

**United States Department of Agriculture
Natural Resources Conservation Service**

**Notice of Release of Brooksville 67 Germplasm Perennial Peanut
Tested Class of Natural Germplasm**

The Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture announces the release of a tested ecotype of perennial peanut [*Arachis glabrata* var. *hagenbeckii* (Harms) F.J. Herm.] for Peninsular Florida.

As a tested release this plant will be referred to as Brooksville 67 Germplasm perennial peanut. Once released, developing a more marketable name that can be trademarked will be explored with potential growers. It has been assigned the Plant Introduction number 262801 and is released as a tested class of vegetative plant material.

This alternative release procedure is justified because the demand for low maintenance ground covers is high and the existing commercial sources of perennial peanut are limited.

Collection Site Information: P.I. 262801 is listed on the USDA ARS Germplasm Resources Information Network as being originally collected from Argentina (10 km south of Ruta, Loreto Road), by W. Gregory of North Carolina State University. Vegetative material is still maintained by the Southern Regional Plant Introduction Station at Griffin, GA.

Description: Brooksville 67 Germplasm is a rhizomatous long-lived perennial legume in the *Arachis* or peanut genus, and is of the *glabrata* species, which naturally occurs in South America. Thick leaves with a shiny, waxy coating make it easy to differentiate from other *glabrata* accessions. The waxy coating may also make this accession less susceptible to insect and disease injury. Canopy height of mature stands can range from less than 1 inch to over 6 inches, depending on environmental conditions. It produces substantially less biomass than forage types of perennial peanut. Comparatively few flowers are produced. Flower color is yellow-orange. Mature stands form a dense mat of fleshy rhizomes, and seed is rarely formed under Florida climatic conditions (this accession did reportedly produce seed in Mayaguez, Puerto Rico). Plants are propagated by incorporating rhizome material into the soil. Depending on soil and moisture conditions, it takes from 1 to 3 years for stands to become fully established. This species is drought tolerant once established.

Method of Selection: In 1961, Brooksville 67 Germplasm, along with several other accessions of *Arachis* species, were obtained from the State University in Raleigh, North Carolina and planted in plots at the Plant Materials Center (PMC), which was then located at Arcadia, Florida. Over the next 5 years, the peanut plots were fertilized and maintained. In 1966, all accessions were evaluated for rapidity of spread and canopy closure. Some accessions were also tested for forage quality and production. The 10

highest rated accessions were selected, and moved to 3' x 4' plots at Brooksville, Florida in 1967, the new location of the PMC. Out of these 10 accessions, the forage variety 'Arbrook' was selected and released. The remaining plots were maintained until approximately 1974, and then abandoned and allowed to intermingle with each other. Because of its leaf characteristics, it was easy to differentiate Brooksville 67 Germplasm from the other accessions (see attached photo comparing NRCS material to stock maintained at Griffin, GA). In 1991, rhizomes of this accession were taken out of the original block and increased in isolation at the PMC under NRCS accession number 9056067.

Between 1991 and 2001, Brooksville 67 Germplasm was evaluated for adaptation at a variety of sites throughout Florida. See the attached description for full details.

Ecological Considerations and Evaluation: 'Floragraze', a forage variety of *Arachis glabrata*, has been planted widely throughout Florida, especially in pastures and citrus groves. To date, there have been no reports of this or any other type of perennial peanut reportedly invading adjacent native sites. Brooksville 67 Germplasm spreads less aggressively than Floragraze, and is therefore expected to be even less likely to invade native sites. Perennial peanut does not survive in heavily wooded areas, areas with high water tables, or in highly droughty, sandy areas. It spreads only through rhizome growth or the translocation of rhizome material. When establishing, conditions must be moist and favorable for rhizome material to survive without supplemental irrigation. Perennial peanuts are extremely slow to establish, and will grow in conjunction with other species, especially grasses. They can be destroyed fairly easily using repeated applications of broadleaf herbicides such as dicamba.

Although they are not known to be invasive, perennial peanuts could potentially move into adjacent areas if conditions are favorable. Along roadways, it is recommended that they only be planted in areas surrounded by physical barriers, such as median strips. When planted in pastures or groves, they should not be planted adjacent to native areas that might favor the growth of perennial peanuts. In urban areas, they will spread into adjacent vegetated areas unless they are contained with physical barriers. For further information, see the associated environmental impact assessment.

Anticipated Conservation Use: Brooksville 67 Germplasm was selected for use as a low-growing, low-maintenance ground cover. In groves, perennial peanut reduces the amount of mechanical tillage and mowing necessary to control weeds in alleyways, and provides a sustainable source of nitrogen. Along roadways and in urban areas, it provides a low-maintenance, drought tolerant, disease resistant ground cover. Grass species growing within perennial peanut stands appear noticeably greener from the nitrogen produced by the peanuts. Brooksville 67 Germplasm is not recommended for turf, because it does not respond well to repeated low mowing.

Anticipated Area of Adaptation: Brooksville 67 Germplasm prefers moist, moderate to well-drained sandy or loamy soils in full sun or partial shade. In Florida adaptation studies, it survived in locations within USDA Plant Hardiness Zones 8b and 9. In 1965,

Brooksville 67 Germplasm and several other perennial peanut accessions were planted at the Americus, GA PMC. Brooksville 67 Germplasm was reported as recovering poorly from winterkill compared to most other species. In this same study, no Arbrook plants recovered from winterkill.

Availability of Plant Materials: Rhizomes will be maintained at the USDA NRCS Plant Materials Center in Brooksville, Florida, and are available in limited quantities to interested parties.

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Signatures for release of:

Brooksville 67 Germplasm Perennial Peanut (*Arachis glabrata* var. *hagenbeckii*)

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