



## Perennial Peanut Groundcover

Perennial peanut (*Arachis* species) has been introduced to Hawaii as an effective and attractive landscape groundcover and cover crop for orchards. In other tropical and subtropical areas, perennial peanut has been used as a forage and fodder crop as well as a cover crop. It is extensively used for pastures in Florida, Central and South America, New Zealand, and Australia. It was nicknamed "Florida's alfalfa" because its nutrient content as an animal feed is similar in quality to alfalfa's.

Perennial *Arachis* species are native to tropical South America and are wild relatives of the cultivated edible peanut, the annual *A. hypogaea*. Two species and at least two cultivars of perennial peanut are currently grown in Hawaii; all are commonly referred to as perennial peanut.

*Arachis pinto* 'Golden Glory' (perennial peanut, pinto peanut) is becoming popular as a landscape groundcover that is particularly useful for sloping banks. It is established vegetatively, with stolons or stem cuttings either sown directly or container-grown and transplanted. *A. pinto* 'Amarillo' was developed in Australia for forage and groundcover uses. 'Amarillo' differs from 'Golden Glory' in that the leaf undersides are hairy, while the undersides of 'Golden Glory' leaves are smooth. The flowers of 'Golden Glory' have slightly shorter stalks. 'Amarillo' is established from seed (which is seasonally available in Hawaii) or vegetatively with stolons or cuttings, either sown directly or by container-grown transplants.

*Arachis glabrata* (perennial peanut) is widely used in Florida as a forage and orchard cover and is also found in Hawaii. The leaves of this species are somewhat longer than those of *A. pinto*, and it produces fewer flowers. *A. glabrata* is propagated with stolons.

### Characteristics

Perennial peanut species and cultivars are crawling, non-twining, nitrogen-fixing legumes. The plants have four oval



leaflets on each petiole and yellow, pea-like flowers. The seed is an underground nut, one per pod, which is not edible. The plants flower year-round, and flushes of flowers occur after wet periods following dry weather and after pruning.

### Culture

Perennial peanut adapts well to a range of tropical environ-

ments from sea level to 5000 ft elevation. Irrigation or a reasonable amount of rainfall result in the best growth, and irrigation during establishment increases the stand and reduces the time to cover. Leaves drop during extended drought periods, and the foliage yellows during wet periods in poorly drained soils.

These plants tolerate a range of soils but grow best in sandy loam soils. They grow well in soils with pH ranging from 5.5 to 7.5; soils with pH outside that range should be amended to adjust pH. Tolerance of soil salinity and airborne salt is moderate. Best growth is in full sun, but light to medium shade is tolerated. The plants do not climb trees or other tall, upright objects.

Perennial peanut does not generally require applications of nitrogen fertilizer. This legume "fixes" nitrogen from the air in the soil when the correct type of rhizobium bacteria (cowpea type) is present in the soil. Cowpea rhizobia are present in most tropical soils, but where they are not, use a commercial rhizobium inoculant on the propagation material (seed pods, seeds, or stolons) to ensure nitrogen fixation. Alternatively, mix the inoculant or soil from an established stand of perennial peanut into propagation media, or spread such soil lightly on new plantings.

Soil analysis prior to planting can indicate the need for other soil amendments and fertilizers. Addition of nutrients will be required if analysis levels are less than 30 ppm phosphorus (P), 125 ppm potassium (K), or 40 ppm magnesium (Mg). Fertilizers should be mixed into the soil rooting zone before planting. Soil pH above 7.5 may result in micronutrient deficiencies.

The plants form a thick mat of vegetation that “self-mulches,” recycling nutrients as mown or fallen leaves decay.

### Establishment

Perennial peanut can be established using seeds, stolons, or cuttings. The plant does not like to climb uphill, so plant it at the top of slopes and let it grow downward.

*Seeds.* Perennial peanut establishes readily from seed, but seeds may be expensive and difficult to locate. Plant seedpods or husked seeds  $\frac{1}{2}$  inch deep in pots or directly in prepared soil. Use  $\frac{3}{4}$ –1 lb of seed per 1000 square feet. Keep the soil moist but not wet. Germination begins within 10–14 days, but 2–5 months are required to establish a uniform, dense cover by direct seeding.

*Cuttings.* Cuttings may take longer than direct seeding to establish a dense cover, but they may be more readily available. Stem cuttings should be 4–8 inches long and partially buried 3–5 inches deep in soil in pots or a prepared seedbed. To establish a uniform cover rapidly, plant cuttings 10–15 inches apart. They will root in 2–4 weeks and establish a uniform cover within 2–5 months, depending on conditions and spacing. Make sure stem cuttings do not dry out during rooting.

*Stolons.* Stolons (runners, sprigs) are “mini-plants” complete with roots. They develop from specialized stems that lay on the ground and produce roots at the nodes. Stolons should be treated as transplants, carefully removed from the ground, and covered to prevent drying during transport or storage. Plant them as quickly as possible. Remove stolon sections from the mother plant and place each rooted plantlet  $\frac{1}{2}$ –1 inch deep in the soil. Be careful not to bury the plant too deeply. Space transplanted stolons 10–12 inches apart. Keep moist during establishment. Stolons will produce a uniform groundcover in 2–5 months.

*Potted transplants.* Potted transplants are available from nurseries and garden shops. Dig a hole slightly larger than the pot. Remove the plant from the pot and loosen the roots from the potting soil before placing it in the hole. Cover the roots but do not bury the plant too deeply, never more than 1 inch. Water well, and keep moist throughout the establishment period.

### Post-planting care

Irrigate as necessary during establishment to keep the bed moist but not too wet. Encroaching weeds need to be controlled during establishment by mowing, hoeing, hand-weeding, or application of herbicides. The herbicides

Dual<sup>TM</sup>, Balan<sup>TM</sup> Granular, Treflan<sup>TM</sup> Granules, Snapshot<sup>TM</sup> Granular, Fusilade II<sup>TM</sup>, and Vantage<sup>TM</sup> are not harmful to perennial peanut when applied at the recommended label rate.

Regular mowing helps perennial peanut to form and maintain a dense mat. Cut at a height of 4–5 inches at 8–10-week intervals. If the stand is allowed to grow too tall (10–12 inches), mowing will expose the soil and bare stems, which could weaken the stand during dry weather.

Slugs and snails can be a problem during establishment and may require control. Snails and slugs feed at night, and large populations will quickly devastate a new planting. Pesticide baits can be effective against slugs and snails; follow the recommendations on the pesticide label.

Perennial peanut does not grow more than 8–12 inches high. As with most groundcovers, periodic edging is necessary to keep the plants confined within a bed or to keep them from growing over walks and curbs. If desired, mowers or weed-whackers can be used to control plant height.

### Landscape uses

Once established, perennial peanut reduces soil erosion and shades out most weeds. It regenerates itself as seeds germinate when top-growth dies. As a living mulch, it protects the soil from being sealed by the impact of raindrops, helps retain moisture, improves soil structure, and benefits soil microorganisms.

The perennial peanut has many uses in home and commercial landscapes. It makes an excellent bank or slope cover in full sun or light shade. The landscape texture of the plant is medium, contrasting nicely with fine-textured lawn grasses. Because of its regular and prolific flowering, the plant bed color is a mixture of green and yellow. The plant can be effectively used to cover either large or small areas. It can be planted among upright plants and will not climb them. It will compete with other ground-covers.

### Pests

Perennial peanut has few serious insect or disease problems. Slugs, snails, and Chinese rose beetles will feed on the leaves and at times it may be necessary to control them to limit damage. Yellow leaves may be due to micronutrient deficiencies if the soil has an alkaline pH. Some herbicides such as Ronstar<sup>TM</sup> can yellow the leaves and kill the plant.

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