REGISTRATION OF ‘HOBBIT 87’ SOYBEAN

‘HOBBIT 87’ SOYBEAN [Glycine max (L.) Merr.] (Reg. no. CV-287, PI 546373) was jointly developed by the USDA-ARS and the Ohio Agricultural Research and Development Center. It was released in 1987 as a Phytophthora megasperma Drechs. f. sp. glycinea T. Kuan and D.C. Erwin (Pmg) resistant backcross version of the determinate cultivar ‘Hobbit’ (4), with specific adaptation to highly productive environments where lodging is frequently a problem with taller indeterminate cultivars.

Hobbit 87 was developed using Hobbit as the recurrent parent and ‘Williams 82’ (1) as the source of the Rps* gene. Five backcrosses were made. The initial cross was made in 1979. Three backcross cycles were completed each year. Hypocotyl inoculation with a 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 1983, 14 homozygous resistant BC5 F2-derived lines were identified in the field and greenhouse. These lines were tested for seed yield in Ohio from 1984 to 1985. Eight of these lines were bulked for form breeder seed of Hobbit 87 for planting in 1986. Hobbit 87 was tested in the Uniform Soybean Tests, Northern States in 1986 under the designation HC Hobbit BC.

Hobbit 87 is a determinate cultivar of Group III maturity, which is similar in all respects to the recurrent parent, Hobbit, with the exception of the addition of the Rps* gene for resistance to phytophthora rot. It has white flowers, tawny pubescence, tan pods at maturity, and shiny yellow seeds with black hila. Plant height averages 65 cm compared with 100 cm for Williams 82, resulting in greater lodging resistance for Hobbit 87 than Williams 82 (2,3). Hobbit 87 is recommended specifically for high yielding environments (≥3300 kg ha⁻¹) and is best adapted to the 39 to 41° N lat.

Breeder seed of Hobbit 87 was distributed to the foundation seed organization in Illinois, Indiana, Iowa, Nebraska, Missouri, and Ohio for planting in 1987. Breeder seed of Hobbit 87 will be maintained by the Ohio Agricultural Research and Development Center, Wooster, OH 44691. Plant Variety Protection for Hobbit 87 is pending.


References and Notes