Registration of 'Nemaha' Soybean

'Nemaha' soybean [Glycine max (L.) Merr.] (Reg. no. CV-356, PI 595754) was developed by the Nebraska Agricultural Experiment Station. It was released in 1995 because of its superiority in yield and other agronomic traits to public cultivars of similar maturity.

Nemaha is derived from an F3 plant selected from the cross 'Hamilton' × 'Kenwood' (1,2). The population was inbred to the F3 generation at the USDA Tropical Agriculture Research Station in Isabela, PR, by single-seed descent from November 1988 through May 1989. Seed from single F3 plants was harvested at Lincoln, NE, in 1989. The preliminary yield test of F3-derived lines was grown at Lincoln and Mead, NE, during 1990. Nemaha was evaluated for yield in Nebraska from 1991 through 1994 and in the Uniform Soybean Tests—Northern States Preliminary Test IIIA during 1992 and Uniform Test III from 1993 through 1994 under the designation U91-3607 (3).

Nemaha is a late Maturity Group III cultivar with white flowers, gray pubescence, tan pods, and an indeterminate growth habit. Seeds are dull yellow with buff hila. Nemaha matures 2 d earlier than 'Flyer' (4) and is best adapted as a full-season cultivar from 40 to 42° N latitude. Over 49 tests during 1993 and 1994, in the Uniform Soybean Tests—Northern States, Nemaha averaged 6% higher yield than Flyer, with similar plant height of 86 cm, a lodging score of 1.87 (vs. 1.5 for Flyer), 26 mg seed⁻¹ heavier seed weight, 10 g kg⁻¹ lower protein content, and 10 g kg⁻¹ higher oil content.

Nemaha is susceptible to phytophthora rot (caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann), and brown stem rot [caused by Phialophora gregata (Allington & D.W. Chamberlain) W. Gams]. Nemaha shows a high level of resistance to sudden death syndrome [caused by Fusarium solani (Mart.) Sacc., with a disease index score of 2.0 (vs. 19.2 for Flyer), as rated in the Uniform Soybean Tests—Northern States (3). Nemaha has excellent seedling emergence.

Breeder seed of Nemaha was distributed to the Nebraska Foundation Seed Division for planting in 1995. The Nebraska Agricultural Research Division will maintain breeder seed. Small quantities of seed for research purposes may be obtained from the corresponding author for at least five years from the date of this publication.

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References and Notes
5. Dep. of Agronomy, Univ. of Nebraska, Lincoln, NE 68583-0915. Contribution from the Nebraska Agric. Exp. Stn., Journal Series no. 11547, Project 12-184. Research supported in part by a grant from the Nebraska Soybean Board. Registration by CSSA. Accepted 31 Oct. 1996. *Corresponding author (ggraef@unlinfo.unl.edu).

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Registration of 'Odell' Soybean

'Odell' soybean [Glycine max (L.) Merr.] (Reg. no. CV-355, PI 595753) was developed by the Nebraska Agricultural Experiment Station in 1995 because of its superiority in yield and other agronomic traits to public cultivars of similar maturity, especially in Nebraska environments.

Odell is derived from an F3 plant selected from 'Asgrow A3427' (1,2). Asgrow A3427 is derived from 'Asgrow A3127' (2). The population was inbred to the F3 generation at the USDA Tropical Agriculture Research Station in Isabela, PR, by single-seed descent from November 1988 through May 1989. Seed from single F3 plants was harvested at Lincoln, NE, in 1989. The preliminary yield test of F3-derived lines was grown at Lincoln and Mead, NE, during 1990. Odell was evaluated for yield in Nebraska from 1991 through 1994 and in the Uniform Soybean Tests—Northern States Preliminary Test IIIA during 1992 and Uniform Test III from 1993 through 1994 under the designation U91-3610 (3).

Odell is a late Maturity Group III cultivar with purple flowers, gray pubescence, tan pods, and an indeterminate growth habit. Seeds are yellow with buff hila. Odell matures 2 d earlier than 'Flyer' (4) and is best adapted as a full-season cultivar from 40 to 42° N latitude. Over 49 tests during 1993 and 1994, Odell averaged 11% higher yield in Nebraska tests from 1992 through 1994 conducted as part of the Uniform Soybean Tests, Northern States (3). Over 49 tests during 1993 and 1994, Odell averaged 21 mg seed⁻¹ heavier seed weight, 9 g kg⁻¹ lower protein content, and 8 g kg⁻¹ higher oil content.

Odell is susceptible to brown stem rot [caused by Phialophora gregata (Allington & D.W. Chamberlain) W. Gams], and shows a high level of resistance to sudden death syndrome [caused by Fusarium solani (Mart.) Sacc., with a disease index score of 3.4 vs. 19.2 for Flyer, as rated in the Uniform Soybean Tests—Northern States (3). Odell has excellent seedling emergence.

Breeder seed of Odell was distributed to the Nebraska Foundation Seed Division for planting in 1995. The Nebraska Agricultural Research Division will maintain breeder seed. Small quantities of seed for research purposes may be obtained from the corresponding author for at least five years from the date of this publication.

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References and Notes
2. Asgrow Seed Co., Kalamazoo, MI.
5. Dep. of Agronomy, Univ. of Nebraska, Lincoln, NE 68583-0915. Contribution from the Nebraska Agric. Exp. Stn., Journal Series no. 11547, Project 12-184. Research supported in part by a grant from the Nebraska Soybean Board. Registration by CSSA. Accepted 31 Oct. 1996. *Corresponding author (ggraef@unlinfo.unl.edu).

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