200 and 198 g kg$^{-1}$, respectively. Average yield of Prolina was 13% less than Centennial. In North Carolina variety trials (1992–1994), yields of Prolina were equal to those of Centennial. Prolina has yellow seeds with shiny luster, buff hila, purple flowers, gray pubescence, tan pod walls, and determinate growth habit.

In 1994, breeder seed was provided to North Carolina Foundation Seed, Inc. Seed was distributed to other states by request and according to seed supply. The North Carolina Agricultural Research Service will be responsible for maintaining breeder seed. Small samples (500 seeds) of Prolina can be obtained from the corresponding author for at least five years.

J. W. BURTON,* T. E. CARTER, JR., R. F. WILSON (12)

References and Notes

12. USDA-ARS, 3127 Ligon St., Raleigh, NC 27607. Registration by CSSA. Accepted 31 July 1998. *Corresponding author (joe_burton@ncsu.edu).


Registration of ‘LS90-1920’ Soybean

‘LS90-1920’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-394, PI 604100) was developed by Southern Illinois University at Carbondale. It was released in 1996 because of its combination of resistance to soybean cyst nematode (SCN) (Heterodera glycines Ichinobe) Race 3 (7), and soybean sudden death syndrome (SDS) [Fusarium solani (Mart.) Sacc. f. sp. glycines]. LS90-1920 is a nonexclusive release for nonspecific brand labeling.

LS90-1920 originated as an individual F$_5$ plant selection from the cross ‘Essex’ x ‘Fayette’ (8–2). The F$_5$ and subsequent generations were advanced by single-pod descent (3). A single F$_5$ plant was selected on a field infested with SCN Race 3. Soybean cyst nematode resistance was determined in subsequent generations by greenhouse evaluation using SCN Race 3 infested soil collected from a field near Elkville, IL. Resistance was confirmed at the University of Arkansas by greenhouse evaluation against a SCN Race 3 isolate maintained on Essex and at the University of Missouri by greenhouse evaluation against a SCN Race 3 isolate maintained on ‘Hutcheson’ (4). LS90-1920 also was tested in five F. Solani infested environments in southern Illinois during 1993 to 1997. These trials were managed and scored as described earlier (5). LS90-1920 exhibited a high level of resistance, disease index score of 0.44 vs. 6.24 for ‘Delsoy 4710’, the SCN resistant cultivar, and 31.8 for ‘Spencer’, the susceptible check.

LS90-1920 was evaluated in the Regional SCN Tests (6) in 1994 and 1995 and the Uniform Soybean Tests—Southern Region (9) in 1993, 1994, and 1995. Seed yield of LS90-1920 was higher than Delsoy 4710, the SCN resistant check.

LS90-1920 is classified as a Maturity Group IV cultivar and matures 3 d later than Delsoy 4710 in a full season planting. Its range of adaptation is from approximately 35° to 39° N lat. It is determinate in growth habit, and has purple flowers, yellow with brown hila. Seed quality scores averaged 0.32 for LS90-1920, compared with 2.0 for Delsoy 4710. Seed size is approximately 133 mg seed$^{-1}$, compared with 168 mg seed$^{-1}$ for Delsoy 4710. Seed composition averages 423 g kg$^{-1}$ protein and 207 g kg$^{-1}$ oil on a dry weight basis.

LS90-1920 is resistant to stem canker [caused by Diaporthe phaseolorum (Cook & Ellis) Sacc. var. caulivora R.M. Caldwell] and frogeye leafspot caused by Cercospora sojina K. Hara.

LS90-1920 is released for nonexclusive licensing to seedmen for brand labeling. Seed maintenance and distribution will be handled by Gateway Seed Company, Van Buren Rd., Nashville, IL. Breeder seed will be maintained by Southern Illinois University at Carbondale, Carbondale, IL 62901. Small quantities of seed for breeding and research purposes may be obtained from Southern Illinois University at Carbondale for a minimum of 5 years from the date of this publication by writing the corresponding author.

M. E. SCHMIDT,* J. KLEIN, R. J. SUTTNER, AND O. MYERS, JR. (10)

References and Notes