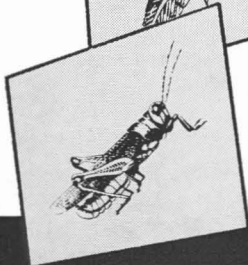
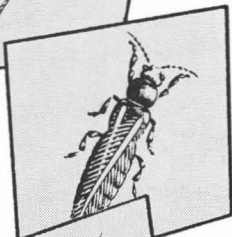
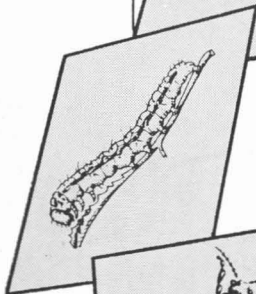
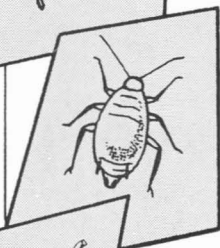
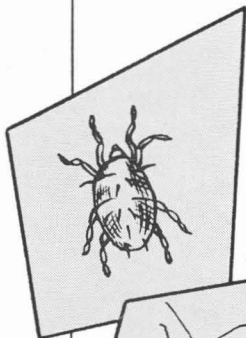


TEXAS GUIDE for CONTROLLING INSECTS

on
Peanuts



Texas Guide For Controlling Insects On Peanuts

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Many insect species attack peanuts. Varying factors such as weather and cultural practices cause insect problems to fluctuate from one season to the next. Because insect populations vary and economic levels of damage to peanuts have not been determined fully, producers should analyze the situation before beginning a control program. Land potential, anticipated yield, stage of plant growth, moisture conditions and insect species are important aspects to consider. Knowing when *not* to make applications often is as important as knowing *when* to begin them.

INSECT PESTS

Lesser Cornstalk Borer

The lesser cornstalk borer is the major insect pest of Texas peanuts. This small, slender larva is primarily a subterranean feeder and lives beneath the soil surface in silken tubes. In peanut-growing areas of South Texas, late-planted peanuts may be damaged in the seedling stage, resulting in a reduced stand. Worms or larvae injure mature plants, feeding principally on pegs, pods, stems and roots. Pegs are cut off immediately below ground surface, and the developing nuts are hollowed out. Stems and roots are scarred and may be girdled.

This insect is most severe on peanuts grown under dryland conditions or during drouth years. Rainfall, particularly in wet seasons, and irrigation in certain fields appears to contribute to larval mortality. Timing of irrigation or amount of water applied at each irrigation may contribute to differences in larval populations. Reduce damage by keeping land free of weeds and grass for several weeks before planting.

Best results through chemical control have been obtained when applications began as soon as full-grown larvae were observed in the soil. In areas where this pest persists, begin applications as soon as moderate-to-heavy populations of small worms are observed. Apply insecticides to cover lower stems and a band of soil 6 to 8 inches wide on each side of the row.

Thrips

Thrips feed primarily in terminal leaf clusters between folds of young leaflets by rasping the leaf surface and sucking up plant juices. This results in dwarfing and malformation of leaves, causing a condition called "pouts." Feeding commonly occurs during the first month after plant emergence.

Spraying or granular application of insecticides at planting effectively controls insects, but generally does not increase yields. Application of insecticides, however, produces noticeable improvements in foliar growth and appearance during the early growth period. Yield increases depend on the extent of thrip damage or population numbers and the stage of plant growth when damaged.

Foliage Feeding Insects

In some years, foliage feeding insects cause considerable damage. This group includes the corn earworm or cotton bollworm, red-necked peanutworm, armyworms, salt-marsh caterpillars and grasshoppers. Research on control of foliage-feeding pests indicates the peanut plant extremely tolerant to foliage loss. Physical removal of three-fourths of the foliage before bloom or one-half after bloom does not adversely affect yields or grades in irrigated peanuts. Research also indicates that removal of more than half the foliage reduces dryland peanut yields, and that defoliation late in the season may result in lowered yields on both dryland and irrigated acreages. Should chemical control measures become necessary, apply when worms or grasshoppers are small. Frequent and careful field checks are necessary for economic control.

Miscellaneous Pests

Miscellaneous pests include spider mites, three-cornered alfalfa hoppers, leafhoppers, cutworms, armyworms, webworms, wireworms, white grubs, corn rootworms, leaf miners, flea beetles, stink bugs and lygus bugs. If these pests have inflicted economic losses in the past, or if large infestations develop, apply insecticides before extensive damage occurs.

Burrowing bugs, only recently established as economic pests of peanuts, usually can be found beneath the soil surface attacking developing nuts. Their feeding results in a light to dark brown mottling of the kernels and subsequent grade reductions. Currently, there are no effective, research-based controls for this pest.

CAUTIONS

1. Read the label on each pesticide container before each use. Follow instructions carefully; heed all caution and warning statements, and observe pre-

cautions concerning avoidance of residues. Adhere strictly to all restrictions concerning use of plant material as animal feed.

2. Keep pesticides in their original containers. Put them where children or animals cannot reach 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 containers where smoke will not be a hazard, or bury them at least 18 inches deep in a place where water supplies will not be contaminated.

4. Parathions, disulfoton and phorate are extremely toxic to man and other warm-blooded animals. Apply with care and in strict accordance with instructions on the label.

5. Improper use of insecticides can result in poor insect control as well as crop condemnation. In using approved insecticides, it is also important not to exceed recommended maximum dosage levels and to allow the proper time interval between last application and harvest.

POINTS ON APPLICATION

1. Make frequent, careful inspections of peanut fields. Begin applications before worms cause serious damage and while they are small. Small worms are easier to control.

2. Use any row-crop duster or sprayer that can be adjusted to desired row width, and direct nozzles on the peanut plants. Insecticides should thoroughly cover the plant. Use hollow cone nozzles.

3. Calibrate application equipment accurately before starting application. Make periodic calibration checks during the season.

4. Apply dusts when air is calm. Place dust nozzles on ground machines 4 to 6 inches above the plants. Apply 15 to 20 pounds of dust per acre in early season; however, 20 to 30 pounds per acre may be required for coverage in late season.

5. Apply insecticidal sprays when weather conditions are optimum to avoid drift to adjacent fields or crops. Some insecticides are destructive to honeybees. Prevent their destruction if possible, since bees help pollenate many agricultural crops.

6. Maintain accurate, detailed records of pesticide use to include such information as dates of purchase and application, type of equipment used, weather conditions, location of each pesticide application and rates applied.

Insect	Insecticides (Listed at random)	Rate (Pounds technical per acre)	Formulation	Remarks
Thrips	Disulfoton (Di-Syston) Phorate (Thimet)	1.0-2.0 1.0	Granular Granular	Apply disulfoton or phorate at planting with granular applicator attached to planter. Place disulfoton on one or both sides of seed in the seed furrow. Contact with seed may result in reduced germination. Place phorate granules evenly in the seed furrow. Use low rate on light, sandy soils. Do not graze immature crops.
	Carbaryl (Sevin)	1.5	Spray or dust	Apply carbaryl soon after plants emerge, or as needed. No time limitation in using carbaryl. Carbaryl has caused slight burn on seedling peanuts and rapidly growing plants, but no yield losses have been observed.
Lesser cornstalk borer	Parathion	2.0 0.5	Granular Spray	Apply parathion or diazinon granules in a 12 to 14-inch uniform band directly over row just before pegging. Work into top few inches of soil immediately. For spray applications of parathion or diazinon use two nozzles per row so that the lower stems and a 6 to 8-inch band of soil are covered on each side of the row. Begin treatment as soon as full grown larvae are observed in soil. Repeat applications at 3 to 4 week intervals as needed. Do not apply parathion within 15 days of harvest or grazing. Livestock may be fed (1) peanut forage 7 days after treatment and (2) peanut hay or hulls 21 days after treatment with diazinon.
	Diazinon	2.0 0.5-1.0	Granular Spray	
Foliage Feeders Armyworms Climbing cutworm Corn earworm Grasshoppers Leafhoppers Red-necked peanutworm Salt-marsh caterpillar Three-cornered alfalfa hopper Webworm	Carbaryl (Sevin)	1.5	Spray or dust	For climbing cutworms, apply on soil late in the afternoon. Make regular and frequent inspections of peanut fields. Start applications before worms cause serious damage and while they are small. Small worms are easier to control.
	Parathion	0.5-1.0	Spray	Use methyl parathion or parathion only where obtaining control has been difficult.
	Methyl Parathion	0.8	Dust	Observe restrictions in use of carbaryl and parathion given for thrips or lesser cornstalk borer.
				Do not apply methyl parathion within 15 days of harvest.
Spider mites	Parathion Methyl Parathion Diazinon Sulfur	0.25-0.5 0.8 0.5 20-25	Spray or dust Dust Spray Dust	Observe restrictions under lesser cornstalk borer when using parathion or diazinon. No time limitations when sulfur is applied. Observe restrictions in use of methyl parathion given for foliage feeders.
White grubs	Parathion	2.0	Granular or spray	Generally a problem when peanuts follow grass sod. Apply if white grubs or wireworms are observed when peanut land is turned. Apply before planting. Work into top 3 inches of soil. See restrictions under lesser cornstalk borer.
Wireworms	Diazinon	2.0	Granular or spray	

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10M-3-69