REGISTRATION OF 'MINNATTO' SOYBEAN

'MINNATTO' SOYBEAN [Glycine max (L.) Merr.] (Reg. no. 268, PI 537096) was developed by the Minnesota Agricultural Experiment Station. Minnatto was released in 1989 as a small-seeded cultivar for use in the production of the fermented product natto.

Minnatto was derived from an F4 plant selected from the cross 'Evans' × PI 437267 (1). PI 437267, which has an average seed size of ~70 mg, is the cultivar 'Dobruzanea' I' introduced from the USSR in 1980. The population was advanced to the F4 generation at St. Paul, MN, using a mass-selection procedure in which the smallest 2% of the seeds in the population were saved for planting the subsequent generation. Minnatto was tested for yield in Minnesota from 1987 through 1989 and in Uniform Test 0 of the Uniform Soybean Tests–Northern States in 1989 under the designation M86-2372.

Minnatto is of Maturity Group 0, averaging ~6 d later than 'Chico'. Minnatto has an average seed size of ~85 mg seed~1, compared with Chico at ~110 mg seed~1. Minnatto is indeterminate in growth type, with white flowers, gray pubescence, brown pods at maturity, and dull yellow seeds with yellow hila. In comparison with Chico, Minnatto has ~2% higher yield and better lodging resistance and seed quality; it is ~5 cm taller at maturity. Seeds of Minnatto have about the same protein content as Chico, but 2 to 3% less oil. Minnatto is moderately susceptible to Fe-deficiency chlorosis when grown on calcareous soil. It carries the Rps gene for resistance to phytophthora root rot (caused by Phytophthora megasperma Dreschs. sp. glycinea T. Kuan & D.C. Erwin).

Breeder seed of Minnatto was distributed to the foundation seed organization in Minnesota and will be maintained by the Minnesota Agricultural Experiment Station.

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References and Notes