REGISTRATION OF HW79149 SOYBEAN GERMPLASM

THE SOYBEAN \textit{[Glycine max. (L.) Merr.]} (Reg. no. GP48).

HW79149 was developed by the Ohio Agricultural Research and Development Center. HW79149 is a high yielding line containing two major genes for resistance to \textit{Phytophthora megasperma} Drechs. f. sp. \textit{glycinea} Kuwahara & Erwin (Pmg).

HW79149 was developed from a cross made in July, 1977, between two near-isolines (A72-507 × A1) × (A72-507 × PI 82.263-2). The two near-isolines were developed by the Iowa Agricultural and Home Economics Experiment Station and the Puerto Rico Agricultural Experiment Station by backcrossing Rps, \textit{rps} from A1 into A72-507 and backcrossing a Rps gene from PI 82.263-2 into A72-507. The source of the Rps, \textit{rps} gene in A1 was 'Fack'. The Rps gene in PI 82.263-2 has not been identified, however, it is at a different locus than Rps, \textit{rps} and it does confer resistance to races 4 and 5 which Rps, \textit{rps} does not. Rps, \textit{rps} confers resistance to race 7, which the Rps gene in PI 82.263-2 does not. A72-507 was derived from the cross 'Amsoy' × 'Wayne' and was in the uniform soybean tests northern states in 1974.

F\textsubscript{4}-derived lines were inacultivated with races 4, 5, and 7 of \textit{Pmg} and the homozygous resistant lines were bulked and entered as HW79149 into uniform preliminary soybean tests northern states in 1980 and in the uniform soybean tests northern states in 1981 and 1982. In those tests HW79149 had a similar yield to 'Williams 82', was 1 day earlier in maturity than Williams 82 and was more lodging susceptible. HW79149 was yield tested in the presence of \textit{Pmg} with the predominant races being 1, 3, 4, and 7 at Vickery, Ohio in 1980-1982. HW79149 yielded similar to Williams 82 and both significantly outyielded 'Williams'.

F\textsubscript{3} purification rows were grown in 1980 since HW79149 was segregating for hilum color and pod wall color. One F\textsubscript{4}-derived line was selected for increase. This line has white flowers, grey pubescence, and brown pods at maturity. Seeds have a shiny yellow seed coat with yellow hila. HW79149 is resistant to races 1-11 of \textit{Pmg}.

Seed of HW79149 will be maintained and distributed by the Dep. of Agronomy, Ohio Agric. Res. and Dev. Ctr., the Ohio State Univ., Wooster, OH 44691.

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Reference and Notes

1. Former associate professor, Dep. of Agronomy, now research scientist, Asgrow Seed Co., Redwood Falls, MN 56283, and professor, Dep. of Plant Pathology, Ohio Agric. Res. and Dev. Ctr., the Ohio State Univ., Wooster, OH 44691. Salaries and research support provided by State and Federal Funds appropriated to the Ohio Agric. Res. and Dev. Ctr., the Ohio State Univ., Wooster, OH 44691. Journal Article no. 52-83. Registration by the Crop Sci. Soc. of Am. Accepted 4 Aug. 1983.

REGISTRATION OF HW79149 SOYBEAN GERMPLASM LINE D75-10169

THE SOYBEAN \textit{[Glycine max. (L.) Merr.]} (Reg. no. GP49). HW79149 germplasm line D75-10169 originated from an F\textsubscript{4} line developed from crossing 'Govan' with an F\textsubscript{4} line from 'Bragg' × PI 229558. The cross Bragg × PI 229558 was made at

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