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 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 BC1F5 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, Missouri, and Indiana, with publicity release in September 1981. Breeder seeds are maintained by the Illinois Agricultural Experiment Station.

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References and Notes

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REGISTRATION OF 'LAWRENCE' SOYBEAN

'LAWRENCE' soybean [Glycine max (L.) Merr.] (Reg. no. 224, PI 518673) was developed by the USDA-ARS and the Illinois Agricultural Experiment Station. Lawrence was released because of its high seed yield where Maturity Group IV cultivars are adapted and its excellent lodging resistance. It is named for Ruth Lawrence, statistical clerk in the U.S. Regional Soybean Laboratory at Urbana, IL from 1938 to 1970.

Lawrence, previously designated L74L-125, is a F3 line selected in 1974 in the breeding plots that are grown annually near Eldorado, IL. It is the name of a county in southern Illinois where this cultivar is adapted. Lawrence was developed as L74L-125, but then to Williams, so that the final backcross was Williams6 × (Clark6 × T117).

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

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REGISTRATION OF 'FAYETTE' SOYBEAN

'FAYETTE' soybean [Glycine max (L.) Merr.] (Reg. no. 225, PI 518674) was developed by the USDA-ARS and the Illinois and Missouri Agricultural Experiment Stations in a program to provide cultivars that are resistant to soybean cyst nematode (SCN) (Heterodera glycines Ichinohe) and adapted to the northern USA. Fayette is the name of a county in south central Illinois where this cultivar is adapted.

The cross of Williams × PI 88788 (3,4) to an adapted grain-type cultivar PI 88788 is a black-seeded hay-type cultivar obtained in Liaoning Province, China, by the Dorsett and Morse expedition in 1930, and Williams (2) is an adapted cultivar widely grown in the Midwest. In subsequent generations agronomic testing and selection were done at the Illinois Agricultural Experiment Station, and progeny testing for SCN resistance was done during the winter in the greenhouse at the University of Missouri Delta Center in Portageville using soil infested with races 3 and 4 of SCN. From this an F3 line was selected and crossed to Williams following further selection as in the first cycle. From yield tests of resistant F3 lines

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References and Notes

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