

**Natural Resources Conservation  
Service – Caribbean Area**

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# Technical Note

**Ecological Sciences Note No. 002**  
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Figure 1. *Arachis pintoi* under Coffee Orchard, between rows.



Figure 2. *Arachis pintoi*

## Using Perennial Peanut (*Arachis pintoi*) as Permanent Cover Under Coffee or Other Trees

**The Conservation Issue:** The establishment phase of a newly planted coffee field can increase the potential for soil erosion and other resource issues, such as reduced soil health, especially if the planting is done on steep slopes where most of the vegetation has been removed. While the coffee orchard canopy may provide protection for the soil by covering it, it may take several years before it is fully grown.

**Perennial Peanut:** Where sunlight is available, perennial peanut (*Arachis pintoi*) becomes a fast-growing legume plant that is known for its ability to fix atmospheric nitrogen to the soil. Since perennial peanut is low growing, it will not interfere with coffee or other tree production. Peanut root systems can grow several inches into the soil improving soil structure, reducing soil erosion, increasing water infiltration and retention, and improving soil health.

**Where to plant:** Perennial peanuts should be considered where erosion potential is high or where improving stability and soil health is a desired condition. Since perennial peanut requires some sunlight, a minimum of 40% sunlight is recommended when planting, this percentage is the same as other warm season perennial cover recommendations. New coffee plantings are ideal situations for peanuts. Peanuts can be planted prior to the addition of coffee or just after. Other opportunities include planting in younger coffee stands or even older stands when there is less shade.

**Prior to Planting:** Ensure existing vegetation where peanuts will be planted is terminated. Terminate chemically, mechanically or remove by hand.

**How to plant:** Planting perennial peanuts by plugs has been successful in Puerto Rico. Perennial peanut plugs should be planted on a 12 x 12-inch pattern spacing. Use plugs with at least three stems per plug to ensure fast growth. It is not recommended to plant directly under trees, as this area will be shaded by coffee quickly. Existing residue on the ground does not cause problems as long as plugs are in the ground and the vegetative portion is above any residue. Plugs should be planted using a hand spade or a “dibble” bar. Plugs should be planted firmly in the soil. Use hands or a foot to firm up the area around the plugs but do not step on the plant directly.



Figure 3. *Arachis pintoi* plug with three cuttings per plug and a well-developed root system.



Figure 5. Planting using "dibble bar"



Figure 4. Crew Planting Peanuts

**Operation and Maintenance:** During the first six months after planting, competing weeds must be managed. A motorized weed eater is the best method for reducing weed competition. This may be required up to three times during the first few months. Never “weed eat” down to ground level the peanuts, leave at least 4 inches of peanut vegetation above the ground surface to ensure perennial peanut weed suppression characteristics. Maximum above ground peanut vegetation is important to the plant’s overall health and its ability to expand into other areas.

**Note:** Perennial peanuts will cause no issues with coffee production. Once well established, less maintenance, will be needed to manage unwanted vegetation since peanut will suppress unwanted vegetation growth. Once established, peanuts should expand and cover all areas where sunlight is available. As the coffee (or other trees) canopy expands, the perennial peanuts will retreat from shaded areas but not die, they will continue to provide protection to otherwise unprotected areas throughout the planted areas.

**Information:** For more information on conservation covers and Tech Note 002, you will follow general guidance found in the [Conservation Cover \(327\)](#) practice standard.

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