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 'Adephia8 X 'Mukden'. The F2 population was harvested in bulk and advanced to the F4 generation by a modified single seed descent method (2 pods per plant) and to the F5 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-56355 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 Ervin. 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, Ec33-104, Nebraska Cooperative Extension Service, 1982, Lincoln, NE 68508.

REGISTRATION OF VINTON 81 SOYBEAN

'Vinton 81' soybean [Glycine max (L.) Merr.] (Reg. no. 169) 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 variety similar to 'Vinton' (1), but possesses the Rps1 locus that provides resistance to races 9 of phytophthora rot [caused by Phytophthora megasperma (Drechs.) f. sp. glycinea Kuan and Ervin] which is susceptible.

Vinton 81 originated from BC2F2 plants of 347-4-4G-2-2 X Vinton5. Vinton is a special yielding variety with about 45% protein and 22 g/100 seeds. L60-347-4-4G-2-B was selected as an F7 line by the Ohio Research and Development Center for its resistance to phytophthora rot. The line originated from L60-347-4-4G-2-B X Higan made by the USDA-ARS and the Nebraska Agricultural Experiment Station. The four backcrosses to phytophthora rot were conducted for a BC4 generation at Wooster, Ohio. BC4F2 plants of the cross were selected and progeny tested for resistance to phytophthora rot. The BC4F2-derived lines with similar 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 at maturity, and dull yellow seeds with yellow hila. Vinton 81 and Vinton have similar characteristics, except for their resistance to Rps4 tolerance of the herbicide metribuzin. Vinton is sensitive to metribuzin injury than Vinton 81.

Breeder seed of Vinton 81 was distributed to foundation seed organizations 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