REGISTRATION OF CROP CULTIVARS

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REGISTRATION OF ‘WEBER 84’ SOYBEAN

‘WEBER 84’ soybean [Glycine max (L.) Merr.] (Reg. no. 198) was developed cooperatively by the Iowa Agriculture and Home Economics Experiment Station, the Puerto Rico Agricultural Experiment Station, and USDA-ARS. It was released in 1984 because of its resistance to race 1 of Phytophthora rot [caused by Phytophthora megasperma (Drechs.) f. sp. glycinea Kuan & Erwin] to which the cultivar ‘Weber’ is susceptible (1).

Weber 84 was derived from 96 BC,F2 plants from the backcross Weber X ‘Century’. Century was the donor of the Rps5 allele for resistance to race 1 of Phytophthora rot. The 96 BC,F2-derived lines that were bulked to form Weber 84 were homozygous for the Rps5 allele and uniform for agronomic characters. The line was tested in the Uniform Soybean Tests, Northern States, from 1982 through 1983 under the designation Weber BC.

Weber 84 has white flowers, tawny pubescence, brown pods at maturity, and dull-yellow seeds with black hila. It is of Maturity Group I and best adapted to approximately 43 to 44°N Lat. In comparison with Weber, Weber 84 is approximately 2 days later in maturity, 5 cm taller, and slightly more lodging susceptible. The two cultivars have similar yields in absence of race 1 of Phytophthora rot and have similar seed quality, seed protein and oil percentages, shattering resistance, resistance to Fe-deficiency chlorosis on calcareous soil, and hypocotyl elongation at 25°C.

Weber 84 is moderately resistant to pod and stem blight [caused by Diaporthe phaseolorum (Cke. & Ell.) var. sojae Wehm.] and purple stain [caused by Cercospora kikuchii (T. Matsu. & Tomoyasu) Gardner]. It is moderately susceptible to brown stem rot [caused by Phialophora gregata (Allington and Chamberlain) W. Gams]. Weber 84 is moderately resistant to Fe-deficiency chlorosis on calcareous soil.

Breeders seed of Weber 84 was distributed to foundation seed organizations in Minnesota and South Dakota for planting in 1984. Breeder seed will be maintained by the Iowa Soybean Promotion Board. Registration by the Cultivar Registration Committee of the Crop Science Society of America. Accepted 30 Nov. 1986.

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REFERENCES AND NOTES


REGISTRATION OF ‘SHASTA’ WHEAT

‘SHASTA’, CI 17651, hard red spring wheat (Triticum aestivum L.) (Reg. no. 717) was developed and released by the California Agricultural Experiment Station, Davis, CA in 1970. This cultivar was selected, evaluated, and released 6 yr after the cross was made, utilizing two field generations each year at Davis in the F2, F3, and F4 generations along with yield-testing in the F3. Shasta traces to an F4, 214D-4S-OD, from which head-rows were selected for uniformity. It was evaluated in variety trials in 1974 to 1976 as UC205. Foundation stocks were multiplied in 1977 from a bulk of 3000 winter crop in the Imperial Valley in southern California and a 3-ka summer crop in the Tulelake Basin of Northern California.

The parental cultivars were well-adapted and widely used in California. Shasta was selected to approach the high yielding ability of Anza and good breadmaking characteristics of Inia 66. In 3-yr California regional tests, the grain yield was 97% of Anza and 118% of Inia 66 (1). Milling and baking characteristics are intermediate to the parents, but shifted slightly more toward Inia 66. Shasta consistently shows lower yellowberry and about 1.0% unit higher grain protein than Anza.

Stripe rust (caused by Puccinia striiformis West.) resistance of Shasta at the time of its release was equivalent to Anza in size and shape.

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