Registration of ‘CF461’ Soybean

‘CF461’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-343, PI 590932) was released in 1995 because of its superiority in seed yield in both full-season and double-crop plantings compared with the public cultivars of similar maturity most widely grown in Kentucky.

CF461 originated as an F₄ plant selection from the cross Asgrow ‘A4595’ x DeKalb Pfizer ‘CX415’. The cross was made in the greenhouse in January 1986, and the F₁ plants were grown at the Kentucky Agricultural Experiment Station at Lexington in summer 1986. The progeny were advanced by modified single-seed descent for two generations at the Continuous Crop Improvement Company in Belize City, Belize, Central America. The F₄ plant was selected based on maturity at Lexington in 1987. The F₄-derived line was evaluated in Kentucky from 1988 through 1994 and in the Uniform Soybean Tests Northern States (Group IV) in 1991 through 1994 (2) under the designation KY88-5037.

CF461 is an indeterminate Maturity Group IV cultivar (relative maturity 4.6) that matures at the same time as ‘KS4694’ (2). Its latitude of adaptation for full-season production is about 36° to 40° N. Mature plants of CF461 are 12 cm taller than those of KS4694, and they lodge slightly more. Plants of CF461 have white flowers, tawny pubescence, and tan pods. Seeds are yellow, with black hila and intermediate seed coat luster; they have positive seed peroxidase activity. Seed size is 10% smaller than that of KS4694. CF461 has acceptable seed protein and oil concentrations: ≈410 g kg⁻¹ protein and ≈210 g kg⁻¹ oil on a dry weight basis. Compared with KS4694, seed yield of CF461 was 3% higher in 52 regional tests and 8% higher in 7 double-crop tests in Kentucky and Virginia (1,2,3).

CF461 is resistant to Races 1 and 7 of phytophthora rot (2) (caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemmann). It is susceptible to the soybean cyst nematode (Heterodera glycines Ichinohe) and to sudden death syndrome (caused by Fusarium solani (Mart.) Sacc.), Type A). U.S. plant variety protection has been applied for, specifying that seed be sold by variety name only as a class of certified seed. Classes of seed production are limited to Breeder, Foundation and Certified. Breeder seed will be maintained by the Kentucky Foundation Seed Project, Kentucky Agricultural Experiment Station, Lexington, KY 40546-0091. Small quantities of seed for research and breeding purposes may be obtained from the author for at least 5 yr. Foundation seed was distributed in 1995 with the marketing rights for CF461 licensed to Caverndale Farms, 1921 Bluegrass Rd., Danville, KY 40422.


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References and Notes


Registration of ‘CF492’ Soybean

‘CF492’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-342, PI 590931) was developed by the Kentucky Agricultural Experiment Station. It was released in 1995 because it has soybean mosaic virus resistant cultivars most widely grown in Kentucky. It also has high productivity in full-season and double-crop plantings.

CF492 originated as an F₄ plant selection from the cross K1099 x ‘Hutcheson’ (2). K1099 is a selection from ‘Williams’ (1) x ‘Asgrow 590931’ developed by the Crop Improvement Company in Belize City, Belize, Central America. The F₄ plant was selected based on maturity at Lexington in 1987. The F₄-derived line was evaluated in Kentucky from 1988 through 1994 and in the Uniform Soybean Tests Southern States (Group IVS) in 1991 through 1994 (4) under the designation KY88-4080. Resistance to soybean mosaic virus resistant cultivars most widely grown in Kentucky.

CF492 is an indeterminate Maturity Group IV cultivar (relative maturity 4.9) that matures 3 d earlier than ‘Manokin’ (4). Its latitude of adaptation for full-season production is about 35° to 39° N. Mature plants are 12 cm shorter than those of Manokin, and they lodge slightly more. Plants of CF492 have white flowers, gray pubescence, and tan pods. Seeds are yellow, with buff hila and dull seed coat luster; they have positive seed peroxidase activity. Seed size is similar to that of Manokin. CF492 has acceptable seed protein and oil concentrations: ≈410 g kg⁻¹ protein and ≈210 g kg⁻¹ oil on a dry weight basis. Compared with Manokin, seed yield of CF492 was 3% higher in 52 regional tests and 8% higher in 7 double-crop tests in Kentucky and Virginia (1,2,3).

CF492 is resistant to strain G2 of soybean mosaic virus (3). Evaluations in the Uniform Soybean Tests Southern States have shown CF492 to be resistant to soybean mosaic virus resistant cultivars most widely grown in Kentucky. CF492 has acceptable seed protein and oil concentrations: ≈410 g kg⁻¹ protein and ≈210 g kg⁻¹ oil on a dry weight basis. Mean seed yields of CF492 and Manokin have been similar in nearly 100 regional and state comparisons (4,6,8).

CF492 is resistant to strain G2 of soybean mosaic virus resistant cultivars most widely grown in Kentucky. Because its resistance is assumed to be due to allele (caused by Diaporthe phaseolorum [Cooke & Ellis] Sacc. f. sp. meridionalis Morgan-Jones). CF492 is susceptible to soybean mosaic virus resistant cultivars most widely grown in Kentucky. U.S. plant variety protection has been applied for, specifying that seed be sold by variety name only as a class of certified seed. Classes of seed production are limited to Breeder, Foundation and Certified. Breeder seed will be maintained by the Kentucky Foundation Seed Project, Kentucky Agricultural Experiment Station, Lexington, KY 40546-0091. Small quantities of seed for research and breeding purposes may be obtained from the author for at least 5 yr. Foundation seed was distributed in 1995 with the marketing rights for CF492 licensed to Caverndale Farms, 1921 Bluegrass Rd., Danville, KY 40422.


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