Monarch. Seed weight of the 19 parental clones ranged from 3.55 to 4.58 g/1000 seed with a mean of 4.03 g. An equal amount of polycross seed (by weight) from each parental clone within a line was composited. Small quantities of seed (up to 25 g/line) may be requested from the Crop Germplasm Laboratory, USDA-ARS, 1701 Center Ave., Fort Collins, CO 80526.

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References and Notes

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REGISTRATION OF TXAG-4 AND TXAG-5 PEANUT GERMPLASMS

TXAG-4 (Reg. no. GP-48, PI 535816) and TXAG-5 (Reg. no. GP-49, PI 535817) are Spanish type peanut (Arachis hypogaea L. ssp. fastigata var vulgaris) germplasm lines released jointly by the Texas Agricultural Experiment Station, the USDA-ARS, and the Oklahoma Agricultural Experiment Station. The basis for release is their resistance to pythium pod rot (caused by Pythium myriotylum Drechs.) (unpublished data), and sclerotinia blight (caused by Sclerotinia minor Jagger) (1,2,4).

TXAG-4 and TXAG-5 are advanced generation F1 followed lines selected in 1979 from a cross of 'Toalson' × UF 73-4022. UF 73-4022 (also designated UF 71513) is a Valencia type breeding line from the University of Florida. The cross was made in 1976 at College Station, TX to combine genes for pod rot resistance from Toalson (3) and Aspergillus flavus Sacch. tolerance from UF 73-4022 (A.J. Norden, 1975, personal communication). TXAG-4 and TXAG-5 were tested under breeding line designations Tx798731 and Tx798736, respectively. The F1 plants were selected in Wilson County, Texas under heavy pythium pod disease pressure on the basis of disease reaction, pod shape, pod yield, and visual acceptability. Subsequent tests confirmed the disease resistance of the lines.

In Texas, the growth durations of TXAG-4 and TXAG-5 are equal to 5 d longer than 'Starr'. The main stems of the Spanish type plants are usually taller and, under some conditions, more coarse than Starr. Most of the pods are two-seeded but occasional pods have three seeds.

Both lines have variability for pod size and shape. TXAG-4 has large and medium size Spanish-type pods with moderate constriction; TXAG-5 has variable but mostly medium size Spanish pods with moderate to no constriction. The shelling percentage of TXAG-5 is equal to Starr while TXAG-4 is commonly 2 to 3% lower. Shell density and thickness accounts for the reduced shelling percentage of TXAG-4. Commercial acceptability of the lines is restricted because of pod shape and size variability, and shelling percentage. Sound mature kernels of TXAG-4, TXAG-5, and Starr averaged 49.5, 39.6, and 38.5 g/100 seed, respectively, in 1987. Pod yields of both lines have equaled Starr and 'Tamnut 74' in four South Texas field tests with high pythium pod rot incidence during 4 yr, TXAG-4 averaged 15% diseased pod tissue compared to 39% and 41% for Tamnut 74 and 'Florunner', respectively. The diseased pods of TXAG-5 in 5 tests during 4 yr, averaged 10.6% compared to 28 and 30% for Tamnut 74 and Florunner, respectively.

Field tests of TXAG-4 and TXAG-5 in sclerotinia infested soil in Oklahoma were conducted in 1982, and 1985 through 1988. The maximum percentage of diseased TXAG-4 and TXAG-5 plants in these tests was 16% compared to 98% for Florunner. Starr or Tamnut 74 was in two of these tests and sustained pod damage intermediate between Florunner and the two germplasm lines. In Texas, the average percentage of diseased plants in a two-replicate 1986 field test with high disease incidence was 2% for TXAG-4 and 3% for TXAG-5, compared to 25% for Florunner. In 1987, there were 13 diseased plants in 6.1 m of row plots of TXAG-4 and TXAG-5 compared to 18 and 14 for Starr and Tamnut 74, respectively.

Twenty-five seed of each line will be provided for research purposes upon written request and agreement to appropriately acknowledge the source in publications reporting results from use of the material. Seed requests should be addressed to the senior author, Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843.

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References and Notes
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REGISTRATION OF F1010 SUGARBEET GERMPLASM

F1010 (Reg. no. GP-131, PI 535818) sugarbeet (Beta vulgaris L.) germplasm was developed by the USDA-ARS and the North Dakota Agricultural Experiment Station and released 4 May 1988. F1010 is a high sucrose population selected from the USDA-ARS Beta germplasm collection.

One hundred sixty-seven accessions of the Beta vulgaris L. germplasm was developed by the USDA-ARS and the North Dakota Agricultural Experiment Station and released 4 May 1988. F1010 is a high sucrose population selected from the USDA-ARS Beta germplasm collection.

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