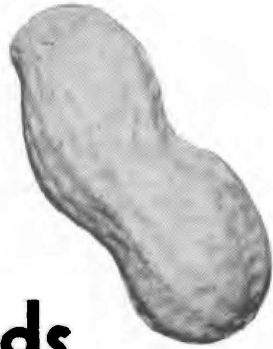
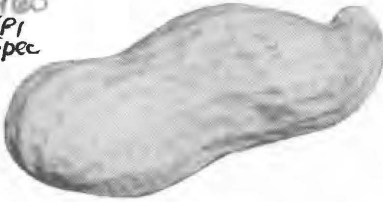
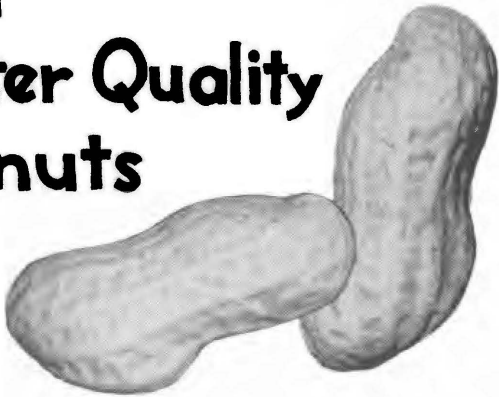


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Larger Yields and Better Quality Peanuts



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V. P. I. AGRICULTURAL EXTENSION SERVICE
BLACKSBURG, VIRGINIA

HIGHER YIELDS AND BETTER QUALITY PEANUTS

The average yield of peanuts in Virginia can be increased 25 percent in the next few years through better production practices.

Follow the important production practices outlined here to increase your peanut yields and profit per acre.

Select Good Soils

Peanuts grow best on sandy, well-drained soils with light to moderately heavy textured subsoils. Norfolk, Sassafra, Ruston and Marlboro are excellent peanut soils. Use the best peanut soils on your farm for peanuts and other soils for crops that are not as exacting in soil type requirements.

Select Proper Varieties

Select one of the following varieties to suit your soil.

Holland Jumbo (runner) for light, sandy soils.

Virginia Bunch (bunch) for dark, heavy soils.

Virginia 56-R (runner) for light or dark soils.

Ga. 119-20 (bunch) for light or dark soils.

Use Good Seed

Treated, machine-shelled peanuts of unmixed recommended varieties or of adapted varieties that have performed well in your locality are satisfactory for efficient peanut production. Certified peanut seed, however, insures a definite variety and more uniformity in the crop.

Approximately 75 pounds of shelled peanuts are needed to plant one acre, but the exact amount depends on the variety, row width and drill spacing.

Treat Seed Before Planting

To prevent seed decay and to improve stands, treat peanut seed with Arasan. Use a minimum of 3 ounces of Arasan per 100 pounds of shelled nuts as soon after shelling as practical. Use up to 6 ounces on poor quality seed. Most shellers are equipped to treat peanut seed, and farmers should take advantage of this service when their seed peanuts are shelled. Peanuts can be treated on the farm in 50- to 100-pound lots with a barrel-type treater or by rolling the seed back and

forth on a canvas until they are thoroughly covered with the disinfectant.

Caution: Seed disinfectants are poisonous. Treat your seed in the open or in a well-ventilated building. Avoid breathing the dust or handling it with your bare hands. Keep treated seed away from children and livestock. Use treated seed for planting only.

Inoculate When Needed

The application of an inoculant (nodule forming bacteria) to seed may be beneficial if peanuts are planted in soil never planted in peanuts before or in soil not planted in peanuts for several years. Since chemical disinfectants may kill some of the inoculant, be sure to follow this procedure: First, treat seed with the disinfectant (Arasan) at any convenient time, and then add the inoculant just before planting.

Prepare a Good Seedbed

Plowing is the most important step in preparing a good seedbed. Turn cover crops under 3 to 4 weeks before planting. Plow the soil so that all crop refuse is completely buried at least 4 to 6 inches deep. This is the first step in controlling stem rot.

Disk and harrow the seedbed just before planting to help control early weeds and insure a more uniform stand of peanuts.

Plant on Time

Peanuts are normally planted during the month of May, depending upon weather conditions, soil temperature, soil type, etc. On light-textured soils that warm up early in the spring, peanuts planted during the first two weeks of May give better results. On heavy soils that are slower in warming up, it may be advisable to delay planting until later in May to insure quicker germination and better stands. It is important to have a large vigorous plant at blooming time.

Plant Thick for Higher Yields

For highest yields, the row width for bunch varieties should be as narrow as can be handled with present farm machinery down to 24 inches.

There is little to be gained by planting runner peanuts in rows closer than 30 inches.

Plant bunch varieties 4 to 6 inches apart in the row, and runner varieties 6 to 8 inches apart. This practice will increase both yield and quality.

Fertilize Adequately

Fertility studies have shown that the fertilizer for peanuts may be applied to the previous crop in the rotation or to cover crops. If peanuts are not fertilized in this manner, 400 to 600 pounds of 0-10-20, 0-9-27 or equivalent in some other analysis should be plowed under or disked in before planting. Muriate of potash may be substituted at the rate of 150 to 200 pounds per acre on soils very high in phosphorous and low to medium in potash.

Apply Lime Cautiously

Make soil tests before planting peanuts. Be sure to keep the pH between 5.7 and 6.2. If the pH is below 5.7, apply dolomitic limestone at the rates recommended according to soil test results. Equivalent amounts of burned or hydrated lime containing magnesium may be used.

Overliming causes manganese deficiency, recognized by stunted plant growth and yellowing between the veins of the leaves. Manganese sulphate at the rate of 20 pounds per acre may be used to correct this injury. The pH on overlimed soils may be reduced over a period of years by the use of acid forming fertilizers and nitrogen materials, legume cover crops, manure, and the fertilization of cover crops to produce more organic matter.

Use Gypsum for Calcium

The use of gypsum (land plaster) is very important on soils low in calcium. Since the developing peanuts get calcium through the pods, it is very important to have sufficient calcium in the fruiting zone for maximum peanut development. The use of 400 to 600 pounds per acre of land plaster in late June at early blooming time will increase yields, improve quality, and reduce "pops". Apply land plaster in a wide band over the row for bunch peanuts and broadcast for runner peanuts.

Cultivation

Many weeds and grasses can be controlled in peanuts through timely cultivation with rotary hoes, peanut weeders and cultivators. Cultivate peanuts so that as little soil as possible is thrown to the base of the plants or on the vines. This is the second step in controlling stem rot.

The first cultivation can be eliminated by the use of dinitro as a pre-emergence herbicide. This practice also helps to eliminate the necessity of throwing soil to plants in later cultivations.

The last cultivation should leave a wide flat row to enable the pegs to penetrate the soil more easily.

Chemical Weed Control

Dinitro is recommended as a pre-emergence spray for chemical weed control on peanuts. It can be applied at the rate of 1 gallon per acre for 12-inch bands on 36-inch rows, or 3 gallons per acre as an over-all spray. A delayed over-all application of two gallons per acre can also be used as the peanuts are cracking the ground.

See V.P.I. Extension Mimeograph 214, "Chemical Weed Control in Peanuts," for complete details.

If dinitro is used, aldrin or heptachlor should not be applied on top of the row until the first cultivation.

Control Insects

Among the three most destructive insect pests of peanuts are thrips, potato leafhoppers, and the southern corn rootworm. Thrips attack the developing leaves soon after the young plants emerge and cause a condition known as "pouts". Leafhoppers cause "tip burn" of the leaves during July and early August. The southern corn rootworm feeds on the developing pegs and pods and is usually more severe on dark heavy soils.

One application of 2 pounds of aldrin or heptachlor per acre, correctly applied, will control both the southern corn rootworm and thrips.

The insecticides can be applied in granular form in concentrations ranging from 2 to 10 percent. Use the granular formulation best adapted to the application machinery available. Treatments also may be made using a 5 percent dust

at 40 pounds per acre. The insecticide should be applied evenly over soil surface before first cultivation and cultivated into soil immediately.

The leafhoppers can be controlled by the use of a 5 percent DDT dust or a DDT-sulphur mixture, provided the vines are not to be used for hay. See V.P.I. Extension Circular 586 "Control of the Southern Corn Rootworm in Peanuts."

These recommendations failed to control the southern corn rootworm in certain areas during 1958 and 1959. Where such failures have occurred, or are anticipated, consult your county agent or the Extension entomologist, V. P. I., for further information.

Dust for Leafspot Control

Sulphur dusting may increase peanut yields 20 to 30 percent, depending upon the severity of the leafspot and leafhopper attack. Dust peanuts 3 or 4 times with a conditioned 325 mesh sulphur at 2 week intervals at the rate of 15 pounds per acre per application. Begin dusting about the middle of July; however, peanuts may be dusted the first time as early as the first week in July and as late as August 1, depending upon the variety, time of planting, and need for leafspot and leafhopper control.

If leafhoppers are numerous and causing injury, use a 5 percent DDT sulphur mixture at the rate of 20 pounds per acre for one of the sulphur applications. Do not use on peanuts if vines are to be used as hay for livestock. Growers who have had difficulty in controlling leafspot with sulphur should use a sulphur-copper mixture.

Stem Rot

Careful plowing that turns all crop refuse under the soil 4 to 6 inches, followed by flat cultivation is effective in controlling stem rot on peanuts. See V.P.I. Extension Service Circular 825, "Control Stem Rot in Peanuts by Cultural Methods," for complete information.

Nematodes

The Northern rootknot and sting nematodes cause severe damage to peanuts. The Northern

rootknot nematode is prevalent over the entire peanut producing area, whereas the sting nematode is severe primarily on the deep phase sandy soils.

The following soil fumigants and their rates per acre for row treatment (36-inch rows) are suggested for the control of both of these nematodes: ethylene dibromide (EDB), 12 pounds; dibromochloropropane (DBCP), 6 pounds; dichloropropenes (D), 70 pounds; and dichloropropene—dichloropropane (DD), 100 pounds. For overall treatment with shanks spaced 12 inches apart, the rate per acre is three times the above rates.

Soil fumigants should be applied 2 weeks before planting at a depth of 6 inches in the soil and sealed with a drag to retain the chemical in the soil properly.

EDB and DBCP can only be used with the restriction that hay from soil fumigated with these materials must not be fed to dairy animals or to beef or other animals being finished for slaughter.

Soil fumigants can be dangerous if not handled properly. Follow the precautions listed on the label.

Dig at the Proper Time

Experiments show that, with good disease and insect control, the highest yields and highest percentage of extra large nuts generally are obtained from the Jumbo Runner and Jumbo Bunch varieties when they are dug about the middle of October. When digging time approaches, take up several representative plants every few days and examine the pegs. If many pods have shed or if many pegs show signs of decay, start digging at once.

Skin color and darkened veins inside the shell can be used as a maturity guide.

Shock and Cap Well

To prevent molding in the shocks, discolored pods and concealed damage, allow vines to wilt at least 24 hours before shocking. Several days may be required for wilting in cloudy, damp weather.

Stack vines in firm shocks about 3 feet in diameter and 6 feet high. Use slats on stack poles about 12 inches from the ground to insure air circulation under stacks and to facilitate curing.

Cure Before Picking

For better quality peanuts and a cleaner job of picking, let your peanuts cure in the shock at least 3 to 4 weeks before picking. In poor drying weather the peanuts will need a longer curing period. Picking machinery and fan speeds should be carefully adjusted for your particular lot of peanuts. Fast feeding of the picker can cause a loss of nuts, an unnecessary amount of trash, and injury to planting seed stock.

Mechanical Harvesting and Drying

Virginia type peanuts can be mechanically harvested from the windrow and artificially dried satisfactorily provided strict procedures are followed. See V.P.I. Circular 769, "Peanut Harvesting Cost Guide," for details.

Plant Cover Crops

Good winter cover crops are very important in peanut production since peanuts respond readily to high soil fertility.

Use a Crop Rotation

Experiments have shown that yields of peanuts grown in a 3-year rotation are higher than yields in a 2 or 1-year rotation. Since soybeans, lespedeza, and tobacco are susceptible to some of the same diseases as peanuts, do not use them in a regular rotation with peanuts. If soybeans **MUST** be used in the same rotation with peanuts, grow corn between the soybean and peanut crops.

Acknowledgment

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