Registration of ‘KS3494’ Soybean

‘KS3494’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-376, PI 586980) was developed by the Kansas Agricultural Experiment Station. It was released in 1993 because of its high yield potential. Prior to release, KS3494 was designated K1164.

KS3494 originated as an F4 single-plant selection from the cross ‘Harper’ × ‘Asgrow A3127’ (1). A3127 is a cultivar from the Asgrow Seed Company, Kalamazoo, MI, selected from the cross ‘Williams’ × ‘Essex’ (2,5). The population was advanced by the single-pod bulk method to the F4 generation in Belize and in Kansas. KS3494 was tested for yield in Kansas from 1987 through 1992 (4). KS3494 was evaluated in the Uniform Soybean Tests—Northern States (Group III test) from 1989 through 1991 (6).

KS3494 is classified as Group III maturity (relative maturity 3.4), about 1 d later than ‘Resnik’ (3). It is best adapted to latitudes 38° to 41° N for full-season production. Compared with Resnik, KS3494 exhibited a yield advantage of 5% in Kansas. KS3494 has an indeterminate growth habit, purple flowers, tan pubescence, and brown pods at maturity. Seeds are yellow, with black hila and a dull seed coat luster. Lodging score, oil content, and protein content are similar to those of Resnik; seed weight is 7 mg seed⁻¹ more and plant height is 3 cm taller than Resnik. Seed quality score for KS3494 is 1.9, compared with 1.7 for Resnik. KS3494 is susceptible to soybean cyst nematode (Heterodera glycines Ichinohe), brown stem rot (caused by Phialophora gregata (Allington & D.W. Chamberlain) W. Gams), and iron chlorosis.

Cultivar protection of KS3494 under the U.S. Plant Variety Protection Act, Public Law 91-577, has been granted (PVP Certificate no. 9500130). Breeder seed will be maintained by the Kansas Agric. Exp. Stn., Manhattan, KS 66506. Small quantities of seed for breeding and research purposes can be obtained from the corresponding author for at least 5 yr.

W. T. Schapaugh, Jr.*, (7)

References and Notes

Registration of ‘KS4694’ Soybean

‘KS4694’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-377, PI 586981) was developed by the Kansas Agricultural Experiment Station. It was released because of its high yield potential. Prior to release, KS4694 was designated K1191.

KS4694 originated as an F4 single-plant selection from the cross ‘Sherman’ × ‘Toano’ (1,3). The population was advanced by the single-pod bulk method to the F4 generation in Kansas. KS4694 was tested for yield in Kansas from 1993 and in the Uniform Soybean Tests—Northern States (Group IV test) from 1990 through 1993 (4).

KS4694 is classified as Group IV maturity (relative maturity 4.6), about 10 d later than ‘Flyer’ (2). It is best adapted to latitudes 37 to 39° N for full-season production. In regional trials, seed yield of KS4694 exceeded that of the late maturity Group IV checks by 4 to 8%. KS4694 has an indeterminate growth habit, gray pubescence, and brown pods at maturity. Seeds are yellow, with buff hila and a dull seed coat luster. Lodging score for KS4694 is 1.7, compared with 1.4 for Flyer. Seed weight is 26 mg seed⁻¹ more, plant height is 10 cm taller, oil content is similar, and protein content is 0.8 g kg⁻¹ less than Flyer. Seed quality score for KS4694 is 1.9 compared with 1.7 for Flyer. KS4694 is susceptible to soybean cyst nematode (HeteroderasglycinesIchinohe), brown stem rot (caused by Phialophora gregata (Allington & D.W. Chamberlain) W. Gams), phytophthora rot (caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann), and iron chlorosis. KS4694 is tolerant to metribuzin (4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one).

Cultivar protection of KS4694 under the U.S. Plant Variety Protection Act, Public Law 91-577, has been granted (PVP Certificate no. 9500131). Breeder seed will be maintained by the Kansas Agric. Exp. Stn., Manhattan, KS 66506. Small quantities of seed for breeding and research purposes can be obtained from the corresponding author for at least 5 yr.

W. T. Schapaugh, Jr.,* and R. E. Dille (5)

References and Notes
4. Wilcox, J.R. 1993. The Uniform Soybean Tests—Northern Region. USDA-ARS, Agronomy Dep., Purdue Univ., West Lafayette, IN.

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