infested soils at Stoneville and northeast Arkansas. It was evaluated in the Uniform Preliminary Group V Nursery at 8 locations in 1979 and in the Uniform Group V Nursery at 30 locations in 1980-1982. Epps is superior in productivity to the SCN Race 4 resistant variety 'Nathan' and is approximately 4 days earlier in maturity than Bedford. Its 5-year mean seed yield in the uniform regional trials closely approximates that for 'Essex'.

Seed was distributed for increase in 1983 in Tennessee, Mississippi, Arkansas, and Kentucky. The Tennessee AES will be responsible for maintenance of pure seed.

EDGAR E. HARTWIG (2)

References and Notes
2. Research agronomist, USDA-ARS, working in cooperation with the Delta Branch, Miss. Agric. and For. Exp. Stn., P.O. Box 196, Stoneville, MS 38786. Registration by Crop Sci. Soc. of Am. Accepted 24 Apr. 1984.

REGISTRATION OF WINCHESTER SOYBEAN

'WINCHESTER' soybean [Glycine max (L.) Merr.] (Reg. no. 178) is an F3 line from the backcross Williams\textsuperscript{2} X PRX12-112 and is resistant to Races 1 through 9, 11, 13 through 18, 21 and 22 of Phytophthora megasperma f. sp. glycinea Kuan and Erwin. PRX12-112 is an F3 selection from PI 86972-1 (Rps\textsuperscript{s}, Rps\textsuperscript{f}, Rps\textsuperscript{f}, Rps\textsuperscript{f}) homozygous for both genes.

The initial cross, Williams (rps) \times PRX12-112 (Rps\textsuperscript{h}, Rps\textsuperscript{h}), was made in 1977. Since no major genes for resistance have been identified in Williams and PRX12-112 has the genes Rps\textsuperscript{h}, Rps\textsuperscript{h}, the F1 plants from each backcross generation were inoculated with Races 2 and 7 of P. megasperma f. sp. glycinea to identify those plants carrying the genes Rps\textsuperscript{h}, Rps\textsuperscript{h}. Surviving plants were backcrossed to Williams and this process was repeated for six successive backcrosses, two in the greenhouse and one in the field each year. F\textsubscript{2} plants of Williams\textsuperscript{3} X PRX12-112 were inoculated with Races 2 and 7 of the pathogen to eliminate the homozygous susceptible F\textsubscript{2} plants. Seeds from 14 F\textsubscript{2} plants were planted 10 cm apart in rows 1 m apart in the field in 1980. The F\textsubscript{3} lines that appeared phenotypically identical to Williams were harvested individually and progeny from each line were tested in the greenhouse for reaction to Race 4 of P. megasperma f. sp. glycinea. Sixty-nine lines that were uniformly resistant in their reaction to the above races, indicating they were homozygous for the genes Rps\textsuperscript{h}, Rps\textsuperscript{h}, were composited and evaluated as Williams BC\textsubscript{6} in the Uniform Soybean Tests, northern States, in 1982 and 1983. These tests were conducted by research workers in USDA-ARS and in cooperating state experiment stations in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, New Jersey, Ohio, Pennsylvania, South Dakota, Wisconsin, and in Ontario, Canada. Miami was released to certified seed producers in Indiana and Wisconsin in 1983.

Miami is very similar to 'Wells' and Wells II in agronomic characteristics and in chemical composition of the seed. Like Wells and Wells II, Miami has purple flowers, gray pubescence, brown pods at maturity and dull yellow seeds with imperfect black hilum. Miami has a seedling emergence score of 1, indicating seedling emergence superior to that of Wells II, which has a score of 5. Miami is adapted to production in those areas where Group II cultivars have been successfully grown.

REFERENCES AND NOTES

1. Professor K.L.A., associate professor (F.A.L.), Dep. of Botany and Plant Pathology, Purdue Univ.; supervisory research geneticist USDA-ARS and professor (J.R.W.), Dep. of Agronomy, Purdue Univ.; research plant pathologist, USDA-ARS, and associate professor (T.S.A.), Dep. of Botany and Plant Pathology, Purdue Univ., W. Lafayette, IN 47907. Cooperative investigations of the USDA-ARS and the Purdue Univ. Agric. Exp. Stn. Journal Paper No. 9796 of the Purdue Univ. Agric. Exp. Stn. This research was supported in part by a grant from the Indiana Crop Improvement Association. Registration by the Crop Sci. Soc. of Am. Accepted 24 Apr. 1984.

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Miami is very similar to 'Wells' and Wells II in agronomic characteristics and in chemical composition of the seed. Like Williams, Winchester has white flowers, tawny pubescence, tan pods at maturity, and shiny yellow seeds with black hila. Winchester has a seedling emergence score of 1, indicating seedling emergence superior to that of Williams, which has a score of 5. Winchester is adapted to production in those areas where Group III cultivars have been successfully grown.