REGISTRATION OF VGP 1 PEANUT GERMPLASM
(Reg. No. GP 11)
T. A. Coffelt

VGP 1 peanut (Arachis hypogaea L. ssp. hypogaea var. hypogaea) was released as germplasm in 1979 by the AR-SEA-USDA and the Virginia Agric. Exp. Stn.

VGP 1, which traces to a single plant selection from PI 343381, was evaluated in area tests as VA 751607. Introduced from Israel, PI 343381 was a segregating breeding line from a cross between ‘Virginia Sihit Meshubahat’ and ‘Schwartz 21’. Seed from the individual plant selection were planted in a single row which was harvested in bulk. Seed has been maintained by bulking in each succeeding generation.

VGP 1 has a high level of resistance to cylindrocladium black rot (CBR) (caused by Cylindrocladium crotalariae [Loos Bell & Sobers]), a destructive disease of peanuts in the Virginia-North Carolina peanut-producing area. No chemicals are approved for control. In 11 tests during 1975-1978, VGP 1 averaged 71% fewer CBR-infected plants than ‘Florigiant’ (grown on over 95% of the peanut area in Virginia and North Carolina) when grown in infested fields. It did not differ in percent infected plants from ‘NC 3033’ or ‘Spancross’, two sources of previously identified resistance. Similar results were observed by visual estimates of the amount of pod and root damage due to CBR.

In limited field testing, VGP 1 has shown resistance to sclerotinia blight (caused by Sclerotinia sclerotiorum [Lib.] dby. [S. minor Jagger]) and moderate resistance to pod breakdown (caused by Pythium myriotylum Drechs. and Rhizoctonia solani Kuehn). It is highly susceptible to peanut rust (caused by Puccinia arachidis Speg.), the two-spotted spider mites (Tetranychus urticae Koch), and tobacco thrips (Frankliniella fusca Hinds) and is moderately susceptible to leaf spot (caused by Cercospora arachidicola Horii and Cercosporidium personatum [Berk. & Curt.] Deighton). 3

VGP 1 has a bunch growth habit and is similar to ‘NC-FLA 14’ in appearance. The light-pink-colored seed are similar to NC 3033 in weight (54 g/100) and the length/width ratio is about 1.7:1. Pods are moderately constricted with some pronounced veination and pubescence. Two-seeded pods are the most common (93%) with some single-seeded pods (6%) and an occasional three-seeded pod (1%). The pod length/width ratio is approximately 2.1:1. VGP 1 matures 5 to 7 days later than and yields 65-70% that of Florigiant on soils with or without CBR. However, limited testing has shown yields as high as 95% of Florigiant in fields with sclerotinia blight.

Limited quantities of seed (up to 100 g) will be provided for research purposes upon written request to the Tidewater Research and Continuing Education Center, Holland Station, Suffolk, VA 23437.

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