Registration of ‘SunOleic 97R’ Peanut

‘SunOleic 97R’ peanut (Arachis hypogaea L. subsp. hypogaea var. hypogaea) (Reg. no. CV-65, PI 596800) was developed by the University of Florida Agricultural Experiment Station and was approved for release in 1997. SunOleic 97R is a multiline cultivar composed of three Florida breeding lines that originate from a BC\textsubscript{5F}\textsubscript{5} selection of a cross between F435-2-2-B-1-b4-B-b2-b3-1-B (high oleic) and a component line of ‘Sunrunner’ (F519-9), with the latter used as the female and recurrent parent (1,4). Both parents are A. hypogaea, with the F435- parent originating as a Spanish outcross selection from ‘Florispan Runner’. The cross to F519-9 and subsequent backcrosses were to develop a high oleic runner-type cultivar with acceptable yield and grades. Individual seed were analyzed for fatty acid composition after each cross and only high oleic seed were planted for successive crossings. ‘SunOleic 95R’ was the first high oleic cultivar released from this program (2,3). The three component breeding lines of SunOleic 97R were tested as F1334, 93Q5, and 93Q10 and went through an additional cycle of backcrossing and selection (BC\textsubscript{5F}\textsubscript{5})(1).

SunOleic 97R has a spreading runner growth habit with foliage color slightly lighter green than ‘Florunner’ and Sunrunner, with rounded to somewhat elongated seed that have a pink testa. The pods and seed of SunOleic 97R mature at approximately the same time as Florunner (135–140 d) in Florida and are similar in appearance to pods and seed of Sunrunner (4). SunOleic 97R showed a 10% yield advantage over Florunner, and a 14% yield advantage over SunOleic 95R in Florida tests (1993–1995). Grading data indicated SunOleic 97R to be equal to Florunner in total sound mature kernels (80.0 vs. 79.8%) and slightly larger in seed size, with 100-seed weight of 65.6 vs. 63.3 g and extra large kernel content of 22.5 vs. 15.0%, respectively.

SunOleic 97R was released because of its extremely favorable oil chemistry, with oil that has 81.8% oleic fatty acid, which is essentially like SunOleic 95R. Oil content in the seed of SunOleic 97R is the same as Florunner, approximately 48.5%. SunOleic 97R oil has an iodine value of 76 compared with 93 for Florunner. These values indicate that the peanut seed, peanut oil, and other products from SunOleic 97R should have a much longer shelf-life than Florunner, essentially like SunOleic 95R (1). Shelf-life studies conducted at the University of Florida and other laboratories support this hypothesis, indicating a 3- to 15-fold increase in shelf-life, compared with Florunner (1,2,5,6).

SunOleic 97R has no documented pest resistance. SunOleic 97R has shown slightly less susceptibility to tomato spotted wilt virus (TSWV) than SunOleic 95R but is still considered susceptible to this disease (1).

SunOleic 97R has been approved for USDA plant variety protection (certificate no. 9700182) and can only be sold for seed purposes as a class of Certified seed. SunOleic 97R can be grown only through contract arrangements with Florida Foundation Seed Producers, Inc. (FFSP), and all inquiries for seed should be directed to FFSP, P.O. Box 309, Greenwood, FL 32443. Breeder seed will be maintained by the University of Florida Agricultural Experiment Station. The University of Florida has a patent pending on this oil chemistry in peanut, and FFSP has an approved trademark for the SunOleic name.

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References and Notes
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