Registration of ‘Dillon’ Soybean

‘Dillon’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-368, PI 592756) was developed by the South Carolina Agricultural Experiment Station and cooperatively released by the Arkansas, North Carolina, and South Carolina Agricultural Experiment Stations in March 1995 because of its excellent seed yields, multiple pest resistance traits, and wide adaptation.

Dillon was derived from an F4 plant selection composited in the F5 from the cross ‘Centennial’ × ‘Young’ (4,5) made at Clemson, SC, in 1981. The F1 plants were grown at Isabela, PR, during the winter of 1981 and the F2 to F4 generations were advanced by modified single-seed descent (pod-bulk method) in South Carolina and Puerto Rico during 1982 and 1983. Evaluations of agronomic traits, nematode resistance, and seed yield were conducted in South Carolina from 1985 to 1987. Dillon, previously identified as SC84-931, was evaluated in the Uniform Soybean Tests, Southern Region, Preliminary Group VI, in 1990 (6) and in Uniform Group VI from 1991 to 1993 (9).

Dillon is a Maturity Group VI (relative maturity 6.7) cultivar that is ≈2 d earlier than ‘Lyon’ (7,9) and similar in maturity to ‘Brim’ (3) in South Carolina Variety Tests (1). It is adapted to the southern USA where Maturity Group VI cultivars are normally grown. It has determinate growth habit, purple flowers, gray pubescence, and tan pod walls at maturity. Mature plants of Dillon average 2 cm shorter than Brim. Dillon (1.5) has a slightly better lodging rating than Brim (1.7). Seed size of Dillon is 14.5 g 100 seed⁻¹, compared with 12.6 g 100 seed⁻¹ for Brim, and seed quality is similar to Brim (8,10). Seeds are yellow with buff hila, which vary in intensity from light to dark. Seed protein and oil average 424 and 207 g kg⁻¹ seed, respectively, compared with a corresponding 429 and 202 g kg⁻¹ seed for Brim (dry wt. basis) (10). Dillon has averaged slightly higher (1%) than Brim in seed yield across 41 environments in USDA Southern Regional Uniform Trials, 1995–1996. Dillon has averaged 2% higher than Brim in seed yield (1993–1995) in South Carolina Variety Tests (1).

Dillon is resistant to the southern root-knot nematode [Meloidogyne incognita (Kofoid & White) Chitwood] (9,10) and has averaged 50% higher in yield than Hoplolaimus columbus–intolerant ‘Braxton’ (2) in South Carolina fields infested with Columbia lance nematode (H. columbus Sher.). Dillon is resistant to the foliar diseases bacterial pustule [caused by Xanthomonas campestris pv. glycines (Nakano) Dye], soybean mosaic virus, and races of frogeye leaf spot (caused by Cercospora sojina K. Hara) prevalent in the southern USA. Dillon has shown an intermediate reaction to the southern biotype of stem canker disease [caused by Diaporthe phaseolorum (Cook) f. sp. meridionalis Morgan-Jones] in toothpick inoculations in Mississippi (8,9,10), but is rated susceptible under disease conditions at Beaumont, TX (8,9). Dillon is resistant to the soybean cyst nematode (Heterodera glycines Ich.).

Breeder seed of Dillon was released to the South Carolina Foundation Seed Association in 1995. Application has been made for U.S. plant variety protection, Title V option, permitting only foundation and certified classes beyond breeder seed. The South Carolina Agricultural Experiment Station will be responsible for maintenance of breeder seed. A small quantity of seed for research purposes is available for at least 5 yr from the corresponding author.


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References and Notes
