REGISTRATION OF CROP CULTIVARS

REGISTRATION OF 'ZANE' SOYBEAN

'ZANE' soybean [Glycine max. (L.) Merr.] (Reg. no. 187) originated as an F₂ plant selection from the two-parent cross 'Cumberland' (2) × 'Pella' (1), which was made at the Isabela Substation of the Puerto Rico Agricultural Experiment Station in December 1975. The F₁ seed was planted at Isabela in March 1976, and generations were advanced by single-seed descent in Puerto Rico and at the Iowa Agriculture and Home Economics Experiment Station. The F₂ plant selection was made in 1977. The line was tested for seed yield in Ohio from 1978 to 1983, and in the Uniform Soybean Tests, Northern States, from 1981 to 1983 under the designation HW8033. Zane was released in 1984 because of its superiority in seed yield to public cultivars of similar maturity.

Zane has purple flowers, gray pubescence, brown pods at maturity, and dull yellow seeds with imperfect black hilum. It is of Maturity Group III and best adapted to approximately 40° to 42° N Lat. In comparison with Pella, Zane averages about 2.2% higher seed yield, 1 day earlier in maturity, 1.2 percentage units higher protein, shorter hypocotyl elongation at 25° C, and slightly less susceptibility to iron-deficiency chlorosis. The two cultivars have similar lodging resistance, plant height, percent oil, seed size, seed quality, and shattering resistance.

Zane is moderately resistant to purple stain (caused by Claviceps purpurea (Fr.) Tul.), and soybean mosaic virus. It is susceptible to phytophthora rot (caused by Phytophthora megasperma (Drechs.) f. sp. glycinea Kuan and Erwin), brown stem rot (caused by Phytophthora gregata (Allington and Chamberlain) W. Gams), and soybean mosaic virus.

Breeder seed of Zane was distributed to foundation seed organizations in Iowa, Kansas, Kentucky, Missouri, Nebraska, Ohio, and South Dakota for planting in 1984. Breeder seed will be maintained by the Ohio Agricultural Research and Development Center, the Ohio State University, Wooster, OH 44691.


References and Notes

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REGISTRATION OF 'CENTURY 84' SOYBEAN

'CENTURY 84' soybean [Glycine max. (L.) Merr.] (Reg. no. 188) originated as a bulk of two BC₂ F₂ plant selections from the cross, 'Century' × 'Williams 82'. Century 84 is similar to Century (1), but has the Rps₄ gene transferred from Williams 82 (2), conferring resistances to races 1 to 11, 13 to 15, 17, 18, 21, and 22 of Phytophthora megasperma (Drechs.) f. sp. glycinea Kuan and Erwin.

The four backcrosses to Century took place at the Ohio Agricultural Research and Development Center from 1979 to 1981. Tests for resistance to phytophthora rot were conducted for each generation at Wooster, OH. Eighteen resistant BC₄ F₅-derived lines were increased at the Isabela Substation of the Puerto Rico Agricultural Experiment Station from November 1981 to February 1982. These 18 lines were tested individually for seed yield in Ohio in 1982 and a bulk of these lines was tested for seed yield in the Uniform Soybean Tests, Northern States, in 1982 under the designation of HW8185. Seeds of two of the BC₄ F₅-derived lines with similar appearance and performance were bulked and tested for seed yield in the Uniform Soybean Tests, Northern States, in 1983. Century 84 was released in 1984 because of its multi-race resistance to phytophthora rot.

Century 84 has purple flowers, tawny pubescence, brown pods at maturity, and dull yellow seeds with black hilum. It is of Maturity Group II and best adapted to approximately 41° to 43° N Lat. In comparison with Century, Century 84 averages about 5 cm shorter in mature plant height, 1.0 percentage units higher protein, and 0.4 percentage units lower oil. Where Century is not damaged by phytophthora rot, the two cultivars are similar in seed yield, maturity, lodging resistance, hypocotyl elongation at 25° C, resistance to iron-deficiency chlorosis, seed size, seed quality, and shattering resistance.

Century 84 is moderately resistant to purple stain (caused by Cercospora kikuchii (T. Matsu & Tomoyasan) Chupp.), and race 2 of frogeye leaf spot (caused by Cercospora sojina (Hara)). It is susceptible to phytophthora rot (caused by Phytophthora megasperma (Drechs.) f. sp. glycinea Kuan and Erwin), brown stem rot (caused by Phytophthora gregata (Allington and Chamberlain) W. Gams), and soybean mosaic virus.

Breeder seed of Century 84 was distributed to foundation seed organizations in Iowa, Kansas, Kentucky, Missouri, Nebraska, Ohio, and South Dakota for planting in 1984. Breeder seed will be maintained by the Ohio Agricultural Research and Development Center, the Ohio State University, Wooster, OH 44691.