Registration of VGP 11 Peanut Germplasm

VGP 11 peanut (Arachis hypogaea L.) germplasm (Reg. no. GP-96, PI 584773) was developed and released cooperatively by the USDA-ARS and the Virginia Agricultural Experiment Station in 1997. VGP 11 was released because of its partial resistance to southern corn rootworm (Diabrotica undecipunctata howardi Barber), good blanchability, and more desirable pink testa color. It was tested experimentally as VA 861101.

VGP 11 was developed from 'NC 6' (1). NC 6 is the only available cultivar with resistance to southern corn rootworm. NC 6 is a large-seeded Virginia-type peanut with seed that have a tan testa color. Seed with a pink testa color were selected in 1984 from a seed lot of NC 6 with both pink and tan seed and planted in the field at Suffolk, VA, in 1985. VGP 11 resulted from an individual plant selection in this initial nursery in 1985. The progeny have been uniform for plant, pod, and seed characteristics since the initial selection. Subsequent generations have been maintained by bulking seed from several plants each year. Plants of VGP 11 are similar to NC 6 and have a spreading growth habit with green stems, green to dark green leaves, and no flowers on the main stem. Pods are large, Virginia market type, slight to moderate in pod constriction, slight to pod reticulation, and mostly two-seeded. Pods mature in about 145 to 150 d in Virginia. Fatty acid composition, seed size distribution, and shelling characteristics are also similar to those of NC 6 (4). VGP 11 differs from NC 6 in having larger seed (78.2 g vs. 73.7 g 100 seed), higher blanchability of extra-large kernels (81.6% vs. 72.6% whole blanched seed), and a more desirable seed testa color (pink vs. tan).

VGP 11 is acceptable commercially, and yields from 482 to 1240 kg ha⁻¹ more than current cultivars on heavier soils usually infested with southern corn rootworm (2), but yields 59 to 464 kg ha⁻¹ less on lighter soils where southern corn rootworm is not a problem (3).

Resistance to southern corn rootworm by VGP 11 was good but variable in initial screening tests (2). Further studies in the field and laboratory indicate that resistance to southern corn rootworm by NC 6 is present in both developing peg and pod tissues (5). Resistance by VGP 11 may be present only in developing pod tissues (5). VGP 11 should be a valuable source of resistance to southern corn rootworm for peanut breeders developing germplasm with resistance to southern corn rootworm while retaining good blanchability and the pink testa color desired by industry.

Seed of VGP 11 will be maintained by the Southern Regional Plant Introduction Station (SRPIS), Griffin, GA 30223. Small quantities of seed are available to qualified researchers upon written request to R.N. Pittman, Peanut Coordinating Committee, SRPIS, Griffin, GA 30223. Appropriate recognition should be given when this germplasm contributes to research or development of new cultivars or breeding lines.

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References and Notes


Published in Crop Sci. 38:1412 (1998).

REGISTRATION OF PARENTAL LINES

Registration of Pearl Millet Parental Lines

ICMB 89111 and ICMB 89111

ICMB 89111 (Reg. no. PL-34, PI 599191) pearl millet (Pennisetum glaucum (L.) R. Br.) is the maintainer line of ICMA 89111 (Reg. no. PL-35, PI 599192). ICMA 89111 and ICMB 89111 were released in 1997 by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, Andhra Pradesh, India.

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