

CONTROL RECOMMENDATIONS FOR INSECTS OF HOME VEGETABLE GARDENS

Crop	Pest	Insecticide and Formulation	Amount per 1 gal. water	PHI	REI Hours	Application Procedure	
Beans	Beetles	**Carbaryl	1.5-3.0 TBS	3		Repeat as needed up to 4 times; 7 days between applications.	
		Bifenthrin 0.3%	1.5 fl ozs	3		Wait at least 7 days between applications.	
	Aphids	Bifenthrin 0.3%	1.5 fl ozs	3		Wait at least 7 days between applications.	
		Malathion	2.0 tsps	1		Wait at least 7 days between applications.	
	Whitefly	Bifenthrin 0.3%	1.5 fl ozs	3		Wait at least 7 days between applications.	
	Leafhoppers	Address 75S	0.5 TBS			14	
		Thiodan 50% WP	3.0 TBS	3		24	Not more than three applications per season.
		Orthene 75S	0.5-1.0 TBS	0		24	Lima beans, snap beans, or dry beans.
M-PEDE		3.0 TBS	0				
Beets	Webworms	Malathion 57% EC	2.0 tsps	7	12	When insects appear.	
	Flea beetles	Carbaryl	1.5-3.0 TBS	3		Repeat up to 6 times but no more than once every 7 days.	
Broccoli	Caterpillars	B.t. *(Dipel, Thuricide)				Use weekly wetting agent in sprays.	
		Spinosad	4.0 TBS	1		Maximum of 6 applications per season; wait 4 days between applications.	
		Permethrin	2.0 TBS	1		Follow label.	
	Aphid	Malathion 50%	2.0 tsps	3			
		Bifenthrin 0.3%	1.5 fl ozs	7		Wait at least 7 days between applications.	
	Stink bugs	Carbaryl	3.0-6.0 TBS	3		Wait 7 days between applications.	
		Bifenthrin	1.5 fl ozs.	7		Wait at least 7 days between applications.	

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Cabbage	Aphids	Malathion 57% EC	2.0 tsps	7	12	Wait at least 7 days between applications.
		Bifenthrin	1.5 fl ozs.	7		Wait at least 7 days between applications.
	Worms	B.t.	Follow label	0		
		Spinosad	4 TBS	1		Maximum of 6 applications per season; wait 4 days between applications.
		Permethrin	2 TBS	1		Follow label.
		Bifenthrin	1.5 fl ozs.	7		Wait at least 7 days between applications.
Flea beetles	Carbaryl	1.5-3 TBS	3		On foliage, repeat as needed up to 4 times, but no more than once every 7 days.	
Collards	Aphids	Malathion 50%	2 tsps	7		Apply as necessary, wait 7 days between applications.
	Flea beetles	Carbaryl	1.5- 3 TBS	14		On foliage as needed; Repeat as necessary up to 4 times, but no more than once every 7 days.
Cantaloupe	Aphids	Malathion 57% EC	2.0 tsps	3	12	
		Bifenthrin 0.3%	1.5 fl ozs	7		Wait at least 7 days between applications.
	Beetles	Thiodan EC	3.0 TBS	0	24	
		Carbaryl	3.0 TBS			
		Bifenthrin 0.3%	1.5 fl ozs	3		Wait at least 7 days between applications.
		Permethrin	Follow label	0		Follow label.
	Leafminer	Spinosad	4.0 TBS	3		Maximum of 6 applications per season; wait 5 days between applications.
	Caterpillars	Carbaryl	1.5-3.0 TBS	3		Do not use Carbaryl for aphid control.
Bifenthrin 0.3%		1.5 fl ozs	3		Wait at least 7 days between application.	
Permethrins		As recommended on label	0		Follow label.	

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Canteloupe (cont'd)		Spinosad	4 TBS	3		Maximum of 6 applications per season; wait 5 days before reapplying.
Carrots	Aphids Leafhoppers Vegetable weevils	Malathion 57% EC	2.0 tsps	7	12	When insects appear.
Cucumbers	Aphids	Bifenthrin	1.5 fl ozs	3		Wait at least 7 days between applications. For suppression, repeat applications may be needed. Repeat at weekly intervals up to 3 times. Do not make more than 3 sequential applications over a 2-week period. Do not apply when temps exceed 90°F.
		Safer Insecticidal Soap	5.0 TBS	0		
	Cucumber beetles Squash bugs	Thiodan	1.5 ozs/50	0	24	
		Carbaryl	3.0 TBS	3		Apply late in day to minimize killing pollinating insects.
		Bifenthrin	1.5 fl ozs	3		Wait at least 7 days between applications.
		Permethrin	As recommended on label	0		Follow label.
		Malathion 50%	4.0 tsps	1		Apply when needed. Wait at least 7 days between applications.
Eggplant	Aphids	Malathion 50% EC	2.0 tsps	3		Apply when aphids present and repeat when needed; wait 7 days between applications.
		Bifenthrin	1.5 fl ozs	7		Wait at least 7 days between Applications.
	Flea beetles	Thiodan	2.0 TBS	1		
		Bifenthrin	1.5 TBS	3		Wait at least 7 days between applications.
		Malathion 50%	1.0 TBS	3		Wait at least 7 days between applications.
		Carbaryl	1.5-3.0 TBS	3		On foliage as needed; no more than once every 7 days.
	Spider mites	Malathion	1.0 TBS	3		Repeat treatments often necessary.

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Eggplant (cont'd)						
	Caterpillars	Ultrafine oil Carbaryl 80% S	Follow label 2.0 TBS	12		
		B.t. (Dipel, Thuricide)				
	Whiteflies	Thiodan 3EC	1.5 TBS	1	24	
		Thiodan 50% WP	2.0 TBS	1	24	
		Bifenthrin	1.5 fl ozs	7		Wait at least 7 days between applications.
English peas	Aphids	Malathion 57% EC	2.0 tsps	3	12	When insects appear.
Irish Potatoes	Aphids	Malathion 57% EC	2.0 tsps	3	12	When insects appear.
	Colorado potato beetle	Permethrin 2.5L	3.0 TBS	7		Follow label.
		Spinosad	4.0 TBS	7		Maximum of 6 applications per season; wait 7 days before reapplying.
	Leafhopper, Flea beetles	Carbaryl 80% S	2.0 TBS	0	12	
		Malathion 57% EC or Thiodan 50 WP	2.0 tsps 3.0 TBS	3 0	12 24	
Lettuce	Aphids	Malathion 50% EC	1.0 TBS	14- leaf 7- head	12	When insects appear. Wait at least 7 days between applications.
		Bifenthrin 0.3%	1.5 fl ozs	7		Wait at least 7 days between applications.
	Caterpillars	B.t.* (Dipel, Thuricide)	As recommended on label	0		Repeat weekly until harvest.
		Bifenthrin 0.3%	1.5 fl ozs	7- head		Wait 7 days between applications.
		Permethrin 2.5%	4.0 TBS follow label	1		Apply every 5-10 days as needed but no more than 10 times (liquid form) per season.
		Spinosad 0.5%	4.0 TBS	1		Apply no more than 6 applications per season; wait 4 days between applications.
Mustard	Aphids	Malathion 57% EC	2.0 tsps	7	12	
	Vegetable weevils	Malathion 57% EC	2.0 tsps	3	12	

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Mustard (cont'd)						
	Flea beetles	Carbaryl	1.5-3.0 TBS	14		Repeat up to 4 times; no more than once every 7 days.
	Caterpillars	Malathion 57% EC	2.0 tsps	7	12	When insects appear.
		B.t. (Dipel, Thuricide)	Follow label	0		Apply as soon as damage is found; repeat weekly.
		Spinosad 0.5%	4.0 TBS	1		Maximum 6 applications per season; wait 4 days between applications.
		Carbaryl 5% D	0.75 lb/100 sq ft	12		
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Okra	Aphids	Malathion 50%	2.0 tsps	1	12	When insects appear; wait 7 days between applications.
	Stinkbugs	**Carbaryl 80% S	2.0 TBS	0	12	
	Earworms	Permethrin 2.5% liquid	Follow label	1		Every 5-7 days as needed; no more than 10 times per season.
		**Carbaryl 80% S	2.0 TBS	0	12	
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Onions Shallots	Thrips	Malathion 50%	1.0 tsps	3	12	When insects appear.
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Parsley	Aphids	Malathion 57% EC	2.0 tsps	21	12	When insects appear.
	Beetles	**Carbaryl 80% S	2.0 TBS	14	12	
	Caterpillars	*B.t. (Dipel, Thuricide)	Follow label			
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Peppers	Aphids	Malathion 50%	2.0 tsps	3	12	When insects appear.
		Bifenthrin	1.5 fl ozs	7		Wait 7 days between applications.
		Thiodan	1.5 TBS	1	24	
	Pepper weevils Vegetable weevils	**Carbaryl 80% S	2.0 TBS	1	12	
		Malathion	2.0 tsps	3	12	
	Caterpillars, armyworms, loopers , leafminers	Safer Insecticidal Soap	5.0 TBS	0		For suppression; repeat applications may be needed (no more than 3 over a 2-week period).

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Peppers (cont'd)							
		Cyfluthrin 0.75%	1.0 TBS	7		Do not apply more than 6 times during season.	
		Cyfluthrin .0003%	Ready to use formula	7			
		Permethrin	Follow label	3			No more than 8 applications per season.
		Spinosad 0.5%	4.0 TBS	1			Maximum of 6 applications per season; wait 4 days between applications.
	Flea beetle	Carbaryl liquid	1.5-3.0 TBS	3			
Squash Pumpkins	Aphids	Malathion 50% EC	2.0 tsps		3-pumpkin 1-squash	12	When insects appear; wait 7 days between applications; apply when leaves are dry.
		Bifenthrin .3%	1.5 fl ozs	3			Wait 7 days between applications.
		Safer Insecticidal Soap	5.0 TBS	0			For summer squash; for suppression.
	Squashbugs	**Carbaryl 80% S	2.0 TBS	0		12	
		Bifenthrin	1.5 fl ozs	3			Wait 7 days between each application.
		Permethrin	Follow label	0			No more than 8 applications per season.
	Cucumber beetles Flea beetles	Carbaryl liquid	3.0 TBS	3			Repeat applications up to 6 times, but not more often than once every 7 days.
		Bifenthrin	1.5 fl ozs	3			Wait 7 days between applications.
		Permethrin 2.5%	4.0 TBS	3			Do not apply liquid more than 8 times per season.
	Leafminer	Spinosad 0.5%	4.0 TBS	3			Maximum 6 applications season.
	Vine borers Pickleworms	Carbaryl 22.5% liquid	1.5-3 TBS	3			Repeat as necessary up to 6 times, but no more than once every 7 days.
		Bifenthrin	1.5 fl ozs	3			Wait 7 days between applications.
		Permethrin	Follow label	0			No more than 8 times per season.

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Crop	Pest	Insecticide and Formulation	Amount per 1 gal. water	PHI	REI Hours	Application Procedure	
Southern peas	Aphids	Malathion 50% EC	1.0 TBS	3	12	When insects appear.	
	Earworms Curculio	**Carbaryl 80% S	2.0 TBS	0	12		
	European corn borer	Carbaryl liquid 22.5%	3.0-4.5 TBS	3- fresh 21-dried			Maximum 6 applications per season; wait 5 days between applications.
		Spinosad	4.0 TBS	3			
		Cyfluthrin 0.75%	1.0 TBS	7		Do not apply more than 6 applications per season.	
Spinach	Aphids	Malathion 57% EC	2.0 tsps	7	12	When insects appear.	
	Caterpillars	B.t.* (Dipel, Thuricide)	3.0 TBS	0			
Squash	Aphids	Malathion 57% EC + M-PEDE	2.0 tsps 3.0 TBS	1 0	12		
	Pickleworms	**Carbaryl 80% S	2.0 TBS	0	12	Weekly-when beetles, pickleworms, or vine borers are present.	
	Beetles	Methoxychlor		1	12		
	Vine borers	50% WP	1.75 TBS				
25% EC		7.0 tsps	1				
Sweet corn	Corn earworm Fall armyworm European corn borer	**Carbaryl 80% S	2.0 TBS	0	12	Treat silks every other day for earworm.	
		Bifenthrin 0.3%	1.5 fl ozs	1		Wait 7 days between applications.	
		Cyfluthrin 0.75%	1.0 TBS	0		Do not apply more than 5 times per season.	
		Permethrin 2.5% liquid	3.0 TBS	1		Apply as needed every 5 days, but no more than 6 times per season.	
		Spinosad 0.5%	4.0 TBS	1		Maximum of 6 applications per season; wait 3 days between applications.	
Tomatoes	Aphids	Malathion 50% EC	2.0 tsps	1	12	When insects appear.	
		Bifenthrin	1.5 fl ozs	1		Wait at least 7 days between applications.	
		Safer Insecticidal Soap	5.0 TBS	0		For suppression, repeat applications may be required.	

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Tomatoes (cont'd)	Fruitworm, Hornworm	**Carbaryl 80%S	2.0 TBS	0	12	Weekly-from bloom through harvest.
		Cyfluthrin 0.75 %	1.0 TBS	0		Do not apply more than 5 times per season.
		Bifenthrin	1.5 fl ozs	1		Wait 7 days between applications.
		Permethrin 2.5% liquid	3.0 TBS	0		No more than 8 times per season.
		Spinosad 0.5%	4.0 TBS	1		No more than 6 applications per season; wait 4 days between applications.
		B.t. (Dipel, Thuricide)	Follow label	0 0		When insects are present
	Mites	Kelthane				
		Ultra Fine Sunspray Oil				
	Stinkbugs, Leaf-footed	**Carbaryl 80% S	2.0 TBS	0	12	
		Thiodan	2.0 TBS	1	24	
		Cyfluthrin 0.75%	1.0 TBS	0		Do not apply more than 5 times per season.
		Bifenthrin	1.5 fl ozs	1		Wait 7 days between applications.
		Permethrin 0.25%	Follow label	0		6 applications/season, maximum.
Whiteflies	Bifenthrin 0.3%	1.5 fl ozs	1		Wait 7 days between applications.	
	Safer Insecticidal Soap	5.0 TBS	0		No more than 3 applications in 2 weeks. Do not apply when temperatures exceed 90 °F.	
	Pyrethrin	Follow label	0		Spray underside of leaves; repeated weekly applications needed for control.	
Leafminer	Spinosad 0.5%	4.0 TBS	1		No more than 6 applications per season; wait 4 days between applications.	
Spider mites	Bifenthrin 0.3%	1.5 fl ozs	1		Wait 7 days between applications.	

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Tomatoes (cont'd)						
	Cutworms	Carbaryl 22.5% liquid	6.0 TBS	3		Mix in enough water to get sufficient coverage of plants and soil around plants. Repeat weekly no more than 5 times per season.
		Cyfluthrin 0.75%	1.0 TBS	3		Do not apply more than 5 times per season.
		Permethrin 2.5%	3.0 TBS	0		Do not apply more than 8 times per season.
	Beetles	Carbaryl liquid 22.5%	1.5-3.0 TBS	3		Repeat applications up to 7 times, but no more than once every 7 days.
		Bifenthrin 0.3%	1.5 fl ozs	1		Wait 7 days between applications.
		Permethrin	Follow label	0		No more than 6 times per year.
	Tomato pinworms	Spinosad 0.5%	4.0 TBS	1		Maximum 6 applications per season; wait 4 days between applications.
		Bifenthrin 0.3%	1.5 fl ozs	1		Wait 7 days between applications.
Turnips	Aphids	Malathion 50% EC	2.0 tsps	7	12	When insects appear.
	Caterpillars	B.t. (Dipel, Thuricide)	Follow label		0	When insects appear.
	Flea beetles Worms	**Carbaryl 80% S	2.0 TBS	3 for roots 14 for tops	2	
Watermelon	Aphids	Malathion 57% EC	2.0 tsps	1	12	When insects appear.
		Bifenthrin 0.3%	1.5 fl ozs	3		Wait 7 days between applications.
	Beetles	Permethrin liquid 2.5%	Follow label	0		Do not apply more than 8 times per year.
		Thiodan	3.0 TBS	1	24	
		**Carbaryl 80% S	2.0 TBS	0	12	Don't use Carbaryl for aphids.
	Thrips	Spinosad 0.5%	4.0 TBS	3		No more than 6 applications per year; wait 5 days between applications.

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GENERAL PESTS						
Beans (dry, green, lima and snap)	Mites	Dimethoate 267 (Cygon)	1.5 tsps	0	48	
		Kelthane 35W	1.5 tsps	7	12	
		Kelthane 18.5 EC	1.0-1.5 tsps	7	12	
Cucumbers		Kelthane 35W	1.5 tsps	2	12	
Cantaloupes		Kelthane 18.5 EC	0.75-1.0 tsp	2	12	
Melons				2		
Squash						
Pumpkin				2		
Tomatoes		Kelthane 35WP	1.5 tsps	2	12	
Peppers		Kelthane 18.5 EC	0.75-1.0 tsp	2	12	

* Follow label instructions; product sold as Dipel, Biobit, Thuricide, Bactospeine, Javelin, and Ketch™ DF.

** Carbaryl can be purchased as a 5% or 10% dust, flowable, wettable, or liquid.

PHI: Preharvest interval

REI: Re-entry interval

Common Chemical Name	Trade Name(s)	Manufacturer/brand
Bacillus thuringiensis (B.t.)	Dipel dust Dipel dust BT Worm Killer Thuricide Thuricider HPC	Fertilome Hi-Yield Greenlight Bonide Southern Ag
Bifenthrin	Ortho Bug-B-Gone Max Lawn & Garden Insect Killer	Ortho
Carbaryl	Bayer Complete Insect Killer for Gardens Sevin Bug B Gone Sevin Sevin-10 Liquid Carbaryl Garden Spray 5% Carbaryl Garden & Pet Dust	Bayer Advanced Spectracide Ortho Garden Tech Garden Tech Ferti-Lome Hi-Yield
Cyfluthrin	Bayer Advanced Garden PowerForce Multi-Insect Killer, Concentrate Bayer Advanced Lawn and Garden Multi Insect Killer	Bayer Bayer
Dimethoate	Cygon Cygon 2E	Bonide Hi-Yield
Dicofol	Kelthane	Hi- Yield
Endosulfan	Thiodan Hi-Yield Insect Spray Thionex 50W Thionex 3EC	Hi-Yield MANA MANA
Malathion	50% Malathion Malathion Plus Insect Spray Concentrate Malathion 50% Malathion Malathion Insect spray Malathion 50%E.C.	Greenlight Ortho Ace Martin's Hi-Yield Southern Ag
Oil	Sun-spray Ultra Fine Oil Parafine Horticultural Oil	Security Products Southern Ag
Permethrin	Bayer Complete Insect Dust for Gardens Permethrin Insect Control Bug-B-Gone Permethrin 10% Indoor/Outdoor MultiPurpose Insect Spray Vegetable Fruit and Flower Spray Multi Purpose Garden Insect Killer Vegetable Plus	Bayer Advanced Spectracide Ortho Martin's Ferti-Lome Bonide KGRO Martins

Common Chemical Name	Trade Name(s)	Manufacturer/brand
Pyrethrin	Tomato and Vegetable Tomato Vegetable Insect Spray	Safer Spectracide
Spinosad	Lawn and Garden Spray with Spinosad	Greenlight
Neem	Greenlight Neem Concentrate Triple Action Neem Oil	Greenlight Southern Ag
Insecticidal Soaps	M-Pede Insecticidal Soap Insecticidal Soap Tomato Vegetable Insect Killer	Dow Agro Sciences Safer Garden Safe Safer

Disclaimer Statement: The pesticides recommended in this publication were registered for the prescribed uses at time of publication. Pesticide registrations are continuously being reviewed. Should registration of a recommended pesticide be canceled, it would no longer be recommended by the LSU AgCenter.

The use of brand or trade names in this publication is for clarity and information. It does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The above list is not a complete list.