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' (1). The population from the cross 'Evans' × M63-217Y (1). M63-217Y is a yellow seeded Maturity Group V cultivar Yutae introduced from South Korea in 1951 by Raymond J. Todd of Delphi, IN. 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 Rps₁ gene for resistance to phytophthora root rot (caused by Phytophthora megasperma Drechs. f. sp. glycinea 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.

J. H. ORF,* P.J. SCHAU, AND B. W. KENNEDY (2)

References and Notes


Kato was derived from an F₄ plant selected from the cross M70-127 × 'Century' (3). M70-127 is a line descended from the cross 'Evans' × M63-217Y (1). M63-217Y is the black seeded Maturity Group V cultivar 'Hodgson' (1). The population from which Kato was selected was advanced to the F₄ generation at St. Paul, MN, using a modified bulk procedure at St. Paul, MN, and Santiago, Chile. Kato was tested for yield in Minnesota from 1987 through 1988 under the designation M81-382. It was evaluated in the Uniform Soybean Tests—Northern States Preliminary Test I in 1985 and Uniform Test I in 1988.

Kato is Maturity Group I and best adapted as a full-season cultivar from ≈44 to 46° N lat. It is indeterminate type, with purple flowers, tawny pubescence, determinate growth type, and shiny yellow seeds with black hila. In comparison with 'Sibley', Kato is approximately 0.5% higher in protein, and 1.7 percentage points lower in oil content in protein, and 1.7 percentage points lower in oil.

Kato was released on 15 February 1989 to certified seed growers in Minnesota and Wisconsin. Breeder seed will be maintained by the Minnesota Agricultural Experiment Station. Other information on Kato has been published.

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References and Notes


REGISTRATION OF 'IL1' SOYBEAN

'IL1' SOYBEAN [Glycine max (L.) Merr.] (Reg. no. 272, PI 542045) was developed by the Illinois Agricultural Experiment Station. IL1 has a relative maturity of 2.6, determinate stems, purple flowers, tawny pubescence, brown pods at maturity, and shiny yellow seeds with black hila. In comparison with 'Sibley', IL1 is approximately the same maturity, and has ≈1% higher seed yield, black hila, and 5 cm taller plant height at maturity of Kato are 22 mg seed⁻¹ heavier, 2.4 percentage points lower in protein, and 1.7 percentage points lower in oil content than Sibley. On a scale of 1 = resistant to 5 = susceptible, IL1 carries the Rps₁ gene for resistance to phytophthora root rot (caused by Phytophthora megasperma Drechs. f. sp. glycinea T. Kuan & D.C. Erwin).

Breeder seed of IL1 was distributed to the foundation seed organization in Minnesota and will be maintained by the Minnesota Agricultural Experiment Station.

J. H. Orf,* J. W. Lambert, and B. W. Kennedy

References and Notes
