REGISTRATION OF PLATTE SOYBEAN

'Platte' soybean [Glycine max (L.) Merr.] (Reg. no. 169) originated as an F₅ plant selection from the cross C1421 X 'Amsoy 71'. The parental lines were developed by the Purdue Univ. Agric. Exp. Stn. and the ARS-USDA. C1421 was derived from 'Adephia' X 'Mukden'. The F₂ population was harvested in bulk and advanced to the F₃ generation by a modified single seed descent method (2 pods per plant) and to the F₄ generation by the bulk method at the Nebraska Agricultural Experiment Station Lincoln Agronomy Farm. Single plants were harvested from the F₅ population. Prior to release, Platte was evaluated as U-56352 in yield tests from 1976 to 1978, and was entered into Nebraska intrastate tests and the Cooperative Preliminary and Uniform Tests II, Northern Region, from 1979 to 1981.

Platte is a Group II variety maturing two days earlier than 'Century' and is best adapted as a full season variety from about 40° to 43° N latitude. In Nebraska, Platte is superior to Century, 'Corsoy 79' and Amsoy 71 in yield and in resistance to lodging. However, under irrigation it has little advantage over Century. Platte has an indeterminate growth habit but has shorter internodes. It is similar to Century in mature plant height, but is 8 to 10 cm shorter than Corsoy 79 or Amsoy 71. Compared to Century, the seeds of Platte are smaller, have about 3% less protein and 4% more oil, but have similar seed quality scores. Platte has purple flowers, grey pubescence, brown pods at maturity, and yellow seeds with shiny luster and yellow (clear) hila. In high pH soils, Platte shows moderate chlorosis similar to that of Century. Platte has the Rps₄ gene and specific resistance to races 1,2 and 10 to 16 to Phytophthora rot caused by Phytophthora megasperma Drechs. f. sp. glycinea Kuan and Erwin. Platte has resistance to bacterial pustule caused by Xanthomonas campestris v. glycinea (Nakano 1919) Dye 1978.

Breeder seed of Platte was distributed to foundation seed organizations in Nebraska and South Dakota for planting in 1982. Platte was released in September 1982 by the Nebraska Agricultural Experiment Station which has designated the seed classes of Platte as breeder, foundation, registered and certified. The Nebraska Agricultural Experiment Station will maintain breeder seed. Other information is published in Nebraska Soybean Performance Tests 1982, EC83-104, Nebraska Cooperative Extension Service, 1982, Lincoln, NE 68508.

REGISTRATION OF VINTON 81

'Vinton 81' soybean [Glycine max (L.) Merr.] was developed by the Iowa Agriculture and Home Economics Experiment Station, the Puerto Rico Agricultural Experiment Station, and the Ohio Agricultural Research and Development Center. It is a large-seeded cultivar similar to 'Vinton' (1), but possesses the Rps₁ locus that provides resistance to races 1 to 9 of Phytophthora rot [caused by Phytophthora megasperma Drechs.] f. sp. glycinea Kuan and Erwin. Vinton is susceptible.

Vinton 81 originated from BC₃F₂ plants of the cross 347-4-4G-2-B X Vinton. Vinton is a specialty cultivar with about 45% protein and 22 g/100 seeds. B was selected as an F₂ line by the Ohio Research and Development Center for its resistance to Phytophthora rot. The line originated from Vinton X Higan made by the USDA-ARS and the Nebraska Agricultural Experiment Station. The four backcrosses to Vinton took place in Puerto Rico and Iowa. Tests for resistance to Phytophthora rot were conducted for each backcross generation at Wooster, Ohio. BC₄F₂ plants were selected and progeny tested for resistance to resistance to Phytophthora rot appearance were tested in Iowa for yield performance, and protein and oil composition. BC₄F₂-derived lines with similar appearance were bulked to form Vinton 81.

Vinton 81 has purple flowers, grey pubescence, tan pods at maturity, and dull yellow seeds with yellow hila. It is of Group I maturity and is best adapted to approximately 42° to 44° N latitude. Vinton 81 and Vinton have similar characteristics, except for their resistance to iron-deficiency chlorosis on calcareous soil.

Breeder seed of Vinton 81 was distributed to foundation seed organization in Iowa for planting in 1981. Breeder seed will be maintained by the Iowa Agriculture and Home Economics Experiment Station.

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References and Notes