



Texas Agricultural Extension Service

People Helping People

Texas Guide for Controlling Insects on Commercial Vegetable Crops



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Texas Guide For Controlling Insects on Commercial Vegetable Crops

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Because of market demand, low tolerances are maintained for insect damage on edible foods. To meet stringent market requirements, insect control is often a preventative program. Vegetable crops should be inspected two to three times a week for insect pests to determine when to initiate insecticide use and properly time subsequent applications.

Application Methods

Granules — Apply granules (drilled or broadcast) through fertilizer, seed applicators or granular application equipment. Check manufacturer's labels for specific application rates. Careful adjustments are necessary at frequent intervals to insure correct dosage rates. Disk granular material into the soil immediately after broadcast application is made.

Sprays — For maximum coverage by air, use a minimum of 5 gallons of spray material per acre. For ground application, use at least 10 gallons per acre. Ground sprayers should have two or three nozzles per row and operate at a minimum of 60 pounds pressure to provide thorough coverage of lower and upper leaf surfaces. Sprays commonly give better results than dusts.

Systemic Insecticides — Systemic insecticides applied in the soil or to the foliage have been successful in controlling various insect pests of vegetables. These materials are effective if sufficient germinating moisture is present. Check the table of suggestions for specific uses on different vegetable crops.

Predators, Parasites and Diseases

Most vegetable pests, including leafminers, aphids and cabbage loopers, are attacked by various parasites, predators and pathogens or "disease-causing agents". More than 10 parasite species attack leafminer populations and the pests may be reduced effectively by parasites alone. Several species of parasite and predators attack aphids on various crops, but may not reduce aphid populations below economic levels. A naturally occurring polyhedral virus frequently reduces cabbage looper populations. However, economic

damage from cabbage looper often occurs before the virus effectively reduces the population, thus necessitating insecticidal control.

Plant Virus Diseases and Insects

Various insects transmit aster yellow disease of carrots; curly top disease of spinach and tomatoes; mosaic disease of cucurbits and lettuce; tobacco etch disease of pepper; and tobacco ringspot disease of beans, cucurbits and eggplants. Aster yellow virus is transmitted by the aster leafhopper; curly top virus by the beet leafhopper; squash mosaic by the spotted, striped and banded cucumber beetles; and tobacco etch by the green peach aphid.

Sweet Potato Weevil Control

Growers can prevent or greatly reduce sweet potato weevil infestations by using the following procedures:

Seed — Plant weevil-free seed pieces or slips. If possible, obtain seed pieces or slips from an uninfested area. If this is not possible, carefully examine each sweet potato chosen for seed; reject any that are infested. Store seed potatoes separately from other sweet potatoes. Store one layer at a time. Cover each layer with Imidan® dust at the rate of 2 to 4 ounces of dust per 50 pounds of seed potatoes.

Storage Places — Empty and clean all storage places in spring, at least one month before the new crops are planted in the field.

Plant Bed — Plant beds and fields should be located away from the previous season's plantings and other sources of weevil infestations.

Field Plants — Plant in fields where sweet potatoes were not grown the previous season. Plant vine cuttings in preference to slips to lessen chances of infesting fields with sweet potato weevils. Throw the soil up high around the base of the vines at the last cultivation, or use sweet potato varieties that develop beneath the soil surface.

Good cultural and sanitary practices during storage and in the plant bed should provide weevil-free transplants. However, weevil infestations may develop from outside sources.

Harvest — Store only weevil-free sweet potatoes and destroy all those infested with weevils. Immediately after harvest, collect and destroy all crop residue — stems, roots and cull potatoes.

Plow the field once or twice during winter. Collect and destroy unearthed sweet potato scrap material.

Storage — Sweet potatoes to be stored in quantity may be treated with 5 percent Imidan® dust at the rate of 2 to 4 ounces per 50 pounds of potatoes. Thoroughly cover all surfaces as soon as possible before storage. Wash thoroughly before eating or marketing. Make only one application per season.

Accepted Common Names and Registered Trade Names of Certain Materials Recommended for Vegetable Pest Control

Accepted Common Name	Registered Trade Name(s)
acephate	Orthene®
azinphosmethyl	Guthion®
<i>Bacillus thuringiensis</i>	Biotrol®, Dipel®, Thuricide®, Bactospeine®
carbaryl	Sevin®
carbophenothion	Trithion®
cryolite	Kryocide®
demeton	Systox®
diazinon	
dicofol	Kelthane®
dimethoate	Cygon®, De-Fend®, Rebelate®
disulfoton	Di-Syston®
endosulfan	Thiodan®
ethion	Nialate®
fensulfothion	Dasanit®
fenvalerate	Pydrin®
fonofos	Dyfonate®
isofenfos	Amaze®
malathion	Cythion®
methamidophos	Monitor®
methoxychlor	Marlate®
methyl demeton	Metasystox®
methomyl	Lannate® or Nudrin®
methyl parathion	
mevinphos	Phosdrin®
monocrotophos	Azodrin®
naled	Dibrom®
oxamyl	Vydate®
oxydemeton-methyl	Metasystox-R®
parathion	
permethrin	Ambush®, Pounce®
phorate	Thimet®
phosmet	Imidan®
phosphamidon	Dimecron®
tetradifon	Tedion®
trichlorfon	Dylox®

Precautions

All insecticides are poisonous and lawfully must be handled according to label instruction. Before using an insecticide, refer to the product label for any special instructions pertaining to mixing and applying the product, special protective clothing and proper safety equipment needed. Avoid exposure to insecticides. Do not breathe mists or enter drift. Change clothes and bathe immediately after completing work.

Vegetables with excessive insecticide residues can be confiscated under the provisions of the federal or Texas food and drug laws. Follow suggestions in this guide and on the insecticide label giving the number of days required between last application and harvest. Suggested insecticides can be used safely when directions and precautions are followed carefully.

For additional information, contact your county Extension agent, area Extension entomologist or write the Extension entomologist, Texas Agricultural Extension Service, Texas A&M University, College Station, Texas 77843.

Protecting Bees and Other Pollinators from Insecticides

Pollination is extremely important in the production of quality vegetables or vegetable seed crops. This is particularly true of such vegetables as squash, cucumber, pumpkin, watermelon, cantaloupe, muskmelon, asparagus, broccoli, onion and radish. Where pollen-collecting insects are required for flower fertilization, the producer, insecticide applicator and beekeeper should cooperate closely to minimize bee losses.

Commonly Used Pesticides Grouped According to Their Relative Hazards to Honeybees

Highly Toxic	Moderately Toxic	Relatively Non-Toxic
acephate	carbophenothion	<i>Bacillus thuringiensis</i>
azinphosmethyl	disulfoton	cryolite
carbaryl	endosulfan	demeton
diazinon	ethion	dicofol
dimethoate	methoxychlor	oxydemeton-methyl
fensulfothion	methyl demeton	tetradifon
fenvalerate		trichlorfon
fonofos		
isofenfos		
malathion		
methamidophos		
methomyl		
mevinphos		
monocrotophos		
naled		
parathion		
permethrin		
phosmet		
phosphamidon		

INSECTICIDE USE SUGGESTIONS

BEANS

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Aphids	Carbophenothion	0.50/pt - 0.75	7	Apply insecticides at 5 to 7 day intervals until control is obtained. <i>Carbophenothion</i> — For snap beans, use 1/2 pound actual insecticide per acre. Do not make more than two applications per season. <i>Diazinon</i> — Treated forage may be fed to livestock 1 day or cut for hay 4 days after treatment. <i>Dimethoate</i> — Do not graze treated field or feed treated forage to livestock. <i>Disulfoton</i> or <i>Phorate</i> — Use 10 pounds of 15G per acre. Apply in 3-inch band to side of furrow and 2 inches deep at time of planting. Apply once per season. Do not apply to dry beans within 60 days. Do not feed treated beans or forage for 60 days. <i>Endosulfan</i> — Do not use more than 3 applications per season. Do not graze or feed thrashings to livestock. Do not use on lima beans for processing.
	Demeton	0.375	See remarks	
	Diazinon	0.5	21	
	Dimethoate	0.25	7	
	Disulfoton	See remarks	See remarks	
	Endosulfan	1.0	0	
	Malathion	1.25	See remarks	
	Mevinphos	0.25	3	
	Naled	1.3	1	
	Parathion	0.3	1	
Phorate	See remarks	15		
		See remarks	See remarks	
Cabbage looper	<i>Bacillus thuringiensis</i>	See label	0	<i>Fenvalerate</i> — Do not feed or graze vines. Use no more than 0.1 lbs. AI/acre/season. <i>Methomyl</i> — See remarks under corn earworm. <i>Naled</i> — Do not feed treated vines to livestock.
	Fenvalerate	0.1 - 0.2	21	
	Methomyl	See remarks	See remarks	
	Naled	0.5 - 1.0	See remarks	
		1.5	1	
			See remarks	
Corn earworm	Carbaryl	1.5	0	<i>Fenvalerate</i> — See remarks under cabbage looper. <i>Methomyl</i> — 3 days for succulent beans; 25 days for dry beans. Do not feed vines to livestock within 3 days or use for hay within 7 days.
	Fenvalerate	0.1 - 0.2	21	
	Methomyl	0.5 - 1	See remarks	
Cowpea curculio	Carbaryl	2.0	0	<i>Endosulfan</i> — See remarks under the aphids. <i>Methyl parathion</i> — Dry beans may be harvested in 21 days.
	Endosulfan	1.0	3	
	Methyl parathion	1.0 - 1.5	See remarks	
Cutworms	Carbaryl	1.25 - 1.86	0	<i>Diazinon</i> — Apply a 6-inch band over row when plants are 1/2- to 1-inch tall. <i>Trichlorfon</i> — Apply no less than 1 gallon per acre.
	Diazinon (granules)	2.0	See remarks	
	Trichlorfon	1.25 - 1.88	See remarks	
Flea beetles	Carbaryl	1.0	0	<i>Methoxychlor</i> — 7-day preharvest interval if vines are used for forage. <i>Methyl parathion</i> — 15-day preharvest interval when used at 0.5 pound rate.
	Methoxychlor	1.5	3	
	Methyl parathion	0.5 - 1.5	See remarks	
			21	
			See remarks	
Leafhoppers	Acephate	0.5 - 1.0	14	<i>Acephate</i> — 0 days for succulent limas. Do not feed treated vines to livestock. <i>Carbophenothion</i> — See remarks under aphids. <i>Disulfoton</i> — See remarks under aphids. <i>Phorate</i> — See remarks under aphids.
	Carbaryl	1.0	See remarks	
	Carbophenothion	0.5	0	
	Disulfoton	See remarks	See remarks	
	Malathion	1.25	See remarks	
	Parathion	0.3	1	
	Phorate	See remarks	7	
Leafminers	Diazinon	0.5	7	<i>Diazinon</i> — See remarks under aphids. <i>Dimethoate</i> — Do not graze treated fields or feed treated forage to livestock.
	Dimethoate	0.25	See remarks	
	Parathion	0.5	0	
			See remarks	
			7	
Mexican bean beetle	Endosulfan	1.0	3	<i>Endosulfan</i> — See remarks under aphids. <i>Ethion</i> — Do not feed treated forage to livestock. Not registered for use on spotted cucumber beetle.
Spotted cucumber beetle	Ethion	0.25 - 0.5	See remarks	
	Malathion	1.25	2	
			See remarks	
			1	
Spider mites	Carbophenothion	0.5 - 0.75	7	<i>Dicofol</i> — Do not feed untreated crop residue to dairy or meat animals. <i>Disulfoton</i> — See remarks under aphids. <i>Phorate</i> — See remarks under aphids.
	Demeton	0.375	21	
	Dicofol	0.58	7	
	Disulfoton	See remarks	See remarks	
	Phorate	See remarks	See remarks	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Stink bugs	Azinphosmethyl	0.275 - 0.5	See remarks	<i>Azinphosmethyl</i> — Snap beans, 7 days; dry beans, 30 days. <i>Naled</i> — See remarks under cabbage looper.
	Carbaryl	1.2 - 1.5	0	
	Endosulfan	0.5 - 1.0	3	
	Methyl Parathion	1.0 - 1.5	15	
	Naled	1.5	1	
			See remarks	
Thrips	Disulfoton	See remarks	See remarks	<i>Disulfoton</i> — See remarks under aphids. <i>Phorate</i> — See remarks under aphids.
	Parathion	0.25 - 0.75	15	
	Phorate	See remarks	See remarks	

BEETS

Aphids	Malathion	0.625 - 1.25	7	<i>Methyl parathion</i> — 15 days if tops are not used as food or feed.
	Methyl parathion	0.625	21	
			See remarks	
	Mevinphos	0.125 - 0.25	3	
Beet webworm	Parathion	0.3 - 0.5	21	<i>Parathion</i> — 15 days if tops are not used as food or feed.
			See remarks	
	Trichlorfon	2.0	28	
Armyworms	Carbaryl	1.0	3	<i>Carbaryl</i> — 3 days if tops are not used as food or feed. For armyworms use 1 to 2 pounds. <i>Methyl parathion</i> — See remarks under aphids.
Beet leafhopper		See remarks	See remarks	
Flea beetles	Methoxychlor	1.0 - 2.0	14	
	Methyl parathion	0.625	21	
			See remarks	
Stink Bugs	Carbaryl	1.0 - 1.5	See remarks	<i>Carbaryl</i> — See remarks under armyworms.

CABBAGE, BROCCOLI, AND CAULIFLOWER

Aphids	Demeton	0.5	21	<i>Diazinon</i> — May be used on broccoli and cauliflower 5 days before harvest and on cabbage 7 days before harvest. <i>Dimethoate</i> — May be applied within 3 days before harvest on cabbage. <i>Disulfoton</i> — May be applied within 7 days of harvest on broccoli and cabbage. <i>Endosulfan</i> — Allow 14 days between last application and harvest on cauliflower; allow 7 days between last application and harvest on broccoli and cabbage. <i>Oxydemeton-methyl</i> — Do not apply more than 3 times per season. (May be used on broccoli or cabbage within 1 day of harvest.) <i>Mevinphos</i> — Allow 1 day between last application and harvest when applied to cabbage and broccoli at .25 pound of actual insecticide per acre, 3 days at 1.0 pound actual insecticide per acre. <i>Phosphamidon</i> — Do not apply to cabbage. <i>Endosulfan</i> — Do not use cauliflower within 14 days of harvest. <i>Methomyl</i> — Registered for use on cabbage only. <i>Parathion</i> — Not labeled for use on cauliflower.
	Diazinon	0.5	See remarks	
	Dimethoate	0.25	7	
			See remarks	
	Disulfoton (granules)	1.0	14	
			See remarks	
	Endosulfan	0.75	See remarks	
	Oxydemeton-methyl	0.35 - 0.5	7	
			See remarks	
	Mevinphos	0.25 - 1.0	1	
		See remarks		
	Parathion	0.5	21	
	Phosphamidon	0.5	3	
			See remarks	
Armyworms	Endosulfan	0.75 - 1.0	7	
			See remarks	
	Methyl parathion	1.0	21	
	Methomyl	0.5 - 1.0	See remarks	
	Parathion	0.5 - 1.0	10	
Cabbage looper	Azinphosmethyl	0.25 - 0.5	15	
			See remarks	
Diamondback moth	<i>Bacillus thuringiensis</i>	See label	0	<i>Azinphosmethyl</i> — 21 days for cabbage.
Imported cabbage worm	Endosulfan	1.0	14	<i>Endosulfan</i> — May be used within 7 days of harvest on broccoli or cabbage.
			See remarks	
	Fenvalerate	0.1 - 0.2	3	<i>Fenvalerate</i> — Do not exceed 1.6 pounds per acre per season. Do not feed treated plant parts to livestock.
			See remarks	
	Methomyl	0.5	1	<i>Methyl parathion</i> — May be applied to broccoli and cauliflower up to 21 days from harvest. Not labeled for use on diamondback moth or imported cabbageworm.
	Methyl parathion	1.0 - 1.5	10	
			See remarks	
	Mevinphos	0.5	3	<i>Mevinphos</i> — See remarks under aphids. Not labeled for use on diamondback moth.
		See remarks		
	Naled	1.0	1	<i>Naled</i> — Use 30 to 250 gallons of water.
			See remarks	
	Permethrin	0.05 - 0.1	1	<i>Permethrin</i> — No more than 8 applications (10 on cabbage) per season. Do not feed treated plant parts to livestock.
			See remarks	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Cabbage root aphid	Disulfoton (granules)	See remarks	See remarks	<i>Disulfoton</i> — Use 1.7 oz. per 1,000 ft. per row. Apply by drilling or sidedressing and follow with irrigation. Only one application per season on broccoli and cabbage, and two at 21-day intervals on cauliflower. Do not apply to cabbage within 42 days, to cauliflower within 40 days or to broccoli within 14 days of harvest.
Cutworms	Carbaryl (bait)	2	3	<i>Diazinon</i> — Broadcast application just prior to planting. Incorporate insecticide in upper 2 to 3 inches of soil. <i>Endosulfan</i> — See remarks under aphids. <i>Methomyl</i> — Not registered for use on broccoli. <i>Mevinphos</i> — See remarks under aphids. <i>Trichlorfon bait</i> — Apply to soil surface. Do not apply to broccoli.
	Diazinon	2.0	See remarks	
	Endosulfan	1	See remarks	
	Mevinphos	0.25 - 0.5	See remarks	
	Methomyl	0.5 - 1.0	See remarks	
	Trichlorfon (bait)	0.5 - 1 in 10 lb. bran bait mix	See remarks	
Flea beetles	Carbaryl	0.5 - 1.0	3	<i>Endosulfan</i> — See remarks under aphids. <i>Methoxychlor</i> — May be used within 14 days of harvest on broccoli, 7 days on cauliflower, 3 days on cabbage. <i>Methoxychlor + diazinon</i> — Cabbage and cauliflower - 7 days before harvest.
	Endosulfan	1.0	See remarks	
	Methoxychlor	1 - 2.25	See remarks	
	Methoxychlor plus diazinon 30% EC	2 1/2 qts.	14	
			See remarks	
Stink bug	Endosulfan	1.0	7	<i>Endosulfan</i> — See remarks under aphids.
	Parathion	0.5	21	
Spider mites	Mevinphos	0.25 - 0.5	3	<i>Mevinphos</i> — See remarks under aphids.
	Methyl parathion	1.0	21	

CANTALOUPE, WATERMELONS, CUCUMBER AND SQUASH

NOTE: These crops are pollinated by bees. Refer to page for information concerning bees. Thorough coverage is important.

Aphids	Carbophenothion	0.75	See remarks	<i>Carbophenothion</i> — May be used on melons and cantaloupes up to 5 days before harvest and 7 days for squash and cucumbers. Registered for use on summer squash only. <i>Diazinon</i> — May be used on melons and winter squash up to 3 days before harvest. <i>Dimethoate</i> — Labeled for use on melons only. <i>Methamidophos</i> — Not registered for use on squash and cucumbers. Do not use more than 5 applications per season. <i>Oxydemeton-methyl</i> — Do not apply more than once per season to winter squash nor within 14 days of harvest. Do not apply more than once per season to summer squash nor within 1 days of harvest. Do not apply more than 3 times per season to cantaloupe nor within 14 days of harvest. Do not apply more than twice per season to watermelons nor within 7 days of harvest. Do not apply more than twice per season to cucumbers. <i>Parathion</i> — See remarks under squash bugs. <i>Phosphamidon</i> — Do not apply to squash; do not use on cantaloupes or watermelons within 1 day of harvest or on cucumbers within 3 days of harvest.
	Diazinon	0.5	7	
			See remarks	
	Dimethoate	0.25	7	
			See remarks	
	Endosulfan	1.0	0	
	Malathion	0.94	1	
	Methamidophos	0.5 - 1.0	14	
			See remarks	
		Oxydemeton-methyl	0.5	
	Parathion	0.5	15	
			See remarks	
	Phosphamidon	0.5	See remarks	
Cucumber beetles	Carbaryl	1.0	0	<i>Methamidophos</i> — See remarks under aphids. <i>Methoxychlor + diazinon</i> — May not be used within 7 days of harvest.
	Endosulfan	0.5 - 1.0	0	
	Malathion	1.25	1	
	Methamidophos	0.5 - 1.0	14	
			See remarks	
	Methoxychlor plus Diazinon	2.5 qts.	3	
Cutworms	Carbaryl (bait)	1.0	0	<i>Diazinon</i> — Preplant broadcast soil application. <i>Methomyl</i> — Up to 2 pts., 1 day. Over 2 pts., 3 days. Use only on cucumbers and summer squash.
	Diazinon	4.0	See remarks	
	Methomyl	0.5 - 1.0	See remarks	
Darkling beetles	Carbaryl (bait)	1.0	1	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Leafhoppers	Diazinon	0.5	7	<i>Diazinon</i> — Not registered for leafhopper control on cucumbers. <i>Malathion</i> — Not registered for control of leafhoppers on cucumbers or squash. <i>Methamidophos</i> — See remarks under aphids. <i>Parathion</i> — See remarks under squash bugs.
	Malathion	1.0	See remarks 3	
	Methamidophos	0.5 - 1.0	See remarks 14	
	Parathion	0.35	See remarks 15	
Leafminers	Carbophenothion	0.5 - 1.0	5	<i>Carbophenothion</i> — Not cleared for use on winter squash. <i>Diazinon</i> — See remarks under aphids. <i>Dimethoate</i> — Approved for use on melons only. <i>Ethion</i> — Do not use on winter squash. <i>Methamidophos</i> — See remarks under aphids. <i>Parathion</i> — May be used on melons up to 7 days before harvest. Do not apply on cucumbers before vining. <i>Phosphamidon</i> — Not cleared for use on squash.
	Diazinon	1.0	See remarks 7	
	Dimethoate	0.25	See remarks 7	
	Ethion	0.5	See remarks 0	
	Methamidophos	0.5 - 1.0	See remarks 14	
	Methoxychlor plus Diazinon	2.5 qts.	See remarks 3	
	Parathion	0.25	See remarks 15	
	Phosphamidon	0.25 - 0.5	See remarks 1	
Melonworm	<i>Bacillus thuringiensis</i>	See label	0	<i>Fenvalerate</i> — Do not apply to zucchini squash as injury may occur. Do not use more than a total of 1.0 lb. AI/acre/season. <i>Methomyl</i> — See remarks under cutworms. <i>Methamidophos</i> — See remarks under aphids. <i>Methoxychlor + diazinon</i> — Not cleared for use on squash or cucumbers. <i>Parathion</i> — See remarks under leafminers.
	Carbaryl	1.0	0	
	Endosulfan	1.0	0	
	Fenvalerate	0.1 - 0.2	See remarks 3	
	Methamidophos	0.5 - 1.0	See remarks 14	
	Methomyl	0.5 - 1.0	See remarks 3	
	Methoxychlor plus Diazinon	2.5 qts.	See remarks 3	
	Parathion	0.5	See remarks 15	
Pickleworm	Fenvalerate	0.1 - 0.2	3	<i>Fenvalerate</i> — See remarks under melonworm. <i>Methamidophos</i> — See remarks under aphids. <i>Methomyl</i> — See remarks under cutworms.
	Malathion	1.25	See remarks 1	
	Methamidophos	0.5 - 1.0	See remarks 14	
	Methomyl	0.5 - 1.0	See remarks 7	
Spider mites	Carbophenothion	0.5	See remarks	<i>Carbophenothion</i> — See remarks under aphids. <i>Ethion</i> — See remarks under leafminers. <i>Methamidophos</i> — See remarks under aphids. <i>Mevinphos</i> — Not cleared for use on winter squash. <i>Oxydemeton-methyl</i> — Not cleared for use on squash. Do not apply to cucumber more than two times per year. May be used within 7 days of harvest on watermelons. Apply in minimum of 1 gallon of water. <i>Parathion</i> — May be used on melons up to 7 days of harvest. Thorough coverage is important. <i>Tetradifon</i> — Not approved on summer squash; do not apply to cucumbers more than three times during fruiting season.
	Dicofol	0.4	2	
	Ethion	0.5	See remarks 0	
	Methamidophos	0.5 - 1.0	See Remarks 14	
	Methoxychlor plus Diazinon	2 1/2 qts.	See remarks 3	
	Mevinphos	0.375	See remarks 1	
	Oxydemeton-methyl	0.375 - 0.5	See remarks 14	
	Parathion	0.25	See remarks 15	
	Tetradifon	0.5	See remarks 0	
Squash bug	Carbaryl	1.0	0	<i>Fenvalerate</i> — See remarks under melonworm. <i>Lindane</i> — No time limitations on cantaloupes. Do not apply after bloom opens. Registered on watermelons for seed treatments only. <i>Parathion</i> — May be used on melons up to 7 days before harvest. Do not apply on cucumbers before vining.
	Endosulfan	0.5	0	
	Fenvalerate	0.1 - 0.2	See remarks 3	
	Lindane	0.35	See remarks 1	
	Parathion	0.25	See remarks 15	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Squash vine borers	Endosulfan	0.5 - 1.0	0	<i>Malathion</i> — Apply only when plants are dry.
	Malathion	1.875	1 See remarks	
	Methoxychlor	1.5	7	

CARROTS

Aphids	Diazinon	0.5	10	<i>Methyl parathion</i> — 21 days if tops are to be used as food or feed. <i>Parathion</i> — Do not use treated tops for food or feed.
	Endosulfan (Green peach aphids)	0.5 - 1.0	7	
	Methyl parathion	1.0	15 See remarks	
	Mevinphos	0.125 - 0.25	2	
	Parathion	0.5	15 See remarks	
Beet armyworm	Trichlorfon	1.5	28	
Cutworms	Carbaryl (bait)	2.0	0	
	Mevinphos (climbing cutworm)	0.25 - 0.5	2	
	Trichlorfon	1.5	28	
Darkling beetle	Carbaryl (bait)	2.0	0	
Flea beetles	Carbaryl	0.5 - 1.0	0	<i>Methyl parathion</i> — 21 days if tops are to be used as food or feed.
	Methoxychlor	1.0 - 2.25	14	
	Methyl parathion	1.0	15 See remarks	
Leafhopper	Carbaryl	0.5 - 1.0	0	<i>Methyl parathion</i> — See remarks under flea beetles. <i>Parathion</i> — See remarks under aphids.
	Malathion	0.94 - 1.25	7	
	Methoxychlor	1.0 - 2.25	14	
	Methyl parathion	1.0	15 See remarks	
	Mevinphos	0.25 - 0.5	2	
Vegetable weevil	Parathion	0.5	15 See remarks	<i>Parathion</i> — See remarks under aphids.
	Parathion	0.5	15 See remarks	
Wireworms	Diazinon (Granules)	2.9 - 3.9	See remarks	<i>Diazinon</i> — Preplant application only.
	Parathion	3.0 - 4.0	See remarks	<i>Parathion</i> — Preplant application only.

CELERY

Aphids	Acephate (Green peach aphid)	0.5 - 1.0	21 See remarks	<i>Acephate</i> — Plants should be trimmed before shipping. Do not use tops for food or feed. <i>Diazinon</i> — Do not use tops for food or feed.
	Diazinon	0.5	10 See remarks	
	Endosulfan	0.5	4	
	Methyl parathion	1.0	15	
	Mevinphos	0.25 - 0.5	3	
Armyworms	Acephate	1.0	21 See remarks	<i>Acephate</i> — See remarks under aphids. <i>Permethrin</i> — Do not graze or feed to livestock.
	<i>Bacillus thuringiensis</i>	See label	See label	
	Methomyl	0.23 - 0.45	7	
	Methyl parathion	1.0	15	
	Permethrin (Fall armyworm)	0.1 - 0.2	3 See remarks	
Beet armyworms	Acephate	1.0	21 See remarks	<i>Acephate</i> — See remarks under aphids. <i>Permethrin</i> — See remarks under armyworms.
	Methomyl	0.45 - 0.9	7	
	Permethrin	0.1 - 0.2	3	
	Permethrin	0.1 - 0.2	3 See remarks	
Cabbage loopers	Acephate	0.5 - 1.0	21 See remarks	<i>Acephate</i> — See remarks under aphids. <i>Permethrin</i> — See remarks under armyworms.
	<i>Bacillus thuringiensis</i>	See label	0	
	Methomyl	0.45 - 0.9	7	
	Parathion	0.5	30	
	Permethrin	0.1 - 0.2	3 See remarks	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Cutworms	Diazinon (granules)	2.0 - 4.0	See remarks	<i>Diazinon</i> — Preplant application only. <i>Permethrin</i> — See remarks under armyworms.
	Parathion (climbing cutworms)	0.5	30	
	Permethrin	0.1 - 0.2	3 See remarks	
Flea beetles	Diazinon	0.5	10	<i>Diazinon</i> — Do not use tops for food or feed.
	Methyl parathion	1.0	See remarks 15	
Leafhoppers	Mevinphos	0.25 - 0.5	5	
	Parathion	0.75	30	
Leafminers (Dipterous)	Azinphosmethyl	0.5	14	<i>Permethrin</i> — See remarks under armyworms.
	Mevinphos	0.25 - 0.5	5	
	Oxamyl	0.5 - 1.0	14	
	Permethrin	0.1 - 0.2	3 See remarks	
Mites	Demeton	0.25 (in 100 gal. water)	28	
	Malathion	0.94	7	
	Methyl parathion	1.0	15	
	Mevinphos	0.25 - 0.5	3	
Wireworms	Diazinon (granules)	2.9 - 4.0	See remarks	<i>Diazinon</i> — Preplant application only.
	Parathion (bait)	1.0	See remarks	<i>Parathion</i> — Preplant application only.

EGGPLANT

Aphids	Demeton	0.25 - 0.375	7	
	Endosulfan	0.5	1	
	Mevinphos	0.125 - 0.25	2	
	Naled	1.0	1	
	Oxydemeton-methyl	0.25 - 0.375	7	
Armyworms	Carbaryl	1.0 - 2.0	0	
	Methoxychlor	1.0 - 2.25	7	
Flea beetles	Azinphosmethyl	0.5	See remarks	<i>Azinphosmethyl</i> — Do not apply after fruit sets.
	Carbaryl	0.5 - 1.0	0	
	Endosulfan	0.5	1	
	Methoxychlor	1.0 - 2.25	7	
	Naled	1.0	1	
Fruitworm	Carbaryl	1.0 - 2.0	0	
Lace bugs	Carbaryl	1.0 - 2.0	0	
	Malathion	1.875	3	
	Parathion	0.375 - 0.5	15	
Leafhoppers	Carbaryl	0.5 - 1.0	0	
	Carbophenothion	0.5 - 1.0	7	
	Mevinphos	0.25 - 0.5	2	
Leafminers	Azinphosmethyl	0.375 - 0.5	See remarks	<i>Azinphosmethyl</i> — Do not apply after fruit sets.
	Carbophenothion	0.5 - 1.0	7	
	Naled	1.0	1	
Mites	Carbophenothion	0.5 - 1.0	7	
	Ethion	0.25 - 0.5	0	
	Malathion	0.625	3	
	Mevinphos	0.25 - 0.5	2	
Stink bugs	Carbaryl	1.0 - 2.0	0	
	Endosulfan	0.5	1	
	Parathion	0.5	15	
Whitefly	Endosulfan	0.5	1	
	Naled	1.0	1	
	Parathion	0.5	15	

LETTUCE

(SPRAYS ONLY)

Aphids	Acephate (Green peach aphid)	0.5 - 1.25	21	Thorough coverage is important. <i>Acephate</i> — Do not apply more than 5.0 lbs. AI/acre/season. <i>Parathion</i> — Do not apply on leaf lettuce within 21 days of harvest.
	Demeton	0.25 - 0.5	See remarks 21	
	Diazinon	0.25 - 0.35	10	
	Mevinphos	0.25	2	
	Parathion	0.5	7	
			See remarks	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Cabbage looper	Acephate	1.25	21	Begin control when worms are small. <i>Acephate</i> — See remarks under aphids. <i>Methomyl</i> — Not registered for use on imported cabbage-worm. <i>Permethrin</i> — Do not use on leaf lettuce. Use no more than 10 applications per season. Not cleared for use on imported cabbageworm.
Imported cabbageworm	<i>Bacillus thuringiensis</i>	0.5 - 1	See remarks 0	
	Methomyl	0.45	7	
	Mevinphos	0.5	See remarks 2	
	Permethrin	0.05 - 0.1	1	
Corn earworm	Carbaryl	1.6	3	<i>Permethrin</i> — See remarks under cabbage looper.
	Permethrin	0.1 - 0.2	1	
			See remarks	
Cutworms	Trichlorfon	0.5 - 1 in 10 lb. bran bait mix	28	<i>Trichlorfon</i> — Apply to soil surface.
Leafhoppers	Malathion	1.25	See remarks	<i>Malathion</i> — Leaf 14, head 7. <i>Parathion</i> — See remarks under aphids.
	Parathion	0.35	7	
			See remarks	

MUSTARD AND TURNIPS

Aphids	Diazinon	0.25 - 0.5	10	<i>Diazinon</i> — Not labeled for use on mustard.
			See remarks	
	Dimethoate	0.25	14	
	Malathion	0.625 - 1.25	7	
	Mevinphos	0.125 - 0.25	3	
Armyworms	Carbaryl	1.0 - 2.0	See remarks	<i>Carbaryl</i> — 14 days on mustard and turnip tops. Three days on turnips if only tops are eaten. <i>Methyl parathion</i> — On mustard (spring and summer) 10; (fall and winter) 15. On turnips, 21 if tops are eaten, 12 if only root is eaten.
	Methyl parathion	0.5 - 1.5	21	
			See remarks	
Cabbage looper	<i>Bacillus thuringiensis</i>	See label	0	<i>Parathion</i> — See remarks under armyworms.
	Mevinphos	0.25 - 0.5	3	
	Parathion	0.5	See remarks	
Corn earworm	Carbaryl	1.0 - 2.0	14	<i>Carbaryl</i> — 3 days on turnips if only root is eaten.
			See remarks	
Diamondback moth (larvae)	<i>Bacillus thuringiensis</i>	See label	0	
Flea beetles	Carbaryl	0.5 - 1.0	See remarks	<i>Carbaryl</i> — See remarks under armyworms. <i>Malathion</i> — Not labeled for use on turnips. <i>Methoxychlor</i> — Not cleared for use on mustards.
	Malathion	0.94 - 1.25	7	
			See remarks	
	Methoxychlor	1.0 - 2.25	14	
			See remarks	
Harlequin bugs	Carbaryl	0.5 - 1.0	14	<i>Parathion</i> — See remarks under armyworms.
	Parathion	0.5	See remarks	
Imported cabbageworms	<i>Bacillus thuringiensis</i>	See label	0	<i>Carbaryl</i> — See remarks under armyworms.
	Carbaryl	1.0 - 2.0	See remarks	
	Malathion	0.625 - 1.25	7	
	Mevinphos	0.25 - 0.5	3	
Leafhoppers	Carbaryl	0.5 - 1.0	See remarks	<i>Carbaryl</i> — Use on mustard at a rate of 1.0 to 1.5 lbs. For preharvest interval, see remarks under armyworms. <i>Methyl parathion</i> — On mustard use a rate of 0.5 - 1.5 lbs. For preharvest interval, see remarks under armyworms.
		See remarks		
	Dimethoate	0.25	14	
	Methyl parathion	0.5 - 0.75		
		See remarks		
Leafminers	Dimethoate	0.25	14	<i>Methyl parathion</i> — Not labeled for use on mustard. For preharvest interval, see remarks under armyworms. <i>Parathion</i> — See remarks under cabbage looper.
	Methyl parathion	0.5 - 0.75	See remarks	
	Mevinphos	0.25 - 0.5	3	
	Parathion	0.5	See remarks	
Mites	Methyl parathion	0.5 - 0.75	See remarks	<i>Methyl parathion</i> — See remarks under leafhoppers.
		See remarks		
	Mevinphos	0.25 - 0.5	3	
Stink bugs	Carbaryl	1.0 - 2.0	See remarks	<i>Carbaryl</i> — See remarks under armyworms.

OKRA

Aphids	Malathion	0.625 - 0.938	1	
	Mevinphos	0.125 - 0.25	1	
	Parathion	0.5	21	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Corn earworm	Carbaryl	1.0 - 2.0	0	
	Mevinphos	0.25 - 0.5	1	
Leafminers	Parathion	0.25 - 0.5	21	
Spider mites	Mevinphos	0.25 - 0.5	1	
	Parathion	0.25 - 0.5	21	
Stink bugs	Carbaryl	1.0 - 2.0	0	
	Mevinphos	0.25 - 0.5	1	
	Parathion	0.5	21	

ONIONS

Beet armyworm	Methomyl See remarks	0.45	28 - Green 7 - Dry	<i>Methomyl</i> — Use a wetting agent.
Climbing cutworm	Mevinphos	0.25 - 0.5	1	
Onion maggot	Diazinon (granules)	2-4	See remarks	<i>Diazinon</i> — Use preplant, broadcast application.
	Fensulfothion	1.0	See remarks	<i>Fensulfothion</i> — Use at time of planting.
	Fonofos	1.0	See remarks	<i>Fonofos</i> — Use on organic soils only. Use in furrow at time of planting.
	Parathion	2.0	15 See remarks	<i>Parathion</i> — Use at time of planting.
Thrips	Azinphosmethyl	0.5 - 0.75	28 - Green 7 - Dry See remarks	<i>Azinphosmethyl</i> — Do not apply more than three times per season.
	Malathion	0.94	3	
	Methomyl See remarks	0.45	28 - Green 7 - Dry	<i>Methomyl</i> — Use a wetting agent.
	Methyl parathion	0.25	15	
	Mevinphos	0.25 - 0.5	1	
	Oxyamyl	0.25 - 0.5	7	
	Parathion	0.25	15	
Wireworms	Diazinon (granules)	2.9 - 3.9	See remarks	<i>Diazinon</i> — Preplant application only.
	Parathion 10G (granules)	3.0 - 4.0	See remarks	<i>Parathion</i> — Preplant application only.

PEPPER

Aphids	Diazinon	0.25	5	
	Dimethoate	0.25 - 0.33	0	
	Malathion	0.625 - 1.56	3 See remarks	<i>Malathion</i> — Use in 100 gallons of water.
	Methyl parathion	1.0	15	<i>Oxydemeton-methyl</i> — Do not use more than twice per season.
	Mevinphos	0.125 - 0.25	2	
	Oxydemeton-methyl	0.5	0 See remarks	
Aphids (Green Peach)	Acephate	0.5	7	
	Endosulfan	0.5	1	<i>Methamidophos</i> — Up to 5 applications may be made, during the months of November - February.
	Methamidophos	0.5	7	
	Methomyl	0.45	10	
Armyworms	<i>Bacillus thuringiensis</i>	See label	0	
	Carbaryl	1.0 - 2.0	0	
	Methomyl	0.45	10	
	Methyl parathion	0.5	15	
Cutworms	Carbaryl	2.0	0	
	Diazinon (granules)	1.96 - 3.9	See remarks	<i>Diazinon</i> — Preplant application only.
	Methyl parathion (climbing and surface feeding)	0.5	15	
Flea beetles	Carbaryl	0.5 - 1.0	0	
	Endosulfan	0.5	1	
	Methamidophos	0.5	7	
	Methoxychlor	1.0 - 2.25	7 See remarks	<i>Methamidophos</i> — See remarks under aphids.
	Methyl parathion	1.0	15	<i>Methoxychlor</i> - May be harvested within 1 day if 1.75 lb. or less is used.
	Naled	1.0	1	<i>Permethrin</i> — Do not exceed 8 applications per season.
	Permethrin	0.1 - 0.2	3	
			See Remarks	
Fruitworm	<i>Bacillus thuringiensis</i>	See label	1	
	Carbaryl	1.0 - 2.0	0	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Leafminers	Azinphosmethyl	0.375 - 0.5	3	<i>Azinphosmethyl</i> — 14 days if more than four applications are used. <i>Methamidophos</i> — See remarks under aphids. <i>Permethrin</i> — See remarks under flea beetles.
	Dimethoate	0.25 - 0.33	0	
	Ethion	0.5	See remarks 0	
	Methamidophos	0.5	7	
	Parathion	0.5	See remarks 15	
	Permethrin	0.1 - 0.2	3 See remarks	
Mites	Carbophenothion	0.5 - 1.0	7	
	Dicofol	0.53 - 0.78	2	
	Ethion	0.25 - 0.5	0	
	Methyl parathion	1.0	15	
	Mevinphos	0.25 - 0.5	2	
Pepper weevil	Cryolite	24 - 48	See remarks	<i>Cryolite</i> — Wash off residue. <i>Permethrin</i> — See remarks under flea beetles.
	Permethrin	0.1 - 0.2	3 See Remarks	
Stink bugs	Carbaryl	1.0 - 2.0	0	
Thrips	Methamidophos	0.5	7	<i>Methamidophos</i> — See remarks under aphids. <i>Permethrin</i> — See remarks under flea beetles.
	Parathion	0.5	See remarks 15	
	Permethrin	0.1 - 0.2	3 See Remarks	
Wireworms	Diazinon (granules)	2.9	See remarks	<i>Diazinon</i> — Use as a preplant broadcast application. <i>Fonofos</i> — Use as preplant broadcast application. <i>Parathion</i> — Use a preplant broadcast and disc in approximately 3 weeks prior to planting.
	Fonofos	4.0	See remarks	
	Parathion (granules)	3.0 - 4.0	See remarks	

POTATOES (IRISH)

Aphids	Diazinon	0.25 - 0.375	35	
	Dimethoate	0.25 - 0.5	7	
	Mevinphos	0.125 - 0.25	1	
	Parathion	0.25 - 0.5	5	
Colorado potato beetle	Azinphomethyl	0.31	7	<i>Azinphosmethyl</i> — Use at a rate of 0.5 - 1.25 lb. on flea beetles.
Flea beetles, Leafhoppers	Carbaryl	See remarks 0.5 - 1.0	0	
	Endosulfan	0.5 - 1.0	0	<i>Parathion</i> — Use at a rate of 1.5 lb. on leafhoppers.
	Parathion	0.25 - 0.5	5	
Mites	Methyl parathion	1.5	5	
	Mevinphos	0.25 - 0.5	5	
	Parathion	0.25 - 0.5	5	
Potato Psyllid	Endosulfan	0.75 - 1.0	0	<i>Fenvalerate</i> — Do not graze or feed vines to livestock. Do not use more than 1.4 lb. AI/acre/season.
	Fenvalerate	0.05 - 0.1	7 See remarks	
	Parathion	0.25 - 0.5	5	
Wireworms	Diazinon (granules)	2.9 - 5.8	See remarks	<i>Diazinon</i> — Use as a preplant broadcast application. <i>Fensulfathion</i> — Same as above. <i>Fonofos</i> — Same as above. <i>Parathion</i> — Same as above.
	Fensulfathion (granules)	2.0	See remarks	
	Fonofos (granules)	4.0	See remarks	
	Parathion (granules)	4.0 - 6.0	See remarks	

RADISHES

Aphids	Diazinon	0.25 - 0.5	10	
	Malathion	0.94 - 1.25 (in 100 gal. of water)	7	
Armyworm	Carbaryl	1.0 - 2.0	3	
Flea beetles	Carbaryl	0.5 - 1.0	3	
Leafhoppers	Methoxychlor	1.0 - 2.25	14	
Stink bugs	Carbaryl	1.2 - 2.4	3	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
SPINACH				
Aphids	Dimethoate	0.25	14	
	Endosulfan	0.75	21	
	(green peach aphids)			
	Methyl parathion	0.625	21	
	Mevinphos	0.125 - 0.25	4	
Armyworm	Cabaryl	1.0 - 2.0	14	
	Methomyl (beet & fall armyworm)	0.5 - 1.0	7	
	Methyl parathion	0.625	21	
Cabbage looper	<i>Bacillus thuringiensis</i>	See label	0	
	Methomyl	0.5 - 1.0	7	<i>Permethrin</i> — Do not make more than 7 applications per season.
	Mevinphos	0.25 - 0.5	4	
	Permethrin	0.1	7	
		See remarks		
Cutworms	Diazinon (granular)	1.96 - 3.92	See remarks	
	Methomyl (varigated cutworm)	0.5	7	
	Mevinphos	0.25 - 0.5	4	<i>Diazinon</i> — Use as a preplant broadcast application. <i>Permethrin</i> — See remarks under cabbage looper.
	Permethrin	0.1	7	
		See remarks		
Leafhoppers	Carbaryl (aster leafhopper)	1.0 - 1.5	14	
	Dimethoate	0.25	14	
	Methyl parathion	0.625	21	<i>Permethrin</i> — See remarks under cabbage looper.
	Mevinphos	0.25 - 0.5	4	
	Permethrin	0.1		
	See remarks			
Mites	Azinphosmethyl	0.31 - 0.5	14	
	Disulfoton	1.0	See remarks	<i>Disulfoton</i> — Use at time of planting.
	Methyl parathion	0.625	21	
	Mevinphos	0.25 - 0.5	4	
Thrips	Disulfoton	1.0	See remarks	<i>Disulfoton</i> — Use at time of planting.
SWEET CORN				
Aphids	Disulfoton (granules)	1.0	40	
	Mevinphos	0.125 - 0.5	1	
	Oxydemeton-methyl	0.375	7	
Corn earworm	Carbaryl	1.0 - 2.0	0	
	Diazinon	1.0 - 1.25	0	
	Endosulfan	1.5	See remarks	<i>Endosulfan</i> — For fresh use only.
	Fenvalerate	0.1 - 0.2	1	
		See remarks		<i>Fenvalerate</i> — Apply no more than 2.0 lbs. AI/acre/season. <i>Methomyl</i> — 3 days if used for forage, 0 days for ears. <i>Permethrin</i> — Apply no more than 6 applications per season.
	Malathion	0.625	5	
	Methomyl	0.3 - 0.45	See remarks	
	Permethrin	0.2	7	
	See remarks			
Armyworms	Carbaryl	1.0 - 2.0	0	
	Methomyl	0.23 - 0.45	See remarks	<i>Methomyl</i> — See remarks under corn earworm.
	Methoxychlor	1.0 - 2.25	7	
	Trichlorfon	0.5 - 1.0	0	
SWEET POTATOES				
Corn rootworms	Disulfoton	See remarks	28	<i>Disulfoton</i> — For larvae use 1.2 oz. of 8 EC per 1,000 ft. of row. For adults use 8 to 16 oz. of 8 EC per 100 ft. of row.
White grubs	Fensulfothion (granules)	See remarks	See remarks	
Wireworms	Fonofos (granules)	0.75 - 1.0	See remarks	At planting use 4-8 oz. of 15G per 1,000 ft. of row. At cultivation (40 days or more from harvest) use 6-8 oz. of 15G per 1,000 ft. of row. Not cleared for use on white grubs or wireworms. <i>Fonofos</i> — Use at time of planting. <i>Isofenfos</i> — Use 1.6 oz. of 6EC per 1,000 ft. of row. Make 1 application per season at planting or cultivation.
	Isofenfos	See remarks	See remarks	
Fall armyworms	Methoxychlor	1 - 2	7	
Flea beetles	Endosulfan	0.5	0	
	Fonofos	4.0	See remarks	<i>Fonofos</i> — See remarks under wireworms.
	Methoxychlor	1 - 2	7	

Pest	Pesticide (for other designations refer to page)	Pounds actual toxicant per acre	Days from last application to harvest	Remarks
Sweet potato weevil	See text, pages 3 and 4			
White grubs	Fonofos	4.0	See remarks	<i>Fonofos</i> — See remarks under wireworms.
Wireworms	Chlorpyrifos	0.5 - 2.0	See remarks	<i>Chlorpyrifos</i> — Use at time of planting.
	Diazinon (granular)	3.0	See remarks	<i>Diazinon</i> — Broadcast at time of planting and in top 4 to 8 inches of soil immediately.
	Fonofos	4.0	See remarks	<i>Fonofos</i> — Broadcast at planting or over the top at root swelling.
TOMATOES				
Aphids	Demeton	0.25 - 0.375 (in 100 gal. of water)	3	
	Diazinon	0.5	1	
	Dimethoate	0.25 - 0.5	7	
	Disulfoton (granules)	See remarks	30	<i>Disulfoton</i> — Use 8 to 23.4 oz. 14G per 1,000 ft. of row.
	Endosulfan (Green peach aphid)	2.25	1	
	Mevinphos	0.125 - 0.25	1	
	Parathion	0.5 - 1.0	10	
Cutworms	Carbaryl	2.0	0	<i>Diazinon</i> — Use as a preplant application.
	Diazinon	2.0 - 4.0	See remarks	
Beet armyworms	Methomyl	0.45 - 0.9	3 See remarks	<i>Methomyl</i> — 1 day if 2 pts. or less is used.
Fall armyworms	Carbaryl	1.2 - 2.0	0	
	Diazinon	0.375 - 0.5	1	
	Methoxychlor	1.0 - 3.0	7 See remarks	<i>Methoxychlor</i> — One day if 1.75 lb. or less is used.
Fruitworm	Azinphosmethyl	0.75 - 1.50	14	
Hornworm	Carbaryl	1.0 - 2.0	0	
	Fenvalerate	0.1	1	<i>Fenvalerate</i> — Do not graze or feed to livestock. Use no more than 2.0 lb. AI/acre/season.
	Methomyl	See remarks 0.45 - 0.9	2 See remarks	<i>Methomyl</i> — One day if used at 0.45 lb.
	Naled	1.0	1	
Leafhoppers	Azinphosmethyl	0.5 - 0.75	0	
	Disulfoton	See remarks	30	<i>Disulfoton</i> — Use 1.2 to 3.5 fl. oz. per 1,000 ft. of row.
	Dimethoate	0.25 - 0.5	7	
	Mevinphos	0.25 - 0.5	1	
Leafminers	Azinphosmethyl	0.375 - 0.5	0	
	Carbophenothion	0.5 - 1.0	7	
	Diazinon	0.25	1	
	Dimethoate	0.25 - 0.5	7	<i>Fenvalerate</i> — See remarks under fruitworm.
	Fenvalerate	0.1 - 0.2	1	
	Parathion	See remarks 0.5 - 1.0	10	
Spider mites	Carbophenothion	0.5	7	
	Demeton	0.25	3	
	Dicofol	0.53 - 0.78	2	<i>Tetradifon</i> — Do not apply more than 3 times during fruiting season.
	Ethion	0.5	2	
	Tetradifon	0.5	0 See remarks	
Stink bugs	Carbaryl	1.0 - 2.0	0	
	Endosulfan	1.0	1	
	Parathion	0.5 - 1.0	10	
Thrips	Azinphosmethyl	0.5 - 0.75	0	
	Parathion	1.0 - 2.0	10	
Tomato pinworm	Azinphosmethyl	0.5 - 0.75	14	
	Carbaryl	1.0 - 2.0	0	<i>Fenvalerate</i> — See remarks under fruitworm.
	Fenvalerate	0.1 - 0.2	1	<i>Methomyl</i> — One day before harvest, 2 if more than the 0.5 lb. of 90 WP is used.
	Methomyl	See remarks 0.25 - 0.5	See remarks	
Whitefly	Azinphosmethyl	0.375 - 0.75	0	
	Endosulfan	0.5 (in 100 gal. of water)	1	
	Parathion	0.5 - 1.0	10	

POLICY FOR MAKING INSECT CONTROL SUGGESTIONS

Insect control suggestions made by the Texas Agricultural Extension Service and the Texas Agricultural Experiment Station of The Texas A&M University System are based upon:

- Product effectiveness
- Avoiding residues in excess of allowable tolerances on the crop at harvest
- Avoiding toxicity to humans, animals and desirable plants
- Avoiding adverse side-effects on beneficial predators, parasites, honeybees, fish and other wildlife, plants, animals and humans

Suggested chemicals also must be registered and labeled for use by the U.S. Environmental Protection Agency and the Texas Department of Agriculture. The status of insecticide label clearances is

subject to change and changes may have occurred since this publication was printed. County Extension agents and Extension entomologists are notified as these changes occur.

The insecticide USER is always responsible for the effects of pesticide residues on his own crops and livestock, as well as problems caused by drift from his property to other property or crops. Always read and follow all label instructions carefully.

For further information, contact your county Extension agent, area Extension entomologist or state Extension entomologist (AC 409/845-7026), Texas A&M University, College Station, Texas 77843.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.

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