Registration of ‘MN 1301’ Soybean

‘MN 1301’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-397, PI 602593) was developed by the Minnesota Agricultural Experiment Station. It was released in February 1997 because of its high yield compared with other public cultivars of similar maturity.

‘MN 1301’ was derived from an F₄ plant selected from the cross M84-492 x M74-498. M84-492 is a selection from the cross A79-136012 x M75-2. A79-136012 has the pedigree Pride ‘B216’ x Land O’ Lakes ‘4102’. Pride B216 has the pedigree ‘Corsoy’ x ‘Wayne’ (1,10). Land O’ Lakes 4102 has the pedigree (‘Mack’ x ‘Wayne’ (‘Clark’ x ‘Adams’)) x ‘Cutler’ (1,3,4,9,11). M75-2 is a selection from the cross Hodgson (4) x [M67-141 x ‘Chipewa’ x ‘Higan’] (2,4,6). M67-141 has the pedigree Corsoy x Wayne (1,10). M74-498 is a selection from the cross Peterson Px20 x [Hodgson (4) Rpsl x Merit] (5,6,8). The population was advanced by the single-pod bulk method to the F₄ generation in Chile and Minnesota. MN 1301 was yield-tested in Minnesota from 1990 through 1996 under the designation M89-936. It was evaluated in Preliminary Test I in 1993 and in Uniform Test I from 1994 through 1996 of the Uniform Soybean Tests, Northern Region (12).

MN 1301 is classified as an early Group 1 maturity (relative maturity 1.3) averaging ±3 d later than ‘Lambert’ (7). It is best adapted as a full-season cultivar to latitudes 44° to 46° N. It has indeterminate growth habit, white flowers, gray pubescence and brown pods at maturity. Seeds are yellow, with yellow hilum and intermediate seed coat luster. In comparison with Lambert, MN 1301 is intermediate seed coat luster. In comparison with Lambert, MN 1301 has the Rpsl gene for resistance to phytophthora root rot (caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann). MN 1301 will be maintained by the Minnesota Agricultural Experiment Station for at least 5 years by writing to the corresponding author.

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References and Notes
8. Peterson Seed Co. (now owned by Pioneer Hi-Bred, Int., Des Moines, IA).

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Registration of ‘MN 0301’ Soybean

‘MN 0301’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-396, PI 602594) was developed by the Minnesota Agricultural Experiment Station. It was released in February 1997 because of its high yield, compared with other public cultivars of similar maturity.

‘MN 0301’ was derived from an F₄ plant selected from the cross ‘Maple Donovan’ x M82-303 (1). M82-303 is a selection from the cross M70-330 x M68-176. M70-330 is a selection from M62-93 x M406-3. M62-93 has the pedigree ‘Merit’ x M406 (3). M406 has the pedigree ‘Harosoy’ x ‘Norchief’ (2.7). M64-3 is a selection from the cross ‘Traverse’ x PI 196163 (‘Tokatingahana’) (4). M68-176 has the pedigree ‘Merit’ x ‘Beeson’ (3.6). The population was advanced by the single-pod bulk method to the F₄ generation in Chile and Minnesota. MN 0301 was yield tested in North Dakota and Minnesota from 1990 through 1996 under the designation SL89-111 (or ND(M) 89-111 or M89-111). It was evaluated in Uniform Test 0 from 1993 through 1996 of the Uniform Soybean Tests, Northern Region (8).

MN 0301 is classified as an early Group 0 maturity (relative maturity 0.3) averaging ±3 d later than ‘Agassiz’ (5). It is best adapted as a full-season cultivar to latitudes 45° to 47° N. It has indeterminate growth habit, purple flowers, gray pubescence and brown pods at maturity. Seeds are yellow, with yellow hilum and intermediate seed coat luster. In comparison with Agassiz, MN 0301 had a yield advantage of ±5% in Uniform Soybean Tests and ±7% in Minnesota Tests (12). MN 0301 is similar in seed quality to Agassiz. The iron deficiency chlorosis scores of MN 0301 are similar, both being intermediate. MN 0301 has the Rpsl gene for resistance to phytophthora root rot (caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann). MN 0301 also appears to be more susceptible to lodging than Agassiz and is ±5 cm taller. Seeds of MN 0301 are 12 mg seed⁻¹ heavier, ±15 g kg⁻¹ lower in protein, and ±4 g kg⁻¹ higher in oil than seeds of Lambert. MN 0301 is classified as an early Group 0 maturity (relative maturity 0.3) averaging ±3 d later than ‘Agassiz’ (5). It is best adapted as a full-season cultivar to latitudes 45° to 47° N. It has indeterminate growth habit, purple flowers, gray pubescence and brown pods at maturity. Seeds are yellow, with yellow hilum and intermediate seed coat luster. In comparison with Agassiz, MN 0301 had a yield advantage of ±5% in Uniform Soybean Tests and in Minnesota and North Dakota Tests (8). MN 0301 is slightly more susceptible to lodging than Agassiz and is ±5 cm taller. Seeds of MN 0301 are 12 mg seed⁻¹ heavier, ±15 g kg⁻¹ lower in protein, and ±4 g kg⁻¹ higher in oil than seeds of Agassiz. MN 0301 is similar in seed quality to Agassiz. The iron deficiency chlorosis scores of MN 0301 and Agassiz are similar, both being intermediate. MN 0301 has the Rpsl gene for resistance to phytophthora root rot (caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann). MN 0301 also appears to be more susceptible than average to white mold (caused by Sclerotinia sclerotiorum (Lib.) de Bary).

MN 0301 was released on 15 Feb. 1997 to approved seed growers in Minnesota. Breeder seed of MN 0301 will be maintained by the Minnesota Agricultural Experiment Station. U.S. plant variety protection for MN 0301 is pending (PVP Certificate no. 9800097). Small samples of MN 0301 for research purposes can be obtained from the Minnesota Agricultural Experiment Station for at least 5 years by writing to the corresponding author.

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