Received 1984.

PI 578861. X *Achnella caduca* (Beal) Barkworth  
MANDAN D 1268; W6 7172.

The following were developed by Paul D. Legg, University of Kentucky, P.O.  
Box 169, Princeton, Kentucky 42445, United States. Received 05/02/1994.

PI 578862. *Nicotiana tabacum* L.

Breeding. IG KY 160. GP-49. Pedigree - Mammoth C187/KY 160 followed by 5  
backcrosses to KY 160 and 2 selfed generations. Growth habit  
indeterminate, thus agronomic performance depends upon topping time and  
height. Three-year performance trials conducted in which topped on same  
date as KY 160 and at a similar point directly above the smallest leaf  
exceeding 6 inches in length. KY 160 had 15 leaves per plant, 77cm tall,  
and midstalk leaf length 76cm and width 37cm. IG KY 160 had 18 leaves  
per plant, 102cm tall and midstalk length and width of 83 and 39cm.

PI 578863. *Nicotiana tabacum* L.

Breeding. IG KY 171. GP-48. Pedigree - Mammoth C187/KY 171 followed by 5  
backcrosses to KY 171 and 2 selfed generations. Growth habit  
indeterminate, thus agronomic performance depends upon topping time and  
height. Three-year performance trials conducted in which topped on same  
date as KY 171 and at a similar point directly above the smallest leaf  
exceeding 6 inches in length. KY 171 had 17 leaves per plant, 72cm tall,  
and midstalk leaf length 83cm and width 36cm. IG KY 171 had 23 leaves  
per plant, 91cm tall and midstalk length and width of 36 and 39cm.

PI 578864. *Nicotiana tabacum* L.

Breeding. PY KY 160. GP-51. Pedigree - PY NC 95/KY 160 followed by 5  
backcrosses to KY 160 and 2 selfed generations. Agronomically comparable  
to KY 160. Based on three years of testing, has 15 leaves per plant,  
plant height of 77cm, leaf length at midstalk of 76cm, leaf width at  
midstalk of 37cm and a cured-leaf yield of 288 grams per plant. Leaves  
turn yellow about 4 to 5 weeks after topping, whereas, KY 160 stays  
green.

PI 578865. *Nicotiana tabacum* L.

Breeding. PY KY 171. GP-50. Pedigree - PY NC 95/KY 171 followed by 5  
backcrosses to KY 171 and 2 selfed generations. Agronomically comparable  
to KY 171. Based on three years of testing, has 17 leaves per plant,  
plant height of 72cm, leaf length at midstalk of 83cm, leaf width at  
midstalk of 36cm and a cured-leaf yield of 247 grams per plant. Leaves  
turn yellow about 4 to 5 weeks after topping, whereas, KY 171 stays  
green. Nicotine level in percent of dry weight 5.31 compared to 4.70 for  
KY 171.

The following were developed by C. E. Townsend, USDA, ARS, Crops Research  
Laboratory, 1701 Center Avenue, Fort Collins, Colorado 80526, United States.  
Received 05/02/1994.

PI 578866. *Astragalus cicer* L.

Breeding. "C-32"; W6 15568. GP-141. Pedigree - Selected from cultivar  
Monarch by 5 cycles of phenotypic recurrent selection for regrowth at  
the apical meristem following treatment with 2,4-D. Composite of  
polycross seed (by weight) from 98 plants selected from Cycle 5.  
Selected for tolerance to 2,4-D (1.0 kg/ha rate). Approximate number of

seedlings evaluated in Cycles 0, 1, 2, 3, 4, and 5 was 1100, 2850, 4250, 4450, 4900, and 5050, respectively. Selection intensity for Cycles 0, 1, 2, 3, 4, and 5 was 5.2, 3.0, 2.1, 2.2, 2.1, and 1.9%, respectively. No difference between the tolerant and susceptible germplasms in symptom development following herbicide application. Tolerant germplasm, however, recovered much more rapidly from effects of herbicide than susceptible germplasm.

The following were developed by James S. Quick, Colorado State University, Dept of Agronomy, Fort Collins, Colorado 80523, United States. Received 05/02/1994.

**PI 578867. *Triticum aestivum* L., nom. cons.**

Cultivar. "SYLVAN"; UT002464. Pedigree - UT 785 147-209/WestBred 906-R. Awned, semidwarf height, white-glumed, most similar to WB906-R in appearance. Spikes semi-lax. Maturity averaged five days later than Spillman and eight days later than Oslo. Averaged 2 inches shorter than Blanca and similar in straw strength. When compared to current highest performing HRS wheats (Spillman and Oslo), 11% higher grain yield when grown under irrigated management in southwestern Colorado. Test weight about two lb/bu higher than Oslo and Spillman in 3 years of tests.

The following were donated by K.B. Saxena, Int. Crops Res. Inst. for the Semi-Arid Tropics, Legumes Program, Patancheru, Andhra Pradesh 502 324, India . Received 05/02/1994.

**PI 578868. *Cajanus cajan* (L.) Millsp.**

Cultivar. "ICPL 78002"; ICPL 2. Pedigree - Pure line selection from an open-pollinated heterogeneous bulk of UPAS 120 (ICP 6971). After four generations of pedigree selections the single plant progeny bulked as selection UPAS 120 (ICP 6971)-83\*-3\*-5\*-9\*-B\*-B\*. Plants indeterminate and semi-spreading, about 1.5-2.0m tall. About 84 days to flower and matures 134 days. Stem green with dark green leaves. Flowers yellow with red streaks. Pods green color and dark brown streaks on surface are borne in loose clusters. Seeds round, brown in color, with 100 seed mass of about 7.6g.

**PI 578869. *Cajanus cajan* (L.) Millsp.**

Cultivar. "ICPL 87051". Pedigree - ICPX 76098 (ICP 7979/C11). F2, F3, and F4 generations were advanced through single pod descent method. Pedigree selection initiated in F5 and in F8 single plant progeny was bulked as sel. no. ICPX 76098F4B-304-B-1\*-B\*-B-B. Plants indeterminate and semi-spreading, about 2m tall. About 131 days to flower and matures 185 days. Stem green with medium sized leaves. Flowers yellow. Pods green with dark brown streaks on surface. Seeds oval, cream color, with seed mass of 13.3g and contains 23.1% protein. On average exhibits 23% wilt and 8% sterility mosaic disease incidence.

**PI 578870. *Cajanus cajan* (L.) Millsp.**

Cultivar. "ICPL 366". Pedigree - Pure line breeding with selection number ICP 7105-12\*-22\*-2\* -2\*-G3\*-GB\* from a landrace (ICP 7105) collected from Berhampur, Madhya Pradesh, India. Plants indeterminate and compact, about 2m tall. About 156 days to flower and 234 days to mature. Stems green. Leaves narrow, dark green. Flowers yellow. Pods green, borne in loose clusters of 3-6 pods/cluster. Seeds round, brown color, with a 100-seed mass of about 9.5g. On average, each pod contains 3.7 seeds. Resistant to sterility mosaic disease.

The following were developed by Thomas Gulya, USDA, ARS, North Dakota State University, Northern Crops Research Laboratory, Fargo, North Dakota 58105, United States; Jerry F. Miller, USDA, ARS, Northern Crops Research

Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Donated by Jerry F. Miller, USDA, ARS, Northern Crops Research Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; North Dakota Agr. Exp. Sta., North Dakota, United States. Received 02/14/1994.

**PI 578871. *Helianthus annuus* L.**

Breeding. HA 382. GP-189. Pedigree - F5-derived F7 maintainer line selected from HA 89/82 Rom. B- line composite. Homozygous for resistance to Verticillium wilt (*Verticillium dahliae*). Hybrids with RHA 274 and RHA 801 exhibited plant height 148cm. Days from planting to flowering 64. Days from planting to maturity 101. Oil content (dry weight basis) 456g kg<sup>-1</sup>. Earlier maturity and fast dry-down characteristics compared with check hybrids 894 and cmsHA 821/RHA 274.

**PI 578872. *Helianthus annuus* L.**

Breeding. HA 383. GP-190. Pedigree - F5-derived F7 maintainer line selected from HA 300/CM 400. Homozygous for resistance to Verticillium wilt (*Verticillium dahliae*). Hybrids with RHA 274 and RHA 801 exhibited plant height 163cm. Days from planting to flowering 64. Days from planting to maturity 103. Oil content (dry weight basis) 464g kg<sup>-1</sup>.

**PI 578873. *Helianthus annuus* L.**

Breeding. HA 384. GP-191. Pedigree - F6-derived F8 maintainer line selected from HA 300/07657. Homozygous for resistance to Verticillium wilt (*Verticillium dahliae*). Hybrids with RHA 274 and RHA 801 exhibited plant height 163cm. Days from planting to flowering 63. Days from planting to maturity 103. Oil content (dry weight basis) 486g kg<sup>-1</sup>. Significantly higher oil content than check hybrids 894 and cmsHA 821/RHA 274.

**PI 578874. *Helianthus annuus* L.**

Breeding. HA 385. GP-192. Pedigree - S6 maintainer line selected from Cycle 2 of Verticillium Wilt Resistant B-line Synthetic (VWRBS). Homozygous for resistance to Verticillium wilt (*Verticillium dahliae*). Hybrids with RHA 274 and RHA 801 exhibited plant height 158cm. Days from planting to flowering 63. Days from planting to maturity 102. Oil content (dry weight basis) 466g kg<sup>-1</sup>.

The following were developed by Finelawn Research, United States. Received 05/11/1994.

**PI 578875. *Festuca arundinacea* Schreber**  
Cultivar. "FINELAWN PETITE". PVP 9400150.

The following were developed by Western Plant Breeders, Inc., United States. Received 05/11/1994.

**PI 578876. *Hordeum vulgare* L. ssp. *vulgare***  
Cultivar. "WESTFORD". PVP 9400151.

The following were developed by Stoneville Pedigreed Seed Company, United States. Received 05/11/1994.

**PI 578877. *Gossypium hirsutum* L.**  
Cultivar. "ST 474". PVP 9400152.

The following were developed by Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States. Received 05/11/1994.

**PI 578878. *Lolium perenne* L.**

Cultivar. "ACHIEVER". PVP 9400153.

PI 578879. *Lolium perenne* L.  
Cultivar. "CUTTER". PVP 9400154.

The following were developed by Vilmorin S.A., France. Received 05/11/1994.

PI 578880. *Phaseolus vulgaris* L.  
Cultivar. "NICKEL". PVP 9400155.

The following were developed by Asgrow Seed Company, United States. Received 05/11/1994.

PI 578881. *Lactuca sativa* L.  
Cultivar. "ANNIE". PVP 9400156.

PI 578882. *Lactuca sativa* L.  
Cultivar. "BARNBURNER". PVP 9400157.

PI 578883. *Lactuca sativa* L.  
Cultivar. "CRACKER JACK". PVP 9400158.

PI 578884. *Lactuca sativa* L.  
Cultivar. "RED GIANT". PVP 9400159.

PI 578885. *Lactuca sativa* L.  
Cultivar. "RED HOT COS". PVP 9400160.

The following were developed by Cebeco Zaden B.V., Netherlands. Received 05/11/1994.

PI 578886. *Pisum sativum* L.  
Cultivar. "CARRERA". PVP 9400161.

PI 578887. *Pisum sativum* L.  
Cultivar. "GUIDO". PVP 9400162.

The following were developed by Northrup King Company, United States. Received 05/11/1994.

PI 578888. *Glycine max* (L.) Merr.  
Cultivar. "S52-25". PVP 9400163.

PI 578889. *Glycine max* (L.) Merr.  
Cultivar. "S57-11". PVP 9400164.

PI 578890. *Glycine max* (L.) Merr.  
Cultivar. "S66-90". PVP 9400165.

The following were developed by Harris Moran Seed Company, United States. Received 05/11/1994.

PI 578891. *Raphanus sativus* L.  
Cultivar. "RED SILK". PVP 9400166.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Italy. Received 02/15/1990.

PI 578892. *Vigna unguiculata* (L.) Walp.  
Cultivated. Grif 5515; I-907. Collected in Nepal. Attractive shades of tan, brown and white. Some insect damage.

PI 578893. *Vigna unguiculata* (L.) Walp.  
Cultivated. Grif 5516; 2247. Collected in Nepal. Elevation 700 m. Wide range of colors; quality of sample poor; insect damaged.

The following were collected by Umesh Srivastava, NBPGR, New Delhi, Delhi, India; James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 01/11/1993.

PI 578894. *Vigna unguiculata* (L.) Walp.  
Cultivated. USM 103; Grif 5614. Collected 1992 in India.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 11/22/1993.

PI 578895. *Vigna unguiculata* (L.) Walp.  
Cultivated. FULTON'S COWPEA; EAI 3759; Grif 9056. Collected 08/1975 in Unknown.

PI 578896. *Vigna unguiculata* (L.) Walp.  
Cultivated. Acc. 62-069-00576; Grif 9057. Collected 1971 in India. Resistant to various insects.

PI 578897. *Vigna unguiculata* (L.) Walp.  
Cultivated. Acc. 62-157-00511; Grif 9058. Collected 1971 in United States. Possibly resistant to bruchids.

The following were donated by Lee Shu De, Chinese Academy of Agricultural Sciences, 30 Baishigiao Road, Beijing 100094, China. Received 05/09/1991.

PI 578898. *Vigna unguiculata* ssp. *sesquipedalis* (L.) Verdc.  
Cultivated. Grif 968.

The following were donated by Kapila Patel, Griffin, Georgia 30223, United States. Received 05/06/1993.

PI 578899. *Vigna unguiculata* ssp. *sesquipedalis* (L.) Verdc.  
Cultivated. Grif 1532. Collected in China.

The following were donated by Tong Daxiang, Institute of Crop Germplasm Resources, Chinese Academy of Agricultural Sciences, 30 Bai Shi Qiao Road, Beijing, China. Received 02/01/1993.

PI 578900. *Vigna unguiculata* ssp. *sesquipedalis* (L.) Verdc.  
Cultivated. NEI MENG XIAN JIANG DOU; Ex. No. 7; Grif 1599.

PI 578901. *Vigna unguiculata* ssp. *sesquipedalis* (L.) Verdc.  
Cultivated. XIN JIANG HA MI ZI JIANG; Ex. No. 18; Grif 1600.

- PI 578902. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. CHANG XIAN JIANG DOU; Ex. No. 19; Grif 1601.
- PI 578903. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. BO LE CHANG JIANG DOU; Ex. No. 20; Grif 1602.
- PI 578904. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. HA MI TU JIANG DOU; Ex. No. 21; Grif 1603.
- PI 578905. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. TU LU FAN HEI ZI JIANG DOU; Ex. No. 22; Grif 1604.
- PI 578906. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. HEI ZI XI TIAO JIANG DOU; Ex. No. 23; Grif 1605.
- PI 578907. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. HEI ZI DANG DI JIANG DOU; Ex. No. 24; Grif 1606.
- PI 578908. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. HEI ZI JIANG DOU; Ex. No. 25; Grif 1607.
- PI 578909. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. QING JIANG DOU; Ex. No. 26; Grif 1608.
- PI 578910. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. HA MI XIAN JIANG DOU; Ex. No. 27; Grif 1609.
- PI 578911. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. TAO GAN JIANG DOU; Ex. No. 28; Grif 1610.
- PI 578912. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. AI SHENG JIANG DOU; Ex. No. 29; Grif 1611.
- PI 578913. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. AI JIANG DOU; Ex. No. 30; Grif 1612.

The following were donated by N. Quat Ng, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Nigeria. Received 10/1987.

- PI 578914. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. UCR 4507; TVu 7066; Grif 3151.
- PI 578915. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. UCR 3863; TVu 7270; Grif 3266.
- PI 578916. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. UCR 3867; TVu 7275; Grif 3270.
- PI 578917. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. UCR 3877; TVu 7290; Grif 3281.
- PI 578918. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. UCR 5162; TVu 11482; Grif 3824.
- PI 578919. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.  
Cultivated. UCR 5174; TVu 11507; Grif 3836.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 11/22/1993.

- PI 578920. *Vigna unguiculata ssp. sesquipedalis* (L.) Verdc.

Cultivated. ATILANO; EAI 3760; Grif 9059. Collected 1975 in Unknown.  
Pods up to 1 meter long.

The following were donated by N. Quat Ng, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Nigeria. Received 10/1987.

- PI 578921. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2752; TVu 7; Grif 1754.
- PI 578922. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2753; TVu 14; Grif 1755.
- PI 578923. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2754; TVu 25; Grif 1756.
- PI 578924. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3946; TVu 30; Grif 1757.
- PI 578925. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3947; TVu 32; Grif 1758.
- PI 578926. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2755; TVu 33; Grif 1759.
- PI 578927. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2756; TVu 34; Grif 1760.
- PI 578928. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3948; TVu 39; Grif 1763.
- PI 578929. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2757; TVu 40; Grif 1764.
- PI 578930. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. DIXIELEE SELECTION; UCR 141; CPI 65379; TVu 42; Grif 1765.
- PI 578931. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2758; TVu 43; Grif 1766.
- PI 578932. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2759; TVu 46; Grif 1767.
- PI 578933. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2760; TVu 49; Grif 1768.
- PI 578934. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2761; TVu 56; Grif 1769.
- PI 578935. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

- Cultivated. UCR 2762; TVu 58; Grif 1770.
- PI 578936. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2763; TVu 60; Grif 1771.
- PI 578937. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2764; TVu 61; Grif 1772.
- PI 578938. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2765; TVu 62; Grif 1773.
- PI 578939. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2766; TVu 63; Grif 1774.
- PI 578940. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 150; TVu 72; Grif 1775.
- PI 578941. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2767; TVu 74; Grif 1776.
- PI 578942. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2768; TVu 81; Grif 1778.
- PI 578943. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2769; TVu 84; Grif 1779.
- PI 578944. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2770; TVu 86; Grif 1780.
- PI 578945. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2771; TVu 87; Grif 1781.
- PI 578946. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2772; TVu 88; Grif 1782.
- PI 578947. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3949; TVu 90; Grif 1783.
- PI 578948. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2773; TVu 92; Grif 1784.
- PI 578949. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2774; TVu 97; Grif 1785.
- PI 578950. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2775; TVu 100; Grif 1786.
- PI 578951. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3950; TVu 101; Grif 1787.

PI 578952. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3951; TVu 103; Grif 1788.

PI 578953. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2776; TVu 104; Grif 1789.

PI 578954. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2777; TVu 105; Grif 1790.

PI 578955. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2778; TVu 106; Grif 1791.

PI 578956. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2779; TVu 107; Grif 1792.

PI 578957. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3952; TVu 108; Grif 1793.

PI 578958. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 109; Grif 1794.

PI 578959. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2780; TVu 110; Grif 1795.

PI 578960. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2781; TVu 111; Grif 1796.

PI 578961. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2782; TVu 112; Grif 1797.

PI 578962. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2783; TVu 116; Grif 1798.

PI 578963. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2784; TVu 118; Grif 1799.

PI 578964. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2785; TVu 119; Grif 1800.

PI 578965. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2786; TVu 123; Grif 1801.

PI 578966. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2787; TVu 124; Grif 1802.

PI 578967. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 2788; TVu 125; Grif 1803.
- PI 578968. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2789; TVu 126; Grif 1804.
- PI 578969. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2790; TVu 127; Grif 1805.
- PI 578970. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2791; TVu 128; Grif 1806.
- PI 578971. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3953; TVu 129; Grif 1807.
- PI 578972. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2792; TVu 130; Grif 1808.
- PI 578973. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3954; TVu 131; Grif 1809; UCR 4582.
- PI 578974. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2793; TVu 135; Grif 1810.
- PI 578975. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2794; TVu 136; Grif 1811.
- PI 578976. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2795; TVu 137; Grif 1812.
- PI 578977. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2796; TVu 138; Grif 1813.
- PI 578978. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2797; TVu 140; Grif 1814.
- PI 578979. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 142; Grif 1815.
- PI 578980. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2798; TVu 143; Grif 1816.
- PI 578981. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2799; TVu 144; Grif 1817.
- PI 578982. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2800; TVu 145; Grif 1818.
- PI 578983. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2801; TVu 146; Grif 1819.

PI 578984. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2802; TVu 148; Grif 1820.

PI 578985. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3955; TVu 149; Grif 1821.

PI 578986. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2803; TVu 154; Grif 1822.

PI 578987. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2804; TVu 155; Grif 1823.

PI 578988. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2805; TVu 157; Grif 1824.

PI 578989. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 132; TVu 161; Grif 1825.

PI 578990. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3956; TVu 169; Grif 1826.

PI 578991. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2806; TVu 171; Grif 1827.

PI 578992. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2807; TVu 172; Grif 1828.

PI 578993. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2808; TVu 173; Grif 1829.

PI 578994. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2809; TVu 175; Grif 1830.

PI 578995. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2810; TVu 177; Grif 1831.

PI 578996. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2811; TVu 178; Grif 1832.

PI 578997. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2812; TVu 180; Grif 1833.

PI 578998. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2813; TVu 181; Grif 1834.

PI 578999. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 2814; TVu 182; Grif 1835.
- PI 579000. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2815; TVu 183; Grif 1836.
- PI 579001. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2816; TVu 184; Grif 1837.
- PI 579002. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2817; TVu 185; Grif 1838.
- PI 579003. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2818; TVu 186; Grif 1839.
- PI 579004. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2819; TVu 188; Grif 1840.
- PI 579005. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2820; TVu 190; Grif 1841.
- PI 579006. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2821; TVu 191; Grif 1842.
- PI 579007. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2822; TVu 194; Grif 1843.
- PI 579008. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2823; TVu 198; Grif 1844.
- PI 579009. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 170; TVu 200; Grif 1845.
- PI 579010. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3957; TVu 201; Grif 1846.
- PI 579011. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2824; TVu 203; Grif 1847.
- PI 579012. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2825; TVu 205; Grif 1848.
- PI 579013. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2826; TVu 207; Grif 1849.
- PI 579014. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2827; TVu 209; Grif 1850.
- PI 579015. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2828; TVu 210; Grif 1851.

PI 579016. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2829; TVu 213; Grif 1852.

PI 579017. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2830; TVu 214; Grif 1853.

PI 579018. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2831; TVu 215; Grif 1854.

PI 579019. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2832; TVu 216; Grif 1855.

PI 579020. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2833; TVu 219; Grif 1856.

PI 579021. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2834; TVu 222; Grif 1857.

PI 579022. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2835; TVu 225; Grif 1858.

PI 579023. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2836; TVu 226; Grif 1859.

PI 579024. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2837; TVu 227; Grif 1860.

PI 579025. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3958; TVu 231; Grif 1861.

PI 579026. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2838; TVu 232; Grif 1862.

PI 579027. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2839; TVu 233; Grif 1863.

PI 579028. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2840; TVu 234; Grif 1864.

PI 579029. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2841; TVu 235; Grif 1865.

PI 579030. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2842; TVu 236; Grif 1866.

PI 579031. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

- Cultivated. UCR 2843; TVu 237; Grif 1867.
- PI 579032. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2844; TVu 238; Grif 1868.
- PI 579033. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2845; TVu 241; Grif 1869.
- PI 579034. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2846; TVu 242; Grif 1870.
- PI 579035. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2847; TVu 252; Grif 1871.
- PI 579036. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3959; TVu 256; Grif 1872.
- PI 579037. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2848; TVu 257; Grif 1873.
- PI 579038. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2849; TVu 260; Grif 1874.
- PI 579039. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2850; TVu 262; Grif 1875.
- PI 579040. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2851; TVu 267; Grif 1876.
- PI 579041. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2852; TVu 268; Grif 1877.
- PI 579042. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2853; TVu 269; Grif 1878.
- PI 579043. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2854; TVu 271; Grif 1879.
- PI 579044. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3960; TVu 272; Grif 1880.
- PI 579045. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2855; TVu 274; Grif 1881.
- PI 579046. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2856; TVu 275; Grif 1882.
- PI 579047. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

- Cultivated. UCR 2857; TVu 277; Grif 1883.
- PI 579048. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2858; TVu 279; Grif 1884.
- PI 579049. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2859; TVu 280; Grif 1885.
- PI 579050. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2860; TVu 285; Grif 1887.
- PI 579051. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2861; TVu 286; Grif 1888.
- PI 579052. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2862; TVu 287; Grif 1889.
- PI 579053. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2863; TVu 288; Grif 1890.
- PI 579054. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2864; TVu 289; Grif 1891.
- PI 579055. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2865; TVu 291; Grif 1892.
- PI 579056. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2866; TVu 335; Grif 1893.
- PI 579057. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2867; TVu 336; Grif 1894.
- PI 579058. *Vigna unguiculata* **ssp. sesquipedalis** (L.) Verdc.  
Cultivated. UCR 2868; TVu 337; Grif 1895.
- PI 579059. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2869; TVu 338; Grif 1896.
- PI 579060. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3961; TVu 339; Grif 1897.
- PI 579061. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2870; TVu 346; Grif 1898.
- PI 579062. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 78; TVu 347; Grif 1899.
- PI 579063. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2871; TVu 348; Grif 1900.

PI 579064. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2872; TVu 349; Grif 1901.

PI 579065. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2873; TVu 350; Grif 1902.

PI 579066. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2874; TVu 351; Grif 1903.

PI 579067. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2875; TVu 352; Grif 1904.

PI 579068. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 79; TVu 354; Grif 1905; UCR 146.

PI 579069. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2876; TVu 355; Grif 1906.

PI 579070. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2877; TVu 356; Grif 1907.

PI 579071. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2878; TVu 357; Grif 1908.

PI 579072. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2879; TVu 358; Grif 1909.

PI 579073. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2880; TVu 359; Grif 1910.

PI 579074. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2881; TVu 360; Grif 1911.

PI 579075. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3962; TVu 361; Grif 1912.

PI 579076. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2882; TVu 362; Grif 1913.

PI 579077. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2883; TVu 363; Grif 1914.

PI 579078. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 2884; TVu 364; Grif 1915.

PI 579079. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

Cultivated. UCR 2885; TVu 365; Grif 1916.

PI 579080. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2886; TVu 367; Grif 1917.

PI 579081. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2887; TVu 369; Grif 1918.

PI 579082. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2888; TVu 370; Grif 1919.

PI 579083. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3963; TVu 371; Grif 1920.

PI 579084. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2889; TVu 372; Grif 1921.

PI 579085. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2890; TVu 373; Grif 1922.

PI 579086. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2891; TVu 374; Grif 1923.

PI 579087. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2892; TVu 375; Grif 1924.

PI 579088. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2893; TVu 377; Grif 1925.

PI 579089. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2894; TVu 378; Grif 1926.

PI 579090. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2895; TVu 381; Grif 1927.

PI 579091. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2896; TVu 384; Grif 1928.

PI 579092. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2897; TVu 385; Grif 1929.

PI 579093. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2898; TVu 392; Grif 1930.

PI 579094. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2899; TVu 393; Grif 1931.

PI 579095. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2900; TVu 395; Grif 1932.

PI 579096. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2901; TVu 396; Grif 1933.

PI 579097. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2902; TVu 397; Grif 1934.

PI 579098. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2903; TVu 398; Grif 1935.

PI 579099. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2904; TVu 399; Grif 1936.

PI 579100. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3964; TVu 400; Grif 1937.

PI 579101. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 80; TVu 401; Grif 1938.

PI 579102. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2905; TVu 402; Grif 1939.

PI 579103. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2906; TVu 403; Grif 1940.

PI 579104. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2907; TVu 405; Grif 1941.

PI 579105. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2908; TVu 406; Grif 1942.

PI 579106. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2909; TVu 407; Grif 1943.

PI 579107. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 408; Grif 1944.

PI 579108. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2910; TVu 409; Grif 1945.

PI 579109. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2911; TVu 413; Grif 1947.

PI 579110. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2912; TVu 417; Grif 1948.

PI 579111. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2913; TVu 419; Grif 1949.

PI 579112. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2914; TVu 421; Grif 1950.

PI 579113. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2915; TVu 423; Grif 1951.

PI 579114. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2916; TVu 424; Grif 1952.

PI 579115. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2917; TVu 426; Grif 1953.

PI 579116. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2918; TVu 427; Grif 1954.

PI 579117. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2919; TVu 428; Grif 1955.

PI 579118. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2920; TVu 429; Grif 1956.

PI 579119. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2921; TVu 430; Grif 1957.

PI 579120. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2922; TVu 431; Grif 1958.

PI 579121. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2923; TVu 432; Grif 1959.

PI 579122. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2924; TVu 440; Grif 1960.

PI 579123. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2925; TVu 441; Grif 1961.

PI 579124. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2926; TVu 442; Grif 1962.

PI 579125. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2927; TVu 445; Grif 1963.

PI 579126. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2928; TVu 453; Grif 1964.

PI 579127. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2929; TVu 455; Grif 1965.

PI 579128. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3965; TVu 456; Grif 1966.

PI 579129. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2930; TVu 459; Grif 1967.

PI 579130. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2931; TVu 460; Grif 1968.

PI 579131. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2932; TVu 462; Grif 1969.

PI 579132. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2933; TVu 464; Grif 1970.

PI 579133. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2934; TVu 465; Grif 1971.

PI 579134. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2935; TVu 467; Grif 1972.

PI 579135. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2936; TVu 468; Grif 1973.

PI 579136. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2937; TVu 469; Grif 1974.

PI 579137. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2938; TVu 470; Grif 1975.

PI 579138. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2939; TVu 472; Grif 1976.

PI 579139. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3966; TVu 473; Grif 1977.

PI 579140. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2940; TVu 474; Grif 1978.

PI 579141. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2941; TVu 475; Grif 1979.

PI 579142. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2942; TVu 477; Grif 1980.

PI 579143. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2943; TVu 478; Grif 1981.

PI 579144. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2944; TVu 479; Grif 1982.

PI 579145. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2945; TVu 480; Grif 1983.

PI 579146. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2946; TVu 481; Grif 1984.

PI 579147. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2947; TVu 482; Grif 1985.

PI 579148. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2948; TVu 483; Grif 1986.

PI 579149. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2949; TVu 484; Grif 1987.

PI 579150. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2950; TVu 485; Grif 1988.

PI 579151. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2951; TVu 486; Grif 1989.

PI 579152. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3967; TVu 487; Grif 1990.

PI 579153. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2952; TVu 488; Grif 1991.

PI 579154. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2953; TVu 489; Grif 1992.

PI 579155. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2954; TVu 490; Grif 1993.

PI 579156. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2955; TVu 492; Grif 1994.

PI 579157. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2956; TVu 493; Grif 1995.

PI 579158. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2957; TVu 495; Grif 1996.

PI 579159. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2958; TVu 496; Grif 1997.

PI 579160. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2959; TVu 497; Grif 1998.

PI 579161. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2960; TVu 500; Grif 1999.

PI 579162. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2961; TVu 501; Grif 2000.

PI 579163. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2962; TVu 502; Grif 2001.

PI 579164. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2963; TVu 503; Grif 2002.

PI 579165. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2964; TVu 504; Grif 2003.

PI 579166. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2965; TVu 505; Grif 2004.

PI 579167. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2966; TVu 506; Grif 2005.

PI 579168. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2967; TVu 507; Grif 2006.

PI 579169. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2968; TVu 508; Grif 2007.

PI 579170. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2969; TVu 510; Grif 2008.

PI 579171. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2970; TVu 511; Grif 2009.

PI 579172. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2971; TVu 513; Grif 2010.

PI 579173. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2972; TVu 514; Grif 2011.

PI 579174. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2973; TVu 516; Grif 2012.

PI 579175. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2974; TVu 517; Grif 2013.

PI 579176. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2975; TVu 518; Grif 2014.

PI 579177. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2976; TVu 519; Grif 2015.

PI 579178. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2977; TVu 522; Grif 2016.

PI 579179. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 523; Grif 2017.

PI 579180. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2979; TVu 524; Grif 2018.

PI 579181. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2980; TVu 525; Grif 2019.

PI 579182. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2981; TVu 527; Grif 2020.

PI 579183. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2982; TVu 530; Grif 2021.

PI 579184. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2983; TVu 531; Grif 2022.

PI 579185. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2984; TVu 537; Grif 2023.

PI 579186. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2985; TVu 538; Grif 2024.

PI 579187. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2986; TVu 539; Grif 2025.

PI 579188. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2987; TVu 543; Grif 2026.

PI 579189. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2988; TVu 544; Grif 2027.

PI 579190. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 2989; TVu 547; Grif 2028.

PI 579191. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 2990; TVu 551; Grif 2029.

PI 579192. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3968; TVu 564; Grif 2030.

PI 579193. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2991; TVu 729; Grif 2031.

PI 579194. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2992; TVu 730; Grif 2032.

PI 579195. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2993; TVu 731; Grif 2033.

PI 579196. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2994; TVu 732; Grif 2034.

PI 579197. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2995; TVu 733; Grif 2035.

PI 579198. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2996; TVu 734; Grif 2036.

PI 579199. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2997; TVu 735; Grif 2037.

PI 579200. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2998; TVu 740; Grif 2039.

PI 579201. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 2999; TVu 741; Grif 2040.

PI 579202. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3000; TVu 742; Grif 2041.

PI 579203. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3001; TVu 743; Grif 2042.

PI 579204. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3002; TVu 744; Grif 2043.

PI 579205. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3003; TVu 745; Grif 2044.

PI 579206. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3004; TVu 746; Grif 2045.

PI 579207. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*

Cultivated. UCR 3005; TVu 748; Grif 2046.

PI 579208. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3006; TVu 755; Grif 2047.

PI 579209. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3007; TVu 760; Grif 2048.

PI 579210. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3008; TVu 763; Grif 2049.

PI 579211. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3009; TVu 764; Grif 2050.

PI 579212. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3010; TVu 768; Grif 2051.

PI 579213. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3011; TVu 769; Grif 2052.

PI 579214. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3012; TVu 770; Grif 2053.

PI 579215. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3013; TVu 771; Grif 2054.

PI 579216. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3014; TVu 772; Grif 2055.

PI 579217. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3015; TVu 773; Grif 2056.

PI 579218. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3016; TVu 774; Grif 2057.

PI 579219. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3017; TVu 786; Grif 2058.

PI 579220. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3018; TVu 795; Grif 2059.

PI 579221. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3019; TVu 805; Grif 2060.

PI 579222. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3020; TVu 808; Grif 2061.

PI 579223. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3021; TVu 810; Grif 2062.

PI 579224. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3022; TVu 811; Grif 2063.

PI 579225. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3023; TVu 814; Grif 2064.

PI 579226. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3024; TVu 817; Grif 2065.

PI 579227. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3025; TVu 826; Grif 2066.

PI 579228. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3026; TVu 830; Grif 2067.

PI 579229. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3027; TVu 832; Grif 2068.

PI 579230. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3028; TVu 839; Grif 2069.

PI 579231. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3029; TVu 845; Grif 2070.

PI 579232. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3030; TVu 846; Grif 2071.

PI 579233. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3031; TVu 848; Grif 2072.

PI 579234. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3032; TVu 849; Grif 2073.

PI 579235. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3033; TVu 851; Grif 2074.

PI 579236. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3034; TVu 852; Grif 2075.

PI 579237. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3035; TVu 853; Grif 2076.

PI 579238. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3036; TVu 856; Grif 2077.

PI 579239. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 83; TVu 857; Grif 2078.
- PI 579240. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3037; TVu 858; Grif 2079.
- PI 579241. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3038; TVu 866; Grif 2080.
- PI 579242. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3039; TVu 867; Grif 2081.
- PI 579243. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3040; TVu 869; Grif 2082.
- PI 579244. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3041; TVu 875; Grif 2083.
- PI 579245. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3042; TVu 889; Grif 2084.
- PI 579246. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3043; TVu 907; Grif 2085.
- PI 579247. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3044; TVu 910; Grif 2086.
- PI 579248. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3045; TVu 911; Grif 2087.
- PI 579249. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3046; TVu 912; Grif 2088.
- PI 579250. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3047; TVu 919; Grif 2089.
- PI 579251. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3048; TVu 928; Grif 2090.
- PI 579252. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3049; TVu 932; Grif 2091.
- PI 579253. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3050; TVu 933; Grif 2092.
- PI 579254. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3051; TVu 937; Grif 2093.
- PI 579255. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3052; TVu 939; Grif 2094.

PI 579256. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3053; TVu 940; Grif 2095.

PI 579257. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3054; TVu 941; Grif 2096.

PI 579258. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3055; TVu 942; Grif 2097.

PI 579259. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3056; TVu 947; Grif 2098.

PI 579260. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3057; TVu 948; Grif 2099.

PI 579261. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3058; TVu 953; Grif 2100.

PI 579262. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3059; TVu 958; Grif 2101.

PI 579263. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3060; TVu 969; Grif 2102.

PI 579264. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3061; TVu 971; Grif 2103.

PI 579265. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3062; TVu 972; Grif 2104.

PI 579266. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3063; TVu 974; Grif 2105.

PI 579267. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3064; TVu 975; Grif 2106.

PI 579268. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 84; TVu 984; Grif 2107.

PI 579269. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3065; TVu 986; Grif 2108.

PI 579270. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3066; TVu 987; Grif 2109.

PI 579271. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3067; TVu 988; Grif 2110.

PI 579272. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3068; TVu 989; Grif 2111.

PI 579273. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3069; TVu 990; Grif 2112.

PI 579274. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3070; TVu 995; Grif 2113.

PI 579275. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3071; TVu 996; Grif 2114.

PI 579276. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3072; TVu 997; Grif 2115.

PI 579277. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3073; TVu 998; Grif 2116.

PI 579278. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3074; TVu 999; Grif 2117.

PI 579279. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 85; TVu 1000; Grif 2118.

PI 579280. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3075; TVu 1002; Grif 2119.

PI 579281. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3076; TVu 1003; Grif 2120.

PI 579282. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3077; TVu 1004; Grif 2121.

PI 579283. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3078; TVu 1005; Grif 2122.

PI 579284. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3079; TVu 1006; Grif 2123.

PI 579285. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3080; TVu 1007; Grif 2124.

PI 579286. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3081; TVu 1008; Grif 2125.

PI 579287. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3082; TVu 1010; Grif 2126.

PI 579288. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3083; TVu 1011; Grif 2127.

PI 579289. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3084; TVu 1012; Grif 2128.

PI 579290. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3085; TVu 1015; Grif 2129.

PI 579291. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 1016; Grif 2130.

PI 579292. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3086; TVu 1017; Grif 2131.

PI 579293. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3087; TVu 1018; Grif 2132.

PI 579294. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3088; TVu 1019; Grif 2133.

PI 579295. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3089; TVu 1020; Grif 2134.

PI 579296. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3090; TVu 1021; Grif 2135.

PI 579297. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3091; TVu 1022; Grif 2136.

PI 579298. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3092; TVu 1023; Grif 2137.

PI 579299. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3093; TVu 1025; Grif 2138.

PI 579300. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3094; TVu 1026; Grif 2139.

PI 579301. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3095; TVu 1029; Grif 2140.

PI 579302. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3096; TVu 1030; Grif 2141.

PI 579303. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3097; TVu 1031; Grif 2142.

PI 579304. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3098; TVu 1032; Grif 2143.

PI 579305. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3099; TVu 1034; Grif 2145.

PI 579306. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3100; TVu 1036; Grif 2146.

PI 579307. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3101; TVu 1037; Grif 2147.

PI 579308. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3102; TVu 1038; Grif 2148.

PI 579309. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3103; TVu 1039; Grif 2149.

PI 579310. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3104; TVu 1040; Grif 2150.

PI 579311. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3105; TVu 1041; Grif 2151.

PI 579312. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3106; TVu 1042; Grif 2152.

PI 579313. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3107; TVu 1044; Grif 2154.

PI 579314. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3108; TVu 1045; Grif 2155.

PI 579315. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3109; TVu 1047; Grif 2156.

PI 579316. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3110; TVu 1048; Grif 2157.

PI 579317. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3111; TVu 1050; Grif 2158.

PI 579318. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3112; TVu 1051; Grif 2159.

PI 579319. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 3113; TVu 1053; Grif 2161.
- PI 579320. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3114; TVu 1057; Grif 2162.
- PI 579321. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3115; TVu 1058; Grif 2163.
- PI 579322. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3116; TVu 1059; Grif 2164.
- PI 579323. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3117; TVu 1060; Grif 2165.
- PI 579324. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3118; TVu 1061; Grif 2166.
- PI 579325. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3119; TVu 1062; Grif 2167.
- PI 579326. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3120; TVu 1063; Grif 2168.
- PI 579327. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3121; TVu 1064; Grif 2169.
- PI 579328. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3122; TVu 1067; Grif 2170.
- PI 579329. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3123; TVu 1068; Grif 2171.
- PI 579330. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3124; TVu 1069; Grif 2172.
- PI 579331. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3125; TVu 1070; Grif 2173.
- PI 579332. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3126; TVu 1071; Grif 2174.
- PI 579333. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3127; TVu 1074; Grif 2175.
- PI 579334. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3128; TVu 1076; Grif 2176.
- PI 579335. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3129; TVu 1077; Grif 2177.

PI 579336. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3130; TVu 1078; Grif 2178.

PI 579337. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3131; TVu 1079; Grif 2179.

PI 579338. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3132; TVu 1081; Grif 2180.

PI 579339. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3133; TVu 1083; Grif 2181.

PI 579340. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3134; TVu 1084; Grif 2182.

PI 579341. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3135; TVu 1085; Grif 2183.

PI 579342. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3136; TVu 1086; Grif 2184.

PI 579343. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3137; TVu 1087; Grif 2185.

PI 579344. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 175; TVu 1089; Grif 2186; UCR 1346.

PI 579345. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3138; TVu 1090; Grif 2187.

PI 579346. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3139; TVu 1091; Grif 2188.

PI 579347. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3140; TVu 1092; Grif 2189.

PI 579348. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3141; TVu 1111; Grif 2190.

PI 579349. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3142; TVu 1113; Grif 2191.

PI 579350. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3143; TVu 1117; Grif 2192.

PI 579351. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3144; TVu 1121; Grif 2193.

PI 579352. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3145; TVu 1123; Grif 2194.

PI 579353. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3146; TVu 1130; Grif 2195.

PI 579354. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3147; TVu 1131; Grif 2196.

PI 579355. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3148; TVu 1135; Grif 2197.

PI 579356. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3972; TVu 1136; Grif 2198.

PI 579357. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3149; TVu 1137; Grif 2199.

PI 579358. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3150; TVu 1138; Grif 2200.

PI 579359. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3151; TVu 1139; Grif 2201.

PI 579360. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3152; TVu 1140; Grif 2202.

PI 579361. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3153; TVu 1141; Grif 2203.

PI 579362. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3154; TVu 1142; Grif 2204.

PI 579363. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3155; TVu 1143; Grif 2205.

PI 579364. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3156; TVu 1145; Grif 2206.

PI 579365. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3157; TVu 1148; Grif 2207.

PI 579366. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3158; TVu 1149; Grif 2208.

PI 579367. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3159; TVu 1151; Grif 2209.

PI 579368. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3160; TVu 1154; Grif 2210.

PI 579369. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3161; TVu 1158; Grif 2211.

PI 579370. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3162; TVu 1159; Grif 2212.

PI 579371. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3163; TVu 1160; Grif 2213.

PI 579372. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3164; TVu 1161; Grif 2214.

PI 579373. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3165; TVu 1163; Grif 2215.

PI 579374. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3166; TVu 1164; Grif 2216.

PI 579375. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3167; TVu 1165; Grif 2217.

PI 579376. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3168; TVu 1169; Grif 2218.

PI 579377. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3169; TVu 1170; Grif 2219.

PI 579378. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3170; TVu 1172; Grif 2221.

PI 579379. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3171; TVu 1173; Grif 2222.

PI 579380. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3172; TVu 1175; Grif 2223.

PI 579381. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3173; TVu 1176; Grif 2224.

PI 579382. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3174; TVu 1177; Grif 2225.

PI 579383. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 3175; TVu 1178; Grif 2226.
- PI 579384. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3176; TVu 1179; Grif 2227.
- PI 579385. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3177; TVu 1180; Grif 2228.
- PI 579386. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3178; TVu 1181; Grif 2229.
- PI 579387. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3179; TVu 1182; Grif 2230.
- PI 579388. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3180; TVu 1183; Grif 2231.
- PI 579389. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3181; TVu 1184; Grif 2232.
- PI 579390. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3182; TVu 1185; Grif 2233.
- PI 579391. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3183; TVu 1186; Grif 2234.
- PI 579392. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3184; TVu 1187; Grif 2235.
- PI 579393. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3185; TVu 1189; Grif 2236.
- PI 579394. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3186; TVu 1190; Grif 2237.
- PI 579395. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3187; TVu 1192; Grif 2238.
- PI 579396. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3188; TVu 1193; Grif 2239.
- PI 579397. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3189; TVu 1195; Grif 2240.
- PI 579398. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3190; TVu 1197; Grif 2241.
- PI 579399. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3191; TVu 1198; Grif 2242.

PI 579400. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3192; TVu 1199; Grif 2243.

PI 579401. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3193; TVu 1201; Grif 2244.

PI 579402. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3194; TVu 1202; Grif 2245.

PI 579403. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3195; TVu 1203; Grif 2246.

PI 579404. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3196; TVu 1204; Grif 2247.

PI 579405. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3973; TVu 1206; Grif 2248.

PI 579406. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3197; TVu 1207; Grif 2249.

PI 579407. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3198; TVu 1210; Grif 2250.

PI 579408. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3199; TVu 1211; Grif 2251.

PI 579409. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3200; TVu 1212; Grif 2252.

PI 579410. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3201; TVu 1213; Grif 2253.

PI 579411. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3202; TVu 1214; Grif 2254.

PI 579412. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3203; TVu 1215; Grif 2255.

PI 579413. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3204; TVu 1216; Grif 2256.

PI 579414. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3205; TVu 1217; Grif 2257.

PI 579415. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 3206; TVu 1218; Grif 2258.
- PI 579416. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 127; TVu 1219; Grif 2259; UCR 3207.
- PI 579417. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3208; TVu 1220; Grif 2260.
- PI 579418. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3209; TVu 1221; Grif 2261.
- PI 579419. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3210; TVu 1222; Grif 2262.
- PI 579420. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3211; TVu 1223; Grif 2263.
- PI 579421. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3212; TVu 1224; Grif 2264.
- PI 579422. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3213; TVu 1225; Grif 2265.
- PI 579423. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3214; TVu 1226; Grif 2266.
- PI 579424. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3215; TVu 1227; Grif 2267.
- PI 579425. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3216; TVu 1228; Grif 2268.
- PI 579426. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3217; TVu 1229; Grif 2269.
- PI 579427. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3218; TVu 1230; Grif 2270.
- PI 579428. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3219; TVu 1231; Grif 2271.
- PI 579429. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3220; TVu 1232; Grif 2272.
- PI 579430. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3221; TVu 1233; Grif 2273.
- PI 579431. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3222; TVu 1234; Grif 2274.

PI 579432. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3223; TVu 1235; Grif 2275.

PI 579433. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3224; TVu 1236; Grif 2276.

PI 579434. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3225; TVu 1237; Grif 2277.

PI 579435. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3226; TVu 1238; Grif 2278.

PI 579436. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3227; TVu 1239; Grif 2279.

PI 579437. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3228; TVu 1240; Grif 2280.

PI 579438. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3229; TVu 1241; Grif 2281.

PI 579439. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3230; TVu 1242; Grif 2282.

PI 579440. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3231; TVu 1245; Grif 2283.

PI 579441. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3232; TVu 1246; Grif 2284.

PI 579442. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3233; TVu 1247; Grif 2285.

PI 579443. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3234; TVu 1250; Grif 2286.

PI 579444. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3235; TVu 1251; Grif 2287.

PI 579445. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3236; TVu 1253; Grif 2288.

PI 579446. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3237; TVu 1254; Grif 2289.

PI 579447. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3238; TVu 1255; Grif 2290.

PI 579448. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3239; TVu 1256; Grif 2291.

PI 579449. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3240; TVu 1257; Grif 2292.

PI 579450. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3241; TVu 1259; Grif 2293.

PI 579451. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3242; TVu 1260; Grif 2294.

PI 579452. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3243; TVu 1261; Grif 2295.

PI 579453. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3244; TVu 1262; Grif 2296.

PI 579454. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3245; TVu 1264; Grif 2297.

PI 579455. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3246; TVu 1265; Grif 2298.

PI 579456. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3247; TVu 1266; Grif 2299.

PI 579457. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3248; TVu 1267; Grif 2300.

PI 579458. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3249; TVu 1268; Grif 2301.

PI 579459. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3250; TVu 1269; Grif 2302.

PI 579460. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3251; TVu 1271; Grif 2303.

PI 579461. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3252; TVu 1272; Grif 2304.

PI 579462. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3253; TVu 1273; Grif 2305.

PI 579463. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3254; TVu 1274; Grif 2306.

PI 579464. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3255; TVu 1275; Grif 2307.

PI 579465. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3256; TVu 1276; Grif 2308.

PI 579466. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3257; TVu 1277; Grif 2309.

PI 579467. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3259; TVu 1280; Grif 2311.

PI 579468. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3260; TVu 1281; Grif 2312.

PI 579469. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3261; TVu 1282; Grif 2313.

PI 579470. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3262; TVu 1283; Grif 2314.

PI 579471. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3263; TVu 1295; Grif 2315.

PI 579472. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3264; TVu 1296; Grif 2316.

PI 579473. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3265; TVu 1299; Grif 2317.

PI 579474. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3266; TVu 1300; Grif 2318.

PI 579475. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3267; TVu 1302; Grif 2319.

PI 579476. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3268; TVu 1303; Grif 2320.

PI 579477. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3269; TVu 1305; Grif 2321.

PI 579478. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3270; TVu 1328; Grif 2322.

PI 579479. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3271; TVu 1330; Grif 2323.

PI 579480. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3272; TVu 1332; Grif 2324.

PI 579481. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3273; TVu 1334; Grif 2325.

PI 579482. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3274; TVu 1335; Grif 2326.

PI 579483. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3275; TVu 1338; Grif 2327.

PI 579484. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3276; TVu 1339; Grif 2328.

PI 579485. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3277; TVu 1340; Grif 2329.

PI 579486. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3278; TVu 1341; Grif 2330.

PI 579487. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3279; TVu 1342; Grif 2331.

PI 579488. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3280; TVu 1343; Grif 2332.

PI 579489. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3281; TVu 1345; Grif 2333.

PI 579490. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3282; TVu 1346; Grif 2334.

PI 579491. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3283; TVu 1347; Grif 2335.

PI 579492. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3388; TVu 1348; Grif 2336.

PI 579493. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3389; TVu 1350; Grif 2337.

PI 579494. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3390; TVu 1351; Grif 2338.

PI 579495. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3391; TVu 1353; Grif 2339.

PI 579496. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3392; TVu 1355; Grif 2340.

PI 579497. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3393; TVu 1361; Grif 2341.

PI 579498. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3394; TVu 1362; Grif 2342.

PI 579499. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3395; TVu 1365; Grif 2343.

PI 579500. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3396; TVu 1366; Grif 2344.

PI 579501. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3975; TVu 1373; Grif 2346.

PI 579502. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3976; TVu 1378; Grif 2347.

PI 579503. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3977; TVu 1383; Grif 2348.

PI 579504. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3978; TVu 1385; Grif 2349.

PI 579505. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3979; TVu 1387; Grif 2351.

PI 579506. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3980; TVu 1389; Grif 2352.

PI 579507. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3981; TVu 1390; Grif 2353.

PI 579508. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3982; TVu 1391; Grif 2354.

PI 579509. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3983; TVu 1392; Grif 2355.

PI 579510. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3984; TVu 1395; Grif 2356.

PI 579511. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3985; TVu 1397; Grif 2357.

PI 579512. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3986; TVu 1398; Grif 2358.

PI 579513. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3987; TVu 1399; Grif 2359.

PI 579514. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3988; TVu 1400; Grif 2360.

PI 579515. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3989; TVu 1403; Grif 2361.

PI 579516. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3990; TVu 1407; Grif 2362.

PI 579517. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3991; TVu 1408; Grif 2363.

PI 579518. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3397; TVu 1410; Grif 2364.

PI 579519. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3992; TVu 1412; Grif 2365.

PI 579520. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3993; TVu 1414; Grif 2366.

PI 579521. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3994; TVu 1416; Grif 2367.

PI 579522. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3995; TVu 1417; Grif 2368.

PI 579523. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3997; TVu 1419; Grif 2370.

PI 579524. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3998; TVu 1423; Grif 2371.

PI 579525. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3999; TVu 1426; Grif 2372.

PI 579526. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4000; TVu 1429; Grif 2373.

PI 579527. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4001; TVu 1431; Grif 2374.

PI 579528. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4002; TVu 1432; Grif 2375.

PI 579529. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4003; TVu 1434; Grif 2376.

PI 579530. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4004; TVu 1435; Grif 2377.

PI 579531. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4005; TVu 1436; Grif 2378.

PI 579532. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4006; TVu 1438; Grif 2379.

PI 579533. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4007; TVu 1439; Grif 2380.

PI 579534. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4008; TVu 1440; Grif 2381.

PI 579535. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4009; TVu 1441; Grif 2382.

PI 579536. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4010; TVu 1443; Grif 2383.

PI 579537. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4011; TVu 1444; Grif 2384.

PI 579538. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4012; TVu 1445; Grif 2385.

PI 579539. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4013; TVu 1446; Grif 2386.

PI 579540. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4014; TVu 1447; Grif 2387.

PI 579541. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3398; TVu 1450; Grif 2388.

PI 579542. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3399; TVu 1451; Grif 2389.

PI 579543. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4015; TVu 1452; Grif 2390.

PI 579544. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4016; TVu 1454; Grif 2391.

PI 579545. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4017; TVu 1457; Grif 2392.

PI 579546. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4019; TVu 1459; Grif 2394.

PI 579547. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4020; TVu 1460; Grif 2395.

PI 579548. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4021; TVu 1461; Grif 2396.

PI 579549. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4022; TVu 1462; Grif 2397.

PI 579550. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4023; TVu 1464; Grif 2398.

PI 579551. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4024; TVu 1465; Grif 2399.

PI 579552. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3400; TVu 1466; Grif 2400.

PI 579553. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3401; TVu 1469; Grif 2401.

PI 579554. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3402; TVu 1472; Grif 2402.

PI 579555. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3403; TVu 1473; Grif 2403.

PI 579556. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3404; TVu 1475; Grif 2404.

PI 579557. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3405; TVu 1476; Grif 2405.

PI 579558. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3406; TVu 1477; Grif 2406.

PI 579559. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

Cultivated. UCR 3407; TVu 1478; Grif 2407.

PI 579560. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3408; TVu 1479; Grif 2408.

PI 579561. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3409; TVu 1482; Grif 2409.

PI 579562. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3410; TVu 1483; Grif 2410.

PI 579563. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3411; TVu 1485; Grif 2411.

PI 579564. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3412; TVu 1487; Grif 2412.

PI 579565. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3413; TVu 1488; Grif 2413.

PI 579566. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3414; TVu 1494; Grif 2414.

PI 579567. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3415; TVu 1495; Grif 2415.

PI 579568. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3416; TVu 1496; Grif 2416.

PI 579569. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3417; TVu 1504; Grif 2417.

PI 579570. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3418; TVu 1506; Grif 2418.

PI 579571. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3419; TVu 1507; Grif 2419.

PI 579572. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3420; TVu 1508; Grif 2420.

PI 579573. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3421; TVu 1512; Grif 2421.

PI 579574. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3422; TVu 1513; Grif 2422.

PI 579575. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3423; TVu 1514; Grif 2423.

PI 579576. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3424; TVu 1518; Grif 2424.

PI 579577. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3425; TVu 1519; Grif 2425.

PI 579578. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4025; TVu 1520; Grif 2426.

PI 579579. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4026; TVu 1522; Grif 2427.

PI 579580. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3426; TVu 1523; Grif 2428.

PI 579581. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3427; TVu 1524; Grif 2429.

PI 579582. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4027; TVu 1527; Grif 2430.

PI 579583. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4028; TVu 1529; Grif 2431.

PI 579584. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4029; TVu 1530; Grif 2432.

PI 579585. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4030; TVu 1531; Grif 2433.

PI 579586. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4031; TVu 1532; Grif 2434.

PI 579587. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4032; TVu 1533; Grif 2435.

PI 579588. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4033; TVu 1534; Grif 2436.

PI 579589. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4034; TVu 1536; Grif 2437.

PI 579590. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4036; TVu 1538; Grif 2439.

PI 579591. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4037; TVu 1539; Grif 2440.

PI 579592. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3428; TVu 1542; Grif 2442.

PI 579593. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3429; TVu 1543; Grif 2443.

PI 579594. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4039; TVu 1544; Grif 2444.

PI 579595. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4040; TVu 1545; Grif 2445.

PI 579596. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3430; TVu 1546; Grif 2446.

PI 579597. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4041; TVu 1548; Grif 2447.

PI 579598. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4042; TVu 1549; Grif 2448.

PI 579599. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4043; TVu 1550; Grif 2449.

PI 579600. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4044; TVu 1551; Grif 2450.

PI 579601. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4045; TVu 1552; Grif 2451.

PI 579602. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4046; TVu 1553; Grif 2452.

PI 579603. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4047; TVu 1554; Grif 2453.

PI 579604. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4048; TVu 1557; Grif 2454.

PI 579605. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3431; TVu 1558; Grif 2455.

PI 579606. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3432; TVu 1559; Grif 2456.

PI 579607. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3433; TVu 1560; Grif 2457.

PI 579608. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3434; TVu 1561; Grif 2458.

PI 579609. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3435; TVu 1562; Grif 2459.

PI 579610. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3436; TVu 1563; Grif 2460.

PI 579611. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3437; TVu 1564; Grif 2461.

PI 579612. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3438; TVu 1565; Grif 2462.

PI 579613. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3439; TVu 1566; Grif 2463.

PI 579614. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3440; TVu 1568; Grif 2464.

PI 579615. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4049; TVu 1569; Grif 2465.

PI 579616. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3441; TVu 1572; Grif 2466.

PI 579617. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3442; TVu 1573; Grif 2467.

PI 579618. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3443; TVu 1574; Grif 2468.

PI 579619. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3444; TVu 1575; Grif 2469.

PI 579620. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4050; TVu 1576; Grif 2470.

PI 579621. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4051; TVu 1578; Grif 2471.

PI 579622. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4052; TVu 1600; Grif 2472.

PI 579623. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3445; TVu 1601; Grif 2473.

PI 579624. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3446; TVu 1602; Grif 2474.

PI 579625. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3447; TVu 1606; Grif 2475.

PI 579626. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3448; TVu 1607; Grif 2476.

PI 579627. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3449; TVu 1609; Grif 2477.

PI 579628. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3450; TVu 1610; Grif 2478.

PI 579629. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3451; TVu 1611; Grif 2479.

PI 579630. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3452; TVu 1612; Grif 2480.

PI 579631. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3454; TVu 1615; Grif 2482.

PI 579632. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3455; TVu 1616; Grif 2483.

PI 579633. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3456; TVu 1618; Grif 2484.

PI 579634. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3457; TVu 1619; Grif 2485.

PI 579635. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3458; TVu 1621; Grif 2486.

PI 579636. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3459; TVu 1622; Grif 2487.

PI 579637. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3460; TVu 1623; Grif 2488.

PI 579638. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3461; TVu 1624; Grif 2489.

PI 579639. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3462; TVu 1625; Grif 2490.

PI 579640. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3463; TVu 1627; Grif 2491.

PI 579641. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3464; TVu 1629; Grif 2493.

PI 579642. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3465; TVu 1631; Grif 2494.

PI 579643. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3466; TVu 1633; Grif 2495.

PI 579644. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4054; TVu 1634; Grif 2496.

PI 579645. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4055; TVu 1637; Grif 2497.

PI 579646. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4056; TVu 1638; Grif 2498.

PI 579647. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4057; TVu 1639; Grif 2499.

PI 579648. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4058; TVu 1641; Grif 2500.

PI 579649. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3467; TVu 1642; Grif 2501.

PI 579650. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3468; TVu 1643; Grif 2502.

PI 579651. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4060; TVu 1645; Grif 2504.

PI 579652. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4061; TVu 1648; Grif 2505.

PI 579653. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4063; TVu 1650; Grif 2507.

PI 579654. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3469; TVu 1653; Grif 2509.

PI 579655. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4067; TVu 1658; Grif 2512.

PI 579656. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3470; TVu 1659; Grif 2513.

PI 579657. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3471; TVu 1660; Grif 2514.

PI 579658. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3472; TVu 1661; Grif 2515.

PI 579659. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3473; TVu 1663; Grif 2516.

PI 579660. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4069; TVu 1665; Grif 2518.

PI 579661. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4070; TVu 1666; Grif 2519.

PI 579662. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3474; TVu 1669; Grif 2520.

PI 579663. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3475; TVu 1671; Grif 2521.

PI 579664. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3476; TVu 1672; Grif 2522.

PI 579665. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3477; TVu 1673; Grif 2523.

PI 579666. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3478; TVu 1677; Grif 2524.

PI 579667. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3479; TVu 1680; Grif 2525.

PI 579668. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3480; TVu 1681; Grif 2526.

PI 579669. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3481; TVu 1687; Grif 2527.

PI 579670. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4071; TVu 1689; Grif 2528.

PI 579671. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

Cultivated. UCR 4072; TVu 1690; Grif 2529.

PI 579672. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4073; TVu 1691; Grif 2530.

PI 579673. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4074; TVu 1692; Grif 2531.

PI 579674. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3482; TVu 1694; Grif 2532.

PI 579675. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4075; TVu 1695; Grif 2533.

PI 579676. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3483; TVu 1698; Grif 2534.

PI 579677. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4076; TVu 1702; Grif 2535.

PI 579678. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4077; TVu 1704; Grif 2536.

PI 579679. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3484; TVu 1706; Grif 2537.

PI 579680. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3485; TVu 1709; Grif 2539.

PI 579681. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3486; TVu 1710; Grif 2540.

PI 579682. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3487; TVu 1711; Grif 2541.

PI 579683. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3488; TVu 1715; Grif 2542.

PI 579684. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3489; TVu 1720; Grif 2543.

PI 579685. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3490; TVu 1727; Grif 2544.

PI 579686. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3491; TVu 1728; Grif 2545.

PI 579687. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4080; TVu 1734; Grif 2548.

PI 579688. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3492; TVu 1736; Grif 2549.

PI 579689. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3493; TVu 1737; Grif 2550.

PI 579690. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3494; TVu 1743; Grif 2551.

PI 579691. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3495; TVu 1744; Grif 2552.

PI 579692. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3496; TVu 1754; Grif 2553.

PI 579693. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3497; TVu 1758; Grif 2554.

PI 579694. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3498; TVu 1760; Grif 2555.

PI 579695. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3499; TVu 1761; Grif 2556.

PI 579696. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4082; TVu 1765; Grif 2558.

PI 579697. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4083; TVu 1769; Grif 2559.

PI 579698. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3500; TVu 1770; Grif 2560.

PI 579699. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4084; TVu 1771; Grif 2561.

PI 579700. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3501; TVu 1772; Grif 2562.

PI 579701. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3502; TVu 1775; Grif 2563.

PI 579702. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3503; TVu 1776; Grif 2564.

PI 579703. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 3504; TVu 1778; Grif 2565.
- PI 579704. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4085; TVu 1779; Grif 2566.
- PI 579705. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4086; TVu 1782; Grif 2567.
- PI 579706. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4087; TVu 1785; Grif 2568.
- PI 579707. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3505; TVu 1787; Grif 2569.
- PI 579708. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3506; TVu 1788; Grif 2570.
- PI 579709. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3507; TVu 1790; Grif 2571.
- PI 579710. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3508; TVu 1792; Grif 2572.
- PI 579711. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3509; TVu 1793; Grif 2573.
- PI 579712. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3510; TVu 1794; Grif 2574.
- PI 579713. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3511; TVu 1795; Grif 2575.
- PI 579714. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3512; TVu 1796; Grif 2576.
- PI 579715. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3513; TVu 1797; Grif 2577.
- PI 579716. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3514; TVu 1798; Grif 2578.
- PI 579717. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4088; TVu 1801; Grif 2579.
- PI 579718. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4089; TVu 1802; Grif 2580.
- PI 579719. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4090; TVu 1803; Grif 2581.

PI 579720. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4091; TVu 1804; Grif 2582.

PI 579721. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4092; TVu 1805; Grif 2583.

PI 579722. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4093; TVu 1809; Grif 2584.

PI 579723. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4094; TVu 1810; Grif 2585.

PI 579724. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3515; TVu 1815; Grif 2586.

PI 579725. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4095; TVu 1816; Grif 2587.

PI 579726. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4097; TVu 1818; Grif 2589.

PI 579727. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4098; TVu 1819; Grif 2590.

PI 579728. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4099; TVu 1820; Grif 2591.

PI 579729. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3516; TVu 1828; Grif 2592.

PI 579730. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 1829; Grif 2593; UCR 4100.

PI 579731. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 1830; Grif 2594; UCR 4101.

PI 579732. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4103; TVu 1832; Grif 2596.

PI 579733. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4104; TVu 1833; Grif 2597.

PI 579734. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4105; TVu 1835; Grif 2598.

PI 579735. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3517; TVu 1836; Grif 2599.

PI 579736. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3518; TVu 1838; Grif 2600.

PI 579737. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3519; TVu 1839; Grif 2601.

PI 579738. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3520; TVu 1841; Grif 2602.

PI 579739. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3521; TVu 1842; Grif 2603.

PI 579740. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3522; TVu 1843; Grif 2604.

PI 579741. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3523; TVu 1846; Grif 2607.

PI 579742. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3525; TVu 1848; Grif 2609.

PI 579743. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3526; TVu 1853; Grif 2610.

PI 579744. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3527; TVu 1854; Grif 2611.

PI 579745. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3528; TVu 1856; Grif 2612.

PI 579746. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4108; TVu 1863; Grif 2613.

PI 579747. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 4109; TVu 1864; Grif 2614.

PI 579748. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3529; TVu 1872; Grif 2615.

PI 579749. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3530; TVu 1873; Grif 2616.

PI 579750. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*  
Cultivated. UCR 3531; TVu 1874; Grif 2617.

PI 579751. *Vigna unguiculata* (L.) Walp. ssp. *unguiculata*

- Cultivated. UCR 3532; TVu 1875; Grif 2618.
- PI 579752. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4110; TVu 1878; Grif 2620.
- PI 579753. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4111; TVu 1881; Grif 2621.
- PI 579754. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4112; TVu 1884; Grif 2622.
- PI 579755. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4113; TVu 1885; Grif 2623.
- PI 579756. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4114; TVu 1888; Grif 2624.
- PI 579757. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4115; TVu 1891; Grif 2625.
- PI 579758. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3533; TVu 1895; Grif 2626.
- PI 579759. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3534; TVu 1896; Grif 2627.
- PI 579760. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3538; TVu 1902; Grif 2633.
- PI 579761. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3539; TVu 1903; Grif 2634.
- PI 579762. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3540; TVu 1904; Grif 2635.
- PI 579763. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3541; TVu 1905; Grif 2636.
- PI 579764. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3542; TVu 1906; Grif 2637.
- PI 579765. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3543; TVu 1907; Grif 2638.
- PI 579766. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4118; TVu 1908; Grif 2639.
- PI 579767. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4119; TVu 1911; Grif 2640.

PI 579768. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4120; TVu 1913; Grif 2641.

PI 579769. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4121; TVu 1915; Grif 2642.

PI 579770. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4122; TVu 1916; Grif 2643.

PI 579771. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3544; TVu 1920; Grif 2644.

PI 579772. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3545; TVu 1921; Grif 2645.

PI 579773. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3546; TVu 1922; Grif 2646.

PI 579774. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4123; TVu 1924; Grif 2647.

PI 579775. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4124; TVu 1930; Grif 2648.

PI 579776. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4125; TVu 1931; Grif 2649.

PI 579777. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4126; TVu 1933; Grif 2650.

PI 579778. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3547; TVu 1934; Grif 2651.

PI 579779. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4127; TVu 1937; Grif 2652.

PI 579780. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3548; TVu 1938; Grif 2653.

PI 579781. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3549; TVu 1939; Grif 2654.

PI 579782. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4128; TVu 1940; Grif 2655.

PI 579783. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4129; TVu 1941; Grif 2656.

PI 579784. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3550; TVu 1942; Grif 2657.

PI 579785. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3551; TVu 1943; Grif 2658.

PI 579786. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4130; TVu 1944; Grif 2659.

PI 579787. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3552; TVu 1945; Grif 2660.

PI 579788. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3553; TVu 1946; Grif 2661.

PI 579789. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4131; TVu 1947; Grif 2662.

PI 579790. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4132; TVu 1948; Grif 2663.

PI 579791. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4133; TVu 1953; Grif 2664.

PI 579792. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3554; TVu 1954; Grif 2665.

PI 579793. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3555; TVu 1955; Grif 2666.

PI 579794. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4134; TVu 1956; Grif 2667.

PI 579795. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4135; TVu 1958; Grif 2668.

PI 579796. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4136; TVu 1959; Grif 2669.

PI 579797. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4137; TVu 1960; Grif 2670.

PI 579798. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3556; TVu 1961; Grif 2671.

PI 579799. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3557; TVu 1962; Grif 2672.

PI 579800. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3558; TVu 1963; Grif 2673.

PI 579801. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3559; TVu 1964; Grif 2674.

PI 579802. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3560; TVu 1967; Grif 2675.

PI 579803. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4138; TVu 1969; Grif 2676.

PI 579804. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3561; TVu 1971; Grif 2677.

PI 579805. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4139; TVu 1972; Grif 2678.

PI 579806. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4140; TVu 1973; Grif 2679.

PI 579807. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4141; TVu 1975; Grif 2680.

PI 579808. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4142; TVu 1978; Grif 2682.

PI 579809. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4143; TVu 1979; Grif 2683.

PI 579810. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4144; TVu 1980; Grif 2684.

PI 579811. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4145; TVu 1981; Grif 2685.

PI 579812. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4146; TVu 1982; Grif 2686.

PI 579813. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4147; TVu 1983; Grif 2687.

PI 579814. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3562; TVu 1984; Grif 2688.

PI 579815. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3563; TVu 1985; Grif 2689.

PI 579816. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3564; TVu 1986; Grif 2690.

PI 579817. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3565; TVu 1991; Grif 2691.

PI 579818. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3566; TVu 1992; Grif 2692.

PI 579819. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4148; TVu 1998; Grif 2693.

PI 579820. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4149; TVu 1999; Grif 2694.

PI 579821. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3567; TVu 2000; Grif 2695.

PI 579822. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4151; TVu 2003; Grif 2698.

PI 579823. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4152; TVu 2004; Grif 2699.

PI 579824. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4153; TVu 2005; Grif 2700.

PI 579825. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4154; TVu 2007; Grif 2701.

PI 579826. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4156; TVu 2011; Grif 2703.

PI 579827. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4157; TVu 2012; Grif 2704.

PI 579828. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4158; TVu 2013; Grif 2705.

PI 579829. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4159; TVu 2018; Grif 2706.

PI 579830. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3569; TVu 2024; Grif 2707.

PI 579831. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3570; TVu 2025; Grif 2708.

PI 579832. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3571; TVu 2034; Grif 2709.

PI 579833. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3572; TVu 2037; Grif 2710.

PI 579834. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3573; TVu 2038; Grif 2711.

PI 579835. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4160; TVu 2041; Grif 2712.

PI 579836. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3574; TVu 2044; Grif 2713.

PI 579837. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3575; TVu 2046; Grif 2714.

PI 579838. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3576; TVu 2047; Grif 2715.

PI 579839. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3577; TVu 2048; Grif 2716.

PI 579840. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4161; TVu 2051; Grif 2717.

PI 579841. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3578; TVu 2054; Grif 2718.

PI 579842. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4162; TVu 2055; Grif 2719.

PI 579843. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4163; TVu 2062; Grif 2720.

PI 579844. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3579; TVu 2063; Grif 2721.

PI 579845. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3580; TVu 2064; Grif 2722.

PI 579846. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4164; TVu 2068; Grif 2723.

PI 579847. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3581; TVu 2071; Grif 2724.

PI 579848. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3582; TVu 2072; Grif 2725.

PI 579849. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3583; TVu 2075; Grif 2726.

PI 579850. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3584; TVu 2076; Grif 2727.

PI 579851. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3585; TVu 2078; Grif 2728.

PI 579852. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3586; TVu 2080; Grif 2729.

PI 579853. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4165; TVu 2082; Grif 2730.

PI 579854. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3587; TVu 2083; Grif 2731.

PI 579855. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3588; TVu 2084; Grif 2732.

PI 579856. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3589; TVu 2085; Grif 2733.

PI 579857. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3590; TVu 2086; Grif 2734.

PI 579858. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3591; TVu 2090; Grif 2735.

PI 579859. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3592; TVu 2091; Grif 2736.

PI 579860. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3593; TVu 2092; Grif 2737.

PI 579861. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3594; TVu 2094; Grif 2738.

PI 579862. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3595; TVu 2095; Grif 2739.

PI 579863. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3596; TVu 2096; Grif 2740.

PI 579864. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3597; TVu 2100; Grif 2741.

PI 579865. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3598; TVu 2101; Grif 2742.

PI 579866. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4166; TVu 2102; Grif 2743.

PI 579867. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3599; TVu 2103; Grif 2744.

PI 579868. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3600; TVu 2104; Grif 2745.

PI 579869. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3601; TVu 2105; Grif 2746.

PI 579870. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4167; TVu 2106; Grif 2747.

PI 579871. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3602; TVu 2110; Grif 2748.

PI 579872. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3603; TVu 2114; Grif 2749.

PI 579873. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3604; TVu 2115; Grif 2750.

PI 579874. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3605; TVu 2116; Grif 2751.

PI 579875. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4168; TVu 2118; Grif 2752.

PI 579876. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3606; TVu 2119; Grif 2753.

PI 579877. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3607; TVu 2121; Grif 2754.

PI 579878. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3608; TVu 2122; Grif 2755.

PI 579879. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4169; TVu 2124; Grif 2756.

PI 579880. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3609; TVu 2126; Grif 2757.

PI 579881. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4170; TVu 2127; Grif 2758.

PI 579882. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3610; TVu 2128; Grif 2759.

PI 579883. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3611; TVu 2130; Grif 2760.

PI 579884. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3612; TVu 2131; Grif 2761.

PI 579885. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4171; TVu 2132; Grif 2762.

PI 579886. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3613; TVu 2133; Grif 2763.

PI 579887. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4172; TVu 2135; Grif 2764.

PI 579888. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3614; TVu 2136; Grif 2765.

PI 579889. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3615; TVu 2143; Grif 2766.

PI 579890. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3616; TVu 2144; Grif 2767.

PI 579891. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3617; TVu 2145; Grif 2768.

PI 579892. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3618; TVu 2149; Grif 2769.

PI 579893. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4173; TVu 2150; Grif 2770.

PI 579894. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4174; TVu 2151; Grif 2771.

PI 579895. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3619; TVu 2152; Grif 2772.

PI 579896. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3620; TVu 2153; Grif 2773.

PI 579897. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4175; TVu 2154; Grif 2774.

PI 579898. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3621; TVu 2156; Grif 2775.

PI 579899. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3622; TVu 2158; Grif 2776.

PI 579900. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3623; TVu 2159; Grif 2777.

PI 579901. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3624; TVu 2160; Grif 2778.

PI 579902. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3625; TVu 2162; Grif 2779.

PI 579903. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3626; TVu 2168; Grif 2780.

PI 579904. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4176; TVu 2252; Grif 2781.

PI 579905. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4177; TVu 2260; Grif 2782.

PI 579906. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4178; TVu 2274; Grif 2783.

PI 579907. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4179; TVu 2318; Grif 2784.

PI 579908. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4180; TVu 2329; Grif 2785.

PI 579909. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4181; TVu 2331; Grif 2786.

PI 579910. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4182; TVu 2355; Grif 2788.

PI 579911. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4183; TVu 2356; Grif 2789.

PI 579912. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4184; TVu 2372; Grif 2790.

PI 579913. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4185; TVu 2373; Grif 2791.

PI 579914. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4186; TVu 2377; Grif 2792.

PI 579915. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4187; TVu 2381; Grif 2793.

PI 579916. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4188; TVu 2382; Grif 2794.

PI 579917. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3627; TVu 2385; Grif 2795.

PI 579918. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3628; TVu 2390; Grif 2796.

PI 579919. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3629; TVu 2391; Grif 2797.

PI 579920. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3630; TVu 2399; Grif 2798.

PI 579921. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3631; TVu 2400; Grif 2799.

PI 579922. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3632; TVu 2405; Grif 2800.

PI 579923. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4189; TVu 2407; Grif 2801.

PI 579924. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4190; TVu 2412; Grif 2802.

PI 579925. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3633; TVu 2414; Grif 2803.

PI 579926. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3634; TVu 2416; Grif 2804.

PI 579927. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4191; TVu 2417; Grif 2805.

PI 579928. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4192; TVu 2422; Grif 2806.

PI 579929. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4193; TVu 2439; Grif 2807.

PI 579930. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4194; TVu 2448; Grif 2808.

PI 579931. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4195; TVu 2456; Grif 2809.

PI 579932. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4196; TVu 2458; Grif 2810.

PI 579933. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4197; TVu 2468; Grif 2812.

PI 579934. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4198; TVu 2475; Grif 2813.

PI 579935. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4199; TVu 2476; Grif 2814.

PI 579936. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3635; TVu 2477; Grif 2815.

PI 579937. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4200; TVu 2478; Grif 2816.

PI 579938. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4201; TVu 2483; Grif 2817.

PI 579939. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3636; TVu 2491; Grif 2818.

PI 579940. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3637; TVu 2500; Grif 2819.

PI 579941. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3638; TVu 2501; Grif 2820.

PI 579942. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 2505; Grif 2822.

PI 579943. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3641; TVu 2508; Grif 2823.

PI 579944. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3642; TVu 2510; Grif 2824.

PI 579945. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4202; TVu 2554; Grif 2825.

PI 579946. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3643; TVu 2578; Grif 2826.

PI 579947. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3644; TVu 2580; Grif 2827.

PI 579948. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3645; TVu 2582; Grif 2828.

PI 579949. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3646; TVu 2584; Grif 2829.

PI 579950. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3647; TVu 2591; Grif 2830.

PI 579951. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3648; TVu 2598; Grif 2831.

PI 579952. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4203; TVu 2685; Grif 2834.

PI 579953. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4204; TVu 2756; Grif 2835.

PI 579954. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4205; TVu 2757; Grif 2836.

PI 579955. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3649; TVu 2772; Grif 2837.

PI 579956. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4206; TVu 2785; Grif 2838.

PI 579957. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4207; TVu 2786; Grif 2839.

PI 579958. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4208; TVu 2818; Grif 2840.

PI 579959. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4209; TVu 2926; Grif 2841.

PI 579960. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4210; TVu 2937; Grif 2842.

PI 579961. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3650; TVu 3241; Grif 2843.

PI 579962. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3651; TVu 3587; Grif 2844.

PI 579963. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3652; TVu 3588; Grif 2845.

PI 579964. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3653; TVu 3589; Grif 2846.

PI 579965. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3654; TVu 3615; Grif 2847.

PI 579966. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3655; TVu 3616; Grif 2848.

PI 579967. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3656; TVu 3619; Grif 2849.

PI 579968. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3657; TVu 3622; Grif 2850.

PI 579969. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4211; TVu 3623; Grif 2851.

PI 579970. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3658; TVu 3624; Grif 2852.

PI 579971. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3659; TVu 3625; Grif 2853.

PI 579972. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4212; TVu 3626; Grif 2854.

PI 579973. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3660; TVu 3628; Grif 2855.

PI 579974. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4213; TVu 3637; Grif 2856.

PI 579975. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4214; TVu 3638; Grif 2857.

PI 579976. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4215; TVu 3639; Grif 2858.

PI 579977. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4216; TVu 3640; Grif 2859.

PI 579978. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3661; TVu 3641; Grif 2860.

PI 579979. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3662; TVu 3642; Grif 2861.

PI 579980. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4217; TVu 3643; Grif 2862.

PI 579981. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4218; TVu 3644; Grif 2863.

PI 579982. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4219; TVu 3646; Grif 2864.

PI 579983. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3663; TVu 3648; Grif 2865.

PI 579984. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3664; TVu 3649; Grif 2866.

PI 579985. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3665; TVu 3652; Grif 2867.

PI 579986. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3666; TVu 3653; Grif 2868.

PI 579987. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3667; TVu 3656; Grif 2869.

PI 579988. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3668; TVu 3657; Grif 2870.

PI 579989. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4220; TVu 3661; Grif 2871.

PI 579990. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4221; TVu 3662; Grif 2872.

PI 579991. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3669; TVu 3666; Grif 2873.

PI 579992. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3670; TVu 3667; Grif 2874.

PI 579993. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3671; TVu 3678; Grif 2875.

PI 579994. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3672; TVu 3704; Grif 2876.

PI 579995. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3673; TVu 3765; Grif 2877.

PI 579996. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3674; TVu 3770; Grif 2878.

PI 579997. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3675; TVu 3849; Grif 2879.

PI 579998. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4247; TVu 3860; Grif 2880.

PI 579999. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3676; TVu 3909; Grif 2881.

PI 580000. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4253; TVu 4404; Grif 2882.

PI 580001. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4254; TVu 4405; Grif 2883.

PI 580002. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4255; TVu 4468; Grif 2884.

PI 580003. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4256; TVu 4474; Grif 2885.

PI 580004. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3677; TVu 4484; Grif 2886.

PI 580005. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3678; TVu 4485; Grif 2887.

PI 580006. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3679; TVu 4488; Grif 2888.

PI 580007. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4257; TVu 4499; Grif 2889.

PI 580008. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4258; TVu 4514; Grif 2890.

PI 580009. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4259; TVu 4518; Grif 2891.

PI 580010. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4260; TVu 4528; Grif 2892.

PI 580011. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4261; TVu 4535; Grif 2893.

PI 580012. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4262; TVu 4536; Grif 2894.

PI 580013. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4263; TVu 4537; Grif 2895.

PI 580014. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4264; TVu 4538; Grif 2896.

PI 580015. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4265; TVu 4539; Grif 2897.

PI 580016. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4266; TVu 4542; Grif 2899.

PI 580017. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 106; TVu 4552; Grif 2900; UCR 3681.

PI 580018. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3682; TVu 4554; Grif 2901.

PI 580019. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3683; TVu 4555; Grif 2902.

PI 580020. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3684; TVu 4558; Grif 2903.

PI 580021. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3685; TVu 4561; Grif 2904.

PI 580022. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3686; TVu 4562; Grif 2905.

PI 580023. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3687; TVu 4563; Grif 2906.

PI 580024. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3688; TVu 4565; Grif 2907.

PI 580025. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3689; TVu 4566; Grif 2908.

PI 580026. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4267; TVu 4570; Grif 2909.

PI 580027. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3690; TVu 4574; Grif 2910.

PI 580028. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3691; TVu 4619; Grif 2911.

PI 580029. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4268; TVu 4626; Grif 2912.

PI 580030. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3692; TVu 4630; Grif 2913.

PI 580031. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3693; TVu 4642; Grif 2914.

PI 580032. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4273; TVu 4705; Grif 2915.

PI 580033. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3694; TVu 4737; Grif 2916.

PI 580034. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3695; TVu 4887; Grif 2917.

PI 580035. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 4975; Grif 2918.

PI 580036. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 5021; Grif 2919.

PI 580037. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4300; TVu 5126; Grif 2920.

PI 580038. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4301; TVu 5138; Grif 2921.

PI 580039. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4302; TVu 5139; Grif 2922.

PI 580040. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4303; TVu 5148; Grif 2923.

PI 580041. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4304; TVu 5149; Grif 2924.

PI 580042. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4305; TVu 5150; Grif 2925.

PI 580043. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4306; TVu 5151; Grif 2926.

PI 580044. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4307; TVu 5152; Grif 2927.

PI 580045. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3698; TVu 5153; Grif 2928.

PI 580046. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4308; TVu 5155; Grif 2929.

PI 580047. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4309; TVu 5158; Grif 2930.

PI 580048. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4310; TVu 5163; Grif 2931.

PI 580049. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4311; TVu 5165; Grif 2932.

PI 580050. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4312; TVu 5166; Grif 2933.

PI 580051. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4313; TVu 5167; Grif 2934.

PI 580052. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4314; TVu 5170; Grif 2935.

PI 580053. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4315; TVu 5171; Grif 2936.

PI 580054. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4316; TVu 5172; Grif 2937.

PI 580055. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4317; TVu 5173; Grif 2938.

PI 580056. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4321; TVu 5210; Grif 2939.

PI 580057. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 3699; TVu 5335; Grif 2940.

PI 580058. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4328; TVu 5338; Grif 2941.

PI 580059. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4333; TVu 5363; Grif 2942.

PI 580060. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4334; TVu 5364; Grif 2943.

PI 580061. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4342; TVu 5407; Grif 2944.

PI 580062. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4346; TVu 5415; Grif 2945.

PI 580063. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4350; TVu 5467; Grif 2946.

PI 580064. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4358; TVu 5520; Grif 2947.

PI 580065. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4360; TVu 5522; Grif 2948.

PI 580066. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4364; TVu 5546; Grif 2949.

PI 580067. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4370; TVu 5580; Grif 2950.

PI 580068. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4371; TVu 5582; Grif 2951.

PI 580069. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4374; TVu 5611; Grif 2952.

PI 580070. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*  
Cultivated. UCR 4379; TVu 5637; Grif 2953.

PI 580071. *Vigna unguiculata* (L.) Walp. *ssp. unguiculata*

Cultivated. UCR 3700; TVu 5720; Grif 2954.

PI 580072. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3701; TVu 5790; Grif 2955.

PI 580073. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3702; TVu 5793; Grif 2956.

PI 580074. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4394; TVu 5838; Grif 2957.

PI 580075. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4397; TVu 5846; Grif 2958.

PI 580076. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4398; TVu 5851; Grif 2959.

PI 580077. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3703; TVu 5894; Grif 2960.

PI 580078. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4400; TVu 5913; Grif 2961.

PI 580079. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3704; TVu 5937; Grif 2962.

PI 580080. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3705; TVu 5957; Grif 2963.

PI 580081. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4401; TVu 5971; Grif 2964.

PI 580082. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3706; TVu 5983; Grif 2965.

PI 580083. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3707; TVu 6099; Grif 2966.

PI 580084. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4402; TVu 6104; Grif 2967.

PI 580085. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4403; TVu 6126; Grif 2968.

PI 580086. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3708; TVu 6139; Grif 2969.

PI 580087. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3709; TVu 6192; Grif 2970.

PI 580088. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3710; TVu 6239; Grif 2971.

PI 580089. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3711; TVu 6240; Grif 2972.

PI 580090. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3712; TVu 6244; Grif 2973.

PI 580091. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3713; TVu 6248; Grif 2974.

PI 580092. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3714; TVu 6251; Grif 2975.

PI 580093. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3715; TVu 6256; Grif 2976.

PI 580094. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3716; TVu 6283; Grif 2977.

PI 580095. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3717; TVu 6307; Grif 2978.

PI 580096. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4404; TVu 6310; Grif 2979.

PI 580097. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4405; TVu 6313; Grif 2980.

PI 580098. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4406; TVu 6316; Grif 2981.

PI 580099. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3718; TVu 6325; Grif 2982.

PI 580100. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3719; TVu 6329; Grif 2983.

PI 580101. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3720; TVu 6336; Grif 2984.

PI 580102. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3721; TVu 6338; Grif 2985.

PI 580103. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

- Cultivated. UCR 3722; TVu 6339; Grif 2986.
- PI 580104. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3723; TVu 6340; Grif 2987.
- PI 580105. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3724; TVu 6342; Grif 2988.
- PI 580106. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3725; TVu 6343; Grif 2989.
- PI 580107. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3726; TVu 6344; Grif 2990.
- PI 580108. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3727; TVu 6346; Grif 2991.
- PI 580109. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4407; TVu 6347; Grif 2992.
- PI 580110. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3728; TVu 6349; Grif 2993.
- PI 580111. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3729; TVu 6350; Grif 2994.
- PI 580112. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3730; TVu 6351; Grif 2995.
- PI 580113. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3731; TVu 6352; Grif 2996.
- PI 580114. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 6353; Grif 2997.
- PI 580115. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3733; TVu 6355; Grif 2998.
- PI 580116. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3734; TVu 6359; Grif 2999.
- PI 580117. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3735; TVu 6361; Grif 3000.
- PI 580118. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4408; TVu 6388; Grif 3001.
- PI 580119. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4409; TVu 6390; Grif 3002.

PI 580120. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4410; TVu 6392; Grif 3003.

PI 580121. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4411; TVu 6403; Grif 3004.

PI 580122. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4412; TVu 6420; Grif 3005.

PI 580123. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4413; TVu 6421; Grif 3006.

PI 580124. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4414; TVu 6422; Grif 3007.

PI 580125. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3736; TVu 6428; Grif 3008.

PI 580126. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3737; TVu 6429; Grif 3009.

PI 580127. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4415; TVu 6434; Grif 3010.

PI 580128. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3738; TVu 6436; Grif 3011.

PI 580129. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3739; TVu 6441; Grif 3012.

PI 580130. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4416; TVu 6456; Grif 3013.

PI 580131. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. TVu 6458; Grif 3014.

PI 580132. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4417; TVu 6464; Grif 3015.

PI 580133. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4418; TVu 6475; Grif 3016.

PI 580134. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3741; TVu 6477; Grif 3017.

PI 580135. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4419; TVu 6479; Grif 3018.

PI 580136. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3742; TVu 6480; Grif 3019.

PI 580137. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3743; TVu 6483; Grif 3020.

PI 580138. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3744; TVu 6486; Grif 3021.

PI 580139. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4420; TVu 6487; Grif 3022.

PI 580140. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3745; TVu 6488; Grif 3023.

PI 580141. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3746; TVu 6489; Grif 3024.

PI 580142. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4421; TVu 6491; Grif 3025.

PI 580143. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4422; TVu 6493; Grif 3026.

PI 580144. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3747; TVu 6494; Grif 3027.

PI 580145. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4423; TVu 6495; Grif 3028.

PI 580146. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4424; TVu 6496; Grif 3029.

PI 580147. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4425; TVu 6497; Grif 3030.

PI 580148. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3748; TVu 6503; Grif 3031.

PI 580149. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3749; TVu 6504; Grif 3032.

PI 580150. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3750; TVu 6508; Grif 3033.

PI 580151. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4426; TVu 6509; Grif 3034.

PI 580152. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3751; TVu 6510; Grif 3035.

PI 580153. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3752; TVu 6531; Grif 3036.

PI 580154. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4427; TVu 6535; Grif 3037.

PI 580155. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3753; TVu 6539; Grif 3038.

PI 580156. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3754; TVu 6543; Grif 3039.

PI 580157. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4428; TVu 6548; Grif 3040.

PI 580158. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4429; TVu 6549; Grif 3041.

PI 580159. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3755; TVu 6550; Grif 3042.

PI 580160. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3756; TVu 6552; Grif 3043.

PI 580161. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3757; TVu 6553; Grif 3044.

PI 580162. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3758; TVu 6561; Grif 3045.

PI 580163. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4430; TVu 6565; Grif 3046.

PI 580164. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3759; TVu 6567; Grif 3047.

PI 580165. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4431; TVu 6585; Grif 3048.

PI 580166. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3760; TVu 6586; Grif 3049.

PI 580167. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3761; TVu 6601; Grif 3050.

PI 580168. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4432; TVu 6602; Grif 3051.

PI 580169. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4433; TVu 6603; Grif 3052.

PI 580170. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4434; TVu 6604; Grif 3053.

PI 580171. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4435; TVu 6607; Grif 3054.

PI 580172. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4436; TVu 6608; Grif 3055.

PI 580173. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4437; TVu 6609; Grif 3056.

PI 580174. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3762; TVu 6613; Grif 3057.

PI 580175. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4438; TVu 6614; Grif 3058.

PI 580176. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4439; TVu 6615; Grif 3059.

PI 580177. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 3763; TVu 6616; Grif 3060.

PI 580178. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4440; TVu 6618; Grif 3061.

PI 580179. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4441; TVu 6619; Grif 3062.

PI 580180. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4442; TVu 6620; Grif 3063.

PI 580181. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
Cultivated. UCR 4443; TVu 6621; Grif 3064.

PI 580182. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**  
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PI 580183. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 4445; TVu 6624; Grif 3066.

PI 580184. *Vigna unguiculata* (L.) Walp. **ssp. unguiculata**

Cultivated. UCR 3764; TVu 6626; Grif 3067.

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