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PEANUTS

It is easy to grow many vegetables in Hawaii including the popular peanuts (<u>Archis hypogaea</u>) eaten by almost everyone. Peanuts thrive in warm weather and require a relatively long growing season. It does best in temperatures ranging from 60-90°F., preferring the warmer temperature.

Varieties

There are two distinct groups of peanuts, the bunch type and the runner type; the latter spreads widely on the ground. The two general type of peanuts are the Spanish type variety which has small sweet pods with 2-3 kernels to a pod, a more dwarf bush which grows close to the ground. It is easily cultivated, gathered, and a heavy bearer and is a widely grown variety. The 'Jumbo Virginia' is a variety of the runner type. Virginia type variety produces 1-2 large kernels per pod and matures approximately within 120 days. An unclassified variety called 'Valencia' is also grown in Hawaii.

Soil Management and Fertilization

A wide range of soil types from sandy loam to gravelly loam soil is best for peanuts. A light soil color is also important. Good drainage also is necessary. A soil pH of 5.6 - 6.2 is desirable. Heavier soils should be well tilled and drained. The color of the pods depend on the soil color; pods become darker in dard red soils especially when soils have high moisture capacity and is clayey in nature. Tilling the soil deeply about 8-10 inches and adding sand and compost to the clayey layer will improve the aeration of the soil. The addition of calcium to the soils where the pH is below 5.8 will generally increase the yield. Addition of phosphate and potassium fertilizers will also insure good roots to develop. If manure is to be used, mix it well into the soil 1-3 months prior to planting. Apply fertilizer such as 10-20-20 at the rate of 2-3 pounds per 100 square feet at the time of planting and again when plants are about 4-6 inches tall. Fertilizer may vary according to the soil. Thereafter, 1-2 applications by side dressing before flowering will insure the plants of a sufficient quantity of nurtients till maturity.

Planting

Plant the seed in $1-\frac{1}{2}$ to 2 feet rows. The seeds can be planted either with the hull or shelled, but no deeper than 2 inches and about 10-18 inches apart.

Irrigation

Irrigate peanuts as often as necessary to prevent early setback of plants. It is quite important to lessen the amount of water when peanuts near maturity since excess moisture will darken the peanut shell particularly if the soil color is dark.

Cultivation

Peanuts must be kept weed free and be frequently cultivated. Shallow cultivation will keep the ground tilled at a mellow but not a loose condition. Hill rows as you would in potatoes when plants reach 10-12 inches tall. This is important when the decuncle appears. As the peduncle grows, it will force its way into the mounded soil and peanuts will begin to form. Mulch between rows. After flowering, disturb the plant as little as possible.

Insect Control

Common insect pests found on peanuts are thrips, leafhoppers, mealybugs, aphids, mites, white flies, and cutworm. These pests can be controlled with some success with applications of malathion, carbaryl, diazinon or sulphur.

Disease Control

The disease most commonly found infecting the peanuts are damping off fungi, leafspot and blight. The damping off fungi causes rotting of newly planted seeds or newly emerged seeds. The leafspot fungi can be controlled by mancozeb/benomyl combination. The blight fungi may attack the stem and pegs, causing death of plants under very moist conditions. Drenching the base with PCNB (Terraclor) will aid in controlling this disease.

Root knot nematode is a serious problem since it will attack the roots of the plant causing galls on them. It can also cause pimple-like growth on the peanuts. Soil fumigation or incorporation of chitin before planting will help to control this pest.

Harvesting

The peanut leaves will generally turn yellow at maturity and most of the leaves will drop. With a garden fork, spade or potato digger, loosen the soil area around the plants and then lift the plants out of the ground. Shake free of all soil and pick up remaining pods which have broken from the plant. Pods are generally plucked immediately from the roots. It is quite important that peanuts be removed soon after the pods are matured since high moisture content may increase the rate of germination. It is quite difficult to permit late maturing nuts to ripen and yet save those maturing early unless soil moisture and temperature conditions are ideal, consequently few of the older nuts must be sacrificed. The object, of course, is to dig the crop at the stage when the largest number of mature pods can be saved.

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