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$_3$F$_2$ plants from the backcross Webster$^3 \times$ 'Century'. Century was the donor of the $R_{ps}$ allele for resistance to race 1 of Phytophthora rot. The 96 BC$_3$F$_2$-derived lines that were bulked to form Weber 84 were homozygous for the $R_{ps}$ allele and uniform for agronomic characters. The line was tested in yield 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 production in 1984 because of its resistance to race 1 of Phytophthora rot. Breeder seed will be maintained by the Iowa Soybean Promotion Board. Registration by the California Agricultural Experiment Station in 1976. It was released as UC205 in California. Shasta was selected to approach the high grain-yielding ability of Anza and good breadmaking quality 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 parent species, significantly toward Inia 66. Shasta consistently shows lower yellowberry and about 1.0% unit higher grain protein than Anza.

Stripe rust (caused by Puccinia striiformis) resistance of Shasta at the time of its release was equivalent to Inia 66, but more susceptible than Anza. The predominant race at the time of release. It is susceptible to the prevailing races of leaf rust (caused by P. recondita Rob. ex Desm. f. sp. tritici) and speckled leaf blotch (Tilletia tritici Rob. ex Desm.), as are Anza and Inia 66.

Shasta is classified as short-statured, being taller than Inia 66 and 12 to 14 cm taller than Anza, being a typical height for Anza. It has straw color and awn. The kernels are hard and red, smaller than Inia 66, and have a floret.

Breeders and foundation seed classes are maintained by the Foundation Seed and Plant Materials Service, University of California, Davis, CA 95616.