REGISTRATION OF 'AMCOR 89' SOYBEAN

'AMCOR 89' SOYBEAN [Glycine max (L.) Merr.] (Reg. no. CV-289, PI 546375) was jointly developed by the USDA-ARS and the Ohio Agricultural Research and Development Center. It was released in 1989 as a Phytophthora megasperma Drechs. f. sp. glycinea T. Kuan and D.C. Erwin (Pmg) resistant backcross version of the indeterminate cultivar 'Amcor' (4). It has specific adaptation to marginal (drought prone) soils and for late planting in a double cropping system.

Amcor 89 was developed using Amcor as the recurrent parent and 'Williams 82' (1) as the source of the Rps6 gene. Five backcrosses were made. The initial cross was made in 1980. To screen for resistance, two cycles were grown per year, one in the field and one in the greenhouse. Because of the cleistogamy of Amcor in the greenhouse, usually only one backcross per year was possible. Hypocotyl inoculation with culture suspension (injected with a hypodermic needle) was used in the greenhouse (5,7). The detached-cotyledon inoculation technique was used on field grown plants (6). Race 5 of Pmg was used as the source of inoculum. In 1985, 33 homozygous resistant BC2 F1- or F2-derived lines were identified in the fall greenhouse. These 33 lines were tested for seed yield in Ohio in 1986 and 1987. Eight of these lines were bulked to form breeder seed of Amcor 89 for planting in 1988. Amcor 89 was tested in the Uniform Soybean Tests, Northern States in 1988 under the designation HC Amcor.

Amcor 89 is an indeterminate Maturity Group II cultivar, which is similar in all respects to the recurrent parent, Amcor, with the exception of the addition of the Rps6 gene for resistance to phytophthora rot. It has purple flowers, grey pubescence, brown pods at maturity and shiny yellow seeds with yellow hilum. Amcor 89 averages 100 cm in plant height compared to 'Century 84' (9), and is better adapted to marginal soils and for late planting in a double cropping system.

Breeder seed of Amcor 89 was provided to Ohio Foundation Seeds for planting in 1989. Breeder seed of Amcor 89 will be maintained by the Ohio Agricultural Research and Development Center, Wooster, OH 44691. Plant Variety Protection for Amcor 89 is pending.


References and Notes

5. Keen, N.K., J.I. Sims, D.C. Erwin, E. Rice, and J.E. Partidge. 1971. 6a-Hydroxyphaseolin: An antifungal chemical induced in soybean hypocotyls...

F. J. MUEHLBAUER* AND W. J. KAISER (1)

References and Notes


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