Registration of ‘Traill’ Soybean

‘Traill’ soybean \([Glycine \text{ max} \text{ (L.) Merr.}]\) (Reg. no. CV-371, PI 596541) was developed by the North Dakota Agricultural Experiment Station, North Dakota State University. It was released on 7 Feb. 1997. Traill has high yield potential compared with other cultivars of similar maturity.

Traill is an F4-derived line, originally designated ND90-2624, and has the pedigree M82-996 × ‘Sigco KG20’ (1). M82-996 is an experimental line developed by the University of Minnesota with the pedigree M72-3 × ‘Peterson 1677’. The pedigree of M72-3 is [@Evans’ × ‘Hodgson’ (2)]. The pedigree of Peterson 1677 is [@Rampage’ × ‘Corsoy’ (2)]. The pedigree of Sigco KG20 is [@McCall’ × 2S11] (5). The pedigree of 2S11 is [059-903 × ‘Hardome’] (6). The experimental line 059-903 is a Fiskeby III selection (PI 438471) (7).

The cross was made in the summer of 1987 at Fargo, ND, and the F1 plants were grown in a 1987–1988 winter nursery in Chile. The F2 population was grown in the summer of 1988 at Fargo and advanced to the F3 generation by the single-pod bulk method. The population was grown in the 1988–1989 winter nursery in Chile and advanced to the F4 generation by the single-pod bulk method. F4 plants from the segregating population grown in 1989 at Fargo were threshed individually in the fall of 1989 at Fargo and F4 plants were grown and selected in 1990 at Fargo. ND90-2624 was first tested in replicated yield trials in 1991.

Traill was evaluated in the Uniform Soybean Test 0, Northern States, in 1994 and 1996. In 2 yr of Uniform Soybean Test 0, Traill averaged 7% higher in seed yield than ‘Agassiz’ and 12% less in seed yield than ‘Lambert’ (8). Traill was evaluated in the Uniform Soybean Test 00, Northern States, in 1995 and 1996 (8). In 2 yr of Uniform Soybean Test 00, Traill averaged 9% higher in seed yield than Agassiz (9) and 18% higher in seed yield than McColl. Traill matures the same date as Agassiz and 7 d earlier than Lambert. Lodging and seed quality scores of Traill are similar to Agassiz and Lambert. Traill averaged the same plant height as Agassiz and 3 cm shorter than Lambert. Seeds of Traill are 27 mg seed⁻¹ larger than Agassiz (9) and 18% higher in seed yield than McColl. Traill has purple flowers, tawny pubescence, brown pod color at maturity, intermediate seed coat luster, yellow hila, and indeterminate growth habit. A Maturity Group 0 cultivar, Traill is generally adapted as a full-season cultivar from 46 to 48°N lat. Traill was evaluated in the Red River Valley of the North from 1991 to 1996. It was released because of its resistance to the soybean cyst nematode (SCN) \([Heterodera \text{ glycines}\text{ Ichinohe}]\), derived from PI 88788, and compared with SCN-resistant cultivars of similar maturity.

Traill originated as an F4-plant selection from LN86-4668 × ‘Resnik’ (3) made at the Illinois Agricultural Experiment Station, Urbana. LN86-4668 is a selection from the cross ‘Hardin’ (1,2). The original cross was made in the summer of 1987, and the F1 generation grown in the summer of 1989 was evaluated in replicated tests at multiple locations in Missouri and Illinois, 1992 through 1995. Maverick was selected, composited, and evaluated in replicated yield trials in Missouri and Illinois in 1991 and evaluated in replicated tests at multiple locations in Missouri and Illinois, 1992 through 1995. Maverick was released by the North Dakota Agricultural Experiment Station in 1996.

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References and Notes


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