

# Insecticide Recommendations

## EXTENSION DIVISION

Virginia Polytechnic Institute and State University,

### VIRGINIA PEANUT INSECT CONTROL RECOMMENDATIONS

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#### Southern Corn Rootworm

The southern corn rootworm can cause extensive injury to the peanut crop in Virginia. The injury to the pegs and pods will not be noticeable until it is too late to apply control measures. Use the recommended amount of insecticide. To apply less invites failure to control the insect. To use more insecticide than recommended is wasteful and may result in residue problems.

The effectiveness of rootworm treatments is increased if the insecticides are incorporated by a shallow cultivation which places the insecticides below the soil surface where they are not broken down by light, heat, or the washing of rain. However, if vine growth and peg development is so far advanced at recommended time of application so as to cause damage to developing fruit cultivation will probably do more harm to plant than to aid in effectiveness of insecticide. Treatment should be usually applied during the first two weeks of July when the peanuts are just beginning to peg but before the vines close the row middles.

#### Potato Leafhopper

The potato leafhopper is probably the most serious "above-ground" insect pest of peanuts in Virginia. This small, wedge-shaped, light green insect damages the peanut plant by feeding on the plant juices in a piercing-sucking manner. Injured leaf tips at first turn yellow, then brown. Such a condition is known as "hopper-burn" and will cause a serious decrease in both nut and vine yields. Injury may occur at any time from late June until the middle of August or later in some years. Systemic insecticides applied at time of planting may control the potato leafhopper.

Usually, two dust applications, with approximately a two-week interval between, will give satisfactory leafhopper control. The first application, when needed, is made usually about the middle of July, and the second about the first of August. If scheduled treatments are being applied for control of leafspot, carbaryl (Sevin) should not be included in more than two of these applications. Unnecessary use of carbaryl (Sevin) may result in a build-up of spider mites. Apply dust treatments only when the air is calm.

### Thrips

Newly emerged peanut plants, especially in plantings on the lighter soil types, are often attacked by thrips. These tiny, spindle-shaped insects feed on the developing foliage, causing stunting of the plants. The leaves of the peanut plants appear scarred and misshapen and the terminal growth is blackened. Although the plants rapidly outgrow this injury under favorable conditions, peanut yield may be reduced in dry years.

### Corn Earworms

Annual infestations of the corn earworm occur in most peanut fields. However, research indicates that one-third foliage loss can be allowed before any loss in yield or grade of peanuts results. Usually only a single generation of corn earworms infest peanuts each year, and their foliage feeding will not result in an economic loss.

### Spider Mites

These mites, which have become more damaging during the past several years, are especially injurious during hot, dry weather. Another possible reason for the increase in spider mite damage is the wide use of carbaryl (Sevin) by peanut growers. While carbaryl (Sevin) is very valuable in controlling leafhoppers and thrips, it may be responsible for destroying some of the natural enemies of spider mites, thus promoting the build-up of mite populations. The use of non-sulfur containing sprays and dusts also allow a build-up of spider mites.

Spider mites feed mainly on the undersides of the leaves, sucking the juice from the foliage, causing the leaves to turn brown and eventually drop off. Heavy infestations occur first around the borders of peanut fields; then they spread inward throughout the fields.

Because the mites come into the peanut fields on border areas, "spot treatments" with the ethion spray can be effective and economical. Frequently, hand-operated sprayers can be used for spot treatments. Calibrate your sprayer to deliver the right amount of spray to the acre. Arrange and adjust the nozzles in a manner that will direct the spray into the foliage area of the plants in the rows. Increased pressure (up to 60 lbs.) will aid in getting the miticide in contact with mites on the underside of the leaves and within denser foliage.

Pests	Insecticide and Formulation	Rate Per Acre	Remarks	Precautions and Days Between Last Application and Harvest	Insecticide Residue Tolerance in Parts Per Million
Southern corn rootworm	Diazinon 14% G*	18-20 lbs.	Apply treatments over the row during first two weeks in July at beginning of pegging and before vines close in middle. Effectiveness of rootworm treatments are increased if the insecticides are covered by shallow cultivation to avoid exposure to sunlight.	Do not graze or feed treated hay or forage.	0.75 - nuts
	-----	-----			10 - hulls
	Phorate** (Thimet) 10% G	20 lbs.			40 - forage
	-----	-----			0.1 - nuts and forage
-----	Dyfonate** 10% G or 20% G	15-20 lbs. of 10% G or 7½-10 lbs. of 20% G	Do not apply a total of more than 46 2/3 lbs. in any single crop year. Do not feed vines or hay.	0.1 - peanuts	
	-----	-----		0.1 - hay	
-----	Dasanit 15% G (First year recommended; use on trial basis)	13 1/3 to 26 2/3 lbs. per acre.	-----	-----	0.05 - peanuts
-----	-----	-----	-----	-----	5 - hulls
Potato Leafhopper	Carbaryl (Sevin) 5% D or 10% D	20 lbs. per acre 5% D or 10 lbs. per acre 10% D	Phorate applied for control of rootworms (see above) will also control potato leafhopper.	No restrictions on feeding forage to beef or dairy cattle.	5 - nuts 100 - hay
Thrips (Foliage Treatment)	Carbaryl (Sevin) 5% D or 10% D	20 lbs. per acre 5% D or 10 lbs. per acre 10% D	Calibrate duster before starting and apply dust only when air is calm.	Should not be applied when dew is on leaflets as burning will occur.	5 - nuts 100 - hay
Thrips (Infurrow Treatment)	Disulfoton** (Di-Syston) 10% G or 15% G	10-20 lbs. per acre 10% G or 6.7-13.3 lbs. per acre of 15% G	Will also control early season leafhoppers.	Do not graze or feed treated hay or forage.	0.75 - nuts
	-----	-----			5.0 - hay
-----	Phorate** (Thimet) 10% G	7½ - 8 lbs. per acre	-----	-----	0.1 - nuts and forage

\* G = granular; D = dust; WP = wettable powder; EC = emulsifiable concentrate

\*\* Extremely poisonous. Call your doctor immediately if you get sick while using this pesticide.

Pests	Insecticide and Formulation	Rate Per Acre	Remarks	Precautions and Days Between Last Application and Harvest	Insecticide Residue Tolerance in Parts Per Million
Corn earworm	Carbaryl (Sevin) 5% D or 10% D	25-30 lbs. of 5% D or 12½-15 lbs. of 10% D	Treat only if foliage loss is heavy (1/3 or more). Earworms are easier to control when they are less than ½ inch long.		5 - nuts 100 - hay
	----- Carbaryl (Sevin) Spray	1½ - 2 lbs. of 80% WP or 2½ - 3 lbs. of 50% WP			
Spider mite	Ethion (Nialate) 4 lbs. per gal. EC	2 pints	For good coverage and effective control, apply 30 gals. of spray material per acre. Make first application when mites appear and repeat as necessary.	Do not allow livestock to graze on treated areas. Do not feed treated forage (hay) to dairy animals or to animals being finished for slaughter.	None established.

Trade and brand names are used only for the purpose of information and the Virginia Cooperative Extension Service does not guarantee nor warrant the standard of the product, nor does it imply approval of the product to the exclusion of others which may also be suitable.

#### KEYS TO PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings, and note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children or animals cannot get to them, preferably under lock and away from food, feed, seed, or other material that may become harmful if contaminated.
3. Dispose of empty containers in the manner specified on the label. If disposal instructions are not printed on the label, burn the containers where smoke will not be a hazard, or bury them at least 18" deep in a place where water supplies will not be contaminated.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.

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