REGISTRATIONS OF CULTIVARS

Registration of ‘C-99R’ Peanut

‘C-99R’ peanut (Arachis hypogaea subsp. hypogaea var. hypogaea) (Reg. no. CV-71, PI 613135) cultivar was developed by the University of Florida Agricultural Experiment Station and approved for release in 1999. C-99R is a jumbo-runner market-type peanut with resistance to late leafspot [caused by Cercosporidium personatum (Berk. & M.A. Curtis) Deighton], stem rot or white mold (caused by Sclerotium rolfsii Sacc.), and tomato spotted wilt virus (TSWV, a tospovirus from the family Bunyaviridae). Tested experimentally as UF94320 and F84×9B-4-2-1-1-2-b2-B, C-99R was selected from a cross made in 1984 between two University of Florida breeding lines, UF81206-1 and F72×32B-13-1-3-2-B. UF81206-1 is a selection from UF81206 (PI 203396-1) and has multiple disease resistance to late leafspot, stem rot, rust (caused by Puccina arachidis Speg.) and TSWV. F72×32B-13-1-3-b2-B comes from a cross between PI 259785×‘Florigiant’ and has resistance to late leafspot and TSWV. This breeding material was developed primarily for resistance to late leafspot by pedigree selection conducted under unprotected field conditions (unsprayed, no leafspot fungicide) from F2 through F7. Seed from two single plants were bulked in the F7 for yield testing under unsprayed field conditions at Marianna in 1992. Sprayed and unsprayed tests were conducted from 1993 through 1997 in Florida. UF94320 was tested in the Uniform Peanut Performance Test from 1996 to 1997, with a southeast (Alabama, Florida, Georgia) yield advantage over ‘Florunner’ (Norden et al., 1969) of 1379 kg ha⁻¹ (Branch et al., 1997, 1998; Gorbet and Shokes, 2000).

C-99R has shown good resistance to late leafspot, stem rot, and TSWV, with greater pod yields, larger seed size, better grades, and better quality than the multiple-disease-resistant cultivar ‘Southern Runner’ (Gorbet et al., 1987). C-99R has shown consistently good pod yields with better seed quality (seed vigor and germination) than ‘Florida MDR 98’, with maturity and seed size similar to Florida MDR 98, being ≈2 wk later than Florunner (Gorbet and Shokes, 1998). C-99R has a runner growth habit with foliage color darker green than Southern Runner and Florida MDR 98 and with a more prominent mainstem. Seed of C-99R are similar in size, color (tan), and shape to Florida MDR 98, but slightly larger (70.4 vs. 67.6 g 100 seed⁻¹) (Gorbet and Shokes, 2000).

In unsprayed Florida yield tests, C-99R gave better pod yields than Southern Runner (7.3%) and Florida MDR 98 (5.6%), with total sound mature kernel grades between those of Southern Runner and Florida MDR 98 (80.4 vs. 79.6 and 81.2%, respectively). In inoculated (S. rolfsii) stem rot field studies (1997–1998), C-99R gave greater pod yields than Southern Runner, Florida MDR 98, Florunner, and ‘Georgia (Gorbet et al., 1987) and an F 1 plant from a cross of ‘Andru

50% oil content. Flavor and blanching data were also found to be acceptable (Gorbet and Shokes, 2000).

Application has been made for U.S. Plant Varieties Protection (PVP no. 200000182) for growing C-99R only as a class by Seed Producers, Inc., P.O. Box 309, Greenwood, FL 32443.

Breeder seed will be maintained by the Florida Agricultural Experiment Station.

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References


