REGISTRATION OF 'WILL' SOYBEAN

'WILL' soybean [Glycine max (L.) Merr.] (Reg. no. 223, PI 518672) was developed by the USDA-ARS and the Illinois Agricultural Experiment Station through a series of backcrosses to the indeterminate 'Williams' (1) to transfer the gene DT2 (2) for semideterminate stem from the strain 'T117'. It was released for commercial production because of its greater lodging resistance and earlier maturity in comparison with Williams. Discrimination between indeterminate and semideterminate BCF, plants was possible by the late-flowering stage. The gene was first transferred to 'Clark' (3) and then to Williams, so that the final backcross was Williams6 × (Clark6 × T117).

Will is a composite of four BC3F2 lines selected from 13 semideterminate lines that were field tested. In 1977 it was entered as L22 in The Uniform Soybean Tests Northern States and evaluated in 13 states. The gene DT2 had several effects in addition to its obvious direct effect of earlier termination of stem growth, causing shorter plant height and often a large cluster of pods at the top of the plant. Beneficial effects are less lodging susceptibility, an average of 5 d earlier maturity (relative maturity 33), at some test locations a distinctly improved seed quality, and at some irrigated locations with heavy vegetative growth a higher yield than all indeterminate cultivars.

Most descriptive traits are similar to Williams. Will has white flowers, brown pubescence, tan pods at maturity, and shiny yellow seeds with black to light black hilum. About 30% of the seeds have low peroxidase activity in contrast to the high activity of Williams. This trait has no apparent effect on the performance or value of the crop but is used in some seed laboratories to test cultivar purity.

Will was released in 1979 to foundation seed organizations in Illinois, Indiana, Missouri, Nebraska, and South Dakota with publicity release in October. Breeder seeds are maintained by the Illinois Agricultural Experiment Station.

R. L. Bernard* and C. R. Cremeens (4)

REGISTRATION OF 'LAWRENCE' SOYBEAN

'LAWRENCE' soybean [Glycine max (L.) Merr.] (Reg. no. 224, PI 518674) was developed by the USDA-ARS and the Illinois Agricultural Experiment Station. Lawrence was released for commercial production because of its high seed yield where cultivars are adapted and its excellent lodging resistance. Lawrence is named for Ruth Lawrence, statistical clerk in the USDA-ARS and Illinois Agricultural Experiment Stations in the Soybean Laboratory at Urbana, IL.

Lawrence, previously designated L74L-125, was selected in 1974 in the breeding plots that were near Eldorado, IL on the farm of Marshall Grisham. It was entered in Preliminary Test 4 of The Uniform Soybean Tests Northern States in 1977 and in the Uniform Test 4 in 1978 to 1980. In 41 environments it averaged higher than all check cultivars (Douglas, Franklin, and Williams) and had the best lodging score of all check cultivars. It matures about the same time as Union (relative maturity 41) giving it an adaptation to 37 to 39 ° N lat. It has purple flowers, brown pubescence, tan and dull yellow seeds with black hila.

Lawrence was released in 1981 to foundation seed organizations in Illinois, Missouri, and Indiana with publicity release in September 1981. Breeder seeds are maintained by the Illinois Agricultural Experiment Station.

R. L. Bernard*, C. R. Cremeens, and G. L. Sprau (3)

References and Notes

3. USDA-ARS and Dep. of Agronomy, Univ. of Illinois, Urbana, IL 61801. Cooperative investigations by the Illinois Agricultural Experiment Station, and Illinois Crop Improvement Association. Research supported in part by Illinois Foundation Seeds, Inc., and Illinois Crop Improvement Association through a series of backcrosses to the indeterminate 'Williams' (1) to transfer the gene DT2 (2) for semideterminate stem from the strain 'T117'. It was released for commercial production because of its greater lodging resistance and earlier maturity in comparison with Williams. Discrimination between indeterminate and semideterminate BCF, plants was possible by the late-flowering stage. The gene was first transferred to 'Clark' (3) and then to Williams, so that the final backcross was Williams6 × (Clark6 × T117).

Published in Crop Sci. 28:1027-1028 (1988).

REGISTRATION OF 'FAYETTE' SOYBEAN

'FAYETTE' soybean [Glycine max (L.) Merr.] (Reg. no. 225, PI 518673) was developed by the USDA-ARS and the Illinois Agricultural Experiment Station. Fayette is named for the town of Fayette in south central Illinois where this cultivar was released.

The cross of 'Williams' × PI 88788 was made in 1972 at the Regional Soybean Laboratory at Urbana, IL, from 1938 to 1970. Fayette is the name of a county in Illinois, and it is the southern Illinois where this cultivar is adapted.

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Published in Crop Sci. 28:1027-1028 (1988).