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III soybean, and is generally adapted from 39 to 41° N. Lat. In comparison with 'Harper', Resnik has 6% higher yield, 15% better seed quality score, 0.4 percentage units higher seed protein, and better emergence at 25°C. Harper and Resnik are very similar in height (84 cm), lodging score (1.5), maturity, Fe chlorosis tolerance scores (3.5 and 3.6, respectively), and shattering score (1.0). Resnik is comparable in performance to its sister line 'GR8836', except that it is one or two days earlier in maturity.

Resnik is resistant to at least 19 of the 24 described races of Pmg (susceptible to races 12, 16, 19, 20, and 25). It is also moderately resistant to purple seed stain (caused by Cercoспорa kikuchii T. Mat. & Tomoy.), soybean mosaic virus seed motting, downy mildew [caused by Peronospora manshurica (Naoum.) Syd. ex Gaum.], bacterial tan spot [caused by Corynebacterium flaccumfaciens (Hedges) Dawson], pod and stem blight [caused by Diaporthe phaseolorum (Cke. & Ell.) Sak. var. sojae (Lehman) Wehm.], and powdery mildew (caused by Microsphaera diffusa Cke. & Pk.). Resnik is susceptible to brown stem rot [caused by Phialophora gregata (Allington & Chamberlain) W. Gams], whereas its sister-line GR8836 is moderately resistant.

Breeder seed of Resnik was distributed to foundation seed organizations in Illinois, Indiana, Kansas, Maryland, Missouri, and Ohio for increase in 1987. Breeder seed will be maintained by the Ohio Agricultural Research and Development Center, The Ohio State University, Wooster, Ohio 44691. Resnik is protected under Title V of the Plant Variety Protection Act.


References and Notes
4. Dep. of Agronomy and Dep. of Plant Pathology, Ohio Agric. Res. and Development Ctr., R.L. Cooper, USDA-ARS, The Ohio State University, Wooster, Ohio 44691. Research supported in part by gifts from the Ohio Seed Improvement Association. Salaries and research support provided by state and federal funds appropriated to the Ohio Agricultural Research and Development Center, The Ohio State University, Manuscript No. 73-89. Registered by CSSA. Accepted 31 July 1989. *Corresponding author.


REGISTRATION OF 'FLYER' SOYBEAN

'Flyer' soybean [Glycine max (L.) Merr.] (Reg. no. 245, PI 534646) was developed by the Ohio Agricultural Research and Development Center of The Ohio State University (OARDC–OSU). It was released in 1988 because of its high seed yield in state and regional tests and its multi-race resistance to phytophthora rot [caused by Phytophthora megasperma f. sp. glycinea (Drechs.) Kuan & Erwin (Pmg)].

Flyer originated as a BC1:F1 plant selection from the cross 'A3127' × 'L24'. A3127 is a private cultivar; L24 is a 'Williams 82' (2). The first cross (A3127 × L24) was made at OARDC–OSU in summer 1979. The first backcross (A3127 × (A3127 × L24)) was made in summer 1980, the second backcross in winter 1980, and the final backcross in summer 1982.

A3127 BC1:F1-10 was tested at two locations in 1983. It was tested as HM8469 in Ohio in 1984. HM8469 was tested in the Ohio tests from 1985 to 1987 and in the Uniform Soybean Tests, Northern States, in Preliminary IVA in 1985, in Uniform III in 1986, and in Uniform III and IV and Preliminary IIIA and B in 1987. HM8469 was named Flyer in honor of the Wright brothers, whose aircraft, the Wright Flyer, was built in Dayton, Ohio.

Flyer has purple flowers, tawny pubescence, tan pods, and dull yellow seed with black hila. It is a Maturity Group IV soybean intermediate between Williams 82 and 'Sparks' in maturity, and is generally adapted from 38 to 40° N. Lat. In comparison with 'Resnik', a sister-line, it is 5 d later in maturity and equal in yield in Ohio tests but 1% lower yielding in regional tests. In comparison with A3127, Flyer has 10% higher yield in Ohio tests. Flyer was 1 to 2 d later and 8% higher yielding than Williams 82 in regional tests and 5% higher yielding in Ohio. Flyer is also 5 to 8 cm shorter and more lodging resistant than Williams 82 in most tests. Flyer was 6 and 4% higher in yield than 'Ripley' in regional and Ohio tests, respectively.

Flyer is resistant to at least 19 of the 25 described races of Pmg (susceptible to races 12, 16, 19, 20, and 25). It is also moderately resistant to purple seed stain [caused by Cercoспорa kikuchii (T. Mat. & Tomoy.)], pod and stem blight [caused by Diaporthe phaseolorum (Cke. & Ell.) Sacc. var. sojae (Lehman) Wehm.], and powdery mildew (caused by Microsphaera diffusa Cke. & Pk.).

Breeder seed of Flyer was distributed to foundation seed organizations in Illinois, Indiana, Kansas, Missouri, and Ohio for increase in 1988. Breeder seed will be maintained by the Ohio Agricultural Research and Development Center, The Ohio State University, Wooster, Ohio 44691. Flyer is protected under Title V of the Plant Variety Protection Act.


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REGISTRATION OF 'GR8836' SOYBEAN

'GR8836' soybean [Glycine max (L.) Merr.] (Reg. no. 246, PI 534647) was developed by the Ohio Agricultural Research and Development Center of The Ohio State University (OARDC–OSU). It was released in 1987 because of its high seed yield in state tests and its multirace resistance to phytophthora rot [caused by Phytophthora megasperma f. sp. glycinea (Drechs.) Kuan & Erwin (Pmg)] compared with other cultivars. The cultivar has been licensed to the Agricultural Genetic Research Association (AGRA) with exclusive rights to sublicense, produce, promote, and market the cultivar.