



# Plant Inventory No. 213

Plant Materials Introduced in 2004  
(Nos. 634361 - 636444)



## Foreword

Plant Inventory No. 213 is the official listing of plant materials accepted into the U.S. National Plant Germplasm System (NPGS) between January 1 and December 31, 2004 and includes PI 634361 to PI 636444. The NPGS is managed by the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS). The information on each accession is essentially the information provided with the plant material when it was obtained by the NPGS. The information on an accession in the NPGS database may change as additional knowledge is obtained.

The Germplasm Resources Information Network (<http://www.ars-grin.gov/npgs/index.html>) is the database for the NPGS and should be consulted for the current accession and evaluation information and to request germplasm.

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The following were collected by John Bamberg, USDA, ARS, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States; Charles Fernandez, University of Wisconsin, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States. Received 09/20/2003.

**PI 634361. *Solanum jamesii* Torr.**

Wild. BF 111; WRF 3609 - 634361 x 634362. Collected 09/20/2003 in Arizona, United States. Latitude 35° 16' N. Longitude 112° 4' 24" W. Elevation 2118 m. Coconino County. E on 40 from Williams, on Deer Farm Road along N shore of Davenport Lake. Growing among rabbit brush all along roadway in dry lakebed. Many clusters of plants, mostly small and yellow or dried-up with no flowers; to 6 inches tall. One small fruit observed. Collected one tuber from each of many widely spaced plants.

**PI 634362. *Solanum jamesii* Torr.**

Wild. BF 112; WRF 3609 - 634362 x 634361. Collected 09/20/2003 in Arizona, United States. Latitude 35° 13' 48" N. Longitude 111° 34' 51" W. Elevation 2316 m. Coconino County. NE side of Flagstaff on SE side of Mt Elden at trailhead to Mt Elden lookout. Coconino National Forest. Under Ponderosas near parking lot and beside trail in black moist soil in grass or hiding among rocks. Clusters of plants in 4-5 different spots. Large to 10" but mostly smaller and yellowed. No flowers or fruit. Collected a few tubers from each group of plants.

**PI 634363. *Solanum jamesii* Torr.**

Wild. BF 113. Collected 09/21/2003 in Arizona, United States. Latitude 36° 0' 21" N. Longitude 111° 48' 14" W. Elevation 2103 m. Coconino County. On 64 about 25 miles E of Grand Canyon S Rim visitor center just inside Kaibab National Forest boundary at pulloff where there is a steep roadcut to the NE and a creek to the SW called Deer Tank Wash. Just over fence but on road side of creek. Among rabbit brush and sage and nestled among rocks. Moist black soil. Hundreds of green and yellowed plants to 12 inches. Some dried up flowers, but no fruit. Collected tubers from several scattered patches.

**PI 634364. *Solanum jamesii* Torr.**

Wild. BF 114. Collected 09/22/2003 in Arizona, United States. Latitude 36° 23' 9" N. Longitude 113° 9' W. Elevation 1996 m. Mohave County. Fredonia area. From 389 to CR 109, 47 miles to CR 5 and 7 miles to near Mt Trumbull, Nixon Springs Ranger Station. At 150 degree heading from Ranger Station buildings, about 500 yards along service road. Among burned pine branches in full sun or under sage. Rich black soil in pine forest habitat. Many hundreds of plants, some large to 2 ft tall or small and yellowed but some green enough for transplant collection. One open flower seen, otherwise no flowers or fruit. Collected tubers from dispersed clusters and a few transplants.

The following were donated by Reid G. Palmer, USDA, ARS, Iowa State University, Department of Agronomy, Ames, Iowa 50011, United States. Received 07/15/2003.

PI 634365. **Glycine max** (L.) Merr.  
Genetic. Pureline. A01-249; T369; SY0321001. Pale flower mutant.

The following were donated by USDA, ARS, U.S. Vegetable Breeding Laboratory,  
2700 Savannah Highway, Charleston, South Carolina 29414, United States.  
Received 1987.

PI 634366. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Breeding. Grif 992; AC 76.12. Collected in Uruguay.

PI 634367. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Breeding. Grif 993; AC 83.4-2. Collected in Nigeria.

PI 634368. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Breeding. Grif 994; AC 83.5-2. Collected in Nigeria.

PI 634369. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Breeding. Grif 1000; B-6708.

PI 634370. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. L80-62; Grif 1005; Bengal.

PI 634371. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. Grif 1016; Creole.

PI 634372. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. Grif 1017; Dooley.

PI 634373. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. Grif 1019; Easter.

PI 634374. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. GA-120; Grif 1022; Redglow.

PI 634375. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Breeding. Grif 1024; GA-122.

PI 634376. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. Grif 1026; Garnet.

PI 634377. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. Grif 1029; Gold Jewel.

PI 634378. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. Grif 1030; Golden Belle.

Unknown source. Received 05/1988.

PI 634379. **Ipomoea batatas** (L.) Lam. **var. batatas**  
Cultivar. "HAYMAN"; Grif 1033; SOUTHERN QUEEN.

The following were donated by USDA, ARS, U.S. Vegetable Breeding Laboratory,  
2700 Savannah Highway, Charleston, South Carolina 29414, United States.  
Received 1987.

- PI 634380. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1034; Hayman White.
- PI 634381. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1035; Haynes.
- PI 634382. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1038; HM-16.
- PI 634383. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1039; HM-145.
- PI 634384. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1042; I/12-1.
- PI 634385. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1044; J/7-13.
- PI 634386. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1050; LA 54-89.
- PI 634387. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1051; L 7-182.
- PI 634388. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1053; MK-9. Collected in Japan.
- PI 634389. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1054; MK-10. Collected in Japan.
- PI 634390. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1056; NC 317.
- PI 634391. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1057; NC 718.
- PI 634392. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1058; NC 1327.
- PI 634393. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1059; NC 1350.
- PI 634394. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1062; OK-P-2.
- PI 634395. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1063; OK-P-10.
- PI 634396. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1064; OK-8-85.
- PI 634397. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Okla. 52; Grif 1065; Oklamar.
- PI 634398. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. L 4-5; L-5; Grif 1067; Pelican Processor.

- PI 634399. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1068; Picadito. Collected in Cuba.
- PI 634400. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1073; Red Resisto.
- PI 634401. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1080; SC-1149-19.
- PI 634402. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1084; Sulfur.
- PI 634403. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1088; TG-1.
- PI 634404. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1089; TG-2.
- PI 634405. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1091; TG-3.
- PI 634406. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1092; TG-4.
- PI 634407. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1093; TG-5.
- PI 634408. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1094; TG-6.
- PI 634409. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1095; TG-7.
- PI 634410. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1096; TI-1849.
- PI 634411. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1101; Tuskegee-100.
- PI 634412. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1103; V4-29.
- PI 634413. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1104; V5-58.
- PI 634414. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1105; W-3.
- PI 634415. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1106; W 5-75.
- PI 634416. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1107; W-8.
- PI 634417. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1108; W-9.

- PI 634418. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1109; W-13.
- PI 634419. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1110; W-13. Variegated.
- PI 634420. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1111; W-13-9.
- PI 634421. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1113; W-33.
- PI 634422. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1115; W-42.
- PI 634423. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1116; W-51.
- PI 634424. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1117; W-51-19.
- PI 634425. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1118; W-52.
- PI 634426. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1119; W-57.
- PI 634427. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1120; W-71.
- PI 634428. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1122; W-99.
- PI 634429. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1125; W-115.
- PI 634430. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1126; W-119.
- PI 634431. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1127; W-149.
- PI 634432. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1129; W-154.
- PI 634433. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1131; W-178.
- PI 634434. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1132; W-183.
- PI 634435. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1133; W-184.
- PI 634436. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1134; W-189.

- PI 634437. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1135; W-203.
- PI 634438. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1136; W-208.
- PI 634439. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1137; W-209.
- PI 634440. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1138; W-217.
- PI 634441. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1139; W-220.
- PI 634442. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1140; W-222.
- PI 634443. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1143; W-226.
- PI 634444. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1145; W-230.
- PI 634445. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1146; W-231.
- PI 634446. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1147; W-232.
- PI 634447. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1148; W-233.
- PI 634448. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1149; W-234.
- PI 634449. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1150; W-235.
- PI 634450. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1151; W-239.
- PI 634451. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. Grif 1152; W-241.

The following were developed by USDA, ARS, U.S. Vegetable Breeding Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414, United States. Received 1987.

- PI 634452. *Ipomoea batatas* (L.) Lam. var. **batatas**  
Breeding. "Patriot"; W-244; Grif 1155.



The following were donated by USDA, ARS, U.S. Vegetable Breeding Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414, United States. Received 1987.

- PI 634453. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1156; W-245.
- PI 634454. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1158; W-247.
- PI 634455. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1159; W-248.
- PI 634456. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1160; W-249.
- PI 634457. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1161; W-250.
- PI 634458. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1162; White Bunch.
- PI 634459. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1164; White Jewel.
- PI 634460. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Cultivar. Grif 1166; White Triumph.
- PI 634461. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1167; 81-DW-7.
- PI 634462. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. Grif 1168; 81-52.

The following were donated by North Carolina State University, North Carolina Agr. Exp. Sta., Raleigh, North Carolina, United States. Received 04/1991.

- PI 634463. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. MD 7-93; Grif 1210.
- PI 634464. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. MD 9-35; Grif 1211.
- PI 634465. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. MD 15-63; Grif 1213.
- PI 634466. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. MD 16-8; Grif 1214.
- PI 634467. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. MD 16-50; Grif 1215.
- PI 634468. *Ipomoea batatas* (L.) Lam. var. *batatas*  
Breeding. MD 16-109; Grif 1216.

- PI 634469. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 17-340; Grif 1218.
- PI 634470. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 55; Grif 1221.
- PI 634471. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 88-107; Grif 1223.
- PI 634472. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 88-116; Grif 1224.
- PI 634473. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD C91; Grif 1226.
- PI 634474. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD P217-84; Grif 1227.
- PI 634475. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 253; Grif 1228.
- PI 634476. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 320; Grif 1229.
- PI 634477. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 607; Grif 1230.
- PI 634478. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 807; Grif 1234.
- PI 634479. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 822; Grif 1236.
- PI 634480. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. MD 844; Grif 1239.

The following were donated by Melvin R. Hall, University of Georgia, Coastal Plain Experiment Station, Department of Horticulture, Tifton, Georgia 31793-5401, United States. Received 1996.

- PI 634481. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. UGA-204; Grif 12501. Vines moderately long and grow vigorously. Storage roots have purple red skin and fusiform; irregular shape. Orange flesh.
- PI 634482. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. UGA-210; Grif 12502. Vines moderately long and grow vigorously. Storage roots have red skin and irregular shaped roots. Orange flesh.
- PI 634483. *Ipomoea batatas* (L.) Lam. **var. batatas**  
Breeding. UGA-227; Grif 12503. Vines are moderately long and grow vigorously. Roots have purple red skin and long fusiform shape. Orange flesh.

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

- PI 634484. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13718; NVU 7; Grif 12077. Collected in Togo.
- PI 634485. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13721; NVU 11; Grif 12080. Collected in Togo.
- PI 634486. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13871; G-167; Grif 12220.
- PI 634487. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13879; G-205; Grif 12227.
- PI 634488. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13898; G-305; Grif 12243.

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

- PI 634489. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. IT89KD-349; Grif 14286.

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

- PI 634490. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13749; CuCx 153-3F; Grif 12108. Collected in Brazil.
- PI 634491. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13758; CuCx 165-12E; Grif 12117. Collected in Brazil.
- PI 634492. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13788; CuCx 249-3F; Grif 12147. Collected in Brazil.
- PI 634493. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13988; ZMA 5303; Grif 12270. Collected in Zambia.
- PI 634494. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13994; L 1041; Grif 12272. Collected in Zambia.

The following were developed by Tom L. Harvey, Kansas State University, Fort Hays Branch Ag. Experiment Station, 1232 240th Avenue, Hays, Kansas 67601-9228, United States; Ken Kofoed, Kansas State University, KSU Agricultural Research Center, 1232 240th Avenue, Hays, Kansas 67601-9228, United States. Received 12/03/2003.

- PI 634495. *Sorghum bicolor* (L.) Moench subsp. bicolor**  
Breeding. KS 116A; MALE STERILE. GP-610. Pedigree - KP 9B ms3//KP 9B ms3/PI 550610/3/Tx Arg1 B. Cytoplasmic-genic male-sterile of KS 116B (PI 634496). Biotype I greenbug resistant line with white seed and tan plant color.

- PI 634496. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 116B; MAINTAINER. GP-611. Pedigree - KP 9B ms3//KP 9B ms3/PI 550610/3/Tx Arg1 B. Maintainer line in A1 cytoplasm biotype I greenbug (*Schizaphis graminum*) resistant line with white seed and tan plant color. 3-dwarf plant (100 cm) that flowers in 74 days. Glumes sienna and is awnless. Less than 30% leaf damage after 21 days of greenbug feeding.
- PI 634497. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 117A; MALE STERILE. GP-612. Pedigree - KP 9B ms3//KP 9B ms3/PI 550610/3/Tx Arg1 B. Cytoplasmic-genic male sterile of KS 117B (PI 634498). Biotype I greenbug resistant with white seed and tan plant color.
- PI 634498. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 117B; MAINTAINER. GP-613. Pedigree - KP 9B ms3//KP 9B ms3/PI 550610/3/Tx Agr1 B. Maintainer line in A1 cytoplasm biotype I greenbug (*Schizaphis graminum*) resistant line with white seed and tan plant color. 3-dwarf plant (100 cm) that flowers in 74 days. Glumes sienna and is awnless. Less than 10% leaf damage after 21 days of greenbug feeding.
- PI 634499. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 118A; MALE STERILE. GP-614. Pedigree - ms3 tan//R8505/PI 550610. Cytoplasmic-genic male-sterile of KS 118B (PI 634500). Biotype I greenbug resistant with white seed and tan plant color.
- PI 634500. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 118B; MAINTAINER. GP-615. Pedigree - ms3 tan//R8505/PI 550610. Maintainer in A1 cytoplasm biotype I greenbug (*Schizaphis graminum*) resistant line with white seed and tan plant color. 3-dwarf plant (95 cm) that flowers in 70 days. Glumes sienna and is awned. Less than 10% leaf damage after 21 days of greenbug feeding.
- PI 634501. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 119A; MALE STERILE. GP-616. Pedigree - ms3 tan/3/KP 9B ms3//KP 9B ms3/PI 550610. Cytoplasmic-genic male-sterile of KS 119B (PI 634502). Biotype I greenbug resistant with white seed and tan plant color.
- PI 634502. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 119B; MAINTAINER. GP-617. Pedigree - ms3 tan/3/KP 9B ms3//KP 9B/PI 550610. Maintainer in A1 cytoplasm. Biotype I greenbug (*Schizaphis graminum*) resistant line with white seed and tan plant color. 3-dwarf plant (95 cm) that flowers in 71 days. Glumes sienna and is awned. Less than 10% leaf damage after 21 days of greenbug feeding.
- PI 634503. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 120A; MALE STERILE. GP-618. Pedigree - ms3 tan/3/KP 9B ms3//KP 9B ms3/PI 550610. Cytoplasmic-genic male-sterile of KS 120B (PI 634504). Biotype I greenbug resistant with white seed and tan plant color.
- PI 634504. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. KS 120B; MAINTAINER. GP-619. Pedigree - ms3 tan/3/KP 9B ms3//KP 9B ms3/PI 550610. Maintainer in A1 cytoplasm. Biotype I greenbug

(*Schizaphis graminum*) resistant line with white seed and tan plant color. 3-dwarf (120 cm) plant that flowers in 72 days. Glumes sienna and is awned. Less than 10% leaf damage after 21 days of greenbug feeding.

The following were developed by Gerald Schuman, USDA-ARS, High Plains Grasslands Research Station, 8408 Hildreth Road, Cheyenne, Wyoming 82009, United States; David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; Ken P. Vogel, USDA, ARS, University of Nebraska, Dept. of Agronomy, Lincoln, Nebraska 68583-0937, United States; Patrick E. Reece, University of Nebraska, Panhandle Research and Extension Education, Scottsbluff, Nebraska 69361-4939, United States; R.A. Nicholson, KSU Agricultural Research Center, Dept. of Biological Sciences, Kansas State University, Fort Hayes, Kansas 67601, United States. Received 12/29/2003.

**PI 634505. *Thinopyrum intermedium* (Host) Barkworth & D. R. Dewey subsp. *intermedium***

Cultivar. "BEEFMAKER"; NE TI1 C1. CV-26. Pedigree - Developed from six plant introductions (PI 345586, PI 273733, PI 273732, PI 315353, PI 315067, and PI 315355) that have superior agronomic performamnce in the Central Great Plains, U.S., in a germplasm evaluation trial. Tested with other intermediate wheatgrass cvs. at four central Great Plains locations and had the highest average IVDMD and protein concentration averaged over trials. Forage averaged 7 to 20 g/kg greater IVDMD than forage of other cvs. Forage yields were lower than the yields of Haymaker but were similar to those of other released cvs. Recommended for use in pastures in the Central Great Plains for yearling beef cattle. Erect growth habit and has rhizomes typical of intermediate wheatgrass. Culms and leaves glabrous and non-glabrous and leaf margins smooth. Leaves green-yellow or Munsell 5GY 5/4. Sheaths have ligules, very small auricles, and sheath margins smooth. Spikes oblong, erect, and have green, lanceolate glumes. Spike density lax. Anthers yellow. At 41 deg. N Lat. in the Central Great Plains, at anthesis the last week of June. In swards at Ithaca, NE, head and flag leaf height about 5 and 3 cm, respectively, shorter in height than other intermediate wheatgrasses. Adapted to USDA Plant Hardiness Zones 3,4, and 5.

The following were developed by Gerald Schuman, USDA-ARS, High Plains Grasslands Research Station, 8408 Hildreth Road, Cheyenne, Wyoming 82009, United States; Dwight Tober, USDA, NRCS, Plant Materials Center, PO Box 1458, Bismarck, North Dakota 58508, United States; David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; Ken P. Vogel, USDA, ARS, University of Nebraska, Dept. of Agronomy, Lincoln, Nebraska 68583-0937, United States; Patrick E. Reece, University of Nebraska, Panhandle Research and Extension Education, Scottsbluff, Nebraska 69361-4939, United States; R.A. Nicholson, KSU Agricultural Research Center, Dept. of Biological Sciences, Kansas State University, Fort Hayes, Kansas 67601, United States. Received 12/29/2003.

**PI 634506. *Thinopyrum intermedium* (Host) Barkworth & D. R. Dewey subsp. *intermedium***

Cultivar. "HAYMAKER"; NE TI 3. PVP 200400234; CV-27. Pedigree - Synthetic cv. based on selected plants from three intermediate wheatgrass germplasms, PI 440015, PI 440008, and PI 440011, and cv. Slate. Tested in four Central Great Plains and two Northern Great Plains

sites during the period 1990-1997. Had the greatest average forage yields at both the central and northern Great Plains sites when evaluated with released cvs. and other experimental strains of intermediate wheatgrass. Forage quality as measured by IVDMD and protein concentration is less than that of Beefmaker but is similar to that of other released cvs. of intermediate wheatgrass. Recommended for dryland hay production in the Central and Northern Great Plains, U.S. Erect growth habit and rhizomes typical of intermediate wheatgrass. Culms and leaves glabrous and non-glabrous and leaf margins are smooth. Leaves green-yellow or Munsell 5GY 5/4 (3). Sheaths have ligules, auricles are usually absent, and sheath margins are smooth. Spikes oblong, erect, and have green, lanceolate glumes. Spike density lax. Anthers yellow. At 41 deg. N Lat. in the Central Great Plains, at anthesis the last week of June. Head height varies with environment but it is typically taller than other intermediate wheatgrasses and has a wider flag leaf. Adapted to USDA Plant Hardiness Zones 3,4, and 5.

**PI 634507. *Agropyron cristatum* (L.) Gaertn.**

Cultivar. "NU-ARS AC2"; NE AC2. CV-28. Pedigree - Developed from four plant introductions (PI 440062, PI 439922, PI 439926, and PI 439929). Tested in four Central Great Plains and two Northern Great Plains sites during the period 1990-1997. In both the Central and Northern Plains locations, greater average forage yields than the other fairway type crested wheatgrass (*A. cristatum*) cvs. and had forage yields that were equivalent to those of the best standard crested wheatgrass (*A. desertorum*) cvs. The in vitro dry matter digestibility (IVDMD) and protein content was similar to that of the other strains and cvs. evaluated. Erect, caespitose growth habit typical of crested wheatgrasses. Culms and leaves are glabrous and non-glabrous and leaf margins are smooth. Leaves green-yellow or Munsell 5GY 4/4. Sheaths have ligules, sheath margins smooth, and auricles are present. Spikes tape ring, erect, and have green, lanceolate, awned glumes. Spikes dense. At 41 deg. N Lat. in the Central Great Plains, heads the last third of May. Ninety-five percent of the plants in a population are diploids, the remainder are tetraploids. Although genetically heterogeneous, is similar in phenotypic uniformity to other crested wheatgrasses. Typically about 3 to 5 cm taller in height than *A. cristatum* cvs. such as Fairway or Parkway and 10 to 12 cm in height shorter than *A. desertorum* cvs. such as HyCest and Nordan. Head length shorter and head width larger than that of standard crested wheatgrass cvs. Adapted to USDA Plant Hardiness Zones 3,4, and 5.

The following were developed by Roger Hybner, University of Wyoming, Sheridan, Wyoming 82801, United States; David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; James Krall, University of Wyoming, Route B, 734, Torrington, Wyoming 82240, United States; J. Nachtman, Wyoming Agricultural Experiment Station, Torrington, Wyoming, United States. Received 12/24/2003.

**PI 634508. *Pisum sativum* L.**

Cultivar. "FORAGER". CV-22. Pedigree - Selection for earliness, purple flower, and adaptation to forage and grain on the High Plains from Dundale (ATC 1000), which was an early maturing selection from Early Dun. Indeterminate, with long straw, and purple flowers. Dimpled seed with yellow cotyledon color and a green-brown seed coat. Mean 100 seed weight is 22.25 g. Dry grain yield (20 environments) was 2,020 kg ha<sup>-1</sup>.

Grain crude protein, acid detergent fiber, and neutral detergent fiber (4 environments) was 26.6, 7.25, and 9.3%, respectively. Dry matter forage production (4 environments) was 4,950 kg ha<sup>-1</sup>. Forage quality (2 environments) was 21.9, 74.1, 32.1, and 36.5 for crude protein, in-vitro dry matter digestibility, acid detergent fiber and neutral detergent fiber, respectively. Earlier in maturity than Early Dun (avg 4 days) which should give it an advantage in yield reliability, especially in a dry spring. Early Dun was probably introduced into Australia from the United Kingdom and has been grown in Australia from at least the 1900's. However, the actual origin of Early Dun is lost to antiquity. The designation Dundale appeared in Australia in 1970's originating from the Dept. of Agric., South Australia.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/02/1998.

**PI 634509. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "WT-129"; Q 37463.

**PI 634510. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "WT-194"; Q 37464.

The following were donated by Mari Marutani, University of Guam, College of Natural and Applied Sciences, Agricultural Experiment Station, Mangilao, Guam. Received 05/06/2002.

**PI 634511. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Kuri"; Q 43786. Collected in Saipan, Northern Mariana Islands.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 05/14/2003.

**PI 634512. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Akaio"; 440297; Q 44010.

**PI 634513. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "CN 1421-68"; CIP 440232; Q 42710.

**PI 634514. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "CN 1421-56"; CIP 440244; Q 42711.

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

**PI 634515. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata***  
Uncertain. TVu 13733; NVU 34; Grif 12092. Collected in Togo.

**PI 634516. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata***  
Uncertain. TVu 13825; H-Rossel; Grif 12180. Collected in Japan.

**PI 634517. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata***  
Uncertain. TVu 13896; G-292; Grif 12241.

- PI 634518. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13897; G-295; Grif 12242.
- PI 634519. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13900; G-317; Grif 12244.
- PI 634520. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13901; G-321; Grif 12245.
- PI 634521. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13902; G-339; Grif 12246.
- PI 634522. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13904; G-412; Grif 12247.
- PI 634523. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13982; ZMA 5229; Grif 12265. Collected in Zambia.
- PI 634524. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13983; ZMA 5235; Grif 12266. Collected in Zambia.
- PI 634525. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13984; ZMA 5249; Grif 12267. Collected in Zambia.
- PI 634526. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13985; ZMA 5262; Grif 12268. Collected in Zambia.
- PI 634527. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13986; ZMA 5263; Grif 12269. Collected in Zambia.
- PI 634528. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13991; ZMA 5358; Grif 12271. Collected in Zambia.
- PI 634529. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 14051; G-102; Grif 12281.

The following were donated by Enrique Chujoy, International Potato Center (CIP), Far East and SE Asia Regional Office, Laguna, Los Banos, Luzon, Philippines. Received 08/23/2003.

- PI 634530. *Solanum tuberosum* L.  
Cultivar. "Reiche"; CIP 388611.22; Q 44026. Low pigment levels; adapted to lowland conditions.
- PI 634531. *Solanum tuberosum* L.  
Cultivar. "Costanera"; CIP 379706.27; Q 44027. Low pigment levels; adapted to lowland conditions.
- PI 634532. *Solanum tuberosum* L.  
Cultivar. "Canchan - INIA"; CIP 380389.1; Q 44028. Adapted to highland conditions.
- PI 634533. *Solanum tuberosum* L.  
Cultivar. "Perricholi"; CIP 374080.5; Q 44029. Adapted to highland conditions.



**PI 634534. *Solanum tuberosum* L.**

Cultivar. "Yungay"; CIP 720064; Q 44033. Adapted to highland conditions.

The following were developed by Mark A. Hussey, Texas A&M University, Department of Soil & Crop Sciences, Room 430, Heep Center, College Station, Texas 77843-2474, United States; Byron L. Burson, USDA, ARS, Texas A&M University, Department of Soil and Crop Science, College Station, Texas 77843-2474, United States. Received 01/20/2004.

**PI 634535. *Pennisetum ciliare* (L.) Link**

Cultivar. "FRIO"; T-704; T-409704. CV-239. Pedigree - Selected from an off-type plant growing in a row of open-pollinated progeny of PI 409704. PI 409704 is a facultative apomict that reproduces primarily by apomixis. This off-type plant also is a facultative apomict; however, essentially all of the progeny are uniform and identical to the maternal parent. Therefore, is a true breeding apomictic cv. that resulted from a rare sexual event in PI 409704. Leafy bunch grass that produces inflorescences from about 120 to 140 cm high and the upper most leaves grow to a height of about 95 to 120 cm. The inflorescence is a dense, cylindrical, erect panicle, usually from 9 to 13 cm long. The inflorescence is composed of numerous clusters of spikelets with each fascicle surrounded by an involucre of bristles. Involucres have one to three spikelets but usually only one or two. The circumference of most of the inflorescences are larger than those of the cv. Common buffelgrass and at maturity the inflorescences have a light tan color rather than the typical light purple color that is characteristic of most buffelgrasses. Most important characteristic is more winter hardiness than any commercially available buffelgrass cv. Produces a limited number of short rhizomes, but the resistance to cold temperatures is associated with tissue tolerance rather than the short rhizomes. A pentaploid with 45 chromosomes which is unique for buffelgrass because most, if not all, other cvs. have 36 chromosomes. A facultative apomict with a very low level of sexual reproduction. Less than 0.1% of progeny are off-type plants.

The following were developed by James S. Beaver, University of Puerto Rico, Mayaguez Camp, Department of Agronomy & Soils, P. O. Box 9030, Mayaguez, Puerto Rico; Juan C. Rosas, Escuela Agricola Panamericana, El Zamorano, P.O. Box 93, Tegucigalpa, Francisco Morazan, Honduras; R. Araya, Estacion Experimental Fabio Baudrit, Universidad de Costa Rica, A. Postal 183-4050, Alajuela, San Jose, Costa Rica; J.C. Hernandez, Direccion de Investigaciones Agricolas, Ministerio de Agricultura y Ganaderia, San Jose, Costa Rica; D. Excoto, Secretaria de Agricultura y Ganaderia, Danli, Honduras; C.A. Perez, Programa de Granos Basicos, Km 33 1/2 Carretera a Santa Ana, Apartado 885, San Salvador, El Salvador; A. Llano, INTA, Programa de Frijol, Km 14 Carretera Norte, Hacienda San Cristobal, Nicaragua. Received 01/16/2004.

**PI 634536. *Phaseolus vulgaris* L.**

Cultivar. "AMADEUS 77". CV-221. Pedigree - Tio Canela 75/DICTA 105. Tio Canela 75 is a small red bean cv. resistant to bean golden yellow mosaic virus (BGYMV) released in Honduras in 1996. DICTA 105 is a pod weevil (*Trichapion godmani*) resistant small red breeding line. Well-adapted highly productive cv. with high resistance to BGYMV and good heat

tolerance. Recommended for bean production in the lowland areas of Central America and the Caribbean. Indeterminate bush, short vine type II growth habit. Early maturity, maturing at 66-68 days after planting. The immature pod is green with red pigmentation at physiological maturity. Long pods containing 7-8 seeds per pod and elongate ovoid seed averaging 25 g 100 seed<sup>-1</sup>. Dry seed color shiny light red. Short cooking time, good flavor, and good broth color and thickness.

The following were developed by P. Stephen Baenziger, University of Nebraska, Department of Agronomy, 362D Plant Science Bldg., Lincoln, Nebraska 68583-0915, United States; Lance Gibson, Iowa State University, Agronomy Department, Ames, Iowa 50011, United States; Jean-Luc Jannink, Iowa State University, Department of Agronomy, 1208 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 01/23/2004.

**PI 634537. X Triticosecale sp.**

Cultivar. Pureline. "NE426GT"; NE95T426. CV-28. Pedigree - WB-UW24/TxTcl #50//Fain Triticale/Centurk 78//NE69150/6TA876 x Unknown (probably 6A365/NE69150). Released 2004. Grain and fall forage winter triticale. Awned, white-glumed cv. primary use will be animal grain or forage crop. Field appearance most similar to Newcale. Kernels red, elliptical, large, and slightly wrinkled (as is common with triticale). After heading, canopy moderately closed and upright. Based on plump kernels, kernel has no collar, a large brush of medium length, rounded cheeks, large germ, and a narrow and deep crease. Excellent grain yield potential and is a good fall forage triticale, but is not a haying triticale like NE422T. Used as a feed grain triticale and as a component of forage triticale blends. Maturity medium and plant height 47 in (120 cm). Moderate straw strength, similar to Presto and better than Arapahoe and NE422T. Winter hardiness good. Moderately resistant to the currently prevalent races of stem rust (*Puccinia graminis*) and leaf rust (*P. triticina*). Like most ryes and triticales, moderately resistant to wheat streak mosaic virus. Ergot (*Claviceps purpurea*) has not been found in the cv. when the disease was present in the other triticales under similar growing conditions. Above average grain volume weight for triticale (51.8 lbs/bu, 66.6 kg/hl). 1000 kernel weight is large (32.3 g) when compared to Presto (29.5 g) and Arapahoe (28.6 g).

The following were developed by Emil E. Sebesta, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States; Robert J. Metzger, Oregon State University, Dept. of Crop & Soil Science, 107 Crop Science Bldg., Corvallis, Oregon 97331-3002, United States. Received 01/27/2004.

**PI 634538. *Triticum aestivum* L. subsp. *aestivum***

Genetic. Sebesta Blue-1. GS-151. Pedigree - Gene/3/78xCil2/CS-Tsts3D//Gene. Carries a translocated segment of a Thinopyrum chromosome derived from *Thinopyrum ponticum* (=Agropyron elongatum, 2n = 70). Homozygous for the alien blue-aleurone gene, Ba(b). In crosses with white- and red-seeded wheats, the blue aleurone trait exhibits a strong xenia effect, which is expressed in varying degrees from dark to light blue dependent upon allelic dosage in the 3n endosperm. The original breeding stock was the unregistered genetic stock, Blue Baart, a line developed in the mid-20th century at the University of California, Davis. Awned soft winter wheat genetic stock line (2n=44) with problematic karyotypes due to chromosomal

rearrangements in the wheat genome and the presence of two Thinopyrum translocations (probable 4EL and an unidentified Thinopyrum segment). Despite the altered karyotypes, behaves as a stable blue-seeded marker line. Successive generation testing has established that the blue aleurone trait acts as a dominant trait and does not segregate.

**PI 634539. *Triticum aestivum* L. subsp. *aestivum***

Genetic. Sebesta Blue-2. GS-152. Pedigree - Gene/3/78xCil2/CS-Tsts3D//Gene. Carries a translocated segment of a Thinopyrum chromosome derived from Thinopyrum ponticum (=Agropyron elongatum, 2n = 70). Homozygous for the alien blue-aleurone gene, Ba(b). In crosses with white- and red-seeded wheats, the blue aleurone trait exhibits a strong xenia effect, which is expressed in varying degrees from dark to light blue dependent upon allelic dosage in the 3n endosperm. The original breeding stock was the unregistered genetic stock, Blue Baart, a line developed in the mid-20th century at the University of California, Davis. Awnless soft winter wheat (2n=44) with problematic karyotypes due to chromosomal rearrangements in the wheat genome and the presence of two Thinopyrum translocations (probable 4EL and an unidentified Thinopyrum segment). Despite the altered karyotypes, behaves as a stable blue-seeded marker line. Successive generation testing has established that the blue aleurone trait acts as a dominant trait and does not segregate.

**PI 634540. *Triticum aestivum* L. subsp. *aestivum***

Genetic. Sebesta Blue-3. GS-153. Pedigree - 78xCi6/2\*Sonalika. Carries a translocated segment of a Thinopyrum chromosome derived from Thinopyrum ponticum (=Agropyron elongatum, 2n = 70). Homozygous for the alien blue-aleurone gene, Ba(b). In crosses with white- and red-seeded wheats, the blue aleurone trait exhibits a strong xenia effect, which is expressed in varying degrees from dark to light blue dependent upon allelic dosage in the 3n endosperm. The original breeding stock was the unregistered genetic stock, Blue Baart, a line developed in the mid-20th century at the University of California, Davis. Awned hard spring winter wheat genetic stock line (2n=24) with a normal karyotype with a 4EL Thinopyrum segment translocated on the 7AL-wheat chromosome.

The following were donated by Kim M. Moore, AgResearch Consultants, Inc., 1011 Joe Summer Road, Ashburn, Georgia 31714, United States; Kaifeng Institute of Agriculture and Forestry, Henan, Henan, China. Received 02/09/2004.

**PI 634541. *Sesamum indicum* L.**

Uncertain. Black Sesame.

The following were developed by W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; B. Bayaa, University of Aleppo, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; H. EL-Hassan, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; F. EL-Ashkar, Directorate of Agriculture and Scientific Research, Damascus, Syria; N. Kadah, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; B.A. Karim, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 11/18/2003.

**PI 634542 QUAR. *Lens culinaris* Medik.**

Cultivar. ILL 6994; "Idlib-3"; FLIP 90-25L. CV-20. Pedigree - ILL 99 x ILL 5588. The female, ILL 99, is a Moroccan landrace, and the male parent, ILL 5588, is an elite line developed through pure line selection from a Jordanian landrace population. Growth habit erect and strong stems with upright branching providing lodging resistance. Suitable for mechanical harvesting. Forms lowest pod about 15 cm above soil level, which reduces harvest losses. Medium-stature (37 cm), another advantage for mechanical harvesting. Leaves and stems pubescent and devoid of pigmentation. Flowers white with average of 3 flowers per peduncle. Leaflet size 2.1 cm(2) and leaves have short tendril (1.5 cm). Bears an average of 35 pods per plant, with an average of 1.3 seeds per pod. Seed weight 3.02 g 100-1 seed, compared to 2.07 g for Hurani. Ground color of testa brown with patterns in black spots, and cotyledons bright orange. Flowers after 121 days and matures in 153 days. Protein content for dehulled seeds is 25.7% and straw has 6.8% protein. Seeds take 33 minutes to cook. Resistant to lentil vascular wilt disease (*Fusarium oxysporum*).

**PI 634543 QUAR. *Lens culinaris* Medik.**

Cultivar. ILL 7201; "Idlib-4"; FLIP 92-36L. CV-21. Pedigree - ILL 5879 x ILL 5714. The female parent, ILL 5879, is an elite breeding line developed at ICARDA from a cross between ILL 39 (Syria) and ILL 479 (Lebanon). The male parent, ILL 5714, was derived from a cross, ILL 500 (Mexico) x ILL 1719 (Ethiopia). Better lignified strong stems and branches with erect growth habit, providing lodging resistance and are suitable for mechanical harvesting. Average plant height 36 cm, lowest pod forms at about 15 cm above soil level, which reduces harvest loss. Leaves and stems pubescent but non-pigmented. Flowers white with an average of 2.5 flowers per peduncle. Leaflet size 2.1 cm (2) and leaves have medium-long tendril (2.5 cm). Plants bear an average of 28 pods, with an average of 1.4 seeds per pod. Seed weight 3.04 g 100-1 seed, compared to 2.07 g for Hurani. Testa color gray without pattern, and the cotyledons are bright orange. Flowers after 121 days and matures after 153 days. Protein content for dehulled seeds is 26.2% and 7.9% in the straw. Approx. cooking time for seeds is 34 minutes. High level of resistance to lentil vascular wilt (*Fusarium oxysporum*).

The following were developed by Steven D. Linscombe, Louisiana State University, LSU Rice Experiment Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Don Groth, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70429-1429, United States; P.K. Bollich, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; L.M. White, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; Richard Dunand, Louisiana State University, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Q.R. Chu, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; Xueyan Sha, Louisiana State University, Louisiana Agric. Exp. Station, Rice Research Station, Rayne, Louisiana 70578, United States; K. Bearb, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States. Received 02/02/2004.

**PI 634544. *Oryza sativa* L.**

Cultivar. Pureline. "PIROGUE"; PY765; RU9902134. PVP 200400115; CV-118. Pedigree - Rico 1 / S-101. Released 2003. First high-yielding, early maturing, short stature short-grain rice variety for production in the

southern U.S. Excellent grain yield and good milling yield comparable with Bengal. About 102 cm in height and 83 days from emergence to 50% heading. Milled rice is a little chalky, with a L/W ratio of 1.74. Similar low apparent amylose content and low gelatinization temperature compared with Bengal. Flag leaf shorter, wider, and less erect than Bengal. Plants display a fairly dark green leaf color under optimum fertilization. Leaf surface, lemma, and palea glabrous. Some pubescence has been observed on leaf margins. Spikelet straw colored, and very short awns have been observed under certain environmental conditions. Apiculus straw colored. Endosperm non-aromatic, non-glutinous, and has a light brown pericarp. Moderately resistant to sheath blight (*Rhizoctonia solani*) and has good field resistance to both rottenneck blast (*Pyricularia grisea*) and the physiological disorder straighthead. Also resistant to leaf smut (*Entyloma oryzae*) and narrow brown leaf spot (*Cercospora janseana*). Off-types observed and removed from increase fields included any combination of the following: taller, shorter, pubescent, earlier, later, gold-hull, and intermediate grain shape. Total number of off-types was less than 1 per 5,000 plants.

The following were developed by David J. Andrews, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68503, United States; J.F. Rajewski, University of Nebraska, Dept. of Agronomy, P.O. Box 830915, Lincoln, Nebraska 68583-0915, United States; Ismail Dweikat, University of Nebraska, 279 Plant Sciences, Agronomy and Horticulture Department, Lincoln, Nebraska 68583, United States. Received 01/30/2004.

**PI 634545. *Pennisetum glaucum* (L.) R. Br.**

Breeding. NPM-4. GP-37. Pedigree - Derived from open pollinated outcrosses of Nebraska white grain inbred line 57028RIw grown in a winter nursery. Maturity medium, dwarf, tillering germplasm 85-100 cm in height. Flowers 55-72 d after early June to early July plantings at Mead, NE. Good restorer of the A1 cytoplasmic-nuclear male sterile system with good combining ability for yield. Grain yields of topcross hybrids on three A1 seed parents were 89%, 85%, and 115% higher than in early, normal, and late plantings, respectively. Seed white to cream color, obovate, hexagonal, and spherical shapes with a size range of 6.9-17.3 g/1000. Panicles compact, candle-shaped, 17-28 cm in length (21.7 cm mean) and 2.1-3.5 cm in diameter with good exertion and upright habit with 1-2 panicles/plant. Anthers yellow with profuse pollen shed.

The following were developed by David J. Andrews, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68503, United States; J.F. Rajewski, University of Nebraska, Dept. of Agronomy, P.O. Box 830915, Lincoln, Nebraska 68583-0915, United States; Ismail Dweikat, University of Nebraska, 279 Plant Sciences, Agronomy and Horticulture Department, Lincoln, Nebraska 68583, United States; G.E. Frickel, University of Nebraska, Dept. of Agronomy & Horticulture, Lincoln, Nebraska 68583, United States; D.B. Baltensperger, University of Nebraska, Dep. of Agronomy & Horticulture, Lincoln, Nebraska 68583, United States. Received 01/30/2004.

**PI 634546. *Pennisetum glaucum* (L.) R. Br.**

Breeding. NPM-5. GP-39. Pedigree - Derived from intermating 17 A4& parental breeding lines. Maturity medium early, dwarf, tillering A4& germplasm 66-104 cm in height. Flowers 57-68 d after early June to early July plantings at Mead, NE. Pollen shedding counts indicate that 99-100%

of plants are male fertile. Gives 61-93% male fertility restoration in hybrids with two A4 male sterile lines. Grain yields of 1600-2800 kg/ha have been recorded. Grain yields topcross hybrids with 2 seed parent lines were 64%, 22%, and 38% higher than in early, normal, and late plantings, respectively. Seed gray in color, variable in shape with a size range of 5.9-13.8 g/1000. Panicles range in size from 14-29 cm in length (21.6 cm mean) and 2.2-3.7 cm in diameter with good exertion and segregate for bristles.

**PI 634547. *Pennisetum glaucum* (L.) R. Br.**

Breeding. NPM-6. GP-40. Pedigree - Derived from intermating 37 A4R4 parental breeding lines. Maturity medium early, dwarf, tillering, 85-100 cm in height. Flowers 58-69 d after early June to early July plantings at Mead, NE. Pollen shedding counts indicate that 93-96% of plants are male fertile. Gives 63-81% male fertility restoration in hybrids with two A4 male sterile lines. Grain yields of 1700-2700 kg/ha have been recorded. Grain yields topcross hybrids with 2 seed parent lines were 25%, 27%, and 30% higher than in early, normal, and late plantings, respectively. Seed gray or white in color, variable in shape with a size range of 5.3-17.4 g/1000. Panicles range in size from 17-28 cm in length (22.5 cm mean) and 2.1-3.5 cm in diameter and have good exertion.

The following were developed by Ismail Dweikat, University of Nebraska, 279 Plant Sciences, Agronomy and Horticulture Department, Lincoln, Nebraska 68583, United States. Received 01/30/2004.

**PI 634548. *Pennisetum glaucum* (L.) R. Br.**

Breeding. NPM-7. Pedigree - Derived from intermating 31 AIRI parental breeding lines developed in the UNL breeding program. Maturity medium early, dwarf, tillering 96-106 cm in height. Flowers 54-59 d after early June to early July plantings at Mead, NE. Pollen shedding counts indicate that 95-97% of plants are male fertile. Gives 38-46% male fertility restoration in a hybrid with an A1 male sterile line and 12-29% male fertility restoration in a hybrid with an A4 male sterile line. Grain yields of 2100-3600 kg/ha have been recorded. Seed gray in color, variable in shape with a size range of 7.1-17.6 g/1000. Panicles range in size from 18-32 cm in length (22.4 cm mean) and 2.0-3.3 cm in diameter and have good exertion.

The following were developed by David J. Andrews, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68503, United States; J.F. Rajewski, University of Nebraska, Dept. of Agronomy, P.O. Box 830915, Lincoln, Nebraska 68583-0915, United States; Ismail Dweikat, University of Nebraska, 279 Plant Sciences, Agronomy and Horticulture Department, Lincoln, Nebraska 68583, United States. Received 01/30/2004.

**PI 634549. *Pennisetum glaucum* (L.) R. Br.**

Breeding. NPM-8. GP-38. Pedigree - Derived from selections of the Nigerian Dwarf Composite (NCD2) germplasm (a very late, medium tall, long panicle, lodging, Nigerian and West African land race composite). Dwarf, medium maturing, tillering, 93-123 cm in height. Flowers 57-66 d after early June to early July plantings at Mead, NE. Gives 56-73% male fertility restoration in hybrids with two A1 male sterile lines and 3-11% male fertility restoration in a hybrid with an A4 male sterile line. Grain yields of 1600-2900 kg/ha have been recorded. Grain yields

of topcross hybrids with 3 seed parent lines were 82%, 44%, and 91% higher than in early, normal, and late plantings, respectively. Seeds gray in color, variable in shape with a size range of 4.8 - 11.3 g/1000. Panicles range in size from 24-45 cm in length (mean length 31.0 cm) and 1.7-2.5 cm in diameter and have good exertion.

The following were developed by Agriculture and Agri-Food Canada, Cereal Research Centre, Canada. Received 02/11/2004.

**PI 634550 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "SNOWBIRD"; BW 264. PVP 200300350. Pedigree - RL4137\*6//Thatcher/Poso 48.

The following were developed by Washington State University Research Foundation, Washington, United States. Received 02/11/2004.

**PI 634551 PVPO. *Prunus persica* (L.) Batsch**

Cultivar. "TruGold". PVP 200400055.

The following were developed by Paragon Seed, Inc., United States. Received 02/11/2004.

**PI 634552 PVPO. *Lactuca sativa* L.**

Cultivar. "RUBICON". PVP 200400056.

The following were developed by Robert H. Busch, USDA, ARS, University of Minnesota, Dept. of Agronomy & Plant Genetics, St. Paul, Minnesota 55108, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; G. Hareland, USDA, ARS, Fargo, North Dakota 58105, United States; G. Linkert, University of Minnesota, St. Paul, Minnesota 55108, United States; Minnesota Agricultural Experiment Station, St. Anthony Park, Minnesota, United States; Ruth Dill-Macky, University of Minnesota, Department of Plant Pathology, 495 Borlaug Hall, St. Paul, Minnesota 55108, United States; J.A. Anderson, University of Minnesota, Department of Agronomy & Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States; James Kolmer, USDA-ARS, Cereal Disease Laboratory, 1551 Lindig, St. Paul, Minnesota 55108, United States; J.V. Wiersma, University of Minnesota, Crookston, Minnesota 56716, United States. Received 02/11/2004.

**PI 634553. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "OKLEE"; MN95002; MN95002-A. PVP 200400061; CV-963. Pedigree - '2375'/SBF0670. Released 2003. Erect juvenile plant growth, recurved flag leaf, white glumes with apiculate shoulder and acuminate beak. Spike is awned, mid-dense, tapering. Kernel is red, ovate in shape with angular cheeks and narrow, mid-deep crease. The brush on the kernel has a collar and is medium in length. Semidwarf cultivar averaging 75 cm in ht with lodging resistance rated as medium. Moderate resistance to *Fusarium* head blight (*Fusarium graminearum*) in misted, inoculated field nurseries. In 11 *Fusarium* head blight nurseries from 1998 to 2001, averaged 23.6% diseased spikelets, 16.7% visually scabby kernels, 8.8 ppm deoxynivalenol. Resistant to currently prevalent races of stem rust (*Puccinia graminis*) as seedlings in greenhouse tests and as adults in

field tests with the same races. Moderately resistant to moderately susceptible to leaf rust (*Puccinia triticina*) depending upon races present. Moderately resistant to race 1 isolate Pti2 (ATCC 44143) of tan spot (*Pyrenophora tritici-repentis*) based on greenhouse assays. Field reaction to foliar diseases tan spot and septoria tritici blotch (*Septoria tritici*) is moderate, better than 2375. Average grain volume weight of 78.84 kg hl<sup>-1</sup> and grain protein of 150 g kg<sup>-1</sup> in Minnesota trials from 1998 through 2001. Relatively weak dough mixing strength as indicated by mixograph pattern in which it was rated as 2.0 on a 1-9 scale (1=weakest, 9=strongest) whereas 2375 was rated as 2.9.

The following were developed by Wisconsin Agricultural Experiment Station, Madison, Wisconsin, United States. Received 02/11/2004.

**PI 634554 PVPO. *Avena sativa* L.**

Cultivar. Pureline. "DRUMLIN"; X7822-3. PVP 200400062. Pedigree - MN89252/Gem.

The following were developed by Syngenta Seeds, Inc., United States. Received 02/11/2004.

**PI 634555 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2263". PVP 200400063.

**PI 634556 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2365". PVP 200400064.

**PI 634557 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2373". PVP 200400065.

**PI 634558 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2391". PVP 200400066.

**PI 634559 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2424". PVP 200400067.

**PI 634560. *Zea mays* L. subsp. *mays***

Cultivar. "NP2436". PVP 200400068.

**PI 634561 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2464". PVP 200400069.

**PI 634562 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2465". PVP 200400070.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 02/11/2004.

**PI 634563 PVPO. *Poa trivialis* L.**

Cultivar. "RAM100". PVP 200400071.

The following were developed by WestBred LLC, 8111 Timberline Dr., Bozeman, Montana 59718, United States. Received 02/11/2004.



**PI 634564 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "PRYOR". PVP 200400072. Pedigree - Hatten/Abilene.

The following were developed by Blue Moon Farms, United States; KRB Seed Company, United States. Received 02/11/2004.

**PI 634565 PVPO. *Festuca arundinacea* Schreb.**

Cultivar. "REBEL PRO". PVP 200400090.

The following were developed by Advanta USA, Inc., United States. Received 02/11/2004.

**PI 634566 PVPO. *Festuca arundinacea* Schreb.**

Cultivar. "REGIMENT II". PVP 200400092.

The following were developed by Edward J. Souza, University of Idaho, Aberdeen Research & Extension Center, P.O. Box 870, Aberdeen, Idaho 83210, United States; Mark D. Lazar, Texas A&M University, Research & Extension Center, 6500 Amarillo Blvd. West, Amarillo, Texas 79106, United States; Mary Guttieri, University of Idaho, PO Box 870, 1693 S 2700 W, Aberdeen, Idaho 83210-0530, United States; Idaho Research Foundation, Inc., Idaho, United States; D. Thill, University of Idaho, Dept. of Plant, Soils and Entomol. Sci., Moscow, Idaho 83844-2339, United States; T. Rauch, University of Idaho, Dept. of Plant, Soils, and Entomol. Sci., Moscow, Idaho 83844-2339, United States. Received 02/11/2004.

**PI 634567. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "IDAHO 587"; IDO587. PVP 200400096; CV-990; REST 634567. Pedigree - Stephens\*4/FS4. Released 2003. Unpigmented coleoptile, dark green foliage, and a prostrate to semi-erect fall growth habit. Is a semi-dwarf winter wheat approximately 85 cm tall at maturity. Is a medium maturity cultivar heading 159 d after Jan. 1. Has broad, recurved flag leaves, is awned, with yellow anthers at anthesis and white colored chaff at maturity. Has large, plump, oval, soft white seed with wide crease, short brush, mid-sized embryo. Average seed size is 46 mg. Has both seedling and adult plant resistance to the dominant races of stripe rust.

The following were developed by Idaho Research Foundation, Inc., Idaho, United States. Received 02/11/2004.

**PI 634568. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "JEROME".

The following were developed by D&PL Technology Holding Corp., United States. Received 02/11/2004.

**PI 634569 PVPO. *Gossypium hirsutum* L.**

Cultivar. "DP 494 RR". PVP 200400098.

**PI 634570 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "4283008". PVP 200400099.

The following were developed by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Kevin E. McPhee, Washington State University, Crop & Soil Science Department, Johnson 305, Pullman, Washington 99164-6420, United States. Received 01/05/2004.

**PI 634571. *Pisum sativum* L.**

Cultivar. "STIRLING"; PS610152. CV-21; PVP 200400269. Pedigree - Alaska 81/3/PS810088/2/Alaska81/Radley. Semi-dwarf growth habit and has the recessive allele for semi-leafless leaf morphology. Vines 60cm long and internodes appear in a zigzag manner. One to two basal branches are common in most environments. Normal, non-clasping stipules are moderately marbled. Flowering begins at the 14th node. Flowers white and usually borne doubly on the peduncles. Pods straight, blunt ended and medium green with six to seven seeds. Seeds smooth and round with bright green cotyledons and a clear testa. The bright green seed color is durable in moist conditions with intense sunlight conducive to seed bleaching, a cause of serious quality impairment in green cotyledon dry peas. Weight of 100 seeds averages 21.1 g compared to 17.0 g for Columbian. Resistant to race 1 of fusarium wilt (*Fusarium oxysporum*) and powdery mildw, but is susceptible to pea enation mosaic virus.

The following were developed by J. Neil Rutger, 1989 Witham Drive, Woodland, California 95776, United States. Received 02/05/2004.

**PI 634572 MAP. *Oryza sativa* L.**

Cultivar. KBNT lpa1-1; Kaybonnet lpa 1-1; japonica parent of jap./indica map. pop.. Pedigree - Induced low phytic acid mutant of the japonica cultivar Kaybonnet. This is a new PI assignment of PI 632282 representing one of the parents of 353 Oryza Mapping Population. The second parent is Zhe733, PI 629016, newly assigned PI 634573.

**PI 634573 MAP. *Oryza sativa* L.**

Cultivar. "Zhe733"; indica parent of japonica/indica map pop. Pedigree - Indica cultivar from China. This is a new PI assignment of PI 629016 representing one of the parents of 353 Oryza Mapping Population. The second parent is KBNT lpa1-1, PI 632282, newly assigned PI 634572.

The following were developed by Carl W. Johnson, California Cooperative Rice Research Foundation, Inc., P.O. Box 306, Biggs, California 95917, United States; J. Neil Rutger, 1989 Witham Drive, Woodland, California 95776, United States; David J. Mackill, International Rice Research Institute, Plant Breeding, Genetics & Biochemistry Division, DAPO Box 7777, Metro Manila, Luzon, Philippines. Received 02/05/2004.

**PI 634574. *Oryza sativa* L.**

Genetic. GUICHAO 2 eui; GSOR 11. GS-1. Pedigree - Gamma ray induced eui mutant of the indica cultivar Guichao 2. Carries the recessive tall eui (elongated uppermost internode) gene in an indica background, as opposed to eui mutants previously found in japonica rices. The eui plant type is potentially useful for better pollen transfer in hybrid rice seed

production, by raising the male line panicles above female line panicles, or by obtaining better panicle exertion of female line panicles from the flag leaf boot. The eui phenotype is characterized by near-doubling in length of the uppermost internode, resulting in the panicle being noticeably extruded above the flag leaf.

The following were developed by John Bernhardt, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; J. Neil Rutger, 1989 Witham Drive, Woodland, California 95776, United States; James W. Gibbons, University of Arkansas, Rice Research & Ext. Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; Rolfe J. Bryant, USDA, ARS, Dale Bumpers National Rice Research Center, P.O. Box 1090, Stuttgart, Arkansas 72160, United States. Received 02/05/2004.

**PI 634575. *Oryza sativa* L.**

Breeding. Pureline. indica-1. GP-95. Pedigree - Zhe733/IR65629-22-1-3-3-3-1 F11. Released 2004. Early-maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 217 g/ kg-1 amylose, heads in 93 days, is 116 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634576. *Oryza sativa* L.**

Breeding. Pureline. indica-2. GP-96. Pedigree - Zhe733/IR65629-67-3-3-1-1-2 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 206 g kg-1 amylose, heads in 91 days, is 117 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634577. *Oryza sativa* L.**

Breeding. Pureline. indica-3. GP-97. Pedigree - Zhe733/IR65629-157-3-2-3-2-1 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 217g kg-1 amylose, heads in 91 days, is 117 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634578. *Oryza sativa* L.**

Breeding. Pureline. indica-4. GP-98. Pedigree - Zhe733/IR65629-157-3-2-3-2-1 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 222 g kg-1 amylose, heads in 95 days, is 117 cm tall,

yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634579. *Oryza sativa* L.**

Breeding. Pureline. indica-5. GP-99. Pedigree - Zhe733/IR65629-157-3-2-3-2-1 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 216g kg<sup>-1</sup> amylose, heads in 92 days, is 121 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634580. *Oryza sativa* L.**

Breeding. Pureline. indica-6. GP-100. Pedigree - Zhe733/IR65450-3-3-2-3-3-2 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 211g kg<sup>-1</sup> amylose, heads in 97 days, is 116 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634581. *Oryza sativa* L.**

Breeding. Pureline. indica-7. GP-101. Pedigree - Zhe733/IR53936-60-3-2-3-1 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 221g kg<sup>-1</sup> amylose, heads in 90 days, is 114 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634582. *Oryza sativa* L.**

Breeding. Pureline. indica-8. GP-102. Pedigree - Zhe733/IR60864-88-1-1-1-2 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 211g kg<sup>-1</sup> amylose, heads in 98 days, is 118 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

**PI 634583. *Oryza sativa* L.**

Breeding. Pureline. indica-9. GP-103. Pedigree - Zhe733/IR64 F11. Released 2004. Early maturing, intermediate amylose recombinant from an indica/indica crossing program initiated as a means of base broadening in U.S. rice, where very narrow genetic bases, essentially all in japonicas, have evolved because of need for adaptation to temperate climate and to specific grain quality requirements. Has 224g kg<sup>-1</sup> amylose, heads in 92 days, is 107 cm tall, yields competitively with local japonicas, and has typical long grain dimensions.

The following were developed by HZPC Holland B.V., Netherlands. Received 08/28/2002.

**PI 634584. *Solanum tuberosum* L.**  
Cultivar. "LISETA". PVP 9700115.

**PI 634585 PVPO. *Solanum tuberosum* L.**  
Cultivar. "FELSINA". PVP 9700114.

The following were developed by Floranova LTD, Norwich Road, Foxley, Dereham, Norfolk NR20 4SS, United Kingdom. Received 02/23/2004.

**PI 634586. *Salvia splendens* Sellow ex Schult.**  
Cultivar. "Sared". PVP 200400009.

The following were developed by Celex B.V., Netherlands. Received 02/23/2004.

**PI 634587 PVPO. *Celosia argentea* L.**  
Cultivar. "CELKOCREA". PVP 200400021.

**PI 634588 PVPO. *Celosia argentea* L.**  
Cultivar. "CELKOPI". PVP 200400022.

**PI 634589. *Celosia argentea* L.**  
Cultivar. "CELKOPURED". PVP 200400023.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 02/23/2004.

**PI 634590 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "96M20". PVP 200400073.

**PI 634591 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "95M80". PVP 200400074.

The following were developed by Advanta USA, Inc., United States. Received 02/23/2004.

**PI 634592 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "ATF800". PVP 200400101.

**PI 634593 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "ATF802". PVP 200400102.

**PI 634594 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "ATF803". PVP 200400103.

The following were developed by Reitgers University & Seeds, LLC, United States. Received 02/23/2004.

**PI 634595 PVPO. *Poa pratensis* L.**  
Cultivar. "ARROW". PVP 200400104.

The following were developed by D&PL Technology Holding Company, LLC,  
Netherlands. Received 02/23/2004.

**PI 634596 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "3282002"; 98-03861. PVP 200400105.

**PI 634597 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "5091007"; 98-02445. PVP 200400106.

**PI 634598 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "2386009"; 989-06954. PVP 200400107.

The following were developed by Rutgers University - Cook College, New  
Brunswick, New Jersey, United States. Received 02/23/2004.

**PI 634599 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "COCHISE III". PVP 200400109.

The following were developed by University of Georgia Research Foundation,  
Inc., Athens, Georgia, United States. Received 02/23/2004.

**PI 634600 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "USG 3592"; GA93124E16. PVP 200400110. Pedigree - Coker  
9134/GA881502. Soft red winter wheat.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland,  
California, United States. Received 02/23/2004.

**PI 634601 PVPO. *Pisum sativum* L.**  
Cultivar. "XP 08510597". PVP 200400111.

**PI 634602 PVPO. *Pisum sativum* L.**  
Cultivar. "XP 08500595". PVP 200400112.

The following were donated by Barry Comeaux, East Texas State University,  
Dept. of Agriculture, Commerce, Texas 75429, United States. Received  
04/17/1990.

**PI 634603. *Vitis x doaniana* Munson ex Viala**  
Wild. 3296. Collected 01/01/1989 in Texas, United States. Cottle County,  
Texas, along South fork of Peace River at junction with Hwy 83.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell  
University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United  
States. Donated by Aimak Dj. Djangaliev, Academy of Sciences Rep. of  
Kazakhstan, Main Botanical Garden, 187 Tulebaev st., apt. 11, Almaty, Alma-Ata  
480091, Kazakhstan; Philip L. Forsline, USDA, ARS, Cornell University, Plant

Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 11/05/1993.

**PI 634604. *Vitis* sp.**

Wild. KAZ93-31-05. Collected 09/17/1993 in Kazakhstan. Latitude 43° 26' 59" N. Longitude 77° 27' 18" E. Elevation 690 m. Kazakhstan, Aktogai Village, Issyk Arboretum. Collected among 60 species of *Crataegus* and many other Kazakh species, lots of buckhorn; flat slope. Pedigree - Wild. Fruit: 1.0 cm, black, acidic, dark juice; two inch cluster, tight, compact.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Elizabeth E. Dickson, The University of Calgary, Herbarium, Dept. of Biological Sciences, 2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 09/21/1995.

**PI 634605. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-1; GVIT 1548. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau Province. Boraldy River Forest Area. 3 Kkm east of Boraldy Forest camp which is 80km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a sream bed. Rainfall 343mm. Dominant tree sp. *Morus*; Assoc. *Crataegus*. Dominant shrub sp. *Pistacia*; Assoc: *Amygdalus*.

**PI 634606. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-2; GVIT 1549. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau Province. Boraldy River Forest araea. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall is 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634607. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-3; GVIT 1550. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline is flat to 10%, south, open light. Along a stream bed. Rainfall is 343mm. Dominant tree sp. is *morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634608. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-4; GVIT 1551. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a streamm bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634609. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-5; GVIT 1552. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*, Assoc. is *Amygdalus*.

**PI 634610. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-6; GVIT 1553. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. 3 km East of Boraldy camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage, south, open light. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*: Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*: Assoc. is *A*.

**PI 634611. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-7; GVIT 1554. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest Area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*: Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634612. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-8; GVIT 1555. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634613. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-9; GVIT 1556. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634614. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-10; GVIT 1557. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatua province. Boraldy River forest area. 3 km east of Boraldy forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline is flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634615. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-11; GVIT 1558. Collected 09/08/1995 in Kazakhstan.



Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634616. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-12; GVIT 1559. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634617. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-13; GVIT 1560. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline is flat to 10%, south, open light. Along a stream bed. Rainfall is 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634618. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-14; GVIT 1561. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634619. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-15; GVIT 1562. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634620. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-16; GVIT 1563. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634621. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-17; GVIT 1564. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy

Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline is flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634622. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-18; GVIT 1565. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline is flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634623. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-19; GVIT 1566. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634624. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-20; GVIT 1567. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634625. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-21; GVIT 1568. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *NMorus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634626. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-22; GVIT 1569. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634627. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-23; GVIT 1570. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. BoraldyRiver Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a

stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634628. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-24; GVIT 1571. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634629. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-25; GVIT 1572. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634630. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-26; GVIT 1573. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634631. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-27; GVIT 1574. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634632. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-28; GVIT 1575. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634633. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-29; GVIT 1576. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634634. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-30; GVIT 1577. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3 km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

**PI 634635. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 16-01P-31; GVIT 1578. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 23" N. Longitude 69° 56' 15" E. Elevation 640 m. Karatau province. Boraldy River Forest area. 3km east of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 09/21/1995.

**PI 634636. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 17-15; GVIT 1579. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 27" N. Longitude 69° 53' 25" E. Elevation 620 m. Province of Karatau. Boraldy River Forest area. 2 km south of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub sp. is *Pistacia*; Assoc. is *Amygdalus*. Open area, 2 km. x 200m. Abundant distribution of 150 vines, varied uniformity, 90% fruiting.

**PI 634637. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 95 17-16; GVIT 1580. Collected 09/08/1995 in Kazakhstan. Latitude 42° 52' 27" N. Longitude 69° 53' 25" E. Elevation 620 m. Province of Karatau. Boraldy River Forest area. 2 km South of Boraldy Forest camp which is 80 km N of Chimkent. Soil is fine. Very stoney, very dry drainage. Incline flat to 10%, south, open light. Along a stream bed. Rainfall 343mm. Dominant tree sp. is *Morus*; Assoc. is *Crataegus*. Dominant shrub is *Pistacia*; Assoc. is *Amygdalus*. Open area, 2km x 200m. Abundant distribution of 150 vines, varied unifromity, 90% fruiting. Growing up on slope away from stream. Drought resistant?.

The following were collected by Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/31/1996.

**PI 634638. *Vitis vinifera* subsp. *sylvestris* (C. C. Gmel.) Hegi**

Cultivated. AL 66; GVIT 1581. Collected 08/20/1996 in Albania.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/31/1996.

**PI 634639. *Vitis vinifera* L. subsp. *vinifera***

Wild. KAZ 96 08-08; GVIT 1582. Collected 09/13/1996 in Kazakhstan. Latitude 42° 42' 5" N. Longitude 70° 16' 36" E. Elevation 940 m. Locality: Kok Bulak (Black Spring) Forestry Camp. 35 km southeast of Boraldy Camp visited in 1995. Collections made in and around camp-north, east, south of camp. Habitat: Variable and open, stream bed and hillsides. Rainfall 275mm. Dominant tree sp: *Crataegus*; Assoc.-*Malus*, *Vitis*, *Morus Rhamnus*. Dominant shrub sp: *Amygdalus*, *Pyrus*, *Rosa*. Dominant herbaceous: Grasses. Multi shouldered clusters. Extra loose 15x15mm oblong berries; 45-65 per cluster; clusters 20cm. variable size berries, blue color.

The following were collected by Diane S. Pavek, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, 4th Floor, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 08/05/1998.

**PI 634640. *Vitis rupestris* Scheele**

Wild. Clifty CKNA; GVIT 1617. Collected 08/01/1998 in Missouri, United States. The grape fruits were all collected as part of an in situ preservation study.

**PI 634641. *Vitis rupestris* Scheele**

Wild. GVIT 1618; Jacksfort NR. Collected 08/01/1998 in Missouri, United States. The grape fruits were all collected as part of an in situ preservation study.

**PI 634642. *Vitis rupestris* Scheele**

Wild. Poll/WMWR; GVIT 1619. Collected 08/01/1998 in Oklahoma, United States. The grape fruits were all collected as part of an in situ preservation study.

The following were collected by Bruce I. Reisch, Cornell University, New York State Agric. Exp. Station, Department of Horticultural Sciences, Geneva, New York 14456-0462, United States. Received 11/17/2003.

**PI 634643. *Vitis aestivalis* Michx.**

Wild. HS 33/03; GVIT 1623. Collected 10/17/2003 in New York, United States. Rt. 89 along the west side of Cayuga Lake, New York.

**PI 634644. *Vitis aestivalis* Michx.**

Wild. HS 34/03; GVIT 1624. Collected 10/17/2003 in New York, United States. Rt. 89 along the west side of Cayuga Lake, New York.

The following were collected by Barry Comeaux, East Texas State University, Dept. of Agriculture, Commerce, Texas 75429, United States. Received 06/09/1988.

**PI 634645. *Vitis mustangensis* Buckley**

Wild. 4635. Collected 01/01/1988 in Texas, United States.

**PI 634646. *Vitis aestivalis* var. *lincecumii* (Buckley) Munson**

Wild. 4645. Collected 01/01/1988 in Texas, United States.

**PI 634647. *Vitis rotundifolia* Michx.**

Wild. 4687. Collected 01/01/1988 in Louisiana, United States.

**PI 634648. *Vitis riparia* Michx.**

Wild. 4692. Collected 01/01/1988 in Ontario, Canada.

The following were donated by L.P. Gunson & Company, New York, United States. Received 09/1961.

**PI 634649. *Daucus carota* L.**

Cultivar. Nunhems 4092-1; 03 410-1; NSL 6161; Canners Special.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

**PI 634650. *Daucus carota* L.**

Cultivar. 30951; NSL 6163; Chantenay/Model.

The following were donated by Northrup, King & Company, 1500 Jackson N.E., Minneapolis, Minnesota 55413, United States. Received 1961.

**PI 634651. *Daucus carota* L.**

Cultivar. 30961; NSL 6165; Chantenay Long Type.

The following were donated by Rudy-Patrick Seed Company, Kansas City, Missouri, United States. Received 1961.

**PI 634652. *Daucus carota* L.**

Cultivar. 03 412-1; NSL 6185; Long Orange.

**PI 634653. *Daucus carota* L.**

Cultivar. Nunhems 4093-1; 30971; NSL 6192; Tendersweet.

The following were donated by Dessert Seed Co., Inc, P.O. Box 181, El Centro, California 92243, United States. Received 09/1961.

**PI 634654. *Daucus carota* L.**

Cultivar. Nunhems 4094-1; 03 408-1; NSL 6198; Waltham Hicolor.

The following were donated by T.W. Wood & Sons Seed Co., Richmond, Virginia, United States. Received 12/1978.

**PI 634655. *Daucus carota* L.**

Cultivar. Nunhems 4095-1; 30981; NSL 6199; Woods Scarlet Intermediate.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 12/1961.

**PI 634656. *Daucus carota* L.**

Cultivar. Nunhems 4096-1; 30991; NSL 7387; Airliner.

The following were donated by Sluis & Groot, P.O.B. 13, Westeinde 62, Enkhuizen, North Holland 1600 AA, Netherlands. Received 1963.

**PI 634657. *Daucus carota* L.**

Cultivar. 31001; NSL 26496; Nantes Tip Top.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 634658. *Daucus carota* L.**

Cultivar. 31011; NSL 28008; C Saint Fiacre. Collected in France.

The following were collected by Bassam Al-Safadi, Atomic Energy Commission, P.O. Box 6091, Damascus, Syria. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Bassam Al-Safadi, Atomic Energy Commission, P.O. Box 6091, Damascus, Syria. Received 12/07/1999.

**PI 634659. *Lactuca sativa* L.**

Cultivated. S016; W6 22047. Collected 07/15/1999 in Syria. Latitude 36° 11' 57" N. Longitude 37° 9' 10" E. Bab Alfraj seed market. Local lettuce.

**PI 634660. *Lactuca sativa* L.**

Cultivated. S017; W6 22048. Collected 07/15/1999 in Syria. Latitude 36° 11' 57" N. Longitude 37° 9' 10" E. Bab Alfraj seed market. Foreign lettuce.

The following were donated by Edward J. Ryder, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 01/08/2000.

**PI 634661. *Lactuca sativa* L.**

Cultivar. "Imperial"; W6 22148.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 01/27/2000.

**PI 634662. *Lactuca sativa* L.**

Cultivated. P 144; POL 177967; W6 22207. Collected 07/1999 in Poland. Latitude 51° 20' 14" N. Longitude 23° 30' 41" E. Elevation 0 m.

Piaski.

**PI 634663. *Lactuca sativa* L.**

Uncertain. P 188; POL 177966; W6 22208. Collected 07/1999 in Poland. P 188.

The following were donated by Edward J. Ryder, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 01/07/2000.

- PI 634664. *Lactuca sativa* L.  
Cultivated. "Australischer Gelber"; W6 22248.
- PI 634665. *Lactuca sativa* L.  
Cultivated. "Batavia Blonde a Bord Rouge"; Several; W6 22249.
- PI 634666. *Lactuca sativa* L.  
Cultivated. "Batavia Doree de Printemps"; W6 22250.
- PI 634667. *Lactuca sativa* L.  
Cultivated. "Batavia Gloire de Dauphine"; W6 22251.
- PI 634668. *Lactuca sativa* L.  
Cultivated. "Batavia Reine des Glaces"; W6 22252.
- PI 634669. *Lactuca sativa* L.  
Cultivated. "Bautzen Dauerkopf (blk & wht)"; W6 22253.
- PI 634670. *Lactuca sativa* L.  
Cultivated. "Blonde Lente a Monter"; W6 22254.
- PI 634671. *Lactuca sativa* L.  
Cultivated. "Borough Wonder"; Unrivalled; W6 22255.
- PI 634672. *Lactuca sativa* L.  
Cultivated. "Bourguignonne"; W6 22256.
- PI 634673. *Lactuca sativa* L.  
Cultivated. "Cut and Come Again"; B S Simpson; W6 22257.
- PI 634674. *Lactuca sativa* L.  
Cultivated. "Deer's Tongue"; W6 22258.
- PI 634675. *Lactuca sativa* L.  
Cultivated. "Giant Crystal"; Iceberg; W6 22259.
- PI 634676. *Lactuca sativa* L.  
Cultivated. "Gloire de Nantes"; W6 22260.
- PI 634677. *Lactuca sativa* L.  
Cultivated. "Gotte Lente a Monter"; W6 22261.
- PI 634678. *Lactuca sativa* L.  
Cultivated. "Grandpa Admires"; W6 22262.
- PI 634679. *Lactuca sativa* L.  
Cultivated. "Histon Krispie"; W6 22264.
- PI 634680. *Lactuca sativa* L.  
Cultivated. "Kagraner Sommer"; W6 22265.



- PI 634681. *Lactuca sativa* L.**  
Cultivated. "Laibacher Eis"; Bord Rouge; W6 22266.
- PI 634682. *Lactuca sativa* L.**  
Cultivated. "Maikonig"; May King; W6 22267.
- PI 634683. *Lactuca sativa* L.**  
Cultivated. "Madrilene"; W6 22268.
- PI 634684. *Lactuca sativa* L.**  
Cultivated. "Maravilla de Verano"; W6 22269.
- PI 634685. *Lactuca sativa* L.**  
Cultivated. "Merveille de Quatre Saisons"; W6 22270.
- PI 634686. *Lactuca sativa* L.**  
Cultivated. "Passe-Partout"; W6 22271.
- PI 634687. *Lactuca sativa* L.**  
Cultivated. "Romaine Blonde Maraichere"; White Paris; W6 22272.
- PI 634688. *Lactuca sativa* L.**  
Cultivated. "Speed's Holdfast"; W6 22273.
- PI 634689. *Lactuca sativa* L.**  
Cultivated. "Tennis Ball Black Seeded"; W6 22274.
- PI 634690. *Lactuca sativa* L.**  
Cultivated. "Wonder van Voorburg"; W6 22275.

The following were donated by Menahem Edelstein, Newe-Ya'ar Research Center, Agricultural Research Organization, P.O. Box 1021, Ramat Yishay, Israel. Received 10/25/2002.

- PI 634691. *Citrullus lanatus* (Thunb.) Matsum. & Nakai**  
Breeding. 203; Grif 15145. Edible seeded watermelon.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy. Received 09/28/1992.

- PI 634692. *Cucurbita moschata* Duchesne**  
1228; Grif 1573. Collected 1988 in Yemen. PDR South Yemen.

The following were donated by William Waycott, USDA, ARS, 1636 East Alisal Street, Salinas, California 93905, United States; Narayana Naidu, 221, Raina Mandiram Street, Hanur, Karnataka 571-439, India. Received 04/08/1993.

- PI 634693. *Cucurbita moschata* Duchesne**  
Grif 1580. Collected in India. Area between Mysore and Bangalore, but closer to Mysore. These are likely to be commercially available, open-pollinated selections from landraces.

The following were donated by Tong Daxiang, Institute of Crop Germplasm Resources, Chinese Academy of Agricultural Sciences, 30 Bai Shi Qiao Road, Beijing, Beijing, China. Received 02/01/1993.

**PI 634694. *Cucurbita moschata* Duchesne**  
Ex. No. 1; Grif 1582; BAI PI SUN GUA.

**PI 634695. *Cucurbita moschata* Duchesne**  
Ex. No. 21; Grif 1587; ZHAN YANG XI HU LU.

The following were collected by Bruce F. Benz, Lab. Nat. L. Joyas de la S. de Manantlan, Universidad de Guadalajara, Postal 1-3933, Guadalajara, Jalisco C.P. 44100, Mexico; S. Solheim; F. Santana. Donated by Hugh H. Iltis, University of Wisconsin, Herbarium and Department of Botany, Madison, Wisconsin 53706, United States. Received 06/30/1992.

**PI 634696. *Cucurbita moschata* Duchesne**  
Cultivated. "Castillo"; 871; Grif 13899; Ames 21632. Collected 11/21/1983 in Jalisco, Mexico. Latitude 19° 50' N. Longitude 104° 10' W. Elevation 1000 m. El Limon Mpio.: El Limon. Planted in maize field same time as corn ca, 3 June.

The following were collected by Bruce F. Benz, Lab. Nat. L. Joyas de la S. de Manantlan, Universidad de Guadalajara, Postal 1-3933, Guadalajara, Jalisco C.P. 44100, Mexico; S. Solheim. Donated by Hugh H. Iltis, University of Wisconsin, Herbarium and Department of Botany, Madison, Wisconsin 53706, United States. Received 06/30/1992.

**PI 634697. *Cucurbita moschata* Duchesne**  
Cultivated. "Tamalajote"; 892a; Grif 13900; Ames 21634. Collected 12/02/1983 in Mexico, Mexico. Latitude 19° 16' N. Longitude 100° 5' W. Elevation 1500 m. Zacazonapan Mpio.: Zacazonapan. Pepos obtained from Blas Lucano Diaz. Planted with the maize in early May. N.V. Tamalajota. Two other types planted here: Pipiana which is used for seeds; and Sinsagua in which the fruit is consumed tender or the seeds of the mature fruits are consumed. Fruit round.

**PI 634698. *Cucurbita moschata* Duchesne**  
Cultivated. "Tamalajota"; 892b; Grif 13901; Ames 21635. Collected 12/02/1983 in Mexico, Mexico. Latitude 19° 16' N. Longitude 100° 5' W. Elevation 1500 m. Zacazonapan Mpio.: Zacazonapan. Pepos obtained from Blas Lucano Diaz. Planted with maize in early May. N.V. Tamalajota.

**PI 634699. *Cucurbita moschata* Duchesne**  
Cultivated. "Tamalajota"; 904; Grif 13902; Ames 21637. Collected 12/04/1983 in Guerrero, Mexico. Latitude 18° 18' N. Longitude 100° 40' W. Elevation 300 m. Coyuca de Catalan Mpio.: Coyuca de Catalan. Pepos obtained from Sr. Juan Bailon, Avenida Revolucion #18. Flesh and seeds consumed.

The following were collected by Bruce F. Benz, Lab. Nat. L. Joyas de la S. de Manantlan, Universidad de Guadalajara, Postal 1-3933, Guadalajara, Jalisco C.P. 44100, Mexico; S. Solheim; K. Benz. Donated by Hugh H. Iltis, University

of Wisconsin, Herbarium and Department of Botany, Madison, Wisconsin 53706, United States. Received 06/30/1992.

**PI 634700. Cucurbita moschata** Duchesne

Cultivated. "Tamala"; 940; Grif 13903; Ames 21638. Collected 12/19/1983 in Oaxaca, Mexico. Latitude 15° 47' N. Longitude 96° 44' W. Elevation 150 m. San Francisco Cosoaltepec Mpio.: Sta. Maria Colotepec. Pepo obtained from Sr. Donaciano Cruz Reyes. This calabasa is the more common of the two cultivated in this region and is preferred for its flesh. N.V. Tamala.

**PI 634701. Cucurbita moschata** Duchesne

Cultivated. 944; Grif 13904; Ames 21639. Collected 12/21/1983 in Oaxaca, Mexico. Latitude 16° 35' N. Longitude 94° 36' W. Elevation 50 m. Niltepec Mpio.: Niltepec. Pepo obtained from Sr. Sesilio Escobar Matus. This is one of two commonly cultivated calabasas in this area. This type matures in 2 months, the fruit is highly prized for consumption when the skin has hardened, prior to this time it is not worth eating. The mature fruit color is beige, immature fruits may be white, green or green/white striped. This type provides more fruit than tamalajota, the second type cultivated in this area.

The following were collected by Bruce F. Benz, Lab. Nat. L. Joyas de la S. de Manantlan, Universidad de Guadalajara, Postal 1-3933, Guadalajara, Jalisco C.P. 44100, Mexico; K. Benz. Donated by Hugh H. Iltis, University of Wisconsin, Herbarium and Department of Botany, Madison, Wisconsin 53706, United States. Received 06/30/1992.

**PI 634702. Cucurbita moschata** Duchesne

Cultivated. 965b; Grif 13905; Ames 21640. Collected 01/07/1983 in Veracruz, Mexico. Latitude 19° 50' N. Longitude 97° 6' W. Elevation 1400 m. Orizaba Mpio.: Orizaba. Pepos purchased in market from woman from San Juan del Rio.

**PI 634703. Cucurbita moschata** Duchesne

Cultivated. 965b; Grif 13906; Ames 21641. Collected 01/07/1983 in Veracruz, Mexico. Latitude 19° 50' N. Longitude 97° 6' W. Elevation 1400 m. Orizaba Mpio.: Orizaba. Pepos purchased in market from woman from San Juan del Rio.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 01/28/1967.

**PI 634704. Cucurbita moschata** Duchesne

Uncertain. Grif 14243; G 17435; HERCULES. Large butternut, thick neck, sometimes dumb-bell shape. Tan skin, bright orange flesh; rather late.

The following were donated by C.R. Gunn, Plant Science Research Division, USDA-ARS, Plant Industry Station, Beltsville, Maryland 20705-2350, United States. Received 1990.

**PI 634705. Cucurbita moschata** Duchesne

Uncertain. 8083; Grif 14245; G 29518. Collected 1990 in Nepal.

The following were donated by Will Bonsall, Scatterseed Project, 39 Bailey Road, Industry, Maine 04938, United States. Received 05/16/2000.

**PI 634706. *Cucurbita moschata* Duchesne**

Uncertain. CP-00-01; Grif 14475. Collected 1999 in Sri Lanka. From South Ratnayake, Dambulla. Large fruited.

The following were developed by Barry Glaz, USDA, ARS, Sugarcane Field Station, Canal Point, Florida 33438, United States; John Dunckelman, Florida Sugar Cane League, P.O. Drawer 1208, Clewiston, Florida 33440, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; Jack C. Comstock, USDA, ARS, US Sugarcane Research Field Station, 12990 US Hwy 441 N, Canal Point, Florida 33438, United States; Robert A. Gilbert, University of Florida, EREC, 3200 East Palm Beach Road, Belle Glade, Florida 33430-8003, United States; S. Edme, USDA-ARS, Sugarcane Field Station, 12990 US Highway 441N, Canal City, Florida 33438, United States; J. Davidson, Florida Sugar Cane League, Inc., P.O. Box 1208, Clewiston, Florida 33440, United States. Received 02/20/2004.

**PI 634707. *Saccharum* sp.**

Cultivar. "CP 94-1340". CV-118. Pedigree - Selected from progeny of the cross CP 87-1733/CP 86-1665. Stalks green and leaves have long ligules. Field resistance to eyespot (*Bipolaris sacchari*), smut (*Ustilago scitaminea*), leaf scald (*Xanthomonas albilineans*), and sugarcane virus strain E. Inoculated test results indicate moderately susceptible to ratoon stunting disease (*Leifsonia xyli* subsp. *xyli*). Fiber content 9.8%. Vegetatively propagated.

The following were developed by Barry 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; John Dunckelman, Florida Sugar Cane League, P.O. Drawer 1208, Clewiston, Florida 33440, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; Jack C. Comstock, USDA, ARS, US Sugarcane Research Field Station, 12990 US Hwy 441 N, Canal Point, Florida 33438, United States; Robert A. Gilbert, University of Florida, EREC, 3200 East Palm Beach Road, Belle Glade, Florida 33430-8003, United States; S. Edme, USDA-ARS, Sugarcane Field Station, 12990 US Highway 441N, Canal City, Florida 33438, United States; J. Davidson, Florida Sugar Cane League, Inc., P.O. Box 1208, Clewiston, Florida 33440, United States. Received 02/20/2004.

**PI 634708. *Saccharum* sp.**

Cultivar. "CP 94-1100". CV-119. Pedigree - Progeny of the cross CP 81-1238 (PI 578048) / CP 88-2045. Stalks have a brownish-green color and are partially self stripping. Field resistance to eye spot (*Bipolaris sacchari*), smut (*Ustilago scitaminea*), and to sugarcane mosaic strain E. Inoculated tests results indicate moderately susceptible to ratoon stunting disease (*Leifsonia xyli* subsp. *xyli*) and to leaf scald (*Xanthomonas albilineans*). A low frequency of small rust pustules (*Puccinia melanocephala*) was observed. Fiber content 9.7%. Vegetatively propagated.

**PI 634709. Saccharum sp.**

Cultivar. "CP 89-2376". CV-122. Pedigree - Parentage unknown because its identifying tag was lost in an intermediate selection stage. Stalks have a heavy wax layer, are yellow-green under the leaf sheath, and are maroon in areas exposed to the sun. Light green growth ring and buds do not touch (subtend) the growth ring. Shows field resistance in Florida to eye spot (*Bipolaris sacchari*), rust (*Puccinia melanocephala*), smut (*Ustilago scitaminea*), leaf scald (*Xanthomonas albilineans*), and sugarcane mosaic virus strain E. Moderately resistant to ratoon stunting disease (*Leifsonia xyli* subsp. *xyli*). Fiber content of 10.2%. Tolerance to high water tables during the growing season. Vegetatively propagated.

The following were developed by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Steve Larson, USDA, ARS, FRRL, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States; Blair Waldron, USDA, ARS, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States; Michael D. Peel, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; USDA, ARS, FRRL, Beltsville, Maryland, United States. Received 02/23/2004.

**PI 634710. Bromus riparius** Rehmann

Cultivar. "CACHE". CV-22; PVP 200500277. Pedigree - Selections from PI 578532 (Regar; 20.9%), PI 536012 (Fleet; 54.1%), and PI 536013 (Paddock; 25%) were open pollinated and subjected to two cycles of selection. A meadow brome grass producing significantly more dry matter than Fleet at all irrigation rates and significantly more dry matter than Regar at the two lowest irrigation rates, under a line-source study with irrigation rates that ranged from 10.1 to 36.8 mm per week. Yielded significantly more total dry matter than orchardgrass (*Dactylis glomerata*) on an irrigated site in northern Utah, under repeated defoliation (6-harvests per year). Evaluated in the Northern Plains Regional Trials at Bluecreek, UT; Green Canyon, UT; Mead, NE; Sidney, NE; Mandon, ND; and Miles City, MT for dry matter forage production and percent stand. Produced significantly more dry matter forage than cvs. of meadow brome grass, orchardgrass, and smooth brome grass (*Bromus inermis*), when combined over six locations and three years. Similar to Regar in establishment and persistence, but significantly better than other meadow brome grass cvs., orchardgrass, and smooth brome grass. Begins growth early in spring and leaves remain green and succulent longer in the growing season than tall fescue (*Festuca arundinaceae*) and orchardgrass. Seedling rate of 13 to 15 kg ha<sup>-1</sup> is recommended in area of adaption. Seedling vigor, as indicated by seedling emergence from a deep planting depth (7.6cm), better than Regar and comparable to Fleet and Paddock. Individual seed weight comparable to Fleet and Paddock, but significantly heavier than Regar. Produced 500 kg of seed ha<sup>-1</sup> when grown in rows 0.76 m apart on an irrigated site. Approx. 188,679 seeds per kg at 100% purity.

The following were developed by J.M. Fernandez, Institute for Sustainable Agriculture, Alameda del Obispo S/N E-14080, Cordoba, Cordoba, Spain; Leonardo Velasco, Institute for Sustainable Agriculture, Alameda del Obispo s/n, Apartado 4084, Cordoba, Cordoba E-14080, Spain. Received 02/27/2004.

**PI 634711. *Carthamus tinctorius* L.**

Breeding. CR-34. GP-36. Pedigree - Derived from PI 304597, a cultivated accession collected in Afghanistan. Seeds with increased levels of tocopherols, mainly in the form of alpha-tocopherol. Total tocopherol content was 708.4 +/- 89.9 mg kg<sup>-1</sup> seed in 2001 and 650.6 +/- 49.0 mg kg<sup>-1</sup> seed in 2002 field evaluation, compared to 538.2 +/- 49.3 mg kg<sup>-1</sup> seed in 2001 and 439.0 +/- 33.6 mg kg<sup>-1</sup> seed in 2002 for the standard cv. Rancho, used as check. The tocopherol fraction is largely made up of alpha-tocopherol, which accounts for 97.1 +/- 0.4% of the total tocopherols. Increased tocopherol content is largely determined genotypically, being consistently expressed across several environments. Plant height 181.5 +/- 4.3 cm. Plants spiny, with orange flowers. 1000-seed weight of 24.2 +/- 3.2 g, and seed oil content of 345 +/- 26 g kg<sup>-1</sup>.

**PI 634712. *Carthamus tinctorius* L.**

Breeding. CR-81. GP-37. Pedigree - Derived from PI 406001, a cultivated accession collected in Iran. Seeds with increased levels of tocopherols, mainly in the form of alpha-tocopherol. Total tocopherol content was 758.6 +/- 49.6 mg kg<sup>-1</sup> seed in 2001 and 678.6 +/- 52.9 mg kg<sup>-1</sup> seed in 2002 field evaluation, compared to 538.2 +/- 49.3 mg kg<sup>-1</sup> seed in 2001 and 439.0 +/- 33.6 mg kg<sup>-1</sup> seed in 2002 for the standard cv. Rancho, used as check. The tocopherol fraction is largely made up of alpha-tocopherol, which accounts for 97.0 +/- 0.6% of the total tocopherols. Increased tocopherol content is largely determined genotypically, being consistently expressed across several environments. Plant height 192.6 +/- 5.1 cm. Plants non-spiny with both orange and red flowers. 1000-seed weight of 33.2 +/- 4.8 g, and a seed oil content of 311 +/- 14 g kg<sup>-1</sup>.

The following were developed by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, 451C, Corvallis, Oregon 97331-3002, United States; Jimmie M. Crane, Oregon State University, Dept. of Crop and Soil Science, Crop Science Bldg, Rm. 107, Corvallis, Oregon 97331-3002, United States; Robert Brunick, Oregon State University, Dept. of Crop & Soil Science, Crop Science Bldg., Rm 107, Corvallis, Oregon 97331, United States. Received 02/23/2004.

**PI 634713. *Limnanthes alba* Hartw. ex Benth.**

Cultivar. "ROSS"; OMF-EXP-164. CV-13. Pedigree - Heterogeneous, open-pollinated, originating from three cycles of recurrent half-sib family selection in OMF58 Co, an open-pollinated *L. alba* ssp. *alba* population. OMF58 Co was developed by hybridizing three cultivars and several wild germplasm accessions (documented in the Knowles cultivar release). Seed yield significantly greater than three check cvs. (Knowles, Wheeler, and Floral) at Corvallis, Oregon, from 2000 to 2003 in each trial and across trials. Seed yield was 1,681 kg ha<sup>-1</sup>, compared to 1,529 kg ha<sup>-1</sup> for Wheeler, 1,307 kg ha<sup>-1</sup> for Knowles, and 1,084 kg ha<sup>-1</sup> for Floral. Produced significantly more seed oil (292 g kg<sup>-1</sup>) than Floral (277 g kg<sup>-1</sup>). The seed oil concentrations were not significantly different from Wheeler (293 g kg<sup>-1</sup>) and Knowles (290 g kg<sup>-1</sup>). Produced significantly more seed oil per hectare than the other cvs. tested. The oil yield over trials was 490 kg ha<sup>-1</sup> compared to 448 kg ha<sup>-1</sup> for Wheeler, 378 kg ha<sup>-1</sup> for Knowles, and 301 kg ha<sup>-1</sup> for Floral. No significant differences in days to flowering or days to physiological maturity among cvs. Upright growth habit and lodging resistance are

similar to Wheeler, and both are more strongly resistant to lodging than the other cvs. tested.

The following were developed by Phil Bregitzer, USDA-ARS, National Small Grains Germplasm Research Facility, 1691 S. 2700 W., Aberdeen, Idaho 83210, United States; David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; Dolores W. Mornhinweg, USDA, ARS, Plant Science Research Laboratory, 1301 N. Western Street, Stillwater, Oklahoma 74075, United States; J.C. Whitmore, University of Idaho, Tetonia Research & Extension Center, 888 West Highway 33, Newdale, Idaho 83436, United States; M. Stack, Colorado State University, Southwestern Colorado Research Center, Yellow Jacket, Colorado 81335, United States; Mick O'Neill, NMSU Agricultural Science Center, 300 Navajo Road, 4063, Farming, New Mexico 87401, United States; R. Hammon, Colorado State University, P.O. Box 20000-5028, Grand Junction, Colorado 81502, United States; G.L. Hein, University of Nebraska, 4502 Avenue I, Scotts Bluff, Nebraska 69361, United States; D.J. Fiedler, USDA-ARS, 1691 S. 2700 W., Aberdeen, Idaho 83210, United States. Received 03/10/2004.

**PI 634714. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "BURTON"; 98ID251; NSGC 9398. CV-318. Pedigree - Baronesse/3/Crystal//Klages\*3/STARS9301B (PI573080). Released 2004. Burton is a spring, 2-rowed, hulled barley that is resistant to all biotypes of Russian Wheat Aphid (*Diuraphis noxia*) known to be present in the U.S. in 2004. In the absence of RWA infestation, Burton is agronomically similar to its parent Baronesse with respect to maturity, yield, test weight and percentage plump kernels.

The following were developed by Craig F. Morris, USDA-ARS, Western Wheat Quality Lab., E-202 FSHN Facility East, Pullman, Washington 99164-6394, United States; Blair J. Goates, USDA-ARS, National Small Grains Germplasm Res. Facility, 1691 S. 2700 W., Aberdeen, Idaho 83210, United States; Todd Murray, Washington State University, Dept. of Entomology, Pullman, Washington 99164-6382, United States; Patrick E. Reisenauer, Washington State University, Crop & Soil Department, Ag. Research Tech., Pullman, Washington 99164-6420, United States; Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States; Kimberly Garland Campbell, USDA, ARS, Washington State University, P.O. Box 646420, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, WSU - Wheat Genetics Unit, PO Box 646430, Pullman, Washington 99164-6430, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Steven R. Lyon, Washington State University, Winter Wheat Breeding & Genetics Program, PO Box 646420, Pullman, Washington 99164-6420, United States; B.P. Carter, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; K.A. Balow, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; W.F. Schillinger, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States. Received 03/11/2004.

**PI 634715. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "MASAMI"; WA007916; VO95065; V89046; NSGC 9399. CV-977; PVP 200600244. Pedigree - MacVicar/PI561031. Released 2004. Soft

white winter wheat. Semi-dwarf. Adapted to all precipitation zones of eastern Washington State.

The following were developed by Timothy D. Murray, Washington State University, Dept. of Plant Pathology, P.O. Box 646430, Pullman, Washington 99164-6430, United States; Blair J. Goates, USDA-ARS, National Small Grains Germplasm Res. Facility, 1691 S. 2700 W., Aberdeen, Idaho 83210, United States; Patrick E. Reisenauer, Washington State University, Crop & Soil Department, Ag. Research Tech., Pullman, Washington 99164-6420, United States; Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States; Kimberly Garland Campbell, USDA, ARS, Washington State University, P.O. Box 646420, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, WSU - Wheat Genetics Unit, PO Box 646430, Pullman, Washington 99164-6430, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Steven R. Lyon, Washington State University, Winter Wheat Breeding & Genetics Program, PO Box 646420, Pullman, Washington 99164-6420, United States; Meg Gollnick, Washington State University, Winter Wheat Breeding, Cytology and Genetics, 201 Johnson Hall, Pullman, Washington 99164-6420, United States; Kevin Murphy, Washington State University, Dept. of Crop & Soil Sciences, 201 Johnson Hall, Pullman, Washington 99164-6420, United States; K.A. Balow, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; W.F. Schillinger, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States. Received 03/11/2004.

**PI 634716. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "MDM"; WA007936; J9800628; NSGC 9400. PVP 200600246; CV-1017. Pedigree - Klasic/5\*Eltan. Released 2005. Hard white winter wheat. Semi-dwarf. Phenotypically indistinguishable from Eltan. Laboratory analyses indicate it has superior hard white wheat quality for noodle color, texture, and loaf volume.

The following were developed by Timothy D. Murray, Washington State University, Dept. of Plant Pathology, P.O. Box 646430, Pullman, Washington 99164-6430, United States; Craig F. Morris, USDA-ARS, Western Wheat Quality Lab., E-202 FSHN Facility East, Pullman, Washington 99164-6394, United States; Blair J. Goates, USDA-ARS, National Small Grains Germplasm Res. Facility, 1691 S. 2700 W., Aberdeen, Idaho 83210, United States; Patrick E. Reisenauer, Washington State University, Crop & Soil Department, Ag. Research Tech., Pullman, Washington 99164-6420, United States; Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States; Kimberly Garland Campbell, USDA, ARS, Washington State University, P.O. Box 646420, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, WSU - Wheat Genetics Unit, PO Box 646430, Pullman, Washington 99164-6430, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Steven R. Lyon, Washington State University, Winter Wheat Breeding & Genetics Program, PO Box 646420, Pullman, Washington 99164-6420, United States; Meg Gollnick, Washington State University, Winter Wheat Breeding, Cytology and Genetics, 201 Johnson Hall, Pullman, Washington 99164-6420, United States; K.A. Balow, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; W.F.



Schillinger, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States. Received 03/11/2004.

**PI 634717. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "BAUERMEISTER"; WA 7939; J9801107; NSGC 9401. PVP 200600245; CV-1002; REST 634717. Pedigree - TAM200/3\*Eltan. Released 2005. Hard red winter wheat. Semi-dwarf. Phenotypically similar to Eltan and all agronomic traits are nearly identical. Laboratory analyses indicate it has superior hard red winter wheat quality for noodle color and loaf volume.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 03/12/2004.

**PI 634718 PVPO. *Festuca arundinacea* Schreb.**

Cultivar. "TITANIUM". PVP 200400113.

The following were developed by Steven D. Linscombe, Louisiana State University, LSU Rice Experiment Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Richard Dunand, Louisiana State University, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Xueyan Sha, Louisiana State University, Louisiana Agric. Exp. Station, Rice Research Station, Rayne, Louisiana 70578, United States; Louisiana State University Agricultural Center, Louisiana, United States; K. Bearb, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; Qiren Chu, RiceTec, Inc., P.O. Box 1305, Alvin, Texas 77512, United States; D.E. Groth, Louisiana State University AgCenter, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; L.M. White, Louisiana State University, Rice Research Station, 1373 Caffey Road, Rayne, Louisiana 70578, United States; P.K. Bollich, Louisiana State University, 2310 Ben Hur Road, Baton Rouge, Louisiana 70820, United States. Received 03/12/2004.

**PI 634719. *Oryza sativa* L.**

Cultivar. Pureline. "CHENIERE"; RU0002174. PVP 200400114; CV-120; Utility Patent 7141725. Pedigree - Newbonnet/Katy/3/L-202/Lemont//L-202. Released 2002. High-yielding, early maturing, semidwarf long-grain rice variety with excellent grain yield and good milling yield and has good lodging resistance. Is susceptible to sheath blight (*Rhizoctonia solani*) and blast (caused by *Pyricularia grisea*), resistant to physiological disorder straighthead and is moderately resistant to leaf smut (caused by *Entyloma oryzae*) and narrow brown leaf spot (caused by *Cercospora janseana*).

The following were developed by D&PL Technology Holding Company, LLC, Netherlands. Received 03/12/2004.

**PI 634720 PVPO. *Gossypium hirsutum* L.**

Cultivar. "PM 2168 RR". PVP 200400116.

**PI 634721 PVPO. *Gossypium hirsutum* L.**

Cultivar. "02T57R". PVP 200400117.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 03/12/2004.

**PI 634722 PVPO. Brassica napus L.**  
Cultivar. "NS2663". PVP 200400119.

**PI 634723 PVPO. Brassica napus L.**  
Cultivar. "NS3213". PVP 200400120.

**PI 634724. Brassica napus L.**  
Cultivar. "43A56". PVP 200400121.

The following were developed by Harris Moran Seed Company, P.O. Box 4938, Modesto, California 95352-4938, United States. Received 03/12/2004.

**PI 634725 PVPO. Phaseolus vulgaris L.**  
Cultivar. "NAVARRO". PVP 200400122.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 03/12/2004.

**PI 634726 PVPO. Festuca rubra L. subsp. rubra**  
Cultivar. "INVERNESS". PVP 200400123. Creeping, red.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States; DLF International Seeds, Inc., United States. Received 03/12/2004.

**PI 634727 PVPO. Lolium perenne L.**  
Cultivar. "KEYSTONE". PVP 200400124.

The following were developed by DLF International Seeds, Inc., United States. Received 03/12/2004.

**PI 634728 PVPO. Festuca arundinacea Schreb.**  
Cultivar. "RAPTOR". PVP 200400125.

The following were developed by Cascade International Seed Co., Oregon, United States. Received 03/12/2004.

**PI 634729 PVPO. Festuca arundinacea Schreb.**  
Cultivar. "HOEDOWN". PVP 200400126.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 03/12/2004.

**PI 634730 PVPO. Lolium perenne L.**  
Cultivar. "PALMER IV". PVP 200400127.

- PI 634731 PVPO. Festuca rubra L. subsp. rubra**  
Cultivar. "TL2". PVP 200400128. Creeping.
- PI 634732 PVPO. Festuca arundinacea Schreb.**  
Cultivar. "2nd MILLENNIUM". PVP 200400129.
- PI 634733 PVPO. Festuca arundinacea Schreb.**  
Cultivar. "JUSTICE". PVP 200400130.
- PI 634734 PVPO. Lolium perenne L.**  
Cultivar. "PRELUDE IV". PVP 200400131.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States; Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States. Received 03/12/2004.

- PI 634735 PVPO. Poa pratensis L.**  
Cultivar. "MERCURY". PVP 200400132.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 03/12/2004.

- PI 634736 PVPO. Glycine max (L.) Merr.**  
Cultivar. "94M90". PVP 200400075.
- PI 634737 PVPO. Glycine max (L.) Merr.**  
Cultivar. "93M93". PVP 200400076.
- PI 634738 PVPO. Glycine max (L.) Merr.**  
Cultivar. "93M92". PVP 200400077.
- PI 634739 PVPO. Glycine max (L.) Merr.**  
Cultivar. "93M50". PVP 200400078.
- PI 634740 PVPO. Glycine max (L.) Merr.**  
Cultivar. "93M30". PVP 200400079.
- PI 634741 PVPO. Glycine max (L.) Merr.**  
Cultivar. "93M11". PVP 200400080.
- PI 634742 PVPO. Glycine max (L.) Merr.**  
Cultivar. "93M10". PVP 200400081.
- PI 634743 PVPO. Glycine max (L.) Merr.**  
Cultivar. "92M92". PVP 200400082.
- PI 634744 PVPO. Glycine max (L.) Merr.**  
Cultivar. "92M91". PVP 200400083.
- PI 634745 PVPO. Glycine max (L.) Merr.**  
Cultivar. "92M40". PVP 200400084.
- PI 634746 PVPO. Glycine max (L.) Merr.**  
Cultivar. "91M51". PVP 200400085.

**PI 634747 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "91M11". PVP 200400086.

**PI 634748 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "90M60". PVP 200400087.

**PI 634749 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "90M20". PVP 200400088.

The following were developed by W. James Grichar, Texas A&M University, Texas A&M Agric. Res. Station, P. O. Box 755, Yoakum, Texas 77995, United States; Mark A. Hussey, Texas A&M University, Department of Soil & Crop Sciences, Room 430, Heep Center, College Station, Texas 77843-2474, United States; William R. Ocumpaugh, Texas A&M University, Texas Agricultural Exp. Station, 3507 Highway 59 E, Beeville, Texas 78102-9410, United States; Rod L. Reed, Angelo State University, Box 10888, ASU Station, 2601 West Avenue N, San Angelo, Texas 76909, United States; D.H. Bade, Texas Coop. Ext., College Station, Texas 77843, United States; J.P. Muir, Texas Agricultural Experiment Station, Stephenville, Texas, United States; M.K. Owens, Texas Agricultural Experiment Station, Uvalde, Texas 78102, United States; J.L. Reilley, Kika de la Garza PMC, Kingsville, Texas, United States; A.H. Abrameit, Texas Coop. Ext., Thrall, Texas, United States. Donated by Cunningham Laboratory of CSIRO, St. Lucia, St. Lucia, Queensland, Australia. Received 03/09/2004.

**PI 634750. *Desmanthus bicornutus* S. Watson**  
Cultivar. "BeeTAM-06"; CPI 90906. CV-227. Collected in Sinaloa, Mexico. Latitude 24° 35' N. Longitude 107° 52' W. Elevation 2 m. Rainfall zone 650 mm. Pedigree - Originated from seed collected in Sinaloa, Mexico. Seed provided by Cunningham Laboratory of CSIRO in St. Lucia, Queensland, Australia. No genetic shift from the original seed. Plants show a highly elongated hypocotyl and minimally elongated epicotyl at seedling emergence. Plant expresses nyctinastic leaf movements with both the pinnae and petiole moving downward at night. The cotyledons as well as the leaflets undergo upward nyctinastic movement. Plant is not seismonastic. Although this plant will flower in the spring, will not flower in the spring of the year of establishment. Plant height varies with rainfall, but under reasonable moisture and growing conditions, plant will grow to a height of 1.25 to 2.5 meters. Plant becomes woody at base as matures, and develops a cylindrical, woody, branched taproot. Begins flowering in late August or early Sept. Flowering and seed set can be greatly modified by drought and heat stress, and if soil or water variation exists within a field, flowering within a field can be modified by several days to more than two weeks. Flowers are round heads or condensed spikes born 1-2 in the axils of the leaves. Plant flowers profusely and will set pod in clusters of 11 or 12 pods per cluster. Each pod about 10 to 11 seeds that weigh from 0.350 to 0.570 grams per 100 seed. Fruit shape linear; endocarp elaborated into hair-like structures between the seed; and distal end of legume fruit has an attenuated beak. Pods dehiscent along both sutures. Leaf color green to dark green (5 GY 3/4 to 7.5 GY 4/4). Stem and pods tend to turn red (5R 3/4) in the fall as temperatures cool down. Immature pods mostly green, but as pod starts to mature turn red on the upper surface. Leaf bipinnately compound with about 7 pairs of pinnae per leaf and about 19 pairs of leaflets per pinnae. Petiole length about 50 to 60 mm and the longest pinnae about 23 to 28 mm. Stipule length about 3.5 mm. Fully mature seed brown (2.5 YR 3/4).

**PI 634751. *Desmanthus bicornutus* S. Watson**

Cultivar. "BeeTAM-08"; CPI 90906. CV-228. Collected in Sinaloa, Mexico. Latitude 24° 35' N. Longitude 107° 52' W. Elevation 2 m. Rainfall zone 650 mm. Pedigree - Originated from seed collected in Sinaloa, Mexico. Seed provided by Cunningham Laboratory, St. Lucia, Queensland, Australia. No genetic shift from the original seed. Plant shows a highly elongated hypocotyl and minimally elongated epicotyl at seedling emergence. Plant expresses nyctinastic leaf movements with both the pinnae and petiole moving downward at night. The cotyledons as well as the leaflets undergo upward nyctinastic movement. Plant is not seismonastic. Although this plant will flower in the spring, will not flower in the spring of the year of establishment. Plant height varies with rainfall, but under reasonable moisture and growing conditions, plant will grow to a height of 1.25 to 2.5 meters. Plant becomes woody at the base as matures, and develops a cylindrical, woody, branched taproot. Begins flowering in late August or early September. Flowering and seed set can be greatly modified by drought and heat stress, and if soil or water variation exists within a field, flowering within a field can be modified by several days to more than two weeks. Flowers are round heads or condensed spikes born 1-2 in the axils of the leaves. Plant flowers profusely and will set pod in clusters of 10 or 11 pods per cluster. Each pod will have about 9 or 10 seeds that weigh from 0.35 to 0.52 grams per 100 seed. Fruit shape linear; endocarp elaborated into hair-like structures between the seed; and distal end of legume fruit has an attenuated beak. Pods dehiscent along both sutures. Leaf color green to dark green (5 GY 4/4-6 to 7.5 GY 4/4). Stem and pods tend to turn red (5 R 3/4/4-6) in the fall as temperatures cool down. Immature pods mostly green, but as pod starts to mature turn red on the upper surface. Leaf bipinnately compound with about 8 pairs of pinnae per leaf and about 24 pairs of leaflets per pinnae. Petiole length about 60 to 70 mm and the longest pinnae about 30 to 40 mm. Stipule length about 3.7 mm. Fully mature seed brown (2.5 YR 3/4).

**PI 634752. *Desmanthus bicornutus* S. Watson**

Cultivar. "BeeTAM-37"; CPI 81337. CV-229. Collected in Sinaloa, Mexico. Latitude 25° 3' N. Longitude 107° 42' W. Elevation 200 m. Rainfall zone 450 mm. Pedigree - Originated from seed collected in Sinaloa, Mexico and provided by Cunningham Laboratory, St. Lucia, Queensland, Australia. No genetic shift from the original seed. Plants show a highly elongated hypocotyl and minimally elongated epicotyl at seedling emergence. Plant expresses nyctinastic leaf movements with both the pinnae and petiole moving downward at night. The cotyledons as well as the leaflets undergo upward nyctinastic movement. Plant is not seismonastic. Although this plant will flower in the spring, will not flower in the spring of the year of establishment. Plant height varies with rainfall, but under reasonable moisture and growing conditions, plant will grow to a height of 1.25 to 2.5 meters. Plant becomes woody at base as matures, and develops a cylindrical, woody, branched taproot. Begins flowering in late August or early Sept. Flowering and seed set can be greatly modified by drought and heat stress, and if soil or water variation exists within a field, flowering within a field can be modified by several days to more than two weeks. Flowers are round heads or condensed spikes born 1-2 in the axils of the leaves. Plant flowers profusely and will set pod in clusters of 8 or 9 pods per cluster. Each pod about 13 to 15 seeds that will weigh 0.54 to 0.65 grams per 100 seed. Fruit shape linear; endocarp elaborated into hair-like structures between the seed; and distal end of legume fruit has an attenuated beak. Pods dehiscent along both sutures. Leaf color green to dark green (5 GY 4/4 to 7.5 GY 4/4). Stem and pods tend to turn red (5R 3/4) in the fall as

temperatures cool down. Immature pods mostly green, but as pod starts to mature turn red on the upper surface. Leaf bipinnately compound with about 6 pairs of pinnae per leaf and about 24 pairs of leaflets per pinnae. Petiole length about 65 to 75 mm and the longest pinnae about 35 to 40 mm. Stipule length about 3.5 mm. Fully mature seed brown (2.5 YR 3/4).

**PI 634753. *Desmanthus bicornutus* S. Watson**

Cultivar. "BeeTAM-57"; CPI 90857. CV-230. Collected in Sonora, Mexico. Latitude 27° 40' N. Longitude 109° 46' W. Elevation 300 m. Rainfall zone 350 mm. Pedigree - Originated from seed collected in Sonora, Mexico. Seed provided by Cunningham Laboratory, St. Lucia, Queensland, Australia. No genetic shift from the original seed. Plants show a highly elongated hypocotyl and minimally elongated epicotyl at seedling emergence. Plant expresses nyctinastic leaf movements with both the pinnae and petiole moving downward at night. The cotyledons as well as the leaflets undergo upward nyctinastic movement. Plant is not seismonastic. Although this plant will flower in the spring, will not flower in the spring of the year of establishment. Plant height varies with rainfall, but under reasonable moisture and growing conditions, plant will grow to a height of 1.75 to 3 meters. Plant becomes woody at base as matures and develops a cylindrical, woody, branched taproot. Begins flowering in July or early August. Flowering and seed set can be greatly modified by drought and heat stress, and if soil or water variation exists within a field, flowering within a field can be modified by several days to more than two weeks. Flowers are round heads or condensed spikes born 1-2 in the axils of the leaves. Plant flowers profusely and will set pod in clusters of 6 to 9 pods per cluster. Each pod about 12 to 15 seeds that will weigh 0.65 to 0.80 grams per 100 seed. Fruit shape linear; endocarp elaborated into hair-like structures between the seed; and distal end of legume fruit has an attenuated beak. Pods dehiscent along both sutures. Leaf color green to dark green (7.5 GY 3/4, 4/2 & 5/4). Stem and pods tend to green (5G 5/6 & 6/6) but will show some hint of red as temperatures cool down. Immature pods mostly green, but as pod starts to mature turn red on the upper surface. Leaf bipinnately compound with about 6 pairs of pinnae per leaf and about 21 pairs of leaflets per pinnae. Petiole length about 40 to 50 mm and the longest pinnae about 23 to 28 mm. Stipule length about 4.5 mm. Fully mature seed brown (2.5 YR 3/4).

The following were developed by Charlie L. Rife, Kansas State University, Department of Agronomy, 2004 Throckmorton Plant Science Center, Manhattan, Kansas 66506-5501, United States. Received 03/08/2004.

**PI 634754. *Brassica napus* L.**

Cultivar. "Summer". Pedigree - Cobra/4/SUR23-R2//Sipal/Indore/3/PI 469893/5/5\*Wichita. Seed low in erucic acid (average of 12 g kg<sup>-1</sup> in the oil) and glucosinolates (average of 14.9  $\mu$ mol g<sup>-1</sup> in the oil-free meal). Mean survival similar to Plainsman and Wichita. Yields about 91% of Wichita. Possesses tolerance to the herbicide chlorsulfuron.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 634755. *Solanum retroflexum* Dunal**

Uncertain. NSL 27271; Grif 14196; WONDERBERRY.

The following were developed by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Steve Larson, USDA, ARS, FRRL, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States; Blair Waldron, USDA, ARS, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 03/17/2004.

**PI 634756. *Leymus angustus*** (Trin.) Pilg.

Cultivar. "MUSTANG". CV-240. Pedigree - Parental germplasm derived from selections within PI 499650 (DT-3185; 79%), Prairieland (7%), Eejay (7%), and Pearl (7%). Evaluated in the Northern Plains Regional Trials at Bluecreek, UT; Green Canyon, UT; Mead, NE; Sidney, NE; Mandan, ND; and Miles City, MT for dry matter forage production, initial stand and persistence. Produced significantly more dry matter forage (3026 kg ha<sup>-1</sup>) than cultivars Prairieland (2394 kg ha<sup>-1</sup>) and Pearl (2247 kg ha<sup>-1</sup>) when combined over six locations and three years. Superior initial stands over other Altai and Basin wildrye cultivars in the NPA trials except for Mead Nebraska. More persistent than Prairieland and Pearl after four years. Seedling vigor, as indicated by seedling emergence from a deep planting depth (7.6 cm), better than Prairieland and comparable to Pearl. Individual seed weight comparable to Prairieland and Eejay, but significantly lighter than Pearl. Approx. 138,888 seeds per kg at 100% purity. Significantly taller, with longer flag leaves that are oriented higher on the culm than Prairieland, Eejay, and Pearl. Also wider flag leaves and longer inflorescences. Dodecaploid (2n-12x-84) and has the same ploidy level as the commercially available cvs. Prairieland, Eejay, and Pearl. The neighbor-joining tree demonstrated that all but one of the 24 Mustang genotypes group together relative to Prairieland, Eejay, and Pearl. The E.ACAG//M.CTTG primer combination distinguished Mustang from the other cultivars.

The following were donated by Alan K. Walker, Monsanto, 634 E Lincoln Way, Ames, Iowa 50010, United States. Received 03/17/2003.

**PI 634757. *Glycine max*** (L.) Merr.

Cultivar. Pureline. "CX326"; SY 401018. Pedigree - A3127 x Williams 79. Has Rps1-c gene for Phytophthora Root Rot resistance.

**PI 634758. *Glycine max*** (L.) Merr.

Cultivar. Pureline. "CX345"; SY 401021. Pedigree - Williams 79 x A3127. Has Rps1-c gene for Phytophthora Root Rot resistance.

**PI 634759. *Glycine max*** (L.) Merr.

Cultivar. Pureline. "CX366"; SY 401022. Pedigree - Williams 79 x A3127. Has Rps1-c gene for Phytophthora Root Rot resistance.

**PI 634760. *Glycine max*** (L.) Merr.

Cultivar. Pureline. "CX415"; SY 401025. Pedigree - Williams 79 x A3127. Has Rps1-c gene for Phytophthora Root Rot resistance.

The following were donated by James Harper, USDA-ARS, 331 Madigan Lab, 1201 W. Gregory Dr., Urbana, Illinois 61801, United States; Joseph Nicholas, USDA-ARS, 236 NSRC, 1101 W. Peabody Dr, Urbana, Illinois 61801, United States. Received 03/26/2004.

- PI 634761. *Glycine max* (L.) Merr.**  
Genetic. Pureline. NOD1-3; T370; SY 402001. Pedigree - Mutation of Williams. Hypernodulating soybean mutant derived from cv. Williams controlled by the *rj7* allele.
- PI 634762. *Glycine max* (L.) Merr.**  
Genetic. Pureline. NOD2-4; T371; SY 402002. Pedigree - Mutation of Williams. Hypernodulating soybean mutant derived from cv. Williams controlled by the *rj7* allele.
- PI 634763. *Glycine max* (L.) Merr.**  
Genetic. Pureline. NOD3-7; T372; SY 402003. Pedigree - Mutation of Williams. Hypernodulating soybean mutant derived from cv. Williams controlled by the *rj7* allele.
- PI 634764. *Glycine max* (L.) Merr.**  
Genetic. Pureline. NOD4; T373; SY 402004. Pedigree - Mutation of Williams. Hypernodulating soybean mutant derived from cv. Williams controlled by the *rj7* allele.
- PI 634765. *Glycine max* (L.) Merr.**  
Genetic. Pureline. NN5; T374; SY 402005. Pedigree - Mutation of Williams. Non-nodulating mutant of cv. Williams.

The following were developed by O.L. May, USDA, ARS, Pee Dee Research and Education Center, Clemson Univ., Dept. of Agronomy, Florence, South Carolina 29501, United States; Peng Chee, University of Georgia, Coastal Plain Experiment Station, Department of Crop and Soil Sciences, Tifton, Georgia 31793, United States; Hamidou Sakhanokho, USDA-ARS, Ornamental Research Unit, 810 Highway 26 West, P. O. BOX 287, Poplarville, Mississippi 39470, United States. Received 03/19/2004.

- PI 634766. *Gossypium hirsutum* L.**  
Breeding. GA 98033. GP-786. Pedigree - PD 5529/SG 125. Combines higher yield with fiber quality comparable to many popular transgenic cultivars, resistance to fusarium wilt (*Fusarium oxysporum*), plus the regeneration frequency from somatic embryos into plantlets is similar to Coker 312. Although, agronomically obsolete since it was released as a cultivar in 1972, Coker 312 remains the positive control to which embryogenic capacity of new germplasm is compared. Value as a parent in main-stream breeding with its yield potential and acceptable fiber quality. Could serve as a donor parent of transgenic traits in a modern elite genetic background.

The following were developed by Ndiaga Cisse, Institut Senegalais de Recherches Agricoles, Centre National de Recherches Agronomiques, BP 53, Bambey, Senegal; Mbaye Ndiaye, Institut Senegalais de Recherches Agricoles, Centre National de Recherches Agronomiques, BP 53, Bambey, Senegal; A. Sene, Institut Senegalais de Recherches Agricoles, BP 53, Bambey, Senegal. Received 03/17/2004.

- PI 634767. *Vigna unguiculata* (L.) Walp.**  
Cultivar. "YACINE". CV-232. Pedigree - Derived from cross 86-5-2/Melakh, made in 1989. Erect and belongs to the same maturity group as Melakh. Reaches physiological maturity 62 days after sowing under well-watered



conditions. Produced less hay than Melakh. Seeds brown with small, white eye and larger (23 g 100-1) than Melakh (19 g 100-1). Resistance to the major strains of CABMV in Senegal, partial resistance to cowpea aphid (*Aphis craccivora*) and resistance to bacterial blight (*Xanthomonas campestris* pv. *vignicola*).

The following were developed by Vicki Tolmay, Small Grain Centre, Private Bag X29, Bethlehem, Orange Free State 9700, South Africa; Michael Smith, Kansas State University, Department of Entomology, 123 Waters Hall, Manhattan, Kansas 66506, United States; F. du Toit, PANNAR, Research Department, P.O. Box 17164, Bainsvlei, South Africa. Received 03/22/2004.

**PI 634768. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. Betta-Dn1; Betta-DN. GP-785. Pedigree - Betta\*4/PI 137739. Intermediate type wheat adapted to low to medium potential conditions in the Central and Eastern Free State Province of South Africa. Growth period approx. 140 days to flowering (measured from 20 June sowing at Bethlehem). Coleoptile length 9 cm and moderate to slight cold requirement and a moderate day-length requirement. Excellent pre-harvest sprouting resistance and hectolitre mass (test weight) of 78 g, with a long term mean thousand-kernel mass of 32 g, good straw strength but poor tolerance to aluminum in the soil. Moderately resistant to stem rust (*P. graminis*) and glume blotch (*S. nodorum*), moderately susceptible to leaf rust (*P. triticina*) and susceptible to stripe rust (*Puccinia striiformis*) and crown rot (*Fusarium* spp.). Awned spike with good kernel attachment.

**PI 634769. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. Betta-Dn2; T93/14. GP-786. Pedigree - Betta\*4/PI 262660. Very susceptible to aluminium in the soil, stem rust (*P. graminis*) and leaf rust (*P. triticina*). Resistance to pre-harvest sprouting, a mean coleoptile length of 9.9 cm and a plant height of 70 cm. Mean hectolitre mass (test weight) is 77 g.

**PI 634770. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. Betta-Dn9; T96/5. GP-787. Pedigree - Betta\*4/PI 294994. Very susceptible to aluminium in the soil and leaf rust (*P. triticina*) but has resistance to pre-harvest sprouting and stem rust (*P. graminis*). Mean coleoptile length of 8.5 cm, a mean plant height of 119 cm and a growth period of 136 days to anthesis.

The following were developed by Vicki Tolmay, Small Grain Centre, Private Bag X29, Bethlehem, Orange Free State 9700, South Africa. Received 03/22/2004.

**PI 634771. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. Tugela. Pedigree - Kavkaz/Jaral. Hard red intermediate wheat. Growth period medium and widely adapted but is particularity suited to the high potential soils of the North-eastern Free State. Very good straw strength, good tolerance to aluminium in the soil but poor tolerance to pre-harvest sprouting. Mean hectolitre mass (test weight) of 75 g and a mean thousand grain mass of 37 g. Resistant to stem rust (*P. graminis*), moderately susceptible to leaf rust (*P. triticina*) and crown rust (*Fusarium* spp.) and susceptible to scab (*Fusarium* spp.) and glume blotch (*S. nodorum*). Susceptible to Russian wheat aphid. Named after the river Tugela.

The following were developed by Vicki Tolmay, Small Grain Centre, Private Bag X29, Bethlehem, Orange Free State 9700, South Africa; Michael Smith, Kansas State University, Department of Entomology, 123 Waters Hall, Manhattan, Kansas 66506, United States; F. du Toit, PANNAR, Research Department, P.O. Box 17164, Bainsvlei, South Africa. Received 03/22/2004.

**PI 634772. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. Tugela-Dn2; T93/12. GP-788. Pedigree - Tugela\*4/PI 262660. Tolerant to aluminium in the soil. Resistant to stem rust (*P. graminis*) but susceptible to pre-harvest sprouting and leaf rust (*P. triticina*). Mean coleoptile length of 6.2 cm and a mean plant height of 70 cm. Mean hectolitre mass (test weight) is 77 g.

The following were developed by Vicki Tolmay, Small Grain Centre, Private Bag X29, Bethlehem, Orange Free State 9700, South Africa. Received 03/22/2004.

**PI 634773. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. Karee. Pedigree - Betta/3/Triumph/2/CI 13523/STU46408.

The following were developed by Vicki Tolmay, Small Grain Centre, Private Bag X29, Bethlehem, Orange Free State 9700, South Africa; Michael Smith, Kansas State University, Department of Entomology, 123 Waters Hall, Manhattan, Kansas 66506, United States; F. du Toit, PANNAR, Research Department, P.O. Box 17164, Bainsvlei, South Africa. Received 03/22/2004.

**PI 634774. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. Karee-Dn2. GP-789. Pedigree - Karee\*4/PI 262660.

**PI 634775. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. Karee-Dn8. GP-790. Pedigree - Karee\*5/PI 294994.

The following were donated by Haktae Lim, Kangwon National University, Division of Applied Plant Sciences, College of Agriculture and Life Sciences, Chuncheon, Korea, South. Received 11/05/2003.

**PI 634776. *Solanum tuberosum* L.**

Cultivar. "BORA VALLEY"; Q 44054. Deep purple skin and flesh color; high vitamin C, B6 and anti-oxidant; high starch; low calorie.

**PI 634777. *Solanum tuberosum* L.**

Cultivar. "EARLY VALLEY"; Q 44055. Very early maturing; low calorie; high anti-oxidant and vitamin C; short dormancy.

**PI 634778. *Solanum tuberosum* L.**

Cultivar. "GOGU VALLEY"; Q 44056. Red skin color, long shape; low carbohydrate and calorie, higher protein and anti-oxidant; medium - late maturing.

**PI 634779. *Solanum tuberosum* L.**

Cultivar. "JUICE VALLEY"; Q 44059. Long dormancy, red skin color, good storage ability; high anti-oxidant and vitamin B6.

**PI 634780. *Solanum tuberosum* L.**

Cultivar. "PURPLE VALLEY"; Q 44060. Purple skin and partial purple flesh color; low calorie, starch, and carbohydrate; high vitamin C and fiber.

**PI 634781. *Solanum tuberosum* L.**

Cultivar. "TAEBOK VALLEY"; Q 44064. Light yellow flesh and skin; Good cooking taste.

The following were donated by Al Jones, USDA/ARS, U.S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414, United States. Received 1991.

**PI 634782. *Ipomoea coccinea* L.**

62.48; Grif 6271. Collected in Romania.

The following were donated by R.W. Johnson, Queensland Herbarium, Meires Road, Indooroopilly, Queensland, Australia. Received 1991.

**PI 634783. *Ipomoea eriocarpa* R. Br.**

J 50; Grif 6265.

The following were donated by Al Jones, USDA/ARS, U.S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414, United States. Received 1991.

**PI 634784. *Ipomoea hederacea* Jacq.**

63.66; Grif 6217.

**PI 634785. *Ipomoea lacunosa* L.**

76.7; Grif 6302.

The following were donated by USDA, ARS, Plant Science Research Division, Beltsville, Maryland 20705, United States. Received 1967.

**PI 634786. *Ipomoea orizabensis* (Pellet.) Ledeb. ex Steud.**

The following were donated by Gary W. Lowe, 10341 Desdemona Drive, Dallas, Texas 75228, United States. Received 1990.

**PI 634787. *Ipomoea* sp.**

Grif 11871.

The following were donated by Itaru Shiotani, MIE University, Faculty of Agriculture, Tsu, Mie, Japan. Received 1989.

**PI 634788. *Ipomoea trifida* (Kunth) G. Don**

2613-03; Grif 6191.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 12/08/1993.

- PI 634789. *Ipomoea trifida* (Kunth) G. Don  
Mex-36; DLP 4365; Grif 6201. Collected in Mexico.
- PI 634790. *Ipomoea trifida* (Kunth) G. Don  
Mex-44; DLP 4373; Grif 6204. Collected in Mexico.
- PI 634791. *Ipomoea trifida* (Kunth) G. Don  
Mex-49; DLP 4378; Grif 6205. Collected in Mexico.
- PI 634792. *Ipomoea trifida* (Kunth) G. Don  
Mex-72; DLP 4401; Grif 6207. Collected in Mexico.
- PI 634793. *Ipomoea triloba* L.  
Mex-40; DLP 4369; Grif 6203. Collected in Mexico.
- PI 634794. *Ipomoea triloba* L.  
Mex-71; DLP 4400; Grif 6206. Collected in Mexico.

The following were donated by Al Jones, USDA/ARS, U.S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414, United States. Received 1991.

- PI 634795. *Ipomoea triloba* L.  
62.78; Grif 6279.
- PI 634796. *Ipomoea triloba* L.  
64.9; Grif 11846. Collected in Puerto Rico.
- PI 634797. *Ipomoea triloba* L.  
65.18; Grif 11848. Collected in Puerto Rico.
- PI 634798. *Ipomoea triloba* L.  
65.19; Grif 11849. Collected in Puerto Rico.
- PI 634799. *Ipomoea triloba* L.  
65.21; Grif 11850. Collected in Puerto Rico.

The following were developed by G. J. Galletta, USDA, ARS, Building 010A, BARC-West, 10300 Baltimore Avenue, Beltsville, Maryland 20705-2350, United States; John Maas, USDA, ARS, Building 010A, BARC-West, 10300 Baltimore Avenue, Beltsville, Maryland 20705-2350, United States; John Enns, USDA-ARS-BARC West, Fruit Lab, Bldg 101A, Rm209, Beltsville, Maryland 20705, United States; Stan Hokanson, USDA, ARS, Fruit Laboratory, Building 010A, Room 210, BARC-West, Beltsville, Maryland 20705, United States; Kim Lewers, USDA, ARS, Bldg. 010A, Rm. 210 Fruit Lab, BARC-West, 10300 Baltimore Ave., Beltsville, Maryland 20705-2350, United States. Donated by Tim Nourse, Nourse Farms, Inc., Box 444485, RFD, South Deerfield, Massachusetts 01373, United States; Nourse Farms, Inc., 41 River Road, South Deerfield, Massachusetts 01373, United States. Received 02/04/2003.

**PI 634800. *Fragaria x ananassa*** Duchesne ex Rozier  
Cultivar. "Ovation"; B440; CFRA 1818. Pedigree - Lateglow x Etna.

UNITED STATES DEPARTMENT OF AGRICULTURE; AGRICULTURAL RESEARCH SERVICE;  
WASHINGTON, D.C. 20250.

NOTICE TO NURSERIES AND PROPAGATORS OF THE NAMING AND RELEASE OF 'OVATION'  
JUNE-BEARING STRAWBERRY CULTIVAR.

The Agricultural announces the release to nurseries and propagators of Ovation, a late-season disease resistant June-bearing strawberry cultivar. Ovation, tested as B440, was selected in 1991 at Beltsville, MD by Dr. Gene Galletta, Dr. John Maas, and Mr. John Enns from a 1989 cross pollination of Lateglow by Etna. Ovation was further evaluated by Dr. Stan Hokanson, Mr. John Enns, and Dr. Kim Lewers at Beltsville.

Ovation is an exceptionally late-season cultivar. Fruiting season is similar though similar though slightly later than Jewel and Latestar. Ovation is better adapted to plasticulture than to matted-row culture. Ovation has consistently performed as a top-yielding, large-fruited selection in plasticulture at Beltsville, MD. The average size over the past three years of primary fruit has been 37g, and overall fruit size averaged 16g. Yields in the matted-row culture system are average in comparison with other cultivars and selections, while fruit size remains larger than average. Ovation is expected to be best adapted to the mid-Atlantic and northeastern U.S. and adjacent areas. Ovation is resistant to five eastern U.S. races of red stele root rot, most of the stem and leaf diseases, but is moderately susceptible to powdery mildew. In fons Ovation has shown no susceptibility to anthracnose crown and fruit rot. Ovation plants are vigorous and propagate well.

Ovation fruit have good appearance and flavor. Fruits are firm, with glossy, bright red to orange-red, slightin, and red-orange flesh with a white ring surrounding a slight core at the proximal end. Flavor is pleasant, mild, slightly acidic, and aromatic.

Released by the USDA, Beltsville, MD breeding program, Ovation is a late midseason, disease-resistant variety. Fruiting later than Jewel, Ovation produces fruit that is firm, glossy, large-sized, bright red to orange-red in color, with pleasant aromatics and mild flavor. The plant is vigorous, resistant to five strains of red stele and shows good tolerance to foliage diseases. USDA trials show Ovation is especially adapted to plasticulture, and is highly recommended for trial. Grows best in zones 4-8. - Nourse Nursery 2004 Catalogue.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 04/14/2004.

**PI 634801 PVPO. *Festuca arundinacea*** Schreb.  
Cultivar. "GUARDIAN 21". PVP 200400134.

**PI 634802 PVPO. *Festuca arundinacea*** Schreb.  
Cultivar. "BLACKWATCH". PVP 200400136.

The following were developed by Blue Moon Farms, United States. Received 04/14/2004.

**PI 634803 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "SHELBY". PVP 200400137.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 04/14/2004.

**PI 634804 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "94M30". PVP 200400144.

The following were developed by C. Reed Funk, Rutgers University, Cook College, Plant Sciences Department, New Brunswick, New Jersey 08901-8520, United States; Stacy A. Bonos, New Jersey Agricultural Experiment Station, Rutgers State University, Dept. of Plant Biology and Pathology, New Brunswick, New Jersey 08901, United States; J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; Mark J. Sellmann, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States. Received 04/14/2004.

**PI 634805. *Festuca arundinacea* Schreb.**  
Cultivar. "INFERNO". PVP 200400145; CV-97. Pedigree - 370 parents of Inferno selected from 83 different maternal sources. 25% trace to a plant selected from the Georgia St. Hospital in Millidgeville in 1977. 18% trace to plants related to Apache. 6% trace to a plant found on the Princeton Univ. campus, Princeton, NJ in 1977. 5% trace to a plant collected from Lexington, KY. The remainder trace to plants selected from Duke, Mini Mustang, and Finelawn Elite tall fescues. In production Inferno appears most similar to Rebel 2000; however Inferno has lower plant height, narrower flagleaf width, shorter flagleaf length, shorter panicle length and shorter tiller leaf length (measured on secondary leaf from base to leaf tip prior to anthesis). Has shown excellent turf quality in NTEP trials under high and medium maintenance. Has good regional adaptation in Northeast, Mid Atlantic, Mountain, Semi Arid, and Southern part of the U.S. In these trials it has exhibited good resistance to drought, brown patch, (caused by *Rhizoctonia solani*), stem rust (caused by *Puccinia graminis*) and typhula blight (caused by *Typhula incarnata*). Maintains good turf quality under traffic stress. Has a finer leaf texture and a denser sward than many cultivars. Recommended for sports fields, home lawns, parks and golf course roughs where tall fescue is adapted for turf.

The following were developed by Curry Seed & Chili Co., United States. Received 04/14/2004.

**PI 634806. *Capsicum annuum* L.**  
Cultivar. "ESQUINA ANAHEIM". PVP 200400146.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 04/14/2004.

**PI 634807 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "RB3". PVP 200400147.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 04/14/2004.

**PI 634808 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "DYNAMIC". PVP 200400148.

**PI 634809 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "FIDELITY". PVP 200400149.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 04/14/2004.

**PI 634810 PVPO. Lactuca sativa** L.  
Cultivar. "DELTA JOHN". PVP 200400150.

The following were developed by D&PL Technology Holding Company, LLC, Netherlands. Received 04/14/2004.

**PI 634811 PVPO. Gossypium hirsutum** L.  
Cultivar. "DP 488 BG/RR". PVP 200400151.

The following were developed by NDSU Research Foundation, North Dakota, United States. Received 04/14/2004.

**PI 634812 PVPO. Glycine max** (L.) Merr.  
Cultivar. "RG405RR". PVP 200400153.

The following were developed by Berlin D. Nelson, North Dakota State University, Department of Plant Pathology, Walster Hall 306, PO Box 5012, Fargo, North Dakota 58105-5012, United States; Theodore C. Helms, North Dakota State University, Dept. of Plant Science, Rm 166 Loftsgard Hall, Fargo, North Dakota 58105-5051, United States; Robert Jay Goos, North Dakota State University, Soil Science Dept, 127 Walster Hall, Fargo, North Dakota 58105, United States. Received 04/14/2004.

**PI 634813. Glycine max** (L.) Merr.  
Cultivar. Pureline. "La Moure"; ND98-2252. PVP 200400154; CV-471.  
Pedigree - SD92-1323\*M90-370. Has the Rps1c allele which confers resistance to phytophthora root rot. Flower color white, tawny pubescence, brown pods at maturity, buff hila and dull seed coat luster. Maturity 0.7, conventional, indeterminate type.

The following were developed by California Planting Cotton Seed Distributors, 30597 Jack Ave., Shafter, California 93263, United States. Received 04/14/2004.

- PI 634814 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "M611". PVP 200400155.
- PI 634815 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "PLATINUM PIMA". PVP 200400156.
- PI 634816 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "C176P". PVP 200400157.
- PI 634817 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "DEL MAR"; M658. PVP 200400158.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 04/14/2004.

- PI 634818 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "MAGELLAN". PVP 200400159.
- PI 634819 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "PADRE". PVP 200400160.

The following were developed by Westbred, LLC, United States. Received 04/14/2004.

- PI 634820 PVPO. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**  
Cultivar. "ALZADA". PVP 200400162. Pedigree - Mohawk/Kofa.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 04/14/2004.

- PI 634821 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "COOPER". PVP 200400163. Pedigree - Pioneer 2510/Jackson.
- PI 634822 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "BERETTA"; D99-5261. PVP 200400164. Pedigree - 91M\*1365(Auburn/SW75\*589-9#1//SW76-118C113)/T814(McNair1003/Caldwell).
- PI 634823 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "FREYR". PVP 200400165. Pedigree - N94-0157(Sonja/Vance)//Sumai 3/Dalen.

The following were developed by Anne L. McKendry, University of Missouri, Agronomy Department, 106 Curtis Hall, Columbia, Missouri 65211, United States; D.N. Tague, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States; Jessica A. Tremain, University of Missouri - Columbia, Department of Agronomy, 210 Waters Hall, Columbia, Missouri 65211, United States; R.L. Wright, University of Missouri, Dept. of Agronomy, Plant Sciences Unit, Columbia, Missouri 65211, United States; S.P. Conley, University of Missouri, Dept. of Agronomy, Plant Sciences Unit, Columbia, Missouri, United States. Received 03/30/2004.



**PI 634824. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "TRUMAN"; MO 980525. CV-957; PVP 200400274. Pedigree - MO 11769/Madison. Released 2003. Released for high grain yield, good test weight, and resistance to *Fusarium* head blight (*Fusarium graminearum*). White-chaffed, apically awnletted, soft red winter wheat with mid-long, mid-dense tapered spikes. Kernels red, ovate, short to midlong (ranging from 5.5-6.5 mm) with rounded cheeks and a narrow, middeep crease. Brush midsized, with midlong hairs and has no collar. Moderately tall, full-season with good straw strength and stands well in most environments. Good winterhardiness and moderately tolerant of acid soil conditions. Broadly-based resistance to *Fusarium* head blight including low disease severity (11.8%), low disease incidence (34.6%), a low disease index (7.5%), low deoxynivalenol (DON) (5.3 ppm), and a low percentage of scabby seed (5.4%) in diseased heads. Under greenhouse inoculation, has low disease severity (14.3%). Of 49 entries tested, in the 2001 Northern Winter Wheat Scab Nursery, one of only 2 entries with low scores for all measures of disease assessment. Possesses Lr11 and other unidentified genes governing resistance to leaf rust (*Puccinia triticina*) and Sr24 governing resistance to stem rust (*P. graminis*), however, in most environments, moderately susceptible to both leaf and stem rust. Moderately resistant to stripe rust (*P. striiformis*) and wheat soilborne mosaic virus. Moderately susceptible to *Septoria* leaf blotch (*Mycosphaerella graminicola*), wheat spindle streak mosaic virus, and barley yellow dwarf virus, and susceptible to powdery mildew (*Blumeria graminis*) and Hessian fly (*Mayetiola destructor*) biotypes B,C,D,E and L. End-use quality evaluations conducted by the USDA-ARS Soft Wheat Quality Lab., Wooster, OH suggest moderately good soft wheat baking quality and average milling quality. Flour yield was 70.9% and the overall milling quality score was 94.0% of the standard.

The following were developed by Herbert W. Ohm, Purdue University, Department of Agronomy, 915 West State Street, West Lafayette, Indiana 47907-2054, United States; H.C. Sharma, Purdue University, Department of Agronomy, West Lafayette, Indiana 47907, United States; Nicole Thompson, Purdue University, Agronomy Department, 915 W. State St., West Lafayette, Indiana 47907-2054, United States; Joseph M. Anderson, USDA-ARS, Agronomy Department, 915 W. State Street, West Lafayette, Indiana 47907-2054, United States; L. Ayala, Purdue University, Dept. of Agronomy, West Lafayette, Indiana 47907, United States; J.J. Uphaus, Purdue University, Dept. of Agronomy, West Lafayette, Indiana 47907, United States. Received 04/12/2004.

**PI 634825. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. P961341. GP-780. Pedigree - Abe/Th. intermedium//Compton/3/Arthur/Caldwell/4/Caldwell/5/Oasis\*3/Clark\*4/Ning 7840//Clark/Roazon/6/Patterson. Released 2003. Soft red winter wheat translocation line (7DS.7DL-7EL) having the distal 3/4 of chromosome 7EL, determined by DNA marker analysis, from *Thinopyrum* intermedium with resistance to yellow dwarf viruses BYDV-PAV and CYDV-RPV. After the second cross to Caldwell a yellow dwarf resistant, low virus titer by ELISA testing, F4 plant, 2n=44, was identified and 151 seeds from self pollination of the 2n=44 plant were irradiated by gamma rays using 60 CO. An M4 putative translocation plant, low ELISA value and 2n=42, was crossed to an F5 plant with parentage: Oasis/3/Clark\*4/Ning 7840//Clark/Roazon, and the F1 was crossed to Patterson. After the cross to Patterson, F2 and F4 plants were selected in a pedigree breeding method. This germplasm line is the progeny of a single F4 plant. ELISA

values in a 4-replicate test, 14 d after infestation with aphids viruliferous for BYDV-PAV and CYDV-RPV, was 0.095 and for Abe 0.516, LSD 0.05=0.264. Yellow dwarf symptom score (0-9, 0=no symptoms to 9=severe leaf discoloration and plant stunting) in replicated field nurseries in 2002 at Lafayette, Indiana, with natural yellow dwarf viruses infection in wheat seedlings in fall 2001 was 0.5 and for P29, Abe and Caldwell 0.5, 7.8, and 5.2, respectively, LSD 0.05=0.7. Resistance to *Stagnospora nodorum* blotch, typically averaging a score of 4 (0-9, 0=no symptoms to 9=severe disease in glumes), has Lr37, Yr17 and Sr38, powdery mildew (*Blumeria graminis*) develops more slowly than susceptible wheat lines, typically scored at 2-4 (0-9, 0=no lesions to 9=severe mottling and plant stunting). Flowering date in Indiana similar to Patterson. Anthers yellow, awnlets typically 3-5 mm long.

The following were donated by Auburn University, Alabama Agr. Exp. Sta., Auburn, Alabama, United States. Received 1971.

**PI 634826. *Capsicum frutescens* L.**

GREENLEAF TABASCO. Med. height (14-18"), erect plants; fruits are broad, c conical shape w/rounded tip, yellow to drk. red at maturity, glossy as if waxed; 39% more extractable red pigment than Tabasco fruit. Late maturing, killed by frost; resist TEV & ripe rot. Greenleaf, W.H., "Greenleaf Tabasco, a new TEV Resist. Tabasco Pepper Variety", AES, Auburn Univ., Auburn, Ala., Leaflet #81, Dec. 1970.

The following were developed by George Graef, University of Nebraska, Department of Agronomy, 319 Keim Hall, East Campus, Lincoln, Nebraska 68583-0915, United States; L.L. Korte, Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583-0915, United States; D.M. White, Nebraska Agr. Exp. Sta., University of Nebraska, Lincoln, Nebraska 68583-0915, United States. Received 04/21/2004.

**PI 634827. *Glycine max* (L.) Merr.**

Cultivar. Pureline. "NE2701"; U96-2233. CV-472. Pedigree - Colfax x A91-701035. Late Maturity Group II (2.7 relative maturity) with determinate growth habit, purple flowers, gray pubescence, and tan pods at maturity. Seeds have yellow cotyledon, yellow seed coat with intermediate luster, imperfect black hila. Heterogeneous for seed coat peroxidase activity. Over two years of Uniform Regional Group II tests (1998-1999), average yield of 3810 kg ha<sup>-1</sup>, with 410 g kg<sup>-1</sup> protein and 202 g kg<sup>-1</sup> oil in the seed. Shows good broad adaptation, as evidenced by the multiple-year averages in the Uniform Regional Tests. Shorter stature and high yield response make it well suited for irrigated and high-productivity environments where higher populations and/or narrow row culture may be used to increase productivity. Susceptible to *Phytophthora* root rot (*Phytophthora sojae*).

The following were donated by Rudy-Patrick Seed Company, Kansas City, Missouri, United States. Received 1961.

**PI 634828. *Solanum lycopersicum* L.**

Cultivar. NSL 5899; Ponderosa Red. Red fruits, older late maturing, indeterminate, fruits large, flat, somewhat rough, tendency to crack, 90 days Asgrow A descriptive cat. of veg. 1957 #19.

The following were donated by Oklahoma State University, Oklahoma Agr. Exp. Sta., Department of Agronomy, Stillwater, Oklahoma 74074, United States. Received 1969.

**PI 634829. *Solanum lycopersicum* L.**

Uncertain. NSL 26238; T007.

**PI 634830. *Solanum lycopersicum* L.**

Uncertain. NSL 26293; T063.

**PI 634831. *Solanum lycopersicum* L.**

Uncertain. NSL 26310; T080.

**PI 634832. *Solanum lycopersicum* L.**

Uncertain. NSL 26362; T132.

**PI 634833. *Solanum lycopersicum* L.**

Uncertain. NSL 26386; T156.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 634834. *Solanum lycopersicum* L.**

Cultivar. NSL 27013; Golden Glory. Ryder & Sons (eng) 1949 catalog.

**PI 634835. *Solanum lycopersicum* L.**

Cultivar. NSL 27127; Orange Sunrise. Cheyenne Hort. Field Sta. Notes.

**PI 634836. *Solanum lycopersicum* L.**

Cultivar. NSL 27138; Pera. Cheyenne Hort. Field Sta. Notes.

**PI 634837. *Solanum lycopersicum* L.**

Cultivar. NSL 27232; Surest Forcing Huelson. Cheyenne Hort. Field Sta. Notes.

**PI 634838. *Solanum lycopersicum* L.**

Cultivar. NSL 27355; Golden Jubilee. Grand Rapids Growers, Inc. 1948 catalog. Cheyenne Hort. Field Sta. Notes.

**PI 634839. *Solanum lycopersicum* L.**

Cultivar. NSL 27546; Pink No. 2. Cheyenne Hort. Field Sta. Notes.

**PI 634840. *Solanum lycopersicum* L.**

Cultivar. NSL 27639; Large Red Pear. Cheyenne Hort. Field Sta. Notes.

The following were donated by Utah State University, Utah Agric. Exp. Sta., Logan, Utah 84322, United States. Received 1966.

**PI 634841. *Solanum lycopersicum* L.**

Cultivar. NSL 43555; Long Portonian. Collected in United Kingdom. Dr. H.L. Blood Collection No. 405. KS 5 England Kelways 1931.

**PI 634842. *Solanum lycopersicum* L.**

Uncertain. Dr H L Blood Col 405; NSL 43558; M P Stoner C-3. Collected in United Kingdom. Dr. H.L. Blood Collection No. 378. England 1931.

**PI 634843. *Solanum lycopersicum* L.**

Uncertain. Dr H L Blood Col 378; NSL 43559; Perennial. Dr. H.L. Blood Collection No. 823. F.R. Lawson, Modesto Calif. 1936.

The following were donated by University of California, California Agr. Exp. Sta., Davis, California 95616, United States. Received 1968.

**PI 634844. *Solanum pimpinellifolium* L.**

Cultivar. NSL 67823; Jenkins Line No 152. strain 152 - *pimpinellifolium* - 18th generation.

The following were donated by S. Z. Berry, Ohio State University, Department of Horticulture, Ohio Agric. Research & Development, Wooster, Ohio 44691, United States. Received 1980.

**PI 634845. *Solanum lycopersicum* L.**

Cultivar. NSL 110259; Ohio 7681. Background information unavailable.

The following were donated by Plant Variety Protection Office, NAL Building, Room 500, Beltsville, Maryland 20705-2351, United States. Received 03/1999.

**PI 634846. *Solanum lycopersicum* L.**

Uncertain. P-53; NSL 398709.

The following were donated by R.W. Johnson, Queensland Herbarium, Meires Road, Indooroopilly, Queensland, Australia. Received 12/08/1993.

**PI 634847. *Ipomoea ochracea* (Lindl.) Sweet**

Wild. J 80; Grif 6247.

The following were developed by O & A Enterprises, Inc., United States. Received 05/05/2004.

**PI 634848 PVPO. *Gossypium hirsutum* L.**

Cultivar. "OA-262R". PVP 200400152.

The following were developed by New Zealand Institute for Crop & Food Research Limited, New Zealand. Received 05/05/2004.

**PI 634849 PVPO. *Avena sativa* L.**

Cultivar. "126". PVP 200400169.

The following were developed by O & A Enterprises, Inc., United States. Received 05/05/2004.

**PI 634850 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "OA-249". PVP 200400170.

**PI 634851 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "OA-265BR". PVP 200400171.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 05/05/2004.

**PI 634852 PVPO. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Cultivar. "PHB4ROFYI". PVP 200400172.

**PI 634853 PVPO. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Cultivar. "PHOUOYV". PVP 200400173.

**PI 634854 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "XWO2M"; 26R31. PVP 200400174. Pedigree - 2550\*3/Amigo//Coker 9835/3/2684.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 05/05/2004.

**PI 634855 PVPO. *Pisum sativum* L.**  
Cultivar. "SHERWOOD". PVP 200400175.

The following were developed by Kelley Bean Company, Inc., 2407 Circle Drive, Scottsbluff, Nebraska 69361, United States. Received 05/05/2004.

**PI 634856 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "ORION". PVP 200400176.

The following were developed by Doug Brede, Jacklin Seed Company, West 5300 Riverbend avenue, Post Falls, Idaho 83854-9499, United States; J.R. Simplot Company, United States; A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 05/05/2004.

**PI 634857. *Poa pratensis* L.**  
Cultivar. Pureline. "FREEDOM III"; 94-2890; J-2890. PVP 200400177; CV-89; REST 634857. Pedigree - Originated as an apomictic, single-plant selection from the progeny of field cross 92-4230, using Jacklin breeding line 92-0076 as the maternal parent and Midnight as the pollen source. Has dark green genetic color, good winter color, and good turf quality at close mowing (25 mm or lower), intermediate (25 - 50 mm - at which it was the top-ranking entry in NTEP trials), and higher (greater than 50 mm) mowing heights. In overall turf quality it performs well in the Northeastern, Midwest, Great Plains, Mountain West, and Transition Zone regions, where it ranked among the top two entries in NTEP trials. Has good shoot density during spring, summer, and autumn, a fine leaf texture, relative freedom from seedhead expression in mowed turf, good tolerance of traffic stress, and good sod strength. Resistant to leaf spot, typhula blight, red thread, brown patch, and annual bluegrass encroachment, at which it was the highest ranking entry in NTEP trials.

The following were developed by Syngenta Seeds, Inc., United States. Received 05/05/2004.

**PI 634858 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "Coker 9312". PVP 200400179. Pedigree - PS840061(Benhur/BlueboyII)/Saluda//Coker 9803.

**PI 634859 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "Coker 9375". PVP 200400180. Pedigree - 9227//Blueboy II/AL850050(Coker68-15/Bezostayal).

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 05/05/2004.

**PI 634860 PVPO. *Poa pratensis* L.**

Cultivar. "RAMPART". PVP 200400181.

The following were developed by J.C. Robinson Seed Company, United States. Received 05/05/2004.

**PI 634861 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "M10138". PVP 200400182.

**PI 634862 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "N61060". PVP 200400183.

**PI 634863 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "W16090". PVP 200400184.

The following were developed by Blue Moon Farms, United States. Received 05/05/2004.

**PI 634864 PVPO. *Agrostis stolonifera* var. *palustris* (Huds.) Farw.**

Cultivar. "LS-44". PVP 200400187.

The following were developed by Craig F. Morris, USDA-ARS, Western Wheat Quality Lab., E-202 FSHN Facility East, Pullman, Washington 99164-6394, United States; Victor L. Demacon, USDA-ARS, Western Wheat Quality Lab, E-202 FSHN Facility East, Pullman, Washington 99164-6394, United States; Kimberlee Kidwell, Washington State University, Dept. of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; Nilsa Bosque-Perez, University of Idaho, Dept of Plant, Soil, & Entomological Sciences, Moscow, Idaho 83844-2339, United States; G.S. Shelton, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA, ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164-6430, United States; B.P. Carter, Decagon Devices, Pullman, Washington 99163, United States. Received 05/10/2004.

**PI 634865. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "LOUISE"; WA007921; NSGC 9402. PVP 200500311; CV-987. Pedigree - Wakanz/Wawawai. Released 2005. Semi-dwarf, soft white spring wheat. Mid-season maturity, common head type, white straw, white glumes. Targeted to the intermediate to high rainfall (>400mm of average annual precipitation) production regions of Washington State, as a replacement 'Zak' due to its high grain yield potential, and high temperature adult plant resistance to stripe rust. Carries partial resistance to local biotypes of the Hessian fly. It has high molecular weight glutenin subunits of null (1A), 7+9 (1B) and 5+10 (1D). Milling and baking qualities are equivalent or superior to Zak and are dramatic improvements over Alpowa.

**PI 634866. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "OTIS"; WA007931; NSGC 9403. PVP 200500312; CV-988. Pedigree - Idaho 377s/3/Tanager 'S'/Torim 73//Spillman. Released 2005. Tall semi-dwarf hard white spring wheat. Mid-season maturity, awned, common head type, white straw, white glumes. Targeted across Washington State production regions as the Idaho 377s replacement based on its excellent grain yield potential, superior end-use quality and partial resistance to local biotypes of the Hessian fly. Otis has high molecular weight glutenin subunits of 1 (1A), 6/7+8 (1B), and 5+10 (1D). It has far better bread making quality than Idaho 377s and it has excellent noodle color and texture. It is a partial waxy type, making it suitable for producing different types of noodles than Macon (normal starch) is suited for.

Unknown source. Received 05/07/2001.

**PI 634867. *Glycine max* (L.) Merr.**

Genetic. Pureline. L88-5318; SY 113001. Black seed coat color mutant (i gene) selected from Altona in 1971.

Unknown source. Received 05/07/2001.

**PI 634868. *Glycine max* (L.) Merr.**

Genetic. Pureline. L88-5324; SY 113002. Buff seed coat color mutant (i gene) selected from Amsoy in 1966.

Unknown source. Received 05/07/2001.

**PI 634869. *Glycine max* (L.) Merr.**

Genetic. Pureline. L88-5328; SY 113003. Buff seed coat color mutant (i gene) selected from Amsoy 71 in 1969.

Unknown source. Received 05/07/2001.

**PI 634870. *Glycine max* (L.) Merr.**

Genetic. Pureline. L88-5333; SY 113004. Buff seed coat color mutant (i gene) selected from Bansei in 1953.

Unknown source. Received 05/07/2001.

**PI 634871. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5335; SY 113005. Red buff seed coat color mutant (i gene) selected from Blackhawk in 1956.

Unknown source. Received 05/07/2001.

**PI 634872. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5342; SY 113006. Black seed coat color mutant (i gene) selected from Calland in 1970.

Unknown source. Received 05/07/2001.

**PI 634873. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5344; SY 113007. Black saddle seed coat color mutant (kl gene) selected from Calland in 1970.

Unknown source. Received 05/07/2001.

**PI 634874. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5349; SY 113008. Brown seed coat color mutant (i gene) selected from Capital in 1953.

Unknown source. Received 05/07/2001.

**PI 634875. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5351; SY 113009. Black seed coat color mutant (i gene) selected from Chippewa in 1955.

Unknown source. Received 05/07/2001.

**PI 634876. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5356; SY 113010. Buff seed coat color mutant (i gene) selected from Clay in 1971.

Unknown source. Received 05/07/2001.

**PI 634877. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5359; SY 113011. Buff seed coat color mutant (i gene) selected from Comet in 1956.

Unknown source. Received 05/07/2001.

**PI 634878. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5363; SY 113012. Buff seed coat color mutant (i g genes) selected from Corsoy in 1966.



Unknown source. Received 05/07/2001.

**PI 634879. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5370; SY 113013. Buff seed coat color mutant (i gene) selected from Corsoy 79 in 1981.

Unknown source. Received 05/07/2001.

**PI 634880. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5373; SY 113014. Buff seed coat color mutant (i gene) selected from Crest in 1959.

Unknown source. Received 05/07/2001.

**PI 634881. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5375; SY 113015. Black seed coat color mutant (i gene) selected from Cutler 71 in 1975.

Unknown source. Received 05/07/2001.

**PI 634882. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5380; SY 113016. Brown seed coat color mutant (i gene) selected from Earlyana in 1947.

Unknown source. Received 05/07/2001.

**PI 634883. *Glycine max*** (L.) Merr.  
Genetic. Pureline. (Elf); SY 113017. Saddle seed coat color mutant (i-k gene) selected from Elf in 1987.

Unknown source. Received 05/07/2001.

**PI 634884. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5386; SY 113018. Black seed coat color mutant (i gene) selected from Elgin in 1986.

Unknown source. Received 05/07/2001.

**PI 634885. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5391; SY 113019. Black seed coat color mutant (i gene) selected from Flambeau in 1954.

Unknown source. Received 05/07/2001.

**PI 634886. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5395; SY 113020. Black seed coat color mutant (i gene) selected from Ford in 1956.

Unknown source. Received 05/07/2001.

**PI 634887. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5397; SY 113021. Buff seed coat color mutant (i gene) selected from Harly in 1949.

Unknown source. Received 05/07/2001.

**PI 634888. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5404; SY 113022. Black seed coat color mutant (i gene) selected from Harper in 1985.

Unknown source. Received 05/07/2001.

**PI 634889. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5407; SY 113023. Buff seed coat color mutant (i gene) selected from Kanrich in 1957.

Unknown source. Received 05/07/2001.

**PI 634890. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5410; SY 113024. Black seed coat color mutant (i gene) selected from Kent in 1966.

Unknown source. Received 05/07/2001.

**PI 634891. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5483; SY 113025. Brown seed coat color mutant (i r Rps1 genes) selected from L67-3544 in 1969.

Unknown source. Received 05/07/2001.

**PI 634892. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5416; SY 113026. Black seed coat color mutant (i gene) selected from Lincoln in 1947.

Unknown source. Received 05/07/2001.

**PI 634893. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5418; SY 113027. Black seed coat color mutant (i gene) selected from Lincoln in 1954.

Unknown source. Received 05/07/2001.

**PI 634894. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5420; SY 113028. Black seed coat color mutant (i gene) selected from Lincoln in 1954.

Unknown source. Received 05/07/2001.

**PI 634895. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5422; SY 113029. Black saddle seed coat color mutant (kl gene) selected from Lincoln in 1945.

Unknown source. Received 05/07/2001.

**PI 634896. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5424; SY 113030. Black saddle seed coat color mutant (kl gene) selected from Lincoln in 1954.

Unknown source. Received 05/07/2001.

**PI 634897. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5428; SY 113031. Buff seed coat color mutant (i gene) selected from Lindarin in 1961.

Unknown source. Received 05/07/2001.

**PI 634898. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5430; SY 113032. Buff seed coat color mutant (i gene) selected from Mandarin (Ottawa) in 1956.

Unknown source. Received 05/07/2001.

**PI 634899. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5439; SY 113033. Black saddle seed coat color mutant (kl gene) selected from Morsoy in 1970.

Unknown source. Received 05/07/2001.

**PI 634900. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5442; SY 113034. Buff seed coat color mutant (i gene) selected from Ozzie in 1985.

Unknown source. Received 05/07/2001.

**PI 634901. *Glycine max*** (L.) Merr.  
Genetic. Pureline. (Pixie); SY 113035. Black seed coat color mutant (i gene) selected from Pixie in 1989.

Unknown source. Received 05/07/2001.

**PI 634902. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5448; SY 113036. Black seed coat color mutant (i gene) selected from Shelby in 1959.

Unknown source. Received 05/07/2001.

**PI 634903. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5453; SY 113037. Black seed coat color mutant (i gene) selected from Sparks in 1985.

Unknown source. Received 05/07/2001.

**PI 634904. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5458; SY 113038. Black saddle seed coat color mutant (kl gene) selected from Sprite in 1985.

Unknown source. Received 05/07/2001.

**PI 634905. *Glycine max*** (L.) Merr.  
Genetic. Pureline. (Union); SY 113040. Black seed coat color mutant (i gene) selected from Union in 1980.

Unknown source. Received 05/07/2001.

**PI 634906. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5466; SY 113041. Black seed coat color mutant (i gene) selected from Wayne in 1966.

Unknown source. Received 05/07/2001.

**PI 634907. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5467; SY 113042. Black seed coat color mutant (i gene) selected from Wayne in 1966.

Unknown source. Received 05/07/2001.

**PI 634908. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5474; SY 113043. Black saddle seed coat color mutant (kl gene) selected from Wayne in 1972.

Unknown source. Received 05/07/2001.

**PI 634909. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5478; SY 113044. Black saddle seed coat color mutant (kl gene) selected from Wayne in 1976.

Unknown source. Received 05/07/2001.

**PI 634910. *Glycine max*** (L.) Merr.  
Genetic. Pureline. L88-5481; SY 113045. Mottled seed coat color mutant selected from Wayne in 1967.

Unknown source. Received 05/07/2001.

**PI 634911. *Glycine max* (L.) Merr.**

Genetic. Pureline. L88-5489; SY 113046. Imperfect Black seed coat color mutant (i gene) selected from Wells in 1976.

Unknown source. Received 05/07/2001.

**PI 634912. *Glycine max* (L.) Merr.**

Genetic. Pureline. L88-5509; SY 113049. Black seed coat color mutant (i gene) selected from Woodworth in 1971.

Unknown source. Received 05/07/2001.

**PI 634913. *Glycine max* (L.) Merr.**

Genetic. Pureline. (L66-892); SY 113050. Color mutant, Found in L82-6909 with i or k gene.

The following were collected by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; David Brenner, Iowa State University, Regional Plant Introduction Station, Room G212, Agronomy Building, Ames, Iowa 50011-1170, United States. Received 03/06/1989.

**PI 634914. *Amaranthus caudatus* L.**

Landrace. T&B 880459; RRC 1395; Ghanair; Ames 10176. Collected 10/25/1988 in Azad Kashmir, Pakistan. Latitude 34° 9' N. Longitude 73° 41' E. Elevation 1540 m. Below road at Bandi Bakhalan, 5 km north of Chikar. Terraced farm. On a 5 degree slope facing northwest. A grain type, with black seeds, red foliage and a drooping, red seed head. Used as a vegetable. As reported by the collectors. The seeds are black, flowers dark pink, leaves green. The RRC class type is: South American. In the greenhouse the leaves turned reddish as the plant matured. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

**PI 634915. *Amaranthus hypochondriacus* L.**

Wild. T&B 880362; RRC 1393; Ames 10174. Collected 09/26/1988 in Northern Areas, Pakistan. Latitude 36° 16' N. Longitude 73° 34' E. Elevation 2060 m. On farm of Muzafar Wali, in town of Waliabad, 120 km northwest of Gilgit. Waste ground at the edge of a path in a river valley in the mountains. Exposed to full sunlight. Growing on well drained, silty soil. Red or light green leaves, black or brown seeds, as reported by the collectors.

**PI 634916. *Amaranthus hypochondriacus* L.**

Landrace. T&B 880403; RRC 1394; Ames 10175. Collected 10/12/1988 in North-West Frontier, Pakistan. Latitude 34° 42' N. Longitude 73° 28' E. Elevation 1390 m. 3 km west of Kwai. Edge of a terraced corn field, in a band ~0.5 meters wide. West facing. The soil is derived from red shale. Associated with: *Zea mays*, *Pyrus* sp., *Juglans regia*, and *Ficus palmata*. A white-seeded grain type; red leaves and bright red seed head. Collected during harvest time.

The following were donated by Marisol Berti Diaz, Universidad de Concepcion, Departamento de Produccion Vegetal, Facultad de Agronomia, Concepcion, Bio-Bio, Chile. Received 08/26/1994.

**PI 634917. *Chenopodium quinoa* Willd.**

Cultivar. "Pichilemu"; Ames 22153. Collected 04/1994 in Chile. Latitude 34° 21' S. Longitude 72° W. Pichilemu, VII region. Improved Landrace.

The following were developed by Erik von Baer, Sociedad Nacional de Agricultura, Huelquen, Santiago, Chile. Donated by Marisol Berti Diaz, Universidad de Concepcion, Departamento de Produccion Vegetal, Facultad de Agronomia, Concepcion, Bio-Bio, Chile. Received 08/26/1994.

**PI 634918. *Chenopodium quinoa* Willd.**

Cultivar. "Baer"; Ames 22154. Collected 04/1994 in Chile. Latitude 38° 42' S. Longitude 72° 35' W. Cajon, IX region. Improved by Erick von Baer, private breeder.

The following were donated by Marisol Berti Diaz, Universidad de Concepcion, Departamento de Produccion Vegetal, Facultad de Agronomia, Concepcion, Bio-Bio, Chile. Received 08/26/1994.

**PI 634919. *Chenopodium quinoa* Willd.**

Landrace. Pichaman; Ames 22155. Collected 04/1994 in Chile. Latitude 35° S. Longitude 72° W. Pichaman, VII region. Coastal region. Cultivated by farmer for 20 years.

The following were developed by Erik von Baer, Sociedad Nacional de Agricultura, Huelquen, Santiago, Chile. Donated by Marisol Berti Diaz, Universidad de Concepcion, Departamento de Produccion Vegetal, Facultad de Agronomia, Concepcion, Bio-Bio, Chile. Received 08/26/1994.

**PI 634920. *Chenopodium quinoa* Willd.**

Cultivar. "Faro"; Ames 22156. Collected 04/1994 in Chile. Latitude 38° 42' S. Longitude 72° 35' W. Cajon, IX region. Improved by Erick von Baer, private breeder.

The following were donated by Marisol Berti Diaz, Universidad de Concepcion, Departamento de Produccion Vegetal, Facultad de Agronomia, Concepcion, Bio-Bio, Chile. Received 08/26/1994.

**PI 634921. *Chenopodium quinoa* Willd.**

Landrace. UDEC-2; Ames 22157. Collected 04/1994 in Chile. Latitude 34° 38' S. Longitude 72° 2' W. Lo Valdivia, VII region.

**PI 634922. *Chenopodium quinoa* Willd.**

Landrace. UDEC-4; Ames 22158. Collected 04/1994 in Chile. Latitude 34° 45' S. Longitude 72° 4' W. Llico, VII region.

**PI 634923. *Chenopodium quinoa* Willd.**

Landrace. UDEC-1; Ames 22159. Collected 04/1994 in Chile. Latitude 34° 38' S. Longitude 72° 0' W. Bucalemu, VII region.

**PI 634924. *Chenopodium quinoa* Willd.**

Landrace. UDEC-5; Ames 22160. Collected 04/1994 in Chile. Latitude 35° 0' S. Longitude 72° 11' W. Iloca, VII region.

**PI 634925. *Chenopodium quinoa* Willd.**

Landrace. UDEC-3; Ames 22161. Collected 04/1994 in Chile. Latitude 34° 45' S. Longitude 72° 4' W. Llico, VII region.

The following were collected by V.V. Bjalt. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 01/16/1998.

**PI 634926. *Eryngium planum* L.**

Wild. 2492; Ames 24135. Collected 1995 in Kurgan, Russian Federation. Latitude 55° 8' N. Longitude 62° 34' E. Near Tikhonovka.

The following were collected by Shaw Nature Reserve, Missouri Botanical Garden, P.O. Box 38, Gray Summit, Missouri 63039, United States. Received 04/01/1996.

**PI 634927. *Eryngium yuccifolium* Michx.**

Wild. Ames 22783. Collected 1995 in Illinois, United States. Latitude 38° 50' N. Longitude 89° 54' W. Along Poag Road, Madison County. Wet prairie relict.

The following were collected by H. Hubatsch, Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 09/03/1997.

**PI 634928. *Pimpinella saxifraga* L.**

Wild. Index Seminum 53; Ames 23901. Collected 1997 in Veneto, Italy. Latitude 45° 46' N. Longitude 10° 48' E. Malcesine.

The following were donated by Eugenio Sgaravatti, FAO - Seed Exchange Service, Plant Production and Protection Division, Room D008, Rome, Latium 00100, Italy; Orto Botanica Comunale, Via Del Giardino Botanico, N. 14, Lucca, Italy. Received 02/19/1988.

**PI 634929. *Sium sisarum* L.**

Uncertain. FAO 67843; Ames 8064.

The following were developed by William R. Meredith Jr., USDA-ARS, Jamie Whitten Delta States Research Cen., P. O. Box 345, Stoneville, Mississippi 38776, United States. Received 05/25/2004.

**PI 634930. *Gossypium hirsutum* L.**

Breeding. MD 52ne. GP-787. Pedigree - MD 65-11ne/76\*MD 90ne. Very similar to recurrent parent MD 90ne, but produces 10% higher bundle strength (T1), 22% less short fibers, and 7% longer mean fiber length.

Smoothleaf and nectariless. Slightly later in maturity than recurrent parent MD 90ne. Released to serve as a parent for producing high strength populations.

**PI 634931. *Gossypium hirsutum* L.**

Breeding. MD 90ne. GP-788. Pedigree - MC 65-11ne/5\*Deltapine. Very similar to cultivar Deltapine Acala 90. Smoothleaf and nectariless. Included in germplasm to provide a near-isogenic check for comparisons with DM 52ne.

The following were developed by Hugo E. Vivar, International Maize & Wheat Improvement Center, Lisboa 27, Apdo. Postal 6-641, Mexico City, Federal District 06600, Mexico; Carl A. Griffey, Virginia Polytechnic Institute, & State University, Dept. of Crop & Soil Env. Sciences, Blacksburg, Virginia 24061-0404, United States; A.M. Price, VPI & SU, Crop & Soil Environmental Sciences, Blacksburg, Virginia, United States; D.E. Brann, VPI & SU, Crop & Soil Environmental Sciences, Blacksburg, Virginia, United States; David P. Livingston, USDA-ARS, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695-7629, United States; Wendy Rohrer, Virginia Tech, Crop & Soil Environmental Sciences, 419A Smyth Hall, Blacksburg, Virginia 24061-0404, United States; T.H. Pridgen, Virginia Polytechnic Inst. and State Univ., Crop and Soil Environmental Sciences Dept., Blacksburg, Virginia 24061-040, United States; Mark Vaughn, VPI & SU, Eastern VA Ag. Res. & Ext. Center, P.O. Box 338, Warsaw, Virginia 22572, United States; W.S. Brooks, Virginia Polytechnic Inst. and State Univ., Crop and Soil Environmental Sciences Dept., Blacksburg, Virginia 24061, United States; Robert L. Paris, USDA-ARS, P. O. Box 345, 141 Experiment Station Road, Stoneville, Mississippi 38776, United States; E.G. Rucker, Virginia Polytechnic Inst. and State Univ., Crop & Soil Environmental Sci. Dept., Blacksburg, Virginia 24061, United States; H.D. Behl, Virginia Polytechnic Inst. and State Univ., Crop & Soil Environmental Sciences Dept., Blacksburg, Virginia 24061, United States; R.A. Corbin, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; J.C. Kenner, Eastern Virginia Agric. Research and Extension Center, Warsaw, Virginia 22572, United States; D.W. Dunaway, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; R.M. Pitman, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; W.L. Sisson, Eastern Virginia Agricultural Research and Extension Center, Virginia Polytechnic Institute and State University, Warsaw, Virginia 22572, United States; R. Premakumar, USDA-ARS, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695, United States. Received 05/17/2004.

**PI 634932. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "DOYCE"; VA00H-137. CV-317; PVP 200500267. Pedigree - (CMB79-54)//VA90-42-56/VA90-42-22/3/Pamunkey/4/H585. Released 2003. Mid-season, short-stature, hullless winter feed barley. Juvenile plants exhibit semi-prostrate growth habit in early spring, flag leaves waxy and drooping at booting, leaf sheaths and stems waxy and anthocyanin is not present in leaves or stems. Stems comprised of five nodes, a closed collar shape, a straight neck and an exertion above the base of the flag leaf blade of 3-10 cm. Six-rowed spikes erect, strap, and glossy with no overlapping lateral kernels. Rachis covered with hairs. Glumes medium in length, completely covered with long hairs, and awns rough and more than



equal to the glumes in length. Lemmas awns longer than spike and rough. The basal marking of the lemma is a slight crease. Rachilla hairs long. Kernels hullless, short and naked, with colorless aleurone, and lacking hairs on the ventral furrow. On average, head emergence similar to Wysor, 3 days later than H585, 2 days later than Nomini and Price, and 5 days later than Callao. Average plant height 81 cm, 5 cm shorter than H585. On the basis of Belgian lodging score (0.2=no lodging, 10=completely lodged) straw strength (3.2) is good in comparison with Callao (5.0). Winter hardiness (85% survival) is most similar to that of the semi-hardy check cv. Tennessee Winter (76%). On the basis of disease assessments (Infection Type 0=immune to 4=highly susceptible) of seedlings conducted in greenhouse tests from 2001-2003, (IT=1) resistant to leaf rust (*Puccinia hordei*) races 8 and 30. Seedlings are moderately resistant (IT=2.6) to powdery mildew (*Blumeria graminis*). In field tests (2001-2003), adult-plants have expressed excellent resistance (0=resistant to 9=susceptible) to powdery mildew (0) and barley leaf rust (1). Expressed moderate susceptibility to net blotch (6) (*Pyrenophora teres*). Expressed resistance (IT=0 and severity=0%) to stripe rust (*Puccinia striiformis*) in field tests conducted at Mt. Vernon, WA in 2003.

The following were developed by Carl A. Griffey, Virginia Polytechnic Institute, & State University, Dept. of Crop & Soil Env. Sciences, Blacksburg, Virginia 24061-0404, United States; A.M. Price, VPI & SU, Crop & Soil Environmental Sciences, Blacksburg, Virginia, United States; D.E. Brann, VPI & SU, Crop & Soil Environmental Sciences, Blacksburg, Virginia, United States; David P. Livingston, USDA-ARS, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695-7629, United States; Wendy Rohrer, Virginia Tech, Crop & Soil Environmental Sciences, 419A Smyth Hall, Blacksburg, Virginia 24061-0404, United States; T.H. Pridgen, Virginia Polytechnic Inst. and State Univ., Crop and Soil Environmental Sciences Dept., Blacksburg, Virginia 24061-040, United States; Mark Vaughn, VPI & SU, Eastern VA Ag. Res. & Ext. Center, P.O. Box 338, Warsaw, Virginia 22572, United States; W.S. Brooks, Virginia Polytechnic Inst. and State Univ., Crop and Soil Environmental Sciences Dept., Blacksburg, Virginia 24061, United States; E.G. Rucker, Virginia Polytechnic Inst. and State Univ., Crop & Soil Environmental Sci. Dept., Blacksburg, Virginia 24061, United States; H.D. Behl, Virginia Polytechnic Inst. and State Univ., Crop & Soil Environmental Sciences Dept., Blacksburg, Virginia 24061, United States; R.A. Corbin, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; J.C. Kenner, Eastern Virginia Agric. Research and Extension Center, Warsaw, Virginia 22572, United States; D.W. Dunaway, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; R.M. Pitman, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; W.L. Sisson, Eastern Virginia Agricultural Research and Extension Center, Virginia Polytechnic Institute and State University, Warsaw, Virginia 22572, United States; R. Premakumar, USDA-ARS, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695, United States. Received 05/17/2004.

**PI 634933. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "THOROUGHbred"; VA97B-388. CV-316; PVP 200500265. Pedigree - VA90-44-110/Plaisant. Released 2003. Mid-season, short-stature, hulled six-rowed winter feed barley. Juvenile plants

exhibit semi-prostrate growth habit in early spring, flag leaves slightly waxy and upright at booting, leaf sheaths and stems waxy and anthocyanin is not present in leaves or stems. Stems comprised of four nodes, with moderate exertion between flag leaf and spike, a closed collar, and a slightly undulated neck. Spikes are erect, strap, and slightly waxy with no overlapping lateral kernels. Rachis covered with hairs. Glumes medium length with short hairs confined to the band and awns smooth and less or equal to glumes in length. Lemmas are hairless, have a depressed base, and awns are long and rough. Rachilla hairs long. Seed hulled, midlong to long, slightly wrinkled, with colorless aleurone, and lacking hairs on the ventral furrow. On average, head emergence is 2 days later than Wysor, and 4 days later than Nomini and Price. Average plant height 91 cm, 7.5 cm taller than Callao and 8-10 cm shorter than Wysor and Nomini. On the basis of Belgian lodging score (0.2=no lodging, 10=completely lodged) straw strength (1.4) is good in comparison with Callao (5.0). Winter hardiness (95% survival) is good and most similar to that of the winter hardy check Kentucky 1 (63%). On the basis of disease assessments (Infection Type 0=immune to 4=highly susceptible) of seedlings conducted in greenhouse tests from 1999-2002, (IT=1) resistant to powdery mildew (*Blumeria graminis*) but moderately susceptible (IT=3) to leaf rust (*Puccinia hordei*) races 8 and 30. In field tests (1999-2002), adult plants expressed resistance (0=resistant to 9=susceptible) to powdery mildew (1.3) and septori leaf blotch (0) (*Septoria passerini*). Has expressed susceptibility to leaf rust (7) and moderate susceptibility to net blotch (4) (*Pyrenophora teres*).

The following were developed by David Gehl, Agriculture & Agri-Food Canada, P.O. Box, Indian Head, Saskatchewan S0G2K0, Canada; Deng-Jin Bing, Agriculture Canada, Morden Research Centre, Pulse Crop Breeder, Morden, Manitoba R6M 1Y5, Canada; Y.T. Gan, Agriculture and Agri-Food Canada, Semiarid Prairie Agricultural Research Centre, Research Branch, Swift Current, Saskatchewan S9H 3X2, Canada; Tom Warkentin, University of Saskatchewan, Crop Development Centre, 51 Campus Drive, Saskatoon, Saskatchewan S7N 5A8, Canada; Robert L. Conner, Agriculture and Agri-Food Canada, Morden Research Station, Unit 100-101, Morton, Manitoba R6M 1Y5, Canada; G. Clayton, Agriculture & Agri-Food Canada, Research Center, 6000 C & E Trail, Lacombe, Alberta T4L 1W1, Canada; T.K. Turkington, Agriculture and Agri-Food Canada, Lacombe Research Centre, 6000 C & E Trail, Lacombe, Alberta T4L 1W1, Canada; D. Orr, Agriculture and Agri-Food Canada, Lacombe Research Centre, 6000 C & E Trail, Lacombe, Alberta T4L 1W1, Canada; A.G. Sloan, Agriculture and Agri-Food Canada, Morden Research Station, Unit 100-101, Morden, Manitoba R6M 1Y5, Canada; A.G. Xue, Agriculture and Agri-Food Canada, Eastern Cereal and Oilseed Research Centre, K.W. Neatby Building, Ottawa, Ontario K1A 0C6, Canada; C. Vera, Agriculture and Agri-Food Canada, Melfort Research Farm, P.O. Box 1240, Melfort, Saskatchewan S0E T4L, Canada. Received 05/10/2004.

**PI 634934. *Pisum sativum* L.**

Cultivar. "MISER"; 9406046; MP1807; Registration no. 5627. CV-23. Pedigree - Highlight / Choral. Semi-leafless pea with yellow cotyledon, small to medium seed size and resistance to powdery mildew (*Erysiphe pisi*).

The following were developed by Barry 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; John Dunckelman, Florida Sugar Cane League, P.O. Drawer 1208, Clewiston, Florida 33440, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States; Jack C. Comstock, USDA, ARS, US Sugarcane Research Field Station, 12990 US Hwy 441 N, Canal Point, Florida 33438, United States; Robert A. Gilbert, University of Florida, EREC, 3200 East Palm Beach Road, Belle Glade, Florida 33430-8003, United States; S. Edme, USDA-ARS, Sugarcane Field Station, 12990 US Highway 441N, Canal City, Florida 33438, United States; J. Davidson, Florida Sugar Cane League, Inc., P.O. Box 1208, Clewiston, Florida 33440, United States. Received 05/24/2004.

**PI 634935. *Saccharum* sp.**

Cultivar. "CP 96-1252". CV-120. Pedigree - A complex hybrid of *Saccharum officinarum*, *S. barberi*, *S. spontaneum*, and *S. sinense*. Selected from progeny of cross CP 90-1533/CP 84-1198 (PI 578049). Pubescent along the entire length of the leaf sheath and has short auricles (<1.0 cm). Tan growth ring, heavy wax bloom, clasping leaf sheath, and green stalk under the leaf sheath. Field resistance in Florida to eye spot (*Bipolaris sacchari*), ru(*Puccinia melanocephal*), smut (*Ustilago scitaminea*), leaf scald (*Xanthomonas albilineans*), sugarcane mosaic virus strain E, and ratoon stunting disease (*Leifsonia xyli*). Resistance to ratoon stunting disease was based on the presence of colonized vascular bundles in inoculated tests. Susceptible to sugarcane yellow leaf virus. Fiber content of 9.4%. Vegetatively propagated clone.

The following were developed by Richard C. Frohberg, North Dakota State University, Crop & Weed Science Department, P.O. Box 5051, Fargo, North Dakota 58105-5051, United States; J.B. Rasmussen, North Dakota State University, Dept. of Plant Pathology, Fargo, North Dakota 58105, United States; R.W. Stack, North Dakota State University, Plant Pathology Department, Fargo, North Dakota 58105, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States; Mohamed Mergoum, North Dakota State University, Plant Sciences Dept., Loftsgard Hall, Fargo, North Dakota 58105-5051, United States. Received 05/18/2004.

**PI 634936. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ND 744. GP-778. Pedigree - ND 2831/Parshall//ND 706. Released 2004. Awned, early maturing and semi-dwarf hard red spring wheat. Lax spike type with plant height similar to Alsen (PI 615543 PVPO), shorter than Parshall (PVP 200000212). Earlier than Alsen and similar to Alsen for grain shattering and straw strength but, more resistant to grain shattering than Sumai 3 (PI 481542). Mean grain yield superior to grain yield of Alsen and Steele-ND (PVP 2004001888). Grain volume comparable to Parshall. Flour yield however showed lower levels compared to Steele-ND. High level of resistance to Fusarium Head Blight (FHB) among adapted wheat genotypes to the northern spring wheat region of the U.S. Also resistant to the prevalent races of stem rust (*Puccinia graminis*) in the region, and to leaf rust (*Puccinia triticina*). Exhibited a resistant reaction to pathotype THBL, the predominant race of leaf rust in the region. Tests to stem rust showed highly resistant to pathotypes Pgt-QCCJ, -QTHJ, -QFCQ, -RTQQ, -TPMK, -RHTS, AND -HPHJ. FHB incidence recorded was significantly lower compared to those scored on the susceptible check 2398 and the moderately resistant check Pioneer 2375. Visual Scabby Kernels (VSK) also significantly lower than recorded

on 2398 and similar to Alsen. Under severe FHB disease pressure, VSK scores were significantly lower than the susceptible check 2398 and similar to that of Alsen.

The following were collected by Lynnel A. Hoffman, National Resources Conservation Service, Shelby, Montana, United States. Developed by USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Donated by Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/2004.

**PI 634937. *Anthoxanthum nitens*** (Weber) Schouten & Veldkamp

Cultivated. Spirit; 9063351 vegetative; W6 26051. Collected 10/21/1991 in Montana, United States. Toole county, T37NR3E section 24. Silty clay loam soil, 5% slope, west aspect. Pedigree - The vegetative propagules of Spirit Germplasm sweetgrass were originally collected from a single population located on the Irwin Brown Ranch in Toole County, Montana. The legal description for the site is T37N R3E, Section 24. The physical characteristics of the site are a silty clay loam soil texture, a 5% slope on a west aspect, an elevation of 1,128 to 1,137 m (3,700 to 3,730 ft), and annual precipitation at 711 to 762 mm (28 to 30 in). It was collected in 1991 by Lynnel A. Hoffman, then the Soil Conservationist with the USDA, Soil Conservation Service at Shelby, Montana. Spirit sweetgrass spreads from creeping rhizomes that begin with leaf initiation in late winter or early spring, followed by seedhead emergence within 2-3 weeks. At the Bridger PMC it is common for this plant to be completely headed out by mid-April, flowering in early May, and seed maturity by mid-June. Despite the development of inflorescence and anthesis, the infertile nature of the florets results in poor seed set and low viability (25% to 50% germination). Coupled with a need to provide the seed a period of cold stratification and a slow rate of germination, the most successful method of producing sweetgrass is from vegetative propagules. Sweetgrass plants are semi-erect, with hollow culms 25 to 60 cm tall. The leaf sheaths are open, with ligules 3 to 5 mm long and membranous. The smooth, flat blades are mostly 2 to 5 mm wide, oftentimes reddish at the base, glaucous above, and scabrous below. The herbage is fragrant and vanilla-scented due to the presence of coumarin (a known anti-coagulant). The inflorescence is a pyramidal, compacted to loose, 2 to 12 cm long panicle with bisexual florets. Small spikelets are 3 to 5 mm long, broad, shiny bronze to brownish in color and three-flowered, with only one floret perfect and seed-bearing. Glumes are more or less equal in length, boat-shaped, thin and papery, and acute. Sterile floret lemmas are awnless or nearly so, indurate and hairy, and nearly the same length as the glumes. The sterile floret palea is hyaline, two-nerved, and rounded on the back. The fertile floret lemma is somewhat hardened and hairy at the apex, and the fertile floret palea is three-nerved. The fruit is a very small, dark brown, caryopsis with 2.5 million seeds per kilogram. Thrips are known to frequent sweetgrass plants and seedheads, but do not impose a serious threat at any time. Powdery mildew may become temporarily present at times of elevated humidity, but usually does not have a long-term negative impact on the plants. The.

The following were collected by E.L. Smith, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States. Received 03/1970.

**PI 634938. *Triticum turgidum* subsp. *durum*** (Desf.) Husn.  
Landrace. ELS 6404-120-4; NSGC 9404. Collected 12/13/1964 in Tigre,  
Ethiopia. Latitude 14° 8' N. Longitude 38° 43' E. Elevation 2275 m. near  
Axum. Pedigree - selection from CItr 14792.

**PI 634939. *Triticum turgidum* subsp. *durum*** (Desf.) Husn.  
Landrace. ELS 6404-141-3; NSGC 9405. Collected 12/17/1964 in Shewa,  
Ethiopia. Latitude 9° 9' N. Longitude 39° 2' E. Elevation 2647 m. Sendafa.  
Pedigree - selection from CItr 14865.

**PI 634940. *Triticum aestivum* L. subsp. *aestivum***  
Landrace. ELS 6404-151-1; NSGC 9406. Collected 12/21/1964 in Shewa,  
Ethiopia. Latitude 9° 5' N. Longitude 38° 24' E. Elevation 2578 m. Metalaya,  
northwest of Holetta. Pedigree - selection from CItr 14884.

The following were developed by David J. Lang, Mississippi State University,  
Department of Agronomy and Crop Science, P. O. Box 5248, Mississippi State,  
Mississippi 39762, United States; J.L. Douglas, East Texas Plant Material  
Center, USDA-SCS, Agricultural Bldg., SFA Station, Nacogdoches, Texas  
75962-3000, United States; Janet Grabowski, USDA-Natural Resources  
Conservation Service, Jamie L. Whitten Plant Materials Center, 2533 County  
Road 65, Coffeetown, Mississippi 38922-2652, United States; S.D. Edwards,  
USDA-NRCS, Aalexandria, Louisiana 71302, United States. Received 04/05/2004.

**PI 634941. *Tripsacum dactyloides* (L.) L.**  
Cultivar. "HIGHLANDER"; 9062680. CV-238; PVP 200400242. Pedigree -  
Direct increase of original collection from Montgomery County Tennessee.  
Native, warm season, perennial grass selected for superior vigor, growth  
form, disease resistance and forage attributes from among 72 initial  
collections and 12 superior forage selections. Yields in excess of 15 Mg  
ha<sup>-1</sup> were reported in regional trials in the southeastern U.S. Forage  
quality estimates of crude protein range from 60 to 110 g kg<sup>-1</sup> DM, acid  
detergent fiber from 370 to 420 g kg<sup>-1</sup> DM, neutral detergent fiber from  
670 to 730 g kg<sup>-1</sup> DM, and in vitro dry matter digestibility from 600 to  
740 g kg<sup>-1</sup> DM. Appears to have resistance to *Rhizoctonia* sp. and *Pythium*  
sp. Well adapted for use in the eastern portions of USDA Hardiness Zones  
6b to 8a, using Interstate 35 as the western limit. Current testing has  
not completely substantiated Zone 6b as the northern limit of range of  
adaptation. A tetraploid (2n=72) and reproduces by facultative apomixes.

The following were developed by Pioneer Hi-Bred International, Inc, United  
States. Received 06/07/2004.

**PI 634942 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH714". PVP 200400189.

**PI 634943 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH8JR". PVP 200400191.

**PI 634944 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH8TN". PVP 200400192.

**PI 634945 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH77N". PVP 200400210.

**PI 634946 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH7GD". PVP 200400211.

**PI 634947 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PHCWK". PVP 200400215.

The following were developed by California Oils Corporation, Woodland, California, United States. Received 06/07/2004.

**PI 634948 PVPO. Carthamus tinctorius L.**  
Cultivar. "S-333". PVP 200400218.

The following were developed by D&PL Technology Holding Company, LLC, Netherlands. Received 06/07/2004.

**PI 634949 PVPO. Gossypium hirsutum L.**  
Cultivar. "DP 434 RR". PVP 200400219.

The following were developed by Commonwealth Scientific and Indust. Rsch. Org., Division of Plant Industry, Wembley, Australia. Received 06/07/2004.

**PI 634950 PVPO. Gossypium hirsutum L.**  
Cultivar. "FM 800BR". PVP 200400220.

**PI 634951 PVPO. Gossypium hirsutum L.**  
Cultivar. "FM 960 RR". PVP 200400221.

**PI 634952 PVPO. Gossypium hirsutum L.**  
Cultivar. "FM 800 RR". PVP 200400222.

**PI 634953 PVPO. Gossypium hirsutum L.**  
Cultivar. "FM 991 BR". PVP 200400223.

**PI 634954 PVPO. Gossypium hirsutum L.**  
Cultivar. "FM 960 BR". PVP 200400224.

**PI 634955 PVPO. Gossypium hirsutum L.**  
Cultivar. "FM 819 RR". PVP 200400225.

The following were developed by ProSeeds Marketing, Inc., United States. Received 06/07/2004.

**PI 634956 PVPO. Festuca arundinacea Schreb.**  
Cultivar. "FIVE POINT". PVP 200400226.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 06/07/2004.

**PI 634957 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH8BC". PVP 200400190.

PI 634958 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PH8WD". PVP 200400193.

PI 634959 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PH907". PVP 200400194.

PI 634960 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHA9G". PVP 200400195.

PI 634961 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHACE". PVP 200400196.

PI 634962 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHADP". PVP 200400197.

PI 634963 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHAJE". PVP 200400198.

PI 634964 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHAKC". PVP 200400199.

PI 634965 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHAVN". PVP 200400200.

PI 634966 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHB1V". PVP 200400201.

PI 634967 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PH5WA". PVP 200400209.

PI 634968 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHB6R". PVP 200400212.

PI 634969 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHBBP". PVP 200400213.

PI 634970 PVPO. *Zea mays* L. subsp. *mays*  
Cultivar. "PHC5H". PVP 200400214.

The following were developed by Purdue Research Foundation, Indiana, United States. Received 06/07/2004.

PI 634971 PVPO. *Eruca sativa* Mill.  
Cultivar. "ADAGIO". PVP 200400143.

The following were developed by Blue Moon Farms, United States. Received 06/07/2004.

PI 634972 PVPO. *Lolium perenne* L.  
Cultivar. "AMERICUS". PVP 200400206.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 06/07/2004.

**PI 634973 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "8309". PVP 200400204. Pedigree - 25R57  
sib/5/Ning7840/3/2555\*3//2555 sib\*2/Salami/4/2555\*3//2555 sib\*2/Salami.

The following were developed by Kansas Agricultural Experiment Station, Fort Hays Branch Sta., Hays, Kansas 67601, United States. Received 06/07/2004.

**PI 634974 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "OVERLEY". PVP 200400205. Pedigree -  
U1275-1-4-2-2/Heyne 'S'//Jagger = TAM107\*3/TA2460//Heyne 'S'/3/Jagger.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 06/07/2004.

**PI 634975 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "8302". PVP 200400202. Pedigree -  
Myna 'S'/'5\*2555sib//KS81H1640HF/5\*2555sib/12/2548sib/Caldwell/11/S76sib/9  
/Redcoat/8/Norin33/6/Fairfield/4/PI94587//Fultz/Hungarian/3/Fultz/Hungar  
ian/5/Trumbull\*3//Hope/Hussar/4/Trumbull/3/CI12061//Fultz/Hungarian/7/Kn  
ox/10/2553/13/2552.

The following were developed by Doug Brede, Jacklin Seed Company, West 5300 Riverbend avenue, Post Falls, Idaho 83854-9499, United States; J.R. Simplot Company, United States; A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 06/07/2004.

**PI 634976. *Poa pratensis* L.**

Cultivar. Pureline. "EVERGLADE"; 94-2910; J-2910. PVP 200400208; CV-90; REST 634976. Pedigree - Originated as an apomictic, single-plant selection from the progeny of hybrid cross 92-4230 created using Jacklin breeding line 92-0076 as the maternal parent and Midnight as the pollen source. Dark green genetic color and good turf quality at close mowing (25 mm or lower), intermediate (25 to 50 mm), and higher (greater than 50 mm) mowing heights. In overall turf quality it performs well in the Northeastern, Great Plains, Mountain West, and Transition Zone regions, where it was the top-ranking entry in NTEP trials. Good shoot density during spring, summer and autumn and a fine leaf texture. Resistant to leaf spot, typhula blight, red thread, and annual bluegrass encroachment.

**PI 634977. *Poa pratensis* L.**

Cultivar. Pureline. "EVEREST"; 95-2425; J-2425. PVP 200400207; CV-91; REST 634977. Pedigree - Originated as an apomictic, single-plant selection from 2 generations of open-pollinated crossing of the cultivar, Midnight. Dark green genetic color and good turf quality at close mowing (25 mm or lower), intermediate (25 to 50 mm), and higher (greater than 50 mm) mowing heights. In overall turf quality it performs particularly well in the Northeastern, Transition Zone, and Mountain West regions, where it was the top-ranking entry in NTEP tests. Good spring density and exhibits good resistance to leafspot, stem rust, and annual bluegrass encroachment.

**PI 634978. *Poa pratensis* L.**

Cultivar. Pureline. "ALEXA"; 94-2561; J-2561. PVP 200400216; CV-92; REST



634978. Pedigree - Originated as apomictic, single-plant selection from the progeny of field cross 92-4230 using Jacklin breeding line 92-0076 as maternal parent and Midnight as pollen source. Dark green genetic color and good turf quality at close mowing (25 mm or lower), intermediate (25 to 50 mm), and higher (greater than 50 mm) mowing heights. In overall turf quality it performs well in the Northeastern, Midwest, Great Plains, and Transition Zone regions. Has good shoot density during summer and autumn, a medium-fine leaf texture, good shade tolerance, relative freedom from seedhead expression in mowed turf, and good tolerance of traffic stress. Resistant to leaf spot, dollar spot, brown patch, and annual bluegrass encroachment.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 06/07/2004.

**PI 634979 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "8308". PVP 200400203. Pedigree - SC860179/WBZ091C5//2566.

The following were developed by J.R. Simplot Company, United States; A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 06/07/2004.

**PI 634980. *Poa pratensis* L.**

Cultivar. "GINNEY"; 94-1368; J-1368. PVP 200400217; REST 634980. Pedigree - Originated as an apomictic, single-plant selection from the hybrid progeny of 'Julia' Kentucky bluegrass pollinated by 'Limousine.'. Ginney is an elite turf-type cultivar with a late maturity. In seed production, Ginney produces fine, dark green, upright leaves. In spaced plantings, it produces a flat-topped mound with uniform culm lengths, without a pyramidal shape. Plant form is influenced very little by soil variations across a field. Culm orientation is mainly vertical with culms around the perimeter of a spaced plant showing some leaning. Culms are smooth to the touch and flag leaves are very slightly rough when felt basipetally. Culm color is a medium light green, and panicles at anthesis are strongly purple with occasional tan speckles. Panicle branches are ascending at anthesis but at maturity are generally drooping, except at the upper two or three nodes.

The following were developed by Richard C. Frohberg, North Dakota State University, Crop & Weed Science Department, P.O. Box 5051, Fargo, North Dakota 58105-5051, United States; NDSU Research Foundation, North Dakota, United States; R.W. Stack, North Dakota State University, Plant Pathology Department, Fargo, North Dakota 58105, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States; Mohamed Mergoum, North Dakota State University, Plant Sciences Dept., Loftsgard Hall, Fargo, North Dakota 58105-5051, United States. Received 06/07/2004.

**PI 634981. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "STEELE-ND"; ND 741. PVP 200400188; CV-965. Pedigree - Parshall /5/ Grandin /3/ IAS20\*4/ H567.71 // Amidon /4/ Grandin\*2 /Glupro. Released 2004. Awne cultivar with mid-dense, inclined, and tapering spikes. Culms are white and peduncle slightly recurved. Awns are white and 8 to 10 cm in length; glumes are white, medium, elevated,

acuminate; shoulder and beak are medium width. Kernels are rounded, hard, red, and oval; germ is midsized; brush is medium. Plant height is similar to Gunner, taller than Alsen, and shorter than Parshall, Heads 1 d later than Alsen and 1 d earlier than Gunner. Has moderate resistance to grain shattering, comparable to Alsen, has medium straw strength that is similar to Gunner. Mean grain yield is similar to Reeder and Parshall, but higher than Alsen. Mean grain volume weight was similar to Reeder, lower than Parshall, slightly higher than Alsen. Grain protein was comparable to Reeder, lower than Alsen. Flour yield was higher than the 3 checks. Water absorption was higher than Reeder and Parshall, but not significantly different from Alsen. Mixogram mix time (after 3 hrs fermentation) was greater than Reeder, similar to Parshall and less than Alsen. Mixing tolerance was longer than Reeder and comparable to Alsen. Loaf volume was comparable to Parshall, superior to Reeder. Resistant to pathotype THBL, the predominant race of leaf rust (*Puccinia recondita*) in the region, stem rust (*Puccinia graminis*). Moderate susceptible to *Septoria nodorum* (*Stagonospora nodorum*) and moderately resistant to tan spot (*Pyrenophora tritici-repentis*). Moderately resistant to FHB. Average FHB severity for Steele-ND to Alsen but significantly lower than the susceptible check 2398. Visual scabby kernels of Steele-ND also very low compared to the susceptible check 2398, but similar to Alsen. Steele-ND does not include Sumai 3 in pedigree showing that its resistance is different from Sumai 3.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 02/11/1980.

**PI 634982. *Cucurbita moschata* Duchesne**  
Cultivar. "Waltham Butternut"; H 825; G 26106.

The following were donated by Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 03/03/1990.

**PI 634983. *Arachis hypogaea* L.**  
ICG 2349; Grif 377.

**PI 634984. *Arachis hypogaea* L.**  
ICG 6022; Grif 845.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical Agric., Cali, Valle, Colombia. Received 11/17/1995.

**PI 634985. *Arachis hypogaea* L.**  
Landrace. WWT-1315; higuerrilla; Grif 12508. Collected 10/16/1995 in Pichincha, Ecuador. Latitude 0° 14' S. Longitude 78° 30' W. Canton Quito. Plaza San Francisco. Purchased in store. Found mixed in with WWT-1314. Seeds tan with purple streaks.

**PI 634986. *Arachis hypogaea* L.**

Landrace. WWT-1334; mani negro; yana inchi; Grif 12530. Collected 10/26/1995 in Napo, Ecuador. Latitude 1° 2' 29" S. Longitude 77° 35' 39" W. Elevation 458 m. Provincia Napo, Canton Tena, Parroquia Misahualli, Localidad Pusuno. One hour downstream from Puerto Misahualli. Farmer's house. Pedigree - Selected from a mixture with Grif 12531 based on seed coat color. Pods with strong reticulation. Seed purple.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador. Received 10/07/1996.

**PI 634987. *Arachis hypogaea* L.**

Landrace. WTS-112; mani; Grif 13891. Collected 08/23/1996 in Imbabura, Ecuador. Latitude 0° 34' 22" N. Longitude 78° 8' 4" W. Elevation 1490 m. Canton Urcuqui, Parroquia Cawasqui, Localidad Cuambo. Farm. Dry hillside. Seeds red, size medium. Pods smooth, 2 seeds per pod. Small plants, diameter approx. 15 cm. Lateral branches slightly decumbent.

The following were donated by National Youngnam Agricultural Experiment Station, Industrial Crops Research Laboratory, R.D.A., Milyang, Kyongsang Nam 627-130, Korea, South. Received 10/06/1997.

**PI 634988. *Arachis hypogaea* L.**

Breeding. S109; Grif 13983. Shinpung type; large seeded Spanish. 4-5 months.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador. Received 10/07/1996.

**PI 634989. *Arachis hypogaea* L. var. *hypogaea***

Landrace. WTS-31; chiray; Grif 13815. Collected 08/28/1996 in Pichincha, Ecuador. Latitude 0° 3' 31" S. Longitude 79° 26' 40" W. Elevation 350 m. Canton Santo Domingo de los Colorados, Parroquia La Concordia, Localidad Las Villegas. Store. Seeds round, red-and-white ('caramelo' type), size medium to large. Pods smooth, 2-seeded, beak not pronounced.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Eriberto Mendoza, INIAP, Estacion Experimental Portoviejo, Km. 12 via Portoviejo, Santa Ana, Manabi, Ecuador; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones

Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador. Received 10/07/1996.

**PI 634990. *Arachis hypogaea* L. var. *hypogaea***

Landrace. WTS-52; caramelo; Grif 13833. Collected 08/29/1996 in Manabi, Ecuador. Latitude 0° 49' 14" S. Longitude 80° 18' 22" W. Elevation 240 m. Canton Tosagua, Parroquia Tosagua, Localidad El Junco. Farm. Seeds purple and white, white with purple flecking, round, large.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador. Received 10/07/1996.

**PI 634991. *Arachis hypogaea* L. var. *hypogaea***

Landrace. WTS-67; mani; Grif 13848. Collected 08/31/1996 in Guayas, Ecuador. Latitude 1° 53' 32" S. Longitude 79° 33' 32" W. Elevation 140 m. Canton Babahoyo, Parroquia Jujan, Localidad Jujan. Market. Seeds red-and-white, rounded, size medium to large.

**PI 634992. *Arachis hypogaea* L. var. *hypogaea***

Landrace. WTS-79; mani; Grif 13860. Collected 08/31/1996 in Los Rios, Ecuador. Latitude 1° 19' 37" S. Longitude 79° 42' 52" W. Elevation 200 m. Canton Palenque, Parroquia Palenque, Localidad Mate de Cacao. Roadside stand. Seeds red-and-white, rounded, size medium to large. Pods smooth, almost no beak, almost no constriction, 2-seeded.

The following were donated by USDA, ARS, Georgia Agric. Exp. Sta., Athens, Georgia, United States. Received 1961.

**PI 634993. *Arachis hypogaea* L.**

GFA SPANISH. Early maturity, avg. 120 days, flesh colored seedcoat, small pod size, typical Spanish - slender waist, two-segmented, seeds oval shaped. Higgins, B.B. & W.K. Bailey. 1955. New Varieties & Selected Strains of Peanuts. Georgia AES Bul. N.S. 11, 35 pages, illus.

**PI 634994. *Arachis hypogaea* L.**

IMPROVED SPANISH 2 B. Early maturity, avg. 125-130 days, flesh colored seedcoat, medium pod size, mostly two-segmented, moderately constricted, seed are oval to oblong. Beattie, J.H., F.W. Poos & B.B. Higgins. 1954. Growing Peanuts. U.S. Dept. Agri. Farmer's Bul. No. 2063, 54 pages, illus.

**PI 634995. *Arachis hypogaea* L.**

SPANETTE. Early maturity, avg. 120 days, flesh colored seedcoat, small pod size, slender waist, two-segmented, seeds are oval, tightly packed in shell.

**PI 634996. *Arachis hypogaea* L.**

VIRGINIA BUNCH G 2. Medium maturity, avg. 135 days, pink seedcoat color, pods are large, long-cylindrical, moderate constriction, beaked, seeds cylindrical, pointed. Higgins, B.B. & W.K. Bailey. 1955. New

Varieties & Selected Strains of Peanuts. Georgia AES Bul. N.S. 11, 35 pages, illus.

**PI 634997. *Arachis hypogaea* L.**

VIRGINIA RUNNER G 26. Runner type; pink seed coat; Virginia; medium maturity Higgins, B.B. & W.K. Bailey. New Varieties and Selected Strains of Peanuts. Ga. AES Bul. N.S. 11, 35 pages, illus., 1955.

The following were donated by Virginia Polytechnic Institute and State University, Virginia Agr. Exp. Sta., Blacksburg, Virginia 24061, United States. Received 1961.

**PI 634998. *Arachis hypogaea* L.**

VIRGINIA 46-2. Large kernel size - excellent yield - thick hull Beattie, J.H. & E.T. Batten. Virginia Bunch 46-2. A new peanut variety. Va. AES Leaflet No. 1, April 1953.

**PI 634999. *Arachis hypogaea* L.**

HOLLAND JUMBO. Large kernel size- thick hull, Batten, E.T. Two new strains of Virginia type peanuts. Va. AES Bul. 370, 1945.

The following were donated by University of Florida, Florida Agr. Exp. Sta., Department of Agronomy, Gainesville, Florida 32611, United States. Received 1961.

**PI 635000. *Arachis hypogaea* L.**

DIXIE RUNNER. High quality seeds resistant to concealed damage, 64 seeds per oz., peanut yield relatively low, high forage yield, good as parent in crosses to breed high seed quality. Dixie Runner Peanuts. Circ. S-16, Florida AES June 1950.

**PI 635001. *Arachis hypogaea* L.**

EXPERIMENTAL HYBRID. Jumbo runner type, high producer of pods, uniform size, dark colored and fuzzy (dirty) pods. Seed-med. long, smooth, slight pits, dark russet color, soft texture, good flavor, seed center closed. Regional Peanut Variety Tests 1959.

The following were donated by New Mexico Crop Improvement Assoc., New Mexico, United States. Received 1961.

**PI 635002. *Arachis hypogaea* L.**

PORTAL VALENCIA. New Mexico C.I.A.

The following were donated by Oklahoma State University, Oklahoma Agr. Exp. Sta., Department of Agronomy, Stillwater, Oklahoma 74074, United States. Received 1962.

**PI 635003. *Arachis hypogaea* L.**

ARGENTINE. Higher oil and protein content than other spanish varieties; vigorous and upright plants with med. coarseness; 2 seeded pod, constriction between kernels; oval kernels, light flesh-colored. Okla. AES Mimeo. cir. M-275, 1956 & M-277 1956. Coastal Plains AES, Georgia.

The following were donated by USDA, ARS, Georgia Agric. Exp. Sta., Athens, Georgia, United States. Received 1964.

**PI 635004. *Arachis hypogaea* L.**

HOLLAND STATION RUNNER. Virginia runner, medium maturity, pink seedcoat color, medium large pod size, 2 segmented. Beattie, J.H., F.W. Poos & B.B. Higgins, "Growing Peanuts" USDA Farmers Bulletin 2063.

**PI 635005. *Arachis hypogaea* L.**

KRINKLE-LEAF MUTANT. Reprint from Crop Science Vol. 4:22-24, 1964 "Krinkle, a Dominant Leaf Marker in the Peanut" Ray o. Hammons.

**PI 635006. *Arachis hypogaea* L.**

GEORGIA 182-28. Runner, medium maturity, bunch type, pink seedcoat color, medium pod size, 2 segmented, seeds cylindrical shpaed, resistant to verticillium wilt. Smith, T.E. Vertcillium wilt resistance in peanuts. Phytopathology 51:411-412, 1961 Smith, T.E. Occurence of verticillium wilt on peanuts. Plant Disease Reporter 44: 435, 1960.

**PI 635007. *Arachis hypogaea* L.**

PORTAL. Early maturity, bunch type, red seedcoat color, medium pod size, 3 or 4 segmented. Descr. from Hammons, Tifton, Ga.

The following were donated by University of Florida, Florida Agr. Exp. Sta., Department of Agronomy, Gainesville, Florida 32611, United States. Received 1970.

**PI 635008. *Arachis hypogaea* L.**

F 416-2. Reprint from Japan Agr. Res. Quarterly, "Variety Blends: A Consideration in Peanut Oil Improvement & Production" A.J. Norden & D.H. Block, Oct 1968.

The following were developed by Wilco Peanut Company, United States. Received 1975.

**PI 635009. *Arachis hypogaea* L.**

Cultivar. "GOLDIN I". PVP 7100035.

The following were developed by Gold Kist, Inc., United States. Received 1976.

**PI 635010. *Arachis hypogaea* L.**

Cultivar. "GK-19". PVP 7300005.

**PI 635011. *Arachis hypogaea* L.**

Cultivar. "GK-3". PVP 7300094.

The following were developed by Borden Peanut Co., Inc., United States. Received 1976.

**PI 635012. *Arachis hypogaea* L.**

Cultivar. "VALENCIA MCRAN". PVP 7300066.

The following were developed by R.J. Reynolds Tobacco Co., United States. Received 1976.

**PI 635013. *Arachis hypogaea* L.**  
Cultivar. "AVOCA-11". PVP 7100110.

The following were donated by USDA, ARS, Georgia Agric. Exp. Sta., Athens, Georgia, United States. Received 1977.

**PI 635014. *Arachis hypogaea* L.**  
TIFRUN. Commercial runner, maturity 140 days, pink seedcoat color, less susceptible to southern stem rot & thrips than Flo- runner, moderate resistance to southern corn rootworm. nar: Hammons, Ray O. Notice of Release of Tifrun Peanut. Ga. AES & USDA/ARS release notice March 5, 1977. Hammons, Ray O. Peanut Breeding Strategy: Modified Composite Cross. Proceeding Amer. Peanut Res. Educ. Assn. 8(1):48-53, Oct 1976.

The following were donated by Texas A&M University, Texas Agricultural Exp. Station, College Station, Texas 77841, United States. Received 1979.

**PI 635015. *Arachis hypogaea* L.**  
"TOALSON". CV-23. Thick shelled Spanish type, good resistance to diseases caused by species of *Pythium* & *Rhizoctonia*, similar to Starr matures 10 to 15 days later. Texas AES Leaflet L-1711, January 1979. Smith, O.D., C.E. Simpson, T.E. Boswell, R.A. Taber, R.E. Pettit & E.R. Howard. Toalson Spanish Peanut, 1979, Texas AES Misc. Pub. MP-1419.

The following were donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 10/1979.

**PI 635016. *Arachis hypogaea* L.**

**PI 635017. *Arachis hypogaea* L.**

**PI 635018. *Arachis hypogaea* L.**  
603 TP-105-63.

The following were donated by Ray O. Hammons, USDA, ARS, Georgia Coastal Plains Exp. Station, 1203 Lake Drive, Tifton, Georgia 31794-3834, United States. Received 1980.

**PI 635019. *Arachis hypogaea* L.**  
A 7109. Virginia botanical and drunner/Virginia market type, spreading habit. Developed by A.C. Mixon (USDA-SEA-AR, Tifton, Ga.) with significant resistance to mold invasion when inoculated with toxigenic strains of *Aspergillus flavus*.

**PI 635020. *Arachis hypogaea* L.**  
ARGENTINE.

**PI 635021. *Arachis hypogaea* L.**

GEORGIA 186-28; GEORGIA ACC T 2363; GEORGIA 186. Virginia botanical, runner market type, bunch growth habit, medium maturity & seed size, documented poor shelf life due to oxidative instability of oil, Cecil, S.R. Storage stability of peanut butter from ten peanut genotypes. Proc. Amer. Peanut Res. Educ. Assoc. 7(1): 36-43, 1975.

The following were donated by D. J. Banks, USDA, ARS, Plant Science Research Facility, PO Box 1029, Stillwater, Oklahoma 74076, United States. Received 1982.

**PI 635022. *Arachis hypogaea* L.**

COMET. Early-maturing; large seeded. Banks, D.J., J.S. Kirby, Oklahoma Agri. Expt. Sta., 1981.

**PI 635023. *Arachis hypogaea* L.**

SPANHOMA.

The following were donated by S. Shanmugasundaram, Asian Vegetable Research & Dev. Center, P.O. Box 42, Shunhua, Tainan, Taiwan. Received 04/09/2002.

**PI 635024. *Glycine max* (L.) Merr.**

Breeding. SS 86045-23-2; SY 216001. Pedigree - Suwon 132/Milyang 18. Rust tolerant lines.

**PI 635025. *Glycine max* (L.) Merr.**

Breeding. GC 60020-8-7-7-18; SY 216002. Pedigree - PI 194647 x TN #3. Rust tolerant lines.

**PI 635026. *Glycine max* (L.) Merr.**

Breeding. GC 00138-29; SY 216003. Pedigree - (CH #1 x Anoka) x (Clark 63 x 64-4). Rust tolerant lines.

**PI 635027. *Glycine max* (L.) Merr.**

Breeding. GC 84058-21-4; SY 216004. Rust tolerant lines.

**PI 635028. *Glycine max* (L.) Merr.**

Breeding. GC 84051-32-1; SY 216005. Rust tolerant lines.

**PI 635029. *Glycine max* (L.) Merr.**

Breeding. GC 86004-9; SY 216006. Rust tolerant lines.

**PI 635030. *Glycine max* (L.) Merr.**

Breeding. GC 84058-18-4; SY 216007. Rust tolerant lines.

**PI 635031. *Glycine max* (L.) Merr.**

Breeding. GC 85037-2-3-5-1; SY 216008. Rust tolerant lines.

**PI 635032. *Glycine max* (L.) Merr.**

Breeding. GC 86017-170-1N; SY 216009. Rust tolerant lines.

**PI 635033. *Glycine max* (L.) Merr.**

Breeding. GC 84051-9-1; SY 216010. Rust tolerant lines.



**PI 635034. *Glycine max* (L.) Merr.**  
Breeding. SRE-C-56A; SY 216011. Rust tolerant lines.

**PI 635035. *Glycine max* (L.) Merr.**  
Breeding. SRE-C-56E; SY 216012. Rust tolerant lines.

The following were developed by An H. Hang, Washington State University, Irrigated Agriculture Res. & Ext. Center, Route 2, Box 2953-A, Prosser, Washington 99350-9687, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 06/01/2004.

**PI 635036. *Phaseolus vulgaris* L.**  
Cultivar. "BLUSH". CV-234. Pedigree - Blush was derived from the cross 84BR-1122/K-42. Breeding line 84BR-1122 was a root rot [caused by *Fusarium sonali* (Mart.) Sacc. f. sp. *phaseoli* (Burkholder) W.C. Snyder & H.N. Hans] tolerant bush snap bean developed by USDA-ARS at Prosser, Washington. K-42 is a light red kidney breeding line released by D.W. Burke et al. (1995). K-42 has shown resistance to halo blight [caused by *Pseudomonas syringae* pv. *phaseolicola* (Burkholder) Young et al.]. Blush is a F10:13 breeding line, that was selected for individual plants possessing desirable virus resistance, seed quality and architectural traits. Mid to late maturity light red kidney resistant to curly top virus and I, bel gene resistance to bean common mosaic virus. Some root rot tolerance from BR-1122. Upright growth habit (Type I) like Kardinal and is resistant to lodging. Yield tested as USWA-33 for 3 yrs. in Othello since 1995 and yield was comparable to Kardinal. Also yield tested at 44 location yrs. in 1997 and 1998 in the National Cooperative Dry Bean Nurseries where yield was 9% more than Kardinal, 7% more than California Early light red kidney (CERLK) and Chinook 2000. Matures in 93 d which is 3 d later than Kardinal and Chinook 2000, and 6 days later than CERLK. Seed is larger than Kardinal (56 vs. 52 g 100-1 seeds). Seed has acceptable canning quality in tests conducted by USDA-ARS and the Michigan Agricultural Experiment Station.

The following were developed by An H. Hang, Washington State University, Irrigated Agriculture Res. & Ext. Center, Route 2, Box 2953-A, Prosser, Washington 99350-9687, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States. Received 06/01/2004.

**PI 635037. *Phaseolus vulgaris* L.**  
Cultivar. "CLARET". CV-239. Pedigree - X90116 / X90124. 90U357-B-6-PRB-10-B-PRB-06-B. Upright type IIA growth habit. Good seed size and appearance as well as seed color required for commercial small red bean market class. Matures on average, 87 days after planting and ranges in maturity from 73 to 120 days depending on the location and season. Considered an early maturing class. Average yield of 2677 kg per hectare, lower than NW-63 with about 10 days shorter than NW-63. Can be used in double cropping with other short growing season grain. With the upright growth habit, can be direct combined. Narrow row spacing can

increase yield. Attractive garnet seed color, and a noticeable black hilum ring. Seed mass averaged 35.3 gram per 100 seed compared to 34.2 and 29.2 grains per 100 seed for Rufus and Garnet, respectively. Exhibited a consistent and highly appealing canning quality and was significantly superior to Garnet. Susceptible to bean common mosaic virus but carries Ur-3 gene for resistance to bean rust (*Uromyces appendiculatus*) disease. Reported to be tolerant to high temperatures and low soil water potential.

The following were developed by An H. Hang, Washington State University, Irrigated Agriculture Res. & Ext. Center, Route 2, Box 2953-A, Prosser, Washington 99350-9687, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 06/01/2004.

**PI 635038. *Phaseolus vulgaris* L.**

Cultivar. "FIERO". CV-235. Pedigree - MONTCALM / K-59-7. 91GH030-3-1-B-B-PRB(a)-1-PRB-B-B. Possesses dominant I gene from either parent, resistant to bean mosaic virus and an intermediate level of resistance to halo blight. Complete resistance to curly top virus. Upright growth habit (Type I) like Montcalm and resistance to lodging. Tested across 40-location years in the Cooperative Dry Bean Nursery (CDBN) in 1997 and 1998, was the highest yielding dark red kidney bean, 17% yield higher than Montcalm. Matures in 100 days after planting and 1 to 2 days later than Montcalm. Seed size is slightly larger than Montcalm, 57 vs 55 g 100-1 seeds. Acceptable canning quality for overall appearance, color, and shape for a dark red kidney, in tests conducted by USDA-ARS and Michigan State Agricultural Experiment Station.

The following were developed by J. Allen Wrather, University of Missouri, Agricultural Research and Extension, Delta Center, P.O. Box 160, Portageville, Missouri 63873, United States; Sam C. Anand, University of Missouri, Department of Agronomy, 210 Waters Hall, Columbia, Missouri 65211, United States; David A. Sleper, University of Missouri, Department of Agronomy, 271-F Life Sciences Center, Columbia, Missouri 65211, United States; Prakash R. Arelli, University of Missouri-Columbia, Agronomy Department, 117 Curtis Hall, Columbia, Missouri 63873, United States; J. Grover Shannon, University of Missouri-Columbia, Missouri Ag Experiment Station, Delta Research Center, Portageville, Missouri 63873, United States. Received 06/18/2004.

**PI 635039. *Glycine max* (L.) Merr.**

Cultivar. Pureline. "S99-3181". CV-469. Pedigree - S93-1344 x Camp. Released for potential use in the natto market with shatter resistance; broad resistance to soybean cyst nematode (SCN) (*Heterodera glycines*), Ichinohe populations, and resistance to southern root knot nematode (*Meloidogyne incognita*). Mid-group maturity (relative maturity 5.6). Determinate in growth habit with white flowers, gray pubescence and tan pods at maturity. Seeds small averaging 9.3 grams per 100 seed with shiny yellow seed coats and buff hila. Seed protein and oil content on a dry weight basis have averaged 40.5% and 20.0%, respectively. Resistant

to SCN HG types 2-(Race 1), 1.2-(Race 2), 0-(Race 3), 2-(Race 5) and 1.3-(Race 14). Female indices for each HG type (race) above were 3, 0, 0, 20 and 7, respectively versus an index of 100 for Lee 74, the susceptible check. Moderate resistance to southern root knot nematode based on an average root knot gall score (1=no galls to 5=severe galling) of 2.2 versus 2.0 for Manokin, the resistant check and 4.5 for Hutcheson, the susceptible check. Susceptible to stem canker (*Diaporthe phaseolorum*) and phytophthora root rot (*Phytophthora sojae*).

The following were developed by Ismail Kusmenoglu, Central Research Inst. of Field Crops, Ministry of Agriculture, P.O. Box 226, Ulus, Ankara 06042, Turkey; W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; N. Aydin, Central Research Institute for Field Crops, Ankara, Turkey; A. Aydogan, Central Research Institute for Field Crops, Ankara, Turkey; Alptekin Karagoz, Central Research Institute for Fields Crops, Plant Genetic Resources Department, Ankara, Ankara, Turkey. Received 05/25/2004.

**PI 635040. *Lens culinaris* Medik. subsp. *culinaris***

Cultivar. "OZBEK"; TUR 01661; AKM 302. CV-31. Pedigree - Single plant selection from a Turkish landrace population. Leaflet size small with a well-developed tendril. Plants semi-erect with a plant height of up to 29 cm. No pigmentation has been observed in any plant parts. Flower color white and takes 219 d to flower. Matures in 267 d. Seeds have a gray testa with mottled pattern, and cotyledon color bright red. 100-seed weight 3.52 g. Seed water absorption index and imbibitions index are 1.5% and 0.765%, respectively.

**PI 635041. *Lens culinaris* Medik. subsp. *culinaris***

Cultivar. "KAFKAS"; TUR 01261; AKM 196. CV-29. Pedigree - Single plant selection from a landrace population. Plants have slightly pubescent leaves with small leaflets with well-developed tendrils. Plants semi-erect in growth habit without any pigmentation. Flowers in 214 d and attains physiological maturity in 263 d. Flower color purple and produces 2-3 flowers per peduncle. Plant height of up to 40 cm at maturity and the lowest pod height is at 14 cm above ground. Good for mechanization with very low harvest loss. Seeds have a brown test with mottled pattern, and cotyledon bright red. Seeds medium and average about 3.65 g 100-1 seeds.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 07/07/2004.

**PI 635042 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "PHD90". PVP 200400228.

The following were developed by Dick L. Auld, Texas Tech University, Department of Plant and Soil Sciences, P.O. Box 42122, Lubbock, Texas 79409-2122, United States; Texas Tech University, Texas, United States; Kevin Kenworthy, University of Florida, 304 Newell Hall, P.O. Box 110500, Gainesville, Florida 32611-0500, United States; R. Wright, Texas Tech University, Dept. of Plant and Soil Sciences, Lubbock, Texas 79409-2122, United States; C.B. McKenney, Texas Tech University, Plant and Soil Science

Dept., Lubbock, Texas 79409, United States; F. Gaitan-Gaitan, Monsanto Company, St. Louis Park, Minnesota 55426, United States; C.C. Lowery, Texas Tech University, Plant and Soil Science Dept., Lubbock, Texas 79409, United States; M. Maurer, Department of Agriculture, Austin State University, Nacogdoches, Texas 75962, United States; D.L. Ryan, Frontier Hybrids, Inc., Abernathy, Texas 79311, United States. Received 07/07/2004.

**PI 635043. *Bouteloua dactyloides* (Nutt.) Columbus**

Cultivar. "TECH TURF I"; Turffalo. PVP 200400229; CV-250. Pedigree - Seed propagated, turf-type buffalograss variety derived from a heterogenous accession, having both male and female plants, collected from LaFeria, Texas in 1990. Dioecious, diploid with a somatic chromosome number of 20. Is a fine-textured grass appropriate for use as a turf. Its rapid stolon growth results in quick establishment from seed. Density of Tech Turf I was comparable or better than Bison and Bowie in Arizona, Colorado, Oklahoma and Texas. Has medium green color which remains well into fall, delaying dormancy. During spring is slower to achieve adequate green cover than most cultivars. Delayed fall dormancy and spring greenup may contribute to the poor performance of Tech Turf I in Kansas and Nebraska. Due to biological mechanisms Tech Turf I has reduced water requirements and is recommended for use where low-to-medium maintenance turfgrass is desired. Appears to be well adapted to semiarid, temperate climates of USA; western regions of Plant Hardiness Zones 5 and central and western regions of Plant Hardiness Zones 6 to 10.

The following were developed by Jorge Dubcovsky, University of California, Department of Plant Sciences, One Shields Avenue, Davis, California 95616-8515, United States; Lee F. Jackson, University of California, Department of Plant Sciences, One Shields Avenue, Davis, California 95616-8780, United States; The Regents of the University of California, 1111 Franklin Street, Oakland, California 94607, United States; O. Chicaiza, University of California, Dept. of Plant Sciences, Davis, California 95616-8515, United States. Received 07/07/2004.

**PI 635044. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "CLEAR WHITE"; UC 1361. PVP 200400244; CV-970. Pedigree - UC366/Yecora Rojo//Klasic. Released 2005. Hard white spring wheat.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 07/07/2004.

**PI 635045 PVPO. *Agrostis stolonifera* var. *palustris* (Huds.) Farw.**

Cultivar. "Sandhill". PVP 200400231.

The following were developed by USDA-ARS, United States. Received 07/07/2004.

**PI 635046. *Agropyron cristatum* (L.) Gaertn.**

Cultivar. "Nu-ARS AC2"; Duplicate of PI 634507. PVP 200400233.

The following were developed by Texas Tech University, Texas, United States. Received 07/07/2004.

**PI 635047 PVPO. *Cyamopsis tetragonoloba* (L.) Taub.**  
Cultivar. "Matador". PVP 200400235.

The following were developed by J.R. Simplot Company, United States; A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 07/07/2004.

**PI 635048. *Poa pratensis* L.**

Cultivar. "Courtyard"; 93-1838; J-1838. PVP 200400236; REST 635048. Pedigree - Originated as an apomictic, single-plant election from the progeny of the hybrid cross of 'Limousine' pollinated by 'Midnight' Kentucky bluegrass. Courtyard is a late maturing Kentucky bluegrass variety, similar to Midnight in its field appearance. Courtyard is slightly earlier in maturity than NuGlade with an equal or greater yield potential. Spaced plants are pyramidal in shape, similar to Liberator. One-year-old plants average 42 cm in diameter from rhizome extension from a single plant. At anthesis, panicles appear mostly whitish tan in color with a slight purplish cast. In the panicles can be seen a mix of medium green, yellow green, and purplish colors. Other varieties (Midnight, Award) are more uniformly purple at anthesis. In seed production, leaves are medium green and culms are light green. Culms are smooth to the touch and flag leaf margins are rough. Panicles are upright with nearly horizontal branches at the nodes.

**PI 635049. *Poa pratensis* L.**

Cultivar. "Blue Velvet"; 93-1513; J-1513. PVP 200400237; REST 635049. Pedigree - Originated as an apomictic, single-plant selection from the hybrid progeny of 'Midnight' Kentucky bluegrass pollinated by 'Limousine'. Blue Velvet is a late maturing Kentucky bluegrass variety, resembling Award in growth habit and seedhead appearance. Anthesis date is a day or two earlier than Total Eclipse and Award. Panicles at anthesis are mostly green in color with slightly more purple tone than in Total Eclipse. Leaf texture in seed production is very fine and leaves are mostly upright, though some are prostrate. Rhizome spread from a spaced plant averages 26 cm, however this measurement was taken from August-planted spaced plants.

The following were developed by ProSeeds Marketing, Inc., United States. Received 07/07/2004.

**PI 635050 PVPO. *Festuca longifolia* Thuill.**  
Cultivar. "Viking". PVP 200400227.

The following were developed by National Ag. Research Org., Ibaraki, Japan. Received 07/07/2004.

**PI 635051 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "L-Star". PVP 200300229.

The following were developed by U.S. Government, as represented by the Secretary of Agric., Washington, District of Columbia, United States. Received 07/07/2004.

**PI 635052 PVPO. *Thinopyrum intermedium*** (Host) Barkworth & D. R. Dewey  
Cultivar. "Beefmaker". PVP 200400232.

The following were developed by Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Pat Donald, USDA-ARS, 605 Airways Blvd, Jackson, Tennessee 38301, United States; Alemu Mengistu, USDA-ARS, Crop Genetics and Production Research Unit, 141 Experiment Station Road, P. O. Box 196, Stoneville, Mississippi 38776-0345, United States. Received 07/01/2004.

**PI 635053. *Glycine max*** (L.) Merr.

Breeding. Pureline. D98-1218. GP-306. Pedigree - Bedford (5) X (Forrest (6) X D51-4863). Product of backcrossing program to transfer the RPS2 gene into a Bedford background. This line has value as a parent because of its resistance to Phytophthora rot (*Phytophthora sojae*) and races 3 and 14 of the soybean cyst nematode (*Heterodera glycines*). In three-year yield trials outyielded Bedford significantly. Will be useful to the research community because it will expand the previous set of releases of Phytophthora rot resistant lines which are near-isogenic to the cultivar Bedford.

The following were developed by Jimmie H. Hatchett, USDA-ARS, Dept of Entomology, Waters Hall, Manhattan, Kansas 66506-4004, United States; Bikram S. Gill, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States; Xuming Liu, Kansas State University, Dept. of Entomology, Lab of Plant Resistance, Manhattan, Kansas 66506, United States; Allan K. Fritz, Kansas State University, Department of Agronomy, 2004 Throckmorton Hall, Manhattan, Kansas 66506-5501, United States; Thomas S. Cox, The Land Institute, 2440 E. Water Well Road, Salina, Kansas 67401, United States; Ming-Shun Chen, USDA-ARS-GMPRC-PSERU, Wheat Insect Genetics Lab, 4008 Throckmorton Hall, Manhattan, Kansas 66506, United States; J.O. Owuoche, Kansas State University, Dept. of Agronomy, Manhattan, Kansas 66506-5501, United States; R.G. Sears, Agripro Wheat Inc., Junction City, Kansas 66441, United States. Received 06/16/2004.

**PI 635054. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. KS99WGRC42. GP-779. Pedigree - Karl 92/PI 94641//Jagger\*2/Karl 92. Released 1999. Homogeneous for resistance (antibiosis) to the Biotype L of Hessian fly (*Mayetiola destructor*) based on greenhouse test of seedlings. The resistance to Hessian fly is controlled by a single gene located on chromosome 1 AS. Hard red winter wheat similar to the Karl 92 parent in height, and days to heading. Resistant to Wheat Soilborne Mosaic Virus and stripe rust (*Puccinia striiformis*) and susceptible to leaf rust (*Puccinia triticina*) when evaluated in the field at Manhattan, KS for two years.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 07/09/2004.

**PI 635055 PVPO. *Lactuca sativa* L.**

Cultivar. "PS 06515293". PVP 200400246.

- PI 635056 PVPO. *Lactuca sativa* L.**  
Cultivar. "HEAVY HEART". PVP 200400247.
- PI 635057 PVPO. *Lactuca sativa* L.**  
Cultivar. "WINTER SELECT". PVP 200400248.
- PI 635058 PVPO. *Lactuca sativa* L.**  
Cultivar. "PS 06510071". PVP 200400249.
- PI 635059 PVPO. *Lactuca sativa* L.**  
Cultivar. "PS 06516304". PVP 200400250.
- PI 635060 PVPO. *Lactuca sativa* L.**  
Cultivar. "PS 06510524". PVP 200400251.
- PI 635061. *Lactuca sativa* L.**  
Cultivar. "PS 06510940". PVP 200400252.
- PI 635062 PVPO. *Lactuca sativa* L.**  
Cultivar. "PS 6545701". PVP 200400253; Utility Patent 6689941.
- PI 635063 PVPO. *Lactuca sativa* L.**  
Cultivar. "PS 06515164". PVP 200400254.
- PI 635064 PVPO. *Lactuca sativa* L.**  
Cultivar. "TRIPLE THREAT". PVP 200400255.
- PI 635065. *Lactuca sativa* L.**  
Cultivar. "PS 06517053". PVP 200400256.
- PI 635066 PVPO. *Daucus carota var. sativus* Hoffm.**  
Cultivar. "YK714900". PVP 200400257.
- PI 635067 PVPO. *Capsicum annuum* L.**  
Cultivar. "SBY281125". PVP 200400258.
- PI 635068 PVPO. *Capsicum annuum* L.**  
Cultivar. "SBY281172". PVP 200400259.

The following were developed by Novel Ag, Inc., United States. Received 07/09/2004.

- PI 635069 PVPO. *Poa pratensis* L.**  
Cultivar. "BLUE SAPPHIRE". PVP 200400262.
- PI 635070 PVPO. *Poa pratensis* L.**  
Cultivar. "CADET". PVP 200400263.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 07/09/2004.

- PI 635071 PVPO. *Poa pratensis* L.**  
Cultivar. "GLENMONT". PVP 200400264.

The following were donated by M. Schultz, Seed Bank, 143 Charles, Monroe, Washington 98272-2302, United States. Received 03/09/1990.

**PI 635072. *Lactuca sativa* L.**  
Cultivar. "SUMMERTIME"; W6 3795.

The following were donated by Edward J. Ryder, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 01/08/2000.

**PI 635073. *Lactuca sativa* L.**  
Cultivar. "Green Lake"; W6 22152.

**PI 635074. *Lactuca sativa* L.**  
Cultivar. "Pacific"; W6 22153.

**PI 635075. *Lactuca sativa* L.**  
Cultivar. "Tiber"; W6 22155.

**PI 635076. *Lactuca sativa* L.**  
Cultivar. "Salad Crisp"; W6 22154.

**PI 635077. *Lactuca sativa* L.**  
Cultivar. "Bursc 17"; W6 22157.

**PI 635078. *Lactuca sativa* L.**  
Cultivar. "Sharp Shooter"; W6 23654. Iceburg type.

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

**PI 635079. *Fragaria vesca* L.**  
Wild. WSYUS 58; Ames 25518. Collected 09/16/1999 in Poltava, Ukraine. Latitude 49° 18' 33" N. Longitude 33° 13' 13" E. Elevation 100 m. Ustimovka Dendrological Park, Ustimovka. Open site within the park. Full sun, 0-1% slope with a southeastern aspect. Clay loam soil with fair drainage. Pedigree - Collected from the wild in the Ukraine. Plants were frequently abundant. Low ground cover up to 6 inches.

**PI 635080. *Mentha longifolia* (L.) Huds.**  
Wild. WSYUS 86; Ames 25532. Collected 09/24/1999 in Zhytomyr, Ukraine. Latitude 49° 43' 10" N. Longitude 29° 15' 21" E. Elevation 220 m. East of edge of Ruzhin. Shallow drainage swale on the edge of an agricultural field. Open site, 2-3% slope with an eastern exposure.



Sandy loam soil with fair drainage. Pedigree - Collected from wild in the Ukraine. Plants were relatively abundant. Upright to 3 feet. Large mass located around swale.

**PI 635081. *Rubus caesius* L.**

Wild. WSYUS 2; Ames 25539. Collected 09/08/1999 in Kiev, Ukraine. Latitude 50° 22' 59" N. Longitude 30° 30' 14" E. Elevation 140 m. Botanical garden of the National Agricultural University, Kyiv. Weedy opening in botanical garden. 10% slope with a southwestern exposure. Sandy loam soil with good drainage. Pedigree - Collected from the botanical garden at the National Agricultural University of Ukraine. Plants were occasionally abundant. Low arching plants with white flowers. Just a few blue fruits with bloom, few drupelets per fruit, floricanes with bloom, tip rooting.

**PI 635082. *Sambucus ebulus* L.**

Wild. WSYUS 19; Ames 25540. Collected 09/09/1999 in Kiev, Ukraine. Latitude 50° 22' 36" N. Longitude 30° 30' 13" E. Elevation 130 m. Lake Edoraga, south of the National Agricultural Univ. Kyiv, Kiev. Edge of lake, slope to water's edge. Full sun, 0-2% slope southern exposure. Sandy loam soil with good to fair drainage. With herbaceous materials. Pedigree - Collected from the wild in Ukraine. Plants were relatively abundant. Upright to 3 feet and irregular, with white flowers.

**PI 635083. *Sambucus ebulus* L.**

Wild. WSYUS 61; Ames 25541. Collected 09/17/1999 in Cherkasy, Ukraine. Latitude 49° 28' 35" N. Longitude 31° 59' 13" E. Elevation 115 m. Under electrical line south of Cherkasy forestry office, Sosnovka. Open area under power lines. 0-2% slope with a southeastern exposure. Well drained sand. With *Chamaecytisus*, *Corylus*, *Rubus caesius*, grasses, and *Pyrus communis*. Pedigree - Collected from the wild in Ukraine. Plants were relatively abundant. Upright shrub of 4-5 feet. Large mass. 50% of fruit were ripe, others were not. Smaller fruit clusters than Kiev. District forestry director said fruits are smaller this year.

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

**PI 635084. *Sambucus nigra* L.**

Wild. WSYUS 1; Ames 25542. Collected 09/08/1999 in Kiev, Ukraine. Latitude 50° 23' 14" N. Longitude 30° 30' 40" E. Elevation 90 m. National Agricultural University campus, Kyiv. Kiev. Along main road from the guest housing. Along roadway/forest edge, weedy/shrub vegetation, partial under canopy. Full sun/partial shade, 1-8% slope

with a northeastern exposure. Sandy loam, grey forest soils with good drainage. With *Acer platanoides*, *Tilia cordata*, . Pedigree - Collected from the wild in Ukraine. Plants were relatively abundant (extensive along the roadside and in the botanical garden of NAU). Large shrubs with rounded crowns and arching branches.

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

**PI 635085. *Sambucus nigra* L.**

Wild. WSYUS 29; Ames 25543. Collected 09/12/1999 in Sumy, Ukraine. Latitude 50° 48' 55" N. Longitude 33° 31' 9" E. Elevation 170 m. Romny forest site, 8 km north-northeast of the Romny train station, southeast of Gai (nearest village). Along a small drainage ravine and a small spring. Partial shade, 5% slope with a northeastern exposure. Clay loam soil with good to fair drainage. With *Crataegus*, *Acer campestre*, *Tilia cordata*, and *Fraxinus*. Pedigree - Collected from the wild in Ukraine. Plants were relatively abundant. Arching shrubs of 8-10 feet.

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

**PI 635086. *Sambucus nigra* L.**

Wild. WSYUS 60; Ames 25544. Collected 09/16/1999 in Kirovohrad, Ukraine. Latitude 49° 2' 36" N. Longitude 33° 0' 35" E. Elevation 160 m. Halfway between Velikaya Andrusovka and Podorozhnoye, near a lake along road to Cherkasy. Edge of forest along a drainage swale/ditch. Southwestern exposure. Sandy loam soil with good drainage. With: *Morus*, *Prunus*, *Fraxinus excelsior*, *Acer platanoides*, and *Acer campestre*. Pedigree - Collected from the wild in Ukraine. Plants were relatively abundant. 8-10 foot shrub with large, arching branches.

**PI 635087. *Sambucus racemosa* L.**

Wild. WSYUS 32; Ames 25545. Collected 09/12/1999 in Poltava, Ukraine. Latitude 50° 21' 2" N. Longitude 34° 3' 26" E. Elevation 120 m. Natural pine

forest, Hadyach. Poltava, Ukraine. Understory of scotch pine forest. Protected area, 0-2% slope. Well drained sand. With *Pinus sylvestris* and *Euonymus verrucosus*. Pedigree - Collected from the wild in Ukraine. Plants were frequently abundant. Upright, arching shrub.

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

**PI 635088. *Sorbus aucuparia* L.**

Cultivated. WSYUS 12; Ames 25546. Collected 09/08/1999 in Kiev, Ukraine. Latitude 50° 23' 11" N. Longitude 30° 30' 35" E. Elevation 140 m. Path between the National Agricultural University dormitory and Forestry Building, Kyiv. Edge of roadway between buildings. Partial shade, 0-5% slope with an eastern exposure. Sandy loam soil with good drainage. Pedigree - Collected from the wild in Ukraine. Upright tree, oval crown. Reddish colored fruit.

**PI 635089. *Sorbus aucuparia* L.**

Wild. WSYUS 67; Ames 25547. Collected 09/17/1999 in Cherkasy, Ukraine. Latitude 48° 47' 16" N. Longitude 30° 28' 48" E. Elevation 210 m. 6 km northeast of Dobrovody. Windbreak of *Sorbus* planted along roadside. Open site, 0-1% slope with a southern exposure. Sandy loam soil with good drainage. Pedigree - Collected from the wild in Ukraine. Plants were relatively abundant. 18 feet high with oval crowns and an 8 inch caliper. Single tree with red fruit. Not sure of plant origin.

**PI 635090. *Sorbus torminalis* (L.) Crantz**

Cultivated. WSYUS 85; Ames 25549. Collected 09/23/1999 in Vinnytsya, Ukraine. Latitude 49° 14' N. Longitude 28° 29' E. Elevation 290 m. Vinnytsya Forestry Office, Maksimovichka Street, Vinnytsya. Cultivated plants within the forestry compound. 0-1% slope with a southeastern exposure. Clay loam soil with good drainage. Pedigree - Collected from the wild in Ukraine. Oval, extremely uniform crowns. Trees were approximately 25 years old. Seeds/seedlings from southern Vinnytsya native stand.

The following were developed by NORIKA Nordring-Kartoffelzucht-und, Vermehrungs-GmbH Grob Lusewitz, Germany. Received 07/13/2004.

**PI 635092 PVPO. *Solanum tuberosum* L.**

Cultivar. "GOLDEN SUNBURST". PVP 200400060.

The following were developed by Irish Potato Breeders Limited, Ireland. Received 07/13/2004.

**PI 635093 PVPO. *Solanum tuberosum* L.**  
Cultivar. "SNOW WHITE". PVP 200400059.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 07/26/2004.

**PI 635094 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "AVENGER". PVP 200400273.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868, Santa Maria, California 93456, United States. Received 07/26/2004.

**PI 635095 PVPO. *Lactuca sativa* L.**  
Cultivar. "CASINO". PVP 200400272.

The following were developed by Emergent Genetics, United States. Received 07/26/2004.

**PI 635096 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ST 5242BR". PVP 200400271.

The following were developed by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Kevin E. McPhee, Washington State University, Crop & Soil Science Department, Johnson 305, Pullman, Washington 99164-6420, United States; USDA-ARS, United States. Received 07/26/2004.

**PI 635097. *Lens culinaris* Medik.**  
Cultivar. Pureline. "MORTON". PVP 200400270; CV-22. Pedigree - WA8649090/WA8649041. Small seeded red-cotyledon lentil released in 2004 as a winter hardy lentil and intended for fall seeding into standing cereal stubble or in reduced tillage cropping systems. Plants are strongly branched at the base, which imparts a bushy structure that enables the canopy to remain somewhat erect during the growing season. Has uniform small seeds (100 seeds weigh an average of 3.3 g) that lack seed coat mottling. The red cotyledon trait provides the industry with a new type of lentil for production regions.

The following were developed by Advanta USA, Inc., United States. Received 07/26/2004.

**PI 635098 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "ATF799". PVP 200400268.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 07/26/2004.

**PI 635099 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "CADILLAC". PVP 200400267.

The following were developed by D&PL Technology Holding Company, LLC, Netherlands. Received 07/26/2004.

**PI 635100 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "DP 393"; 00W12. PVP 200400266.

**PI 635101 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "01W93BR". PVP 200400265.

The following were developed by Advanta USA, Inc., United States. Received 07/26/2004.

**PI 635102 PVPO. *Festuca rubra subsp. commutata* Gaudin**  
Cultivar. "ACF092". PVP 200000104.

The following were developed by Michael J. Knudson, USDA, NRCS, Plant Materials Center, 3308 University Drive, Bismarck, North Dakota 58504-7564, United States. Received 07/21/2004.

**PI 635103. *Andropogon gerardii* Vitman**  
Uncertain. 9063121. Pedigree - Vegetative collections of 326 big bluestem accessions were made in Minnesota and eastern South Dakota in 1985. More than 4000 individual plants were established in an evaluation nursery at the Northern Great Plains Research Lab at Mandan, ND. Evaluations in 1989 and 1990 included gridding the nursery into 4 x 6 plant plots. Two superior plants were selected in each 24 plant grid. Selected plants in each grid were rated for phenology and separated into early and late maturing populations in 1990. Forage analysis was run on plant samples collected from each of these selected plants at similar growth stages. In the late maturing population the crude protein values were less than 6 percent. This population (9063121) contained 77 accessions from southern Minnesota and extreme south eastern South Dakota. Following establishment of this population at Mandan, ND, seed was first harvested in 1993. At the end of the growing season, a representative sample of approximately 15 grams of seed was hand stripped from each plant. After several years, all the seed was bulked into one lot. Generally, plants of the population were tall, coarse and late maturing. Big bluestem is a tall, warm-season, perennial, native grass with stiff, erect culms; flattened and keeled sheaths; membranous ligules; and flat or folded leaf blades. Big bluestem has developed a very efficient spreading root system which may reach depths of 5-8 feet in northern latitudes. Big bluestem is composed of many ecotypes with a wide adaptation to soil and climate.

**PI 635104. *Andropogon gerardii* Vitman**  
Uncertain. 9063122. Pedigree - Vegetative collections of 326 big bluestem accessions were made in Minnesota and eastern South Dakota in 1985. More than 4000 individual plants were established in an evaluation nursery at the Northern Great Plains Research Lab at Mandan, ND. Evaluations in 1989 and 1990 included gridding the nursery into 4 x 6 plant plots. Two superior plants were selected in each 24 plant grid. Selected plants in each grid were rated for phenology and separated into early and late maturing populations in 1990. Forage analysis was run on plant samples collected from each of these selected plants. In the early

maturing population the crude protein values were in the 6-10% range. This population (9063122) contained 94 accessions from throughout Minnesota and eastern South Dakota. Generally, these plants had fine leaf and stem material. Following establishment of this population at Mandan, ND, selected plants in this population were flagged during the 1993 growing season because they were taller, coarser, and later maturing than the rest of the population. Approximately 25 percent of the plants were removed. At the end of the growing season, seed was hand stripped from each remaining plant. After several years, all the seed was bulked into one lot. Big bluestem is a tall, warm-season, perennial, native grass with stiff, erect culms; flattened and keeled sheaths; membranous ligules; and flat or folded leaf blades. Big bluestem has developed a very efficient spreading root system which may reach depths of 5-8 feet in northern latitudes. Big bluestem is composed of many ecotypes with a wide adaptation to soil and climate.

**PI 635105. *Schizachyrium scoparium* (Michx.) Nash**

Uncertain. ND-2466; 9047200. Pedigree - Little bluestem collections were made by USDA SCS personnel from North Dakota, South Dakota, and Minnesota in 1979. More than 7000 plants were evaluated in a spaced plant nursery from 1980-83. From this population, a group of short, early maturing plants were selected in 1985 and established in a replicated crossing block. A total of 27 accessions from 22 counties were selected from plants that were 25% or more below the nursery average in height, and which also rated good for disease resistance, vigor and seed production. This composite of 27 accessions was established in an isolated location east of Bismarck. Seed was harvested in 1986, 1987, and 1988. Severe drought in the late 1980's caused significant plant loss, so the planting was removed in 1991. Little bluestem is a perennial warm-season bunchgrass with a deep fibrous root system. This species reproduces from tillers, short rhizomes and seed. It had a potential for use as a low maintenance cover in developed recreational areas, transportation corridors, and critical areas.

**PI 635106. *Schizachyrium scoparium* (Michx.) Nash**

Uncertain. 9076693. Pedigree - Little bluestem collections were made by USDA SCS personnel from North Dakota, South Dakota and Minnesota in 1979. More than 7000 plants were evaluated in a spaced plant nursery from 1980-83. From this population a total of 340 plants of 68 accessions from western North and South Dakota were selected and placed in an isolation block as ND-4115, and later released as the pre-varietal release 'Badlands' Ecotype Little Bluestem. From ND-4115 a second cycle of recurrent selection was made. Heavier seed was selected from harvests of ND-4115 and planted in flats in the greenhouse. Selection of seedlings was based on vigor, size, and adventitious root development. Approximately 900 plants were established in a spaced plant nursery on the BismarckPMC in 1989. This population was assigned the number 9076693. This nursery was divided into 36-plant plots in 1990 and evaluated for vigor, size and leafiness. Ten plants in each grid having the poorest performance were rogued out of the nursery in the fall of 1990. Plant selection continued in 1991 with approximately 700 plants remaining. After the 1992 growing season, the best 100 plants were flagged. Evaluation and selection continued in 1993 until plants began to approach the flowering stage. The unselected plants were then mowed to prevent flowering. The best 100 plants were allowed to flower and produce seed. A representative seed sample was harvested by hand stripping each of the selected plants and composited into one sample. A

similar harvest of seed from 1994 was mixed with the 1993 harvest. Little bluestem is a perennial warm-season bunchgrass with a deep fibrous root system. This species reproduces from tillers, short rhizomes and seed.

The following were developed by Barry 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; Robert A. Gilbert, University of Florida, EREC, 3200 East Palm Beach Road, Belle Glade, Florida 33430-8003, United States; S. Edme, USDA-ARS, Sugarcane Field Station, 12990 US Highway 441N, Canal City, Florida 33438, United States; J. Davidson, Florida Sugar Cane League, Inc., P.O. Box 1208, Clewiston, Florida 33440, United States; J.D. Miller, USDA-ARS, Sugarcane Field Station, 12990 US Highway 441 N., Canal Point, Florida 33438, United States. Received 07/23/2004.

**PI 635107. *Saccharum* sp.**

Cultivar. "CP 96-1602". CV-121. Pedigree - CP 96-1602 (a complex hybrid of *Saccharum officinarum* L., *S. barberi* Jeswiet, *S. spontaneum* L., and *S. sinense* Roxb. amend. Jeswiet) was selected from progeny of a polycross made at Canal Point, FL in Dec. 1994 with CP 81-1425 as the female parent. CP 81-1425 is a breeding clone. Pubescent along the lower portion of the leaf sheath and has long auricles (>2.0 cm) on young leaves. Has a brownish growth ring, heavy wax bloom, is yellow-green under the leaf sheath, and has loosely-adhering leaf trash. Has shown adequate level field resistance in Florida to eye spot (*Bipolaris sacchari*), smut (*Ustilago scitaminea*), brown rust (*Puccinia melanocephala*), leaf scald (*Xanthomonas albilineans*), and sugarcane mosaic virus strain E. Is susceptible to sugarcane yellow leaf virus. Based on presence of colonized vascular bundles in inoculated tests, CP 96-1602 is moderately resistant to ratoon stunting disease (*Leifsonia xyli* subsp. *xyli*). Has a fiber content of 9.5%.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868, Santa Maria, California 93456, United States. Received 07/29/2004.

**PI 635108. *Lactuca sativa* L.**

Cultivar. "CHIEF". PVP 200400281.

The following were developed by A.M. Townsend, U.S. National Arboretum, USDA, ARS, 3501 New York Avenue, N.E., Washington, District of Columbia 20002, United States. Received 09/08/2004.

**PI 635109. *Ulmus americana* L.**

Cultivar. "Jefferson"; NA 62001; NPS 3-487. Selected from approximately 600 elms planted on the National Mall in Washington D.C. Released because of its disease tolerance and exceptional horticultural characteristics. In experiments conducted in the District of Columbia and at Glenn Dale, Maryland, rooted cuttings have demonstrated high levels of tolerance to both species of the fungus which causes Dutch elm disease. Tolerance of this clone to Dutch elm disease is characterized by a significantly lower extent of foliar symptoms and crown dieback after fungal inoculation, compared to other American elm selections and seedlings. Although not completely immune to the disease, it has an

unusually high level of disease tolerance and will contribute to the diversity of elm selections now becoming available in the nursery and landscape industries. A diversity of American elm cultivars will help sustain the species as it begins to regain its stature in the urban forest. Distinguished by dark green leaves which develop earlier in the spring and are retained later in the fall than surrounding American elms. The parent tree is approximately 70 years old (90 cm DBH, 20.6 m tall) and has an expansive umbrella-shaped crown. Branch unions are broad and U-shaped compared to the narrow V unions often found in other American elm trees. The bark is smooth, light to reddish gray in young trees becoming dark gray and fissured in older trees. Summer leaves average 106 mm long by 59 mm wide and are dark green, turning yellow in the autumn. In adaptability trials, it has grown well in the District of Columbia, Maryland, Minnesota, Missouri, New Jersey, Oklahoma, Oregon, and Tennessee, and can be considered adaptable from USDA Zones 4 through 7. Readily propagated by softwood cuttings. Using conventional techniques, 90% of the cuttings collected in mid-May in the District of Columbia usually root within 10 weeks. Excellent choice for planting in urban and suburban sites, large yards, and recreational and industrial par.

The following were developed by Sakata Seed Corporation, Japan. Received 07/29/2004.

**PI 635110 PVPO. *Zinnia* sp.**

Cultivar. "PROFUSION APRICOT". PVP 200400275.

**PI 635111 PVPO. *Zinnia* sp.**

Cultivar. "PROFUSION FIRE". PVP 200400276.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 07/29/2004.

**PI 635112 PVPO. *Festuca arundinacea* Schreb.**

Cultivar. "APACHE III". PVP 200400277.

**PI 635113 PVPO. *Poa pratensis* L.**

Cultivar. "CASABLANCA". PVP 200400278.

**PI 635114 PVPO. *Poa pratensis* L.**

Cultivar. "MIDNIGHT II". PVP 200400279.

**PI 635115 PVPO. *Festuca arundinacea* Schreb.**

Cultivar. "SILVERADO II". PVP 200400280.

The following were donated by Arno F. Visser, Agriculture Research Council, Roo-depla-at Veg and Orn Plant Inst., Private Bag X293, Pretoria, South Africa. Received 11/07/2003.

**PI 635116. *Solanum tuberosum* L.**

Cultivar. "BP1"; Q 44075. Pedigree - (South Esk x Shamrock) x Saranac. Released 1958. Reliable table stock yielder under short day lengths and high temperatures.



The following were developed by Mark Uebersax, Michigan State University, 135 Food Science Building, East Lansing, Michigan 48824-1224, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; Gregory M. Varner, Dry Edible Bean Research, Advisory Board, 3066 S. Thomas Road, Saginaw, Michigan 48603, United States; J. Taylor, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States. Received 08/05/2004.

**PI 635117. *Phaseolus vulgaris* L.**

Cultivar. Pureline. "CONDOR"; MSU #B00101; B00101. CV-233; PVP 200500291. Pedigree - Derived from a cross between black bean cultivars Phantom and Black Jack. Evaluated as MSU #B00101; has been tested for four years (2000-03) over 29 locations and yielded 3100 kg/ha. Exhibits type-II upright short vine (indeterminate) growth habit combined with resistance to lodging and plants average 49 cm in height. Is a mid-full season bean maturing 94 days after planting and has demonstrated good uniform maturity and dry-down. Possesses the combination of the single dominant hypersensitive I gene which conditions resistance to seed-borne Bean Common Mosaic Virus (BCMV) but is sensitive to the temperature-insensitive-necrosis-inducing strains of BCMNV like NL 3 and NL 8. Possesses the Co-1 and Co-2 gene combination for resistance to anthracnose and is essentially immune to indigenous rust races prevalent in Michigan. Exhibits improved levels of tolerance to white mold and has a similar level of susceptibility to common bacterial blight as other commercial black bean varieties. Has a typical small opaque black bean seed averaging 23 g/100 seeds and size ranges from 19-23 g/100 seeds. In canning trials, exhibited no differences in cooked color, texture, hydration and drained weight ratios, but showed better color retention than most commercial black bean varieties.

The following were developed by Dermot P. Coyne, University of Nebraska, Department of Horticulture, 386 Plant Sciences Hall, Lincoln, Nebraska 68583-0724, United States; James R. Steadman, University of Nebraska, Department of Plant Pathology, 406 Plant Science Hall, Lincoln, Nebraska 68583, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States; Marcial Pastor-Corrales, USDA, ARS, Vegetable Laboratory, Building 010A, Room 240, BARC-West, Beltsville, Maryland 20705-2350, United States; N. Mutlu, University of Nebraska, Department of Biochemistry, Lincoln, Nebraska 68588, United States; A.K. Vidaver, University of Nebraska, Dept. of Plant Pathology, Lincoln, Nebraska 68583, United States; D. Lindgren, University of Nebraska, Dept. of Agronomy and Horticulture, Lincoln, Nebraska 68583, United States; J. Reiser, University of Nebraska, Dept. of Agronomy and Horticulture, Lincoln, Nebraska 68583, United States. Received 07/15/2004.

**PI 635118. *Phaseolus vulgaris* L.**

Breeding. ABCP-8. GP-237. Pedigree - Chase \*5 / XAN-159. Combines common bacterial blight resistance from XAN 159 with great northern Montana No.5. Possesses Ur-3 for rust resistance and bc-1 2 gene for resistance to Bean Common Mosaic virus. Seed size is smaller than Chase pinto.

The following were developed by Lloyd May, University of Georgia, Coastal Plain Experiment Station, 115 Coastal Way, Tifton, Georgia 31793-0748, United States; Roy Cantrell, Cotton Incorporated, 6399 Weston Parkway, Cary, North Carolina 27513, United States; D.C. Jones, Cotton Incorporated, 6399 Weston Parkway, Cary, North Carolina 27513, United States. Received 07/26/2004.

**PI 635119. *Gossypium hirsutum* L.**

Breeding. GA98066. GP-792. Pedigree - PD5363/GA88-186. Combines high yield potential with desirable fiber quality and resistance to fusarium wilt (*Fusarium oxysporum*). Fiber length and strength exceeds those of many popular transgenic cultivars. With its yield potential and fiber quality, has value as a parent in main-stream breeding.

The following were developed by David Hole, Utah State University, Plants, Soils, & Biometeorology Dept., 4820 Old Main Hill, Logan, Utah 84322-4820, United States; S.A. Young, Utah State University, Plants, Soils, and Biometeorology Department, Logan, Utah 84322-4820, United States; S.M. Clawson, Utah State University, Dept. of Plants, Soils, and Biometeorology, Logan, Utah 84322-4820, United States; Rulon S. Albrechtsen, Utah State University, Plant Science Department, Logan, Utah 84322-4820, United States; Dominique Roche, Utah State University, Dept. of Plants, Soils & Biochemistry, Ag. Sci. Bldg. 332, Logan, Utah 84322-4820, United States. Received 07/28/2004.

**PI 635120. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "AQUILA"; UT97B1480-1632. CV-319; PVP 200600040. Pedigree - UT-S.D.B1-1009/M72-395/3/Utah Short#2//ID633019/Woodvale/4/Steptoe/M27//Westbred Gustoe. Released 2003. Six-rowed, early heading spring feed barley. It has a lax spike with limited overlapping of upper lateral spikelets. The peduncle is slightly curved. The rachis has short hairs on its edges. At the bottom of the spike, the collar is of closed type or V-shaped. The basal rachis internode has a short-straight to curved shape. The length of the rachis internodes is relatively constant from top to bottom of the spike. Glumes are hairy on dorsal surfaces and edges. Glume awns are longer than the glumes. No hairs or only a few are visible on the ventral surface of glumes. The awns are long, and of the fully rough type. The seed is covered, mid-long with a depressed crease at the lemma base. Lemma teeth are few and confined to nerves, the rachilla is of the short-haired type, hulls are slightly wrinkled, and the aleurone color is white.

The following were developed by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 08/17/2004.

**PI 635121. *Phaseolus vulgaris* L.**

Genetic. Genetic Marker 113; W6 26168. Pedigree - BC3 to 5-593 from 4-138. { [wb] }; "white banner"; pale violet wings (veronica-violet 639/2) - paler than the standard bishops violet of wild-type beans, and nearly white banner petal in a background genotype for flower color of [T][P][V]; [Wb] locus for flower color pattern has been demonstrated to be non-allelic with [Blu].

The following were developed by A. Menkir, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Oyo, Nigeria; M.A. Adepoju, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Oyo, Nigeria. Received 07/30/2004.

**PI 635122. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 711. GP-379. Pedigree - Derived from cross between maize variety grown in Tanzania, called Nat'l var. and an IITA maize streak virus resistant population (TZSR), formed by intercrossing four populations including TZB, TZPB, POP 21 and POP22. Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum* and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has semi-dent grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 74 days, silks in 79 days and has plant height of 91 cm and ear height of 40 cm.

**PI 635123. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 712. GP-380. Pedigree - Selected from a cross between a mid-altitude inbred line (TZMI501) from IITA and an inbred line from CIMMYT (ZSR 923 Sr bulk). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has semi-dent grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 77 days, silks in 80 days and has plant height of 115 cm and ear height of 45 cm.

**PI 635124. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 713. GP-381. Pedigree - Selected from cross between a mid-altitude inbred line (TZMI501) from IITA and an inbred line from CIMMYT (ZSR 923 S4 bulk). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus, *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has a semi-flint grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 78 days, silks in 80 days and has plant height of 108 cm and ear height of 45 cm.

**PI 635125. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 714. GP-382. Pedigree - Extracted from a cross between two mid-altitude adapted inbred lines from IITA (87014 and Z28). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has a flint grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 83 days, silks in 86 days, and has plant height of 173 cm and ear height of 92 cm.

**PI 635126. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 715. GP-383. Pedigree - Extracted from a cross between two mid-altitude adapted inbred lines from IITA (87014 and Z28). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora*

zea-maydis, maize streak virus (MSV), *Exserohilum turcicum* and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has a semi-flint grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 81 days, silks in 84 days and has plant height of 138 cm and ear height of 62 cm.

**PI 635127. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 716. GP-384. Pedigree - Extracted from cross between two mid-altitude adapted inbred lines (88069 and 87366) from IITA. Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has a flint grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 83 days, silks in 86 days and has plant height of 156 cm and ear height of 68 cm.

**PI 635128. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 717. GP-385. Pedigree - Developed from cross between two mid-altitude adapted inbred lines (89258 and Z28) from IITA. Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has a flint grain texture; has been assigned to the TZMI102 heterotic group. Tassels in 81 days; silks in 84 days; has plant height of 188 cm; ear height of 80 cm.

**PI 635129. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 718. GP-386. Pedigree - Selected from cross between two mid-altitude adapted inbred lines (89302 and Z28) from IITA. Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has semi-flint grain texture and has been assigned to the TZMI102 heterotic group. Tassels in 77 days, silks in 81 days, has plant height of 151 cm, ear height of 66 cm.

**PI 635130. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 719. GP-387. Pedigree - Derived from cross between two mid-altitude adapted inbred lines with flint grain texture (TZMI101 and TZMI501). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has a flint grain texture and has been assigned to the TZMI407 heterotic group. Tassels in 77 days, silks in 80 days, has plant height of 169 cm and ear height of 84 cm.

**PI 635131. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 720. GP-388. Pedigree - Derived from cross between two mid-altitude adapted inbred lines with flint grain texture (TZMI101 and TZMI501). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude

ecology in West and Central Africa. Has a flint grain texture and has been assigned to the TZMI407 heterotic group. Tassels in 77 days, silks in 79 days, has plant height of 176 cm, ear height of 96 cm.

**PI 635132. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 721. GP-389. Pedigree - Derived from cross between two mid-altitude adapted inbred lines with flint grain texture (TZMI101 and TZMI501). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been assigned to the TZMI407 heterotic group. Tassels in 78 days, silks in 80 days, has plant height of 148 cm, ear height of 75 cm.

**PI 635133. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 722. GP-390. Pedigree - Derived from cross between two mid-altitude adapted inbred lines with flint grain texture (TZMI101 and TZMI501). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding and has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been assigned to the TZMI407 heterotic group. Tassels in 78 days, silks in 80 days, has plant height of 135 cm, ear height of 66 cm.

**PI 635134. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 723. GP-391. Pedigree - Derived from cross between two mid-altitude adapted inbred lines with flint grain texture (TZMI101 and TZMI501). Tropical mid-altitude adapted maize inbred lines at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been assigned to the TZMI407 heterotic group. Tassels in 80 days, silks in 82 days, has plant height of 158 cm, ear height of 63 cm.

**PI 635135. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 724. GP-392. Pedigree - Derived from cross between two mid-altitude adapted inbred lines with flint grain texture (TZMI101 and TZMI501). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been assigned to the TZMI407 heterotic group. Tassels in 81 days, silks in 85 days, has plant height of 124 cm and ear height of 54 cm.

**PI 635136. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 725. GP-393. Pedigree - Developed from cross between two mid-altitude adapted inbred lines (87036 and 87923) from IITA. Tropical mid-altitude adapted maize inbred lines at the S8 stage of inbreeding and has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Flint grain texture and has been heterotic to both

TZMI102 and TZMI407. Tassels in 77 days, silks in 78 days, has plant height of 14 cm, ear height of 54 cm.

**PI 635137. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 726. GP-394. Pedigree - Extracted from a population, Coca SR, developed at IITA. Tropical mid-altitude adapted maize inbred line at the S9 stage of inbreeding and has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has semi-flint grain texture and has been heterotic to both TZMI102 and TZMI407. Tassels in 78 days, silks in 81 days, has plant height of 138 cm and ear height of 69 cm.

**PI 635138. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 727. GP-395. Pedigree - Extracted from a population, Early-W-SR, developed at IITA. Tropical mid-altitude adapted maize inbred lines at the S8 stage of inbreeding; has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been heterotic to both TZMI102 and TZMI407. Tassels in 81 days, silks in 84 days, plant height of 186 cm and ear height of 72 cm.

**PI 635139. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 728. GP-396. Pedigree - Derived from a population developed at CIMMYT (POP43-SR). Tropical mid-altitude maize inbred line at the S9 stage of inbreeding and has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been heterotic to both TZMI102 and TZMI407. Tassels in 77 days, silks in 79 days, has plant height of 138 cm and ear height of 59 cm.

**PI 635140. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 729. GP-397. Pedigree - Derived from a population developed at CIMMYT (POP43-S4). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding and has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has flint grain texture and has been heterotic to both TZMI102 and TZMI407. Tassels in 76 days, silks in 80 days, has plant height of 151 cm, ear height of 66 cm.

**PI 635141. *Zea mays* L. subsp. *mays***

Breeding. Inbred. TZMI 730. GP-398. Pedigree - Derived from a cross of an inbred line from IITA (TZMI407) with a line from CIMMYT (8232/TZMSR-W/ZM607). Tropical mid-altitude adapted maize inbred line at the S8 stage of inbreeding and has combined resistance to gray leaf spot, *Cercospora zea-maydis*, maize streak virus (MSV), *Exserohilum turcicum*, and *Puccinia sorghi*, which are prevalent in the mid-altitude ecology in West and Central Africa. Has semi-dent grain texture and has been heterotic to both TZMI102 and TZMI407. Tassels in 78 days, silks in 80 days, has plant height of 143 cm, ear height of 69 cm.

The following were developed by Cebeco Zaden B.V., Rotterdam, South Holland, Netherlands. Received 08/05/2004.

**PI 635142 PVPO. *Pisum sativum* L.**  
Cultivar. "COOPER". PVP 200400166.

**PI 635143 PVPO. *Pisum sativum* L.**  
Cultivar. "TUDOR". PVP 200400167.

**PI 635144 PVPO. *Pisum sativum* L.**  
Cultivar. "CAMRY". PVP 200400168.

**PI 635145 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "Nela". PVP 200400238. Pedigree - HE 2394/Selekta.

The following were developed by Mountain View Seeds, LTD, United States. Received 08/05/2004.

**PI 635146 PVPO. *Lolium perenne* L.**  
Cultivar. "FLASH II". PVP 200400283.

The following were developed by Lebanon Seaboard Corporation, United States. Received 08/05/2004.

**PI 635147 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "DaVinci". PVP 200400284.

The following were developed by Virginia Tech Intellectual Properties, Inc., Virginia, United States. Received 08/05/2004.

**PI 635148 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "RENWOOD 3260"; VA96-54-326. PVP 200400286. Pedigree - SC861562/Coker 9803.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 08/05/2004.

**PI 635149 PVPO. *Lactuca sativa* L.**  
Cultivar. "PRESTIGE". PVP 200400287.

The following were developed by Minnesota Agricultural Experiment Station, St. Anthony Park, Minnesota, United States. Received 08/11/2004.

**PI 635150 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "SD1151RR". PVP 200400288.

The following were developed by Advanta USA, Inc., United States. Received 08/11/2004.

**PI 635151 PVPO. *Lolium perenne* L.**  
Cultivar. "PEREGRINE". PVP 200400289.

The following were developed by Barenbrug USA, Marketing Division, Tangent, Oregon 97389, United States. Received 08/11/2004.

**PI 635152 PVPO. *Deschampsia cespitosa* (L.) P. Beauv.**  
Cultivar. "BARCAMPسيا". PVP 200400290.

**PI 635153 PVPO. *Koeleria macrantha* (Ledeb.) Schult.**  
Cultivar. "BARLERIA". PVP 200400291.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 08/18/2004.

**PI 635154 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "GRANDE II". PVP 200400292.

The following were developed by KRB Seed Company, United States. Received 08/18/2004.

**PI 635155 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "REBEL IV". PVP 200400293.

The following were developed by Sunbeam Extract Co., United States. Received 08/18/2004.

**PI 635156 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "DAISY". PVP 200400294. Pedigree - Catoctin/IN83179A1-6-2-4-1.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 08/18/2004.

**PI 635157 PVPO. *Lolium perenne* L.**  
Cultivar. "QUICKSILVER". PVP 200400295.

The following were developed by Idaho Agricultural Experiment Station, Idaho, United States. Received 08/18/2004.

**PI 635158 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "SUPER DIRKWIN"; A9541S-10A-1. PVP 200400296. Pedigree - Centennial\*4/Dirkwin.

The following were developed by Mountain View Seeds, LTD, United States. Received 08/24/2004.

**PI 635159 PVPO. *Lolium perenne* L.**  
Cultivar. "ACADEMY II". PVP 200400297.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 08/24/2004.



**PI 635160. *Helianthus annuus* L.**  
Cultivar. "J9730QG". PVP 200400298.

**PI 635161. *Helianthus annuus* L.**  
Cultivar. "PHA364". PVP 200400299.

**PI 635162. *Helianthus annuus* L.**  
Cultivar. "T9819QG". PVP 200400300.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1961.

**PI 635163. *Pisum sativum* L.**  
Cultivar. "SIGNAL"; NSL 6502. 72 days to maturity. Wilt resistant. Late, dwarf Profusion type. Used for canning. Plants determinate. 34" high. Vigorous. Dark green. Pods double. 3-1/4" long. Light green. Plump. 6 - 8 large peas of olive shape. High quality. Seeds 85 per oz. Cultivated.

The following were donated by New York State Agricultural Experiment Station, Geneva, New York 14456-0462, United States. Received 1962.

**PI 635164. *Pisum sativum* L.**  
Cultivar. "THOMAS LAXTON 60"; NSL 8622. Pedigree - Developed by backcrossing 6 successive times to recurrent parent. Resistant to Enation Mosaic Virus. Susceptible to BV2. Literature reference -- Phytopathology 48:628-632, 1958.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1963.

**PI 635165. *Pisum sativum* L.**  
Cultivar. "EARLY ABUNDANT"; NSL 22712. 64 days to maturity. 18" vine height. Good yield. Cultivated.

**PI 635166. *Pisum sativum* L.**  
Cultivar. "POTLATCH/STRATAGEM"; NSL 22713. 78 days to maturity. Heavy yield. Exceptionally large, dark green pods. 8 - 10 large peas. Tender. High quality. Bluish green vines. 2' high. Cultivated.

The following were donated by Gill Bros., Oregon, United States. Received 1964.

**PI 635167. *Pisum sativum* L.**  
Cultivar. "PURPLE BLOSSOM SUGAR PEAS"; NSL 31339. Tall growing. Edible pod. High quality. Cultivated.

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

**PI 635168. *Pisum sativum* L.**  
Cultivar. "SCOTCH"; NSL 31425. Late maturity. Matures slowly. Wrinkled,

cream seeded group. Vines medium height. Foliage medium green. Long, slender vines. Pods mostly single. 3" long. Slender but plump. Very round in cross-section. Ave. 7 - 8 peas per pod. Uniform and medium in size. Whitish-green color. Fair quality. Little sweetness. Cultivated.

The following were donated by T.W. Wood & Sons Seed Co., Richmond, Virginia, United States. Received 1964.

**PI 635169. Pisum sativum L.**

Cultivar. "EARLY BIRD"; LAXTON SUPERB; NSL 32765. 55 days to maturity. Height 18 - 30" tall. Early. Semi-wrinkled pea. Medium dark green pods 4" - 4-1/2" long with 7 - 9 large peas. Good quality. Hardy. Cultivated.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1964.

**PI 635170. Pisum sativum L.**

Cultivar. "SWEET GREEN"; EARLIGREEN; NSL 34210. 62 days to maturity. Early. Dwarf. Plant height 11" - 15". Bright green peas. 13-1/2% sugar. Cultivated.

The following were donated by Northrup, King & Company, 1500 Jackson N.E., Minneapolis, Minnesota 55413, United States. Received 1966.

**PI 635171. Pisum sativum L.**

Cultivar. "NK 302"; NSL 42928. 67 days to maturity. Vine 27 - 30". Medium size. Medium green leaves. Sturdy. Pods 3 - 3-1/4". Blunt. Straight. 7 - 8 globular berries per pod. High quality. Tender skin. Seed wrinkled. Medium green. Used as canner. Heat units 1,560. Cultivated.

The following were donated by Brotherton Seed Company, P.O. Box 1378, Moses Lake, Washington, United States. Received 1966.

**PI 635172. Pisum sativum L.**

Cultivar. "EARLY PERFECTION NO 46"; NSL 43529. Very hardy. High yielding. Medium large sieve peas. Fusarium wilt resistant. Cultivated.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1967.

**PI 635173. Pisum sativum L.**

Cultivar. "MIGHTY MIDGET"; NSL 52613. Extra early Laxton type. 3-1/2 pods on extra dwarf 6" vines. Prolific. Used for home garden. Cultivated.

The following were developed by Western Valley Seed Company, Idaho, United States. Received 1974.

**PI 635174. Pisum sativum L.**

Cultivar. "HUSTLER"; NSL 86597. PVP 7400029.

The following were developed by Morrison Brothers Seed Co., United States. Received 1974.

**PI 635175. *Pisum sativum* L.**  
Cultivar. "TAURUS"; NSL 86599. PVP 7300084.

**PI 635176. *Pisum sativum* L.**  
Cultivar. "ALSWEET II"; NSL 86615. PVP 7200067.

The following were developed by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1974.

**PI 635177. *Pisum sativum* L.**  
Cultivar. "SPRING"; NSL 86668. PVP 7400022.

The following were developed by Pure Line Seeds, Inc., P.O. Box 8866, Moscow, Idaho 83843, United States. Received 1975.

**PI 635178. *Pisum sativum* L.**  
Cultivar. "ASPEN"; NSL 90085. PVP 7300095.

The following were developed by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1975.

**PI 635179. *Pisum sativum* L.**  
Cultivar. "IVY"; NSL 90086. PVP 7400084.

**PI 635180. *Pisum sativum* L.**  
Cultivar. "ABADOR"; NSL 90087. PVP 7400085.

**PI 635181. *Pisum sativum* L.**  
Cultivar. "DASH"; NSL 90225. PVP 7500031.

The following were developed by A.G. Gustafson, United States. Received 1975.

**PI 635182. *Pisum sativum* L.**  
Cultivar. "PROSPECTOR"; NSL 90226. PVP 7500040.

The following were developed by W. Brotherton Seed Company, Inc., United States. Received 1975.

**PI 635183. *Pisum sativum* L.**  
Cultivar. "DANE"; NSL 90540. PVP 7500068.

The following were developed by Crites-Moscow Growers, Inc., 212 8th, P.O. Box 8912, Moscow, Idaho 83843, United States. Received 1976.

**PI 635184. *Pisum sativum* L.**  
Cultivar. "SWINGER"; NSL 91792. PVP 7500044.

The following were developed by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1976.

**PI 635185. *Pisum sativum* L.**  
Cultivar. "RALLY"; NSL 92318. PVP 7500075.

**PI 635186. *Pisum sativum* L.**  
Cultivar. "ASKA"; NSL 92320. PVP 7500077.

**PI 635187. *Pisum sativum* L.**  
Cultivar. "ACCORD"; NSL 92328. PVP 7500076.

The following were developed by Cannors Seed Corporation, Lewisville, Idaho, United States. Received 1976.

**PI 635188. *Pisum sativum* L.**  
Cultivar. "NO. 8617 EARLY PERFECTION"; NSL 92329. PVP 7500090.

**PI 635189. *Pisum sativum* L.**  
Cultivar. "NO. 8221 EARLY PERFECTION"; NSL 92330. PVP 7500104.

**PI 635190. *Pisum sativum* L.**  
Cultivar. "NO. 7025 EARLY SWEET"; NSL 92503. PVP 7600013.

The following were developed by Crites-Moscow Growers, Inc., 212 8th, P.O. Box 8912, Moscow, Idaho 83843, United States. Received 1977.

**PI 635191. *Pisum sativum* L.**  
Cultivar. "SPIRIT"; NSL 93262. PVP 7605008.

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

**PI 635192. *Pisum sativum* L.**  
Cultivar. "SYBO"; NSL 93920. PVP 7700014.

**PI 635193. *Pisum sativum* L.**  
Cultivar. "FRISKY"; NSL 93921. PVP 7700009.

The following were developed by General Foods Corporation, United States. Received 1977.

**PI 635194. *Pisum sativum* L.**  
Cultivar. "LEHI"; NSL 93926. PVP 7600030.

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

**PI 635195. *Pisum sativum* L.**  
Cultivar. "KRITER"; NSL 94089. PVP 7700010.

The following were developed by Pure Line Seeds, Inc., P.O. Box 8866, Moscow, Idaho 83843, United States. Received 1977.

**PI 635196. *Pisum sativum* L.**  
Cultivar. "BANFF"; NSL 95171. PVP 7700022.

**PI 635197. *Pisum sativum* L.**  
Cultivar. "KODIAK"; NSL 95172. PVP 7700023.

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

**PI 635198. *Pisum sativum* L.**  
Cultivar. "FARO"; NSL 95231. PVP 7700070.

**PI 635199. *Pisum sativum* L.**  
Cultivar. "DAWN"; NSL 95249. PVP 7700069.

**PI 635200. *Pisum sativum* L.**  
Cultivar. "TREND"; NSL 95250. PVP 7700087.

**PI 635201. *Pisum sativum* L.**  
Cultivar. "TRIFECT"; NSL 95251. PVP 7700073.

**PI 635202. *Pisum sativum* L.**  
Cultivar. "BOLERO"; NSL 95694. PVP 7700074.

**PI 635203. *Pisum sativum* L.**  
Cultivar. "LOTUS"; NSL 95695. PVP 7700072.

**PI 635204. *Pisum sativum* L.**  
Cultivar. "RIGO"; NSL 95714. PVP 7700086.

The following were donated by C. Darovitch, 811 Walker, Iron Mountain, Michigan 49801, United States. Received 1983.

**PI 635205. *Pisum sativum* L.**  
Cultivar. "KING TUT-GREEN POD"; NSL 183027. Prolific. Green pods. Red and lavender flowers. Insect free. Heat and cold resistant. Height 15' (if supported). Cultivated.

**PI 635206. *Pisum sativum* L.**  
Cultivar. "KING TUT-PURPLE POD"; NSL 183028. Prolific. Purple pods. Red and lavender flowers. Insect free. Heat and cold resistant. Height 15' (if supported). Cultivated.

The following were donated by USDA, ARS, NCGRP, National Center for Genetic Resources Preservation, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States. Received 1989.

**PI 635207. *Pisum sativum* L.**  
Cultivar. "EXTRA EARLY NON-PAREIL"; NSL 242332.

The following were donated by Scott Dorsch, Busch Agricultural Resources Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 02/20/2003.

- PI 635208. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. CHUM 1407. Collected in North Dakota, United States. Latitude 47° 31' 45" N. Longitude 97° 59' 7" W. Elevation 0 m. Finley West. Pedigree - Collected from the wild in North Dakota.
- PI 635209. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. CHUM 1408. Collected in North Dakota, United States. Latitude 46° 32' 38" N. Longitude 97° 55' 52" W. Elevation 0 m. Fort Ransom. Pedigree - Collected from the wild in North Dakota.

The following were collected by Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 07/10/2003.

- PI 635210. *Humulus lupulus* L. var. *lupulus***  
Wild. DC2003-1; CHUM 1409. Collected 07/10/2003 in Oregon, United States. Pedigree - Escaped cultivar in the wild of Oregon. Chemical analysis by Gail Nickerson (Oregon State University) narrowed identity of escaped cultivar to be one of the 'Cluster' types.
- PI 635211. *Humulus lupulus* L. var. *lupulus***  
Wild. DC2003-2; CHUM 1410. Collected 07/10/2003 in Oregon, United States. Pedigree - Escaped cultivar in the wild of Oregon. Chemical analysis by Gail Nickerson (Oregon State University) narrowed identity of escaped cultivar to be one of the 'Cluster' types.
- PI 635212. *Humulus lupulus* L. var. *lupulus***  
Wild. DC2003-3; CHUM 1411. Collected 07/10/2003 in Oregon, United States. Pedigree - Escaped cultivar in the wild of Oregon. Chemical analysis by Gail Nickerson (Oregon State University) narrowed identity of escaped cultivar to be one of the 'Cluster' types.
- PI 635213. *Humulus lupulus* L. var. *lupulus***  
Wild. DC2003-4; CHUM 1412. Collected in Oregon, United States. Latitude 44° 15' 44" N. Longitude 123° 11' 15" W. Elevation 90 m. One-half mile southwest of Harrisburg on west side of U.S. 99E. Collected 07/10/2003 in Oregon, United States. Latitude 44° 15' 44" N. Longitude 123° 11' 15" W. Elevation 90 m. One-half mile southwest of Harrisburg on west side of U.S. 99E. Pedigree - Escaped cultivar in the wild of Oregon. Chemical analysis by Gail Nickerson (Oregon State University) narrowed identity of escaped cultivar to be one of the 'Cluster' types.
- PI 635214. *Humulus lupulus* L. var. *lupulus***  
Wild. DC2003-5; CHUM 1413. Collected in Oregon, United States. Latitude 44° 15' 44" N. Longitude 123° 11' 15" W. Elevation 90 m. One-half mile southwest of Harrisburg on west side of U.S. 99E. Collected 07/10/2003 in Oregon, United States. Latitude 44° 15' 44" N. Longitude 123° 11' 15" W. Elevation 90 m. One-half mile southwest of Harrisburg on west side of U.S. 99E. Pedigree - Escaped cultivar in the wild of Oregon. Chemical analysis by

Gail Nickerson (Oregon State University) narrowed identity of escaped cultivar to be one of the 'Cluster' types.

**PI 635215. *Humulus lupulus* L. var. *lupulus***

Wild. DC2003-8; CHUM 1414. Collected in Oregon, United States. Latitude 44° 34' 1" N. Longitude 120° 9' 9" W. Elevation 913 m. Mitchell, Wheller county, east end of town, between Main Street and Bridge Creek. On the north side of small building. River aluvium with grass, Clematis sp. and Artemisia sp. Collected 07/24/2003 in Oregon, United States. Latitude 44° 34' 1" N. Longitude 120° 9' 9" W. Elevation 913 m. Mitchell, Wheller county, east end of town, between Main Street and Bridge Creek. On the north side of small building. River aluvium with grass, Clematis sp. and Artemisia sp. Pedigree - Escaped cultivar in the wild of Oregon.

**PI 635216. *Humulus lupulus* L. var. *lupulus***

Wild. DC2003-9; CHUM 1415. Collected in Oregon, United States. Latitude 44° 34' 1" N. Longitude 120° 9' 9" W. Elevation 913 m. Mitchell, Wheller county, east end of town, between Main Street and Bridge Creek. On the north side of small building. River aluvium with grass, Clematis sp. and Artemisia sp. Collected 07/24/2003 in Oregon, United States. Latitude 44° 34' 1" N. Longitude 120° 9' 9" W. Elevation 913 m. Mitchell, Wheller county, east end of town, between Main Street and Bridge Creek. On the north side of small building. River aluvium with grass, Clematis sp. and Artemisia sp. Pedigree - Escaped cultivar in the wild of Oregon.

The following were donated by John A. Henning, USDA, ARS, NFSPRC, Oregon State University, Crop Science Building, Corvallis, Oregon 97331, United States. Received 09/03/2003.

**PI 635217. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-116M; CHUM 1416. Pedigree - Nugget x 21109M.

**PI 635218. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-119M; CHUM 1417. Pedigree - Nugget x 21109M.

**PI 635219. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-115M; CHUM 1418. Pedigree - Nugget x 21109M.

**PI 635220. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-122M; CHUM 1419. Pedigree - Nugget x 21109M.

**PI 635221. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-134M; CHUM 1420. Pedigree - Nugget x 21109M.

**PI 635222. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-135M; CHUM 1421. Pedigree - Nugget x 21109M.

**PI 635223. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-129M; CHUM 1422. Pedigree - Nugget x 21109M.

**PI 635224. *Humulus lupulus* L. var. *lupulus***

Cultivated. 0008-048M; CHUM 1423. Pedigree - Nugget x 21109M.

The following were collected by James Oliphant, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States;

Jodi Smith-Jackson, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Donated by James Oliphant, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 09/22/2003.

- PI 635225. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Oak Creek Canyon; OJ-2003-01; CHUM 1424. Collected in Arizona, United States. Latitude 35° 1' 23" N. Longitude 111° 44' 10" W. Elevation 0 m. Coconino county, Oak Creek Canyon, Hwy 89a north of Cave Springs, along road. Above creek, with *Pinus ponderosa*, *Acer Negundo*, *Populus trichocarpa*. Collected 09/10/2003 in Arizona, United States. Latitude 35° 1' 23" N. Longitude 111° 44' 10" W. Elevation 0 m. Coconino county, Oak Creek Canyon, Hwy 89a north of Cave Springs, along road. Above creek, with *Pinus ponderosa*, *Acer Negundo*, *Populus trichocarpa*. Pedigree - Collected from the wild in Arizona.
- PI 635226. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Macks Crossing; OJ-2003-03; CHUM 1426. Collected in Arizona, United States. Latitude 34° 37' 7" N. Longitude 111° 5' 34" W. Elevation 0 m. Coconino county, Mack's Crossing, East Clear Creek, 1 mile South of Hwy 87, Forest Service road 137. Along creek, with *Acer negundo*, *Rosa* sp. Collected 09/10/2003 in Arizona, United States. Latitude 34° 37' 7" N. Longitude 111° 5' 34" W. Elevation 0 m. Coconino county, Mack's Crossing, East Clear Creek, 1 mile South of Hwy 87, Forest Service road 137. Along creek, with *Acer negundo*, *Rosa* sp. Pedigree - Collected from the wild in Arizona.
- PI 635227. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. McNary; OJ-2003-04; CHUM 1427. Collected in Arizona, United States. Latitude 34° 2' 46" N. Longitude 109° 43' 39" W. Elevation 2368 m. Apache county, McNary, North Fork of White river at Hwy 473 crossing. Riparian area with *Alnus* sp., *Salix* sp., *Pinus ponderosa* forest. Collected 09/11/2003 in Arizona, United States. Latitude 34° 2' 46" N. Longitude 109° 43' 39" W. Elevation 2368 m. Apache county, McNary, North Fork of White river at Hwy 473 crossing. Riparian area with *Alnus* sp., *Salix* sp., *Pinus ponderosa* forest. Pedigree - Collected from the wild in Arizona.
- PI 635228. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Alpine; OJ-2003-05; CHUM 1428. Collected in Arizona, United States. Latitude 33° 55' 20" N. Longitude 109° 10' 59" W. Elevation 2440 m. Apache county, Alpine, Hwy 180 approximately 7 miles west of Alpine along San Francisco River, just west of mile post 420. Perennial creek with *Salix* sp., and *Alnus* sp. Pedigree - Collected from the wild in Arizona.
- PI 635229. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Gilita Creek; OJ-2003-06; CHUM 1429. Collected 09/12/2003 in New Mexico, United States. Latitude 33° 24' 34" N. Longitude 108° 34' 26" W. Elevation 2403 m. Catron county, Gilita creek at Campground. Near perennial creek with *Potentilla fruticosa*, *Toxicodendron* (*Rhus radicans*), *Pinus ponderosa*, *Pseudotsuga menziesii*, in creek *salix*, and *Alnus*, on rocks *Picea Engelmannii*. Pedigree - Collected from the wild in Arizona.
- PI 635230. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Carlton Canyon Female; OJ-2003-012 Fem; CHUM 1432. Collected 09/17/2003 in New Mexico, United States. Latitude 33° 23' 46" N. Longitude 105° 45' 24" W. Elevation 2644 m. Lincoln County, Carlton Canyon, below mile



marker 7 on State Hwy 532. With dead *Sambucus*, *pseudotsuga menziesii*, *Quercus alba*. Pedigree - Collected from the wild in New Mexico.

- PI 635231. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Windy Point Female; OJ-2003-013 Fem; CHUM 1433. Collected 09/17/2003 in New Mexico, United States. Latitude 33° 24' 23" N. Longitude 105° 45' 25" W. Elevation 2796 m. Lincoln county, Windy Point, above mile marker 7 on State Hwy 532. In Scrub. Pedigree - Collected from the wild in New Mexico.
- PI 635232. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Bear Trap Canyon Female; OJ-2003-015 Fem; CHUM 1434. Collected 09/17/2003 in New Mexico, United States. Latitude 33° 48' 36" N. Longitude 107° 35' 14" W. Elevation 2302 m. Socorro county, Bear Trap Canyon, 4.8 miles south west of Hughes campground on Forest service road 549. With *Pinus Ponderosa*, *Quercus alba*, in base of talus. Pedigree - Collected from the wild in New Mexico.
- PI 635233. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Frye Canyon Female; OJ-2003-016 Fem; CHUM 1437. Collected 09/18/2003 in Arizona, United States. Latitude 32° 43' 51" N. Longitude 109° 51' 18" W. Elevation 1964 m. Graham county, Frye Canyon, in Frye canyon half a mile above trail junction. Under *alnus*, growing on rocks in dry stream bed in shade. Pedigree - Collected from the wild in Arizona.
- PI 635234. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pitchfork Canyon Female; OJ-2003-017 Fem; CHUM 1438. Collected 09/18/2003 in Arizona, United States. Latitude 32° 38' 39" N. Longitude 109° 51' 2" W. Elevation 2695 m. Graham County, Pitchfork canyon, along road below show flat road, pitchfork canyon drainage, Hwy 366 Stuart trail. Steep dry road cut west side of mountains, with *Ribes* sp. Pedigree - Collected from the wild in Arizona.
- PI 635235. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pitchfork Canyon Male; OJ-2003-017 Male; CHUM 1439. Collected 09/18/2003 in Arizona, United States. Latitude 32° 38' 39" N. Longitude 109° 51' 2" W. Elevation 2695 m. Graham County, Pitchfork canyon, along road below show flat road, pitchfork canyon drainage, Hwy 366 Stuart trail. Steep dry road cut west side of mountains, with *Ribes* sp. Pedigree - Collected from the wild in Arizona.
- PI 635236. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pitchfork Canyon OP; OJ-2003-017 OP; CHUM 1440. Collected 09/18/2003 in Arizona, United States. Latitude 32° 38' 39" N. Longitude 109° 51' 2" W. Elevation 2695 m. Graham County, Pitchfork canyon, along road below show flat road, pitchfork canyon drainage, Hwy 366 Stuart trail. Steep dry road cut west side of mountains, with *Ribes* sp. Pedigree - Collected from the wild in Arizona.

The following were collected by James Oliphant, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/15/2003.

- PI 635237. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Lookout Canyon Female; OJ-2003-19 Fem; CHUM 1441. Collected 10/12/2003 in Arizona, United States. Latitude 36° 34' 55" N.

Longitude 112° 20' 37" W. Elevation 0 m. Coconino County, Kaibab National Forest, FR 206 south of FR 429, east of FR 22. Dry, base of rocks with Rosa sp., Clematis sp., east facing. Pedigree - Collected from the wild in Arizona.

The following were collected by Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/15/2003.

**PI 635238. Humulus lupulus L.**

Wild. DC2003-15; CHUM 1442; H. lupulus DC2003-15. Collected 10/13/2003 in British Columbia, Canada. Latitude 48° 45' 44" N. Longitude 123° 38' 39" W. Elevation 2 m. Cowichan River delta, along Tzouhalem Road. Southeast of Duncan. Rosa sp., Rubus laciniatus, Creteagus sp., Sambucus sp. and Symphoricarpos sp. Exposure mostly open. Pedigree - Collected from the wild in British Columbia, Canada. Likely escaped H. lupulus var. lupulus cultivar.

The following were collected by Scott Dorsch, Busch Agricultural Resources Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States; John Waddell, USDA, ARS, National Center for, Genetic Resources Preservation, Fort Collins, Colorado 80521-4500, United States; Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Donated by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Received 08/09/2002.

**PI 635239. Humulus lupulus var. lupuloides E. Small**

Wild. Pheasant Creek-W #2; CHUM 1444. Collected 08/22/2001 in Saskatchewan, Canada. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635240. Humulus lupulus var. lupuloides E. Small**

Wild. Pheasant Creek-W2; CHUM 1446. Collected 10/10/2001 in Saskatchewan, Canada. Pedigree - Collected from the wild in Saskatchewan, Canada.

The following were collected by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Donated by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States; Jodi Smith-Jackson, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 11/03/1999.

**PI 635241. Humulus lupulus var. lupuloides E. Small**

Wild. Souris-E2; CHUM 1000. Collected 10/1999 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Along the Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635242. Humulus lupulus var. lupuloides E. Small**

Wild. Logan-N; CHUM 1001. Collected 10/1999 in North Dakota, United States. Latitude 48° 10' N. Longitude 101° 10' W. Elevation 0 m. Pedigree - Collected from the wild in North Dakota.

**PI 635243. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Burlington-N; CHUM 1002. Collected 10/1999 in North Dakota, United States. Latitude 48° 17' N. Longitude 101° 26' W. Elevation 0 m.  
Pedigree - Collected from the wild in North Dakota.

The following were collected by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Donated by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States; Jodi Smith, Oregon State University, Department of Horticulture, ALS 4017, Corvallis, Oregon 97333, United States. Received 11/03/1999.

**PI 635244. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Burlington-N#2; CHUM 1003. Collected 10/1999 in North Dakota, United States. Latitude 48° 18' N. Longitude 101° 27' W. Elevation 0 m.  
Pedigree - Collected from the wild in North Dakota.

The following were collected by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Donated by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States; Jodi Smith-Jackson, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 11/03/1999.

**PI 635245. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Minot-E; CHUM 1004. Collected 10/1999 in North Dakota, United States. Latitude 48° 13' N. Longitude 100° 16' W. Elevation 0 m.  
Pedigree - Collected from the wild in North Dakota.

**PI 635246. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. White Earth-S; CHUM 1005. Collected 10/1999 in North Dakota, United States. Latitude 48° 20' N. Longitude 102° 46' W. Elevation 0 m.  
Pedigree - Collected from the wild in North Dakota.

**PI 635247. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. White Earth-S2; CHUM 1006. Collected 10/1999 in North Dakota, United States. Latitude 48° 19' N. Longitude 102° 46' W. Elevation 0 m.  
Pedigree - Collected from the wild in North Dakota.

**PI 635248. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Little Knife-E; CHUM 1007. Collected 10/1999 in North Dakota, United States. Latitude 48° 9' N. Longitude 102° 27' W. Elevation 0 m.  
Pedigree - Collected from the wild in North Dakota.

**PI 635249. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Oxbow-S; CHUM 1008. Collected 10/1999 in Saskatchewan, Canada. Latitude 49° 13' 10" N. Longitude 102° 10' 57" W. Elevation 500 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635250. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N; CHUM 1009. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 38' 3" N. Longitude 103° 33' 42" W. Elevation 525 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635251. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Bridge 2S; CHUM 1010. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 36' 37" N. Longitude 103° 33' 34" W. Elevation 520 m. Site

close to Indian Head-N. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635252. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. 2 Qu'Appelle; CHUM 1011. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 33' 40" N. Longitude 103° 19' 46" W. Elevation 520 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635253. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. 3 Qu'Appelle; CHUM 1012. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 31' 50" N. Longitude 103° 15' 26" W. Elevation 520 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635254. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N; CHUM 1013. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 46" W. Elevation 480 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635255. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S; CHUM 1014. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 480 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635256. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. 4 Qu'Appelle; CHUM 1015. Collected 10/1999 in Saskatchewan, Canada. Latitude 50° 32' 19" N. Longitude 102° 28' 40" W. Elevation 470 m. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635257. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Lisbon-NW; CHUM 1017. Collected 10/1999 in North Dakota, United States. Latitude 46° 27' 41" N. Longitude 97° 43' 22" W. Elevation 341 m. Along the Sheyenne River. Pedigree - Collected from the wild in North Dakota. Only an estimated 1% of the plants observed along the Sheyenne River produced cones (most plants were small and spindly). The seven samples from three locations comprised an average of 30 cones, yielding fewer than one seed per cone. No seeds were produced by 'Fort Ramsom #5' cones, from a very large, old plant producing hundreds of cones. In retrospect, the many hundreds of plants observed along the Sheyenne River watershed do not seem strategic for *Humulus* germplasm conservation. Of interest is the mechanism for population survival, with little ostensible sexual reproduction.

**PI 635258. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Fort Ransom; CHUM 1018. Collected 10/1999 in North Dakota, United States. Latitude 46° 32' 44" N. Longitude 97° 55' 47" W. Elevation 354 m. Along the Sheyenne River. Pedigree - Collected from the wild in North Dakota. Only an estimated 1% of the plants observed along the Sheyenne River produced cones (most plants were small and spindly). The seven samples from three locations comprised an average of 30 cones, yielding fewer than one seed per cone. No seeds were produced by 'Fort Ramsom #5' cones, from a very large, old plant producing hundreds of cones. In retrospect, the many hundreds of plants observed along the Sheyenne River watershed do not seem strategic for *Humulus* germplasm conservation. Of interest is the mechanism for population survival, with little ostensible sexual reproduction.

**PI 635259. *Humulus lupulus* var. *pubescens* E. Small**

Wild. Rulo-E2; CHUM 1020. Collected 10/1999 in Missouri, United States. Latitude 40° 4' 8" N. Longitude 95° 21' 55" W. Elevation 260 m. Along the

lower Missouri River. Pedigree - Collected from the wild in Missouri. This site supports a substantial *Humulus* population and should be included in future collections.

**PI 635260. *Humulus japonicus* Siebold & Zucc.**

Wild. Craig-SW; CHUM 1021. Collected 10/1999 in Missouri, United States. Latitude 40° 10' 12" N. Longitude 95° 27' 26" W. Elevation 260 m. Along the lower Missouri River. Pedigree - Collected from the wild in Missouri. The Craig-SW and Indian Cave sites contain populations that appear to have 100% *H. japonicus* (i.e. NOT a sub-species of *H. lupulus*, as the binomial indicates). Compatibility of this species with conventional breeding-program objectives is problematic. Collection purpose: to test progenies for possible resistance to *Sphaerotheca humuli* DC. (Burr.); reconsideration of its value as a genetic resource, pending the outcome of resistance screen.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Stephanie Greene, USDA, ARS, National Temperate Forage Legume, Germplasm Resources Unit, Prosser, Washington 99350-9687, United States; Nikolai I. Dzyubenko, N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Auskhan Khusainov, Aral Sea Experiment Station for Plant Genetic Resources, 27 Biyeckenov Street, Chelkar Town, Kazakhstan. Donated by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 10/14/2000.

**PI 635261. *Humulus lupulus* L.**

Wild. KAZ-067; K-067; CHUM 1024. Collected 08/29/2000 in Kazakhstan. Latitude 48° 53' 22" N. Longitude 58° 34' 19" E. Elevation 394 m. about 34 km east of Emba. Pedigree - Collected from the wild in Kazakhstan.

**PI 635262. *Humulus lupulus* L.**

Wild. KAZ-098; K-098; CHUM 1025. Collected 08/29/2000 in Kazakhstan. Latitude 49° 9' 55" N. Longitude 58° 41' 8" E. Elevation 403 m. about 50 km NE of Emba. Near camp site growing onto trees in very moist area. Pedigree - Collected from the wild in Kazakhstan.

Unknown source. Received 08/31/2001.

**PI 635263. *Humulus lupulus* L. var. *lupulus***

Cultivated. HVSC-054; CHUM 1026. Collected in Khabarovsk, Russian Federation. Latitude 47° 25' 15" N. Longitude 134° 33' 51" E. Elevation 70 m. Pearl= Camp15 near edge of town. Sand type soil.

The following were donated by John A. Makey, 17 Boxboro Road, Stow, Massachusetts 01775, United States; Pamela J. Weathers, Worcester Polytechnic Institute, Biology And Biotechnology, 100 Institute Road, Worcester, Massachusetts 01609-2280, United States. Received 02/27/2002.

**PI 635264. *Humulus lupulus* L.**

Cultivar. Sample #1; CHUM 1028.

**PI 635265. *Humulus lupulus* L.**  
Cultivar. Sample #2; CHUM 1029.

The following were collected by Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/17/2001.

**PI 635266. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Foxholm-N #1; CHUM 1042. Collected in North Dakota, United States. Latitude 48° 22' 36" N. Longitude 101° 34' 55" W. Elevation 519 m. Go 0.5 mile northward of Foxholm on highway 52, turn right on 184th Street NW (county road 11N). Cross railroad tracks and in drainage on the right. Collected 10/14/2001 in North Dakota, United States. Latitude 48° 22' 36" N. Longitude 101° 34' 55" W. Elevation 519 m. Go 0.5 mile northward of Foxholm on highway 52, turn right on 184th Street NW (county road 11N). Cross railroad tracks and in drainage on the right. Pedigree - Collected from the wild in North Dakota.

**PI 635267. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. MP73-W #2; CHUM 1044. Collected in North Dakota, United States. Latitude 48° 24' 9" N. Longitude 101° 38' 2" W. Elevation 518 m. North of Foxholm on the west side of highway 52, about 100 m north of milepost 73 at Arnold Coulee, next to creek. Collected 10/14/2001 in North Dakota, United States. Latitude 48° 24' 9" N. Longitude 101° 38' 2" W. Elevation 518 m. North of Foxholm on the west side of highway 52, about 100 m north of milepost 73 at Arnold Coulee, next to creek. Pedigree - Collected from the wild in North Dakota.

The following were donated by Bayerische Landesanstalt fuer Pflanzenbau Hopfenforschung, Huel 5 1/3, Wolnzach, Bavaria 85283, Germany. Received 03/28/2002.

**PI 635268. *Humulus lupulus* L.**  
Uncertain. Dunzlau -9; WH131; CHUM 1053.

**PI 635269. *Humulus lupulus* L.**  
Uncertain. Dunzlau -10; WH131; CHUM 1054.

**PI 635270. *Humulus lupulus* L.**  
Uncertain. Dunzlau -12; WH131; CHUM 1056.

**PI 635271. *Humulus lupulus* L. var. *lupulus***  
Cultivar. Brunning -2; WH136; CHUM 1057.

**PI 635272. *Humulus lupulus* L. var. *lupulus***  
Cultivar. Brunning -3; WH136; CHUM 1058.

**PI 635273. *Humulus lupulus* L. var. *lupulus***  
Cultivar. Brunning -4; WH136; CHUM 1059.

The following were collected by Scott Dorsch, Busch Agricultural Resources Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States; John Waddell, USDA, ARS, National Center for, Genetic Resources Preservation,

Fort Collins, Colorado 80521-4500, United States; Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Donated by Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Received 08/07/2002.

**PI 635274. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #9; CHUM 1161. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635275. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #10; CHUM 1162. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635276. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #11; CHUM 1163. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635277. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #12; CHUM 1164. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635278. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #13; CHUM 1165. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635279. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #14; CHUM 1166. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635280. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #16; CHUM 1168. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635281. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #17; CHUM 1169. Collected in Manitoba, Canada. Latitude

49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River.  
Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100°  
14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild  
in Manitoba, Canada.

**PI 635282. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #18; CHUM 1170. Collected 10/14/2001 in Manitoba, Canada.  
Latitude 49° 36' N. Longitude 100° 13' 59" W. Along Souris River. Pedigree -  
Collected from the wild in Manitoba, Canada.

**PI 635283. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #19; CHUM 1171. Collected in Manitoba, Canada. Latitude  
49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River.  
Collected 10/14/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100°  
14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild  
in Manitoba, Canada.

**PI 635284. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Souris E2 #20; CHUM 1172. Collected in Manitoba, Canada. Latitude  
49° 36' N. Longitude 100° 14' W. Elevation 0 m. Along Souris River.  
Collected 10/14/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100°  
14' W. Elevation 0 m. Along Souris River. Pedigree - Collected from the wild  
in Manitoba, Canada.

**PI 635285. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Enderlin-N #1; CHUM 1175. Collected in North Dakota, United States.  
Latitude 46° 37' N. Longitude 97° 35' W. Elevation 0 m. Along Maple River.  
Collected 10/14/2001 in North Dakota, United States. Latitude 46° 37' N.  
Longitude 97° 35' W. Elevation 0 m. Along Maple River. Pedigree - Collected  
from the wild in North Dakota.

**PI 635286. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Enderlin-N #2; CHUM 1176. Collected in North Dakota, United States.  
Latitude 46° 37' N. Longitude 97° 35' W. Elevation 0 m. Along Maple River.  
Collected 10/14/2001 in North Dakota, United States. Latitude 46° 37' N.  
Longitude 97° 35' W. Elevation 0 m. Along Maple River. Pedigree - Collected  
from the wild in North Dakota.

**PI 635287. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Enderlin-N #3; CHUM 1177. Collected in North Dakota, United States.  
Latitude 46° 37' N. Longitude 97° 35' W. Elevation 0 m. Along Maple River.  
Collected 10/14/2001 in North Dakota, United States. Latitude 46° 37' N.  
Longitude 97° 35' W. Elevation 0 m. Along Maple River. Pedigree - Collected  
from the wild in North Dakota.

**PI 635288. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Enderlin-N #4; CHUM 1178. Collected in North Dakota, United States.  
Latitude 46° 37' N. Longitude 97° 35' W. Elevation 0 m. Along Maple River.  
Collected 10/14/2001 in North Dakota, United States. Latitude 46° 37' N.  
Longitude 97° 35' W. Elevation 0 m. Along Maple River. Pedigree - Collected  
from the wild in North Dakota.

**PI 635289. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N #1; CHUM 1180. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.



Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635290. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N #2; CHUM 1181. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.  
Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635291. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N #3; CHUM 1182. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.  
Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635292. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N #4; CHUM 1183. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.  
Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635293. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N #5; CHUM 1184. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.  
Longitude 103° 35' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635294. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N2 #1; CHUM 1185. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 34' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.  
Longitude 103° 34' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635295. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Indian Head-N2 #2; CHUM 1186. Collected in Saskatchewan, Canada.  
Latitude 50° 39' N. Longitude 103° 34' W. Elevation 0 m. Along Qu'Appelle  
River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 39' N.  
Longitude 103° 34' W. Elevation 0 m. Along Qu'Appelle River. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635296. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Moose Mtn. Creek #1; CHUM 1187. Collected in Saskatchewan, Canada.  
Latitude 49° 14' N. Longitude 102° 14' W. Elevation 0 m. Along Moose  
Mountain River. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49°  
14' N. Longitude 102° 14' W. Elevation 0 m. Along Moose Mountain River.  
Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635297. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Moose Mtn. Creek #2; CHUM 1188. Collected in Saskatchewan, Canada.  
Latitude 49° 14' N. Longitude 102° 14' W. Elevation 0 m. Along Moose  
Mountain River. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49°

14' N. Longitude 102° 14' W. Elevation 0 m. Along Moose Mountain River.  
Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635298. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Moose Mtn. Creek #3; CHUM 1189. Collected in Saskatchewan, Canada.  
Latitude 49° 14' N. Longitude 102° 14' W. Elevation 0 m. Along  
Moose Mountain River. Collected 10/09/2001 in Saskatchewan, Canada.  
Latitude 49° 14' N. Longitude 102° 14' W. Elevation 0 m. Along  
Moose Mountain River. Pedigree - Collected from the wild in  
Saskatchewan, Canada.

**PI 635299. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. 2 Qu'Appelle #1; CHUM 1190. Collected in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Collected 10/10/2001 in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Pedigree - Collected from the wild in Saskatchewan,  
Canada.

**PI 635300. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. 2 Qu'Appelle #2; CHUM 1191. Collected in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Collected 10/10/2001 in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Pedigree - Collected from the wild in Saskatchewan,  
Canada.

**PI 635301. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. 2 Qu'Appelle #3; CHUM 1192. Collected in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Collected 10/10/2001 in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Pedigree - Collected from the wild in Saskatchewan,  
Canada.

**PI 635302. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. 2 Qu'Appelle #4; CHUM 1193. Collected in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Collected 10/10/2001 in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Pedigree - Collected from the wild in Saskatchewan,  
Canada.

**PI 635303. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. 2 Qu'Appelle #5; CHUM 1194. Collected in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Collected 10/10/2001 in Saskatchewan, Canada.  
Latitude 50° 34' N. Longitude 103° 20' W. Elevation 0 m. Along  
Qu'Appelle River. Pedigree - Collected from the wild in Saskatchewan,  
Canada.

**PI 635304. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. 3 Qu'Appelle #1; CHUM 1195. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635305. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #2; CHUM 1196. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635306. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #3; CHUM 1197. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635307. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #4; CHUM 1198. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635308. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #5; CHUM 1199. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635309. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #6; CHUM 1200. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635310. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #7; CHUM 1201. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635311. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #8; CHUM 1202. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635312. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. 3 Qu'Appelle #9; CHUM 1203. Collected in Saskatchewan, Canada.  
Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along  
Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude  
50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone  
River. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635313. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #10; CHUM 1204. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635314. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #11; CHUM 1205. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635315. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #12; CHUM 1206. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635316. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #13; CHUM 1207. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635317. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #14; CHUM 1208. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635318. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #15; CHUM 1209. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635319. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. 3 Qu'Appelle #16; CHUM 1210. Collected in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 32' N. Longitude 103° 15' W. Elevation 0 m. Along Pipestone River. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635320. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Pipestone-N #1; CHUM 1211. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Pedigree - Collected from the wild in Manitoba, Canada.

- PI 635321. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Pipestone-N #2; CHUM 1212. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Pedigree - Collected from the wild in Manitoba, Canada.
- PI 635322. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Pipestone-N #3; CHUM 1213. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Pedigree - Collected from the wild in Manitoba, Canada.
- PI 635323. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Pipestone-N #4; CHUM 1214. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Pedigree - Collected from the wild in Manitoba, Canada.
- PI 635324. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Pipestone-N #5; CHUM 1215. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Pedigree - Collected from the wild in Manitoba, Canada.
- PI 635325. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Pipestone-N #9; CHUM 1219. Collected in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Collected 10/13/2001 in Manitoba, Canada. Latitude 49° 36' N. Longitude 100° 57' W. Elevation 0 m. Pedigree - Collected from the wild in Manitoba, Canada.
- PI 635326. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Glen Ewan-S #1; CHUM 1220. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635327. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Glen Ewan-S #3A; CHUM 1222. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635328. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Glen Ewan-S #3B; CHUM 1223. Collected in Saskatchewan, Canada.  
Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635329. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Glen Ewan-S #4; CHUM 1224. Collected in Saskatchewan, Canada.  
Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635330. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Glen Ewan-S #5; CHUM 1225. Collected in Saskatchewan, Canada.  
Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635331. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Glen Ewan-S #6; CHUM 1226. Collected in Saskatchewan, Canada.  
Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635332. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Glen Ewan-S #7; CHUM 1227. Collected in Saskatchewan, Canada.  
Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635333. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Glen Ewan-S #8; CHUM 1228. Collected in Saskatchewan, Canada.

Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N.  
Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635334. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Glen Ewan-S #9; CHUM 1229. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N.  
Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635335. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Glen Ewan-S #10; CHUM 1230. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N.  
Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635336. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Glen Ewan-S #11; CHUM 1231. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N.  
Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635337. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Glen Ewan-S #12; CHUM 1232. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N.  
Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635338. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Glen Ewan-S #13; CHUM 1233. Collected in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m.  
Just west of Glen Ewen head south from highway 18 on road 603 for 1.9

miles to the Souris River. In grass and on *Crataegus* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 10' 51" N. Longitude 102° 1' 35" W. Elevation 0 m. Just west of Glen Ewen head south from highway 18 on road 603 for 1.9 miles to the Souris River. In grass and on *Crataegus* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635339. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Austin-W #1; CHUM 1234. Collected in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635340. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Austin-W #2; CHUM 1235. Collected in Manitoba, Canada. Latitude 49° 55' 53" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 55' 53" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635341. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Austin-W #3; CHUM 1236. Collected in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635342. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Austin-W #4; CHUM 1237. Collected in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635343. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Austin-W #5; CHUM 1238. Collected in Manitoba, Canada. Latitude



49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635344. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Austin-W #6; CHUM 1239. Collected in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 55' 52" N. Longitude 99° 0' 30" W. Elevation 0 m. Go 3.2 miles west on Trans Canada 1 from the junction with highway 34 (Austin) to gravel road going south. Just across the railroad tracks along fence line going westward. Fence line and grass. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635345. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Bridge 3 #1; CHUM 1240. Collected 10/10/2001 in Saskatchewan, Canada. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635346. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Oakville-W #1; CHUM 1241. Collected in Manitoba, Canada. Latitude 49° 56' 46" N. Longitude 98° 1' 59" W. Elevation 0 m. One mile west of highway 13 and one mile south of highway 1. Northwest corner at intersection of two gravel roads. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 56' 46" N. Longitude 98° 1' 59" W. Elevation 0 m. One mile west of highway 13 and one mile south of highway 1. Northwest corner at intersection of two gravel roads. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635347. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Oakville-W #2; CHUM 1242. Collected in Manitoba, Canada. Latitude 49° 56' 46" N. Longitude 98° 1' 59" W. Elevation 0 m. One mile west of highway 13 and one mile south of highway 1. Northwest corner at intersection of two gravel roads. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 56' 46" N. Longitude 98° 1' 59" W. Elevation 0 m. One mile west of highway 13 and one mile south of highway 1. Northwest corner at intersection of two gravel roads. Pedigree - Collected from the wild in Manitoba, Canada.

**PI 635348. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Crooked Lake-W #1; CHUM 1247. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635349. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Crooked Lake-W #2; CHUM 1248. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635350. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Crooked Lake-W #3; CHUM 1249. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635351. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Crooked Lake-W #4; CHUM 1250. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635352. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Crooked Lake-W #5; CHUM 1251. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635353. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Crooked Lake-W #6; CHUM 1252. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635354. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Crooked Lake-W #7; CHUM 1253. Collected in Saskatchewan, Canada.

Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m.  
From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake.  
Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635355. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Crooked Lake-W #8; CHUM 1254. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635356. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Crooked Lake-W #9; CHUM 1255. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635357. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Crooked Lake-W #10; CHUM 1256. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635358. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Crooked Lake-W #11; CHUM 1257. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635359. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Crooked Lake-W #12; CHUM 1258. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake.

Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635360. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Crooked Lake-W #13; CHUM 1259. Collected in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Collected 10/10/2001 in Saskatchewan, Canada. Latitude 50° 37' 46" N. Longitude 102° 46' 39" W. Elevation 0 m. From highway 47 go 5.3 miles on 247 to the west end of Crooked Lake. Plants are on the north side of the road where a creek drainage enters the valley. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635361. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E #1; CHUM 1260. Collected in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635362. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E #2; CHUM 1261. Collected in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635363. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E #3; CHUM 1262. Collected in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635364. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Abernathy-E #4; CHUM 1263. Collected in Saskatchewan, Canada.  
Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m.  
East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635365. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Abernathy-E #5; CHUM 1264. Collected in Saskatchewan, Canada.  
Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m.  
East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635366. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Abernathy-E #6; CHUM 1265. Collected in Saskatchewan, Canada.  
Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m.  
East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 57" N. Longitude 103° 19' 52" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly parallel to 22 is a gravel road. On that road go 0.2 mile to the bridge crossing the creek, which is visible from highway 22. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635367. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Abernathy-E 2A #1; CHUM 1266. Collected in Saskatchewan, Canada.  
Latitude 50° 43' 30" N. Longitude 103° 19' 52" W. Elevation 0 m.  
East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.8 mile down that road to a junction with a second road. Thirty meters north of junction next to road. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 30" N. Longitude 103° 19' 52" W. Elevation 0 m.  
East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.8 mile down that road to a junction with a second road. Thirty meters north of junction next to road. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635368. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Abernathy-E 2A #2; CHUM 1267. Collected in Saskatchewan, Canada.  
Latitude 50° 43' 30" N. Longitude 103° 19' 52" W. Elevation 0 m.  
East of Abernathy on highway 22 at Pheasant Creek. To the south of and

roughly paralleling 22, at this point, is a gravel road. Go 0.8 mile down that road to a junction with a second road. Thirty meters north of junction next to road. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 30" N. Longitude 103° 19' 52" W. Elevation 0 m.

East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.8 mile down that road to a junction with a second road. Thirty meters north of junction next to road. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635369. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E 2B #1; CHUM 1268. Collected in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W. Elevation 0 m.

East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W.

Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635370. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E 2B #2; CHUM 1269. Collected in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W. Elevation 0 m.

East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W.

Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635371. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E 2B #3; CHUM 1270. Collected in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W. Elevation 0 m.

East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W.

Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635372. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Abernathy-E 2B #4; CHUM 1271. Collected in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W. Elevation 0 m.

East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W.

Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635373. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Abernathy-E 2B #5; CHUM 1272. Collected in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W. Elevation 0 m.  
 East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 43' 22" N. Longitude 103° 19' 56" W. Elevation 0 m. East of Abernathy on highway 22 at Pheasant Creek. To the south of and roughly paralleling 22, at this point, is a gravel road. Go 0.9 mile down that road to a beaver pond. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635374. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Morden-N #2; CHUM 1274. Collected in Manitoba, Canada. Latitude 49° 12' 21" N. Longitude 98° 6' 25" W. Elevation 0 m. From Morden go .9 mile north on First street, west on a gravel road to the end. Take a path south along treeline for about 85m to plant #2. Collected 10/12/2001 in Manitoba, Canada. Latitude 49° 12' 21" N. Longitude 98° 6' 25" W. Elevation 0 m. From Morden go .9 mile north on First street, west on a gravel road to the end. Take a path south along treeline for about 85m to plant #2. Pedigree - Collected from the wild in Manitoba, Canada.
- PI 635375. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Grenfell-N #1; CHUM 1276. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
 From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635376. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Grenfell-N #2; CHUM 1277. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
 From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635377. *Humulus lupulus* var. *lupuloides*** E. Small  
 Wild. Grenfell-N #3; CHUM 1278. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
 From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road

sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635378. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #4; CHUM 1279. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635379. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #5; CHUM 1280. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635380. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #6; CHUM 1281. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635381. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #7A; CHUM 1282. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635382. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #7B; CHUM 1283. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan,



Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.  
Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River.  
As the road turns right down into the valley, down hill from a road  
sign, across field in trees along river. Pedigree - Collected from the  
wild in Saskatchewan, Canada.

**PI 635383. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #8; CHUM 1284. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
From Grenfell take road 47 north to the QuAppelle River. As the road  
turns right down into the valley, down hill from a road sign, across  
field in trees along river. Collected 10/11/2001 in Saskatchewan,  
Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.  
Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River.  
As the road turns right down into the valley, down hill from a road  
sign, across field in trees along river. Pedigree - Collected from the  
wild in Saskatchewan, Canada.

**PI 635384. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #82B; CHUM 1285. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
From Grenfell take road 47 north to the QuAppelle River. As the road  
turns right down into the valley, down hill from a road sign, across  
field in trees along river. Collected 08/22/2001 in Saskatchewan,  
Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.  
Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River.  
As the road turns right down into the valley, down hill from a road  
sign, across field in trees along river. Pedigree - Collected from the  
wild in Saskatchewan, Canada.

**PI 635385. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #9; CHUM 1286. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
From Grenfell take road 47 north to the QuAppelle River. As the road  
turns right down into the valley, down hill from a road sign, across  
field in trees along river. Collected 10/11/2001 in Saskatchewan,  
Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.  
Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River.  
As the road turns right down into the valley, down hill from a road  
sign, across field in trees along river. Pedigree - Collected from the  
wild in Saskatchewan, Canada.

**PI 635386. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #10; CHUM 1287. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.  
From Grenfell take road 47 north to the QuAppelle River. As the road  
turns right down into the valley, down hill from a road sign, across  
field in trees along river. Collected 10/11/2001 in Saskatchewan,  
Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.  
Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River.  
As the road turns right down into the valley, down hill from a road  
sign, across field in trees along river. Pedigree - Collected from the  
wild in Saskatchewan, Canada.

**PI 635387. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #11; CHUM 1288. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.

From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.

Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635388. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #12; CHUM 1289. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.

From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.

Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635389. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #13; CHUM 1290. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.

From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.

Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635390. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #14; CHUM 1291. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.

From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.

Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635391. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Grenfell-N #15; CHUM 1292. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m.

From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W.

Elevation 0 m. From Grenfell take road 47 north to the QuAppelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635392. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Grenfell-N #16; CHUM 1293. Collected in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the Qu'Appelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 8" N. Longitude 102° 52' 43" W. Elevation 0 m. From Grenfell take road 47 north to the Qu'Appelle River. As the road turns right down into the valley, down hill from a road sign, across field in trees along river. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635393. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Grenfell-N2 #1; CHUM 1294. Collected in Saskatchewan, Canada. Latitude 50° 37' 4" N. Longitude 102° 53' 41" W. Elevation 0 m. From Grenfell take road 47 north to 0.4 mile before downhill grade to Qu'Appell R. Go 0.6 mile east on gravel road and north 0.2 mile on dirt road to old farm buildings. Plants by the first building and by the ponds to west. Side of building and with *Salix* sp. along pond perimeter. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 37' 4" N. Longitude 102° 53' 41" W. Elevation 0 m. From Grenfell take road 47 north to 0.4 mile before downhill grade to Qu'Appell R. Go 0.6 mile east on gravel road and north 0.2 mile on dirt road to old farm buildings. Plants by the first building and by the ponds to west. Side of building and with *Salix* sp. along pond perimeter. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635394. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Grenfell-N2 #2; CHUM 1295. Collected in Saskatchewan, Canada. Latitude 50° 37' 4" N. Longitude 102° 53' 41" W. Elevation 0 m. From Grenfell take road 47 north to 0.4 mile before downhill grade to Qu'Appell R. Go 0.6 mile east on gravel road and north 0.2 mile on dirt road to old farm buildings. Plants by the first building and by the ponds to west. Side of building and with *Salix* sp. along pond perimeter. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 37' 4" N. Longitude 102° 53' 41" W. Elevation 0 m. From Grenfell take road 47 north to 0.4 mile before downhill grade to Qu'Appell R. Go 0.6 mile east on gravel road and north 0.2 mile on dirt road to old farm buildings. Plants by the first building and by the ponds to west. Side of building and with *Salix* sp. along pond perimeter. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635395. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #2; CHUM 1298. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635396. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #3; CHUM 1299. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan,

Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W.  
Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood  
plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635397. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #4; CHUM 1300. Collected in Saskatchewan, Canada. Latitude  
49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow  
City Park, to the south of Oxbow. River flood plane, *Crataegus* sp.,  
*Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan,  
Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W.  
Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood  
plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635398. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #5; CHUM 1301. Collected in Saskatchewan, Canada. Latitude  
49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow  
City Park, to the south of Oxbow. River flood plane, *Crataegus* sp.,  
*Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan,  
Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W.  
Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood  
plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635399. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #6; CHUM 1302. Collected in Saskatchewan, Canada. Latitude  
49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow  
City Park, to the south of Oxbow. River flood plane, *Crataegus* sp.,  
*Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan,  
Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W.  
Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood  
plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635400. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #7; CHUM 1303. Collected in Saskatchewan, Canada. Latitude  
49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow  
City Park, to the south of Oxbow. River flood plane, *Crataegus* sp.,  
*Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan,  
Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W.  
Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood  
plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635401. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #8; CHUM 1304. Collected in Saskatchewan, Canada. Latitude  
49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow  
City Park, to the south of Oxbow. River flood plane, *Crataegus* sp.,  
*Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan,  
Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W.  
Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood  
plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.

**PI 635402. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #9; CHUM 1305. Collected in Saskatchewan, Canada. Latitude

49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635403. Humulus lupulus var. lupuloides** E. Small

Wild. Oxbow-S #10; CHUM 1306. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635404. Humulus lupulus var. lupuloides** E. Small

Wild. Oxbow-S #11; CHUM 1307. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635405. Humulus lupulus var. lupuloides** E. Small

Wild. Oxbow-S #12; CHUM 1308. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635406. Humulus lupulus var. lupuloides** E. Small

Wild. Oxbow-S #13; CHUM 1309. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635407. Humulus lupulus var. lupuloides** E. Small

Wild. Oxbow-S #14; CHUM 1310. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, Crataegus sp., Prunus virginiana and Salix sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635408. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #15; CHUM 1311. Collected in Saskatchewan, Canada.  
Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m.  
Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus*  
sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in  
Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10'  
55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River  
flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.
- PI 635409. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #16; CHUM 1312. Collected in Saskatchewan, Canada.  
Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m.  
Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus*  
sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in  
Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10'  
55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River  
flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.
- PI 635410. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #17; CHUM 1313. Collected in Saskatchewan, Canada.  
Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m.  
Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus*  
sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in  
Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10'  
55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River  
flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.
- PI 635411. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #18; CHUM 1314. Collected in Saskatchewan, Canada.  
Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m.  
Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus*  
sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in  
Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10'  
55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River  
flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.
- PI 635412. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #19; CHUM 1315. Collected in Saskatchewan, Canada.  
Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m.  
Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus*  
sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in  
Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10'  
55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River  
flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree -  
Collected from the wild in Saskatchewan, Canada.
- PI 635413. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. Oxbow-S #20; CHUM 1316. Collected in Saskatchewan, Canada.  
Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m.  
Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus*  
sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in  
Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10'

55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635414. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Oxbow-S #21; CHUM 1317. Collected in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Collected 10/09/2001 in Saskatchewan, Canada. Latitude 49° 13' 28" N. Longitude 102° 10' 55" W. Elevation 0 m. Oxbow City Park, to the south of Oxbow. River flood plane, *Crataegus* sp., *Prunus virginiana* and *Salix* sp. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635415. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S #1; CHUM 1318. Collected in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635416. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S #2; CHUM 1319. Collected in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635417. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S #3; CHUM 1320. Collected in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635418. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S #4; CHUM 1321. Collected in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.

- PI 635419. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Melville-S #5; CHUM 1322. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.  
On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635420. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Melville-S #6; CHUM 1323. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.  
On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635421. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Melville-S #7; CHUM 1324. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.  
On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635422. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Melville-S #8; CHUM 1325. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.  
On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.
- PI 635423. *Humulus lupulus* var. *lupuloides* E. Small**  
Wild. Melville-S #9; CHUM 1326. Collected in Saskatchewan, Canada.  
Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.  
On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.



**PI 635424. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S #10; CHUM 1327. Collected in Saskatchewan, Canada.

Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.

On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 10/11/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.

**PI 635425. *Humulus lupulus* var. *lupuloides* E. Small**

Wild. Melville-S #87; CHUM 1328. Collected in Saskatchewan, Canada.

Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m.

On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Collected 08/22/2001 in Saskatchewan, Canada. Latitude 50° 38' 39" N. Longitude 102° 49' 22" W. Elevation 0 m. On the north side of the Qu'Appelle River from road 47 turn east on 247 and go 1 mile to a field access driveway. Down hill and westward to a grove of trees. Pedigree - Collected from the wild in Saskatchewan, Canada.

The following were collected by A.T. Whittemore, Missouri Botanical Garden, Biology Department, P.O. Box 299, St. Louis, Missouri 63166-0299, United States; Paul Meyer, The University of Pennsylvania, Morris Arboretum, 9414 Meadowlark Avenue, Philadelphia, Pennsylvania 19118, United States; Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Gagik Movsisyan, Armenia; Ashot A. Charchoglian, National Academie of Sciences, Institute of Botany, Yerevan, Armenia; Pavel Humbaryan, Armenia Institute of Botany, Yerevan, Armenia; Yura Paityan, Armenia Institute of Botany, Yerevan, Armenia. Donated by Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/11/2002.

**PI 635426. *Humulus lupulus* L. var. *lupulus***

Wild. ARM-02-047; CHUM 1329. Collected in Armenia. Latitude 38° 56'

35" N. Longitude 46° 11' 55" E. Elevation 1070 m. Between Vahravan

and Lehvaz in Syunik Marz province. Moist ravine with *Juglans regia*,

woodlands edge. Collected 09/02/2002 in Armenia. Latitude 38° 56'

35" N. Longitude 46° 11' 55" E. Elevation 1070 m. Between Vahravan

and Lehvaz in Syunik Marz province. Moist ravine with *Juglans regia*,

woodlands edge. Pedigree - Collected from the wild in Armenia.

**PI 635427. *Humulus lupulus* L. var. *lupulus***

Wild. ARM-02-172; CHUM 1330. Collected 09/12/2002 in Armenia. Latitude

40° 45' 51" N. Longitude 44° 28' 49" E. Elevation 1500 m.

Vanadzor Valley in Lori Marz province. Growing on grazed, coppiced hillside with *Quercus macranthera*, *Acer campestre*, *Pyrus communis* and *Malus orientalis*. Pedigree - Collected from the wild in Armenia.

**PI 635428. *Humulus lupulus* L. var. *lupulus***

Wild. ARM-02-185; CHUM 1331. Collected 09/14/2002 in Armenia. Latitude

40° 59' 23" N. Longitude 44° 39' 15" E. Elevation 854 m. Near

Alaverdi in Lori Marz province. Growing on roadside retaining wall;

disturbed site. Pedigree - Collected from the wild in Armenia.

The following were collected by Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; James Oliphant, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Jodi Smith-Jackson, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Donated by James Oliphant, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 09/10/2002.

- PI 635429. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Coal Creek; OCJ-1; CHUM 1333. Collected 09/10/2002 in Colorado, United States. Latitude 39° 54' 57" N. Longitude 105° 14' 19" W. Elevation 1829 m. North of Golden on State Highway 93 (S-93) to Coal Cr. West side between road and creek. *Acer negundo*, *Symphoricarpus* sp. Pedigree - Collected from the wild in Colorado.
- PI 635430. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Mesa Trailhead; OCJ-2; CHUM 1334. Collected 09/10/2002 in Colorado, United States. Latitude 39° 56' 19" N. Longitude 105° 15' 28" W. Elevation 1723 m. South foulder on State Highway 93 (S-93) then southwest on S-170 to Mesa Trailhead parking area. *Acer negundo*, *Populus* sp., *Salix* sp., (Paloverde) and *Symphoricarpus* sp. Pedigree - Collected from the wild in Colorado.
- PI 635431. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Rattlesnake Gulch; OCJ-3; CHUM 1335. Collected 09/10/2002 in Colorado, United States. Latitude 39° 55' 51" N. Longitude 105° 17' 28" W. Elevation 1890 m. South foulder on State Highway 93 (S-93) then southwest on S-170 to Rattlesnake Gulch trailhead. *Populus* sp., *Salix* sp. and *Symphoricarpus* sp. Pedigree - Collected from the wild in Colorado.
- PI 635432. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Eldorado Springs; OCJ-5; CHUM 1337. Collected 09/10/2002 in Colorado, United States. Latitude 39° 55' 53" N. Longitude 105° 16' 55" W. Elevation 1832 m. South foulder on State Highway 93 (S-93) then southwest on S-170 to Eldorado Springs Rock Climbing Area. *Populus* sp., *Salix* sp. and *Symphoricarpus* sp. Pedigree - Collected from the wild in Colorado.
- PI 635433. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Redstone #1; OCJ-6; CHUM 1338. Collected 09/11/2002 in Colorado, United States. Latitude 40° 30' 54" N. Longitude 105° 11' 17" W. Elevation 1722 m. Southwest of Fort Collins on County Road 38E to Redstone Creek. Along road and drainage at about one half mile uphill from Redstone Creek. *Cercocarpus ledifolius*, *Prunus virginiana* and (Burdock). Pedigree - Collected from the wild in Colorado.
- PI 635434. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Redstone #2; OCJ-7; CHUM 1339. Collected 09/11/2002 in Colorado, United States. Latitude 40° 34' 1" N. Longitude 105° 13' 48" W. Elevation 1813 m. Southwest of Fort Collins on County Road 38E to Redstone Creek. Go north about 4.5 miles on North County Road 25E to Happy Hollow Gulch. *Salix* sp. Pedigree - Collected from the wild in Colorado.

- PI 635435. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Milner West; OCJ-9; CHUM 1340. Collected 09/12/2002 in Colorado, United States. Latitude 40° 29' 14" N. Longitude 107° 5' 20" W. Elevation 2063 m. Four miles west of Milner on US-40 between milepost (MP) 117 and MP 118 at Little Butcherknife Gulch. On both sides of the road. Aluvial road fill. *Ribes aureum*, *Chrysothamnus nauseosus*, *Salix* sp., *Quercus gambelii* and *Cornus sericea* subsp. *sericea*. Pedigree - Collected from the wild in Colorado.
- PI 635436. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Hayden East; OCJ-10; CHUM 1341. Collected 09/12/2002 in Colorado, United States. Latitude 40° 29' 16" N. Longitude 107° 9' 32" W. Elevation 1975 m. Six miles east of Hayden on US-40. At west end of bridge crossing the Yampa River, to the south of road on a fence. Aluvial road fill. Pedigree - Collected from the wild in Colorado.
- PI 635437. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Wolf Creek; OCJ-11; CHUM 1342. Collected 09/12/2002 in Colorado, United States. Latitude 40° 30' 34" N. Longitude 107° 7' 50" W. Elevation 2032 m. East of Hayden on US-40, north on County Road 52 for about two miles to just down stream from Meadow Gulch. Along roadside. Pedigree - Collected from the wild in Colorado.
- PI 635438. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Hayden East2; OCJ-12; CHUM 1343. Collected 09/12/2002 in Colorado, United States. Latitude 40° 29' 20" N. Longitude 107° 9' 22" W. Elevation 1964 m. East of Hayden on US-40, north on County Road 70 for 100 meters. Between railroad tracks and river. Raparian; among *Cornus sericea* subsp. *sericea*. Pedigree - Collected from the wild in Colorado.
- PI 635439. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Hayden West; OCJ-13; CHUM 1344. Collected 09/12/2002 in Colorado, United States. Latitude 40° 29' 31" N. Longitude 107° 17' 56" W. Elevation 1939 m. A mile west of Hayden on US-40. After crossing the Yampa River, plants are found in the low area between the road and the railroad tracks to the north. Among *Salix* sp., *Cornus sericea* subsp. *sericea* and *Populus* sp. Pedigree - Collected from the wild in Colorado.
- PI 635440. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Axial #1; OCJ-14; CHUM 1345. Collected 09/12/2002 in Colorado, United States. Latitude 40° 15' 47" N. Longitude 107° 47' 19" W. Elevation 1994 m. South from Craig on State Road 13 past Axial to between mile post (MP) 61 and MP 62 along Good Spring Creek. Raparian; among *Ribes aureum*, *Prunus virginiana* and *Quercus gambelii*. Pedigree - Collected from the wild in Colorado.
- PI 635441. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Axial #2; OCJ-15; CHUM 1346. Collected 09/12/2002 in Colorado, United States. Latitude 40° 15' 16" N. Longitude 107° 47' 17" W. Elevation 2014 m. South from Craig on State Road 13 past Axial to milepost 61 along Good Spring Creek. Roadside, with *Chrysothamnus nauseosus* and *Prunus virginiana*. Pedigree - Collected from the wild in Colorado.
- PI 635442. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Axial #3; OCJ-16; CHUM 1347. Collected 09/12/2002 in Colorado, United States. Latitude 40° 14' 55" N. Longitude 107° 47' 7" W.

Elevation 2025 m. South from Craig on State Road 13 past Axial to between mile post (MP) 60 and MP 61 along Good Spring Creek. Roadcut, among *Quercus gambelii*. Pedigree - Collected from the wild in Colorado.

- PI 635443. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Axial #4; OCJ-17; CHUM 1348. Collected 09/12/2002 in Colorado, United States. Latitude 40° 16' 13" N. Longitude 107° 47' 29" W. Elevation 1987 m. South from Craig on State Road 13 past Axial to milepost 62 along Good Spring Creek. Roadside, among grasses. Pedigree - Collected from the wild in Colorado.
- PI 635444. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Beaver Creek; OCJ-18; CHUM 1349. Collected 09/12/2002 in Colorado, United States. Latitude 40° 51' 58" N. Longitude 109° 1' 28" W. Elevation 1733 m. About a mile east of the Utah boarder on State Road 318 at Beaver Creek. South side of road on west bank. Raparian; *Ribes aureum*, *Artemisia tridentata*, *Chrysothamnus nauseosus*, *Prunus virginiana* and *Cirsium arvense*. Pedigree - Collected from the wild in Colorado.
- PI 635445. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Miller Creek; OCJ-19; CHUM 1350. Collected 09/13/2002 in Colorado, United States. Latitude 39° 52' 56" N. Longitude 107° 46' 4" W. Elevation 2192 m. County Road 57 (Forest Road 215) on the east fork of Miller Creek. South of County Road 8, east of Meeker. Within the White River National Forest. Raparian; *Salix* sp. and *Prunus virginiana*. Pedigree - Collected from the wild in Colorado.
- PI 635446. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. South Fork Campground; OCJ-21; CHUM 1351. Collected 09/13/2002 in Colorado, United States. Latitude 39° 52' 3" N. Longitude 107° 32' 6" W. Elevation 2338 m. South Fork Campground at the end of Forest Road 200 (County Road 10), southward off County Road 8 to the southeast of Meeker. Raparian; *Salix* sp. Pedigree - Collected from the wild in Colorado.
- PI 635447. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Buford; OCJ-22; CHUM 1352. Collected 09/13/2002 in Colorado, United States. Latitude 39° 59' 22" N. Longitude 107° 36' 53" W. Elevation 2157 m. County Road 8 between Buford and Gooseberry Creek (Buford District Ranger Office). Along roadside and in plants by the White River. Raparian; *Salix* sp. Pedigree - Collected from the wild in Colorado.
- PI 635448. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Deer Gulch #1A female; OCJ-23; CHUM 1353. Collected 09/14/2002 in Colorado, United States. Latitude 39° 46' 13" N. Longitude 108° 0' 11" W. Elevation 2170 m. West of State Highway 13 at Rio Blanco on County Road 5 to Davis Gulch. Up Davis Gulch and one half mile up Deer Gulch along stream bed (dry due to drought). *Prunus virginiana*, *Symphoricarpos* sp., *Ribes aureum* and *Chrysothamnus nauseosus*. Pedigree - Collected from the wild in Colorado.
- PI 635449. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Deer Gulch #1B female; OCJ-24; CHUM 1354. Collected 09/14/2002 in Colorado, United States. Latitude 39° 46' 13" N. Longitude 108° 0' 11" W. Elevation 2170 m. West of State Highway 13 at Rio Blanco on County Road 5 to Davis Gulch. Up Davis Gulch and one half mile up Deer

Gulch along stream bed (dry due to drought). *Prunus virginiana*, *Symphoricarpos* sp., *Ribes aureum* and *Chrysothamnus nauseosus*. Pedigree - Collected from the wild in Colorado.

- PI 635450. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Deer Gulch #1 male; OCJ-25; CHUM 1355. Collected 09/14/2002 in Colorado, United States. Latitude 39° 46' 13" N. Longitude 108° 0' 11" W. Elevation 2179 m. West of State Highway 13 at Rio Blanco on County Road 5 to Davis Gulch. Up Davis Gulch and one half mile up Deer Gulch along stream bed (dry due to drought). *Prunus virginiana*, *Symphoricarpos* sp., *Ribes aureum* and *Chrysothamnus nauseosus*. Pedigree - Collected from the wild in Colorado.
- PI 635451. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Deer Gulch #2; OCJ-26; CHUM 1356. Collected 09/14/2002 in Colorado, United States. Latitude 45° 55' 13" N. Longitude 108° 0' 50" W. Elevation 2079 m. West of State Highway 13 at Rio Blanco on County Road 5 to one half mile before Davis Gulch. Along Piceance Creek. Open managed grass field along Piceance Creek on old fence post. Pedigree - Collected from the wild in Colorado.
- PI 635452. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Rifle East #1; OCJ-27; CHUM 1357. Collected 09/14/2002 in Colorado, United States. Latitude 39° 38' 54" N. Longitude 107° 42' 30" W. Elevation 1887 m. State Highway 13 (S-13) north of Rifle onto S-235 up East Rifle Creek. Half-way between junction with County Road 226 and Coulter Mesa State Trail Road. Irrigation ditch with *Rosa* sp. and grasses. Pedigree - Collected from the wild in Colorado.
- PI 635453. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Rifle East #2; OCJ-28; CHUM 1358. Collected 09/14/2002 in Colorado, United States. Latitude 39° 41' 26" N. Longitude 107° 42' 11" W. Elevation 2009 m. State Highway 13 (S-13) north of Rifle onto S-235 up East Rifle Creek. Just down stream from Rifle Falls Fish Hatchery at interpretive park. Raparian; *Salix* sp. Pedigree - Collected from the wild in Colorado.
- PI 635454. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Sweetwater #1; OCJ-29; CHUM 1359. Collected 09/14/2002 in Colorado, United States. Latitude 39° 48' 37" N. Longitude 107° 10' 56" W. Elevation 2366 m. North from Interstate 70 on Colorado River Road, take County Road 150 to Sweetwater Lake. About one half mile past upper end of lake along road side. Raparian; *Alnus tenuifolia*, *Prunus virginiana*, *Salix* sp. and *Ribes* sp. Pedigree - Collected from the wild in Colorado.
- PI 635455. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Sweetwater #2; OCJ-30; CHUM 1360. Collected 09/14/2002 in Colorado, United States. Latitude 39° 48' 37" N. Longitude 107° 10' 16" W. Elevation 2363 m. North from Interstate 70 on Colorado River Road, take County Road 150 to Sweetwater Lake. Just past the upper end of lake along road. Raparian; *Alnus tenuifolia*, *Prunus virginiana* and *Salix* sp. Pedigree - Collected from the wild in Colorado.
- PI 635456. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Sweetwater #3; OCJ-31; CHUM 1361. Collected 09/14/2002 in Colorado, United States. Latitude 39° 47' 51" N. Longitude 107°

9' 40" W. Elevation 2363 m. North from Interstate 70 on Colorado River Road, take County Road 150 (C-150) to Sweetwater Lake. Along road from C-150 to Sweetwater Lake Campground. Raparian; Salix sp. Pedigree - Collected from the wild in Colorado.

**PI 635457. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Silver Plume; OCJ-33; CHUM 1362. Collected 09/15/2002 in Colorado, United States. Latitude 29° 41' 48" N. Longitude 105° 43' 26" W. Elevation 2791 m. In the small town of Silver Plume, west of Denver along Interstate 70 (US-6). In Yards and lots west of Jefferson Street (and Daly Street) between Madison Street and Willis Road. Urban; between houses in yards and on fences. Pedigree - Collected from the wild in Colorado.

**PI 635458. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Aspen; OCJ-34; CHUM 1363. Collected 09/15/2002 in Colorado, United States. Latitude 39° 11' 6" N. Longitude 106° 48' 30" W. Elevation 2437 m. In Aspen along State Highway 82 between McSkimming Road and Aene Court. On the downhill side of Salvation Ditch. Rocky side of irrigation ditch with grass. Pedigree - Collected from the wild in Colorado.

**PI 635459. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Willow Creek; OCJ-35; CHUM 1364. Collected 09/16/2002 in Colorado, United States. Latitude 38° 27' 10" N. Longitude 107° 3' 30" W. Elevation 2357 m. West of Gunnison on U.S.-50, south on State Highway 149 to County Road 31 following Willow Creek. Along a stretch for a half mile in the vicinity of Pole Creek scattered plants were found. Raparian; *Rhus trilobata*, *Artemisia tridentata*, *Salix* sp. and *Rosa* sp. Pedigree - Collected from the wild in Colorado.

**PI 635460. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Willow Creek A female; OCJ-36; CHUM 1365. Collected 09/16/2002 in Colorado, United States. Latitude 38° 27' 9" N. Longitude 107° 3' 31" W. Elevation 2357 m. West of Gunnison on U.S.-50, south on State Highway 149 to County Road 31 following Willow Creek. Along a stretch for a half mile in the vicinity of Pole Creek scattered plants were found. Raparian; *Rhus trilobata*, *Artemisia tridentata*, *Salix* sp. and *Rosa* sp. Pedigree - Collected from the wild in Colorado.

**PI 635461. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Willow Creek B female; OCJ-37; CHUM 1366. Collected 09/16/2002 in Colorado, United States. Latitude 38° 27' 9" N. Longitude 107° 3' 31" W. Elevation 2342 m. West of Gunnison on U.S.-50, south on State Highway 149 to County Road 31 following Willow Creek. Along a stretch for a half mile in the vicinity of Pole Creek scattered plants were found. Raparian; *Rhus trilobata*, *Artemisia tridentata*, *Salix* sp. and *Rosa* sp. Pedigree - Collected from the wild in Colorado.

**PI 635462. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Willow Creek male; OCJ-38; CHUM 1367. Collected 09/16/2002 in Colorado, United States. Latitude 38° 27' 9" N. Longitude 107° 3' 31" W. Elevation 2342 m. West of Gunnison on U.S.-50, south on State Highway 149 to County Road 31 following Willow Creek. Along a stretch for a half mile in the vicinity of Pole Creek scattered plants were found. Raparian; *Rhus trilobata*, *Artemisia tridentata*, *Salix* sp. and *Rosa* sp. Pedigree - Collected from the wild in Colorado.

- PI 635463. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Cochetopa Creek; OCJ-40; CHUM 1368. Collected 09/16/2002 in Colorado, United States. Latitude 38° 27' 29" N. Longitude 106° 45' 30" W. Elevation 2342 m. From U.S.-50 go south on County Road 114. At about 5 miles up Cochetopa Creek where road crosses creek. Both sides of road. Raparian; *Salix* sp. *Alnus* sp. and *Rosa* sp. Pedigree - Collected from the wild in Colorado.
- PI 635464. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Tomichi Creek; OCJ-41; CHUM 1369. Collected 09/16/2002 in Colorado, United States. Latitude 38° 24' 49" N. Longitude 106° 30' 42" W. Elevation 2439 m. About six miles west of Sargents on U.S.-50. Along roadside fence, just up stream from where Owens Creek enters the Tomichi. Raparian; along irrigation ditch with *Salix* sp. and *Alnus* sp. Pedigree - Collected from the wild in Colorado.
- PI 635465. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Nathrop; OCJ-42; CHUM 1370. Collected 09/16/2002 in Colorado, United States. Latitude 38° 46' 4" N. Longitude 106° 5' 50" W. Elevation 2518 m. North of Poncha Springs along the Arkansas River on U.S.-285 Two miles north of Nathrop turn north on County Road 301 (C-301). Upstream from C-301 bridge, between C-301A and river. Raparian; *Salix* sp., *Prunus virginiana*, *Ribes aureum* and *Rosa* sp. Pedigree - Collected from the wild in Colorado.
- PI 635466. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Poncha Creek; OCJ-43; CHUM 1371. Collected 09/16/2002 in Colorado, United States. Latitude 38° 27' 17" N. Longitude 106° 6' 2" W. Elevation 2348 m. South of Poncha Springs on U.S.-285 up Poncha Creek at milepost 122 on west side of road. Raparian; *Prunus virginiana*, *Ribes aureum*, *Salix* sp. and *Chrysothamnus nauseosus*. Pedigree - Collected from the wild in Colorado.
- PI 635467. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Sangre de Cristo #1; OCJ-44; CHUM 1372. Collected 09/17/2002 in Colorado, United States. Latitude 37° 29' 43" N. Longitude 105° 20' 4" W. Elevation 2532 m. Northeast of Fort Garland on U.S.-160, along Sangre de Cristo Creek, between Cottonwood Gulch and Sawmill Gulch. Raparian; in *Salix* sp. thickets along creek with *Rosa* sp., *Ribes aureum* and *Cirsium arvense*. Pedigree - Collected from the wild in Colorado.
- PI 635468. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Sangre de Cristo #2; OCJ-45; CHUM 1373. Collected 09/17/2002 in Colorado, United States. Latitude 37° 31' 53" N. Longitude 105° 17' 42" W. Elevation 2409 m. Northeast of Fort Garland on U.S.-160, along Sangre de Cristo Creek, just downstream from where Malo Vega Creek enters. Raparian; *Salix* sp., *Rosa* sp., *Ribes aureum* and *Cirsium arvense*. Pedigree - Collected from the wild in Colorado.
- PI 635469. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Rock Creek #1; OCJ-46; CHUM 1374. Collected 09/17/2002 in Colorado, United States. Latitude 37° 29' 43" N. Longitude 106° 14' 9" W. Elevation 2541 m. South on State Highway 15 from Monte Vista and U.S.-160, then west on West County Road 2S (W. C-2S) to C-28. From C-28 go south then west at W. C-9S up Rock Creek for 1.5 miles. Plants found along roadside. Pedigree - Collected from the wild in Colorado.

- PI 635470. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Rock Creek #2; OCJ-47; CHUM 1375. Collected 09/17/2002 in Colorado, United States. Latitude 37° 29' 25" N. Longitude 106° 15' 36" W. Elevation 2484 m. Rock Creek at junction of County Road 28 and North Rock Creek Road. Along creek bank from North Rock Creek Rd. going down stream to water gaging station at Burnt Gulch. Raparian; Rosa sp., Alnus sp. and Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635471. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Wagon Wheel; OCJ-48; CHUM 1376. Collected 09/17/2002 in Colorado, United States. Latitude 37° 46' 7" N. Longitude 106° 48' 1" W. Elevation 2530 m. State Highway 149 at Wagon Wheel, just west of Blue Creek on both sides of road. Along roadside at base of scree slope with Ribes sp., Symphoricarpos sp. and Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635472. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Chimney Rock; OCJ-49; CHUM 1377. Collected 09/17/2002 in Colorado, United States. Latitude 37° 12' 45" N. Longitude 107° 17' 51" W. Elevation 2537 m. Along Devil Creek on County Road 164, 100m north of U.S.-160 and 2 miles west of State Highway 151. Raparian; Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635473. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Leopard Creek #1; OCJ-50; CHUM 1378. Collected 09/18/2002 in Colorado, United States. Latitude 38° 2' 55" N. Longitude 108° 2' 5" W. Elevation 2025 m. Travel 2.6 miles on State Highway 62 (S-62) north of S-145, between mileposts 2 and 3. West side of Leopard Creek, between road and creek. Raparian; Populus sp., Rosa sp., Cornus sericea subsp. sericea and Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635474. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Leopard Creek #2; OCJ-51; CHUM 1379. Collected 09/18/2002 in Colorado, United States. Latitude 38° 1' 21" N. Longitude 108° 3' 18" W. Elevation 2300 m. Travel one-fourth mile on State Highway 62 (S-62) north of S-145. West side of Leopard Creek, between road and creek. Raparian; Populus sp., Rosa sp., Cornus sericea subsp. sericea and Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635475. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Delores River; OCJ-52; CHUM 1380. Collected 09/18/2002 in Colorado, United States. Latitude 37° 35' 25" N. Longitude 108° 29' 56" W. Elevation 2228 m. Along south side of State Highway 145 about one-half mile east from junction with County Road 38 (Forest Service Road 535) by milepost 24. Raparian; Salix sp., Rosa sp. and Populus sp. Pedigree - Collected from the wild in Colorado.
- PI 635476. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Cherry Gulch; OCJ-53; CHUM 1381. Collected 09/18/2002 in Colorado, United States. Latitude 37° 16' 27" N. Longitude 107° 57' 36" W. Elevation 2265 m. West of Durango on U.S.-160, between milepost 78 and Cherry Gulch Road. On east side of road, along stream fed by Sheep Spring Gulch. Small stream drainage with Salix sp., Populus sp. and Populus tremuloides. Pedigree - Collected from the wild in Colorado.



- PI 635477. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Las Huertas Creek; OCJ-54; CHUM 1382. Collected in New Mexico, United States. Latitude 35° 15' N. Longitude 106° 24' 41" W.  
Elevation 2164 m. Eastward from Bernalillo on State Highway 185. The road turns south into the Cibola National Forest. Follow the Las Huertas Creek to a spot past a parking area and about 1 mile down stream from Las Huertas Picnic Area. Collected 09/18/2002 in New Mexico, United States. Latitude 35° 15' N. Longitude 106° 24' 41" W. Elevation 2164 m. Eastward from Bernalillo on State Highway 185. The road turns south into the Cibola National Forest. Follow the Las Huertas Creek to a spot past a parking area and about 1 mile down stream from Las Huertas Picnic Area. Pedigree - Collected from the wild in New Mexico.
- PI 635478. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pecos #1 female; OCJ-57; CHUM 1384. Collected 09/19/2002 in New Mexico, United States. Latitude 35° 43' N. Longitude 105° 40' 48" W. Elevation 2328 m. North of Pecos, along State Highway 63 upstream past milepost 17 at 0.6 mile north of Indian Creek. With *Abies concolor*, *Pinus ponderosa* and *Salix* sp. Pedigree - Collected from the wild in New Mexico.
- PI 635479. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pecos #1 male; OCJ-58; CHUM 1385. Collected 09/19/2002 in New Mexico, United States. Latitude 35° 43' N. Longitude 105° 40' 48" W. Elevation 2328 m. North of Pecos, along State Highway 63 upstream past milepost 17 at 0.6 mile north of Indian Creek. With *Abies concolor*, *Pinus ponderosa* and *Salix* sp. Pedigree - Collected from the wild in New Mexico.
- PI 635480. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pecos #2 female; OCJ-59; CHUM 1386. Collected 09/19/2002 in New Mexico, United States. Latitude 35° 44' 12" N. Longitude 105° 40' 41" W. Elevation 2328 m. North of Pecos, along State Highway 63 opposite drive into homes down stream from Bert Clancy Recreation Site. With *Abies concolor*, *Pinus ponderosa* and *Salix* sp. Pedigree - Collected from the wild in New Mexico.
- PI 635481. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Pecos #2; OCJ-60; CHUM 1387. Collected 09/19/2002 in New Mexico, United States. Latitude 35° 44' 12" N. Longitude 105° 40' 41" W. Elevation 2354 m. North of Pecos, along State Highway 63 at Bert Clancy Recreation Site. In a field between the river and the road. With *Rosa* sp. and *Ribes aureum*. Pedigree - Collected from the wild in New Mexico.
- PI 635482. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Manuelitas Creek; OCJ-61; CHUM 1388. Collected 09/19/2002 in New Mexico, United States. Latitude 35° 48' 32" N. Longitude 105° 17' 18" W. Elevation 2354 m. North of Los Vegas on State Highway 518 (S-518), west on S-266, north on S-94 to Manuelitas Creek. Off the road among willow to the north of creek and east of road. Very dense stand of *Salix* sp. Pedigree - Collected from the wild in New Mexico.
- PI 635483. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Cimarron River #1; OCJ-62; CHUM 1389. Collected 09/19/2002 in New Mexico, United States. Latitude 36° 32' 15" N. Longitude 105° 13' 37" W. Elevation 2176 m. East of Eagle Nest on State Highway 64.

Next to the road along small creek opposite where Toby Creek enters the Cimarron River. Raparian; Rosa sp., Salix sp. and Populus sp. Pedigree - Collected from the wild in New Mexico.

- PI 635484. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Cimarron River #2; OCJ-63; CHUM 1390. Collected 09/19/2002 in New Mexico, United States. Latitude 36° 32' 14" N. Longitude 105° 12' 21" W. Elevation 2533 m. East of Eagle Nest on State Highway 64, between mileposts 289 and 290. Raparian; Rosa sp., Salix sp. and Populus sp. Pedigree - Collected from the wild in New Mexico.
- PI 635485. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Wootten; OCJ-64; CHUM 1391. Collected 09/19/2002 in Colorado, United States. Latitude 37° 1' 9" N. Longitude 104° 29' 29" W. Elevation 2455 m. North of the Colorado and New Mexico boarder. Take Exit 2 off Interstate 25 and back south a short distance on an old road to Raton Creek where a railroad bridge crosses over the creek. Raparian; Populus sp., Rosa sp., Cornus sericea subsp. sericea and Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635486. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Cordova Plaza; OCJ-65; CHUM 1392. Collected 09/19/2002 in Colorado, United States. Latitude 37° 8' 3" N. Longitude 104° 48' 53" W. Elevation 2201 m. West of Trinidad on State Highway 12 to one mile east of Cordova Plaza (2 miles east of Weston), along roadside. On a fencerow above the Purgatoire River and railroad tracks with Salix sp., Prunus virginiana and Clematis sp. Pedigree - Collected from the wild in Colorado.
- PI 635487. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Phantom #1; OCJ-66; CHUM 1393. Collected 09/20/2002 in Colorado, United States. Latitude 38° 34' 7" N. Longitude 105° 0' 54" W. Elevation 2070 m. East of Canon City on U.S.-50, north on County Road 67 (C-67), east on C-123, north on C-132 to its end on Beaver Creek. Scattered along banks of creek down stream from parking area for 300 meters. Salix sp. Pedigree - Collected from the wild in Colorado.
- PI 635488. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Phantom Canyon #2C female; OCJ-70; CHUM 1397. Collected 09/20/2002 in Colorado, United States. Latitude 38° 33' 1" N. Longitude 105° 5' 59" W. Elevation 2088 m. East of Canon City on U.S.-50, north on County Road 67 (Phantom Canyon Road), pass though second tunnel and go one half mile to about milepost 11. Between road cut though narrow rock ridgeline and pullout with concrete fireplace. Rosa sp. and Cercocarpus ledifolius. Pedigree - Collected from the wild in Colorado.
- PI 635489. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Phantom Canyon #2A male; OCJ-73; CHUM 1400. Collected 09/20/2002 in Colorado, United States. Latitude 38° 33' 1" N. Longitude 105° 5' 59" W. Elevation 2088 m. East of Canon City on U.S.-50, north on County Road 67 (Phantom Canyon Road), pass though second tunnel and go one half mile to about milepost 11. Between road cut though narrow rock ridgeline and pullout with concrete fireplace. Rosa sp. and Cercocarpus ledifolius. Pedigree - Collected from the wild in Colorado.
- PI 635490. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. Phantom Canyon #2B male; OCJ-74; CHUM 1401. Collected 09/20/2002

in Colorado, United States. Latitude 38° 33' 1" N. Longitude 105° 5' 59" W. Elevation 2088 m. East of Canon City on U.S.-50, north on County Road 67 (Phantom Canyon Road), pass through second tunnel and go one half mile to about milepost 11. Between road cut through narrow rock ridgeline and pullout with concrete fireplace. Rosa sp. and Cercocarpus ledifolius. Pedigree - Collected from the wild in Colorado.

**PI 635491. *Humulus lupulus* var. *neomexicanus*** A. Nelson & Cockerell  
Wild. West Plum Creek; OCJ-75; CHUM 1402. Collected 09/20/2002 in Colorado, United States. Latitude 39° 25' 45" N. Longitude 104° 58' 7" W. Elevation 2088 m. From Sedalia go 0.75 mile south of junction with U.S.-85 on State Highway 67 to the west side of West Plum Creek. Both sides of road. Prunus sp. and Populus sp. Pedigree - Collected from the wild in Colorado.

The following were collected by Scott Dorsch, Busch Agricultural Resources Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States; John Waddell, USDA, ARS, National Center for, Genetic Resources Preservation, Fort Collins, Colorado 80521-4500, United States; Douglas Cook, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Richard O. Hampton, 2170 Bonnie Dr., Payette, Idaho 83661, United States. Donated by Scott Dorsch, Busch Agricultural Resources Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 02/20/2003.

**PI 635492. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. CHUM 1403. Collected 10/07/2001 in North Dakota, United States. Pedigree - Collected from the wild in North Dakota.

**PI 635493. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. CHUM 1404. Collected in North Dakota, United States. Latitude 48° 13' 54" N. Longitude 101° 20' 37" W. Elevation 0 m. Plants along railroad track and seen by river. Collected 10/07/2001 in North Dakota, United States. Latitude 48° 13' 54" N. Longitude 101° 20' 37" W. Elevation 0 m. Plants along railroad track and seen by river. Pedigree - Collected from the wild in North Dakota.

**PI 635494. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. CHUM 1405. Collected 10/07/2001 in North Dakota, United States. Pedigree - Collected from the wild in North Dakota.

**PI 635495. *Humulus lupulus* var. *lupuloides*** E. Small  
Wild. CHUM 1406. Collected 10/07/2001 in North Dakota, United States. Pedigree - Collected from the wild in North Dakota.

The following were developed by J.F. Rajewski, University of Nebraska, Dept. of Agronomy, P.O. Box 830915, Lincoln, Nebraska 68583-0915, United States; Ismail Dweikat, University of Nebraska, 279 Plant Sciences, Agronomy and Horticulture Department, Lincoln, Nebraska 68583, United States; J.D. Easten, University of Nebraska, Dep. of Agronomy, P.O. Box 830915, Lincoln, Nebraska 68583-0915, United States. Received 08/02/2004.

**PI 635496. *Sorghum bicolor* (L.) Moench subsp. *bicolor***  
Breeding. Pureline. N584. GP-620. Pedigree - F5 selection from the cross NSSC5-122ms x (NSSC5A-1 / IS 9987). Medium naturity germplasm with good

panicle exertion. Creamy grain color; tan plant reaction. Average seed weight: 42.5 g/1000 sd. Acts as a maintainer on the A(1) cytoplasm. Photoperiod insensitive and reaches about 100 cm in height.

**PI 635497. *Sorghum bicolor* (L.) Moench subsp. *bicolor***

Breeding. N587. GP-621. Pedigree - F5 selection from the cross NSSC5-123ms x (NSSC5A-1 / PI 571344). Medium maturing germplasm with about 100 cm in height. Flowers 65-69 d after late May to early June plantings at Mead, NE. Seed is yellow in color, variable in shape with a size range of 56-78g/1000. Panicles range in size from 20-24 cm in length (mean length 20 cm). Plants exert a purple reaction and excellent panicle exertion. Restores fertility on A1 cytoplasm.

**PI 635498. *Sorghum bicolor* (L.) Moench subsp. *bicolor***

Breeding. N588. GP-622. Pedigree - F5 selection from cross NSSC5-123ms x (NSSC5A-1 / PI 571344). Medium maturity germplasm with about 70 days to anthesis. Plants exert a tan reaction and show excellent panicle exertion. Restores fertility on A1 cytoplasm. Plants reach 127 cm in height. Seed is cream in color, variable in shape with a size range of 45-50g/1000. Panicles range in size from 17-20 cm in length (mean length 18 cm).

The following were collected by Manuel Santiago Paniagua, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay; Tateo Nakanishi, Japan International Cooperation Agency, 6-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan; Victoriano Barboza, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay; Michitaka Komeichi, Japan International Cooperation Agency, 6-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan. Donated by Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay. Received 07/24/2003.

**PI 635499. *Arachis hypogaea* L.**

Landrace. PY94-1; Manduvi' i; NGRL 281. Collected 03/28/1994 in Itapua, Paraguay. Latitude 26° 32' S. Longitude 55° 35' W. Palmito. Slope of hill. Seeds purple, more than two per pod.

**PI 635500. *Arachis hypogaea* L.**

Landrace. PY94-4; Manduvi hu; NGRL 282. Collected 03/28/1994 in Itapua, Paraguay. Latitude 26° 32' S. Longitude 55° 35' W. Palmito. Slope of hill. Seeds purple, two to three per pod.

**PI 635501. *Arachis hypogaea* L.**

Landrace. PY94-8; Manduvi hu guasu; NGRL 283. Collected 03/28/1994 in Itapua, Paraguay. Latitude 26° 15' S. Longitude 56° 0' W. Taruma. Slope of hill. Seeds purple, three to four per pod.

**PI 635502. *Arachis hypogaea* L.**

Landrace. PY94-11; Manduvi mbocaja; NGRL 284. Collected 03/28/1994 in Itapua, Paraguay. Latitude 26° 15' S. Longitude 56° 0' W. Taruma. Slope of hill. Seeds purple, usually three per pod.

**PI 635503. *Arachis hypogaea* L.**

Landrace. PY94-12; Manduvi; NGRL 285. Collected 03/28/1994 in Itapua, Paraguay. Latitude 26° 15' S. Longitude 56° 0' W. San Roque Gonzalez. Slope of hill. Seeds purple, usually three per pod.

- PI 635504. *Arachis hypogaea* L.**  
Landrace. PY94-15; Kumanda moroti; NGRL 286. Collected 03/28/1994 in Itapua, Paraguay. Latitude 26° 15' S. Longitude 56° 0' W. San Roque Gonzalez. Slope of hill. Seeds cream colored, three to four per.
- PI 635505. *Arachis hypogaea* L.**  
Landrace. PY94-18; Manduvi; NGRL 287. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 15' S. Longitude 56° 0' W. Antejo. Slope of hill. Seeds cream colored.
- PI 635506. *Arachis hypogaea* L.**  
Landrace. PY94-20; Manduvi; NGRL 288. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 15' S. Longitude 56° 12' W. Ka' a Karapa. Slope of hill. Seeds tan.
- PI 635507. *Arachis hypogaea* L.**  
Landrace. PY94-22; Manduvi pyta; NGRL 289. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 15' S. Longitude 56° 12' W. San Francisco. Slope of hill. Seeds red.
- PI 635508. *Arachis hypogaea* L.**  
Landrace. PY94-24; Manduvi pyta; NGRL 290. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 15' S. Longitude 56° 12' W. Colonia Jerovia. Slope of hill. Seeds red, three to four per pod.
- PI 635509. *Arachis hypogaea* L.**  
Landrace. PY94-25; Manduvi hu'i; NGRL 291. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 15' S. Longitude 56° 12' W. Colonia Jerovia. Slope of hill. Seeds black, small.
- PI 635510. *Arachis hypogaea* L.**  
Landrace. PY94-27; Manduvi pyta; NGRL 292. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 12' S. Longitude 55° 55' W. Nu Pyahu. Slope of hill. Mixture; some seeds red.
- PI 635511. *Arachis hypogaea* L.**  
Landrace. PY94-31; Manduvi; NGRL 293. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 10' S. Longitude 56° 20' W. Caazapa. Slope of hill. Mixture; some seeds red.
- PI 635512. *Arachis hypogaea* L.**  
Landrace. PY94-36; Manduvi pyta; NGRL 294. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 8' S. Longitude 55° 28' W. Toranzo II / Tava'i. Slope of hill. Mixture; some seeds red.
- PI 635513. *Arachis hypogaea* L.**  
Landrace. PY94-39; Manduvi pyta'i; NGRL 295. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 8' S. Longitude 55° 28' W. Toranzo II - la Linea Tava'i. Slope of hill. Mixture; some seeds red.
- PI 635514. *Arachis hypogaea* L.**  
Landrace. PY94-42; Manduvi hu'i; NGRL 296. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 8' S. Longitude 55° 28' W. Toranzo I / Tava'i. Slope of hill. Seeds dark purple.

- PI 635515. *Arachis hypogaea* L.**  
Landrace. PY94-43; Manduvi hu guasu; NGRL 297. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 8' S. Longitude 55° 28' W. Toranzo I / Tava'i. Slope of hill. Seeds dark purple, large.
- PI 635516. *Arachis hypogaea* L.**  
Landrace. PY94-44; Manduvi moroti guasu; NGRL 298. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 8' S. Longitude 55° 28' W. Toranzo I / Tava'i. Slope of hill. Mixture, seeds large, some seeds cream.
- PI 635517. *Arachis hypogaea* L.**  
Landrace. PY94-45; Manduvi hu; NGRL 299. Collected 04/05/1994 in Caazapa, Paraguay. Latitude 26° 8' S. Longitude 55° 45' W. Toro Blanco Guasu. Slope of hill. Seeds light purple, large.
- PI 635518. *Arachis hypogaea* L.**  
Landrace. PY94-138; Manduvi pyta; NGRL 300. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 26° 2' S. Longitude 56° 5' W. Hector L. Vega Ybycui. Slope of hill. Seeds red.
- PI 635519. *Arachis hypogaea* L.**  
Landrace. PY94-140; Manduvi hu'i; NGRL 301. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 26° 2' S. Longitude 56° 5' W. Hector L. Vega Ybycui. Slope of hill. Seeds light and dark purple, large.
- PI 635520. *Arachis hypogaea* L.**  
Landrace. PY94-141; Manduvi pyta; NGRL 302. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 26° 2' S. Longitude 56° 5' W. Hector L. Vega Ybycui. Slope of hill. Seeds red.
- PI 635521. *Arachis hypogaea* L.**  
Landrace. PY94-145; Manduvi pyta; NGRL 303. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 26° 2' S. Longitude 56° 5' W. Hector L. Vega Ybycui. Slope of hill. Seeds red.
- PI 635522. *Arachis hypogaea* L.**  
Landrace. PY94-149; Manduvi pyta; NGRL 304. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 25° 5' S. Longitude 57° 2' W. Colonia Solano Escobar / Ybytymi. Slope of hill. Seeds red.
- PI 635523. *Arachis hypogaea* L.**  
Landrace. PY94-151; Manduvi pyta; NGRL 305. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 25° 5' S. Longitude 57° 2' W. Colonia Solano Escobar / La Colme. Slope of hill. Seeds red.
- PI 635524. *Arachis hypogaea* L.**  
Landrace. PY94-154; Manduvi hu'i; NGRL 306. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 25° 52' S. Longitude 57° 7' W. Costa Baez Ka a guy - Acahay. Slope of hill. Seeds dark purple.
- PI 635525. *Arachis hypogaea* L.**  
Landrace. PY94-155; Manduvi pyta'i; NGRL 307. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 25° 52' S. Longitude 57° 7' W. Costa Baez Ka a guy - Acahay. Slope of hill. Seeds red.

- PI 635526. *Arachis hypogaea* L.**  
Landrace. PY94-156; Manduvi pyta guasu; NGRL 308. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 25° 52' S. Longitude 57° 7' W. Costa Baez Ka a guy - Acahay. Slope of hill. Mixture; seeds red.
- PI 635527. *Arachis hypogaea* L.**  
Landrace. PY94-159; Manduvi guasu; NGRL 309. Collected 04/07/1994 in Paraguari, Paraguay. Latitude 26° 2' S. Longitude 56° 59' W. Minas Cu / Ybycui. Slope of hill. Seeds tan.
- PI 635528. *Arachis hypogaea* L.**  
Landrace. PY94-163; Manduvi pyta; NGRL 310. Collected 04/08/1994 in Paraguari, Paraguay. Latitude 26° 13' S. Longitude 56° 41' W. Boqueron - Mbuyapey. Slope of hill. Seeds red.
- PI 635529. *Arachis hypogaea* L.**  
Landrace. PY94-104; 711; NGRL 311. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds light yellow rose(pink).
- PI 635530. *Arachis hypogaea* L.**  
Landrace. PY94-105; Tat IAC Campinas; NGRL 312. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.
- PI 635531. *Arachis hypogaea* L.**  
Landrace. PY94-106; 717; NGRL 313. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds light yellow rose(pink).
- PI 635532. *Arachis hypogaea* L.**  
Landrace. PY94-107; 708; NGRL 314. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.
- PI 635533. *Arachis hypogaea* L.**  
Landrace. PY94-108; HP 13 mM EPACE -- Goia; NGRL 315. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.
- PI 635534. *Arachis hypogaea* L.**  
Landrace. PY94-109; 713; NGRL 316. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds light yellow rose(pink).
- PI 635535. *Arachis hypogaea* L.**  
Landrace. PY94-111; 828; NGRL 317. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.
- PI 635536. *Arachis hypogaea* L.**  
Landrace. PY94-112; 709; NGRL 318. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.
- PI 635537. *Arachis hypogaea* L.**  
Landrace. PY94-113; I 38 / 85 Chapeco Santa Catalina; NGRL 319.

Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds red.

**PI 635538. *Arachis hypogaea* L.**

Landrace. PY94-114; Tatu' i IAC; NGRL 320. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds tan.

**PI 635539. *Arachis hypogaea* L.**

Landrace. PY94-115; 830; NGRL 321. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635540. *Arachis hypogaea* L.**

Landrace. PY94-116; 810; NGRL 322. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635541. *Arachis hypogaea* L.**

Landrace. PY94-117; 826; NGRL 323. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635542. *Arachis hypogaea* L.**

Landrace. PY94-118; 705; NGRL 324. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.

**PI 635543. *Arachis hypogaea* L.**

Landrace. PY94-119; Colorado; NGRL 325. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.

**PI 635544. *Arachis hypogaea* L.**

Landrace. PY94-121; 813; NGRL 326. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635545. *Arachis hypogaea* L.**

Landrace. PY94-122; 825; NGRL 327. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.

**PI 635546. *Arachis hypogaea* L.**

Landrace. PY94-123; Negro Grande; NGRL 328. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark purple.

**PI 635547. *Arachis hypogaea* L.**

Landrace. PY94-124; H brido; NGRL 329. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635548. *Arachis hypogaea* L.**

Landrace. PY94-125; 870; NGRL 330. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo



Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635549. *Arachis hypogaea* L.**

Landrace. PY94-126; 702; NGRL 331. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635550. *Arachis hypogaea* L.**

Landrace. PY94-127; 806; NGRL 332. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635551. *Arachis hypogaea* L.**

Landrace. PY94-128; 712; NGRL 333. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.

**PI 635552. *Arachis hypogaea* L.**

Landrace. PY94-129; Manteca; NGRL 334. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark purple.

**PI 635553. *Arachis hypogaea* L.**

Landrace. PY94-130; 704; NGRL 335. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635554. *Arachis hypogaea* L.**

Landrace. PY94-131; Espa ol; NGRL 336. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds brown.

**PI 635555. *Arachis hypogaea* L.**

Landrace. PY94-132; Africano; NGRL 337. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635556. *Arachis hypogaea* L.**

Landrace. PY94-166; Blanco Grande; NGRL 338. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds yellowish rose.

**PI 635557. *Arachis hypogaea* L.**

Landrace. PY94-167; Negrito; NGRL 339. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark purple.

**PI 635558. *Arachis hypogaea* L.**

Landrace. PY94-168; 710; NGRL 340. Collected 04/06/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds dark red.

The following were collected by Manuel Santiago Paniagua, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay; Makoto Minami, Japan International Cooperation Agency, 6-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan; G. Altamirano,

Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C., Capitan Miranda, Itapua, Paraguay; Yuji Shinada, Japan International Cooperation Agency, 5-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan. Donated by Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay. Received 07/24/2003.

**PI 635559. *Arachis hypogaea* L.**

Landrace. PY96-2; Makua; NGRL 341. Collected 03/06/1996 in Presidente Hayes, Paraguay. Latitude 22° 35' S. Longitude 59° 40' W. Samaria, 35 Km from Filadelfia. S. E. This sample was provided to the NPGS as a part of a USDA-funded cooperative project involving the Centro Regional de Investigacion Agricola (CRIA) of the Paraguayan Ministry of Agriculture and Livestock, USDA/ARS, and IPGRI/Americas. The project involved the multiplication and characterization at the CRIA station in Capitan Miranda, Paraguay of *Arachis hypogaea* collected in Paraguay in 1994 and 1996. Half of each sample was deposited with CRIA and half with the U.S. NPGS.

**PI 635560. *Arachis hypogaea* L.**

Landrace. PY96-9; Manduvi guasu; NGRL 342. Collected 03/07/1996 in Presidente Hayes, Paraguay. Latitude 22° 35' S. Longitude 59° 40' W. Nueva Esperanza, 52 km from Filadelfia. S.E. Seeds medium, red.

**PI 635561. *Arachis hypogaea* L.**

Landrace. PY96-12; Smitcay; NGRL 343. Collected 03/07/1996 in Presidente Hayes, Paraguay. Latitude 22° 35' S. Longitude 59° 40' W. Betania, 35 Km from Filadelfia. S. E. Seeds small, red.

**PI 635562. *Arachis hypogaea* L.**

Landrace. PY96-19; Manduvi; NGRL 344. Collected 03/09/1996 in Concepcion, Paraguay. Latitude 23° 26' S. Longitude 57° 26' W. Lemo, 30 Km from Concepcion. E. Seeds medium, dark purple.

**PI 635563. *Arachis hypogaea* L.**

Landrace. PY96-22; Manduvi moroti; NGRL 345. Collected 03/09/1996 in Concepcion, Paraguay. Latitude 23° 26' S. Longitude 57° 26' W. Peguajo Loma, 35 km from Concepcion. E. Seeds medium, light pink.

**PI 635564. *Arachis hypogaea* L.**

Landrace. PY96-27; Manduvi pyta' i; NGRL 346. Collected 03/09/1996 in Concepcion, Paraguay. Latitude 23° 26' S. Longitude 57° 26' W. Naranjaty, 60 Km. from Concepcion. E. Seeds small, red.

**PI 635565. *Arachis hypogaea* L.**

Landrace. PY96-29; Manduvi pyta' i; NGRL 347. Collected 03/09/1996 in Concepcion, Paraguay. Latitude 23° 26' S. Longitude 57° 26' W. Laguna Mbojapy, 70 Km From Concepcion. E. Seeds medium, red.

**PI 635566. *Arachis hypogaea* L.**

Landrace. PY96-32; Manduvi hu; NGRL 348. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Arroyo Guasu, 40 Km from Villarrica. E. Seeds medium, dark purple.

**PI 635567. *Arachis hypogaea* L.**

Landrace. PY96-35; Manduvi hu guasu; NGRL 349. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Potrero del Carmen, 45 Km from Villarrica. E. Seeds medium, dark and light purple.

- PI 635568. *Arachis hypogaea* L.**  
Landrace. PY96-37; Manduvi pyta; NGRL 350. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Sudetia, 50 km from Villarrica. E. Seeds medium, red.
- PI 635569. *Arachis hypogaea* L.**  
Landrace. PY96-39; Manduvi hu guasu; NGRL 351. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Sudetia, 50 km from Villarrica. E. Seeds medium, dark purple.
- PI 635570. *Arachis hypogaea* L.**  
Landrace. PY96-41; Manduvi; NGRL 352. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Campo Alegre, 70 Km from Villarrica. E. Seeds medium, red.
- PI 635571. *Arachis hypogaea* L.**  
Landrace. PY96-44; Manduvi ayaca; NGRL 353. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Cuarta Linea Sta. Maria, 70 Km from Villarrica. Seeds large, red.
- PI 635572. *Arachis hypogaea* L.**  
Landrace. PY96-47; Manduvi aba; NGRL 354. Collected 03/12/1996 in Caaguazu, Paraguay. Latitude 25° 26' S. Longitude 56° 26' W. Maitei, 55 km from Cnel. Oviedo, E. Seeds large, dark red.
- PI 635573. *Arachis hypogaea* L.**  
Landrace. PY96-49; Manduvi pyta' i; NGRL 355. Collected 03/12/1996 in Caaguazu, Paraguay. Latitude 25° 26' S. Longitude 56° 26' W. Maitei, 55 km from Cnel. Oviedo, E. Seeds mixed, red and pink.
- PI 635574. *Arachis hypogaea* L.**  
Landrace. PY96-55; Manduvi pyta' i; NGRL 356. Collected 03/12/1996 in Caaguazu, Paraguay. Latitude 24° 59' S. Longitude 56° 0' W. Juquyry, 68 Km from Cnel. Oviedo. E. Seeds medium, red.
- PI 635575. *Arachis hypogaea* L.**  
Landrace. PY96-57; Manduvi hu' i; NGRL 357. Collected 03/12/1996 in Caaguazu, Paraguay. Latitude 24° 59' S. Longitude 56° 0' W. Carpa cue, San Joaquin, 115 km from Cnel. Oviedo. Seeds medium, dark purple.
- PI 635576. *Arachis hypogaea* L.**  
Landrace. PY96-58; Manduvi pyta; NGRL 358. Collected 03/12/1996 in Caaguazu, Paraguay. Latitude 24° 59' S. Longitude 56° 0' W. Carpa cue, San Joaquin, 115 km from Cnel. Oviedo. Seeds medium, red.
- PI 635577. *Arachis hypogaea* L.**  
Landrace. PY96-63; Manduvi tres mese; NGRL 359. Collected 03/12/1996 in Caaguazu, Paraguay. Latitude 24° 59' S. Longitude 56° 0' W. Tacuapi i, 100 Km from Cnel. Oviedo. E. Seeds large, red.
- PI 635578. *Arachis hypogaea* L.**  
Landrace. PY96-42; Manduvi pyta; NGRL 360. Collected 03/11/1996 in Guaira, Paraguay. Latitude 25° 43' S. Longitude 56° 15' W. Cuarta Linea Sta. Maria, Guaira, E. Seeds medium, mixture red and pink.

The following were collected by Manuel Santiago Paniagua, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay; Tateo Nakanishi, Japan International Cooperation Agency, 6-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan; Victoriano Barboza, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay; Michitaka Komeichi, Japan International Cooperation Agency, 6-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan. Received 07/24/2003.

**PI 635579. *Arachis hypogaea* L.**

Landrace. PY94-22; Manduvi pyta; NGRL 881. Collected 04/04/1994 in Caazapa, Paraguay. Latitude 26° 15' S. Longitude 56° 12' W. San Francisco. Slope of hill.d. Seeds tan.

**PI 635580. *Arachis hypogaea* L.**

Landrace. PY94-154; Manduvi hu'i; NGRL 882. Collected 07/04/1994 in Paraguari, Paraguay. Latitude 25° 52' S. Longitude 57° 7' W. Costa Baez Ka a guy - Acahay. Slope of hill. Seeds tan.

**PI 635581. *Arachis hypogaea* L.**

Landrace. PY94-155; Manduvi pyta'i; NGRL 883. Collected 07/04/1994 in Paraguari, Paraguay. Latitude 25° 52' S. Longitude 57° 7' W. Costa Baez Ka a guy - Acahay. Slope of hill. Seeds tan.

**PI 635582. *Arachis hypogaea* L.**

Landrace. PY94-113; I 38/35 Chapeco Santa Catalina; NGRL 884. Collected 06/04/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds tan.

**PI 635583. *Arachis hypogaea* L.**

Landrace. PY94-131; Espanol; NGRL 885. Collected 06/04/1994 in San Pedro, Paraguay. Latitude 24° 11' S. Longitude 56° 35' W. Campo Experimental Chore. Slope of hill. Seeds tan.

The following were collected by Manuel Santiago Paniagua, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C, Capitan Miranda, Itapua, Paraguay; Makoto Minami, Japan International Cooperation Agency, 6-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan; G. Altamirano, Centro Regional de Investigacion Agricola (CRIA), Ruta VI y Calle C., Capitan Miranda, Itapua, Paraguay; Yuji Shinada, Japan International Cooperation Agency, 5-13F, Shinjuku Maynds Tower, 1-1, Yoyogi 2-chrome, Tokyo, Japan. Received 07/24/2003.

**PI 635584. *Arachis hypogaea* L.**

Landrace. PY96-58; Manduvi pyta; NGRL 886. Collected 12/03/1996 in Caaguazu, Paraguay. Latitude 24° 59' S. Longitude 56° 0' W. Carpa cue, San Joaquin, 115 km from Cnel. Oviedo. Seeds medium, tan.

**PI 635585. *Arachis hypogaea* L.**

Landrace. PY96-63; Manduvi tres mese; NGRL 887. Collected 12/03/1996 in Caaguazu, Paraguay. Latitude 24° 59' S. Longitude 56° 0' W. Tacuapi i, 100 Km from Cnel. Oviedo. E. Seeds large, tan.

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

**PI 635586. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5259; BLACK DIAMOND.

**PI 635587. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5263; BLACKLEE WILT RESISTANT.

The following were donated by USDA, ARS, Florida Agric. Exp. Station, Gainesville, Florida, United States. Received 1961.

**PI 635588. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5265; BLACKSTONE.

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

**PI 635589. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5266; BURRELLS GRAY. maturity 95 days. Weight about 40 lbs., shape oblong & full, light greyish green color, hard tough rind. Flesh firm, stringless and bright red. Not considered resistatn to antracnose & fusarium wilt.

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

**PI 635590. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5273; EARLY CANADA.

The following were donated by Simpson Nurseries, P.O. Box 160, Monticello, Florida 32344, United States. Received 1961.

**PI 635591. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5275; DIXIE QUEEN WILT RESISTANT.

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

**PI 635592. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5276; EARLY ARIZONA.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

**PI 635593. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5277; EARLY NORTHERN SWEET.

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

**PI 635594. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5278; FAIRFAX WILT RESISTANT.

**PI 635595. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5282; FLORIDA GIANT.

**PI 635596. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5284; GARRISONIAN.

**PI 635597. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5285; GOLDEN HONEY CREAM.

**PI 635598. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5288; GOLDEN MIDGET. Pedigree - Cross between New Hampshire Midget and Pumpkin Rind. Mature F1 were all green in color. F2 segreg. gave both green colored mature melons and yellow-ripe appearance in ratio of 3-1. Sele. were made for early melons of same size, shape, & quality of N.H. Midget except with a yellow rind. Sel also made for dark-colored seeds. Seeds dark, rind yellow when ripe. Same size, shape & quality as New Hampshire Midget.

The following were donated by T.W. Wood & Sons Seed Co., Richmond, Virginia, United States. Received 1961.

**PI 635599. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5289; GEORGIA RATTLESNAKE.

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

**PI 635600. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5291; HALBERT HONEY.

**PI 635601. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5292; HAWKESBURY.

**PI 635602. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5293; HOPE DIAMOND.

The following were donated by Rudy-Patrick Seed Company, Kansas City, Missouri, United States. Received 1961.

**PI 635603. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5294; ICE CREAM.

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

**PI 635604. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5296; IRISH GREY.

The following were donated by Rudy-Patrick Seed Company, Kansas City, Missouri, United States. Received 1961.

**PI 635605. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5298; KANSAS EARLY.

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

**PI 635606. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5299; KING AND QUEEN WINTER.

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

**PI 635607. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5300; KLECKLEY SWEET.

**PI 635608. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5301; KLECKLEY'S SWEET 6.

The following were donated by Dessert Seed Co., Inc, P.O. Box 181, El Centro, California 92243, United States. Received 1961.

**PI 635609. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5302; KLONDIKE BLACK SEEDED.

**PI 635610. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5303; KLONDIKE BROWN SEEDED.

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

**PI 635611. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5304; KLONDIKE MORSES BROWN SEEDED.

The following were donated by Northrup, King & Company, 1500 Jackson N.E., Minneapolis, Minnesota 55413, United States. Received 1961.

**PI 635612. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5305; KLONDIKE R 7.

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

**PI 635613. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5306; KLONDIKE RS 57.

**PI 635614. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5307; KLONDIKE STRIPED BLUE RIBBON.

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

**PI 635615. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5308; MOUNTAIN HOOSIER.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635616. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5310; MARKET MIDGET. Pedigree - Cross between New Hampshire Midget and winter Queen. First single plant selection leading to prod. of new variety was made from an open poll. 3rd gen. pf plants. By foll. a procedure of growing 1 crop in the field and 2 self poll. crops in the greenhouse during the winter season, purification of a true-breeding variety arrived. Apple green skin color melon with a rather white area about the stem, few days later in ripening than New Hampshire Midget. Rind is thin, but hard and very tough and leathery. Firm, sweet, bright red flesh extends to the rind. Relatively few small seeds, black in color. Can be stored successfully for several weeks, and shipped without damage.

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

**PI 635617. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5311; NEW HAMPSHIRE MIDGET.

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

**PI 635618. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5312; NORTHERN SWEET.

**PI 635619. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5313; PEACOCK IMPROVED SHIPPER.

The following were donated by Mississippi State University, Mississippi Agr. Exp. Sta., State College, Mississippi, United States. Received 1961.

**PI 635620. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5316; SHIPPER.

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

**PI 635621. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5318; STONE MOUNTAIN.

**PI 635622. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5324; TENDERSWEET YELLOW.



**PI 635623. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5325; TENDERSWEET ORANGE.

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

**PI 635624. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5329; WONDER.

The following were donated by Simpson Nurseries, P.O. Box 160, Monticello, Florida 32344, United States. Received 1961.

**PI 635625. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5330; TENDERSWEET.

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

**PI 635626. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5331; WHITE HOPE.

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

**PI 635627. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5332; WILSON SWEET.

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

**PI 635628. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5333; WINONA WILT RESISTANT.

The following were donated by Simpson Nurseries, P.O. Box 160, Monticello, Florida 32344, United States. Received 1961.

**PI 635629. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 5334; WONDERMELON.

The following were donated by Billy Hepler Seed Co, New Hampshire, United States. Received 1961.

**PI 635630. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6462; MERRIMACK SWEETHEART.

The following were donated by H.G. Hastings Company, Atlanta, Georgia, United States. Received 1961.

**PI 635631. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6469; SUPER REDHART STONE MOUNTAIN.

**PI 635632. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6470; GRAY STONE. Very thin rind, extremely high in sugar content.  
Poor shipping quality as it cannot withstand rough treatment.

The following were donated by Twilley Seed Company, Otis, Maryland, United States. Received 1961.

**PI 635633. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6568; MARDELA ICE BOX.

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

**PI 635634. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6571; ANGELINO BLACK SEED.

The following were donated by South Carolina Crop Imp, South Carolina, United States. Received 1961.

**PI 635635. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6637; DUNBARTON.

The following were donated by Vaughan-Jacklin Corporation, 5300 Katrine Avenue, Downer'S Grove, Illinois 60515, United States. Received 1961.

**PI 635636. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6658; COLES EARLY.

**PI 635637. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6659; ICE BOX RED FLESH.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1961.

**PI 635638. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6671; BABY KLONDIKE.

**PI 635639. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 6688; MILES.

The following were donated by University of Florida, Florida Agr. Exp. Sta., Department of Agronomy, Gainesville, Florida 32611, United States. Received 1961.

**PI 635640. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 7368; LEESBURG.

**PI 635641. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 7369; IRONSIDES.

The following were donated by Purdue University, Purdue Univ. Agric. Exp. Station, West Lafayette, Indiana 47907, United States. Received 1962.

**PI 635642. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8610; CHARLESTON GRAY 133. Pedigree - 7 plants of Charleston Gray, when screened for resistance to fusarium wilt, were chosen which exhibited higher degree of resistance than C.G. Seven plants bulked to comprise Indiana strain 133 of C.G. Melon is long with a polar/equat. diam. ratio of 2.2. Fruits avg. 20-25 lbs. Flesh is med. red. Fruit size and shape are more uniform than with origin. C.G. Soluble solids, 11-12%. Rind is light green with slight dark green veining, .7-.8 in. from outer surface to first tinge of red. Seeds are brown with black stippling. Slightly more resistant to wilt than Charleston Gray.

**PI 635643. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8611; PURDUE HAWKESBERRY. Similar to Hawkesbury, light green rind, 25 lb. melons, large black seeds, but selected for fusarium strain prevalent in Indian. Wilt resistance much higher than Hawkesberry.

**PI 635644. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8612; PRINCETON. Pedigree - Derived from selections from Blackhawk, from the dark green rind types. Melons are long with a polar/equatorial diameter of two. The avg between 20-25 lbs. Rind is a dark green or black and measures about .6 in from outer surface to first tinge of red flesh. Flesh is a pink red compared to Charleston Gray. Soluble solids in the juice avg. 10-11%. Seeds are a stippled black and brown.

The following were donated by Willhite Seed Company, Box 23, Poolville, Texas 76076, United States. Received 1962.

**PI 635645. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8708; BUSH DESERT KING.

**PI 635646. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8710; ROYAL GOLDEN. Bright yellow or light orange when ripe. Yellow color extends to the vines. 10-30 lbs. with deep red flesh, very tender and very sweet. Seeds are light in color. Early maturing melon.

The following were donated by Louisiana State University, Louisiana Agr. Exp. Sta., Baton Rouge, Louisiana 70803, United States. Received 1962.

**PI 635647. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8746; CALHOUN SWEET. Pedigree - cross of Dixie Queen with a Breeding line. Early producer, practically immune to fusarium wilt. Medium sized fruit of excellent texture and quality having a tender green rind.

**PI 635648. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8747; SUMMIT. Pedigree - Cross of Calhoun sweet and Black Diamond. Fruits oval with smooth bright green rind which is rather tough. Plants

are very resistant to Fusarium wilt. Maturity is midseason. Very heavy producer of good quality melons. Especially adapted to the lighter soil types and produces well under rather dry conditions. Leaves are very large, thick, and bright green. Fruits a medium size, seeds are brownish black, flesh bright red, fine textured and sweet. Plants prolific.

- PI 635649. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 8748; L-5. Similar to Charleston Gray having greater fusarium wilt resistance than C.G.

The following were donated by USDA, ARS, Clemson University, South Carolina Agr. Exp. Sta., Clemson, South Carolina, United States. Received 1962.

- PI 635650. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 15991; ES20-1-5-3-1. Valuable seedling marker, resembles Blackstone. Genetic stock, virescent recessive-v leaf. Yellow-green in seedling stage.

- PI 635651. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20014; CHARLESTON GREY.

- PI 635652. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20016; WILT RESISTANT CONGO.

The following were donated by Seed Research Specialists, California, United States. Received 1962.

- PI 635653. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20177; BLACKLEE.

- PI 635654. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20178; SCARLET PEACOCK. 82 days. Mid range shipper, 15x10. 22 lbs. Rind dark, faint creases. Tolerant to wilt.

The following were donated by Simpson Nurseries, P.O. Box 160, Monticello, Florida 32344, United States. Received 1962.

- PI 635655. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20533; GARRISON. Ferry-Morse 1959 catalog, pg 95.

- PI 635656. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20534; STONE MOUNTAIN NO 5.

- PI 635657. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 20547; GARRISON WILT RESISTANT. Ferry-Morse 1959 catalog, pg 95.

The following were donated by Corneli Seed Company, 101 Chouteau Avenue, Saint Louis, Missouri 63102, United States. Received 1963.

- PI 635658. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22021; CHRIS CROSS. Similar in appearance to Dixie Queen W.R. but oblong in shape and weighs up to 50 lbs. Rinds are thin, tough, and

strong. Flesh is red and seed is black. Resistant to white heart and tolerant to both fusarium wilt and anthracnose.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1963.

- PI 635659. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22722; EARLY JUMBO. Elongated deep green melon, slightly striped 20-25 lbs. Moderately thick rind with glistening strawberry colored flesh that tests very high in sugar content. Seeds are white.

The following were donated by Seed Research Specialists, California, United States. Received 1963.

- PI 635660. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22726; KLONDIKE WR-3 WILT RESISTANT.

- PI 635661. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22727; KLONDIKE BLACK SEED 3.

- PI 635662. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22728; PEACOCK STRIPED.

- PI 635663. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22729; PEACOCK WR-50.

- PI 635664. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 22730; KLONDIKE WR65 GREEN RIND. 85 days. Mid distance shipper 15x10. 25 lbs. Rind dark, slightly creased. Wilt resistant Klondike type.

The following were donated by USDA, ARS, Clemson University, South Carolina Agr. Exp. Sta., Clemson, South Carolina, United States. Received 1963.

- PI 635665. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 23009; GRAYBELLE. Pedigree - Originated from crosses begun in 1953 involving Sugar Baby and a breeding like of the same parentage as Charleston Gry; the original hybrid was backcrossed once to Sugar Baby. The release stock represents nine generations of combined inbreeding and mass selection following the backcross. Fruits are round-oval, good formation, pale green or gray color, with a hard and moderately thin rind, and relatively small seed of a dark clump seedcoat pattern. Variety is highly productive, relatively early and uniform in ripening. Flesh is exceptionally firm, which contributes to long keeping. Vines shorter which adapts to closer spacing, higher yields. Has the Charleston Gray level of resistance to anthracnose & sunburn, but it lacks resistance to fusarium wilt.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1963.

- PI 635666. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 26517; DARK GREEN KLONDIKE.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

- PI 635667. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28115; ACOMA.
- PI 635668. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28116; ARIKARA. Rind, thin. Meat red. Seeds brown. Sweet, mealy  
and not a solid meat as Cules Early or Luscious. Skin dark green.
- PI 635669. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28117; BLUE WATSON.
- PI 635670. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28118; RED-SEEDED CITRON.
- PI 635671. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28120; CUT RED WATSON.
- PI 635672. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28122; CALABRIA.
- PI 635673. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28123; CLETEX/SPOTTED.
- PI 635674. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28124; COLORADO PRESERVING CITRON. Thick rind, skin very tough, few  
seeds.
- PI 635675. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28125; EARLY YATES. Collected in Australia.
- PI 635676. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28126; HEVISI.
- PI 635677. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28127; KOLBS GEM.
- PI 635678. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28128; KLONDIKE.
- PI 635679. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28129; LUSCIOUS GOLDEN.
- PI 635680. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28130; LORD BALTIMORE.
- PI 635681. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28131; MARKET WONDER. Collected in Australia.
- PI 635682. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28135; ROS A BUCCIA NORA. Collected in Argentina.
- PI 635683. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28136; SWEET SIBERIAN. Pedigree - SEGREGATE FOR YELLOW FLESH.

PI 635684. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28138; WINTER.

PI 635685. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28139; SWEET JAPANESE.

PI 635686. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28142; WILLS SUGAR.

PI 635687. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28143; YATE'S WONDER.

The following were donated by Kansas State University, Kansas Agric. Exp. Station, Manhattan, Kansas 66506, United States. Received 1963.

PI 635688. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 28693; CRIMSON SWEET. Pedigree - Cross between Miles and Peacock, the F2 of which was crossed with Charelston Gray. Fruits are light green with dark green striped rinds, well adapted for shipping. Melons average 25 lbs. and are blocky round. The rind is betw. 3/4- 1 inch thick. Fruits have a deep red, firm, fine-textured flesh 10-13% sugar. Seeds are small and dark brown mottled. Fruits mature at most locations about 35 days from pollination. Vine vigor is very good and plants have been resistant to anthracnose and fusarium wilt. Flesh color appears lighter on heavy than on sandy or sandy-loam soil.

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

PI 635689. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29601; BLACK DIAMOND (YELLOW FLESH).

PI 635690. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29602; CHILEAN BLACK SEEDED.

PI 635691. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29603; DESERT KING.

PI 635692. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29605; TEXAS GOLDEN.

PI 635693. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29606; BLUE RIND WATSON.

PI 635694. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29607; SPOTTED WATSON.

PI 635695. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 29608; WHITE SEEDED WATSON. Blue-green shiny rind, seeds are cream to brown. Flesh is red, Vines grow rank and vigorous, having large leaves which cover the melons and help prevent sunburn. Large melons, well over 100 lbs. Leave on vine 2 weeks after you think they are rope.

The following were donated by USDA, ARS, Clemson University, South Carolina Agr. Exp. Sta., Clemson, South Carolina, United States. Received 1965.

**PI 635696. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 29613; CHARLESTON TETRA NO 1. Pedigree - From 9th generation of diploid stocks originating in the same cross and backcross, involving Sugar Baby and a relative of Charleston Gray, made in 1953. small round dark green fruits. Charleston Gray type of anthracnose resistance.

**PI 635697. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 29614; CHARLESTON TETRA NO 2. Pedigree - From 9th generation of diploid stocks originating in the same cross and backcross, involving Sugar Baby and a relative of Charleston Gray, made in 1953. small round dark green fruits, have Charleston Gray type of anthracnose resistance.

**PI 635698. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 29615; CHARLESTON TETRA NO 3. Pedigree - From the 9th generation of diploid stocks orig. in the same cross & backcross, involving Sugar Baby and a relative of Charleston Gray, made in 1953. Medium round gray fruits.

**PI 635699. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 29616; CHARLESTON DIPLOID 59-1. Pedigree - From the 9th gen. of diploid stocks orig. in the same cross & backcross, involving Sugar Baby and a relative of Charleston Gray, made in 1953. Small round dark green fruits.

**PI 635700. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 29617; CHARLESTON DIPLOID 59-6. Pedigree - From the 9th gen. of diploid stocks orig. in the same cross & backcross, involving Sugar Baby and a relative of Charleston Gray, made in 1953. Small round dark green fruits.

The following were donated by Burrell Seed Growers, Colorado, United States. Received 1964.

**PI 635701. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 30807; KLECKLEY SWEET, BURRELLS IMPROVED. 85 days. Rind is very thin, & not as brittle as some strains. Melons are oblong, very dark green and nearly the same diameter at both ends. Flesh light red, very sweet and melting. Seeds white and less seeds than most. Local market and home garden melon. Weight about 30 lbs.

The following were donated by Gill Bros., Oregon, United States. Received 1964.

**PI 635702. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 31337; BLACK SEEDED ICE CREAM. Round with thick, ivory colored skin. Pink meated and fine quality. Will keep late into the winter, very prolific, matures very early.

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



**PI 635703. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 31410; KLONDIKE STRIPED 11. Dark and light striped in color with strong rind. Grows to length of 18" and 10" in dia. with a weight of 27 lbs. Maturity 82 days. Very good shipper. Flesh is scarlet with a high sugar content.

**PI 635704. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 32712; KLONDIKE 3.

The following were donated by Willhite Seed Company, Box 23, Poolville, Texas 76076, United States. Received 1971.

**PI 635705. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
IMP KECKLEY SWEET; NSL 32740; WILLHITE WONDER/KECKLEY SWEET.

**PI 635706. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 32741; CLARA LEE. an improved strain of the Florida Giant, Black Diamond, and Cannon Ball. Large melon with glossy, black-green rind, no stripe. Rind is very thin, and tough, making it a good shipper. Flesh is deep red, crisp and tender with grayish-black seed that are rather small in size. Up to 60 lbs. Mid-season ripening along with Charleston gray. Very hardy and resists drought well.

**PI 635707. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 32742; SUGAR LOAF. long melon with a pea green rind, seeds are white and flesh blood-red. Grows very large, often more than 100 lbs, yet cutting qualities are beyond reproach. Extremely hardy and prolific. Flesh is fine grained, very tender and sweet. When over-ripe, flesh is grainy. Rind is thin and tough. Matures in about 80 days.

**PI 635708. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 32987; TEXAS GIANT. Leading shipping melon. Heavy yield with melons up to 75 lbs. Melon nearly round in shape with stubby or flat ends. Its rind is med. thick, very tough and very hard, dark bluish green, even colored & smooth. Flesh is a deep blood-red, & when fully ripe is free of strings, very crisp, tender, sweet and full flavored. Seeds are grayish black. Mid season melon, but must stay on the vine until fully ripe.

The following were donated by Department of Primary Industries, Agricultural Branch, William Street, Brisbane, Queensland, Australia. Received 1964.

**PI 635709. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 34205; HAWKESBURY WILT RESISTANT. Ferry-Morse 1959 cat. pg 95.

The following were donated by Seed Research Specialists, California, United States. Received 1964.

**PI 635710. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 34233; GOLDEN HONEY SWEET ROUND. Flesh golden yellow in color, firm, crisp & luscious sweetness. Oblong in shape, light green, with mottled stripes of deep green rind. Rind is thin, but hard so keeps well.

The following were donated by Texas A&M University, Texas Agricultural Exp. Station, College Station, Texas 77841, United States. Received 1965.

**PI 635711. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 34587; RIO GRAY. Pedigree - Originated from a single gray round shaped watermelon fruit found in the spring of 1958 in a commercial field of Charleston Gray in the Rio Grande City area. 8 generations were grown & selected for fruit shape, earliness, internal flesh quality and freedom from blossom-end rot. Fusarium wilt resistant, sunburn resistant, blossom-end rot resistant. Strong seedling and vine vigor. Fruits round, rind is gray, and rather thin but somewhat elastic. Flesh is bright red & crisp at maturity. Flesh quality compares to Charleston Gray. Fruits smooth, & avg. 22 lbs. Maturity is 7-10 days earlier than Charleston Gray.

The following were donated by Mississippi State University, Mississippi Agr. Exp. Sta., State College, Mississippi, United States. Received 1965.

**PI 635712. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 42848; VERONA. Pedigree - Derived from a triple cross using Shipper, Blackstone, and Charleston Gray. Round shape and dark green color, excellent shipping quality, resistant to Fusarium wilt and anthracnose.

The following were donated by Louisiana State University, Louisiana Agr. Exp. Sta., Baton Rouge, Louisiana 70803, United States. Received 1965.

**PI 635713. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 42858; CALHOUN GRAY. Pedigree - Cross between Calhoun Sweet and Charleston Gray. Resembles Charleston Gray in outside appearance, except has a smoother rind. More resistant to Fusarium wilt than Charleston Gray. However, Calhoun Gray is very susceptible to Race I, very resistant to Race II, and moderately susceptible to Race III, and very resistant to a La. isolate of Anthracnose.

The following were donated by Dessert Seed Co., Inc, P.O. Box 181, El Centro, California 92243, United States. Received 1966.

**PI 635714. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 42963; SUNNY BOY. Very prolific and highly resistant to sunburn. Fruits are nearly round in shape, med. sized, 12-15 lbs., even light green skin with faint, darker veining. Very tough rind. Flesh is a bright deep red, unusually sweet, firm textured with very small brown seeds. Does well in the south & southwest.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1966.

**PI 635715. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 45614; KLONDIKE 53 WILT RESISTANT. Asgrow catalog No. 20, page 104.

The following were donated by North Carolina State University, North Carolina Agr. Exp. Sta., Raleigh, North Carolina, United States. Received 1967.

**PI 635716. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 53729; SWEET PRINCESS. Pedigree - A gray fruited segregate with small seed was obtained by Dr. W.S. Barham, a cross was made with Charleston Gray, followed by 2 successive backcrosses to C.G. as the recurrent parent. A selection from the 2nd backcross was designated as NC 17. 7 generations of self-poll. followed. 2 similar & uniform lines were then combined & desig. as NC 62-C2M. Fruits are med-large, 25 lbs. & are twice as long as broad. Rind color is light gray-green from a distance due to the med. green narrow reticulate stripes set on a light green background. Fruits are smooth and midseason in maturity. Rind is of med. thickness, tough & well suited for shipping. Red solid flesh. Seeds are small, tan and thin-coated. fles sweet, crisp, and fine-textured.

The following were donated by Hollar Seeds, Incorporated, Rocky Ford, Colorado, United States. Received 1968.

**PI 635717. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 67878; WINTER QUEEN. Fruit 9 1/2 by 9", 20 lbs. matures in 85-90 days, nearly round. Rind is yellowish-green with faint irregular light green stripes, turning pale yellow when ripe. Rind is tough and rubbery. flesh is bright red, extra firm, very sweet and fine textured. Seeds are small brownish-black. A good keeper and sometimes stores until midwinter.

The following were donated by Willhite Seed Company, Box 23, Poolville, Texas 76076, United States. Received 1969.

**PI 635718. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 68236; MOUNTAIN SWEET.

**PI 635719. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 68237; TEXAS BEAUTY. Does not grow quite as large as the Tendersweet, but equals in eating qualities, very sweet, tender and flavorful. Almost round in shape, rind light green with darker stripes, flesh deep orange with light colored seed. Vines are very thrifty and load up well with melons avg. 30 lbs. up to 50 lbs. Ideal for local markets.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1969.

**PI 635720. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 68273; NEW WINTER. 78 days. Size of a honey dew melon, good keeping quality. Fruits about 10 lbs., round, pale yellow when ripening. Flesh bright red, crystalline, very sweet.

The following were donated by Twilley Seed Company, Otis, Maryland, United States. Received 1969.

**PI 635721. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 68289; DELICIOUS BIG SUGAR. 90 dys. Large melon, flesh is deep red, fine grained, tender and sweet. Even when fully ripe, the flesh holds up well, and has a grainy texture with sugary flavor. The rind is pea green in color. Has a thick, tough rind. Practically free from white hearts. White seed.

The following were donated by USDA, ARS, Plant Genetic Resources Conservation Unit, 1109 Experiment Street, Griffin, Georgia 30223-1797, United States. Received 1968.

**PI 635722. *Citrullus* sp.**

NSL 68304; SPALDING WATERMELON.

The following were donated by Clemson University, South Carolina Agric. Exp. Station, Clemson, South Carolina 29817, United States. Received 1969.

**PI 635723. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 73052; SUMMERFIELD. Pedigree - Developed at the U.S. Veg. Breeding Lab, Charleston SC, out of the cross Fairfax X Blackstone in 1953. Released 1969. Superior wilt resistance, and round-oval shape & black seed. Extra large size having striped rind similar to Congo. It has same grade of resistance to Race I anthracnose as Congo and should be equally popular for late summer markets. Good productivity and good ripening chars. Relatively free of hollow heart & white heart & having crisp flesh of good red color. Principal advantage over Charleston Gray is its extra size & attractive color. A good "show" melon.

The following were donated by Louisiana State University, Louisiana Agr. Exp. Sta., Baton Rouge, Louisiana 70803, United States. Received 1971.

**PI 635724. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 80332; LOUISIANA QUEEN. Pedigree - Originated from a 1957 cross between Summit and Fairfax at N. Louisiana Exp. Sta. Seedling was inbred for 7 gen. and following the 1964 crop was considered a pure line. Since then it has been grown in isolation. Has white seeds and bright red flesh, flesh is firmer and crisper than Dixie Queen. Superior resistance to fusarium wilt. Resistance to anthracnose not determined, resistance to foliage disease in general is good.

The following were donated by University of Florida, Florida Agr. Exp. Sta., Department of Agronomy, Gainesville, Florida 32611, United States. Received 1971.

**PI 635725. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 80337; SMOKYLEE. Pedigree - The cross Texas W-5 x Charleston Gray was made in 1962. Texas W-5 was used as the female parent. Selections were made for 6 generations following orig. cross during years 1963-68. Self-poll. were obtained each year except 1965. The 1966 planting from seed of an open-poll. was mostly true to type, & selection that season was made to conform to the type selected in prev. generations. 3 gens. of self-poll. selections followed. The 3 most promising sel. in 1968 were design. as F68-1, F68-2, F68-3, & seed from them were distrib. for

trial plantings. Isolated plantings for seed increase were also made in summer 1969, from which Selectio F68-1 (prev. D7-4) was chosen as the source for seed of 'Smokeylee'. Seed from the best shaped melons in the 1969 isolated planting of F68-1 were utilized to make 2 isolated plantings in 1970, which served as the source of breeders seed of 'Smokeylee'. Released 1971. Melons are med. long with well rounded shoulder at both ends. Rind color is emerald or med. green, without stripes, but with char. indistinctly outlined leaf patterns of lighter green when the fruits have matured in luxuriant foliage. It is because of this unusual but char. "smoky" pattern of pigmentation of the rind that the name was chosen. Rind thickness 1/2 - 3/4 in., Weight 20-25 lbs. avg. Good quality flesh even in fruits of 10-15 lbs. even tho fruits > 20 lbs usually have better fleshality. When fully ripe the flesh is an attractive, uniformly bright red color with excellent texture & flavor. Appears to dev. soluble solids up to 11% even before full red color has developed. Vigorous growth habit compares with Summit, Crimson Sweet & other var. highly resistant to wilt. Early to med. maturing. Resistant to anthracnose (Race 1) & high-type resistance to fusarium wilt.

The following were developed by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1976.

**PI 635726. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Cultivar. "SUNSHADE"; NSL 91782. PVP 7600027.

The following were developed by E.M. Layton, United States. Received 1976.

**PI 635727. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Cultivar. "CALSWEEP"; NSL 91783. PVP 7500053.

The following were developed by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1977.

**PI 635728. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Cultivar. "SUGAR BUSH"; NSL 95227. PVP 7600072.

The following were donated by USDA, ARS, Plant Genetic Resources Conservation Unit, 1109 Experiment Street, Griffin, Georgia 30223-1797, United States. Received 1977.

**PI 635729. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 95827; HEVISI (DARK OFF-TYPE SEED).

The following were donated by J. M. Crall, University of Florida, Agricultural Research Center, P. O. Box 388, Leesburg, Florida 32745, United States. Received 1981.

**PI 635730. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 115807; SUGARLEE.

**PI 635731. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 115808; DIXIELEE. Pedigree - In 1961 cross between Texas W5 and 'Wilt Resistant Peacock 132 (WRP 132), Fairfax, and Summit. Texas W5 was backcrossed to each of the 3 Fls in 1962. An F2 sel from the WRP 132 backcross was outcrossed to 'Graybelle' IN 1964 and selfed sel. were made for another 3 generations. A doublecross between Fairfax and Summit backcrosses were made in 1963 and selfed selections were made for 4 generations. Selections from the WRP 132-Graybelle line and the doublecross line were crossed in 1967 and single plant sel. were made for 6 gen.(1968-1973). Self-pollinated seed from a 1973 sel. was used for an isolated planting for seed increase in 1974. Seeds from this planting were desig. as Florida 75-1 and dist. widely for testing in Fl. and other states 1975-78. Has strong seedling emergence & extreme vegetative vigor. Slightly later in fruit set & maturity than 'Charleston Gray' or 'Crimson Sweet'. Internal quality of fruits is superior, flesh is intense red and high sugar content 10.8%. Fruit round to oblong in shape and uniform in contour, with few culls. Sizes mostly 9-13.5 kg. but weights up to 18 kg are not uncommon. Rind color is light green with distinct, fairly narrow, dark green stripes. Rind is except. smooth, hard and tough. Well adapted for shipping. Seeds are black, stippled, and med. large in size. Resistant to Anthracnose and Fusarium wilt.

The following were donated by Larry A. Hollar, Hollar Seeds, P.O. Box 106, Rocky Ford, Colorado 81067, United States. Received 1982.

**PI 635732. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 164713; SUPER SWEET. Round, crimson sweet stripe, av. 14 lbs. Av. 12% sugar and very firm flesh. Resistant to fusarium wilt and anthracnose Races 1 & 3. Compare with Crimson Sweet. Matures 5 days later than Crimson Sweet or Charleston Gray. Has excellent flavor and keeping quality. Good shipper.

The following were donated by W. Hermann, Seed Savers Exchange, Miller, South Dakota, United States. Received 1983.

**PI 635733. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 183035; WHITE SUGAR LUMP.

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

**PI 635734. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

YELLOW FLESH; NSL 219870; BERMUDA MOON AND STAR.

**PI 635735. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 219872; CHARLESTON GRAY NO 7.

**PI 635736. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 219873; CHINA RED.

**PI 635737. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai

NSL 219874; DONNER.

The following were developed by Coffey Seed Company, United States. Received 1983.

**PI 635738. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Cultivar. "EARLY GRAY"; NSL 219875. PVP 8200048.

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

**PI 635739. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219877; HERMISTON SWEET.

**PI 635740. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219878; HOPI.

**PI 635741. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219879; IOPRIDE.

**PI 635742. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219880; JAPANESE MOON AND STAR.

**PI 635743. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219881; KLONDIKE PEACOCK.

**PI 635744. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219882; MOON AND STAR KANSAS.

**PI 635745. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219883; MOON AND STAR MINNESOTA.

**PI 635746. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219884; SHOWELL NO 8.

**PI 635747. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219887; TENDERGOLD.

**PI 635748. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219888; TEXAS BLACK DIAMOND.

**PI 635749. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219890; WEBB.

**PI 635750. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219891; YELLOW FLESH HONEY ISLAND.

**PI 635751. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 219892; YELLOW FLESH SUGAR LUMP.

**PI 635752. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220644; BLACKTAIL MOUNTAIN.

**PI 635753. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220647; CRIMSON YELLOW.

- PI 635754. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220649; DARK GREEN MALALI.
- PI 635755. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220651; FORDHOOK.
- PI 635756. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220661; JORDAN.
- PI 635757. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220666; MOON & STAR MERLE VA DORENS.
- PI 635758. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220668; MOON & STAR YELLOW FLESH BERMU.
- PI 635759. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220669; MOON AND STAR TEXAS.
- PI 635760. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220670; NO NAMES TEXAS.
- PI 635761. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220671; OASIS.
- PI 635762. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220673; PERSIAN LONG BANANA.
- PI 635763. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220674; RED SEEDED ASAHI.
- PI 635764. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220675; RWCSC.
- PI 635765. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220676; SHOWELL NO 10.

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

- PI 635766. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220677; SHOWELL YELLOW FLESH.

Unknown source. Received 1988.

- PI 635767. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
NSL 220679; SPANISH MELON.

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



**PI 635768. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220681; STRIPED MALALI.

**PI 635769. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220687; TEXAS WHEELER.

**PI 635770. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220688; THOMAS KNOCHES.

**PI 635771. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220689; WHITE FLESH WHITE WONDER.

**PI 635772. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 220691; YELLOW FLESH NO NAMES EASTERN.

The following were donated by Hollar Seeds, Incorporated, Rocky Ford, Colorado, United States. Received 1989.

**PI 635773. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 250257; 40-192 M2939. Fruits takes 140-155 days to maturity.

**PI 635774. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
NSL 250258; 40-197 M2818. Fruit takes 140-155 days to maturity.

The following were donated by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States. Received 1961.

**PI 635775. *Capsicum annuum*** L.  
NSL 4208; RUTGERS WORLD BEATER NO 13.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635776. *Capsicum annuum*** L.  
NSL 6008; ALLBIG ILL F 5.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

**PI 635777. *Capsicum annuum*** L.  
NSL 6010; BURPEES FORDHOOK.

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

**PI 635778. *Capsicum annuum*** L.  
NSL 6015; EARLY BELL.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

**PI 635779. *Capsicum annuum* L.**  
NSL 6017; EARLY PIMIENTO.

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

**PI 635780. *Capsicum annuum* L.**  
NSL 6018; CAYENNE LONG THIN.

**PI 635781. *Capsicum annuum* L.**  
NSL 6020; FRESNO CHILI PENDANT.

**PI 635782. *Capsicum annuum* L.**  
NSL 6023; FLORIDA RESISTANT GIANT.

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

**PI 635783. *Capsicum annuum* L.**  
NSL 6024; FRESNO CHILI.

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

**PI 635784. *Capsicum annuum* L.**  
NSL 6025; CHILI UPRIGHT.

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

**PI 635785. *Capsicum annuum* L.**  
NSL 6026; GOLDEN CALIFORNIA WONDER.

The following were donated by Vaughan-Jacklin Corporation, 5300 Katrine Avenue, Downer'S Grove, Illinois 60515, United States. Received 1961.

**PI 635786. *Capsicum annuum* L.**  
NSL 6028; HARRIS EARLY GIANT.

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

**PI 635787. *Capsicum annuum* L.**  
NSL 6029; LIBERTY BELL.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635788. Capsicum annuum L.**  
NSL 6031; HARRIS IMPROVED SQUASH.

**PI 635789. Capsicum annuum L.**  
NSL 6032; HARRIS KING OF THE NORTH.

The following were donated by Vaughan-Jacklin Corporation, 5300 Katrine Avenue, Downer'S Grove, Illinois 60515, United States. Received 1961.

**PI 635790. Capsicum annuum L.**  
NSL 6035; HUNGARIAN BANANA HOT.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635791. Capsicum annuum L.**  
NSL 6038; ITALIANELLE.

The following were donated by Corneli Seed Company, 101 Chouteau Avenue, Saint Louis, Missouri 63102, United States. Received 1961.

**PI 635792. Capsicum annuum L.**  
NSL 6039; KEYSTONE WONDER GIANT.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635793. Capsicum annuum L.**  
NSL 6041; LARGE RED CHERRY.

The following were donated by T.W. Wood & Sons Seed Co., Richmond, Virginia, United States. Received 1961.

**PI 635794. Capsicum annuum L.**  
NSL 6042; LARGE SWEET BULL NOSE.

The following were donated by Vaughan-Jacklin Corporation, 5300 Katrine Avenue, Downer'S Grove, Illinois 60515, United States. Received 1961.

**PI 635795. Capsicum annuum L.**  
NSL 6043; GIANT MAGNUM DULCE.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

**PI 635796. Capsicum annuum L.**  
NSL 6044; MERRIMACK WONDER.

The following were donated by Burgess Seed and Plant Company, Galesburg, Michigan, United States. Received 1961.

**PI 635797. *Capsicum annuum* L.**  
NSL 6045; PACEMAKER.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635798. *Capsicum annuum* L.**  
NSL 6048; PENNWONDER.

The following were donated by Vaughan-Jacklin Corporation, 5300 Katrine Avenue, Downer'S Grove, Illinois 60515, United States. Received 1961.

**PI 635799. *Capsicum annuum* L.**  
NSL 6050; PERFECTION PIMIENTO.

The following were donated by Rudy-Patrick Seed Company, Kansas City, Missouri, United States. Received 1961.

**PI 635800. *Capsicum annuum* L.**  
NSL 6052; RUBY KING.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1961.

**PI 635801. *Capsicum annuum* L.**  
NSL 6053; ROUMANIAN WAX.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

**PI 635802. *Capsicum annuum* L.**  
NSL 6061; YELLOW OSHKOSH.

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

**PI 635803. *Capsicum annuum* L.**  
NSL 6062; YOLO WONDER B.

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

**PI 635804. *Capsicum annuum* L.**  
NSL 6628; BULL NOSE (BELL). Hot-sweet, early bell, gr. to scarlet, uniform size & shape. Ferry-Morse Seed Co., Mt. View, California. Sept. 1969.

The following were donated by R. Portor, Campbell Soup Company, Camden, New Jersey, United States. Received 1961.

**PI 635805. *Capsicum annuum* L.**  
NSL 6682; BURLINGTON.

The following were donated by Pearce Seed Co, New Jersey, United States. Received 1962.

**PI 635806. *Capsicum annuum* L.**  
NSL 8619; AVALON SWEET BUTTON.

The following were donated by E. State Farmers. Received 1962.

**PI 635807. *Capsicum annuum* L.**  
NSL 9356; GREEN BOY.

The following were donated by Delaware Agric. Exp. Station, Newark, Delaware, United States. Received 1962.

**PI 635808. *Capsicum annuum* L.**  
NSL 9447; DELAWARE BELLE. Upright plant of med. height (18-24"), good foliage, hi- yield, excellent crown set; fruits are pendulous, thick-walled, smooth, 3-4 lobed, glossy gr. to deep red at maturity; resist tobacco mosaic virus. Basher, E.P., 1962, Delaware AES, Bulletin #338.

The following were donated by New Mexico Crop Improvement Assoc., New Mexico, United States. Received 1962.

**PI 635809. *Capsicum annuum* L.**  
NSL 15569; RIO GRANDE 21.

The following were donated by Seed Research Specialists, California, United States. Received 1962.

**PI 635810. *Capsicum annuum* L.**  
NSL 15972; GIANT FLORAL GEM.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1962.

**PI 635811. *Capsicum annuum* L.**  
NSL 16957; HUNGARIAN SWEET WAX.

The following were donated by Seed Research Specialists, California, United States. Received 1962.

**PI 635812. *Capsicum annuum* L.**  
NSL 20163; CAYENNE LONG RED.

**PI 635813. *Capsicum annuum* L.**  
NSL 20165; NEAPOLITAN.

**PI 635814. *Capsicum annuum* L.**  
NSL 20167; CALIFORNIA WONDER EARLY.

**PI 635815. *Capsicum annuum* L.**  
NSL 20168; ANAHEIM CHILI.

**PI 635816. *Capsicum annuum* L.**  
NSL 20170; FLORIDA GIANT.

The following were donated by Joseph Harris Company, Inc., 3670 Buffalo Road, Rochester, New York 14624, United States. Received 1963.

**PI 635817. *Capsicum annuum* L.**  
NSL 21978; STADDONS SELECT.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1963.

**PI 635818. *Capsicum annuum* L.**  
NSL 21983; EARLY WONDER. Vigorous plant w/strong habit, med. drk. gr. foliage, resist some strains of tobacco mosaic; lrg. bell, 3-4 lobes, thick-walled, blocky, drk. gr. to deep red. Petoseed, Saticoy, CA. Jan. 1963.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1963.

**PI 635819. *Capsicum annuum* L.**  
NSL 22715; PINNOCHIO.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1963.

**PI 635820. *Capsicum annuum* L.**  
NSL 26540; YOLO WONDER A.

**PI 635821. *Capsicum annuum* L.**  
NSL 26541; LONG THICK CAYENNE.

**PI 635822. *Capsicum annuum* L.**  
NSL 26542; THICK WALL WORLD BEATER.

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

**PI 635823. *Capsicum annuum* L.**  
NSL 28148; EARLY MARKET.

- PI 635824. *Capsicum annuum* L.  
NSL 28150; GIANT SHARP RED.
- PI 635825. *Capsicum annuum* L.  
NSL 28151; JERSEY WONDER.
- PI 635826. *Capsicum annuum* L.  
NSL 28152; NEW MEXICO CHILI 9.
- PI 635827. *Capsicum annuum* L.  
NSL 28153; SWEET.
- PI 635828. *Capsicum annuum* L.  
NSL 28154; VERTICUS.
- PI 635829. *Capsicum annuum* L.  
NSL 28155; VICTORY.
- PI 635830. *Capsicum annuum* L.  
NSL 28157; WORLD BEATER NO 13.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1964.

- PI 635831. *Capsicum annuum* L.  
NSL 29920; MICHIGAN WONDER.

The following were donated by Michigan State University, Michigan Agr. Exp. Sta., East Lansing, Michigan 48824, United States. Received 1964.

- PI 635832. *Capsicum annuum* L.  
NSL 31323; SPARTAN EMERALD. Plants are uniform, upright, med. height (18"), conc. set; fruit is blocky (3x3"), thick-walled, 3 & 4-lobed, borne upright. S.Honma, Michigan St. Univ. AES- Quar. Bul., East Lansing, MI. Feb. 1964.

The following were donated by Gill Bros., Oregon, United States. Received 1964.

- PI 635833. *Capsicum annuum* L.  
NSL 31374; LARGE SWEET YELLOW.

The following were donated by University of California, California Agr. Exp. Sta., Davis, California 95616, United States. Received 1964.

- PI 635834. *Capsicum annuum* L.  
NSL 31576; SANTA FE GEM.
- PI 635835. *Capsicum annuum* L.  
NSL 31577; MEXICAN CHILI M4. Plants are med. height, good set; fruit are med. size, high color, tapered. Extractable color is 30-32 Lovibond carote- noid pig. conc. on dry powder basis. Resist. tobacco mosaic. California Ag., Vol.18(3):9, 1964.

The following were donated by Mike Klopmeier, George J. Ball Company, P. O. Box 335, West Chicago, Illinois 60185, United States. Received 1964.

**PI 635836. *Capsicum annuum* L.**  
NSL 32818; ROUMANIAN BLOCK TYPE.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1964.

**PI 635837. *Capsicum annuum* L.**  
NSL 32831; ROUMANIAN MEDIUM HOT.

**PI 635838. *Capsicum annuum* L.**  
NSL 32833; YOLO WONDER B IMPROVED.

The following were donated by Leatherman's Inc., Ohio, United States. Received 1965.

**PI 635839. *Capsicum annuum* L.**  
NSL 34606; HUNGARIAN SHORT RAINBOW WAX. Compact, hi-yield plants; blocky, thick-walled, yellow to red fruits. Letherman's Inc., Canton, Ohio. Feb. 1965.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1965.

**PI 635840. *Capsicum annuum* L.**  
NSL 40589; CALIFORNIA WONDER 300.

**PI 635841. *Capsicum annuum* L.**  
NSL 40590; MEXICAN CHILI 807.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1966.

**PI 635842. *Capsicum annuum* L.**  
NSL 43582; KEYSTONE RESISTANT GIANT 3.

**PI 635843. *Capsicum annuum* L.**  
NSL 43583; SANTA FE GRANDE. Upright, spreading, tall plant (24-26"), vigorous, med. drk. foliage w/good coverage; resist. tobacco mosaic virus; yel- low wax fruit, thick-fleshed, smooth, pendant, tapered. Petoseed Co., Saticoy, California, Mar. 1966.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1966.

**PI 635844. *Capsicum annuum* L.**  
NSL 45608; CALIFORNIA WONDER E.



**PI 635845. *Capsicum annuum* L.**  
NSL 45609; FLORIDA GIANT 5.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1967.

**PI 635846. *Capsicum annuum* L.**  
NSL 52896; TMR NO 69.

**PI 635847. *Capsicum annuum* L.**  
NSL 52897; MIDWAY. Habit: presents lrg. foliage (med. gr.), open, 18-24" tall; good set, heavy yield. Fruit is 4-lobed, thick-walled, dark green to brilliant red, pendant on plant. Petoseed, Saticoy, California. 1967.

The following were donated by Corneli Seed Company, 101 Chouteau Avenue, Saint Louis, Missouri 63102, United States. Received 1967.

**PI 635848. *Capsicum annuum* L.**  
NSL 53100; HUNGARIAN WAX NO 2.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1967.

**PI 635849. *Capsicum annuum* L.**  
NSL 53709; COLLEGE 6-4.

**PI 635850. *Capsicum annuum* L.**  
NSL 53711; NEMAHART.

**PI 635851. *Capsicum annuum* L.**  
NSL 53712; YOLO WONDER IMPROVED.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1967.

**PI 635852. *Capsicum annuum* L.**  
NSL 53716; LARGE EARLY NEAPOLITAN.

**PI 635853. *Capsicum annuum* L.**  
NSL 60237; BURPEES BELLRINGER. Blocky (4"x4"), extra-thick flesh, glossy green to deep red. Seed Trade News, Nov. 15, 1967.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1968.

**PI 635854. *Capsicum annuum* L.**  
NSL 65822; YOLO Y (TMR).

**PI 635855. *Capsicum annuum* L.**  
NSL 65823; PEPPER 69. Plant med. size (18-22"), abundant foliage, continuous set; resist. to tobacco mosaic virus; fruit is 4-lobed,

blocky, giant size, thick-walled, dark green to red at maturity. Petoseed, Saticoy, California 1967.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1968.

**PI 635856. *Capsicum annuum* L.**  
NSL 65837; SWEET CREAM.

The following were donated by Michigan State University, Michigan Agr. Exp. Sta., East Lansing, Michigan 48824, United States. Received 1968.

**PI 635857. *Capsicum annuum* L.**  
NSL 67354; SPARTAN GARNET. Plants are uniform dwarf size (10-12"), good foliage; pen- dant fruit, heart-shaped, med. thick-walls, dark green to red at maturity. Michigan AES Quarterly Bul. Vol. 50, #4 p.525, May 1968.

The following were donated by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 1968.

**PI 635858. *Capsicum annuum* L.**  
NSL 67999; JADE. Yolo Wonder type; short plants, concentrated maturity, hi- yield; 4-lobed fruit. Amer. Veg. Grower, Veg. Variety List. Dec. 1967.

The following were donated by Farmers Seed and Nursery Company, Faribault, Minnesota, United States. Received 1969.

**PI 635859. *Capsicum annuum* L.**  
NSL 68270; PERMAGREEN.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1969.

**PI 635860. *Capsicum annuum* L.**  
NSL 68307; ANNAHEIM M. Upright habit, continuous set, good foliage, hi-yield; fruit has taper to point (7-8" long), 2 celled, pendant on plant, dark green, med. thick-walled. Petoseed, Saticoy, California. Feb. 1969.

**PI 635861. *Capsicum annuum* L.**  
NSL 68308; MERCURY. Vigorous upright habit, tall (26-28"), lrg. leaves. Resist tobacco mosaic virus. Large, blocky, 4-lobed, dark green to dark red, pendant fruit; uniform size. Petoseed, Saticoy, California. 1969.

**PI 635862. *Capsicum annuum* L.**  
NSL 68309; PIMIENTO L. Plant med. tall (20-24"), good foliage; resist. tobacco mosaic virus; large fruit, thick-walled, conc. set, good yield at hi temp. Petoseed, Saticoy, California, Feb 1969.

**PI 635863. *Capsicum annuum* L.**

NSL 68310; SWEET CHERRY. Med. tall plant (18-20"), vigorous, upright habit, med. gr. foliage, hi-yield; fruit are 1 1/2 x 1 1/2" at stem, almost round, thin-walled, 4-celled, conc. set, dark green to deep crimson. Petoseed Co., Saticoy, Calif., Feb. 1969.

The following were donated by Twilley Seed Company, Otis, Maryland, United States. Received 1969.

**PI 635864. *Capsicum annuum* L.**

NSL 68316; GOLDEN CALWONDER.

The following were donated by Pennsylvania State University, Pennsylvania Agricultural Experiment Station, State College, Pennsylvania, United States. Received 1969.

**PI 635865. *Capsicum annuum* L.**

NSL 73132; PENNBELL. Plant is med. compact size, vigorous, good foliage, early, hi-yield; pepper is sweet, thick-walled, blocky, pendulous, grey-green at maturity. Pennsylvania AES Prog. Report, Penn. St. file #297, June 1969.

The following were donated by Auburn University, Alabama Agr. Exp. Sta., Auburn, Alabama, United States. Received 1969.

**PI 635866. *Capsicum annuum* L.**

NSL 73133; BIGHART-KL. Keeled leaf mutant, semi-determinate, conc. set; large fruit, thick-walled, hi-yield. Dr. W. Greenleaf, Hort. Dept., Auburn University, Auburn, Ala. Dec. 1969.

**PI 635867. *Capsicum annuum* L.**

NSL 73134; BIGHART-SL. Standard leaf type, indeterminate, tall; large fruit, thick-walled, hi-yield, conc. set. Dr. W. Greenleaf, Hort. Dept., Auburn Univ., Auburn, Ala. Dec. 1969.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1969.

**PI 635868. *Capsicum annuum* L.**

NSL 73247; MILD CALIFORNIA. Plant is bushy, 30" tall, continuous setting habit. Pod is 2-celled, 1 1/2" x 6" long, tapered, dark green to deep red. Petoseed, Saticoy, California, 1969.

**PI 635869. *Capsicum annuum* L.**

NSL 73249; CALORO. Erect plant, med. height (18-20"); smooth fruit with thick walls, conical (2"x1"), yellow wax type, pendant on plant. Resist. to tobacco mosaic virus. Petoseed, Saticoy, California. Dec. 1969.

**PI 635870. *Capsicum annuum* L.**

NSL 73250; ROUMANIAN SWEET. Tall (22-24") plant, sturdy upright habit, medium green foliage; blocky fruit, medium thick-walls, smooth flesh, yellow to red at maturity. Petoseed Co., Saticoy, California, Dec. 1969.

**PI 635871. *Capsicum annuum* L.**  
NSL 74343; FRESNO GRANDE.

The following were donated by Agway Seed Co., P.O. Box 1333, Syracuse, New York 13201, United States. Received 1971.

**PI 635872. *Capsicum annuum* L.**  
NSL 80281; EASTERN ROCKET.

The following were donated by Michigan State University, Michigan Agr. Exp. Sta., East Lansing, Michigan 48824, United States. Received 1972.

**PI 635873. *Capsicum annuum* L.**  
NSL 81100; FROMMAGE. Upright, med. height (18") plant w/good leaf cover; 2" fruit thick flesh, 3-5 lobes, dark green to red. Released 1972. Michigan St. Uni. AES, Lansing, Michigan. Dec. 1971.

**PI 635874. *Capsicum* sp.**  
NSL 84813; SONNETTE.

The following were donated by Thomas A. Zitter, University of Florida, Agr. Research & Educ. Center, P. O. Drawer A, Belle Glade, Florida, United States. Received 1977.

**PI 635875. *Capsicum annuum* L.**  
NSL 91520; AGRONOMICO 8.

The following were donated by New Mexico State University Agricultural Experiment Station, Las Cruces, New Mexico 88003, United States. Received 1977.

**PI 635876. *Capsicum annuum* L.**  
NSL 95186; NUMEX BIG JIM CHILE.

The following were developed by Peggy Thaxton, Texas A&M University, Dept. of Soil and Crop Science, College Station, Texas 77843, United States; Wayne Smith, Texas A&M University, Department of Soil & Crop Science, College Station, Texas 77843, United States; Roy Cantrell, Cotton Incorporated, 6399 Weston Parkway, Cary, North Carolina 27513, United States. Received 08/30/2004.

**PI 635877. *Gossypium hirsutum* L.**  
Cultivar. "TAMCOT 22". CV-121; PVP 200500006. Pedigree - TAM 87G3-27 x TAM 88G-104. Derived from a single F3:4 progeny row following single plant selection in the F2 and F3 generations. Mid season, picker-type upland cotton with growth habit similar to Deltapine 50 when grown with supplemental irrigation at College Station. Has various levels of pubescence on the stems and leaves ranging from 7 to 72 trichomes/cm<sup>2</sup> on the leaves. Possesses normal leaves and bract types, and is glanded and nectaried. Flowers from plants have cream-colored petals and anthers/pollen. Full-size green bolls are longer than their width and broader in the middle. Bolls have four locks with five occasionally.

Open bolls resist shattering, i.e. storm resistant, but are not stormproof and are suitable for picker harvesting. Resistant to silverleaf whitefly, *B. argentifolii* and moderately resistant to bacterial blight (*Xanthomonas campestris* pv. *malvacearum*). It is similar to Deltapine 50 in resistance to cotton fleahopper. Has similar levels of resistance to other insects and diseases affecting cotton as other commercial cultivars available to producers in central and southern Texas.

**PI 635878. *Gossypium hirsutum* L.**

Cultivar. "TAM96WD-69s". GP-790. Pedigree - Cross between an unreleased glabrous breeding line developed in the Cotton Improvement Laboratory 9CIL) and TAM 88 G-104. Derived from a single F2:3 plant selection. Mid season, picker type, smooth leaf and stem phenotype of upland cotton. Possesses normal leaf and bract shapes, is glanded and nectaried. Leaves averaged 9 trichomes/cm<sup>2</sup> on fully expanded leaves while Deltapine 50, TAM 96WD-22, and Tamcot CAB-CS averaged 12,33, and 4 trichomes/cm<sup>2</sup> respectively. Stems averaged one trichome/cm<sup>2</sup> compared with six on Deltapine 50, eight on TAM 96WD-22 and 0.4 on Tamcot CAB-CS.. Number of bract trichomes was 76/cm<sup>2</sup> while Deltapine 50, TAM 96WD-22 and Tamcot CAB-CS averaged 86, 242, 72 respectively. Sustained a low level of square damage due to cotton fleahopper (*Pseudatomoscelis seriatus*) similar to Lankart 142, Sure-Grow 747, Deltapine 50 and Stoneville 474, and lower than PD22 (glabrous), Acala Maxxa, TAM 96WD-22S (near smooth) and Atlas. Combines high yield potential with resistance to fleahoppers, excellent fiber qualities, and is adapted to south and central Texas.

**PI 635879. *Gossypium hirsutum* L.**

Cultivar. "TAM96WD-18". GP-789. Pedigree - Cross between TAM 88G3-27 and TAM 88G-104. Derived from a single F2:3 plant selection. Mid-season, picker-type upland cotton with a growth habit similar to Deltapine 50 when grown with supplemental irrigation at College Station. Pubescent stems and leaves, possesses normal leaves and bract types, is glanded and nectaried. Fiber quality is excellent with an average UHM length of 1.17, high volume instrument fiber bundle strength of 31.2 g/tex, and 4.3 micronaire. Combines high yield potential with excellent fiber qualities, is adapted to south and central Texas. Phenotypically homo genous and stable.

The following were collected by Shigeru Chiba, Oji Institute For Forest Trees, Kuriyama, Chiba, Japan. Received 1981.

**PI 635880. *Sorbus pohuashanensis* (Hance) Hedl.**

Cultivated. "Rufa"; CSOR 2. Collected 09/1981. Pedigree - Open-pollinated from botanical collection.

The following were donated by Tsai, Taiwan National University, Meifeng Farm, Taipei, Taiwan. Received 1981.

**PI 635881. *Sorbus randaiensis* (Hayata) Koidz.**

Wild. Blue Elder; CSOR 3. Collected 12/1981 in Taiwan. Latitude 24° N. Longitude 121° E. Elevation 2000 m. Pedigree - Uncertain.

The following were donated by Unknown. Received 1981.

**PI 635882. *Sorbus scopulina* Greene**

Wild. CSOR 9. Collected 09/14/1968 in Wyoming, United States. Latitude 43° 30' N. Longitude 110° 45' W. Pedigree - Collected from the wild in Wyoming.

The following were collected by Melvin N. Westwood, USDA/ARS/NCGR-Corvallis, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 1981.

**PI 635883. *Sorbus scopulina* Greene**

Wild. CSOR 11. Collected 1968 in Wyoming, United States. Latitude 43° 30' N. Longitude 110° 45' W. Pedigree - Collected from the wild in Wyoming.

**PI 635884. *Sorbus* sp.**

Wild. CSOR 12. Collected 1972 in Wyoming, United States. Latitude 43° N. Longitude 110° W. Western slope, Bitterroot Mountains (?). Pedigree - Collected from the wild in Wyoming.

The following were collected by Otto L. Jahn, 33740 Terra Ln., Corvallis, Oregon 97330, United States. Received 09/18/1985.

**PI 635885. *Sorbus aucuparia* L.**

Wild. European Mtn. Ash; CSOR 28. Collected 08/10/1985 in Finland. Latitude 60° 15' N. Longitude 25° 3' W. Elevation 15 m. Helsinki, in rocky area adjacent to Olympic Stadium. Pedigree - Collected from the wild in Finland. Small trees typical of species to 3-4m, large number of plants, some variation in fruit maturity.

**PI 635886. *Sorbus scopulina* Greene**

Wild. CSOR 29. Collected 08/28/1985 in Oregon, United States. Latitude 44° 20' N. Longitude 123° W. Elevation 1650 m. Willamette Nat'l Forest, logged area above Cougar Reservoir. Pedigree - Collected from the wild in Oregon. One plant, large shrub, heavy crop, much defoliation from drought.

**PI 635887. *Sorbus scopulina* var. *cascadensis* (G. N. Jones) C. L. Hitchc.**

Wild. CSOR 31. Collected 09/25/1985 in Oregon, United States. Latitude 44° 45' N. Longitude 122° 5' W. Elevation 1130 m. Willamette Nat'l Forest, in old clearcut above Opal Lake. Pedigree - Collected from the wild in Oregon. Fruit orange to red, glossy.

**PI 635888. *Sorbus sitchensis* var. *grayi* (Wenz.) C. L. Hitchc.**

Wild. CSOR 32. Collected 09/25/1985 in Oregon, United States. Latitude 44° 45' N. Longitude 122° 5' W. Elevation 1130 m. Willamette Nat'l Forest, in old clearcut above Opal Lake. Pedigree - Collected from the wild in Oregon. Fruit generally dull red, size variable, shrub 1-3m.

**PI 635889. *Sorbus scopulina* var. *cascadensis* (G. N. Jones) C. L. Hitchc.**

Wild. CSOR 38. Collected 08/08/1986 in California, United States. Latitude 39° 55' N. Longitude 121° 30' W. Elevation 1500 m. Plumas Nat'l Forest along road to Buck's Lake, Coldwater Cr. Pedigree - Collected from the wild in California. Shrub to 2.5m, few plants, fruit just ripening to mature.

The following were developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Hortus Botanicus Academie Scientiarum, Taschkent, Karamurtakaja, Tashkent, Uzbekistan. Received 04/14/1987.

**PI 635890. *Sorbus sibirica* Hedl.**

Breeding. CSOR 40. Pedigree - Seedling selection from seedlot CSOR 222. (This accession was part of the PL,SD 'breakout' - 1992).

**PI 635891. *Sorbus aucuparia* L.**

Breeding. CSOR 43. Pedigree - Seedling selection from OP seed from botanical collection.

The following were donated by Lon J. Rombough, 13113 Ehlen Road, P.O. Box 365, Aurora, Oregon 97002, United States. Received 02/11/1988.

**PI 635892. *Sorbus torminalis* (L.) Crantz**

Uncertain. CSOR 53. Developed in Unknown. Pedigree - Unknown. No additional information provided.

The following were collected by Melvin N. Westwood, USDA/ARS/NCGR-Corvallis, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 11/14/1988.

**PI 635893. *Sorbus aucuparia* L.**

Cultivated. European Mountainash; CSOR 57. Collected 11/07/1988 in Oregon, United States. Pedigree - Unknown. Native to Europe and Asia, naturalized to North America. (This accession was part of the PL,SD 'breakout' - 1992).

The following were collected by Melvin N. Westwood, USDA/ARS/NCGR-Corvallis, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 11/14/1988.

**PI 635894. *Sorbus aucuparia* L.**

Cultivated. European Mountainash; CSOR 58. Collected 10/26/1988 in Oregon, United States. Pedigree - Unknown. Native to Europe and Asia, naturalized to North America. Red-fruited clone.

The following were collected by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; David Brenner, Iowa State University, Regional Plant Introduction Station, Room G212, Agronomy Building, Ames, Iowa 50011-1170, United States. Donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 12/16/1988.

**PI 635895. *Sorbus lanata* (D. Don) Schauer**

Wild. CSOR 60. Collected 1988 in Pakistan. Latitude 47° 30' N. Longitude 70° E. Islamabad. Pedigree - Collected from the wild in Pakistan.

**PI 635896. *Sorbus lanata*** (D. Don) Schauer  
Wild. CSOR 61. Collected 1988 in Pakistan. Latitude 47° 30' N.  
Longitude 70° E. Islamabad. Pedigree - Collected from the wild in  
Pakistan.

**PI 635897. *Sorbus lanata*** (D. Don) Schauer  
Wild. CSOR 62. Collected 1988 in Pakistan. Latitude 47° 30' N.  
Longitude 70° E. Islamabad. Pedigree - Collected from the wild in  
Pakistan.

The following were developed by I.V. Michurin Central Laboratory of Genetics,  
Tambovskaya Oblast, Michurinsk, Russian Federation. Donated by J. Balvociute,  
Hortus Botanikos Kaunensis, Kaunas, Lithuania. Received 04/04/1989.

**PI 635898. *Sorbus* sp.**  
Cultivar. "Krasavitsa"; CSOR 72. Pedigree - Uncertain. Developed in the  
I.V. Michurin Central Laboratory of Genetics in Michurinsk, Lithuania.  
Scions collected in the Kanus Botanical Institute in Lithuania by T.  
Plocher of Minnesota in 1989.

The following were developed by Ivan V. Michurin, Michurin Central Genetic  
Laboratory, Tambov, Tambov, Russian Federation. Donated by J. Balvociute,  
Hortus Botanikos Kaunensis, Kaunas, Lithuania. Received 04/04/1989.

**PI 635899. *Sorbus* hybrid**  
Cultivar. "Likyornaya"; CSOR 75. Pedigree - *S. aucuparia* x *S.*  
*melanocarpa*. Fruit black, sweet, for preserves, cordials, liqueurs.  
Developed in the I.V. Michurin Central Laboratory of Genetics in  
Michurinsk, Lithuania. Scions collected in the Kanus Botanical Institute  
in Lithuania by T. Plocher of Minnesota in 1989. <P>es marketed by  
One Green World Nursery in Oregon under trademark name 'Ivan's Beauty'.

The following were developed by I.V. Michurin Central Laboratory of Genetics,  
Tambovskaya Oblast, Michurinsk, Russian Federation. Donated by J. Balvociute,  
Hortus Botanikos Kaunensis, Kaunas, Lithuania. Received 04/04/1989.

**PI 635900. *Sorbus aucuparia* L.**  
Cultivar. "Moravskaya"; CSOR 76. Pedigree - Uncertain. Developed at the  
I.V. Michurin Central Laboratory of Genetics in Michurinsk, Lithuania.  
Scions collected in the Kanus Botanical Institute in Lithuania by T.  
Plocher of Minnesota in 1989.

**PI 635901. *Sorbus umbellata*** (Desf.) Fritsch  
Breeding. CSOR 77. Pedigree - Uncertain. Received as *S. graeca*. Scions  
collected in the Kanus Botanical Institute in Lithuania by T. Plocher of  
Minnesota in 1989.

**PI 635902. *Sorbus* sp.**  
Cultivar. "Rubin"; CSOR 78. Pedigree - Uncertain. 'Rubin' means Ruby in  
Russian, perhaps referring to the color of the fruit. Developed in the  
I.V. Michurin Central Laboratory of Genetics in Michurinsk, Lithuania.  
Scions collected in the Kanus Botanical Institute in Lithuania by T.  
Plocher of Minnesota in 1989.



The following were developed by Ivan V. Michurin, Michurin Central Genetic Laboratory, Tambov, Tambov, Russian Federation. Donated by J. Balvociute, Hortus Botanikos Kaunensis, Kaunas, Lithuania. Received 04/04/1989.

**PI 635903. Sorbus hybrid**

Cultivar. "Burka"; CSOR 80. Pedigree - *S. alpina* x *S. aucuparia*. Developed at the I.V. Michurin Central Laboratory of Genetics in Michurinsk, Lithuania. Scions collected in the Kanus Botanical Institute in Lithuania by T. Plocher of Minnesota in 1989. Extraordinarily resistant to frost at Michurinsk.

The following were developed by I.V. Michurin Central Laboratory of Genetics, Tambovskaya Oblast, Michurinsk, Russian Federation. Donated by J. Balvociute, Hortus Botanikos Kaunensis, Kaunas, Lithuania. Received 04/04/1989.

**PI 635904. Sorbus hybrida L.**

Breeding. CSOR 82. Pedigree - *S. aucuparia* x *intermedia*. Scions collected in the Kanus Botanical Institute in Lithuania by T. Plocher of Minnesota in 1989.

**PI 635905. Sorbus pallescens Rehder**

Breeding. CSOR 84. Pedigree - Uncertain. Quite closely related to *S. aria*.

The following were developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Jan Pirzio-Birloli, University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 05/03/1989.

**PI 635906. Sorbus decora (Sarg.) C. K. Schneid.**

Breeding. CSOR 89. Pedigree - Seedling sel. from seedlot from botanical collection.

The following were donated by C. Ferris Miller, Chollipo Arboretum, 344-16 Yonhui-dong, Sodaemun-kuSosan Gun, Seoul, Seoul 120-113, Korea, South. Received 05/02/1989.

**PI 635907. Sorbus esserteauana Koehne**

Cultivated. CSOR 98. Pedigree - Open-pollinated from botanical collection.

The following were collected by Henrietta Chambers, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Kim Hummer, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Nick Vorsa, Rutgers University, Blueberry & Cranberry, Research Station, Chatsworth, New Jersey 08109, United States. Donated by Henrietta Chambers, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 09/27/1989.

**PI 635908. *Sorbus sitchensis*** M. Roem.

Wild. CSOR 102. Collected 09/27/1989 in Oregon, United States. Latitude 44° 20' N. Longitude 122° 15' W. Along trailside at Iron Mountain. Pedigree - Collected from the wild in Oregon.

The following were donated by Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 11/24/1989.

**PI 635909. *Sorbus alnifolia*** (Siebold & Zucc.) K. Koch

Cultivated. KSW 3633; CSOR 103. Collected 09/23/1985. Pedigree - Seedling selection from seed collected wild in Korea. Colonial deciduous shrub forming an extensive nearly pure colony ca 1 m tall; lvs. medium green, lustrous, turning.

The following were developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Received 12/06/1989.

**PI 635910. *Sorbus decora*** (Sarg.) C. K. Schneid.

Breeding. CSOR 104. Pedigree - Seedling selection from OP seed from botanical collection.

The following were collected by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Received 12/06/1989.

**PI 635911. *Sorbus* sp.**

Cultivated. "Joseph Rock"; CSOR 107. Collected 1987 in Scotland, United Kingdom. Pedigree - Open-pollinated seed from botanical collection.

The following were collected by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 12/06/1989.

**PI 635912. *Sorbus randaiensis*** (Hayata) Koidz.

Cultivated. CSOR 111. Collected 1987 in Scotland, United Kingdom. Pedigree - Open-pollinated seed from botanical collection. (This accession was part of the PL,SD 'breakout' - 1992).

The following were collected by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Received 12/06/1989.

**PI 635913. *Sorbus commixta* var. *rufoferruginea*** C. K. Schneid.

Cultivated. CSOR 112. Collected 1987 in Scotland, United Kingdom. Pedigree - Open-pollinated seed from botanical collection.

The following were collected by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 12/06/1989.

**PI 635914. *Sorbus serotina* Koehne**

Cultivated. CSOR 114. Collected 1987 in Scotland, United Kingdom. Pedigree - Open-pollinated seed from botanical collection. (This accession was part of the PL,SD 'breakout' - 1992).

The following were collected by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Received 12/06/1989.

**PI 635915. *Sorbus wilsoniana* C. K. Schneid.**

Cultivated. CSOR 115. Collected 1987 in Scotland, United Kingdom. Pedigree - Open-pollinated seed from botanical collection.

The following were collected by Clive Simms, Woodhurst, 6 Stamford Rd., Essendine, Stamford, Stamford, England PE9 4LQ, United Kingdom. Donated by Elwyn M. Meader, 43 Meaderboro Rd., Rochester, New Hampshire 03867-4235, United States. Received 12/06/1989.

**PI 635916. *Sorbus commixta* Hedl.**

Cultivated. Red Korean Mtn. Ash; CSOR 116. Collected 1987 in Korea, South. Pedigree - Seedling selection from seedlot collected in Korea.

The following were developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Hortus Botanicus Academie Scientiarum, Taschkent, Karamurtakaja, Tashkent, Uzbekistan. Received 04/24/1990.

**PI 635917. *Sorbus latifolia* (Lam.) Pers.**

Cultivated. CSOR 118. Pedigree - Open-pollinated seed from botanical collection. (This accession was part of the PL,SD 'breakout' - 1992).

The following were donated by Hortus Botanicus Academie Scientiarum, Taschkent, Karamurtakaja, Tashkent, Uzbekistan. Received 04/24/1990.

**PI 635918. *Sorbus tianschanica* Rupr.**

Cultivated. CSOR 119. Pedigree - Open-pollinated seed from botanical collection.

The following were developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Hortus Botanicus Academie Scientiarum, Taschkent, Karamurtakaja, Tashkent, Uzbekistan. Received 04/24/1990.

**PI 635919. *Sorbus torminalis* (L.) Crantz**

Cultivated. CSOR 120. Pedigree - Open-pollinated seed from botanical collection. (This accession was part of the PL,SD 'breakout' - 1992).

The following were developed by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Donated by Leonid A. Burmistrov, N.I. Vavilov Research Institute of Plant Industry, Department of Introduction, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 01/11/1991.

**PI 635920. *Sorbus sambucifolia*** (Cham. & Schltdl.) M. Roem.  
Uncertain. CSOR 127. Pedigree - Uncertain.

The following were developed by J. Frank Schmidt. Donated by Robert Ticknor, Oregon State University, North Willamette Exp. Sta., 15210 NE Miley Rd., Aurora, Oregon 97002, United States. Received 02/19/1991.

**PI 635921. *Sorbus aucuparia*** L.  
Cultivar. "Cardinal Royal"; CSOR 133. Pedigree - Uncertain.

The following were developed by Handy Nursery, United States. Donated by Robert Ticknor, Oregon State University, North Willamette Exp. Sta., 15210 NE Miley Rd., Aurora, Oregon 97002, United States. Received 02/19/1991.

**PI 635922. *Sorbus cashmiriana*** Hedl.  
Cultivated. CSOR 134. Pedigree - Uncertain.

**PI 635923. *Sorbus wilsoniana*** C. K. Schneid.  
Cultivated. CSOR 135. Pedigree - Uncertain.

**PI 635924. *Sorbus* sp.**  
Cultivar. "Leonard Springer"; CSOR 136. Pedigree - Uncertain.

The following were developed by USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 02/13/1991.

**PI 635925. *Sorbus discolor*** (Maxim.) Maxim.  
Cultivated. Ames 2817; CSOR 161. Collected in Manitoba, Canada.  
Pedigree - Uncertain. (This accession was part of the PL,SD 'breakout' - 1992).

The following were donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 02/13/1991.

**PI 635926. *Sorbus tianschanica*** Rupr.  
Cultivated. Ames 2819; CSOR 163. Collected in Manitoba, Canada.  
Pedigree - Uncertain. Received plants 9-17-93.

The following were developed by Agriculture Canada, Research Branch, Research Station, Unit 100-101 Route 100, Morden, Manitoba R6M 1Y5, Canada. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant

Introduction Station, Ames, Iowa 50011-1170, United States. Received 04/15/1991.

**PI 635927. *Sorbus pohuashanensis*** (Hance) Hedl.

Breeding. Ames 2820; CSOR 169. Collected in Manitoba, Canada. Pedigree - Seedling selection from wild seedlot.

The following were collected by Minnesota Landscape Arboretum, University of Minnesota, 3675 Arboretum Drive, Chanhassen, Minnesota 55317, United States. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 04/15/1991.

**PI 635928. *Sorbus alnifolia*** (Siebold & Zucc.) K. Koch

Cultivated. Ames 7606; CSOR 171. Collected in Minnesota, United States. Pedigree - Open pollinated selection from botanical garden. Minnesota Landscape Arboretum Seed Exchange. Medium-sized, deciduous tree.

The following were developed by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 04/15/1991.

**PI 635929. *Sorbus umbellata*** (Desf.) Fritsch

Breeding. 2799; Ames 7844; CSOR 172. Pedigree - Open pollinated selection from botanical garden.

**PI 635930. *Sorbus discolor*** (Maxim.) Maxim.

Breeding. 2368; Ames 10324; CSOR 173. Pedigree - Open pollinated selection from botanical garden.

The following were collected by C. Ferris Miller, Chollipo Arboretum, 344-16 Yonhui-dong, Sodaemun-kuSosan Gun, Seoul, Seoul 120-113, Korea, South. Received 06/07/1991.

**PI 635931. *Sorbus esserteauana*** Koehne

Cultivated. CSOR 174. Collected 1991 in Korea, South. Pedigree - Open pollinated from botanical collection.

The following were collected by Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635932. *Sorbus aucuparia*** L.

Cultivated. CSOR 177. Collected 1991. Pedigree - Uncertain, from botanical collection. From Europe.

**PI 635933. *Sorbus aucuparia*** L.

Cultivated. CSOR 178. Collected 1991. Pedigree - Uncertain, from botanical collection. *S. aucuparia* hybrid, upright yellow.

**PI 635934. *Sorbus intermedia*** (Ehrh.) Pers.

Cultivated. CSOR 179. Collected 1991. Pedigree - Uncertain, from botanical collection. From South to Southeast Europe.

**PI 635935. *Sorbus latifolia*** (Lam.) Pers.

Cultivated. CSOR 180. Collected 1991. Pedigree - Uncertain, from botanical collection. From Western England.

**PI 635936. *Sorbus cashmiriana*** Hedl.

Cultivated. Kashmir Mountain Ash; CSOR 181. Collected 1991. Pedigree - Uncertain, from botanical collection. From Western Himalayas.

The following were donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635937. *Sorbus cashmiriana*** Hedl.

Cultivated. Kashmir Mountain Ash; CSOR 182. Collected 1991 in Nepal. Pedigree - Uncertain, from botanical collection. From Kashmir.

The following were collected by Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635938. *Sorbus commixta*** Hedl.

Cultivated. CSOR 185. Collected 1991. Pedigree - Uncertain, from botanical collection. From Eastern Asia.

**PI 635939. *Sorbus commixta*** Hedl.

Cultivated. CSOR 186. Collected 1991. Pedigree - Uncertain, from botanical collection. Yellow fruited form.

The following were donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635940. *Sorbus dacica*** Borbas

Cultivated. CSOR 188. Collected 1991 in Romania. Pedigree - Uncertain, from botanical collection. From Romania.

**PI 635941. *Sorbus latifolia*** (Lam.) Pers.

Cultivated. CSOR 190. Collected 1991 in England, United Kingdom. Pedigree - Uncertain, from botanical collection. From Southern England, Ireland.

**PI 635942. *Sorbus foliolosa*** (Wall.) Spach

Cultivated. CSOR 193. Collected 1991 in Nepal. Pedigree - Uncertain, from botanical garden. From Nepal, Sikkim.

**PI 635943. *Sorbus forrestii*** McAll. & Gillham  
Cultivated. CSOR 194. Collected 1991 in China. Pedigree - Uncertain,  
from botanical garden. From Western China.

**PI 635944. *Sorbus gracilis*** (Siebold & Zucc.) K. Koch  
Cultivated. CSOR 195. Collected 1991 in Japan. Pedigree - Uncertain,  
from botanical garden. From the mountains of Southern Japan.

The following were collected by Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635945. *Sorbus hybrida*** L.  
Cultivated. CSOR 196. Collected 1991. Pedigree - Uncertain, from  
botanical garden. From Scandinavia.

The following were donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635946. *Sorbus meinichii*** (Lindeb. ex C. Hartm.) Hedl.  
Cultivated. CSOR 197. Collected 1991 in Norway. Pedigree - Uncertain,  
from botanical collection. From Norway.

The following were collected by Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635947. *Sorbus intermedia*** (Ehrh.) Pers.  
Cultivated. Swedish Whitebeam; CSOR 198. Collected 1991. Pedigree -  
Uncertain, from botanical garden. From Northern Europe.

**PI 635948. *Sorbus microphylla*** Wenz.  
Cultivated. CSOR 200. Collected 1991. Pedigree - Uncertain, from  
botanical garden. From Central Asia.

**PI 635949. *Sorbus minima*** (Ley) Hedl.  
Cultivated. CSOR 201. Collected 1991. Pedigree - Uncertain, from  
botanical garden. From Wales.

The following were donated by University of Washington, Center for Urban Horticulture, Washington Park Arboretum, Seattle, Washington 98195, United States. Received 02/15/1991.

**PI 635950. *Sorbus pohnuashanensis*** (Hance) Hedl.  
Cultivated. CSOR 202. Collected 1991 in China. Pedigree - Uncertain,  
from botanical garden. From Western China.

**PI 635951. *Sorbus randaiensis*** (Hayata) Koidz.  
Cultivated. CSOR 203. Collected 1991 in Taiwan. Pedigree - Uncertain,  
from botanical garden. From Taiwan (Formosa).

**PI 635952. *Sorbus x hostii*** (J. Jacq.) Heynh.  
Cultivated. CSOR 209. Collected 1991 in Uncertain. Pedigree -  
Uncertain, from botanical garden. Natural hybrid (*chaemespilus x*  
*mougeotii*), from Central Europe.

The following were collected by Stoney J. Wright, Alaska Plant Materials  
Center, Alaska Department of Natural Resources, Division of Agriculture,  
Palmer, Alaska 99645-9706, United States. Donated by Donald Ross,  
USDA/ARS/SCS/Plant Materials Center, Palmer, Alaska, United States. Received  
10/03/1991.

**PI 635953. *Sorbus sambucifolia*** (Cham. & Schltdl.) M. Roem.  
Wild. Siberian Mountain-Ash; CSOR 210. Collected 09/13/1991 in Alaska,  
United States. Attu Island. Pedigree - Collected from the wild in  
Alaska. From wild population.

The following were developed by Jay Goodwin, National Clonal Germplasm  
Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States.  
Received 02/11/1992.

**PI 635954. *Sorbus pohnuashanensis*** (Hance) Hedl.  
Breeding. CSOR 217. Collected in Manitoba, Canada. Pedigree - Seed  
increase of CSOR 169. Parent clone received from Widrlechner.

The following were developed by USDA, ARS, U.S. National Arboretum, Woody  
Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United  
States. Received 01/28/1993.

**PI 635955. *Sorbus commixta*** Hedl.  
Cultivated. NA 45203; CSOR 233. Pedigree - Originally collected from the  
wild in Japan. Leaves pinnate with 10 leaflets, fruit red in terminal  
clusters.

The following were collected by Elizabeth Dickson, NYS Agricultural  
Experiment Station, Horticultural Sciences, Hedrick Hall, Geneva, New York  
14456-0462, United States; Philip L. Forsline, USDA, ARS, Cornell University,  
Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States;  
Gaylord Mink, Washington State University, Irrigated Agricultural Res. & Ext.  
Ctr., Route 2, Box 2953-A, Prosser, Washington 99350, United States. Donated  
by George A. White, USDA, ARS, National Germplasm Repository, University of  
California, Davis, California 95616, United States. Received 10/05/1993.

**PI 635956. *Sorbus sibirica*** Hedl.  
Uncertain. KAZ 93-20-1; CSOR 235. Collected 09/1993 in Kazakhstan.  
Latitude 45° 22' 56" N. Longitude 80° 25' 28" E. Elevation 2005 m. Sarkan,  
Village of Topolevka, Forestry camp #16. shallow, exposed rock, 35% east  
facing slope, 750-800mm rainfall, with *Lonicera*, *Picea transiberica*, *Pinus*  
*sibirica*, *Pinus shirinkeranae*, *Juniperus*, thistles.



The following were donated by Harri Poom, Vandra side, Estonia. Received 03/14/1996.

**PI 635957. *Sorbus hybrid***

Cultivar. "Alaya Krupnaya"; CSOR 239. Collected in Estonia. Pedigree - (S. aucuparia X Pyrus sp.) X S. aucuparia var. moravica.

**PI 635958. *Sorbus aucuparia* L.**

Cultivar. "Saharnaya"; CSOR 240. Collected in Estonia.

**PI 635959. *Sorbus alnifolia* (Siebold & Zucc.) K. Koch**

Cultivated. CSOR 242. Collected in Estonia.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Sheng Ke Xi, The Chinese Academy of Forestry, Beijing, Beijing, China; Qinghua Zhang, Institute of Forest Ecology and Environment, Chinese Academy of Forestry, Wan Shou Shan, Beijing, Beijing 100091, China. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/24/1996.

**PI 635960. *Sorbus pohnuashanensis* (Hance) Hedl.**

Cultivated. 96096A; CSOR 243. Collected 08/07/1996 in Heilongjiang, China.

The following were collected by C. Ferris Miller, Chollipo Arboretum, 344-16 Yonhui-dong, Sodaemun-kuSosan Gun, Seoul, Seoul 120-113, Korea, South. Received 05/08/1996.

**PI 635961. *Sorbus esserteauana* Koehne**

Cultivated. CSOR 257; 188 (1996). Collected 1995 in Chungchong Nam, Korea, South. Elevation 0 m. Chollipo Arboretum, Tae-an-Gun, Chungchong Namdo.

**PI 635962. *Sorbus esserteauana* Koehne**

Cultivated. "Flava"; CSOR 258; 189 (1996). Collected 1995 in Chungchong Nam, Korea, South. Elevation 0 m. Chollipo Arboretum, Tae-an-Gun, Chungchong Namdo.

The following were collected by Peter Bristol, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44060-5172, United States; Paul Meyer, The University of Pennsylvania, Morris Arboretum, 9414 Meadowlark Avenue, Philadelphia, Pennsylvania 19118, United States; Kris Bachtell, The Morton Arboretum, 4100 Illinois Route 53, Lisle, Illinois 60532-1293, United States. Donated by USDA, ARS, U.S. National Arboretum, 3501 New York Avenue, N.E., Washington, District of Columbia 20002, United States. Received 01/18/1994.

**PI 635963. *Sorbus alnifolia* (Siebold & Zucc.) K. Koch**

Wild. HLJ 93; CSOR 260. Collected 09/13/1993 in Heilongjiang, China. Latitude 43° 52' 3" N. Longitude 128° 55' 3" E. Elevation 310 m. Jian Chan Jiao, . Woodland edge along lake shore with *Quercus mongolica*, *Rhododendron mucronulatum*, *Tilia amurensis*, *Acer mono*, *Deutzia parviflora*, *Acer tegmentosum*. Pedigree - Collected from the wild in Heilongjiang, China.

The following were collected by Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Qing Wang, Nanjing Botanical Garden, Mem. Sun Yat-Sen, P.O. Box 1435, Nanjing, Jiangsu 210014, China; Shi-Qiang Zhou, Wolong Nature Preserve, Wolong, Sichuan, China. Donated by Shawn Belt, USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Glenn Dale, Maryland 20769-9157, United States. Received 10/05/1999.

**PI 635964. *Sorbus koehneana* C. K. Schneid.**

Wild. TS 99-007; NA 69946; CSOR 267. Collected 10/05/1999 in Sichuan, China. Latitude 30° 53' 44" N. Longitude 103° 0' 34" E. Elevation 2570 m. Wenchang County, Wen Xiang Gou Preserve, collected along bank of the Wen Ziang Jie river. Alluvial, well drained, moist soil. Plant was 15 feet high with a D.B.H. of approx. 1.5".

The following were collected by Kim Hummer, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Nick Vorsa, Rutgers University, Blueberry & Cranberry, Research Station, Chatsworth, New Jersey 08109, United States; Pavel Cherbukin, Vavilov Research Institute, Far Eastern Experiment Station, Vavilov Str. 9, Vladivostok, Primorye 690025, Russian Federation; Andrey Sabitov, N.I. Vavilov All-Russian Res. Inst. of Plant Industry, Far East Experiment Station, Vavilov Str. 9, Vladivostok, Primorye 690025, Russian Federation. Donated by Kim Hummer, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 08/31/2001.

**PI 635965. *Sorbus pohnuashanensis* (Hance) Hedl.**

Wild. CSOR 272. Collected 08/09/2001 in Primorye, Russian Federation. Latitude 44° 17' 19" N. Longitude 133° 39' 8" E. Elevation 396 m. Yakovleskya district, 15 km east of Dostoyevka, Elov pass. 50% exposure, 45 degree slope, Northeastern aspect, pull off at NE edge of road, soil texture is a gravel loam, associate vegetation, *Populus* sp., *Urtica dioica*, *Betula*, *rubus crataegifolius*, woodland. Pedigree - Collected from the wild in Primorye, Russian Federation.

**PI 635966. *Sorbus pohnuashanensis* (Hance) Hedl.**

Wild. CSOR 273. Collected 08/13/2001 in Primorye, Russian Federation. Latitude 45° 25' 56" N. Longitude 135° 31' 42" W. Elevation 340 m. Luchegorsk. 50% exposure, 20 degree slope, dense woods edge of road, soil texture gravel loam, drainage 2 of 5 (with 1 poor). Pedigree - Collected from the wild in Khabarovsk, Russian Federation.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 06/27/2002.

**PI 635967. *Sorbus aucuparia* L.**

Wild. CSOR 277. Collected 08/20/2001 in Armenia. Latitude 40° 40' 6" N. Longitude 44° 53' 10" E. Elevation 2047 m. Steep canyon off of road to Dilijan Reserve from Lake Sevan. Pedigree - Collected from the wild in Armenia.

The following were collected by Andrey Sabitov, N.I. Vavilov All-Russian Res. Inst. of Plant Industry, Far East Experiment Station, Vavilov Str. 9, Vladivostok, Primorye 690025, Russian Federation. Received 12/07/2001.

**PI 635968. *Sorbus sambucifolia* (Cham. & Schltdl.) M. Roem.**

Wild. CSOR 289. Collected 2001 in Khabarovsk, Russian Federation. Latitude 49° 4' 59" N. Longitude 140° 15' E. Elevation 0 m. The Sea of Japan coast near the town of Vanino. Pedigree - Collected from the wild in Khabarovsk, Russian Federation.

**PI 635969. *Sorbus sambucifolia* (Cham. & Schltdl.) M. Roem.**

Wild. 53E-2002; CSOR 290. Collected 08/2002 in Amur, Russian Federation. Elevation 0 m. Right side of Selemja River island, 60 km below Stoyba village. Pedigree - Collected from the wild in Amur, Russian Federation.

The following were collected by Harold Pellett, Landscape Plant Development Center, 1450 Game Farm Road, P.O. Box 444, Mound, Minnesota 55364, United States. Received 04/06/2004.

**PI 635970. *Sorbus* sp.**

Wild. HP 03-17; CSOR 292; Lake Superior. Collected 2003 in Minnesota, United States. Latitude 47° 20' 22" N. Longitude 91° 11' 7" W. Elevation 0 m. North shore of Lake Superior. Pedigree - Collected from the wild in Minnesota.

The following were collected by Marine Mosulishvili, Plant Systematics, Institute of Botany, Georgian Academy of Sciences, Kojori road 1, Tbilisi, Georgia. Received 04/30/2004.

**PI 635971. *Sorbus aucuparia* L.**

Wild. *S. aucuparia* #16; CSOR 293. Collected 11/27/2003 in Georgia. Latitude 42° 39' 55" N. Longitude 44° 37' 9" E. Elevation 1935 m. Shida Kartli Region, Kazbegi District, near village Gergeti. Pedigree - Collected from the wild in the Caucasus Mountains, Georgia.

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

**PI 635972. *Sorbus torminalis* (L.) Crantz**

Cultivated. WSYUS 72; Ames 25548. Collected 09/18/1999 in Cherkasy, Ukraine. Latitude 48° 45' N. Longitude 30° 13' 20" E. Uphill from entrance to Sofiyivka Park, Uman. Open planting site on hillside of garden. 5% slope with a southwestern exposure. Sandy loam soil with good drainage. Oval/pyramidal crown.

The following were collected by Vasily Yukhnovsky, National Agricultural University of Ukraine, Forestry Department, Str. 15 G. Oborony, Kiev, Kiev 252041, Ukraine. Received 11/27/2000.

**PI 635973. *Sorbus torminalis* (L.) Crantz**

Cultivated. 2.1; Ames 26148. Collected 10/2000 in Kiev, Ukraine. Latitude 50° 26' N. Longitude 30° 31' E. Elevation 120 m. National Botanical Garden, Kyiv.

**PI 635974. *Sorbus torminalis* (L.) Crantz**

Cultivated. 2.2; Ames 26149. Collected 10/2000 in Kiev, Ukraine. Latitude 50° 22' 59" N. Longitude 30° 30' 14" E. Elevation 140 m. Dendrology garden at the National Agricultural University, Kyiv.

The following were collected by Edward J. Garvey, USDA, ARS, National Germplasm Repository, U.S. National Arboretum, Washington, District of Columbia 20002, United States. Received 10/1989.

**PI 635975. *Sorbus americana* Marshall**

Wild. GU 119; NA 61283. Collected 09/27/1989 in Virginia, United States. Elevation 600 m. Pendleton County. Forest route 85 to Reddish Knob. Forest. Pedigree - Collected from the Wild in Virginia.

The following were collected by Peter Bristol, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44060-5172, United States. Donated by Shawn Belt, USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Glenn Dale, Maryland 20769-9157, United States. Received 01/30/1997.

**PI 635976. *Sorbus commixta* Hedl.**

Wild. NEKG 189; CSOR 252; NA 61788. Collected 10/19/1989 in Kyongsang Puk, Korea, South. Latitude 37° 29' N. Longitude 130° 54' 50" E. Elevation 100 m. Ullung Do (island), ridge east of Todong. Growing with *Elaeagnus macrophylla*, *Camellia japonica*. Pedigree - Collected from the wild in South Korea.

The following were collected by Peter Bristol, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44060-5172, United States; Paul Meyer, The University of Pennsylvania, Morris Arboretum, 9414 Meadowlark Avenue, Philadelphia, Pennsylvania 19118, United States; Kris Bachtell, The Morton Arboretum, 4100 Illinois Route 53, Lisle, Illinois 60532-1293, United States. Received 10/1993.

**PI 635977. *Sorbus pohnuashanensis* (Hance) Hedl.**

Wild. HLJ-96; NA 64220. Collected 09/14/1993 in Heilongjiang, China. Latitude 43° 45' 47" N. Longitude 129° 11' 48" E. Elevation 544

m. Jian Shan Jiao. Wet upland woods (edge) with *Betula costata*, *Betula platyphylla* var. *mandshurica*, *Vitis amurensis*, *Alnus sibirica*, *Corylus* sp.

The following were collected by Charles Tubering, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44094-5172, United States; Rick J. Lewandowski, Morris Arboretum, The University of Pennsylvania, 9414 Meadowbrook Road, Philadelphia, Pennsylvania 19118, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Kris Bachtell, The Morton Arboretum, 4100 Illinois Route 53, Lisle, Illinois 60532-1293, United States. Received 01/30/1997.

**PI 635978. *Sorbus alnifolia*** (Siebold & Zucc.) K. Koch

Wild. BJB 96; CSOR 247; NA 64606. Collected 09/20/1994 in Beijing, China. Latitude 40° 31' N. Longitude 115° 45' E. Elevation 1210 m. Song Shan Forest Preserve, Da Xi Gou (Big West Valley). South facing, very steep slope on eroding granite in full sun, very well drained and dry. In association with *Spirea* sp., *Rhamnus* sp., *Deutzia* sp., *Lonicera* sp. and grasses.

**PI 635979. *Sorbus pouhuashanensis*** (Hance) Hedl.

Wild. BJB 122; CSOR 250; NA 64632. Collected 09/25/1994 in Beijing, China. Latitude 39° 49' 52" N. Longitude 115° 35' 21" E. Elevation 1690 m. Baihua Shan Forest Preserve, Da Mu Chang (Big Trunk Field) Mentougou District, Beijing municipality, People's Republic of China. Growing on north facing slope in full sun in association with *Syringa* sp., *Corylus mandshurica*, *Acer truncatum*, *Populus davidana*, *Betula davurica*, *Aquilegia* sp., *Lespedeza bicolor*, *Rhododendron mucronulatum* and *Cornus bretschneideri*. Pedigree - Collected from the wild of China.

**PI 635980. *Sorbus hybrid***

Wild. BJB 128; CSOR 251; NA 64638. Collected 09/26/1994 in Beijing, China. Latitude 39° 50' 33" N. Longitude 115° 35' 24" E. Elevation 1590 m. Baihua Shan Forest Preserve, Mentougou District, Aoyu Gou (Valley in a Valley). People's Republic of China. Growing on a N-NW facing slope in a moist woodland in association with *Betula chinensis*, *Clematis* sp., *Abelia biflora*, *Corylus mandshurica*, *Populus davidiana*, *Syringa* sp. and *Lezpedeza* sp. Pedigree - *S. discolor* x *pouhuashanensis*.

The following were collected by Charles Tubering, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44094-5172, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Kris Bachtell, The Morton Arboretum, 4100 Illinois Route 53, Lisle, Illinois 60532-1293, United States; Rick J. Lewandowski, Mt. Cuba Center for the Study of the Piedmont Flora, P.O. 3570, Greenville, Delaware 19807-0570, United States. Received 11/01/1994.

**PI 635981. *Sorbus pouhuashanensis*** (Hance) Hedl.

Wild. BJB-136; NA 64646. Collected 09/28/1994 in Beijing, China. Latitude 39° 59' 36" N. Longitude 115° 26' 39" E. Elevation 1780 m. Guang Ri Tuo (Hill Where Sunrise is Seen), Xiao Long Meng Forest Preserve, Dongling Shan, Mentougou District. Growing on an east facing slope, seasonally moist soils in partial shade; in association with *Acer*

truncatum, *Philadelphus* sp., *Corylus mandshurica*, *Betula chinensis*, *Caragana arborescens* and numerous herbaceous species.

**PI 635982. *Sorbus discolor*** (Maxim.) Maxim.

Wild. BJG 139; NA 64649. Collected 09/29/1994 in Beijing, China. Latitude 39° 57' 21" N. Longitude 115° 25' 40" E. Elevation 1420 m. Xiao Long Meng Forest Preserve, Dongling Shan, Mentougou District, Da Nang Gou (Big South Valley). People's Republic of China. Rich organic moist soil near a stream in a cool valley, protected from sun and wind; with *Aconitum* sp., *Angelica* sp., *D. parviflora*, *C. mandshurica*, *U. macrocarpa*, *Acer mono*, *H. bretschnideri*, *R. crataegifolium* and *M. struthiopteris*. Pedigree - Collected from the wild in China.

The following were collected by Tiecheng Cui, Xian Botanic Garden, Cuihua South Rd., Xian City, Shaanxi 710061, China. Received 01/21/1994.

**PI 635983. *Sorbus koehneana*** C. K. Schneid.

Wild. XBG4; NA 64760. Collected 10/06/1993 in Shaanxi, China. Latitude 33° 57' N. Longitude 107° 45' E. Elevation 2900 m. Taibaishan mountains, Mingxingshi.

**PI 635984. *Sorbus hupehensis*** C. K. Schneid.

Wild. Cui 3027; NA 3027; NA 67484. Collected 09/24/1994 in Shaanxi, China. Elevation 2200 m. Chaoyang Valley, Ningxi Forestry Bureau, Ningshaang county.

The following were collected by Rick J. Lewandowski, Morris Arboretum, The University of Pennsylvania, 9414 Meadowbrook Road, Philadelphia, Pennsylvania 19118, United States; Kevin Conrad, U.S. National Arboretum, USDA, ARS, 3501 New York Avenue, N.E., Washington, District of Columbia 20002, United States; Tiecheng Cui, Xian Botanic Garden, Cuihua South Rd., Xian City, Shaanxi 710061, China; Kunso Kim, Norfolk Botanical Garden, Azalea Garden Road, Norfolk, Virginia 23518, United States; James R. Ault, Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022, United States. Received 10/18/1996.

**PI 635985. *Sorbus hupehensis*** C. K. Schneid.

QLG 143; NA 67773. Collected 10/18/1996 in Shaanxi, China. Latitude 33° 39' 1" N. Longitude 106° 45' 1" E. Elevation 1910 m. Liuba Forest Bureau, Miaotaizi Forest Station, Guang Hua Shan. well-drained site in full sun on an exposed ridge. 5-8 meters; single and multi-stemmed, deciduous trees with upright rounded habit; collected from 3-5 plants; bark gray with patches of white and smooth; fruit white in large clusters.

**PI 635986. *Sorbus koehneana*** C. K. Schneid.

QLG 178; NA 67808. Collected 10/18/1996 in Shaanxi, China. Latitude 33° 43' N. Longitude 108° 12' E. Elevation 2290 m. Ningxi Preserve, Caiziping Forest Station, Lan Ni Hu. open, sunny site on embankment near road. 3-5 meters; multi-stemmed, deciduous shrub or small tree with upright habit; D.B.H. 2.5-20 cm; bark gray; pinnately compound foliage is turning bright red; fruit white in large clusters.

**PI 635987. *Sorbus koehneana*** C. K. Schneid.

QLG 212; NA 67842. Collected 10/18/1996 in Shaanxi, China. Latitude 33° 47' 47" N. Longitude 108° 20' E. Elevation 2770 m. Ningxi

Preserve, Caiziping Forest Station, Qi Shi Yi Gong Li, Shou Yang Shan. steep slope in the boulder field in part to full sun; entire mountainside is periodically in the clouds. Deciduous, multi-stemmed tree or large shrub with vase-shaped spreading habit. 3-6 meters tall, 15-25cm dia., bark gray with horizontal lenticels. Leaves changing to dark burgandy autumn coloration. Fruit white, borne in clusters of 15-25.

The following were collected by Tiecheng Cui, Xian Botanic Garden, Cuihua South Rd., Xian City, Shaanxi 710061, China. Received 02/2002.

**PI 635988. *Sorbus alnifolia*** (Siebold & Zucc.) K. Koch  
Wild. Cui 2001-077; NA 72081. Collected 11/06/2001 in Shaanxi, China. Latitude 34° 5' 10" N. Longitude 107° 59' 20" E. Elevation 1400 m. Nan Gou of East River Area, Taibaishan, Meixian County. Slope 40 deg. Aspect N. Pedigree - Collected from the wild in Shaanxi, China. Common Name: Shui Yu Hua Qiu.

Unknown source. Received 12/17/2002.

**PI 635989. *Sorbus pohuashanensis*** (Hance) Hedl.  
Wild. S. pohuashanensis #13; NA 72402. Collected in Shanxi, China. Latitude 37° 50' 43" N. Longitude 111° 31' 56" E. Elevation 2112 m. Shanxi, Jiao Cheng, Heng Jian Zhen, Panquangou. Streambank along trail; rocky, but moist area, mostly sunny. Ggrowing in association with Populus, Picea, Salix, Rosa, Betula, Ribes. Slope 15 degrees West. Rocky rich organic. Pedigree - Collected from the wild in Shanxi, China. Seeds were collected. Six herbarium specimens.

Unknown source. Received 09/10/2004.

**PI 635990. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. "NC-Neuse".

The following were developed by Syngenta Seeds, Inc., United States. Received 09/10/2004.

**PI 635991 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "NP 2460". PVP 200400302.

The following were developed by Halliburton Energy Services, Inc., United States. Received 09/10/2004.

**PI 635992 PVPO. *Cyamopsis tetragonoloba*** (L.) Taub.  
Cultivar. "MONUMENT". PVP 200400301.

Unknown source. Received 09/01/2004.

**PI 635993. *Pseudoroegneria spicata*** (Pursh) A. Love  
Cultivated. "Anatone"; AGSP B53-88; 9076424; W6 26169. Collected 1988 in Washington, United States. Approximately .8 km (.5 miles) south of

Highway 129 near Mill Creek Road at the edge of Mill Creek Canyon in Asotin county. in southeastern Washington State. Description: Anatone Germplasm bluebunch wheatgrass is similar in general appearance to `Goldar? bluebunch wheatgrass, `Whitmar? beardless wheatgrass (Pseudoroegneria spicata [Pursh] A. Love ssp. inermis [Scribner & J.G. Smith] A. Love), and `Secar? Snake River wheatgrass (Elymus wawawaiensis J. Carlson and Barkworth). The selection is a densely tufted perennial bunchgrass with abundant, long, narrow, light green leaves that are 45 to 50 cm (18 to 20 inches) long. Plants occur as distinct large bunches with numerous leaves creating a characteristic tufted growth habitat. Anatone is a diploid (2n=14) and cross-pollinating.

The following were developed by Chester L. Dewald, USDA, ARS, 2000 18th Street, Woodward, Oklahoma 73801, United States; Richard L. Wynia, USDA, NRCS, Manhattan Plant Materials Center, 3800 South 20th Street, Manhattan, Kansas 66502-9535, United States; P.L. Sims, USDA, ARS, Southern Plains Range Research Station, Woodward, Oklahoma 73801, United States; Charles M. Taliaferro, Oklahoma State University, Plant and Soil Science Department, 368 Agricultural Hall, Stillwater, Oklahoma 74078-6028, United States; Timothy L. Springer, USDA, ARS, Southern Plains Research Station, 2000 18th Street, Woodward, Oklahoma 73801-5400, United States; R.L. Gillen, USDA-ARS, Southern Plains Range Research Station, 2000 18th Street, Woodward, Oklahoma 73801, United States; V.H. Louthan, USDA-ARS, Southern Plains Research Station, 2000 18th Street, Woodward, Oklahoma 73801, United States; W.J. Cooper, USDA-ARS, Southern Plains Range Research Station, 2000 18th Street, Woodward, Oklahoma 73801, United States; R.G. Esquivel, USDA-NRCS, Knox City PMC, Knox City, Texas 79529, United States; Morris Houck, USDA-NRCS Plant Materials Center, 3776 FM 1292, Knox City, Texas 79529, United States; J.A. Stevens, USDA-NRCS, East Texas Plant Materials Center, Nacogdoches, Texas 75964, United States; M.R. Brakie, USDA-NRCS, East Texas Plant Materials Center, Nacogdoches, Texas 75964, United States. Received 09/21/2004.

**PI 635994. *Andropogon hallii* Hack.**

Cultivar. Mixture. "Chet". CV-12. Pedigree - This sand bluestem was derived from a big and sand bluestem collection consisting of 158 accessions received as seed from the USDA-ARS North Central Regional Plant Introduction Station. It went through three polycross selection cycles. Small plot field evaluations of this release were conducted at multiple sites, and averaged over these locations, the forage dry matter yield was 8.8 percent greater than that of Woodward sand bluestem. The seasonal average crude protein and in vitro digestible dry matter was not significantly different from Woodward in this field trial. The seed yield was 59 percent greater than that of Woodward. In replicated grazing trials the average daily gain to stocker cattle was not significantly different from that of Woodward sand bluestem.

The following were donated by Mike Grisham, USDA-ARS, Sugarcane Research Unit, P.O. Box 470, Houma, Louisiana 70361, United States; William H. White, USDA, ARS, Sugarcane Research Unit, Houma, Louisiana 70361, United States; D.D. Garrison, USDA, ARS, SRRC, Sugarcane Research Unit, Houma, Louisiana 70360, United States; Thomas Tew, USDA, ARS, SRRC, Sugarcane Research Unit, 5883 USDA Road, Houma, Louisiana 70361-0470, United States; John C. Veremis, USDA-ARS, SRRC, Sugarcane Research Unit, 5883 USDA Rd., Houma, Louisiana 70360, United States; Benjamin Legendre, Louisiana State University, Sugar Station, P.O. Box 604, St. Gabriel, Louisiana 70776, United States; J.D.



Miller, USDA-ARS, Sugarcane Field Station, 12990 US Highway 441 N., Canal Point, Florida 33438, United States; E.O. Dufrene, USDA-ARS, SRRC, Sugarcane Research Unit, Houma, Louisiana 70360, United States; Y.-B. Pan, USDA-ARS, SRRC, Sugarcane Research Unit, Houma, Louisiana 70360, United States; E.P. Richard, Jr., USDA-ARS, SRRC, Sugarcane Research Unit, Houma, Louisiana 70360, United States. Received 09/08/1997.

**PI 635995. *Saccharum* sp.**

Cultivar. HoCP 96-540; Q 37153. CV-123. Pedigree - LCP 86-454 X LCP 85-384. HoCP 96-540 has a moderate population of medium-sized stalks that turn amber when exposed to sunlight. Its leaf curvature at the apex in a crop canopy is distinctively pointed, similar to parental clone LCP 86-454, rather than rounded. Unlike LCP 85-384, its leaf sheath pubescence is negligible. Newly exposed sheaths prominently display a white waxy coating. Dewlap is pale, auricles are seldom more than one cm. long.

The following were developed by WestBred LLC, 8111 Timberline Dr., Bozeman, Montana 59718, United States. Received 09/15/2004.

**PI 635996 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. "MOHLER". PVP 200400304. Pedigree - Stephens/Madsen.

The following were developed by UltraTurf, Inc., United States. Received 09/15/2004.

**PI 635997 PVPO. *Festuca rubra* subsp. *commutata* Gaudin**

Cultivar. "JAMESTOWN IV". PVP 200400305.

The following were collected by Glen L. Hartman, USDA-ARS, Crop Protection Research, 70 NSRC, 1101 W. Peabody Dr., Urbana, Illinois 61801, United States. Donated by Tran Dinh Long, Vietnam Agricultural Science Institute, Vietnam. Received 09/15/2004.

**PI 635998. *Glycine max* (L.) Merr.**

Cultivated. DT80; SY 410001. Collected 09/15/2004 in Vietnam.

**PI 635999. *Glycine max* (L.) Merr.**

Cultivated. DT2000; SY 410002. Collected 09/15/2004 in Vietnam. Originated from AVRDC designated as GC 00138-29.

**PI 636000. *Glycine max* (L.) Merr.**

Cultivated. Cuc Vang; SY 410003. Collected 09/15/2004 in Vietnam. Local variety grown in North Vietnam.

**PI 636001. *Glycine max* (L.) Merr.**

Cultivated. M.103; SY 410004. Collected 09/15/2004 in Vietnam.

The following were collected by Glen L. Hartman, USDA-ARS, Crop Protection Research, 70 NSRC, 1101 W. Peabody Dr., Urbana, Illinois 61801, United States. Donated by Tien Huu Ha, Institute of Agricultural Sciences of South Vietnam, Hung Loc Agriculture Research Station, Ho Chi Minh City, Vietnam. Received 09/15/2004.

**PI 636002. *Glycine max* (L.) Merr.**

Cultivated. Tau Xi; SY 410005. Collected 09/15/2004 in Vietnam. This cultivar has been grown for decades by the Nung people, a Vietnamese ethnic group, in Dong Nai province.

The following were donated by Institute for Agrobotany, Kulsomezo 15, Tapioszele, Pest 2766, Hungary. Received 06/10/1999.

**PI 636003. *Avena sativa* L.**

Landrace. RCAT011653; NSGC 7628. Collected in Szabolcs-Szatmar, Hungary. Latitude 47° 57' N. Longitude 21° 44' E. Vajdabokor (Nyiregyhaza).

**PI 636004. *Avena sativa* L.**

Landrace. RCAT011507; NSGC 7629. Collected in Csongrad, Hungary. Latitude 46° 15' N. Longitude 20° 9' E. Szeged (Szoreg).

**PI 636005. *Avena sativa* L.**

Landrace. RCAT011512; NSGC 7630. Collected in Heves, Hungary. Latitude 47° 47' N. Longitude 19° 54' E. Nagyrede.

**PI 636006. *Avena sativa* L.**

Landrace. RCAT011520; NSGC 7631. Collected in Csongrad, Hungary. Latitude 46° 15' N. Longitude 20° 9' E. Szeged (Szoreg).

**PI 636007. *Avena sativa* L.**

Landrace. RCAT011902; NSGC 7632. Collected in Nograd, Hungary. Latitude 48° 4' N. Longitude 19° 3' E. Dregelypalank.

**PI 636008. *Avena sativa* L.**

Landrace. RCAT011914; NSGC 7633. Collected in Szolnok, Hungary. Latitude 47° 19' N. Longitude 20° 55' E. Karcag.

**PI 636009. *Avena sativa* L.**

Landrace. RCAT012326; NSGC 7634. Collected in Szabolcs-Szatmar, Hungary. Latitude 47° 52' N. Longitude 22° 2' E. Mariapocs.

**PI 636010. *Avena sativa* L.**

Landrace. RCAT012327; NSGC 7635. Collected in Szabolcs-Szatmar, Hungary. Latitude 47° 57' N. Longitude 21° 44' E. Nyiregyhaza.

**PI 636011. *Avena sativa* L.**

Landrace. RCAT012731; NSGC 7636. Collected in Gyor-Sopron, Hungary. Latitude 47° 34' N. Longitude 17° 43' E. Ecs.

**PI 636012. *Avena sativa* L.**

Landrace. RCAT012732; NSGC 7637. Collected in Gyor-Sopron, Hungary. Latitude 47° 31' N. Longitude 17° 45' E. Ravazd.

**PI 636013. *Avena sativa* L.**

Landrace. RCAT012735; NSGC 7638. Collected in Heves, Hungary. Latitude 47° 47' N. Longitude 19° 54' E. Nagyrede.

**PI 636014. *Avena sativa* L.**

Landrace. RCAT012882; NSGC 7639. Collected in Baranya, Hungary. Latitude 45° 50' N. Longitude 17° 49' E. Dravaivanyi.

- PI 636015. *Avena sativa* L.**  
Landrace. RCAT012883; NSGC 7640. Collected in Borsod-Abauj-Zemplen, Hungary. Latitude 48° 19' N. Longitude 21° 35' E. Sarospatak.
- PI 636016. *Avena sativa* L.**  
Landrace. RCAT013136; NSGC 7641. Collected in Szabolcs-Szatmar, Hungary. Latitude 47° 57' N. Longitude 21° 44' E. Nyiregyhaza.
- PI 636017. *Avena sativa* L.**  
Landrace. RCAT013199; NSGC 7642. Collected in Zala, Hungary. Latitude 46° 53' N. Longitude 16° 37' E. Zalahashagy.
- PI 636018. *Avena sativa* L.**  
Landrace. RCAT013213; NSGC 7643. Collected in Zala, Hungary. Latitude 46° 51' N. Longitude 16° 33' E. Zalalovo.
- PI 636019. *Avena sativa* L.**  
Landrace. RCAT013282; NSGC 7644. Collected in Veszprem, Hungary. Latitude 47° 19' N. Longitude 17° 11' E. Kulsovat.
- PI 636020. *Avena sativa* L.**  
Landrace. RCAT013287; NSGC 7645. Collected in Borsod-Abauj-Zemplen, Hungary. Latitude 48° 28' N. Longitude 21° 3' E. Csenyete.
- PI 636021. *Avena sativa* L.**  
Landrace. RCAT013288; NSGC 7646. Collected in Zala, Hungary. Latitude 46° 42' N. Longitude 16° 31' E. Csesztreg.
- PI 636022. *Avena sativa* L.**  
Landrace. RCAT013290; NSGC 7647. Collected in Borsod-Abauj-Zemplen, Hungary. Latitude 48° 28' N. Longitude 20° 57' E. Gagybator.
- PI 636023. *Avena sativa* L.**  
Landrace. RCAT013295; NSGC 7648. Collected in Vas, Hungary. Latitude 47° 19' N. Longitude 17° 10' E. Mersevat.
- PI 636024. *Avena sativa* L.**  
Landrace. RCAT013304; NSGC 7649. Collected in Borsod-Abauj-Zemplen, Hungary. Latitude 48° 15' N. Longitude 20° 54' E. Alsovadasz.
- PI 636025. *Avena sativa* L.**  
Landrace. RCAT013358; NSGC 7650. Collected in Gyor-Sopron, Hungary. Latitude 47° 18' N. Longitude 17° 19' E. Rabaszentandras.
- PI 636026. *Avena sativa* L.**  
Landrace. RCAT013364; NSGC 7651. Collected in Komarom, Hungary. Latitude 47° 40' N. Longitude 18° 11' E. Mocsá.
- PI 636027. *Avena sativa* L.**  
Landrace. RCAT013366; NSGC 7652. Collected in Somogy, Hungary. Latitude 46° 6' N. Longitude 17° 20' E. Haromfa.
- PI 636028. *Avena sativa* L.**  
Landrace. RCAT013367; NSGC 7653. Collected in Szolnok, Hungary. Latitude 47° 17' N. Longitude 20° 27' E. Nagykoru.

- PI 636029. *Avena sativa* L.**  
Landrace. RCAT013369; NSGC 7654. Collected in Somogy, Hungary. Latitude 46° 14' N. Longitude 17° 22' E. Nagyatad.
- PI 636030. *Avena sativa* L.**  
Landrace. RCAT013370; NSGC 7655. Collected in Bacs-Kiskun, Hungary. Latitude 46° 54' N. Longitude 19° 41' E. Kecskemet.
- PI 636031. *Avena sativa* L.**  
Landrace. RCAT013371; NSGC 7656. Collected in Nograd, Hungary. Latitude 48° 4' N. Longitude 19° 3' E. Dregelypalank.
- PI 636032. *Avena sativa* L.**  
Landrace. RCAT013373; NSGC 7657. Collected in Nograd, Hungary. Latitude 47° 56' N. Longitude 10° 10' E. Bank.
- PI 636033. *Avena sativa* L.**  
Landrace. RCAT013374; NSGC 7658. Collected in Zala, Hungary. Latitude 46° 36' N. Longitude 17° 10' E. Balatonmagyarod.
- PI 636034. *Avena sativa* L.**  
Landrace. RCAT013376; NSGC 7659. Collected in Bekes, Hungary. Latitude 46° 52' N. Longitude 21° 35' E. Geszt.
- PI 636035. *Avena sativa* L.**  
Landrace. RCAT013377; NSGC 7660. Collected in Szabolcs-Szatmar, Hungary. Latitude 47° 38' N. Longitude 22° 10' E. Peneszlek.
- PI 636036. *Avena sativa* L.**  
Landrace. RCAT013378; NSGC 7661. Collected in Vas, Hungary. Latitude 47° 24' N. Longitude 16° 45' E. Buk.
- PI 636037. *Avena sativa* L.**  
Landrace. RCAT013379; NSGC 7662. Collected in Bacs-Kiskun, Hungary. Latitude 46° 8' N. Longitude 18° 53' E. Szeremle.
- PI 636038. *Avena sativa* L.**  
Landrace. RCAT013380; NSGC 7663. Collected in Szabolcs-Szatmar, Hungary. Latitude 47° 52' N. Longitude 22° 1' E. Pocspetri.
- PI 636039. *Avena sativa* L.**  
Landrace. RCAT013382; NSGC 7664. Collected in Hajdu-Bihar, Hungary. Latitude 47° 23' N. Longitude 21° 47' E. Monostorpalyi.
- PI 636040. *Avena sativa* L.**  
Landrace. RCAT013383; NSGC 7665. Collected in Gyor-Sopron, Hungary. Latitude 47° 31' N. Longitude 17° 45' E. Ravazd.
- PI 636041. *Avena sativa* L.**  
Landrace. RCAT013385; NSGC 7666. Collected in Gyor-Sopron, Hungary. Latitude 47° 34' N. Longitude 17° 43' E. Ecs.
- PI 636042. *Avena sativa* L.**  
Landrace. RCAT013386; NSGC 7667. Collected in Zala, Hungary. Latitude 46° 33' N. Longitude 17° 3' E. Nagybakonak.

- PI 636043. *Avena sativa* L.**  
Landrace. RCAT013388; NSGC 7668. Collected in Szabolcs-Szatmar, Hungary.  
Latitude 48° 11' N. Longitude 22° 7' E. Anarcs.
- PI 636044. *Avena sativa* L.**  
Landrace. RCAT013389; NSGC 7669. Collected in Szabolcs-Szatmar, Hungary.  
Latitude 47° 49' N. Longitude 22° 37' E. Ura.
- PI 636045. *Avena sativa* L.**  
Landrace. RCAT013390; NSGC 7670. Collected in Szabolcs-Szatmar, Hungary.  
Latitude 48° 10' N. Longitude 21° 29' E. Timar.
- PI 636046. *Avena sativa* L.**  
Landrace. RCAT013393; NSGC 7671. Collected in Heves, Hungary. Latitude  
47° 47' N. Longitude 19° 54' E. Nagyrede.
- PI 636047. *Avena sativa* L.**  
Landrace. RCAT013394; NSGC 7672. Collected in Veszprem, Hungary.  
Latitude 47° 10' N. Longitude 17° 15' E. Kerta.
- PI 636048. *Avena sativa* L.**  
Landrace. RCAT013396; NSGC 7673. Collected in Csongrad, Hungary.  
Latitude 46° 15' N. Longitude 20° 9' E. Szeged (Szoreg).
- PI 636049. *Avena sativa* L.**  
Landrace. RCAT013397; NSGC 7674. Collected in Szabolcs-Szatmar, Hungary.  
Latitude 47° 58' N. Longitude 22° 28' E. Tunyogmatolcs.
- PI 636050. *Avena sativa* L.**  
Landrace. RCAT013398; NSGC 7675. Collected in Bekes, Hungary. Latitude  
46° 32' N. Longitude 20° 49' E. Pusztafoldvar.
- PI 636051. *Avena sativa* L.**  
Landrace. RCAT013399; NSGC 7676. Collected in Zala, Hungary. Latitude  
46° 44' N. Longitude 16° 22' E. Szentgyorgyvolgy.
- PI 636052. *Avena sativa* L.**  
Landrace. RCAT013401; NSGC 7677. Collected in Veszprem, Hungary.  
Latitude 47° 1' N. Longitude 18° 12' E. Balatonfokajar.
- PI 636053. *Avena sativa* L.**  
Landrace. RCAT013430; NSGC 7678. Collected in Szabolcs-Szatmar, Hungary.  
Latitude 47° 57' N. Longitude 21° 44' E. Vajdabokor  
(Nyiregyhaza).
- PI 636054. *Avena sativa* L.**  
Landrace. RCAT013560; NSGC 7679. Collected in Somogy, Hungary. Latitude  
46° 38' N. Longitude 17° 45' E. Gmmas.
- PI 636055. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008634; NSGC 7680. Collected in Veszprem, Hungary.  
Latitude 47° 1' N. Longitude 18° 12' E. Balatonfokajar.
- PI 636056. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008635; NSGC 7681. Collected in Borsod-Abauj-Zemplen,  
Hungary. Latitude 48° 18' N. Longitude 21° 32' E. Bodrogolaszi.

- PI 636057. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008640; NSGC 7682. Collected in Bekes, Hungary. Latitude 46° 52' N. Longitude 21° 35' E. Geszt.
- PI 636058. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008642; NSGC 7683. Collected in Hajdu-Bihar, Hungary. Latitude 47° 1' N. Longitude 21° 32' E. Komadi.
- PI 636059. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008646; NSGC 7684. Collected in Gyor-Sopron, Hungary. Latitude 47° 31' N. Longitude 17° 45' E. Ravazd.
- PI 636060. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008648; NSGC 7685. Collected in Borsod-Abauj-Zemplen, Hungary. Latitude 47° 57' N. Longitude 20° 49' E. Emod.
- PI 636061. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008649; NSGC 7686. Collected in Gyor-Sopron, Hungary. Latitude 47° 34' N. Longitude 17° 43' E. Ecs.
- PI 636062. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008650; NSGC 7687. Collected in Heves, Hungary. Latitude 47° 49' N. Longitude 19° 52' E. Gyongyostarjan.
- PI 636063. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008651; NSGC 7688. Collected in Veszprem, Hungary. Latitude 47° 26' N. Longitude 17° 21' E. Marcalto.
- PI 636064. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008653; NSGC 7689. Collected in Veszprem, Hungary. Latitude 47° 10' N. Longitude 17° 15' E. Kerta.
- PI 636065. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008657; NSGC 7690. Collected in Bekes, Hungary. Latitude 46° 32' N. Longitude 20° 49' E. Pusztafoldvar.
- PI 636066. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT008659; NSGC 7691. Collected in Bekes, Hungary. Latitude 46° 33' N. Longitude 20° 40' E. Oroshaza.
- PI 636067. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT009558; NSGC 7692. Collected in Pest, Hungary. Latitude 47° 26' N. Longitude 19° 32' E. Tapiosuly.
- PI 636068. *Hordeum vulgare* L. subsp. *vulgare***  
Landrace. RCAT009815; NSGC 7693. Collected in Szolnok, Hungary. Latitude 47° 18' N. Longitude 20° 4' E. Ujszasz.

The following were developed by Texas Agricultural Experiment Station, Texas, United States; South Australian Res. & Dev. Institute, GPO Box 397, Adelaide, South Australia, Australia. Donated by Pamela Zwer, South Australian Res. & Dev. Inst., SARDI, Field Crop Improvement Centre, Adelaide, South Australia 5001, Australia. Received 06/17/2002.

- PI 636069. *Avena sativa* L.**  
Cultivar. Pureline. "GLIDER"; Quaker 83-140; NSGC 9368. Glider is a

tall, late maturing hay oat suited to high rainfall (>500mm) regions of southeastern Australia.

The following were developed by South Australian Res. & Dev. Institute, GPO Box 397, Adelaide, South Australia, Australia. Donated by Pamela Zwer, South Australian Res. & Dev. Inst., SARDI, Field Crop Improvement Centre, Adelaide, South Australia 5001, Australia. Received 06/17/2002.

**PI 636070. *Avena sativa* L.**

Cultivar. Pureline. "NUMBAT"; OX88-045-11N; NSGC 9369. Pedigree - Bandicoot//Mortlock/Echidna. Hull-less oat for southern Australia.

**PI 636071. *Avena sativa* L.**

Cultivar. Pureline. "POSSUM"; SV91024-7; NSGC 9370. Pedigree - ND863468/OX82-059-58-10(Euro sib)/Carrolup. A milling quality oat for medium to high rainfall regions of southeastern Australia.

**PI 636072. *Avena sativa* L.**

Cultivar. Pureline. "QUOLL"; OX87-080-2; NSGC 9371. Pedigree - MIOLR-86-3/Bandicoot. A feed quality oat for medium to high rainfall regions of southern Australia.

**PI 636073. *Avena sativa* L.**

Cultivar. Pureline. "WINTAROO"; SV88083-4; NSGC 9372. Pedigree - MIOLR-86-3/Echidna/Wallaroo. A hay oat for southeastern Australia.

The following were donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Calala Lane, Tamworth, New South Wales 2340, Australia. Received 04/18/2002.

**PI 636074. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "ARRINO"; NSGC 9373. Developed in Australia. Pedigree - 77-W-660/Eradu.

**PI 636075. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "CALINGIRI"; NSGC 9374. Developed in Australia. Pedigree - Chino/Kulin//Reeves.

**PI 636076. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "NYABING"; NSGC 9375. Developed in Australia. Pedigree - 3-AG-3/Aroona/4/Condor\*4//3-AG-14/Condor/3/Jabiru.

The following were donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States; Anseng Li, Chinese Academy of Science, Institute of Genetics, Building 917, Beijing, Beijing, China. Received 10/20/1999.

**PI 636077. *Hordeum vulgare* L. subsp. *vulgare***

Breeding. Pureline. PRC99-1; NSGC 9376. Developed in China. Short, 2-rowed, hullless.

**PI 636078. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "JING KE 11 HP"; PRC99-2; NSGC 9377. Developed in China. Hullless, high protein.

- PI 636079. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "HWAI AN SAN YUE HUANG"; PRC99-3; NSGC 9378.  
Developed in China. Hulless, early.
- PI 636080. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "JING KE 11"; PRC99-4; NSGC 9379. Developed in  
China. Hulless.
- PI 636081. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "SAN YUE HUANG"; PRC99-5; NSGC 9380. Developed in  
China. Hulless, early.
- PI 636082. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "BAI CHIN KE"; PRC99-6; NSGC 9381. Developed in  
China. Hulless.
- PI 636083. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "HUANG CHIN KE"; PRC99-7; NSGC 9382. Developed in  
China. Hulless.
- PI 636084. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "XANG CHUAN KE"; PRC99-8; NSGC 9383. Developed in  
China. Hulless.
- PI 636085. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "XU KUO KE"; PRC99-9; NSGC 9384. Developed in China.  
Hulless.
- PI 636086. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "KUN RONG 1"; PRC99-10; NSGC 9385. Developed in  
China. Hulless.
- PI 636087. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "ZAN 83062"; PRC99-11; NSGC 9386. Developed in  
China. Hulless.
- PI 636088. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "ZAN 89029"; PRC99-12; NSGC 9387. Developed in  
China. Hulless.
- PI 636089. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "LIN HAI KUAN TOU"; PRC99-13; NSGC 9388. Developed  
in China. Hulless.
- PI 636090. *Hordeum vulgare* L. subsp. *vulgare***  
Breeding. Pureline. PRC99-14; SU 96-7246; NSGC 9389. Developed in China.  
Hulless.
- PI 636091. *Hordeum vulgare* L. subsp. *vulgare***  
Breeding. Pureline. PRC99-15; 8023; NSGC 9390. Developed in China.  
Hulless.
- PI 636092. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "HUN ZAU AI"; PRC99-16; NSGC 9391. Developed in  
China. Hulless, short, early.



- PI 636093. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "YANE 89-0109"; PRC99-17; NSGC 9392. Developed in China. Hulless.
- PI 636094. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "YANE 98-1252"; PRC99-18; NSGC 9393. Developed in China. Hulless.
- PI 636095. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "YANE 98-2-36"; PRC99-19; NSGC 9394. Developed in China. Hulless.
- PI 636096. *Hordeum vulgare* L. subsp. *vulgare***  
Breeding. Pureline. PRC99-20; 96F-157; NSGC 9395. Developed in China. Hulless.
- PI 636097. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "CHIEN 35"; PRC99-21; NSGC 9396. Developed in China. Hulless.
- PI 636098. *Hordeum vulgare* L. subsp. *vulgare***  
Breeding. Pureline. PRC99-22; 86-177; NSGC 9397. Developed in China. Hulless.

Unknown source. Received 09/23/2004.

- PI 636099. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. "COLLINS"; DUPLICATE OF PI 633869.

The following were collected by Thomas A. Jones, USDA, ARS, FRRL, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States; D.C. Nielson, USDA, ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; S.A. Young, Utah State University, Plants, Soils, and Biometerorology Department, Logan, Utah 84322-4820, United States; Gregory Fenchel, USDA-NRCS, Los Lunas Plant Materials Center, 1036 Miller SW, Los Lunas, New Mexico 87031, United States; S.L. Caicco, U.S. Fish and Wildlife Service, 1340 Financial Blvd., Suite 234, Reno, Nevada 89502, United States. Donated by Thomas A. Jones, USDA, ARS, FRRL, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 08/10/2004.

- PI 636100. *Achnatherum hymenoides* (Roem. & Schult.) Barkworth**  
Breeding. STAR LAKE; T-593 ES. GP-91. Collected 1993 in New Mexico, United States. Between Torreon & Gallup on BIA Rd 9, McKinley Co., NM. associated plant spp. globemallow, rabbitbrush, big sagebrush, cheatgrass. Pedigree - Selection from T-593 for small, elongated seeds. Elongated seed type that came from the original T-593 collection.

The following were developed by F.M. Bourland, University of Arkansas, Northeast Research and Ext. Center, P.O. Box 48, Keiser, Arkansas 72351, United States; Joe Johnson, USDA, ARS, 141, Experiment Station Road, Stoneville, Mississippi 38776, United States; D.C. Jones, Cotton Incorporated, 6399 Weston Parkway, Cary, North Carolina 27513, United States. Received 09/15/2004.

**PI 636101. *Gossypium hirsutum* L.**

Breeding. Pureline. ARKOT 8712. GP-791. Pedigree - F1 (DP 50 / Miscot 7913-51) / F1 (Miscot T-8 / Miscot 7903-52). Morphological traits of Arkot 8712 are similar to Stoneville 474 and PSC 355 (check cultivars) except that Arkot 8712 has less dense leaf pubescence and is usually about 10% shorter in height. Over 43 replicated field tests in Arkansas, lint yields similar to the check cultivars with performance relatively better in north than south Arkansas environments. Compared to check cultivars, Arkot 8712 tended to have lower lint fraction, longer fiber length, lower micronaire, and similar fiber strength and elongation. Arkot 8712 resistant to all U.S. races of *Xanthomonas campestris* pv. *malvacearum*, the causal agent of bacterial blight. Resistance to fusarium wilt (*Fusarium oxysporum*) was equal to a known resistant check.

The following were developed by A. F. Robinson, USDA-ARS, Southern Crops Research Laboratory, 2765 F&B Road, College Station, Texas 77845, United States; Charles G. Cook, Syngenta Seeds, Inc., Field Crops - NAFTA, 356 Hosek Rd., Victoria, Texas 77905-5636, United States. Received 09/21/2004.

**PI 636102. *Gossypium hirsutum* L.**

Breeding. RN96425. GP-795. Pedigree - Originated as a F2 individual plant selection from the cross MAR5PD208S / N320-2-91, with a second individual plant selection in the F3. Selections were made in reniform nematode-infested soil. Second cycle selection was evaluated as a progeny row in 1996 and in replicated tests from 1998 through 2000. Field tolerance to the reniform nematode (*Rotylenchulus reniformis*), is resistant to reproduction and root galling by the southern root-knot nematode (*Meloidogyne incognita*), is resistant to fusarium wilt in the presence of *M. incognita*, and has good productivity and fiber quality. In 1998 and 1999 was compared to Stoneville 474 in field evaluations conducted in reniform nematode-infested and fumigated (1,3-dichloropropene) plots at Weslaco, TX. In 1998, produced significantly greater yields than Stoneville 474 in both the reniform nematode-infested and fumigated plots. Lint yield reduction caused by reniform nematodes was less than 50% of that observed for Stoneville 474. Reniform nematode population level (log reniform nematode population/100 g soil) was significantly lower than for Stoneville 474. Yield reduction due to nematodes was 17% less than Stoneville 474. In 1999, yield in untreated plots was 98% of Stoneville 474. In 2000 at Weslaco, TX, RN96425 and Deltapine 50 were compared in reniform nematode-infested field plots. Lint yield was 45% higher than Deltapine 50. In environmental growth chamber experiments repeated 2 yrs. at College Station, TX, the root-knot nematode root gall index averaged 1.6 compared to 3.8 for the standard susceptible check, Deltapine 16; in 1998, only 3% as many root-knot nematode eggs were produced on RN96425 as on Deltapine 16. In Fusarium Wilt Root Knot Nematode Evaluations at Bossier City, LA, during 1998 and 1999, root-knot nematode gall ratings averaged 1.4 compared to 3.6 for Stoneville 474; average fusarium wilt rating was 1.4 compared to 3.6 for Stoneville 474. At Regional Cotton Fusarium Wilt Nursery, Tallahassee, AL, during 1999 and 2002, average wilt incidence was 5% compared to 44% for Rowden, the susceptible check and 2% for M-315, the resistant check. Compared to Stoneville 474, lint percentage was 2.5% lower, micronaire value was 1.4 units lower and fiber was 19% stronger.

**PI 636103. *Gossypium hirsutum* L.**

Breeding. RN96527. GP-796. Pedigree - Originated as F2 individual plant selection from the cross C21S781-2 / N220-1-91, with a second individual plant selection in the F3. Selections were made in nematode-infested soil. The second cycle selection was evaluated as a progeny row in 1996 and in replicated tests from 1998 through 2000. Has field tolerance to the reniform nematode (*Rotylenchulus reniformis*), is resistant to reproduction and root galling by the southern root-knot nematode (*Meloidogyne incognita*), is resistant to fusarium wilt in the presence of *M. incognita*, and has good productivity and fiber quality. In 1998 and 1999, was compared to Stoneville 474 in field evaluations conducted in reniform nematode-infested and fumigated (1,3-dichloropropene) plots in Weslaco, TX. In 1998, produced significantly greater yields than Stoneville 474 in both the reniform nematode-infested and fumigated plots. Lint yield reduction caused by reniform nematodes was less than 50% of that observed for Stoneville 474. Reniform nematode population level (log reniform nematode population/100 g soil) was significantly lower than for Stoneville 474. Yield reduction due to nematodes was 33% less than Stoneville 474. In 1999, yield in untreated plots was 99% that of Stoneville 474. In 2000 at Weslaco, TX, RN96527 and Deltapine 50 were compared in reniform nematode-infested field plots. Lint yield was 41% higher than Deltapine 50. In environmental growth chamber experiments repeated 2 years at College Station, TX, the root-knot nematode root gall index averaged 2.4 compared to 3.8 for the standard susceptible check, Deltapine 16; in 1998, 15% as many root-knot nematode eggs were produced as on Deltapine 16. In Fusarium Wilt Root Knot Nematode Evaluations at Bossier City, LA, during 1998 and 1999, root-knot nematode gall ratings averaged 2.0 compared to 3.6 for Stoneville 474, while the average fusarium wilt rating was 1.9 compared to 3.6 for Stoneville 474. At the Regional Cotton Fusarium Wilt Nursery, Tallahassee, AL, during 1999 and 2002, average wilt incidence was 11% compared to 44% for Rowden, the susceptible check, and 2% for M-315, the resistant check. Compared to Stoneville 474, lint percentage was 4% lower, micronaire value was 0.9 units lower and fiber was 10% stronger.

**PI 636104. *Gossypium hirsutum* L.**

Breeding. RN96625-1. GP-797. Pedigree - Originated as a F2 individual plant selection from the cross C21S781-2 / N222-1-91, followed by individual plant selections in the F3 and F4. Selections were made in reniform nematode-infested soil. The second cycle selection was evaluated as a progeny row in 1997 and in replicated tests from 1998 through 2000. Has field tolerance to the reniform nematode (*Rotylenchulus Reniformis*), is resistant to reproduction and root galling by the southern root-knot nematode (*Meloidogyne incognita*), is resistant to fusarium wilt in the presence of *M. incognita*, and has good productivity and fiber quality. In 1998 and 1999, was compared to Stoneville 474 in field evaluations conducted in reniform nematode-infested and fumigated (1,3-dichloropropene) plots at Weslaco, TX. In 1998 produced significantly greater yields than Stoneville 474 in both the reniform nematode-infested and fumigated plots. Lint yield reduction caused by reniform nematodes was less than 50% of that observed for Stoneville 474. Reniform nematode population level (log reniform nematode population/100 g soil) was significantly lower than for Stoneville 474. Yield reduction due to nematodes was less than 50% than suffered by Stoneville 474. In 1999, yield in untreated plots was 10% higher than Stoneville 474. In 2000 at Weslaco, TX, RN96625-1 and Deltapine 50 were compared in reniform nematode-infested field plots.

Lint yield was 55% higher than Deltapine 50. In environmental growth chamber experiments repeated 2 years at College Station, TX, the root-knot nematode root gall index averaged 1.4 compared to 3.8 for the standard susceptible check, Deltapine 16; in 1998 only 5% as many root-knot nematode eggs were produced as on Deltapine 16. In Fusarium Wilt Root Knot Nematode Evaluations at Bossier City, LA, in 1998 root-knot nematode gall ratings averaged 1.3 compared to 3.7 for Stoneville 474, while the average fusarium wilt rating was 2.3 compared to 3.9 for Stoneville 474. At the Regional Cotton Fusarium Wilt Nursery, Tallahassee, AL, during 1999 and 2002, average wilt incidence was 7% compared to 44% for Rowden, the susceptible check, and 2% for M-315, the resistant check. Compared to Stoneville 474, lint percentage was 5% lower, micronaire value was 1.0 unit lower and fiber was 5% stronger.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 10/23/1996.

**PI 636105. *Solanum kitagawae* Schonb.-Tem.**

Wild. E94158; Grif 13894. Collected 1994 in Mongolia. Latitude 47° 58' N. Longitude 118° 8' E. Elevation 466 m. "Breaks" of higher elevation grass steppe on the floodplain of the Khalkin Gol River in extreme eastern Mongolia. Cherty brown chestnut soils. Collections were actually made from the area included in the reconstructed command bunker and trenches that served the Russian army during the battle with the Japanese in 1939.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 636106. *Solanum retroflexum* Dunal**

Uncertain. NSL 27481; Grif 14197; WONDERBERRY.

The following were donated by University of Birmingham, Department of Plant Biology, Birmingham, England B152TT, United Kingdom. Received 04/29/2002.

**PI 636107. *Solanum integrifolium* Poir.**

Uncertain. CGN 18558; Grif 15025.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 09/28/2004.

**PI 636108 PVPO. *Agrostis stolonifera* var. *palustris* (Huds.) Farw.**

Cultivar. "962". PVP 200400118.

The following were developed by Matt Herb, Oregro Seeds, Inc., United States. Received 09/28/2004.

**PI 636109 PVPO. *Lolium perenne* L.**

Cultivar. "RINGER". PVP 200400309.

The following were developed by Monsanto Technology LLC, United States.  
Received 09/28/2004.

- PI 636110 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0384279". PVP 200400310.
- PI 636111 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0208463". PVP 200400311.
- PI 636112 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0212930". PVP 200400312.
- PI 636113 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0164851". PVP 200400313.
- PI 636114 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0090505". PVP 200400314.
- PI 636115 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0221524". PVP 200400315.
- PI 636116 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0236101". PVP 200400316.
- PI 636117 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0211948". PVP 200400317.
- PI 636118 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0152167". PVP 200400318.
- PI 636119 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0235908". PVP 200400319.
- PI 636120 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0044483". PVP 200400320.
- PI 636121 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "SN70025". PVP 200400321.
- PI 636122 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0132963". PVP 200400322.
- PI 636123 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0275934". PVP 200400323.
- PI 636124 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0361380". PVP 200400324.
- PI 636125 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "0013744". PVP 200400325.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868,  
Santa Maria, California 93456, United States. Received 09/28/2004.

**PI 636126 PVPO. *Apium graveolens* L.**  
Cultivar. "COMMAND". PVP 200400326.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 09/28/2004.

**PI 636127 PVPO. *Daucus carota* subsp. *sativus* (Hoffm.) Arcang.**  
Cultivar. "PSR 710605". PVP 200400327.

The following were developed by Advanta USA, Inc., United States. Received 09/28/2004.

**PI 636128 PVPO. *Poa pratensis* L.**  
Cultivar. "CHEETAH". PVP 200400328.

The following were collected by Thomas A. Jones, USDA, ARS, FRRL, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/06/2004.

**PI 636129. *Achnatherum hymenoides* (Roem. & Schult.) Barkworth**  
Wild. T-593 GS; W6 26177. Collected 1993 in New Mexico, United States. Between Torreon & Gallup on BIA Rd 9, McKinley Co., NM. associated plant spp. globemallow, rabbitbrush, big sagebrush, cheatgrass. Globose seed type that came from the original T-593 collection.

**PI 636130. *Achnatherum hymenoides* (Roem. & Schult.) Barkworth**  
Wild. T-593 JS; W6 26178. Collected 1993 in New Mexico, United States. Between Torreon & Gallup on BIA Rd 9, McKinley Co., NM. associated plant spp. globemallow, rabbitbrush, big sagebrush, cheatgrass. Jumbo seed type that came from the original T-593 collection.

The following were developed by ProGene L.L.C., United States. Received 10/07/2004.

**PI 636131 PVPO. *Pisum sativum* L.**  
Cultivar. Monarch. PVP 200500002.

The following were developed by Idaho Agricultural Experiment Station, Idaho, United States. Received 10/07/2004.

**PI 636132 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "Simon"; ID91-34302A. PVP 200500001. Pedigree - Haven/Lambert//Madsen.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 10/07/2004.

**PI 636133 PVPO. *Capsicum chinense* Jacq.**  
Cultivar. "TAM Mild Habanero". PVP 200400329.

The following were developed by South Dakota State University, South Dakota Agricultural Exp. Station, Brookings, South Dakota, United States; J. Rickertsen, South Dakota State University, Plant Science Dept., Brookings, South Dakota 57007, United States; Jackie Rudd, Texas A&M University, Research & Extension Center, 6500 Amarillo Blvd. West, Amarillo, Texas 79106, United States; Yue Jin, USDA, ARS, University of Minnesota, Cereal Disease Lab, St. Paul, Minnesota 55108, United States; Karl D. Glover, South Dakota State University, Plant Science Department, NPB 247, Box 2140-C, Brookings, South Dakota 57007-2141, United States; R.N. Devkota, Texas A&M University, Texas Agricultural Experiment Station, 6500 Amarillo Blvd., West Amarillo, Texas 79106, United States; R.G. Hall, South Dakota State University, Plant Science Dept., Brookings, South Dakota 57007, United States. Received 10/13/2004.

**PI 636134. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "GRANGER"; SD3546. PVP 2005000005; CV-989. Pedigree - SD8070/SD3165 = Guard/Sharp/5/Butte 86/3/Mexico Dwarf/Baca//Vona/4/2375. Released 2004. A hard red spring wheat with superior yield potential in South Dakota and northern Great Plains. Possesses elevated levels of resistance to *Fusarium* head blight caused by *Fusarium graminearum*; excellent end-use quality parameters and large seed.

The following were developed by Louisiana State University Agricultural Center, Louisiana, United States. Received 10/13/2004.

**PI 636135 PVPO. *Avena sativa* L.**

Cultivar. Pureline. "LA 9339"; LA9339E45. PVP 2005000004. Pedigree - X414/T91AB3256 = Coker85-18//Coker78-28/Coker79-26/3/TAMO397sib.

**PI 636136 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "LA 841"; LA90518PB43-3-1-4. PVP 2005000003. Pedigree - GA8665-D4/GA85238-C3.

The following were donated by William Waycott, USDA, ARS, 1636 East Alisal Street, Salinas, California 93905, United States; Narayana Naidu, 221, Raina Mandiram Street, Hanur, Karnataka 571-439, India. Received 04/08/1993.

**PI 636137. *Lagenaria siceraria* (Molina) Standl.**

Grif 1579. Collected in India. Area between Mysore and Bangalore, but closer to Mysore. These are likely to be commercially available, open-pollinated selections from landraces.

The following were donated by Steven Bozarth, University of Kansas, Department of Geography, 213 Lindley Hall, Lawrence, Kansas 66045-2121, United States. Received 07/24/2000.

**PI 636138. *Cucurbita lundelliana* L. H. Bailey**

Uncertain. Grif 14518. Collected in Belize. Blue Creek.

The following were developed by USDA, ARS, Germplasm Services Laboratory, Plant Introduction Office, Beltsville, Maryland 20705, United States. Received 10/21/2004.

**PI 636139 PVPO. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata***  
Cultivar. Pureline. "Whippersnapper". 200500007.

The following were developed by Punjab Agricultural University, Dept. of Genetics & Plant Breeding, Ludhiana, Punjab, India. Donated by National Bureau of Plant Genetic Resources, Germplasm Exchange, Pusa Campus, New Delhi, Delhi 110-012, India. Received 02/19/1993.

**PI 636140. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "WL 711"; NSGC 2074. Pedigree - S  
308/Chris/Kalyansona.

The following were developed by Blair J. Goates, USDA-ARS, National Small Grains Germplasm Res. Facility, 1691 S. 2700 W., Aberdeen, Idaho 83210, United States. Received 10/20/2004.

**PI 636141. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560596-sel-wcors; NSGC 9460. Pedigree - selection from PI 560596. Resistant to common bunt and dwarf bunt.

**PI 636142. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560596-sel-wcows; NSGC 9461. Pedigree - selection from PI 560596. Resistant to common bunt and dwarf bunt.

**PI 636143. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560599-sel-bcows; NSGC 9462. Pedigree - selection from PI 560599. Resistant to common bunt and dwarf bunt.

**PI 636144. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560599-sel-bcors; NSGC 9463. Pedigree - selection from PI 560599. Resistant to common bunt and dwarf bunt.

**PI 636145. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-bco; NSGC 9464. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.

**PI 636146. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-bcl; NSGC 9465. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.

**PI 636147. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-wclws; NSGC 9466. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.

**PI 636148. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-wclrs; NSGC 9467. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.

**PI 636149. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-wcors; NSGC 9468. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.

**PI 636150. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-wcows; NSGC 9469. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.



- PI 636151. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560603-sel-blaw; NSGC 9470. Pedigree - selection from PI 560603. Resistant to common bunt and dwarf bunt.
- PI 636152. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560604-sel-aest; NSGC 9471. Pedigree - selection from PI 560604. Resistant to common bunt and dwarf bunt.
- PI 636153. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560685-sel-cl; NSGC 9472. Pedigree - selection from PI 560685. Resistant to common bunt and dwarf bunt.
- PI 636154. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560703-sel-bco; NSGC 9473. Pedigree - selection from PI 560703. Resistant to common bunt and dwarf bunt.
- PI 636155. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560795-sel-bcows; NSGC 9474. Pedigree - selection from PI 560795. Resistant to common bunt and dwarf bunt.
- PI 636156. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560795-sel-bcors; NSGC 9475. Pedigree - selection from PI 560795. Resistant to common bunt and dwarf bunt.
- PI 636157. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560830-sel-wcors; NSGC 9476. Pedigree - selection from PI 560830. Resistant to common bunt and dwarf bunt.
- PI 636158. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560830-sel-wcows; NSGC 9477. Pedigree - selection from PI 560830. Resistant to common bunt and dwarf bunt.
- PI 636159. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560830-sel-bco; NSGC 9478. Pedigree - selection from PI 560830. Resistant to common bunt and dwarf bunt.
- PI 636160. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560831-sel-bco; NSGC 9479. Pedigree - selection from PI 560831. Resistant to common bunt and dwarf bunt.
- PI 636161. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560835-sel-bco; NSGC 9480. Pedigree - selection from PI 560835. Resistant to common bunt and dwarf bunt.
- PI 636162. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560837-sel-wco; NSGC 9481. Pedigree - selection from PI 560837. Resistant to common bunt and dwarf bunt.
- PI 636163. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560837-sel-bco; NSGC 9482. Pedigree - selection from PI 560837. Resistant to common bunt and dwarf bunt.
- PI 636164. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560840-sel-wco; NSGC 9483. Pedigree - selection from PI 560840. Resistant to common bunt and dwarf bunt.

- PI 636165. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560841-sel-wco; NSGC 9484. Pedigree - selection from PI 560841. Resistant to common bunt and dwarf bunt.
- PI 636166. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560841-sel-bcl; NSGC 9485. Pedigree - selection from PI 560841. Resistant to common bunt and dwarf bunt.
- PI 636167. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560841-sel-bco; NSGC 9486. Pedigree - selection from PI 560841. Resistant to common bunt and dwarf bunt.
- PI 636168. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560842-sel-bcors; NSGC 9487. Pedigree - selection from PI 560842. Resistant to common bunt and dwarf bunt.
- PI 636169. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560843-sel-aest; NSGC 9488. Pedigree - selection from PI 560843. Resistant to common bunt and dwarf bunt.
- PI 636170. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560845-sel-wcl; NSGC 9489. Pedigree - selection from PI 560845. Resistant to common bunt and dwarf bunt.
- PI 636171. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560845-sel-wco; NSGC 9490. Pedigree - selection from PI 560845. Resistant to common bunt and dwarf bunt.
- PI 636172. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560845-sel-bclws; NSGC 9491. Pedigree - selection from PI 560845. Resistant to common bunt and dwarf bunt.
- PI 636173. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560845-sel-bclrs; NSGC 9492. Pedigree - selection from PI 560845. Resistant to common bunt and dwarf bunt.
- PI 636174. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. PI560846-sel-wco; NSGC 9493. Pedigree - selection from PI 560846. Resistant to common bunt and dwarf bunt.

The following were developed by H.S. Dhaliwal, Punjab Agricultural University, Dept. of Genetics & Biotechnology, Ludhiana, Punjab 141 004, India. Received 07/01/2003.

- PI 636175. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. T65; NSGC 9494. Pedigree - WL711/*Aegilops geniculata*//Chinese Spring (Ph1)/3/WL711 (NN). Resistance to leaf rust and stripe rust introgressed from *Aegilops geniculata*.
- PI 636176. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. T266; NSGC 9495. Pedigree - T.durum/*Aegilops umbellulata*//Chinese Spring (Ph1)/3/WL711 (NN). Resistance to leaf rust and stripe rust, transferred from *Aegilops umbellulata* via a synthetic amphiploid.

**PI 636177. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. 2640; NSGC 9496. Pedigree - BC2F8 WL711/*Aegilops triuncialis*. Resistance to Karnal Bunt introgressed from *Aegilops triuncialis*.

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

**PI 636178. *Amaranthus hybridus* L.**

Wild. RRC 102A; RRC 78S-102A; RRC 78S-100B; A74-61; RRC 100B; Ames 2032; Ames 2026. Collected 09/01/1977 in Indiana, United States. Middlebury. The seeds are black, flowers green and red, leaves green. The RRC class type is: weed.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; USDA, ARS Tropical Agriculture Research Station, 2200 Pedro Albizu Campos Ave. Ste. 201, Mayaguez, Puerto Rico. Received 04/15/1986.

**PI 636179. *Amaranthus tricolor* L.**

Cultivar. "Crystal"; RRC 325; A-74; MITA A-74; Ames 5112. Collected 07/13/1978 in Taiwan. Unusual white (non-chlorophyll) stem. The seeds are black, flowers green, leaves green. The RRC class type is cultivated vegetable. 'Crystal'. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by Jesus Idrobo, Transversal 35, No 125-30, Bogota, Cundinamarca, Colombia. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

**PI 636180. *Amaranthus hybridus* L.**

Wild. JMI 11210; 11210; RRC 1153; blede; Ames 5653. Collected 08/18/1982 in Cundinamarca, Colombia. Latitude 5° 1' N. Longitude 73° 22' W. Tibaitata. Weed of marginal areas. The seeds are black, the flowers are green-red, the leaves are light rufescent-greenish with red overtones. The RRC CLASS TYPE is: weedy. At the RRC center it was observed that it did not mature in field and the plants were diseased. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

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

**PI 636181. *Amaranthus hybridus* L.**

Wild. RRC 1195; Hr003; Ames 5684. Collected 10/01/1982 in Delaware, United States. Latitude 40° 44' N. Longitude 74° 10' W. Field. The seeds are black, flowers green and reddish-green, leaves green and light rufescent. The RRC class type is: weed. It is a typical A.

hybridus weed. Observations from the Rodale Research Center, 1988  
Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were developed by Guillermo Covas, Facultad de Agron. de la Univ. Nacional de La Pampa, Emilio Mitre 31, Santa Rosa, La Pampa 6300, Argentina. Donated by Carolyn Reider, Rodale Research Center, Box 323, R.D. 1, Kutztown, Pennsylvania 19530, United States. Received 06/07/1990.

**PI 636182. *Amaranthus cruentus* L.**

Cultivar. "Don Armando"; RRC 1386; Ames 15198. The seeds are white, flowers dark pink and marbled, leaves variegated. The RRC class type is: Mexican. It is said to be the cultivar 'Don Amando.' Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. Seed shipped with closing of Rodale Amaranthus program.

The following were donated by B.D. Joshi, National Bureau of Plant Genetic Res., Regional Station, Phagli, Simla, Himachal Pradesh 171004, India. Received 05/14/1993.

**PI 636183. *Amaranthus hypochondriacus* L.**

Breeding. VL 33; Ames 21047. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636184. *Amaranthus hypochondriacus* L.**

Breeding. VL 36; Ames 21048. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636185. *Amaranthus hypochondriacus* L.**

Breeding. PRA 8901; Ames 21049. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636186. *Amaranthus hypochondriacus* L.**

Breeding. IC 35433; Ames 21050. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636187. *Amaranthus hypochondriacus* L.**

Breeding. 35717; Ames 21051. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636188. *Amaranthus hypochondriacus* L.**

Breeding. 38269; Ames 21052. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636189. *Amaranthus hypochondriacus* L.**

Breeding. 42255-5; Ames 21053. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636190. *Amaranthus hypochondriacus* L.**

Breeding. 42340; Ames 21054. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636191. *Amaranthus hypochondriacus* L.**

Breeding. 42374; Ames 21055. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636192. *Amaranthus hypochondriacus* L.**

Breeding. 95585; Hy027; Ames 21056. An elite grain amaranth as described by B. Joshi in 1993.

**PI 636193. *Amaranthus caudatus* L.**

Breeding. 108U22; Ames 21057. An elite grain amaranth as described by B. Joshi in 1993.

The following were donated by Roman Millan, Facultad de Economia, Cubiculo 10, UNAM, Ciudad Universitaria, Mexico City, Federal District 04510, Mexico. Received 06/23/2003.

**PI 636194. *Amaranthus hypochondriacus* L.**

Wild. Ames 27285. Collected in Federal District, Mexico. Tetelco, a little town east of Mexico City, on the grounds of the former Great Lake. The donor uses this for grain production in Mexico because it has a useful dwarf trait.

The following were donated by University of Florida, Florida Agr. Exp. Sta., Department of Agronomy, Gainesville, Florida 32611, United States. Received 1968.

**PI 636195. *Solanum lycopersicum* L.**

NSL 5391; Tropi-Red. J.W. Stobel, J.M. Walter & N.E. Hayship, Tropi-red - a marr: determinate tomato with excellent color and multiple disease resistance U. of Fla. AES circ. s-182: 1-15.

The following were donated by Purdue University, Purdue Univ. Agric. Exp. Station, West Lafayette, Indiana 47907, United States. Received 1961.

**PI 636196. *Solanum lycopersicum* L.**

NSL 6620; Tecumseh. Similar to Urbana, fruit globe shaped, somewhat soft, highly resistant to fusarium wilt, additional res. to gray leaf spot, matures early to midseason. Purdue AES Rpt. Vol.3, No.2.

The following were donated by University of Missouri, Missouri Agr. Exp. Sta., Columbia, Missouri 65201, United States. Received 1961.

**PI 636197. *Solanum lycopersicum* L.**

NSL 8568; Truckers Forcing. Uniform red fruit, resistance to fusarium wilt & cladosporium leaf mold, adapted to setting under cloudy fall weather & tolerance of high green house temp. in spring. Plant is of medium vigor & indeterminate. Missouri AES Res. Bul. #597, 1956. List of veg. var. Am'n. Soc. for Hort. Sc. 8/1/59 p. 86.

The following were donated by University of Maryland, Maryland Agr. Exp. Sta., College Park, Maryland 20742, United States. Received 1962.

**PI 636198. *Solanum lycopersicum* L.**

NSL 15385; Pocomoke. Semi to near determinate, deep red color, very high degree of cracking resistance, slight catfacing, high degree of tolerance to fusarium wilt. Descr. from L.C. Stark, Univ. of Maryland.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1962.

**PI 636199. *Solanum lycopersicum* L.**

NSL 16945; VF 145-B. Peto Seed Co. 1962 catalog.

The following were donated by University of Minnesota, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States. Received 1962.

**PI 636200. *Solanum lycopersicum* L.**

P-162-62; NSL 20527; Tiny Tim. List of veg. var. "Committee on veg. breeding & var." Am'n. Soc. for Hort. Sc. August 1, 1962, p.86.

The following were donated by University of Illinois, Agricultural Exp. Stat., Urbana, Illinois 61803, United States. Received 1963.

**PI 636201. *Solanum lycopersicum* L.**

ILL Acc 30; NSL 22608; Y13-MDS204. Vines determinate, medium size, fruits medium size, globe shape, smooth, bad cracking, red color, high pigment Description from Illinois, (see file).

The following were donated by New York State Agricultural Experiment Station, Geneva, New York 14456-0462, United States. Received 1963.

**PI 636202. *Solanum lycopersicum* L.**

NSL 22760; 62-257-N.

The following were donated by Oklahoma State University, Oklahoma Agr. Exp. Sta., Department of Agronomy, Stillwater, Oklahoma 74074, United States. Received 1967.

**PI 636203. *Solanum lycopersicum* L.**

NSL 26241; T010.

**PI 636204. *Solanum lycopersicum* L.**

NSL 26251; T020.

**PI 636205. *Solanum lycopersicum* L.**

NSL 26270; T039.

**PI 636206. *Solanum lycopersicum* L.**

NSL 26285; T055.

**PI 636207. *Solanum lycopersicum* L.**

NSL 26294; T064.

**PI 636208. *Solanum lycopersicum* L.**

NSL 26296; T066 and T067.

**PI 636209. *Solanum lycopersicum* L.**

NSL 26309; T079.

- PI 636210. *Solanum lycopersicum* L.  
NSL 26335; T105.
- PI 636211. *Solanum lycopersicum* L.  
NSL 26338; T108.
- PI 636212. *Solanum lycopersicum* L.  
NSL 26341; T111.
- PI 636213. *Solanum lycopersicum* L.  
NSL 26342; T112.
- PI 636214. *Solanum lycopersicum* L.  
NSL 26343; T113.
- PI 636215. *Solanum lycopersicum* L.  
NSL 26344; T114.
- PI 636216. *Solanum lycopersicum* L.  
NSL 26370; T140.
- PI 636217. *Solanum lycopersicum* L.  
NSL 26381; T151.
- PI 636218. *Solanum lycopersicum* L.  
NSL 26384; T154.
- PI 636219. *Solanum lycopersicum* L.  
NSL 26388; T158.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

- PI 636220. *Solanum lycopersicum* L.  
NSL 26874; Abel Early. Wm. Rennie Sds. Lts. (Canada) 1945 catakig.
- PI 636221. *Solanum lycopersicum* L.  
NSL 26878; Alpha. Cheyenne Hort. Field Sta. Notes.
- PI 636222. *Solanum lycopersicum* L.  
NSL 26896; Best Second Early. Cheyenne Hort. Field Sta. Notes.
- PI 636223. *Solanum lycopersicum* L.  
NSL 26898; Bloomsdale. Cheyenne Hort. Field Sta. Notes.
- PI 636224. *Solanum lycopersicum* L.  
NSL 26904; Britains Best. Collected in United Kingdom. Ryders 1948 Catalog (England).
- PI 636225. *Solanum lycopersicum* L.  
NSL 26911; Canadian. Cheyenne Hort. Field Sta. Notes.
- PI 636226. *Solanum lycopersicum* L.  
NSL 26918; Choice Trivetts. Cheyenne Hort. Field Sta. Notes.

- PI 636227. *Solanum lycopersicum* L.  
NSL 26921; Clarks Early. Cheyenne Hort. Field Sta. Notes ,  
Porter-Walton Co. 1932 catalog.
- PI 636228. *Solanum lycopersicum* L.  
NSL 26925; Columbia. Cheyenne Hort. Field Sta. Notes.
- PI 636229. *Solanum lycopersicum* L.  
NSL 26929; Cream City. Cheyenne Hort. Field Sta. Notes.
- PI 636230. *Solanum lycopersicum* L.  
NSL 26935; Discovery. Cheyenne Hort. Field Sta. Notes.
- PI 636231. *Solanum lycopersicum* L.  
NSL 26939; Dwarf Perfection. Cheyenne Hort. Field Sta. Notes.
- PI 636232. *Solanum lycopersicum* L.  
NSL 26941; Earliana Mandan. Burgess 1960 catalog.
- PI 636233. *Solanum lycopersicum* L.  
NSL 26955; Scarlet Extra Early June. Farmer Seed & Nursery Co. 1946  
Catalog.
- PI 636234. *Solanum lycopersicum* L.  
NSL 26958; Early Market Barrs. Cheyenne Hort. Field Sta. Notes.
- PI 636235. *Solanum lycopersicum* L.  
NSL 26978; Express. Cheyenne Hort. Field Sta. Notes.
- PI 636236. *Solanum lycopersicum* L.  
NSL 26993; Frogmores Select. Cheyenne Hort. Field Sta. Notes.
- PI 636237. *Solanum lycopersicum* L.  
NSL 27027; Hall, A.D.. Cheyenne Hort. Field Sta. Notes.
- PI 636238. *Solanum lycopersicum* L.  
NSL 27028; Ham Green Favorite. Cheyenne Hort. Field Sta. Notes.
- PI 636239. *Solanum lycopersicum* L.  
NSL 27029; Happy Hit. Cheyenne Hort. Field Sta. Notes.
- PI 636240. *Solanum lycopersicum* L.  
NSL 27055; Jollygood. Collected in United Kingdom. Ryder & Sons (Eng)  
1938 catalog.
- PI 636241. *Solanum lycopersicum* L.  
NSL 27061; The Kid (La Naine). Cheyenne Hort. Field Sta. Notes.
- PI 636242. *Solanum lycopersicum* L.  
NSL 27062; King of the Earlies. Altdofer's (Switz) 1947 catalog.
- PI 636243. *Solanum lycopersicum* L.  
NSL 27066; Labrador. Cheyenne Hort. Field Sta. Notes.
- PI 636244. *Solanum lycopersicum* L.  
NSL 27074; Listers Excelsior. Cheyenne Hort. Field Sta. Notes.



- PI 636245. *Solanum lycopersicum* L.  
NSL 27098; Matchless x Parigasinan. Cheyenne Hort. Field Sta. Notes.
- PI 636246. *Solanum lycopersicum* L.  
NSL 27099; Matchum. Cheyenne Hort. Field Sta. Notes.
- PI 636247. *Solanum lycopersicum* L.  
NSL 27107; Wards Moneymaker. Cheyenne Hort. Field Sta. Notes.
- PI 636248. *Solanum lycopersicum* L.  
NSL 27115; New King. Vaughan's 1941 catalog. Cheyenne Hort. Field Sta. Notes.
- PI 636249. *Solanum lycopersicum* L.  
NSL 27123; No Substitute. Cheyenne Hort. Field Sta. Notes.
- PI 636250. *Solanum lycopersicum* L.  
NSL 27128; The Orange. P. Henderson's 1933 catalog.
- PI 636251. *Solanum lycopersicum* L.  
NSL 27173; Redcap. Cheyenne Hort. Field Sta. Notes. Harris 1939 catalog.
- PI 636252. *Solanum lycopersicum* L.  
NSL 27176; Red Head. Livingston 1943 catalog.
- PI 636253. *Solanum lycopersicum* L.  
NSL 27205; Satisfaction. Cheyenne Hort. Field Sta. Notes.
- PI 636254. *Solanum lycopersicum* L.  
NSL 27210; Schells No 10. Schell's 1936 Catalog.
- PI 636255. *Solanum lycopersicum* L.  
NSL 27245; Trophy. Cheyenne Hort. Field Sta. Notes Mauthner's (Hung) 1931 cat.
- PI 636256. *Solanum lycopersicum* L.  
NSL 27254; Vetomold 121 Forcing. Collected in Canada. Dupey & Ferguson 1947 catalog.
- PI 636257. *Solanum lycopersicum* L.  
NSL 27257; Victor Mich 4137. Veg. var. "Committee on veg. breeding & var." Am'n Soc. for Hort. Sc. August 1959, p.88.
- PI 636258. *Solanum lycopersicum* L.  
NSL 27270; Winter Beauty. Cheyenne Hort. Field Sta. Notes.
- PI 636259. *Solanum lycopersicum* L.  
NSL 27282; Alice Roosevelt. Altdofer's (Switz.) 1947 Catalog.
- PI 636260. *Solanum lycopersicum* L.  
NSL 27291; Beauty Special. Cheyenne Hort. Field Sta. Notes. N. Sluis & Sons 1943 cat.
- PI 636261. *Solanum lycopersicum* L.  
NSL 27312; Drought Resister. Cheyenne Hort. Field Sta. Notes.

- PI 636262. *Solanum lycopersicum* L.  
NSL 27340; Favorite Livingstons. F.W. Bolgiano & Co., Inc. 1942 catalog.
- PI 636263. *Solanum lycopersicum* L.  
NSL 27346; Giant Climbing. Cheyenne Hort. Field Sta. Notes.
- PI 636264. *Solanum lycopersicum* L.  
NSL 27349; Gladiator. Collected in Spain. Cheyenne Hort. Field Sta. Notes.
- PI 636265. *Solanum lycopersicum* L.  
NSL 27352; Gnome. Cheyenne Hort. Field Sta. Notes.
- PI 636266. *Solanum lycopersicum* L.  
NSL 27368; Kellys Red. Meyer Seed Co. 1934 Catalog.
- PI 636267. *Solanum lycopersicum* L.  
NSL 27369; Kanora. Cheyenne Hort. Field Sta. Notes.
- PI 636268. *Solanum lycopersicum* L.  
NSL 27382; Marcomet. Cheyenne Hort. Field Sta. Notes, Perry Seed Co. 1935 catalog.
- PI 636269. *Solanum lycopersicum* L.  
NSL 27388; Marmon. Cheyenne Hort. Field Sta. Notes.
- PI 636270. *Solanum lycopersicum* L.  
NSL 27393; Fidlers Model. Fidler & sons 19 catalog. Cheyenne Hort. Field Sta. Notes.
- PI 636271. *Solanum lycopersicum* L.  
NSL 27421; Pittsburgh Beckerts. Cheyenne Hort. Field Sta. Notes.
- PI 636272. *Solanum lycopersicum* L.  
NSL 27424; Prince Borghese. Collected in Italy. Cheyenne Hort. Field Sta. Notes.
- PI 636273. *Solanum lycopersicum* L.  
NSL 27434; Reynard 42-88. Cheyenne Hort. Field Sta. Notes.
- PI 636274. *Solanum lycopersicum* L.  
NSL 27456; Stokesdale. List of veg. var. "Committee on veg. var. & breeding" Am'n. Soc. for Hort. Sc. August 1950, p.86.
- PI 636275. *Solanum lycopersicum* L.  
NSL 27467; Vahle Leader. Cheyenne Hort. Field Sta. Notes.
- PI 636276. *Solanum lycopersicum* L.  
NSL 27468; Valliant. Harris 1963 catalog, p.23.
- PI 636277. *Solanum lycopersicum* L.  
NSL 27496; Coure di bue. Collected in Argentina. Cheyenne Hort. Field Sta. Notes.

- PI 636278. *Solanum lycopersicum* L.  
NSL 27508; Gloire de Malines. Collected in Belgium. Cheyenne Hort. Field Sta. Notes.
- PI 636279. *Solanum lycopersicum* L.  
NSL 27519; Illinois Baltimore. Cheyenne Hort. Field Sta. Notes.
- PI 636280. *Solanum lycopersicum* L.  
NSL 27522; IXL Bolgiano's Extremely Early Tomato. F.W. Bolgiano & Co. 1943 catalog.
- PI 636281. *Solanum lycopersicum* L.  
NSL 27534; Missouri Giant. Archias Seed Co. 1938 catalog.
- PI 636282. *Solanum lycopersicum* L.  
NSL 27536; N C O. Cheyenne Hort. Field Sta. Notes.
- PI 636283. *Solanum lycopersicum* L.  
NSL 27542; Perpignan Hardin. Cheyenne Hort. Sta. Notes.
- PI 636284. *Solanum lycopersicum* L.  
NSL 27545; Pilot. Collected in Italy. Cheyenne Hort. Field Sta. Notes.
- PI 636285. *Solanum lycopersicum* L.  
NSL 27553; Redrock. Geo. Tait & Sons 1934 Catalog.
- PI 636286. *Solanum lycopersicum* L.  
Imp. Red-Mkt Wonder; NSL 27556; Rouge Amelioree des Marches. Collected in France. Cheyenne Hort. Field Sta. Notes.
- PI 636287. *Solanum lycopersicum* L.  
NSL 27560; Sensation. R.H. Shumway 1946 catalog.
- PI 636288. *Solanum lycopersicum* L.  
NSL 27571; Victory Clibrans. Cheyenne Hort. Field Sta. Notes.
- PI 636289. *Solanum lycopersicum* L.  
NSL 27607; Marche Jaune Gele Mkt. Collected in Belgium. Cheyenne Hort. Field Sta. Notes.
- PI 636290. *Solanum lycopersicum* L.  
NSL 27621; Sakatas Giant. Cheyenne Hort. Field Sta. Notes.
- PI 636291. *Solanum lycopersicum* L.  
NSL 27642; Scottish Champion. Cheyenne Hort. Field Sta. Notes.
- PI 636292. *Solanum lycopersicum* L.  
NSL 27651; Early Baltimore 1C-2-41. Cheyenne Hort. Field Sta. Notes.

The following were donated by Purdue University, Purdue Univ. Agric. Exp. Station, West Lafayette, Indiana 47907, United States. Received 1963.

- PI 636293. *Solanum lycopersicum* L.  
NSL 28666; Texto No 2. List of veg. var. "Committee on veg. breeding & var." Am'n. Soc. for Hort. Sc. August 1, 1959, p.86.

**PI 636294. *Solanum lycopersicum* L.**

NSL 28669; May Hope. From Purdue University, Dept. of Hort., Lafayette, Indiana.

The following were donated by Gill Bros., Oregon, United States. Received 1964.

**PI 636295. *Solanum lycopersicum* L.**

NSL 31388; Oregon Centennial. Large fruit( often 1 lb.) deep red interior, solid, seed pockets are small, medium early maturity, heavy yields. Gill 1964 catalog, p.24.

The following were donated by Utah State University, Utah Agric. Exp. Sta., Logan, Utah 84322, United States. Received 1966.

**PI 636296. *Solanum lycopersicum* L.**

Dr. H.L. Blood Col. 803; NSL 43530; Argentine. Collected in Argentina. Dr. H.L. Blood Collection No. 803. Lesley, Argentine 1936.

**PI 636297. *Solanum lycopersicum* L.**

Dr. H.L. Blood Col. 489; NSL 43534; Canary Island 3. Dr. H.L. Blood Collection No. 489. McKinney Doolittle 1931.

**PI 636298. *Solanum lycopersicum* L.**

Dr. H.L. Blood Col. 354; NSL 43547; H and S 2. Collected in United Kingdom. Dr. H.L. Blood Collection No. 354. Hurst & Sons, England 1931.

The following were donated by Petoseed Company, Inc., P.O. Box 4206, Saticoy, California 93004-0206, United States. Received 1967.

**PI 636299. *Solanum lycopersicum* L.**

NSL 53702; Ohio WR 3. Greenhouse adapted, medium maturity, fruit is medium large, thick walled, deep oblate shape, vine is indeterminate, resistant to fusaroum wilt & sooty mold, pink fruit. Peto Seed Company catalog, p.24, 1968.

The following were donated by University of California, California Agr. Exp. Sta., Davis, California 95616, United States. Received 1968.

**PI 636300. *Solanum* sect. *lycopersicon* sp.**

NSL 67835; Jenkins Line No 1311. Collected in Honduras. strain 1311 - 2 locules, large considering.

**PI 636301. *Solanum* sect. *lycopersicon* sp.**

NSL 67852; Jenkins Line No 1504. Strain 1504, 'Lanceolate', p13, La; note: Lanceolate leaf mutant reference str. J.R.A.

The following were donated by Agric. Alumni Seed Improvement Assoc., Inc., P.O. Box 158, Romney, Indiana 47981, United States. Received 1976.

**PI 636302. *Solanum lycopersicum* L.**

Lot 1AF9D; NSL 92325; Wabash. HortScience 6(2) April 1971 No further background information available.

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

**PI 636303. *Solanum lycopersicum* L.**

PC72A58-Stock No; NSL 95239; C34. 1975 Asgrow catalog No further background information available.

The following were donated by Arvid A. Boe, Dept of Plant & Soil Sciences, University of Idaho, Moscow, Idaho 83843, United States. Received 1980.

**PI 636304. *Solanum lycopersicum* L.**

NSL 106700; Benewah. Further background information unavailable.

Unknown source. Received 05/2000.

**PI 636305. *Polygala myrtifolia* L.**

Cultivar. Population. "Chapman Field"; MIA 35889. Due to 2005 hurricanes: limited availability upon verification of nursery status..

The following were developed by Emergent Genetics, United States. Received 11/10/2004.

**PI 636306 PVPO. *Gossypium hirsutum* L.**

Cultivar. Pureline. "NG 2448R". PVP 200500012.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 11/10/2004.

**PI 636307 PVPO. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "Sturdy 2K". PVP 200500013. Pedigree - selection from Sturdy.

The following were developed by Emergent Genetics, United States. Received 11/10/2004.

**PI 636308 PVPO. *Gossypium hirsutum* L.**

Cultivar. Pureline. "NG 1553R". PVP 200500011.

**PI 636309 PVPO. *Gossypium hirsutum* L.**

Cultivar. Pureline. "ST 4646B2R". PVP 200500010.

The following were developed by D&PL Technology Holding Corp., United States. Received 11/10/2004.

**PI 636310 PVPO. *Gossypium hirsutum* L.**

Cultivar. Pureline. "DP 444 BG/RR". PVP 200300134.

The following were developed by Virginia Tech Intellectual Properties, Inc., Virginia, United States. Received 11/10/2004.

**PI 636311 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. Pureline. "MFL-159". PVP 200500008.

The following were donated by Enrique Chujoy, International Potato Center (CIP), Far East and SE Asia Regional Office, Laguna, Los Banos, Luzon, Philippines. Received 04/16/2004.

**PI 636312. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Galona"; 440392; Q 44202.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/02/1998.

**PI 636313. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "WT-478"; Q 37472.

**PI 636314. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "WT-571"; Q 37474.

**PI 636315. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "NO. 221"; CIP 400009; Q 37477.

The following were developed by Agricultural Research Institute of the Hungarian Academy of Sciences, Hungary. Received 11/17/2004.

**PI 636316 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "Carlisle". PVP 200400239. Pedigree -  
MvMA(Kavkaz/Olesen//Tp114-65A/Martonvasari3)/Mv12(Mironovskaya808/Bezost  
ayal//Bezostayal-3)//F2098W2-21(Fundulea line).

The following were developed by Peter Franck, Germany. Received 11/17/2004.

**PI 636317 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "Harvard"; ACS 98036. PVP 200400240. Pedigree -  
PF626-80/FHB8801-78 = Adam/Hercules//Karat/Line 286.

**PI 636318 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "Maxine". PVP 200400241. Pedigree - PF 99.17/PF  
L448.21.

The following were developed by Sakata Seed Corporation, Japan. Received 11/17/2004.

**PI 636319 PVPO. *Solenostemon scutellarioides* (L.) Codd**  
Cultivar. "Kakegawa CE12". PVP 200500015.

**PI 636320 PVPO. *Solenostemon scutellarioides* (L.) Codd**  
Cultivar. "Kakegawa CE13". PVP 200500016.

**PI 636321 PVPO. *Solenostemon scutellarioides* (L.) Codd**  
Cultivar. "Kakegawa CE14". PVP 200500017.

**PI 636322. *Solenostemon scutellarioides* (L.) Codd**  
Cultivar. "Kakegawa CE15". PVP 200500018.

**PI 636323 PVPO. *Solenostemon scutellarioides* (L.) Codd**  
Cultivar. "Kakegawa CE16". PVP 200500019.

The following were developed by John R. Stommel, USDA, ARS, Genetic Improvement of Fruits, and Vegetables, Beltsville, Maryland 20705-2350, United States; Robert J. Griesbach, USDA, ARS, Florist and Nursery Crops Lab, Building 010A, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 11/17/2004.

**PI 636324 PVPO. *Capsicum annuum* L.**  
Cultivar. Pureline. "Black Pearl". PVP 200500020.

The following were developed by David Lightfoot, Southern Illinois University, Department of Plant and Soil Sciences, Carbondale, Illinois 62901, United States. Received 09/30/2004.

**PI 636325 MAP. *Glycine max* (L.) Merr.**  
Genetic. Pureline. "Forrest"; Forrest MAP. Pedigree - 'Dyer' X 'Bragg'. Forrest MAP is a mapping parent used with Essex MAP to identify quantitative trait loci (QTL) for various traits in soybean.

**PI 636326 MAP. *Glycine max* (L.) Merr.**  
Genetic. Pureline. "Essex"; Essex MAP. Pedigree - F7 derived line from 'Lee' X S55-7075. Essex MAP is a mapping parent used with Forrest MAP to identify quantitative trait loci (QTL) for various traits in soybean.

The following were developed by Julia Carreras, Universidad Nacional de Cordoba, CC 509 CP5000, Cordoba, Argentina; E. Biderbost, Universidad Nacional de Cordoba, CC 509.5000, Cordoba, Argentina. Received 09/10/2004.

**PI 636327. *Cicer arietinum* L.**  
Cultivar. Pureline. "Chanaritos S-156". CV-236. Pedigree - Twenty lines derived from selection of 500 individual plants from local population Saucó. Selected from locally grown population Saucó, having 18% greater 100 sd. wt. Tolerant to local isolates of Fusarium, and tolerant to cold (-5 degrees C) at early vegetative stage. Also expressed optimal response to Thizobium sp. inoculation. Semi-spreading growth habit from emergence to late vegetative period and semi-erect from flowering to maturity. Flowers 96 days after sowing, a week earlier than Saucó. Seeds are large (49g/100 sd), have a yellow coat with wrinkled surface, and is easily harvested by combine.

The following were developed by Kadambot Siddique, Centre for Legumes in Mediterranean Agriculture, The University of Western Australia, 35 Stirling

Highway, Crawley, Western Australia, Australia; K.L. Regan, Dep. of Agriculture Western Australia, Baron Hay Court, South Perth, Western Australia 6151, Australia. Received 10/04/2004.

**PI 636328. *Cicer arietinum* L.**

Cultivar. Pureline. "Kimberley Large". CV-238. Pedigree - Derived from propagation of single plant selection from GCN133-2, an ICARDA accession. Single plants selected for uniformity, flowering time, seed coat color and seed size. Flowers 40 days after sowing, has very large seeds with very high seed weight (55 to 62g/100 sd) brain shape, medium ribbing, seeds white in color. Plants are semi-erect, medium height (500 mm), with very large single leaves (40 mm long by 28 mm wide) with medium green color. Flowers are white with medium/long peduncles. Pods are large with short beak, medium green color, and average 1.0 ovule. Susceptible to *Ascochyta* blight, caused by *Ascochyta rabiei*.

The following were developed by Gerald Evers, Texas A&M Univ. Ag. Res. & Ext. Ctr., PO Box 200, Overton, Texas 75684-0290, United States; William R. Ocumpaugh, Texas A&M University, Texas Agricultural Exp. Station, 3507 Highway 59 E, Beeville, Texas 78102-9410, United States; James C. Read, Texas A&M University, Texas Agricultural Experiment Station, Research and Extension Center, Dallas, Texas 75252-6502, United States; M.A. Sanderson, USDA, ARS, Pasture Systems & Watershed Management Research Lab., Curtin Road, University Park, Pennsylvania 16802-3702, United States; Andrew Hopkins, The Samuel Roberts Noble Foundation, Inc., 2510 Sam Noble Parkway, Ardmore, Oklahoma 73401, United States; J.A. Reinert, Texas Agricultural Experiment Station, 17360 Coit Road, Dallas, Texas 75252, United States. Received 10/12/2004.

**PI 636329. *Poa arachnifera* Torr.**

Cultivar. Population. "Tejas 1". PVP 200500040; CV-87. Pedigree - Synthetic variety developed from 38 ecotypes and 25 plants selected for forage value. Tejas cultivar of Texas bluegrass is a perennial, dioecious, rhizomatous cool season grass comprised of 25 plant selection that developed this synthetic. It produces dry matter yields of 4484 to 5605 kg/ha, and has stand survival values superior to other native grasses. It also has acceptable turf grass quality, equal to Reveille during late summer.

The following were developed by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 10/14/2004.

**PI 636330. *Zea mays* L. subsp. *mays***

Breeding. Population. BS35. GP-403. Pedigree - BS35 includes the genetic materials BS10(FR)C11, BS13(S)C8, BSSS(R)C13, and B73 temperate germplasm, and CML327 and G18(C19)HM100 subtropic lines from CIMMYT. BS35 was developed by intermating 19 backcross progeny derived from crosses of the temperate and elite sub-tropical germplasm. BS35 includes 75% temperate and 25% sub-tropical germplasm and has grain yield, harvest grain moisture, flowering dates, and other agronomic traits similar to temperate germplasm. BS35 includes germplasm classified in the heterotic group of Iowa Stiff Stalk Synthetic for temperate areas and Tuxpeno for sub-tropical areas. Relative maturity of BS35 would be AES800 maturity group.



**PI 636331. *Zea mays* L. subsp. *mays***

Breeding. Population. BS36. GP-404. Pedigree - BS36 genetic materials include BS11(FR)C11, BS26(S)C3, BSCB1(R)C13, and B97 temperate germplasm, and CML323, CML324, and CML328 subtropical lines from CIMMYT. BS36 was developed by intermating 13 backcross selections after evaluation per se and in testcrosses from crosses between temperate and sub-tropical materials. BS36 includes 75% temperate and 25% sub-tropical germplasm and has grain yields, harvest grain moisture, days to flowering, and other agronomic traits similar to the temperate recurrent parents. BS36 includes temperate and sub-tropical germplasm classified in the non-Iowa Stiff Stalk Synthetic heterotic group. Relative maturity of BS36 is AES800 maturity group.

**PI 636332. *Zea mays* L. subsp. *mays***

Breeding. Population. BS37. GP-405. Pedigree - BS37 is comprised of genetic materials from temperate populations BS10(FR)C11, BS13(S)C8, and BSSS(R)C13 and tropical Pool 18 and Populations 21, 24, 28, 43, and 49 from CIMMYT. BS37 was formed by intermating 20 backcross selections based on backcross per se and testcrosses of selected backcrosses derived from crosses of elite temperate and elite tropical populations. BS37 includes 75% temperate and 25% tropical germplasm and has grain yield, harvest grain moisture, days to flower, and other agronomic traits similar to the temperate recurrent parents. BS37 includes germplasm classified in the Iowa Stiff Stalk Synthetic and Tuxpeno heterotic groups. Relative maturity of BS37 would be the late AES800 maturity group.

**PI 636333. *Zea mays* L. subsp. *mays***

Breeding. Population. BS38. GP-406. Pedigree - B38 includes the genetic material BS11(FR)C11, BS26(S)C3, and BSCB1(R)C13 temperate populations, and Pool 17 and Populations 23, 25, 27, and 32 tropical CIMMYT populations. BS38 was developed by intermating 16 backcross progeny after evaluation per se and testcrosses of the selected backcrosses. BS38 includes 75% temperate and 25% tropical germplasm and has grain yields, harvest grain moisture, flowering dates, and other agronomic traits similar to the temperate recurrent parents. BS38 includes germplasm classified in the non-Iowa Stiff Stalk Synthetic and non-Tuxpeno heterotic groups for the respective temperate and tropical areas. Relative maturity of BS38 would be late AES800 maturity group.

The following were developed by Antonio Martin, Instituto de Agricultura Sostenible, Apdo 4084, Cordoba, Cordoba E - 14080, Spain; Sergio G. Atienza, Consejo Superior de Investigaciones Cientificas, Finca Alameda del Obispo s/n. Apdo. 4084, Cordoba, Spain; J. Ballesteros, Instituto de Agricultura Sostenible, Apartado 4084, E-14080, Cordoba, Spain; M.C. Ramirez, Instituto de Agricultura Sostenible, Apartado 4084, E-14080, Cordoba, Cordoba, Spain; C. Martinez, Area de Mejora y Biotecnologia, Apdo. 3092, E-14004, Cordoba, Cordoba, Spain. Received 10/12/2004.

**PI 636334. *X Tritordeum* sp.**

Genetic. Pureline. HT621. GP-7. Pedigree - Complex intergeneric involving *Triticum aestivum* ssp. *sphaerococcum* x *Hordeum chilense*. Is a doubled haploid tritordeum and looks like hexaploid wheat although it is not free threshing due to its brittle rachis and hard glumes. It matures later than wheat. Under irrigation: height: 105-110 cm; spikelet

per spike: 23-25; 1000 seed wt: 33-37 g; test weight: 74-77 Kg/100 l;  
carotenoid content: 18-20 ppm; Biomass: 14000-16000 Kg/ha; yield:  
3800-4200 Kg/Ha; alveograph deformation energy (W): 110-140 x 10<sup>-4</sup> J.  
Reaches 20 ppm carotenoid content, more than double that of durum wheat.

The following were developed by Linda Hanson, USDA, ARS, Sugarbeet Research Unit, Crops Research Lab., Fort Collins, Colorado 80526-2083, United States; Lee Panella, USDA, ARS, Crops Research Lab, Sugarbeet Research Unit, Fort Collins, Colorado 80526-2083, United States. Received 10/21/2004.

**PI 636335. Beta vulgaris L.**

Breeding. Population. FC720; 20001017; 19961015. GP-250. Pedigree - FC720 is the product of six generations of mass selection for Rhizoctonia resistance among the progeny of the cross (C718(rr)/(C718/FC708)). FC720 has good resistance to root rotting strains of (AG-2-2) Rhizoctonia solani and good to moderate resistance to cercospora leaf spot caused by Cercospora beticola, but no resistance to Beet curly top virus (BCTV). O-type germplasm with 73% green hypocotyls; segregates for monogerm (mm) and self-sterility (Ss). Its parents are FC708 and C718. FC720 is a population from which to select Rhizoctonia and Cercospora resistant, monogerm, O-type parents to infuse some rhizoctonia and leaf spot resistance on the female side of hybrids.

**PI 636336. Beta vulgaris L.**

Breeding. Population. FC722; 19961010HO. GP-251. Pedigree - FC722 is the product of six generations of cyclic mass selection for Rhizoctonia resistance among the progeny of the cross (C718/FC708). FC722 has good resistance to root rotting strains (AG-2-2) of Rhizoctonia solani and good to moderate resistance to cercospora leaf spot caused by Cercospora beticola, but no resistance to Beet curly top virus (BCTV). Is an O-type germplasm with 15% green hypocotyls (rr), is segregating for monogerm (mm) and self-sterility (Ss). Its parents are FC708 and C718. FC722 is a population from which to select rhizoctonia and cercospora resistant, monogerm, O-type parents to infuse some rhizoctonia and leaf spot resistance on the female side of hybrids.

**PI 636337. Beta vulgaris L.**

Breeding. Population. FC722CMS; 19961010HO1. GP-251cms. Pedigree - FC722 is the product of six generations of cyclic mass selection for Rhizoctonia resistance among the progeny of the cross (C718/FC708). FC722CMS is the genetic-cytoplasmic male sterile equivalent of the FC722 backcrossed nine times. FC722CMS provides the genetic-cytoplasmic male sterile equivalent of FC722 and has been backcrossed nine times to FC122. FC722 is a population from which to select rhizoctonia and cercospora resistant, monogerm, O-type parents to infuse some rhizoctonia and leaf spot resistance on the female side of hybrids; and FC722CMS provides a CMS female with these characteristics.

The following were developed by Robert T. Lewellen, USDA, ARS, Crop Improvement and Protection Research, 1639 E. Alisal St., Salinas, California 93905, United States. Received 11/04/2004.

**PI 636338. Beta vulgaris L.**

Breeding. Population. CN12; N412; N312; N112. GP-256. Pedigree - CN12 is multigerm (MM), self-fertile (Sf), genetic male sterile facilitated,

random-mated population. 87% sugarbeet. 12% *Beta vulgaris* subsp. *maritima* from WB242 (PI 546413) and WB97 (PI 546394). CN12 segregates for resistance to sugarbeet cyst nematode (*Heterodera schachtii*) and powdery mildew (Pm) (*Erysiphe polygoni*) from WB242. It has moderate resistance to virus yellows (BYV, BWYV, BChV), curly top (BCTV), Erwinia. Moderate nonbolting resistance. Segregates for resistance to rhizomania (Rz1) caused by Beet necrotic yellow vein virus.

**PI 636339. *Beta vulgaris* L.**

Breeding. Population. CN72; N472; N372; N272. GP-257. Pedigree - CN72 is multigerm (MM), self-fertile (Sf), genetic male sterile facilitated, random-mated population. 25% *Beta vulgaris* subsp. *maritima* germplasm from a Salinas accession N499 (PI 599349) from Europe. 75% is sugarbeet population C931. CN72 segregates for resistance to sugarbeet cyst nematode (*Heterodera schachtii*) from *B. vulgaris* subsp. *maritima*. Segregates for resistance to rhizomania (Rz1). Retains low frequency of annual gene (B) from wild beet.

**PI 636340. *Beta vulgaris* L.**

Breeding. Population. C931; 4931; 3931; 2931. GP-252. Pedigree - C931 is multigerm (MM), self-fertile (Sf), genetic male sterile facilitated, random-mated sugarbeet population. C37 (PI 590715), C46 (PI 590757), and C31/6 (PI 590799) germplasm base. C931 is an advanced breeding population with moderate resistance to curly top (BCTV), virus yellows (BYV, BWYV, BChV), Erwinia, powdery mildew (*Erysiphe polygoni*), and bolting. Rz1 for resistance to rhizomania. Essentially the germplasm base of advanced MM, SsSs breeding lines developed in the long term breeding program at Salinas but with Sf and genetic male sterility (A:aa) to facilitate selfing and production of selfed progenies for population improvement and selection for resistance to diseases. Intermediate sugar and sugar yield. Good sugar yield GCA. Base population for introgressing traits into sugarbeet.

**PI 636341. *Beta vulgaris* L.**

Breeding. Population. C941; 4941; 3941; 2941. GP-253. Pedigree - C941 is multigerm (MM), self-fertile (Sf), genetic male sterile facilitated, random-mated population. Germplasm base of C931 with additional virus yellows tolerant germplasm from C31/6 (PI 590799) and C69 (PI 599341). C941 is advanced breeding population with moderate resistance to curly top (BCTV), virus yellows (BYV, BWYV, BChV), Erwinia, powdery mildew (*Erysiphe polygoni*), and bolting. Rz1 for resistance to rhizomania.

**PI 636342. *Beta vulgaris* L.**

Breeding. Population. CZ25/2; Z425; Z325; Z225. GP-254. Pedigree - CZ25/2 is multigerm (MM), self-fertile (Sf), genetic male sterile facilitated, random-mated population. C931 germplasm base with 37% germplasm from high sugar Polish sugarbeet diploid accessions. CZ25/2 is advanced breeding population with moderate resistance to virus yellows (BYV, BWYV, BChV), curly top (BCTV), Erwinia, powdery mildew (*Erysiphe polygoni*), and bolting. Rz1 resistance to rhizomania. Combination of germplasm developed in the long term Salinas breeding program with very high % sugar Polish germplasm. Source of combined disease resistance with potential for extraction of high sugar genotypes.

**PI 636343. *Beta vulgaris* L.**

Breeding. Population. CR11; CR411; CR311; CR211. GP-255. Pedigree - CR11 is multigerm (MM), self-fertile (Sf), genetic male sterile facilitated,

random-mated sugarbeet population. C931 combined with recent Italian sources of resistance to *Cercospora* leaf spot, (*Cercospora beticola*). CR11 is advanced breeding population with moderate resistance to *Cercospora* leaf spot, curly top (BCTV), virus yellows (BYV, BWYV, BChV), *Erwinia*, powdery mildew (*Erysiphe polygoni*), and bolting. Rz1 for resistance to rhizomania. Source population to combine resistance to leaf spot with resistance to curly top and rhizomania.

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Fleet N. Lee, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Kenneth Gravois, Louisiana State University, Sugar Research Station, 5755 LSU Ag. Road, St. Gabriel, Louisiana 70776, United States. Received 11/02/2004.

**PI 636344. *Oryza sativa* L.**

Breeding. Pureline. Improved Purple Marker; Purple Haze. GP-104. Pedigree - Newbonnet/PI 408449. Released 2001. Improved Purple Marker is a purple leaf erect rice plant, low dormancy and no seed or leaf pubescence. Has good straw strength and resists lodging. Matures 6, 7, and 9 days later than Newbonnet, Cypress, and Bengal, respectively. Moderately resistant to rice blast caused by *Pyricularia grisea* and sheath blight caused by *Rhizoctonia solani*. Lemma and palea are straw colored with pronounced anthocyanin pigmentation. Plants have erect culms and leaves and glabrous lemma, palea, and leaf blades. The endosperm is nonglutinous, nonaromatic, and covered by a light brown pericarp. Amylose content is 196 g kg<sup>-1</sup> and has a low gelatinization temperature as indicated by avrg. alkali (17 g hg<sup>-1</sup> KOH) spreading reaction of 6.0.

The following were developed by Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 12/03/2004.

**PI 636345. *Oryza sativa* L.**

Cultivar. Pureline. Carolina Gold Select. Pedigree - Selection from Carolina Gold for trueness to type. Accessions of Carolina Gold were increased and grown several years at Beaumont, Texas. The original seed source contained both white and gold hulled seed. One thousand gold panicles were selected from a large field increase. Two generations of head to row selection were followed to obtain uniform plants that were all gold hull. Carolina Gold is a long grain cultivar with rough rice grain dimensions of 8.55 mm length, 3.14 mm width, 2.10 mm thickness, and 29 g/1000 kernels. It has intermediate amylose content of 20-22% and an intermediate alkali spreading value when evaluated at 1.5% KOH. It is believed to be susceptible to all of the major races of *Pyricularia grisea* that occur in the United States.

The following were developed by Johnnie Jenkins, USDA, ARS, Crop Sci. Res. Lab., P.O. Box 5367, Mississippi State, Mississippi 39760, United States; David Stelly, Texas A&M University, Dept. of Soil and Crop Sciences, College Station, Texas 77843, United States; Sukumar Saha, USDA-ARS, Crop Science Research Laboratory, P.O. Box 5367, Mississippi State, Mississippi 39760, United States; Wayne Raska, Texas A&M University, Texas Agricultural Exp.

Station, College Station, Texas 77841, United States; Jack McCarty, Mississippi State University, Dept. of Crop Science, P.O. Box 5367, Mississippi State, Mississippi 39762, United States; O.A. Gutierrez, USDA-ARS, Crop Science Research Laboratory, Mississippi State, Mississippi 39762, United States. Received 11/10/2004.

**PI 636346. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B01. GP-836. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B01. Chromosome 01 has been substituted. CS-B01 is an alien chromosome substitution line ( $2n=52$ ) in which the chromosome 01 pair of *G. hirsutum* has been replaced by the chromosomal material from *G. barbadense* doubled-haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-01, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B01 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636347. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B02. GP-837. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B02. Chromosome 02 has been substituted. CS-B02 is an alien chromosome substitution line ( $2n=52$ ) in which the chromosome 02 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-02, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B02 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636348. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B04. GP-838. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B04. Chromosome 04 has been substituted. CS-B04 is an alien chromosome substitution line ( $2n=52$ ) in which the chromosome 04 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled-haploid line 3-79, which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-04, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B04 were subject to

effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636349. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B06. GP-839. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B06. Chromosome 06 has been substituted. CS-B06 is an alien chromosome substitution line (2n=52) in which the chromosome 06 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-06, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B06 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636350. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B07. GP-840. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B07. Chromosome 07 has been substituted. CS-B07 is an alien chromosome substitution line (2n=52) in which the chromosome 07 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-07, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B07 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636351. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B16. GP-841. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B16. Chromosome 16 has been substituted. CS-B16 is an alien chromosome substitution line (2n=52) in which the chromosome 16 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-16, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B16 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636352. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B17. GP-842. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B17. Chromosome 17 has been substituted. CS-B17 is an alien chromosome substitution line ( $2n=52$ ) in which the chromosome 17 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-17, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B17 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636353. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B18. GP-843. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B18. Chromosome 18 has been substituted. CS-B18 is an alien chromosome substitution line ( $2n=52$ ) in which the chromosome 18 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-18, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B18 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636354. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B25. GP-844. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B25. Chromosome 25 has been substituted. CS-B25 is an alien chromosome substitution line ( $2n=52$ ) in which the chromosome 25 pair of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. In other regards, it is nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monosomic for chromosome-25, coupled with recovery of the corresponding monosomic backcross progeny. The alien chromosome is expectedly an intact derivative of the 3-79 chromosome, because homologous recombination with the corresponding *G. hirsutum* chromosome (absent) was precluded by the monosomy of all BCnF1 plants. Loci on the other 25 chromosome pairs of CS-B25 were subject to effects of backcrossing and recombination, so >98% of them expectedly derive from *G. hirsutum*, probably TM-1.

**PI 636355. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B05sh. GP-845. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line

CS-B05sh. Chromosome arm 05sh has been substituted. CS-B05sh is an alien chromosome substitution line ( $2n=52$ ) in which chromosome arm 5sh of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B05sh is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Te05Lo, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all of the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded in the absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636356. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B11sh. GP-846. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop the line CS-B11sh. Chromosome arm 11sh has been substituted. CS-B11sh is an alien chromosome substitution line ( $2n=52$ ) in which chromosome arm 11sh of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B11sh is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Tel1Lo, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded in the absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636357. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B12sh. GP-847. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop near isogenic line CS-B12sh. Chromosome arm 12sh has been substituted. CS-B12sh is an alien chromosome substitution line ( $2n=52$ ) in which chromosome arm 12sh of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled haploid line 3-79 which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B12sh is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Tel2Lo, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded



in the absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636358. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B14sh. GP-848. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop near isogenic line CS-B14sh. CS-B14sh is an alien chromosome substitution line ( $2n=52$ ) in which chromosome arm 14sh of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled-haploid line 3-79, which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B14sh is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Tel4Lo, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636359. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B15sh. GP-849. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop near isogenic line CS-B15sh. CS-B15sh is an alien chromosome substitution line ( $2n=52$ ) in which chromosome arm 15sh of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled-haploid line 3-79, which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B15sh is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Tel15Lo, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636360. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B22Lo. GP-850. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop near isogenic line CS-B22Lo. CS-B22Lo is an alien chromosome substitution line ( $2n=52$ ) in which chromosome arm 22Lo of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled-haploid line 3-79, which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B22Lo is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution

line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Te22sh, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636361. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B22sh. GP-851. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop near isogenic line CS-B22sh. CS-B22sh is an alien chromosome substitution line (2n=52) in which chromosome arm 22sh of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled-haploid line 3-79, which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B22sh is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Te22Lo, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

**PI 636362. *Gossypium hirsutum* L.**

Breeding. Pureline. CS-B26Lo. GP-852. Pedigree - TM-1 (*G. hirsutum*) x 3-79 (*G. barbadense*), then multiple backcrosses to develop near isogenic line CS-B26Lo. CS-B26Lo is an alien chromosome substitution line (2n=52) in which chromosome arm 26Lo of *G. hirsutum* has been replaced by the corresponding chromosomal material from *G. barbadense* doubled-haploid line 3-79, which has high fiber quality and length. For the opposing arm and all other chromosomes, line CS-B26Lo is expected to be nearly isogenic to *G. hirsutum* inbred line TM-1. The chromosome substitution line was developed via recurrent backcrossing to *G. hirsutum* plants monotelodisomic for Te26sh, coupled with recovery of the corresponding monotelodisomic backcross progeny at each generation. The alien chromosome arm is expectedly an intact derivative of most or all the 3-79 chromosome arm, because homologous recombination with the corresponding *G. hirsutum* chromosome segment was selectively precluded absence of the latter in all BCnF1 plants (monotelodisomic). Greater than 98% of loci on the telosome and the other 25 chromosome pairs expectedly derive from *G. hirsutum* TM-1, because they were disomic during backcross generations and thus subject to effects of backcrossing and recombination.

The following were developed by Soon Jai Park, Agriculture and Agri-Food Canada, Harrow Research Station, 2585 County Road 20, Harrow, Ontario N0R

1G0, Canada; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States; J. Rusty Smith, USDA-ARS, Crop Genetics and Production Research Unit, P.O. Box 345, Stoneville, Mississippi 38776, United States; C.H. Canaday, West Tennessee Experiment Station, 605 Airways Blvd, Jackson, Tennessee 38301, United States. Received 11/16/2004.

**PI 636363. *Phaseolus vulgaris* L.**

Breeding. Pureline. TARS-PT03-1; 98041-13-2-2-2. GP-238. Pedigree - TARS VCI-4B//Montcalm/MUS-PM-31-F5. TARS-PT03-1 is a multiple disease-resistant, small-seeded pinto dry bean. It has a vine (type 3) growth habit and matures in approximately 90 days in SW Ontario, Canada. Plant height is approximately 35 cm and seed size is 28 g/100 seed. The corona area around the hilum has a yellow color and the seed coat tends to darken with storage. TARS-PT03-1 has intermediate resistance to *Xanthomonas campestris* pv. *phaseoli* (Smith) Dye and similar resistance to *Fusarium solani* (Mart.) Sacc. f. sp. *phaseoli* (Burkholder) W. C. Synder and H. N. Hans. as highly resistant Cornell 2114-12. TARS-PT03-1 also has similar resistance as Cornell 2114-12 to mixtures of *F. solani*, *Rhizoctonia solani* (K hn), and *Pythium* spp. and *R. solani*, *Macrophomina phaseolina* (Tassi) Goidanich, and *F. solani*, but is less resistant than Cornell 2114-12 to mixtures of *F. solani*, *R. solani*, and *P. ultimum* (Trow.).

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

**PI 636364. *Amaranthus hypochondriacus* L.**

Cultivated. RRC 112A; RRC 78S-112A; Ames 2048. Collected 09/01/1977 in Unknown. The seeds are white. The RRC class type is: Nepal. Documented in the RRC field book for 1978 #8.

**PI 636365. *Amaranthus cruentus* L.**

Cultivated. RRC 112B; RRC 78S-112B; A75-76; A73-76; Ames 2049. Collected 09/01/1977 in Unknown. The seeds are black, flowers green, leaves green. The RRC class type is: African.

**PI 636366. *Amaranthus retroflexus* L.**

Wild. RRC 112C; RRC 78S-112C; A75-76; A73-76; Re002; Ames 2050. Collected 09/01/1977 in Unknown. This accession is unusual for lacking hairs on the inflorescence. The seeds are black, flowers green, leaves green. The RRC class type is: weed. Notes about these traits are recorded in the RRC field books.

The following were developed by Stephen S. Jones, Washington State University, Dept. of Crop & Soil Sciences, 383 Johnson Hall, Pullman, Washington 99164-6420, United States; Steven R. Lyon, Washington State University, Winter Wheat Breeding & Genetics Program, PO Box 646420, Pullman, Washington 99164-6420, United States. Received 12/03/2004.

**PI 636367. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. WA7811; VH094487; NSGC 9497. Pedigree - Sorbas/PI561031. Hard white winter wheat. Tall, awned with white glumes and white straw. Adapted to the Pacific Northwest. It exhibits good emergence, straw strength, and adult plant stripe rust resistance. It has exceptional resistance to strawbreaker foot rot.

**PI 636368. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. WA7832; VH092245; NSGC 9498. Pedigree - Bayonet/Madsen. Soft white semidwarf winter wheat. Awned, white glumes, white straw. Adapted to areas of high rainfall. It has resistance to strawbreaker foot rot equal to Madsen and matures similar to Stephens. Good resistance to prevalent races of stripe rust. Yield potential and test weight is similar to Madsen. Quality is similar to Madsen with slightly high grain hardness.

**PI 636369. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. WA7835; HW094226; NSGC 9499. Pedigree - NE87U120 (Centurk//At66/Cmn//TX2607-6/4/NE7060/5/F26-70)2\*REA87465 (Daws/Elmo). Hard white semidwarf winter wheat. Awned, white glumes, white straw. Adapted to the Pacific Northwest. It has excellent yield potential and test weight, but does not emerge well from deep (=>5inches) planting. It is moderately resistant to str rust, leaf rust and Cephalosporium stripe. Strawbreaker foot rot resistance is slightly less than Madsen but better than Eltan. It is 2-3 inches taller than Madsen and Eltan and head 2-3 days earlier than Madsen. Hard white end-use quality is excellent with the exception of noodle texture.

**PI 636370. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. WA7870; VH094755; NSGC 9500. Pedigree - Rod Sib 5. Soft white semidwarf winter wheat. Awned, white glumes, white straw. Adapted to the Pacific Northwest. It performs similar to Rod in all agronomic characteristics and end-use quality categories. However, it averages 1.0 - 1.5 lbs/bushel heavier test weight.

The following were donated by Leibniz-Inst fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Institute for Plant Genetic Resources, Pyongyang, Korea, North. Received 06/21/1996.

**PI 636371. *Agastache rugosa* (Fisch. & C. A. Mey.) Kuntze**

Cultivated. AGA 2/89; D 4994; Ames 23077.

The following were donated by Gert Fortgens, Arboretum Trompenburg, Honingerdijk 86, Rotterdam, South Holland 3062 NX, Netherlands. Received 08/27/1997.

**PI 636372. *Agastache rugosa* (Fisch. & C. A. Mey.) Kuntze**

Cultivar. "Alabaster"; Ames 23889.

The following were collected by K.G. Tkaczenko; V.M. Reinwald. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 01/16/1998.

**PI 636373. *Agastache rugosa* (Fisch. & C. A. Mey.) Kuntze**

Wild. Index Seminum 2656; Ames 24117. Collected 1996 in Primorye, Russian Federation. Latitude 42° 59' 59" N. Longitude 131° 49' 58" E. Island of Ostrov Russkiy.

The following were collected by David Michener, University of Michigan, Matthaei Botanical Gardens, 1800 North Dixboro Road, Ann Arbor, Michigan 48105-9406, United States; Harold Pellett, University of Minnesota, Minnesota Landscape Arboretum, P.O. Box 39, Chanhassen, Minnesota 55317, United States; Galen Gates, Chicago Botanic Garden, P.O. Box 400, Glencoe, Illinois 60022, United States; Tom Yates, The Holden Arboretum, 9500 Sperry Road, Mentor, Ohio 44060-8199, United States. Donated by Nancy Rose, Minnesota Landscape Arboretum, University of Minnesota, College of Agriculture, Department of Horticultural Science, Chanhassen, Minnesota 55317-0039, United States. Received 06/28/2000.

**PI 636374. *Ampelopsis japonica* (Thunb.) Makino**

Wild. RU-FE-55; 980074; Ames 26076. Collected 09/13/1997 in Primorye, Russian Federation. Latitude 43° 58' 8" N. Longitude 131° 25' 58" E. Elevation 152 m. 70 degrees of slope with a southwestern aspect. Its tuberous roots are used in Chinese traditional medicine.

The following were developed by Experimental Station, Forest-steppe Selection, Meshcherskoje, Lipetsk 399 707, Russian Federation. Received 08/21/1995.

**PI 636375. *Aronia melanocarpa* (Michx.) Elliott**

Cultivated. Index Seminum 65; Ames 22625. Pedigree - Local selection.

The following were donated by Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022, United States. Received 10/05/1998.

**PI 636376. *Baptisia alba* var. *macrophylla* (Larisey) Isely**

Cultivated. Ames 25027. Collected 1998 in Illinois, United States. Latitude 42° 15' 31" N. Longitude 87° 50' 26" W. West end of Shaw Prairie in railroad right-of-way, Lake Forest, Lake County. Seed donated came from first generation cultivated plants at the Chicago Botanic Garden. Parental material was wild collected.

The following were collected by Tony Avent, Plant Delights Nursery, Juniper Level Botanic Garden, 9241 Sauls Road, Raleigh, North Carolina 27603, United States. Donated by Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022, United States. Received 12/21/1998.

**PI 636377. *Baptisia australis* var. *minor* (Lehm.) Fernald**

Wild. AIT-002; Ames 24959. Collected 08/21/1998 in Texas, United States. Latitude 33° 17' 9" N. Longitude 96° 34' 21" W. Elevation 236 m. 2 miles from Stop 1, along an access road at Exit 44 off Highway 75N, just north of Melissa, north of Dallas, Collin County. Thousands of plants in an unmown field. Growing in sandy, light colored soil on a west facing slope. Some variations in pod size, leaves all similar.

The following were donated by Hortus Botanicus, Universitatis Mariae Curie-Sklodowska, UL. Slawinkowska 3, Lublin, Lublin 20-818, Poland. Received 08/16/1991.

**PI 636378. *Caragana arborescens* Lam.**

Cultivated. Index Seminum 2074; Ames 17775.

The following were donated by The Dawes Arboretum, 7770 Jacksontown Road, S.E., Newark, Ohio 43056-9380, United States. Received 03/31/1992.

**PI 636379. *Cornus controversa* Hemsl. ex Prain**

Cultivated. D840179; CB14; Index Seminum 12; Ames 19050.

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

**PI 636380. *Ligustrum vulgare* L.**

Cultivated. WSYUS 81; Ames 25531. Collected 09/22/1999 in Ternopil, Ukraine. Latitude 49° 44' 2" N. Longitude 25° 43' 59" E. Elevation 340 m. 3 km south of Kolodnoye. Within a hedge row along road and farm field. Open site, 0-2% slope with a northwestern exposure. Sandy loam soil with good drainage. Round clump, 8 feet high. Good foliage, extremely large fruit. Used in roadside windbreak.

The following were donated by Ogród Botaniczny Uniwersytetu Im. Adama Mickiewicza, ul. Dąbrowskiego 165, Poznań, Poznań 60-594, Poland. Received 08/16/1991.

**PI 636381. *Origanum vulgare* L.**

Wild. Index Seminum 40; Ames 17764. Collected in Bydgoszcz, Poland. Latitude 53° 19' N. Longitude 18° 23' E. Starogrod, Województwo.

The following were donated by P. Kupfer, Jardin Botanique de l'Université, Pertuis-du Sault 58, Neuchâtel, Neuchâtel CH-2000, Switzerland. Received 05/20/1993.

**PI 636382. *Origanum vulgare* L.**

Wild. Index Seminum 66; Ames 21076. Collected in Switzerland. Elevation 600 m. Foot of Jura Mountains.

The following were collected by Jardin Botanique Université Louis Pasteur, 28 Rue Goethe, Strasbourg, Bas-Rhin F-67083, France. Received 05/11/1998.

**PI 636383. *Origanum vulgare* L.**

Wild. Index Seminum 143; Ames 24563. Collected 1998 in Bas-Rhin, France. Latitude 48° 27' N. Longitude 7° 28' E. Near Bernardswiller.

**PI 636384. *Origanum vulgare* L.**

Wild. Index Seminum 144; Ames 24564. Collected 1998 in Bas-Rhin, France. Latitude 48° 32' N. Longitude 7° 29' E. Near Dorlisheim.

The following were collected by Miklos Galantai, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 06/02/1998.

**PI 636385. *Origanum vulgare* L. subsp. *vulgare***

Wild. Index Seminum 256; Ames 24665. Collected 1997 in Pest, Hungary. Latitude 47° 47' N. Longitude 19° 8' E. Near Vac, on the southern slopes of Szarvashegy Hill, Mt. Naszaly. Dry, thermophilous oak wood. Steep slope with a southern exposure. Growing on dolomite.

The following were donated by Michigan State University, W. J. Beal Botanical Garden, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Received 02/16/1990.

**PI 636386. *Parthenocissus vitacea* (Knerr) Hitchc.**

Wild. Index Seminum 550; Ames 12810. Collected in Michigan, United States. Latitude 42° 44' N. Longitude 85° 0' W. Eaton County. Along a fencerow.

The following were collected by University of Alberta, Devonian Botanic Garden and Field Laboratory, Department of Botany, Edmonton, Alberta T6G 2E1, Canada. Received 04/29/1996.

**PI 636387. *Spiraea alba* Du Roi**

Wild. Index Seminum 343; Ames 22837. Collected 04/1996 in Alberta, Canada. Latitude 53° 20' N. Longitude 113° 32' W. Elevation 700 m. 20 km south of Edmonton, just east of Nisku. Aspen Parkland, parkland transition zone.

The following were collected by Rick J. Lewandowski, Morris Arboretum, The University of Pennsylvania, 9414 Meadowbrook Road, Philadelphia, Pennsylvania 19118, United States; Kevin Conrad, U.S. National Arboretum, USDA, ARS, 3501 New York Avenue, N.E., Washington, District of Columbia 20002, United States; Tiecheng Cui, Xian Botanic Garden, Cuihua South Rd., Xian City, Shaanxi 710061, China; Kunso Kim, Norfolk Botanical Garden, Azalea Garden Road, Norfolk, Virginia 23518, United States; James R. Ault, Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022, United States. Donated by Shawn Belt, USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Glenn Dale, Maryland 20769-9157, United States. Received 01/28/1997.

**PI 636388. *Spiraea fritschiana* C. K. Schneid.**

Wild. QLG 004; NA 67628; Ames 23606. Collected 09/07/1996 in Shaanxi, China. Latitude 33° 38' 56" N. Longitude 107° 48' 14" E. Elevation 1660 m. Foping Nature Preserve, San Gua Miao, Foping County, Foping District. Growing on the edge of an open area of a deciduous forest. Upright, deciduous shrub with narrow branching habit; 1.5 m tall; reddish brown and smooth bark. Soil type: moist, highly organic soils. Slope: <5%. Aspect:

east. Comment: Growing in association with *Viburnum* sp., ferns, *Quercus* sp., *Cornus kousa* var. *chinensis*, bamboo, *Betula* sp., *Pinus* sp., *Rhus verniciflua*, *Symplocos paniculata*, and other herbaceous plants.

**PI 636389. *Spiraea media* Schmidt**

Wild. Index Seminum 420; Ames 24668. Collected 1997 in Mongolia. Elevation 1400 m. Near Sanzay, Bagabayan Ridge, Hentiy Mountains. Growing in association with Larch-wood (*Larix sibirica*) and birch-bush (*Betula fusca*) on granite.

The following were collected by Geza Kosa, A Magyar Tudományos Akademia, Okologiai es Botanikai Kutatointezetek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 04/18/1988.

**PI 636390. *Staphylea pinnata* L.**

Wild. Index Seminum 748; Ames 8361. Collected in Veszprem, Hungary. Latitude 47° 7' N. Longitude 17° 23' E. Elevation 432 m. Hill called Somlo, near Somlovasarhely. Volcanic/basalt hill. Somlovasarhely.

The following were collected by Marine Eristavi, Institute of Botany, Georgian Academy of Sciences, Tbilisi, South Ossetia, Georgia; Manana Khutsishvili, Institute of Botany, Georgian Academy of Sciences, Tbilisi, South Ossetia, Georgia. Donated by Chicago Botanic Garden, 1000 Lake Cook Road, P.O. Box 400, Glencoe, Illinois 60022, United States. Received 05/14/2002.

**PI 636391. *Tanacetum macrophyllum* (Waldst. & Kit.) Sch. Bip.**

Wild. RGE-413; Ames 26848. Collected 08/19/2001 in South Ossetia, Georgia. Latitude 41° 44' 59" N. Longitude 43° 31' 57" E. Elevation 1800 m. Surrounding Bakuriani, roadside to near Tskhra-Tskharo, Samtskhe-Javakheti Region.

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

**PI 636392. *Tanacetum vulgare* L.**

Wild. Index Seminum 59; Ames 25261. Collected 1998 in Bas-Rhin, France. Latitude 48° 32' N. Longitude 7° 29' E. Elevation 175 m. Molsheim.

The following were donated by Bruce A. McCallum, 540 White Birch Lane, Kalispell, Montana 59901-6603, United States. Received 05/04/1998.

**PI 636393. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. Ames 24554. Collected 1994 in Montana, United States. Latitude 48° 6' 47" N. Longitude 105° 11' 52" W. Isolated location near Poplar.



The following were collected by USDA, NRCS, Bismarck Plant Materials Center, 3308 University Drive, Bismarck, North Dakota 58504-7564, United States. Received 06/23/1998.

**PI 636394. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076687; Ames 24990. Collected 06/1998 in North Dakota, United States. Latitude 47° 56' 30" N. Longitude 102° 39' W. Fort Berthold Indian Reservation, Section 36, T152N, R94W, McKenzie County.

**PI 636395. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076753; Ames 24995. Collected 06/1998 in North Dakota, United States. Killdeer Mountains Wildlife Management Area, Dunn County. T-146 N, R-97 W.

**PI 636396. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076755; Ames 24997. Collected 06/1998 in North Dakota, United States. Latitude 47° 42' 30" N. Longitude 100° 16' W. Lonetree Wildlife Management Area, Section 21, T149N, R75W, Sheridan County.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 08/22/1997.

**PI 636397. *Echinacea sanguinea* Nutt.**

Wild. 011; Ames 23879. Collected 08/08/1997 in Arkansas, United States. Latitude 33° 3' N. Longitude 93° 58' W. Elevation 180 m. Near Doddridge, Miller County. Please contact curator for specific site location. Top of roadside bank in power line clearings. Full exposure on level ground. Sandy soil with low stoniness and fair drainage.

The following were donated by Jardim Botânico da Universidade de Coimbra, Arcos do Jardim, Coimbra, Coimbra 3000-393, Portugal. Received 07/10/2002.

**PI 636398. *Hypericum undulatum* Schousb. ex Willd.**

Wild. Index Seminum 657; Ames 26865. Collected 09/08/2000 in Coimbra, Portugal. Latitude 40° 6' N. Longitude 8° 13' 30" W. Between Louza and Candal.

The following were collected by Alfonso Del Rio, University of Wisconsin, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706, United States; John Bamberg, USDA, ARS, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States; Charles Fernandez, University of Wisconsin, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States. Received 09/13/2004.

**PI 636399. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. Bfdr 115. Collected 09/13/2004 in Arizona, United States. Latitude 31° 50' 48" N. Longitude 109° 17' 41" W. Elevation 2890 m. Cochise County. In Chiricahua wilderness between Chiricahua and Raspberry peaks on trail 270B. Shady E facing slope among wild geranium, Ponderosas, and Aspen, in

dark rocky soil. Mature berries on plants to 10" tall. One open flower observed. Collected one berry per plant.

**PI 636400. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 116. Collected 09/13/2004 in Arizona, United States. Latitude 31° 50' 28" N. Longitude 109° 17' 58" W. Elevation 2789 m. Cochise County. In Chiricahua wilderness between Chiricahua and Raspberry peaks on trail 270B short distance S of intersection with 270D. Among yellow daisies and mauve boulders. Mature berries on a few small plants. Collected one berry per plant.

**PI 636401. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 117. Collected 09/13/2004 in Arizona, United States. Latitude 31° 50' 18" N. Longitude 109° 18' 1" W. Elevation 2761 m. Cochise County. In Chiricahua wilderness between Chiricahua and Raspberry peaks on trail 270B short distance S of intersection with 270D. Where trail bottoms out and starts to climb-meadow saddle. Among grass and branches of downed trees. Some large plants with mature berries. Collected one berry per plant.

**PI 636402. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 118. Collected 09/13/2004 in Arizona, United States. Latitude 31° 50' 15" N. Longitude 109° 18' 2" W. Elevation 2752 m. Cochise County. In Chiricahua wilderness between Chiricahua and Raspberry peaks on trail 270B. Steep N facing shady slope under pines in mulchy dark soil. Plants also closeby to the S where the trail makes a very sharp "hairpin" curve around large mauve boulders and just beyond. Plants here less mature with some flowers. Plants in open spots less spindly and more mature with berries. Collected one berry per plant.

**PI 636403. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 119. Collected 09/13/2004 in Arizona, United States. Latitude 31° 49' 49" N. Longitude 109° 18' 1" W. Elevation 2816 m. Cochise County. In Chiricahua wilderness on trail 270B between Paint Rock and Raspberry peaks. On SE slope among rocks and grass. Small, yellow or light green plants, some with mature berries. Collected one berry per plant.

**PI 636404. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 120. Collected 09/14/2004 in Arizona, United States. Latitude 31° 49' 14" N. Longitude 109° 15' 37" W. Elevation 2758 m. Cochise County. In Chiricahua wilderness on trail 270C between Chiricahua and Sentinel peaks and E of junction with Price Canyon trail 224. On W facing slope around rockslide in rocks of trail and among grass in branches of fallen trees. Small yellow plants in open and when protected about 15 larger plants with mature berries. Collected one berry per plant.

**PI 636405. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 121. Collected 09/14/2004 in Arizona, United States. Latitude 31° 49' 56" N. Longitude 109° 16' 38" W. Elevation 2743 m. Cochise County. In Chiricahua wilderness on trail 270C between Chiricahua and Sentinel peaks. In saddle just S of Juniper spring (which is at junction with trail 246). On E facing slope in mulchy soil shaded under large Douglas Fir. Collected one berry from each of the 30-40 plants which had them.

- PI 636406. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 122. Collected 09/14/2004 in Arizona, United States. Latitude 31° 50' 42" N. Longitude 109° 17' 16" W. Elevation 2865 m.  
Cochise County. In Chiricahua wilderness on E facing slope along trail 270C skirting E side of Chiricahua peak. Ponderosas and Douglas firs not burned here, and undergrowth is lush with rich black mulch soil. Many large plants. Collected more than one berry from each.
- PI 636407. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 123. Collected 09/15/2004 in Arizona, United States. Latitude 31° 51' 2" N. Longitude 109° 17' 19" W. Elevation 2896 m.  
Cochise County. In Chiricahua wilderness at Anita Camp, junction of trails 270 and 359 and along 270 to Chiricahua peak trail 270A. Plants among grass, fallen branches and rocks. Many large plants, some with mature berries. Collected one berry from each plant. Noted what appears to be mite damage on some.
- PI 636408. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 124. Collected 09/15/2004 in Arizona, United States. Latitude 31° 51' 35" N. Longitude 109° 17' 20" W. Elevation 2819 m.  
Cochise County. In Chiricahua wilderness along Crest Trail 270 from Anita Camp to Cima Park / Greenhouse trail 248. Intermittent along trail in woodland and open areas. Large plants with mature berries. Collected one berry from each plant.
- PI 636409. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 125. Collected 09/15/2004 in Arizona, United States. Latitude 31° 51' 42" N. Longitude 109° 16' 30" W. Elevation 2652 m.  
Cochise County. In Chiricahua wilderness along Greenhouse trail 248. About 1/2 mile E of Crest Trail 270 junction where trail 248 goes down to the stream and crosses it. Near site of Leithliter 179 (1975). Intermittent along trail in woodland and open areas. Wooded, shady and moist habitat around rocks and fallen branches near stream and on more open, steep, rocky S facing slope above stream. Plants on slope were numerous, mostly small yellowed plants but with mature berries. Collected one berry per plant.
- PI 636410. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 126. Collected 09/16/2004 in Arizona, United States. Latitude 31° 53' 5" N. Longitude 109° 17' 3" W. Elevation 2743 m. Cochise County. In Coronado National Forest. Common along the N-S trail between Rustler Park and Chiricahua wilderness boundary-the western trail (Crest Trail 270). Among Ponderosas, grass and ferns in rich black soil among rocks. Collected one berry from each of many plants along this three mile distance.
- PI 636411. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 127. Collected 09/16/2004 in Arizona, United States. Latitude 31° 52' 23" N. Longitude 109° 17' 15" W. Elevation 2822 m.  
Cochise County. In Chiricahua wilderness. Junction of Crest Trail 270 and Saulsbury trail 263. On relatively dry W-facing slope among herbs and rocks. Only a few plants with berries. Close to herbarium specimen report Leithliter 515 (1976).
- PI 636412. *Solanum stoloniferum*** Schltldl. & Bouche  
Wild. BFdR 128. Collected 09/16/2004 in Arizona, United States. Latitude 31° 53' 2" N. Longitude 109° 15' 58" W. Elevation 2637 m. Cochise County.

In Chiricahua wilderness at Centella Point (end of trail 334). Abundant among Ponderosas, grass and fallen tree branches and logs and among rocks in rich, moist soil. Some plants small and yellow, some in shade and spindly, occasionally with fruit. Collected one fruit per plant. Close to herbarium specimen report Fishbein et al. 498 (1991).

**PI 636413. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 129. Collected 09/16/2004 in Arizona, United States. Latitude 31° 52' 22" N. Longitude 109° 17' 2" W. Elevation 2932 m. Cochise County. In Chiricahua wilderness at top of Flys Peak. In open grassy meadow among rocks very close to the survey marker. Only a few plants, small and yellowed with occasional fruit. Collected one fruit per plant.

**PI 636414. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 130. Collected 09/16/2004 in Arizona, United States. Latitude 31° 53' 31" N. Longitude 109° 16' 50" W. Elevation 2682 m. Cochise County. In Coronado National Forest on three miles of trail/road FR42D from Chiricahua wilderness boundary S to near Rustler Park. Among grass and fallen branches. Along three miles S-N. Collected one fruit per plant. Plants abundant and varying greatly with sun exposure: Larger, mature and yellowed with fruit; very small, yellow plants were large, dark green but immature with thin leaves and stems, occasionally with flowers and only occasionally fruit.

**PI 636415. *Solanum stoloniferum* Schltdl. & Bouche**

Wild. BFdR 131; TEMP 26. Collected 09/16/2004 in Arizona, United States. Latitude 31° 56' N. Longitude 109° 15' 47" W. Elevation 2316 m. Cochise County. In Coronado National Forest at intersection of FR42 and FR42D at Onion Saddle. On dry rocky roadside under oaks and among grass and bushes. Few small and yellowed plants. Collected a few small berries.

The following were collected by Maia Akhalkatsi, Institute of Botany, Georgian Academy of Sciences, Kojori road 1, Tbilisi, Georgia. Received 12/08/2004.

**PI 636416. *Trifolium campestre* Schreb.**

Wild. T002. Collected 07/10/2004 in Georgia. Latitude 41° 48' 20" N. Longitude 43° 26' E. Elevation 1027 m. Kartli, Bakuriani. Borjomi Bakuriani road 8th km. Trialeti range, middle montane belt. Slope directed to the river bank of R. Gujaretis Tskali. Ground material is composed by granite and andesite. Soil partly sand and clay fractions. Annual, 10-20 cm tall herb. Stem branched, thin, erect or spreading. Stipules ovate or lanceolate, leaves with petioles and three obovate or rhomboid leaflets, slightly cleft at the tip. Middle leaflets always on longer petiole than others do. Head is spherical, or cylindrical, 10-15 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes brownish. Fruit one seeded. Reproductive period from May to August. Grows on meadows, along road sides, forest openings and in shrublands. From lowland up to upper montane belt.

**PI 636417. *Trifolium spadiceum* L.**

Wild. T003. Collected 07/12/2004 in Georgia. Latitude 41° 28' 16" N. Longitude 43° 50' 35" E. Elevation 2076 m. Javakheti, Paravani. Lake Paravani. Sandy soil. The Volcanic plateau forms the largest lake

in Georgia (Paravani) and comprises steep peaks, volcanic plain and historic lava flows. The plateau is composed of Upper Cretaceous and Tertiary igneous rocks. Annual or biennial 10-40 cm tall herb. Stem erect mainly simple, rarely branched. Stipules oblong lanceolate, leaves with petioles and three obovate or lanceolate leaflets. All leaflets are sessile. Head is spherical, or cylindrical, 15-20 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes dark brown. Fruit one seeded. Reproductive period from June to August. Grows on wet meadows, along river banks in subalpine and alpine zones.

**PI 636418. *Trifolium spadiceum* L.**

Wild. T004. Collected 08/12/2004 in Georgia. Latitude 41° 45' 36" N. Longitude 43° 32' 34" E. Elevation 1697 m. Kartli, Bakuriani. Alpine soil, 10° slope W. The Western Trialeti range represents a fold of the Minor Caucasus Mountains and comprise a deeply dissected steep mountain terrain. The high peaks and the Tskhratskaro Pass are composed of Tertiary igneous rocks. Annual or biennial 10-40 cm tall herb. Stem erect mainly simple, rarely branched. Stipules oblong lanceolate, leaves with petioles and three obovate or lanceolate leaflets. All leaflets are sessile. Head is spherical, or cylindrical, 15-20 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes dark brown. Fruit one seeded. Reproductive period from June to August. Grows on wet meadows, along river banks in subalpine and alpine zones.

**PI 636419. *Trifolium spadiceum* L.**

Wild. T005. Collected 08/12/2004 in Georgia. Latitude 41° 44' 51" N. Longitude 43° 32' 6" E. Elevation 1685 m. Kartli, Bakuriani. Alpine soil, 5° slope. The Western Trialeti range represents a fold of the Minor Caucasus Mountains and comprise a deeply dissected steep mountain terrain. The high peaks and the Tskhratskaro Pass are composed of Tertiary igneous rocks. Annual or biennial 10-40 cm tall herb. Stem erect mainly simple, rarely branched. Stipules oblong lanceolate, leaves with petioles and three obovate or lanceolate leaflets. All leaflets are sessile. Head is spherical, or cylindrical, 15-20 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes dark brown. Fruit one seeded. Reproductive period from June to August. Grows on wet meadows, along river banks in subalpine and alpine zones.

**PI 636420. *Trifolium spadiceum* L.**

Wild. T006. Collected 08/13/2004 in Georgia. Latitude 41° 44' 16" N. Longitude 43° 30' 7" E. Elevation 1654 m. Kartli, Bakuriani. Alpine soil, 10° slope W. The Western Trialeti range represents a fold of the Minor Caucasus Mountains and comprise a deeply dissected steep mountain terrain. The high peaks and the Tskhratskaro Pass are composed of Tertiary igneous rocks. Annual or biennial 10-40 cm tall herb. Stem erect mainly simple, rarely branched. Stipules oblong lanceolate, leaves with petioles and three obovate or lanceolate leaflets. All leaflets are sessile. Head is spherical, or cylindrical, 15-20 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes dark brown. Fruit one seeded. Reproductive period

from June to August. Grows on wet meadows, along river banks in subalpine and alpine zones.

**PI 636421. *Trifolium spadiceum* L.**

Wild. T007. Collected 08/14/2004 in Georgia. Latitude 41° 42' 36" N. Longitude 43° 30' 27" E. Elevation 2130 m. Kartli, Bakuriani. Tskhratskaro Pass. Alpine soil, 40° slope WNW. The Western Trialeti range represents a fold of the Minor Caucasus Mountains and comprise a deeply dissected steep mountain terrain. The high peaks and Tskhratskaro Pass are composed of Tertiary igneous rocks. Annual or biennial 10-40 cm tall herb. Stem erect mainly simple, rarely branched. Stipules oblong lanceolate, leaves with petioles and three obovate or lanceolate leaflets. All leaflets are sessile. Head is spherical, or cylindrical, 15-20 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes dark brown. Fruit one seeded. Reproductive period from June to August. Grows on wet meadows, along river banks in subalpine and alpine zones.

**PI 636422. *Trifolium spadiceum* L.**

Wild. T008. Collected 08/15/2004 in Georgia. Latitude 41° 42' 36" N. Longitude 43° 30' 28" E. Elevation 2135 m. Kartli, Bakuriani. Alpine soil, 40° slope WNW. The Western Trialeti range represents a fold of the Minor Caucasus Mountains and comprise a deeply dissected steep mountain terrain. The high peaks and Tskhratskaro Pass are composed of Tertiary igneous rocks. Annual or biennial 10-40 cm tall herb. Stem erect mainly simple, rarely branched. Stipules oblong lanceolate, leaves with petioles and three obovate or lanceolate leaflets. All leaflets are sessile. Head is spherical, or cylindrical, 15-20 mm in diameter, flowers on short peduncle, drooping after anthesis. Calyx tube is glabrous. Corolla yellow, two times longer than the calyx. After anthesis it becomes dark brown. Fruit one seeded. Reproductive period from June to August. Grows on wet meadows, along river banks in subalpine and alpine zones.

The following were collected by Barbara Alberti, National Park Service, Coronado National Memorial, 4101 E. Montezuma Canyon Road, Hereford, Arizona 85615, United States. Received 12/10/2004.

**PI 636423. *Ipomoea longifolia* Benth.**

Uncertain. Collected 10/2004 in Arizona, United States. Just inside entrance to Coronado National Memorial. Pink throat morning glory collected from several plants.

The following were donated by Asian Vegetable Research and Development Center, P.O. Box 42, Shanhua, Tainan, Taiwan. Received 01/25/1999.

**PI 636424. *Capsicum annuum* L.**

Cultivar. "Criollo de Morelos 334"; PBC 136; Grif 15316. Collected in Mexico. Cayenne type.

The following were developed by Mississippi State University, Mississippi Agr. Exp. Sta., State College, Mississippi, United States. Received 12/16/2004.

**PI 636425. *Tripsacum dactyloides* (L.) L.**  
Cultivar. "Highlander"; Duplicate of PI 634941.

The following were developed by International Center for Tropical Agriculture, Apartado Aereo 6713, Cali, Valle, Colombia. Received 12/16/2004.

**PI 636426 PVPO. *Brachiaria* sp.**  
Cultivar. "Mulato II". PVP 200500009.

The following were developed by Trigen Seed LLC, Minnesota, United States. Received 12/16/2004.

**PI 636427 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "Banton". PVP 200500021. Pedigree - Buck 1021/SBE 0050.

The following were developed by Westbred, LLC, United States. Received 12/16/2004.

**PI 636428 PVPO. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "Triple IV". PVP 200500022. Pedigree - Fergus/Rambo//Fortuna/WestBred 906R.

The following were developed by Holden's Foundation Seeds, Inc., R.R. 2, Box 839, Williamsburg, Iowa 52361, United States. Received 12/16/2004.

**PI 636429 PVPO. *Zea mays* L.**  
Breeding. Pureline. LH249. PVP 200500024.

**PI 636430 PVPO. *Zea mays* L.**  
Breeding. Pureline. LH324. PVP 200500025.

**PI 636431 PVPO. *Zea mays* L.**  
Breeding. Pureline. LH332. PVP 200500026.

**PI 636432 PVPO. *Zea mays* L.**  
Breeding. Pureline. LH370. PVP 200500028.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 12/16/2004.

**PI 636433 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. Pureline. "Black Velvet". PVP 200500029.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 12/16/2004.

**PI 636434 PVPO. *Lactuca sativa* L.**  
Cultivar. Pureline. "Monument". PVP 200500030.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 12/16/2004.

**PI 636435. *Capsicum annuum* L.**  
Cultivar. Pureline. "HAP 114-1005". PVP 200500031.

**PI 636436. *Capsicum annuum* L.**  
Cultivar. Pureline. "HAP 114-1017". PVP 200500032.

**PI 636437. *Capsicum annuum* L.**  
Cultivar. Pureline. "HCY 114-1001". PVP 200500033.

The following were developed by DLF International Seeds, Inc., United States. Received 12/16/2004.

**PI 636438 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. Pureline. "Corgi". PVP 200500034.

**PI 636439 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. Pureline. "Hounddog 6". PVP 200500035.

The following were developed by N.R. Riveland, Williston Research Extension Center, North Dakota Agric. Exp. Sta., 14120 Highway 2, Williston, North Dakota 58801, United States; G.R. Carlson, Montana State University, Northern Agric. Research Center, Star Rt. 36, Havre, Montana 59501, United States; Montana State University, Research and Development Institute, Inc, 1711 W. College, Bozeman, Montana 59715, United States; Jerald W. Bergman, Montana State University, Eastern Agricultural Research Center, 1501 North Central, Sidney, Montana 59270, United States; Ken Kephart, Montana State University, MSU Southern Ag. Research Center, 748 Railroad Highway, Huntley, Montana 59037, United States; C.R. Flynn, Eastern Agric. Res. Ctr., Montana Agric. Exp. Sta., Sidney, Montana 59270, United States; D.M. Wichman, Montana Agricultural Experiment Station, Central Agric. Res. Ctr., Moccasin, Montana 59462, United States. Received 12/16/2004.

**PI 636440. *Carthamus tinctorius* L.**  
Cultivar. Pureline. "NUTRASAFF". PVP 200500036; CV-27. Pedigree - Derived from a single F11 plant selection from a 1981 multi-cross involving Biggs, PI 195895, Cargill 1653, Sidney Selection 87-42-3, and S-541 x a multi-cross involving Sidney Selection, AC-1, Sidney Selection 88-74-2, N-10, Mexican dwarf-2, ol35-1, PCM-1, and Arizona Pigmentless. Nutrasaff is a high linoleic, high oil, high protein safflower cultivar intended for use as a specialty feedstock nutritional supplement. Its release for production in Montana and other northern Great Plains states will provide a specialty whole seed safflower product for livestock nutrition and value-added meat qualities. The flower color of Nutrasaff is yellow in the bud and bloom stage and orange in the wilt stage. Nutrasaff plants are spiny with spines on the tip and along margins of the leaves and involucral bracts. Nutrasaff is similar in linoleic fatty acid content to Centennial safflower but has a higher seed oil content, higher meal protein content and reduced hull content.



The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 12/16/2004.

**PI 636441. *Poa arachnifera* Torr.**  
Cultivar. Pureline. "Tejas 1".

The following were developed by Florida Agr. Exp. Sta., Ona, Florida, United States; Daniel W. Gorbet, University of Florida, Northern Florida Research and, Education Center, Marianna, Florida 32446-7906, United States. Received 03/28/2003.

**PI 636442. *Arachis hypogaea* L.**  
Cultivated. Pureline. "ANorden"; UF98511. PVP 200300205; CV-97; Utility Patent 5922390; Utility Patent 6063984; Utility Patent 6121472. Pedigree - [(72 x 84B) x F1248]. Runner market-type peanut with runner (prostrate) growth habit being similar in appearance to SunOleic 97R but it has good resistance to TSWV. Has two seeds per pod with pink testa and a 100 seed weight of 62g, 47% oil, 27% protein, and high oleic oil (~79% C18:1). Has a shelling % of 78 with a medium maturity (135-138 days). Is similar to SunOleic 97 in appearance but much better in TSWV resistance.

The following were developed by USDA, NRCS, East Texas Plant Materials Center, 6598 FM 2782, Nacogdoches, Texas 75964, United States. Received 01/06/2005.

**PI 636443. *Paspalum floridanum* Michx.**  
Cultivar. "Harrison"; 9043874. Pedigree - Harrison was originally collected from a native stand in Harrison Co., Texas by Natural Resources Conservation Service employees T. Paul Leggett and Ross Brown. Forty seven (47) accessions of Florida paspalum, *Paspalum floridanum* Michx. were evaluated at the East Texas Plant Materials Center in 1989-94. It was determined that five (5) accessions exhibited superior forage and seed production qualities. In 1994 accession 9043874 was selected as being superior to all other accessions being evaluated based on its dry matter yields, vigor, and seed quality data. Based on these desirable traits, accession 9043874 (Harrison) shows potential for wildlife food and cover and a component of native grass mixes for forage, mine reclamation and prairie restoration uses. For release, accession 9043874 was named Harrison in reference to its county of origin. Released 1999.

The following were developed by Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States; J.E. McMurtrey, USDA-ARS, Animal and Natural Resources Institute, Hydrology and Remote Sensing Laboratory, Beltsville, Maryland 20705, United States. Donated by Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 01/12/2005.

**PI 636444. *Glycine max* (L.) Merr.**  
Breeding. Pureline. PA 15; SY 501001. GP-314. Pedigree - PA 4-11b x BSR 201 composited in the F7 generation. PA 4-11b was derived from the four way cross (Wilson 6 x Forrest) x (Perry x L76-0253). Released 11/01/2004.

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Brassica napus (634722-634724, 634754)  
Bromus riparius (634710)  
Capsicum annuum (634806, 635067-635068, 635775-635873, 635875-635876, 636324, 636424, 636435-636437)  
Capsicum chinense (636133)  
Capsicum frutescens (634826)  
Capsicum sp. (635874)  
Caragana arborescens (636378)  
Carthamus tinctorius (634711-634712, 634948, 636440)  
Celosia argentea (634587-634589)  
Chenopodium quinoa (634917-634925)  
Cicer arietinum (636327-636328)  
Citrullus lanatus (634691, 635586-635721, 635723-635774)  
Citrullus sp. (635722)  
Cornus controversa (636379)  
Cucurbita lundelliana (636138)  
Cucurbita moschata (634692-634706, 634982)  
Cyamopsis tetragonoloba (635047, 635992)  
Daucus carota (634649-634658)  
Daucus carota subsp. sativus (636127)  
Daucus carota var. sativus (635066)  
Deschampsia cespitosa (635152)  
Desmanthus bicornutus (634750-634753)  
Echinacea angustifolia var. angustifolia (636393-636396)  
Echinacea sanguinea (636397)  
Eruca sativa (634971)  
Eryngium planum (634926)  
Eryngium yuccifolium (634927)  
Festuca arundinacea (634565-634566, 634592-634594, 634599, 634718, 634728-634729, 634732-634733, 634801-634803, 634805, 634807-634809, 634818-634819, 634956, 635094, 635098, 635112, 635115, 635147,

635154-635155, 636438-636439)  
*Festuca longifolia* (635050)  
*Festuca rubra* subsp. *commutata* (635102, 635997)  
*Festuca rubra* subsp. *rubra* (634726, 634731)  
*Fragaria vesca* (635079)  
*Fragaria x ananassa* (634800)  
*Glycine max* (634365, 634570, 634590-634591, 634596-634598, 634736-634749,  
 634757-634765, 634804, 634812-634813, 634827, 634867-634913,  
 635024-635035, 635039, 635051, 635053, 635150, 635998-636002,  
 636110-636125, 636311, 636325-636326, 636444)  
*Gossypium hirsutum* (634569, 634720-634721, 634766, 634811, 634814-634817,  
 634848, 634850-634851, 634930-634931, 634949-634955, 635096,  
 635100-635101, 635119, 635877-635879, 636101-636104, 636306,  
 636308-636310, 636346-636362)  
*Helianthus annuus* (635160-635162)  
*Hordeum vulgare* subsp. *vulgare* (634714, 634932-634933, 635120, 636055-636068,  
 636077-636099)  
*Humulus japonicus* (635260)  
*Humulus lupulus* (635238, 635261-635262, 635264-635265, 635268-635270)  
*Humulus lupulus* var. *lupuloides* (635208-635209, 635239-635258, 635266-635267,  
 635274-635425, 635492-635495)  
*Humulus lupulus* var. *lupulus* (635210-635224, 635263, 635271-635273,  
 635426-635428)  
*Humulus lupulus* var. *neomexicanus* (635225-635237, 635429-635491)  
*Humulus lupulus* var. *pubescens* (635259)  
*Hypericum undulatum* (636398)  
*Ipomoea batatas* var. *batatas* (634366-634483, 634509-634514, 636312-636315)  
*Ipomoea coccinea* (634782)  
*Ipomoea eriocarpa* (634783)  
*Ipomoea hederacea* (634784)  
*Ipomoea lacunosa* (634785)  
*Ipomoea longifolia* (636423)  
*Ipomoea ochracea* (634847)  
*Ipomoea orizabensis* (634786)  
*Ipomoea sp.* (634787)  
*Ipomoea trifida* (634788-634792)  
*Ipomoea triloba* (634793-634799)  
*Koeleria macrantha* (635153)  
*Lactuca sativa* (634552, 634659-634690, 634810, 635055-635065, 635072-635078,  
 635095, 635108, 635149, 636434)  
*Lagenaria siceraria* (636137)  
*Lens culinaris* (634542-634543, 635097)  
*Lens culinaris* subsp. *culinaris* (635040-635041)  
*Leymus angustus* (634756)  
*Ligustrum vulgare* (636380)  
*Limnanthes alba* (634713)  
*Lolium perenne* (634727, 634730, 634734, 634972, 635146, 635151, 635157,  
 635159, 636109)  
*Mentha longifolia* (635080)  
*Origanum vulgare* (636381-636384)  
*Origanum vulgare* subsp. *vulgare* (636385)  
*Oryza sativa* (634544, 634572-634583, 634719, 636344-636345)  
*Parthenocissus vitacea* (636386)  
*Paspalum floridanum* (636443)  
*Pennisetum ciliare* (634535)  
*Pennisetum glaucum* (634545-634549)

*Phaseolus vulgaris* (634536, 634725, 634856, 635036-635038, 635099,  
635117-635118, 635121, 636363, 636433)  
*Pimpinella saxifraga* (634928)  
*Pisum sativum* (634508, 634571, 634601-634602, 634855, 634934, 635142-635144,  
635163-635207, 636131)  
*Poa arachnifera* (636329, 636441)  
*Poa pratensis* (634595, 634735, 634857, 634860, 634976-634978, 634980,  
635048-635049, 635069-635071, 635113-635114, 636128)  
*Poa trivialis* (634563)  
*Polygala myrtifolia* (636305)  
*Prunus persica* (634551)  
*Pseudoroegneria spicata* (635993)  
*Rubus caesius* (635081)  
*Saccharum* sp. (634707-634709, 634935, 635107, 635995)  
*Salvia splendens* (634586)  
*Sambucus ebulus* (635082-635083)  
*Sambucus nigra* (635084-635086)  
*Sambucus racemosa* (635087)  
*Schizachyrium scoparium* (635105-635106)  
*Sesamum indicum* (634541)  
*Sium sisarum* (634929)  
*Solanum integrifolium* (636107)  
*Solanum jamesii* (634361-634364)  
*Solanum kitagawae* (636105)  
*Solanum lycopersicum* (634828-634843, 634845-634846, 636195-636299,  
636302-636304)  
*Solanum pimpinellifolium* (634844)  
*Solanum retroflexum* (634755, 636106)  
*Solanum sect. lycopersicon* sp. (636300-636301)  
*Solanum stoloniferum* (636399-636415)  
*Solanum tuberosum* (634530-634534, 634584-634585, 634776-634781, 635092-635093,  
635116)  
*Solenostemon scutellarioides* (636319-636323)  
*Sorbus alnifolia* (635909, 635928, 635959, 635963, 635978, 635988)  
*Sorbus americana* (635975)  
*Sorbus aucuparia* (635088-635089, 635885, 635891, 635893-635894, 635900,  
635921, 635932-635933, 635958, 635967, 635971)  
*Sorbus cashmiriana* (635922, 635936-635937)  
*Sorbus commixta* (635916, 635938-635939, 635955, 635976)  
*Sorbus commixta* var. *rufoferruginea* (635913)  
*Sorbus dacica* (635940)  
*Sorbus decora* (635906, 635910)  
*Sorbus discolor* (635925, 635930, 635982)  
*Sorbus esserteauana* (635907, 635931, 635961-635962)  
*Sorbus foliolosa* (635942)  
*Sorbus forrestii* (635943)  
*Sorbus gracilis* (635944)  
*Sorbus hupehensis* (635984-635985)  
*Sorbus hybrid* (635899, 635903, 635957, 635980)  
*Sorbus hybrida* (635904, 635945)  
*Sorbus intermedia* (635934, 635947)  
*Sorbus koehneana* (635964, 635983, 635986-635987)  
*Sorbus lanata* (635895-635897)  
*Sorbus latifolia* (635917, 635935, 635941)  
*Sorbus meinichii* (635946)  
*Sorbus microphylla* (635948)  
*Sorbus minima* (635949)

*Sorbus pallescens* (635905)  
*Sorbus pohuashanensis* (635880, 635927, 635950, 635954, 635960, 635965-635966,  
635977, 635979, 635981, 635989)  
*Sorbus randaiensis* (635881, 635912, 635951)  
*Sorbus sambucifolia* (635920, 635953, 635968-635969)  
*Sorbus scopulina* (635882-635883, 635886)  
*Sorbus scopulina* var. *cascadensis* (635887, 635889)  
*Sorbus serotina* (635914)  
*Sorbus sibirica* (635890, 635956)  
*Sorbus sitchensis* (635908)  
*Sorbus sitchensis* var. *grayi* (635888)  
*Sorbus* sp. (635884, 635898, 635902, 635911, 635924, 635970)  
*Sorbus tianschanica* (635918, 635926)  
*Sorbus torminalis* (635090, 635892, 635919, 635972-635974)  
*Sorbus umbellata* (635901, 635929)  
*Sorbus wilsoniana* (635915, 635923)  
*Sorbus* x *hostii* (635952)  
*Sorghum bicolor* subsp. *bicolor* (634495-634504, 634852-634853, 635496-635498)  
*Spiraea alba* (636387)  
*Spiraea fritschiana* (636388)  
*Spiraea media* (636389)  
*Staphylea pinnata* (636390)  
*Tanacetum macrophyllum* (636391)  
*Tanacetum vulgare* (636392)  
*Thinopyrum intermedium* (635052)  
*Thinopyrum intermedium* subsp. *intermedium* (634505-634506)  
*Trifolium campestre* (636416)  
*Trifolium spadiceum* (636417-636422)  
*Tripsacum dactyloides* (634941, 636425)  
*Triticum aestivum* subsp. *aestivum* (634538-634540, 634550, 634553, 634564,  
634567-634568, 634600, 634715-634717, 634768-634775, 634821-634825,  
634854, 634858-634859, 634865-634866, 634936, 634940, 634973-634975,  
634979, 634981, 635044, 635054, 635145, 635148, 635156, 635158, 635990,  
635996, 636074-636076, 636132, 636134, 636136, 636140-636177, 636307,  
636316-636318, 636367-636370, 636427-636428)  
*Triticum turgidum* subsp. *durum* (634820, 634938-634939)  
*Ulmus americana* (635109)  
*Vigna unguiculata* (634767)  
*Vigna unguiculata* subsp. *unguiculata* (634484-634494, 634515-634529, 636139)  
*Vitis aestivalis* (634643-634644)  
*Vitis aestivalis* var. *lincecumii* (634646)  
*Vitis mustangensis* (634645)  
*Vitis riparia* (634648)  
*Vitis rotundifolia* (634647)  
*Vitis rupestris* (634640-634642)  
*Vitis* sp. (634604)  
*Vitis vinifera* subsp. *silvestris* (634638)  
*Vitis vinifera* subsp. *vinifera* (634605-634637, 634639)  
*Vitis* x *doaniana* (634603)  
X *Triticosecale* sp. (634537)  
X *Tritordeum* sp. (636334)  
*Zea mays* (636429-636432)  
*Zea mays* subsp. *mays* (634555-634562, 634861-634863, 634942-634947,  
634957-634970, 635042, 635122-635141, 635991, 636330-636333)  
*Zinnia* sp. (635110-635111)