

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>ASPARAGUS</b>	Asparagus beetle, Japanese beetle, Grasshoppers	acetamiprid Assail 30 SG	2.5 oz	0.048			1	
		carbaryl Sevin XLR Sevin 4F	1 qt 1 qt	1.0	When damage occurs.	DO NOT apply during bloom.	1	
		malathion Malathion 57% EC	2 pt	1.25			1	
		methomyl (R) Lannate 2.4 LV Lannate 90 SP	1.5-3 pt 1/2-1 lb	0.45-0.9			1	
		permethrin (R) Pounce 25 WP	3.2-6.4 oz	0.05-0.1			1	
		spinetoram Radiant 1 SC	4-8 oz	0.03-0.063		After harvest of ferns only.	3	
		spinosad SpinTor 2 SC	4-6 oz	0.062-0.094		For protection of ferns only.	60	
		Beet armyworm, Cutworms, Yellow-striped armyworm	<i>Bacillus thuringiensis</i> Biobit, Dipel, Javelin, etc.	See label for rates.				0
		chlorantraniliprole Coragen 1.67 SC Shenzi 400SC Coragen eVo	3.5-7.5 fl oz 1.7-3.8 fl oz 1.2-2.5 fl oz	0.045-0.098 0.047-0.098		DO NOT use an adjuvant with Coragen.	1	
	Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1		
	methomyl (R) Lannate 2.4 LV Lannate 90 SP	1 1/2-3 pt 1/2-1 lb	0.45-0.9	When damage occurs.		1		
	<b>BEANS</b> (snap or lima)	Bean leaf beetle, Mexican bean beetle	acetamiprid Assail 30 SG	2.5-5.3 oz	0.048-0.10			7
			bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1			3
			carbaryl Sevin XLR Sevin 4F	1/2-1 qt 1/2-1 qt	0.5-1	When damage occurs.	DO NOT apply during bloom.	3
esfenvalerate (R) Asana XL 0.66 EC			2.9-5.8 oz	0.015-0.03		Asana is not registered on lima beans.	3	
gamma-cyhalothrin Proaxis 0.5EC			2.56-3.84 oz	0.01-0.015			7	
lambda-cyhalothrin (R) Warrior II			1.28-1.92 oz	0.02-0.03			7	
methomyl (R) Lannate 90 SP			0.5 lb	0.45			1	
Novaluron Rimon 0.83 EC			9-12 oz	0.058-0.077		<b>Controls immature mexican bean beetles only.</b>	1	
zeta-cypermethrin (R) Mustang Maxx 0.8 EC			3.2-4.0 oz	0.02-0.025			1	

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Crop	Insect	Insecticide	Formulation Per		Application	Remarks/Precautions	Days to Harvest
			Acre	Lb ai/Acre			
BEANS (snap or lima) (cont.)	Cabbage looper	<i>Bacillus thuringiensis</i> Agree WG		2		Loopers rarely require management on Arkansas snap bean.	
		chlorantraniliprole Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098		Do not apply more than 5.1 fl oz Coragen eVo insect control or 0.2 lb a.i. of chlorantraniliprole containing products per acre per crop.	1
		Coragen	3.5-7.5 fl oz				
		Coragen eVo	1.2 – 2.5 fl oz (foliar)	0.047 - 0.098			
		chlorantraniliprole + lambda-cyhalothrin (R) Besiege	10 fl oz	0.10		For Colorado Potato beetle only.	7 (succulent) 21 (dried)
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05		Asana is not registered on lima beans.	3
		methomyl (R) Lannate 90 SP	0.5-1 lb	0.45-0.9			3
		Lannate 2.4 LV	1 1/2-3 pt				
		methoxyfenozide Intrepid 2F	8-16 oz	0.16-0.25			7
		Corn earworm	bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1		In spring planted snap bean, scouting (300 sweeps per 50 acres) can be used to reduce insecticide applications.
	carbaryl Sevin 5% D		40 lb	2.0	When first pods are 1 inch long and weekly thereafter.	Fall-planted snap beans will generally require corn earworm management. DO NOT apply during bloom.	3
	chlorantraniliprole Coragen 1.67 SC		3.5-7.5 fl oz	0.045-0.098		Do not apply more than 5.1 fl oz Coragen eVo insect control or 0.2 lb a.i. of chlorantraniliprole containing products per acre per crop.	1
	Shenzi 400SC		1.7-3.8 fl oz				
	Coragen eVo		1.2 – 2.5 fl oz (foliar)	0.047 - 0.098			
	chlorantraniliprole + lambda-cyhalothrin (R) Besiege		6-10 fl oz	0.06-0.10		For Colorado Potato beetle only.	7 (succulent) 21 (dried)
	Cyantraniliprole Exirel 0.83 EC		7-13.5 fl oz	0.45-0.88			1
	esfenvalerate (R) Asana XL 0.66 EC		5.8-9.6 oz	0.03-0.05		DO NOT feed treated vines. Asana is not registered on lima beans.	3
	gamma-cyhalothrin Proaxis 0.5EC		2.56-3.84 oz	0.01-0.015			7
	lambda-cyhalothrin (R) Warrior II		1.28-1.92 oz	0.02-0.03			7
	methomyl (R) Lannate 90 SP	0.5 lb	0.45			1	
Lannate 2.4 LV	1 1/2 pt						
methoxyfenozide Intrepid 2F	10-16 oz	0.16-0.25			7		
spinetoram Radiant 1 SC	4-8 oz	0.03-0.063			3 (succulent); 28 (dried)		
spinosad Blackhawk	1.7-3.3 oz	0.04-0.07			3 (succulent); 28 (dried)		
zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025			1		

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<b>BEANS</b> (snap or lima) (cont.)	Corn earworm (cont.)	zeta-cypermethrin +bifenthrin (R) Hero	10.3 oz	0.1			3	
	European corn borer	chlordaniliprole Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098		Corn borers rarely require management on Arkansas snap bean. Do not apply more than 5.1 fl oz Coragen eVo insect control or 0.2 lb a.i. of chlordaniliprole containing products per acre per crop.	1	
		Shenzi 400SC	1.7-3.8 fl oz					
		Coragen eVo	1.2 – 2.5 fl oz (foliar)	0.047 - 0.098				
			Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1
			zeta-cypermethrin + bifenthrin (R) Hero	10.3 oz	0.1			3
	Mites	abamectin Agri-Mek SC	1.75-3.5 fl oz	0.01-0.05		For control of spider mites.	DO NOT make more than 2 applications. Must be mixed with an adjuvant.	7
		acequinocyl Kanemite 15 SC	31 fl oz	0.3			DO NOT make more than 2 applications.	7
		fenpyroximate Portal 0.4 EC	2 pt	0.1			Snap bean only. DO NOT make more than 2.	1 (Snap bean)
		bifenthrin (R) Brigade 2 EC	6.4 fl oz	0.1				3
		dimethoate Dimethoate 4EC	1 pt	0.5				0
		Seedcorn maggot, Wireworms	bifenthrin Empower 1.15 G	3.5-8.7 lb				Apply preplant broadcast in the top 1 to 3 inches of soil.
		phorate (R) Thimet 20G		7.6		Distribute 4.5-7.0 oz of the granules evenly in 1,000 row feet over the top of the row at planting time (30-inch row minimum).	DO NOT feed foliage of treated beans. DO NOT place Thimet in contact with seed.	
Stink bugs	bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1				3	
	lambda-cyhalothrin (R) Warrior II	1.28-1.92 oz	0.02-0.03				7	
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025				1	
	zeta-cypermethrin + bifenthrin (R) Hero	10.3 oz	0.1				3	
<b>BEETS</b>	Flea beetles, webworms	carbaryl Sevin 4F	1 qt	1.0	When insects appear in damaging numbers.	DO NOT apply during bloom.	7	
		Sevin XLR Plus	1 qt					
		imidacloprid Prey 1.6 F	3.5 oz	0.044			7	
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	1.8-4.0 oz	0.011-0.025			1	

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<b>CARROTS</b>	Flea beetles, celery worm, leafhoppers	beta-cyfluthrin + imidacloprid Leverage 360	2.8 oz	0.066			7
		carbaryl Sevin 4F Sevin XLR Plus	1 qt 1 qt	1.0	When insects appear in damaging numbers.	Avoid application when foliage is wet. DO NOT apply during bloom.	7
		imidacloprid Prey 1.6 F	3.5 oz	0.044			7
		malathion Malathion 57% EC	2 pt	1.25	Use only for leafhoppers.		7
		sulfoxaflor Transform WG	1.5-2.75	0.047-0.086		Leafhopper control only. Check label for crop rotation restrictions.	7
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	1.8-4.0 oz	0.011-0.025			1
		<b>COLE CROPS</b> (Broccoli, Brussels sprouts, cabbage and cauliflower)	Aphids	acetamiprid Assail 30 SG	2.5 oz	0.048	
		acetamiprid + bifenthrin Savoy	4.9-12.9 oz			Maximum of 19 oz a season.	7
		beta-cyfluthrin + imidacloprid Leverage 360	3 oz	0.07			7
		bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1			7
		flonicamid Beleaf 50SG	2-2.8 oz	0.062-0.089			0
		flupyradifurone Sivanto Prime	7-14 fl oz	0.09-0.18		Except green peach aphid. Do not apply more than 28 fl oz in a season.	1
		imidacloprid Admire Pro 4.6 F Prey 1.6 F	3.75 oz 1.3 fl oz	0.047			7
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025			1
		zeta-cypermethrin + bifenthrin Hero	10.3 oz	0.1			3
	Caterpillars (cabbage looper, diamondback, imported and cross-striped cabbage worm)	acetamiprid + bifenthrin Savoy	9.6-12.9 oz			<b>Use on diamond back moth only.</b> Maximum of 19 oz a season.	7
		<i>Bacillus thuringiensis</i> (Dipel, Javelin, Agree, Crymax)			Check label.	Slow acting but works well.	0
		beta-cyfluthrin + imidacloprid Leverage 360	3 oz	0.07			7
		bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1		Follow label directions.	7

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<b>COLE CROPS</b> (Broccoli, Brussels sprouts, cabbage and cauliflower)  (cont.)	Caterpillars (cabbage looper, diamondback, imported and cross-striped cabbage worm)  (cont.)	chlordantraniliprole Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098		Diamondback moth resistance management: Do not apply Coragen® eVo insect control more than twice to any generation of diamondback moth or within any 30 day period. After the second application of Coragen® eVo insect control for diamondback moth, rotate to another effective insecticide with a different mode of action (i.e. a product with a different IRAC group number). See label for more info.	3	
		Coragen eVo	1.2 - 2.5 fl oz (foliar) 1.2 - 2.5 fl oz (soil)					
		Shenzi 400SC	1.7-3.8 fl oz					
		chlordantraniliprole + lambda-cyhalothrin (R) Besiege	6-9 fl oz	0.06-0.09			3	
		Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1	
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05			DO NOT feed treated plants to livestock.	3
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1	
		methomyl (R) Lannate 2.4 LV Lannate SP	1/2-3 pt 1/2-1 lb	0.45-0.9			Apply when cabbage loopers are small.	1 (cabbage) 3 (broccoli, Brussels sprouts & cauliflower)
		methoxyfenozide Intrepid 2F	4-8 oz	0.06-0.12			1	
		permethrin (R) Ambush 25 W Ambush 2.0 EC Pounce 25 WP	3.2-6.4 oz 3.2-12.8 oz 3.2-6.4 oz	0.05-0.1			1	
		spinosad SpinTor 2 SC	1.5-10 fl oz	0.023-0.156			1	
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025			1	
		zeta-cypermethrin + bifenthrin Hero	10.3 oz	0.1			7	
		Cutworms	beta-cyfluthrin Baythroid XL	0.8-1.6 oz			0.007-0.013	0
			bifenthrin (R) Brigade 2 EC	2.1-6.4			0.033-0.01	Follow label directions.
chlordantraniliprole + lambda-cyhalothrin (R) Besiege	5-8 fl oz		0.05-0.08	3				
cypermethrin Holster 2.5 EC	2.5-5 oz		0.05-0.01	Follow label directions.	1			
diazinon (R) Diazinon AG500 Diazinon AG600 WBC	2-4 qt 51-102 fl oz		2.0-4.0	Broadcast just before planting and incorporate.				

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<b>COLE CROPS</b> (Broccoli, Brussels sprouts, cabbage and cauliflower)  (cont.)	Cutworms (cont.)	esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05	Apply at base of plants.	Use as needed.	3	
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025			1	
	Harlequin bug, stink bugs	acetamiprid + bifenthrin Savoy	9.6-12.9 oz			Maximum of 19 oz a season.	7	
		bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.10			7	
		beta-cyfluthrin + imidacloprid Leverage 360	3 oz	0.07			7	
		carbaryl Sevin XLR Plus Sevin 4F	1-2 qt 1-2 qt	1.2			Follow label directions. DO NOT apply during bloom.	14
		clothianidin Belay 50 WDG	3 - 4 oz	0.05-0.067			7	
		dinotefuran Venom 70 SG Scorpion 35 SL	3-4 oz 2-7 fl oz (foliar) 9-13 fl oz (soil)	0.05-0.18 0.23-0.33			Restriction: Do not combine foliar applications of Scorpion with soil application, or vice versa. Only use one application method.	1
		lambda cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1	
<b>CUCURBITS</b> (Cantaloupe, cucumber, melons, pumpkin, squash, summer squash and watermelon)	Aphids	acetamiprid Assail 30 SG	2.5 oz-4 oz	0.048-0.077			0	
		acetamiprid + bifenthrin Savoy	9.6-12.9 oz			Maximum of 38.7 oz a season.	3	
		flonicamid Beleaf 50SG	2-2.8 oz	0.062-0.089			0	
		flupyradifurone Sivanto Prime	7-14 fl oz	0.09-0.18		DO NOT use foliar applications in muskmelon, cantaloupe, or honeydew melon.	1	
		sulfoxaflor Transform WG	0.75	0.023		Check label for crop rotation restrictions.	1	
	Cucumber beetles	acetamiprid Assail 30 SG	2.5 oz-5.3 oz	0.05-0.1			1	
		acetamiprid + bifenthrin Savoy	6-12.9 oz			Maximum of 38.7 oz a season.	3	
		beta-cyfluthrin Baythroid XL	2.4-2.8 oz	0.019-0.022			0	
		bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1			3	
		carbaryl Sevin XLR Plus Sevin 4F	1 qt 1 qt	1.0	When insects first appear.	Sevin is highly toxic to honeybees. Avoid excessive applications. DO NOT apply when foliage is wet. DO NOT apply during bloom.	3	
		clothianidin Belay 50 WDG	3 - 4 oz	0.05-0.067		DO NOT use adjuvant with foliar applications. <b>DO NOT use after 4th true leaf.</b>	-	
		dinotefuran Venom 70 SG Scorpion 35 SL	3-4 oz 2-7 fl oz (foliar) 9-13 fl oz (soil)	0.05-0.18 0.23-0.33		Restriction: Do not combine foliar applications of Scorpion with soil application, or vice versa. Only use one application method.	1	

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Crop	Insect	Insecticide	Formulation Per Acre	Lb ai/Acre	Application	Remarks/Precautions	Days to Harvest
CUCURBITS (Cantaloupe, cucumber, melons, pumpkin, squash, summer squash and watermelon)  (cont.)	Cucumber beetles (cont.)	imidacloprid Admire Pro 4.6 F	7-10.5 fl oz	0.28-0.38		Admire applied into soil is highly effective against cucumber beetles and can reduce seedling loss. <b>Soil Application Only.</b>	21
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1
		malathion Malathion 5 EC	1.5-2.75 pt	0.94-1.7		Use no more than 1.5 pints on winter squash or pumpkins or 2 pints on watermelons.	1
		methomyl (R) Lannate 2.4 LV Lannate SP	1 1/2-3 pt 1/2-1 lb	0.45-0.9		DO NOT use Lannate on pumpkins.	1 (lower rate) 3 (higher rate)
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.8-4.0 oz	0.0175-0.025			1
		zeta-cypermethrin + bifenthrin Hero	10.3 oz	0.1			3
	Flea beetles Tobacco budworm Beet armyworm	methomyl (R) Lannate 2.4 LV Lannate SP	1 1/2-3 pt 1/2-1 lb	0.45-0.9	When insects first appear.	One day up to 2 pt, over 2 pt 3 days. DO NOT apply to pumpkins.	1-3
		methoxyfenozide Intrepid 2F	4-10 oz	0.06-0.16		Not for control of tobacco budworm.	3
		spinosad SpinTor 2 SC	4-8 fl oz	0.0625-0.125		Not labeled for flea beetles.	3
	Mites  (Mites are primarily a problem on cucumber and watermelon)	abamectin Agri-Mek 0.7 SC	1.75-3.5 oz	0.01-0.019		Must be mixed with an adjuvant (NIS surfactant).	7
bifenazate Acramite 50 WS		0.75-1 lb	0.375-0.5		Only one application per season.	3	
extazole Zeal 2.88 SC		4-6 fl oz	0.09-0.135		Does not kill Adults. DO NOT make more than 1 application per season.	7	
Fenpyroximate Portal		2 pt				1	
spiromesifen Oberon 2 SC		7-8.5 oz	0.11-0.13			7	
Pickleworm, Melonworm, Cutworms	acetamiprid + bifenthrin Savoy	6-12.9 oz				Maximum of 38.7 oz a season.	3
	<i>Bacillus thuringiensis</i> Dipel, Javelin, Agree, Crymax, Xentari			Check label.			
	beta-cyfluthrin Baythroid XL	1.6-2.4 oz	0.013-0.019				0
	bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1				3
	carbaryl Sevin XLR Plus Sevin 4F	1 qt 1 qt	1.0	When insects or damage first appears.	Avoid excessive applications. DO NOT apply when foliage is wet. DO NOT apply during bloom.	3	
	chlorantraniliprole Coragen 1.67 SC Coragen eVo	2.0-7.5 fl oz 0.7 - 1.2 fl oz (melonworm) 1.2 - 2.5 fl oz (pickleworm) 1.0-3.8 fl oz	0.026-0.098 0.027 - 0.047 (melonworm) 0.047 - 0.098 (pickleworm)			Coragen eVo not labeled for cutworms	3 1 1 3
	Shenzi 400SC						
	chlorantraniliprole + lambda-cyhalothrin (R) Besiege	6-9 fl oz	0.06-0.09			Use higher rate for heavy infestations and for increased residual control	1

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			Per Acre	Lb ai/Acre				
CUCURBITS (Cantaloupe, cucumber, melons, pumpkin, squash, summer squash and watermelon)  (cont.)	Pickleworm, Melonworm, Cutworms (cont.)	Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1	
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05		Asana may cause some phytotoxicity to zucchini squash.	3	
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 oz	0.02-0.03			1	
		methoxyfenozide Intrepid 2F	4-10 fl oz	0.06-0.15			3	
		permethrin (R) Ambush 2.0 EC Pounce 3.2 EC	6.4-12.8 oz 4-8 oz	0.1-0.2	When insects or damage first appear.		0	
		spinetoram Radiant 1 SC	5-10 oz	0.038-0.079			3	
		spinosad SpinTor 2 SC	4-8 oz	0.062-0.125		Follow label directions. SpinTor does not control squash bug.	3	
		zeta-cypermethrin +bifenthrin Hero	10.3 oz	0.1			3	
		Squash Bug	acetamiprid + bifenthrin Savoy	12.9 oz			Maximum of 38.7 oz a season.	3
		(Rarely a pest of cucumber or watermelon)	beta-cyfluthrin Baythroid XL	1.6-2.4 oz	0.013-0.019			0
			bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1		Bifenthrin is the only registered insecticide that provides moderate but effective control of squash bug nymphs. Almost no control should be expected of adult squash bugs.	3
			carbaryl Sevin XLR Plus Sevin 4F	1 qt 1 qt	1.0	When insects or damage first appear.	Avoid excessive applications. DO NOT apply when foliage is wet. DO NOT apply during bloom.	3
			esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05		Asana may cause some phytotoxicity to zucchini squash.	3
			lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1
permethrin (R) Ambush 2.0 Pounce 3.2	6.4-12.8 oz 4-8 oz		0.1-0.2	When insects or damage first appear.		0		
zeta-cypermethrin + bifenthrin Hero	10.3 oz		10.3 oz			3		
Squash Vine Borer	acetamiprid Assail 30 SG	5 oz	0.1		Not generally a serious issue in large plantings of squash or pumpkin. Consider a blue Hubbard squash trap crop for control.	0		
(Only attacks squash and pumpkin)	acetamiprid + bifenthrin Savoy	6-12.9 oz	0.1			3		
	bifenthrin (R) Brigade 2 EC	2.6-6.4 fl oz	0.04-0.1			3		
	chlorantraniliprole Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098			3		
	chlorantraniliprole + lambda-cyhalothrin (R) Besiege	6-9 fl oz	0.06-0.09		Use higher rate for heavy infestations and for increased residual control	1		
	lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1		



**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>
<b>CUCURBITS</b> (Cantaloupe, cucumber, melons, pumpkin, squash, summer squash and watermelon)  (cont.)	Whiteflies	acetamiprid Assail 30 SG	2.5 oz-4 oz	0.048-0.077		Insecticide use will not effectively reduce high populations of whiteflies. Removal of alternate host plants (Weeds) along with field plowing immediately after harvest aids in population suppression.	0
		acetamiprid + bifenthrin Savoy	6-12.9 oz				3
		chlorantraniliprole Coragen 1.67 SC	5-7.5 fl oz	0.065-0.098	Use on nymphs only. See label for remarks.		1
		Coragen eVo	1.7-2.5 fl oz		Suppression only. Use in conjunction with an effective adult whitefly control program.		
		Shenzi 400SC	2.5-3.5 fl oz				
		Cyantraniliprole Exirel 0.83 EC	13.5-20 fl oz	0.088-0.133			1
		pyriproxyfen Knack 0.86 EC	8-10 oz	0.05-0.067			7
		sulfoxaflor Transform WG	2.0-2.25	0.063-0.071			1
		thiomethoxam Actara 25 WDG	3-5.5 oz	0.047-0.086	Follow label directions.		0
		<b>EGGPLANT</b>	Aphids	acetamiprid Assail 30 SG	2.5 oz-4 oz		0.048-0.077
acetamiprid + bifenthrin Savoy	4.9-9.6 oz					7	
beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz			0.89-0.096		7	
flonicamid Beleaf 50 SG	2.8-4.28 oz			0.089-0.133		0	
flupyradifurone Sivanto Prime	7-12 fl oz			0.09-0.15		1	
imidacloprid Admire Pro 4.6 F	1.3-2.2 fl oz			0.05-0.08		0	
sulfoxaflor Transform WG	0.75-1.0			0.023-0.031		1	
thiamethoxam Actara 25 WDG	2-3 oz			0.03-0.047		0	
Caterpillars	beta-cyfluthrin Baythroid XL			1.6-2.8 oz	0.013-0.022		Use higher rates for loopers, pinworms and armyworms.
	beta-cyfluthrin + imidacloprid Leverage 360		3.8-4.1 oz	0.89-0.096		7	
	chlorantraniliprole Coragen 1.67 SC		3.5-7.5 fl oz	0.045-0.098		1	
	Shenzi 400SC		1.0-3.8 fl oz				
	Cyantraniliprole Exirel 0.83 EC		7-13.5 fl oz	0.45-0.88		1	
	chlorantraniliprole + lambda-cyhalothrin (R) Besiege		6-9 oz	0.06-0.09		5	
methoxyfenozide Intrepid 2F	4-16 fl oz		0.06-0.25		1		

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>		
<b>EGGPLANT</b> (cont.)	Flea beetles, Colorado potato beetle	beta-cyfluthrin Baythroid XL	2.8 oz	0.022			7		
		beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz	0.89-0.096			7		
		bifenthrin (R) Brigade 2 EC	2.1-6.4 fl oz	0.033-0.1			7		
		carbaryl Sevin XLR Plus Sevin 4F	1/2-2 qt 1/2-2 qt	0.5-2.0			DO NOT apply during bloom. Use higher rates for Colorado potato beetle.	3	
		dinotefuran Venom 70 SG	1-4 oz (foliar) 5 to 7.5 oz (soil)	0.044 -0.175 (foliar) 0.219-0.328 (soil)			Stinkbugs: Coverage is essential for adequate control. Use sufficient water volume to ensure good coverage. Restriction: Do not combine foliar applications of Venom or Scorpion with soil application, or vice versa. Only use one application method.		
		Scorpion 35 SL	2-7 fl oz (foliar) 9-10.5 fl oz (soil)	0.05-0.18 (foliar) 0.23-0.27 (soil)					
				esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05			7
				imidacloprid Admire Pro 4.6 F	1.3-2.2 fl oz	0.05-0.08			0
				lambda cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			5
				zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025			1
			Mites	abamectin Agri-Mek 0.7 SC	1.75-3.5 fl oz	0.01-0.019		Must be mixed with an adjuvant.	7
				fenbutatin-oxide (R) Vendex 50 WP	2-3 lb	1.0-1.5			3
				Fenpyroximate Portal	2 pt			Apply in a minimum of 20 gallons per acre	1
				spiromesifen Oberon 2 SC	7-8.5 oz	0.11-0.13			1
			Leafminers	permethrin (R) Ambush 2.0 EC Pounce 25 WP	6-12 oz 6.4-9.6 oz	0.1-0.2			3
	spinosad SpinTor 2 SC	6-8 oz		0.094-0.125		Follow label directions.	1		
<b>GREENS</b> (collards)	Caterpillars	<i>Bacillus thuringiensis</i>							
		beta-cyfluthrin Baythroid XL	1.6-3.2 oz	0.013-0.025		Use higher rates for earworms, armyworms and European corn borers.	0		
		beta-cyfluthrin + imidacloprid Leverage 360	3 oz	0.07			7		
		chlorantraniliprole Coragen 1.67 SC Coragen eVo Shenzi 400SC	3.5-7.5 fl oz 1.2-2.5 fl oz 1.7-3.8 fl oz	0.045-0.098			3		
		Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1		

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>
<b>GREENS</b> (collards)  (cont.)	Caterpillars (cont.)	esfenvalerate (R) Asana XL 0.66EC	5.8-9.6 oz	0.03-0.05			7
		indoxacarb Avaunt 30 WDG	2.5-3.5 oz	0.045-0.065			3
		methoxyfenozide Intrepid 2F	4-16 oz	0.06-0.25			1
		permethrin (R) Ambush 2.0 EC Pounce 25 WP	3.2-6.4 oz 3.2-9.6 oz	0.05-0.1			1
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025			1
		<b>GREENS</b> (kale and mustard)	Caterpillars	<i>Bacillus thuringiensis</i>			
beta-cyfluthrin Baythroid XL	16-3.2 oz	0.013-0.025			Use higher rates for earworms and armyworms.	0	
beta-cyfluthrin + imidacloprid Leverage 360	3 oz	0.07				7	
chlorantraniliprole Coragen 1.67 SC Coragen eVo Shenzi 400SC	3.5-7.5 fl oz 1.2-2.5 fl oz 1.7-3.8 fl oz	0.045-0.098				3	
Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88				1	
cypermethrin Holster 2.5 EC	2.5-5.0 oz	0.05-0.1				1	
methoxyfenozide Intrepid 2F	4-8 fl oz	0.06-0.125				1	
spinosad SpinTor 2 SC	3-6 oz	0.047-0.094				1	
zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025				1	
<b>GREENS</b> (turnips)	Caterpillars	<i>Bacillus thuringiensis</i>					
beta-cyfluthrin Baythroid XL		1.6-3.2 oz	0.013-0.025		Use higher rates for corn earworms and armyworms.	0	
beta-cyfluthrin + imidacloprid Leverage 360		3 oz	0.07			7	
chlorantraniliprole Coragen Coragen eVo Shenzi 400SC		3.5-7.5 fl oz 1.2-2.5 fl oz 1.7-3.8 fl oz	0.045-0.098			1	
methoxyfenozide Intrepid 2F		8-16 oz	0.12-0.25			1	
permethrin (R) Pounce 3.2 EC		2-4 oz	0.05-0.1			1	
spinosad SpinTor 2 SC		3-8 oz	0.047-0.125			1	
zeta-cypermethrin (R) Mustang Maxx 0.8 EC		3.2-4.0 oz	0.02-0.025			1	

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>
<b>HOPS</b>	Aphids and Leafhoppers	imidacloprid Admire Pro 4.6 F	2.8 fl oz	0.1			28
		pymetrozine Fulfill 50 WDG	4-6 oz	0.125-0.187		Aphids only, will not control leaf hoppers.	14
		spirotetramat Movento	5-6 fl oz	0.08-0.09		Do not exceed 12.5 fl oz per season.	7
		Malathion Malathion 5 EC Malathion 8 EC	1 pt 0.63 pt	1.25			10
		Pyrethrins Pyganic EC 1.4 II Pyganic EC 5 II	16-64 fl oz 4.5-17 fl oz	0.175-0.7		OMRI approved. Do not expect residual control.	0
		Japanese Beetle	bifenthrin (R) Brigade 2 EC	3.8-6.4 fl oz	0.06-0.1		14
		imidacloprid Admire Pro 4.6 F	2.8 fl oz	0.1		28	
	Armyworms, Cutworms, Loopers, Leafrollers, and other caterpillars	Bacillus thuringiensis Bt Containing products					
		bifenthrin (R) Brigade 2 EC	3.8-6.4 fl oz	0.06-0.1			14
		chlorantraniliprole Coragen 1.67 SC Coragen eVo Shenzi 400SC	3.5-7.5 fl oz 1.2-2.5 fl oz 1.7-3.8 fl oz	0.045-0.098 0.047 - 0.098 0.045-0.098			0
		spinosad Entrust 2 SC	4-6 oz	0.063-0.094		OMRI approved.	1
		spinetoram Delegate 25 WG	2.5-4 oz				3
		Spider Mites	abamectin Agri-Mek 0.7 SC	1.75-3.5 fl oz	0.01-0.019		Must be mixed with an adjuvant (NIS surfactant).
	acequinocyl Kanemite 15 SC		31 fl oz	0.3			7
	bifenazate Acramite 50 WS		0.75-1 lb	0.375-0.5		Only one application per season.	14
extazole Zeal 72 WSP	3-4 oz		0.135-0.18		Does not kill Adults. DO NOT make more than 1 application per season.	7	
fenpyroximate Portal 0.4 EC	2 pt		0.1			3	
<b>LETTUCE</b>	Aphid		acetamiprid Assail 30 SG	2-4 oz	0.038-0.075	Head and Leaf	
		dimethoate Dimethoate 4 EC	0.5 pt	0.25	For use on leaf lettuce.		14
		clothianidin Belay	9-12 oz (Soil) 3-4 oz (Foliar)	1.2-1.6 0.4-0.53	Head and Leaf		21 (Soil) 7 (Foliar)

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>LETTUCE</b>	Aphid	flonicamid Beleaf 50 SG	2-2.8 oz	0.06-0.09	Head and Leaf		0	
		flupyradifurone Sivanto Prime	10.5-14.0 fl oz	0.16-0.18	Head and Leaf		1	
		imidacloprid Admire Pro 4.6 F	4.4-10.5 fl oz (Soil) 1.3 fl oz (Foliar)	0.16-0.38 0.05	Head and Leaf		21 (Soil) 7 (Foliar)	
		pymetrozine Fulfill	2.75 oz	1.4	Head and Leaf		7	
		pyrfluquinazon PQZ	2.4-3.2 fl oz	0.035-0.047	Head and Leaf		1	
		spirotetramat Movento	4-5 fl oz	0.06 - 0.08	Head and Leaf		3	
		thiamethoxam Platinum 75 SG Actara 25 WDG	1.66-3.67oz 1.5-3.0 oz	0.08-0.17 0.08-0.17	Head and Leaf Soil application Only Foliar Application Only		30 7	
		tolfenpyrad Torac	17-21 fl oz	0.17-0.21	Head and Leaf		1	
		Armyworms, Cabbage Looper, Corn Earworm, and other Lepidoptera	Bacillus thuringiensis Crymax WDG	0.5-1.5 lb	0.2-0.6	Head and Leaf		0
			Dipel DF	0.5-2 lb	0.27-1.08			
			beta-cyfluthrin (R) Baythroid XL	2.4-3.2 fl oz	0.019-0.025	Head and Leaf		0
	beta-cyfluthrin (R) + imidacloprid Leverage 360		3.0		Head and Leaf		7	
	bifenthrin Brigade 2 EC		2.1-6.4 fl oz	0.033 - 0.1	Head Lettuce Only		7	
	chlorantraniliprole Coragen 1.67 SC Corage eVo 5 SC Shenzi SC		3.5- 7.5 fl oz 1.2-2.5 fl oz 1.7 - 3.8	0.045 - 0.098 0.047 - 0.098 0.044 - 0.098	Head and Leaf		1	
	chlorantraniliprole + lambda-cyhalothrin (R) Besiege		6-9 fl oz		Head and Leaf		5	
	cyantraniliprole, Verimark 1.67 SC Exirel 0.83SE		5- 13.5 fl oz (Soil) 7- 17 fl oz (Foliar)	0.065-0.176 0.045-0.11	Head and Leaf		1 1	
	cyclaniliprole Harvanta 50 SL		11- 16.4 fl oz	0.036-0.054	Head and Leaf		1	
	emamectin benzoate (R) Proclaim 5 WDG		3.2- 4.8 oz	0.01-0.015	Head and Leaf		7	
	indoxacarb Avaunt eVo 30 WDG	3.5- 6 oz	0.065 - 0.11	Head and Leaf		3		
	Lambda-cyhalothrin (R) Warrior II	1.28-1.92	0.02-0.03	Head and Leaf				

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>LETTUCE</b> (cont.)	Armyworms, Cabbage Looper, Corn Earworm, and other Lepidopterans (cont.)	Methomyl (R)			Head and Leaf		See Label	
		Lannate 90 SP	0.5-1 lb	0.45-0.9				
		Lannate 2.4 LV	1.5- 3 pts	0.54-1.08				
		methoxyfenozide, MOA 18			0.06-0.16	Head and Leaf		1
		Intrepid 2 F	4-10 fl oz					
		permethrin			0.1-0.2			1
		Ambush 24 EC	6.4-12.8 oz					
<b>OKRA</b>	Aphids	spinetoram			Head and Leaf		1	
		Radiant 1 SC	5-10 fl oz					
		zeta-cypermethrin (R)			0.02-0.025	Head and Leaf		1
		Mustang Maxx 0.8 EC	3.2-4 fl oz					
	zeta-cypermethrin (R) + bifenthrin (R)				Head Lettuce Only		7	
	Hero	4-10.3 fl oz						
	Brigade 2 EC	2.1-6.4 oz	0.033-0.1			Follow label directions.	7	
Corn earworm	flonicamid			0.089-0.133			0	
	Beleaf 50 SC	2.8-4.28 oz						
	imidacloprid			0.05-0.08			0	
	Admire Pro 4.6 F	1.3-2.2 fl oz						
	sulfoxaflor			0.023-0.031		Check label for crop rotation restrictions.	1	
	Transform WG	0.75-1.0						
	chlorantraniliprole			0.045-0.098			1	
	Coragen 1.67 SC	3.5-7.5 fl oz						
	Coragen eVo	1.2-2.5 fl oz		0.047 - 0.098				
	Shenzi 400SC	1.7-3.8 fl oz		0.045-0.098				
Cyantraniliprole			0.45-0.88			1		
Exirel 0.83 EC	7-13.5 fl oz							
<b>ONION</b>	Thrips	methoxyfenozide			0.06-0.25		1	
		Intrepid 2F	4-16 oz					
		spinosad			0.047-0.094			1
		SpinTor 2 SC	3-6 oz					
		acetamiprid			0.040-0.065			7
		Assail 30 SG	2.1 oz-3.4 oz					
		lambda-cyhalothrin (R)			0.02-0.03			14
Warrior II	1.28-1.92 fl oz				Highly toxic to honeybees.	3		
malathion			0.9					
Malathion 57% EC	1 1/2 pt							
Onion Maggot and Seedcorn Maggot	Onion Maggot and Seedcorn Maggot	spinetoram			0.047-0.063		3	
		Radiant 1 SC	6-8 oz					
		sulfoxaflor			0.086		Check label for crop rotation restrictions.	7
		Transform WG	2.75					
		zeta-cypermethrin (R)			0.014-0.025			7
		Mustang Maxx 0.8 EC	2.24-4.0 oz					
		diazinon (R)			3.0-4.0			
Diazinon 50W	6-8 lb							
Diazinon AG600	76 1/2-102 oz							
Diazinon AG500	3-4 qt							

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>PEAS</b> (Garden or English)	Aphids	acetamiprid + bifenthrin Savoy	4.9-9.6 oz			Follow label directions.	7	
		esfenvalerate (R) Asana XL 0.66 EC	2.9-5.8 oz	0.015-0.05			3	
		imidacloprid Admire Pro 4.6F	1.2 fl oz	0.05			7	
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			7	
		malathion Malathion 57% EC 5 lb/gal	1 1/2 pt	0.9		When insects appear.	Seven days if forage is to be fed to livestock.	3
<b>PEPPERS</b>	Aphids	acetamiprid + bifenthrin Savoy	4.9-9.6 oz			Follow label directions.	7	
		beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz	0.89-0.096			7	
		flonicamid Beleaf 50 SG	2.0-2.8 oz	0.026-0.69			0	
		imidacloprid Admire Pro 4.6F	1.2 fl oz	0.047			0	
		methomyl (R) Lannate 2.4 LV Lannate SP	1 1/2 pt 1/2 lb	0.45			3	
		sulfoxaflor Transform WG	0.75-1.0	0.023-0.031			Check label for crop rotation restrictions.	1
		thiamethoxam Actara 25 WDG	2-3 oz	0.033-0.047			0	
	Cutworms	bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.1				7
		lambda-cyhalothrin (R) Warrior II	0.96-1.6 fl oz	0.015-0.025				5
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	1.28-4.0 oz	0.008-0.025				1
		zeta-cypermethrin + bifenthrin Hero	10.3 oz	0.1				7
	Flea beetles, Colorado potato beetle, earworm, European corn borer, hornworms	acetamiprid + bifenthrin Savoy	3.6-6.0 oz				Follow label directions. Colorado potato beetle only.	7
		beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022				7
		beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz	0.89-0.096				7
		bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.1				7
		carbaryl Sevin 4F Sevin XLR Plus	1-2 qt 1-2 qt	1.0-2.0		When insects appear.	DO NOT apply during bloom.	3
		chlorantraniliprole Coragen 1.67 SC Coragen eVo	2.0-7.5 fl oz 1.2-2.5 fl oz 0.7-1.7 fl oz (hornworms)	0.026-0.098 0.047-0.098 0.027 - 0.066 (hornworms)				1
		Shenzi 400SC	1.0-3.8 fl oz	0.026-0.098				

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>PEPPERS</b>	Flea beetles, Colorado potato beetle, earworm, European corn borer, hornworms	chlorantraniliprole + lambda-cyhalothrin (R) Besiege	6-9 fl oz	0.06-0.09		Use higher rate for heavy infestations and for increased residual control	5	
		Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1	
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6	0.03-0.05		7		
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03		5		
		methoxyfenozide Intrepid 2F	4-16 oz	0.08-0.25		European corn borer and hornworm control.	1	
		permethrin (R) Pounce 25 WP	6.4-12.8 oz	0.1-0.2			3	
		spinetoram Radiant 1 SC	5-10 fl oz	0.04-0.078		1		
		spinosad SpinTor 2 SC	3-8 fl oz	0.047-0.125		1		
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025		1		
		zeta-cypermethrin + bifenthrin Hero	4.0-10.3 oz	0.04-0.1		7		
		Mites	abamectin (R) Agri-Mek 0.7 SC	1.75-3.5 fl oz	0.0094-0.01875		Use only two times per season. Must be mixed with an adjuvant (NIS surfactant).	7
			spiromesifen Oberon 2 SC	7-8.5 oz	0.11-0.13			1
			Other caterpillars	bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.1		
			beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022		7	
			beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz	0.89-0.096		7	
			chlorantraniliprole Coragen 1.67 SC Coragen eVo Shenzi 400SC	3.5-7.5 fl oz 1.2-2.5 fl oz 1.7-3.8 fl oz	0.045-0.098 0.047-0.098 0.045-0.098		1	
			chlorantraniliprole + lambda-cyhalothrin (R) Besiege	6-9 oz	0.06-0.09		5	
			Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88		1	
			lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03		5	
			methomyl (R) Lannate 2.4 LV Lannate 90 SP	1 1/2 pt 1/2 lb	0.45		3	
		methoxyfenozide Intrepid 2F	4-16 fl oz	0.06-0.25		1		



**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>		
<b>PEPPERS</b> (cont.)	Other caterpillars (cont.)	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025			1		
		zeta-cypermethrin + bifenthrin Hero	4.0-10.3 oz	0.4-0.1			7		
<b>POTATOES</b> (white or Irish)	Aphids	beta-cyfluthrin + imidacloprid Leverage 360	2.8 oz	0.066			7		
		flonicamid Beleaf 50 SG	2.0-2.8 oz	0.026-0.69			7		
		sulfoxaflor Transform WG	0.75-1.0	0.023-0.031					
		thiamethoxam Actara 25 WDG	3 oz	0.047			14		
	Colorado potato beetle, potato leafhopper, flea beetles	beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022				0	
		beta-cyfluthrin + imidacloprid Leverage 360	2.8 oz	0.066				7	
		carbaryl Sevin 4F Sevin XLR Plus	1/2-2 qt 1/2-2 qt	0.5-2.0		When insects first appear.	DO NOT apply during bloom. Use higher rates on Colorado potato beetle.	7	
		chlorantraniliprole Coragen Coragen eVo Shenzi 400 SC Vantacor	3.5-7.5 fl oz 1.2-2.5 fl oz 1.7-3.8 fl oz 1.2-2.5 fl oz	0.045-0.098 0.047-0.098 0.044-0.098 0.047-0.098			Foliar or chemigation applications.	14	
		chlorantraniliprole + lambda-cyhalothrin (R) Besiege	6-9 fl oz	0.06-0.09			For Colorado Potato beetle only.	5	
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05				7	
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03				7	
		permethrin (R) Ambush 25 WP Ambush 2.0 EC Pounce 25 WP	3.2-12.8 oz 3.2-12.8 oz 6.4-12.8 oz	0.05-0.2 0.05-0.2 0.1-0.2			Apply no more than 12 applications. DO NOT graze or feed foliage.	7	
		spinosad SpinTor 2 SC	3-6 fl oz	0.047-0.094				7	
		sulfoxaflor Transform WG	1.5-2.25	0.047-0.071			For leaf hopper control. Check label for crop rotation restrictions.	7	
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025				1	
		Wireworms	bifenthrin (R) Capture LFR				See label directions.	Check label for crop rotation restrictions.	7
			phorate (R) Thimet 20G	8.5-17.3 lb			Distribute granules evenly in furrow or band on each side of row at planting or sidedress postemer-gence. Sandy soils use low rate.		90

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>RADISHES</b>	Aphids	beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066			7	
		imidacloprid Admire Pro 4.6F	1.3 fl oz	0.044			7	
		malathion Malathion 57% EC	1 1/2 pt	1		When insects appear in damaging numbers.	7	
		sulfoxaflor Transform WG	0.75-1.0	0.023-0.031			Check label for crop rotation restrictions.	7
		Flea beetles	beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022			0
		beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066			7	
		carbaryl Sevin 4F Sevin XLR Plus	1/2-1 qt 1/2-1 qt	0.5-1.0		When insects appear in damaging numbers.	DO NOT apply during bloom.	3
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05			7	
		imidacloprid Admire Pro 4.6F	1.3 fl oz	0.044			7	
	<b>SOUTHERN PEAS</b>	Bean leaf beetle	beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066			7
bifenthrin (R) Brigade 2 EC			2.1-6.4 oz	0.033-0.1			3	
carbaryl Sevin 4F Sevin XLR Plus			1/2-1 qt 1/2-1 qt	0.5-1.0		Plant early. Apply treatment to prevent defoliation.	DO NOT apply during bloom. DO NOT use on succulent shelled peas (Group 6B).	3
lambda-cyhalothrin (R) Warrior II			1.28-1.92 fl oz	0.02-0.03			7	
zeta-cypermethrin (R) Mustang Maxx 0.8 EC			2.24-4.0 oz	0.014-0.025			1	
Corn earworm			beta-cyfluthrin Baythroid XL	1.6-2.1 oz	0.013-0.017			3
		beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066			7	
		bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.1			3	
		chlorantraniliprole Coragen 1.67 SC Coragen eVo	3.5-7.5 fl oz 1.7-2.5 fl oz (soil) 1.2 -2.5 fl oz (foliar)	0.045-0.098 0.066 - 0.098 (soil) 0.047 - 0.098(foliar)			1	
		Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098				
		chlorantraniliprole + lambda-cyhalothrin (R) Besiege	6-10 fl oz	0.06-0.10			7 (Edible/ Shelled) 21(Dried shelled)	
		Cyantraniliprole Exirel 0.83 EC	7-13.5 fl oz	0.45-0.88			1	
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05		DO NOT feed vines.	21	
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			7	

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>		
<b>SOUTHERN PEAS</b> (cont.)	Corn earworm (Cont.)	methoxyfenozide Intrepid 2F	10-16 oz	0.16-0.25			7		
		<b>zeta-cypermethrin (R)</b> Mustang Maxx 0.8 EC	2.24-4.0 oz	0.014-0.025			1		
	Cowpea aphid	beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066				7	
		<b>bifenthrin (R)</b> Brigade 2 EC	2.1-6.4 oz	0.03-0.1				3	
		imidacloprid Admire Pro 4.6 F	7.0-10.5 fl oz	0.25-0.37			Soil application.	21	
		imidacloprid Admire Pro 4.6F	1.3 fl oz	0.044			Foliar application.	7	
		<b>lambda-cyhalothrin (R)</b> Warrior II	1.28-1.92 fl oz	0.02-0.03				7	
		malathion Malathion 57% EC 5 lb/gal	1 1/2 pt	1				3	
		<b>methomyl (R)</b> Lannate 1.8 LV Lannate SP	1 1/3-3 pt 1/2-1 pt	0.4-0.9			DO NOT apply more than 4.5 lb ai per acre per crop.	1	
		<b>zeta-cypermethrin (R)</b> Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025			Aphid control may be variable.	1	
		Cowpea curculio	beta-cyfluthrin Baythroid XL	1.6-2.1 oz	0.013-0.017				3
			beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066				7
	chlorantraniliprole + <b>lambda-cyhalothrin (R)</b> Besiege		6-10 fl oz	0.06-0.10				7 (Edible/ Shelled) 21 (Dried shelled)	
	esfenvalerate ( <b>R</b> ) Asana XL 0.66 EC		5.8-9.6 oz	0.03-0.05				21	
	<b>lambda-cyhalothrin (R)</b> Warrior II		1.28-1.92 fl oz	0.02-0.03				7	
	<b>zeta-cypermethrin (R)</b> Mustang Maxx 0.8 EC		2.24-4.0 oz	0.014-0.025				1	
	European corn borer		beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz	0.056-0.066				7
		chlorantraniliprole Coragen 1.67 SC Coragen eVo	3.5-7.5 fl oz 1.7-2.5 fl oz (soil) 1.2-2.5 fl oz (foliar)	0.045-0.098 0.066-0.098 (soil) 0.047-0.098 (foliar)				1	
		Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098					
		chlorantraniliprole + <b>lambda-cyhalothrin (R)</b> Besiege	6-10 fl oz	0.06-0.10				7 (Succulent) 21 (Dried)	
Cyantraniliprole Exirel 0.83 EC		7-13.5 fl oz	0.45-0.88				1		
methoxyfenozide Intrepid 2F		8-16 oz	0.12-0.25				7		
spinosad SpinTor 2 SC		4-6 fl oz	0.062-0.094				3		

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

Crop	Insect	Insecticide	Formulation Per		Application	Remarks/Precautions	Days to Harvest	
			Acre	Lb ai/Acre				
SPINACH	Aphids, plant bugs, leafhoppers, leafminers	acetamiprid Assail 70WP	0.8-1.2 oz	0.035-0.054			7	
		beta-cyfluthrin + imidacloprid Leverage 360	3 oz	0.07			7	
		dimethoate Dimethoate 4 EC	1/2 pt	0.25		Effectiveness of dimethoate is reduced when aphid colonies are established.	14	
		dinotefuran Venom 70 SG	1-3 oz foliar 5-6 oz soil	0.044-0.131 0.219-0.263			7 21	
		flonicamid Beleaf 50 SG	2.0-2.8 oz	0.062-0.089			0	
		imidacloprid Admire Pro 4.6 F	4.4-10.5 fl oz	0.158-0.337		Soil application.	21	
		imidacloprid Admire Pro 4.6F	1.3 fl oz	0.047		Imidacloprid should only be used with an aphid scouting program. Apply only when aphid numbers exceed the threshold.	7	
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025			1	
		Caterpillars	<i>Bacillus thuringiensis</i>	Follow label directions.				
			beta-cyfluthrin Baythroid XL	2.4-3.2 oz	0.019-0.025			0
	beta-cyfluthrin + imidacloprid Leverage 360		3 oz	0.07			7	
	bifenthrin (R) Brigade 2 EC		2.1-6.4 oz	0.033-0.1		Pyrethroid use against Leps. can result in increases in aphid populations.	40	
	chlorantraniliprole Coragen 1.67 SC Coragen eVo Shenzi 400SC		3.5-7.5 fl oz 1.2 -2.5 fl oz 1.7-3.8 fl oz	0.045-0.098 0.047 - 0.098 0.045-0.098			1	
	Cyantraniliprole Exirel 0.83 EC		7-13.5 fl oz	0.45-0.88			1	
	methomyl (R) Lannate 2.4 LV Lannate SP		1 1/2-3 pt 1/2-1 lb	0.45-0.9		When insects appear or as needed to keep crop free of insects. Not labeled on corn earworm.	7	
	methoxyfenozide Intrepid 2F		4-8 oz	0.06-0.12			1	
	permethrin (R) Ambush 2.0 EC Ambush 25 WP Pounce 3.2 EC		6.4-12.8 oz 6.4-12.8 oz 4-8 oz	0.1-0.2			7	
	spinosad SpinTor 2 SC		3-6 fl oz	0.047-0.094			1	
	thiodicarb (R) Larvin 3.2	24-30 oz	0.6-0.75			14		
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025			1		
SWEET CORN	Corn Earworm	beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022			0	
		bifenthrin (R) Brigade 2 EC	2.1-6.4 fl oz	0.033-0.1	When larvae are found.		1	

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>SWEET CORN</b> (cont.)	Corn Earworm (cont.)	carbaryl		1.0-2.0		DO NOT apply during bloom.	2	
		Sevin 4F	1-2 qt					
		Sevin XLR	1-2 qt					
		chlorantraniliprole						1
		Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098				
		Coragen eVo	1.2-2.5 fl oz	0.047-0.098				
		Vantacor	1.2-2.5 fl oz	0.045-0.098			Cheaper option than Coragen in Sweet Corn	
		Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098				
		chlorantraniliprole + lambda-cyhalothrin (R)			0.06-0.10			1
		Besiege	6-10 fl oz					
		esfenvalerate (R)			0.03-0.05			1
		Asana XL 0.66 EC	5.8-9.6 oz					
		lambda-cyhalothrin (R)			0.02-0.03			1
		Warrior II	1.28-1.92 fl oz					
		methomyl (R)			0.3-0.45			0 (ears) 3 (forage)
		Lannate 2.4 LV	1-1 1/2 pt					
		Lannate SP	1/3-1/2 lb					
methoxyfenozide + spinetoram					Follow label directions.	21 (dry fodder) 3 (forage) 3 (ears)		
Intrepid Edge	8-12 oz							
permethrin (R)			0.1-0.2			1		
Ambush 2.0 EC	6.4-12.8 oz							
Ambush 25 WP	6.4-12.8 oz							
spinosad			0.047-0.094			1		
SpinTor 2 SC	3-6 fl oz							
thiodicarb (R)			0.5-0.75			0		
Larvin 3.2	20-30 oz							
zeta-cypermethrin (R)			0.014-0.025			3		
Mustang Maxx 0.8 EC	2.24-4.0 oz							
Cutworms, rootworms, seed corn maggot, white grubs, wireworms	beta-cyfluthrin			0.007-0.013		Cutworms only.	0	
	Baythroid XL	0.8-1.6 oz						
	bifenthrin (R)			0.08-0.1	Apply in 5- to 7-inch band or in furrow ahead of press wheel. Compatible with liquid fertilizers.		3	
	Capture LFR	0.39-0.44 oz/ 1,000 ft row						
	lambda cyhalothrin (R)			0.02-0.03			1	
Warrior II	1.28-1.92 fl oz							
tefluthrin (R)			0.075-0.165	Banded, T-banded or in furrow.				
Force 3G	4-5 oz/ 1,000 ft row							
zeta-cypermethrin + bifenthrin				0.025-0.05			3	
Hero	2.6-6.1 oz							
European corn borer, southwestern corn borer	carbaryl			1.5-2.0	When 50% of plants show rows of tiny pinholes in leaves (feeding signs).	Use high volume sprays directed into whorls. DO NOT apply during bloom.	0	
	Sevin 4F	1 1/2-2 qt						
	Sevin XLR Plus	1 1/2-2 qt						
	chlorantraniliprole						1	
	Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098					
	Coragen eVo	1.2-2.5 fl oz	0.047-0.098					
Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098						
Vantacor	1.2-2.5 fl oz	0.045-0.098						
chlorantraniliprole + lambda-cyhalothrin (R)			0.06-0.10			1		
Besiege	6-10 fl oz							

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>SWEET CORN</b> (cont.)	European corn borer, southwestern corn borer (cont.)	esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05			1	
		lambda cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1	
		methomyl (R) Lannate 2.4 LV Lannate SP	1 1/2 pt 1/2 lb	0.45		Lannate not labeled on southwestern corn borer.	0 (ears) 3 (forage)	
		methoxyfenozide Intrepid 2F	4-16 oz	0.06-0.25			21 (dry fodder) 3 (forage) 3 (ears)	
		methoxyfenozide + spinetoram Intrepid Edge	4-12 oz				21 (dry fodder) 3 (forage) 3 (ears)	
		spinosad SpinTor 2 SC	1.5-6.0 fl oz	0.023-0.094			1	
		thiodicarb (R) Larvin 3.2	20-30 oz	0.05-0.75			0	
	Flea beetles	acetamiprid + bifenthrin Savoy	9.6-12.9 oz				Maximum of 25.8 oz a season.	7
		beta-cyfluthrin Baythroid XL	0.8-1.6 oz	0.007-0.013				0
		carbaryl Sevin 4F Sevin XLR Plus	1-2 qt 1-2 qt	1.0-2.0		When damage appears.	DO NOT apply during bloom. Hand harvesting is prohibited.	2
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05				1
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	2.8-4.0 oz	0.017-0.025				3
	Mites	abamectin Agri-Mek SC	1.75-3.5 fl oz	0.01-0.05		For control of spider mites.	Must be mixed with an adjuvant (NIS surfactant).	7
Stink Bugs	acetamiprid + bifenthrin Savoy	12.9 oz				Maximum of 25.8 oz a season.	7	
	bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.1			Follow label directions.	1	
	methomyl (R) Lannate 2.4 LV Lannate SP	1/2 lb 1/2 lb	0.45				0 (ears) 3 (forage)	
	lambda cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03				1	
Whorl feeders, fall armyworm, corn earworm	beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022				0	
	bifenthrin (R) Brigade 2 EC	2.1-6.4 oz	0.033-0.1			Follow label directions.	1	
	carbaryl Sevin 4F Sevin XLR Plus	1-2 qt 1-2 qt	1.0-2.0		Apply when needed. Hand harvesting is prohibited.	Plants will tolerate a great deal of feeding with no yield loss. DO NOT apply during bloom.	2	

VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)

Crop	Insect	Insecticide	Formulation Per Acre	Lb ai/Acre	Application	Remarks/Precautions	Days to Harvest	
SWEET CORN (cont.)	Whorl feeders, fall armyworm, corn earworm (cont.)	chlorantraniliprole Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098			1	
		Coragen eVo	1.2-2.5 fl oz	0.047-0.098				
		Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098				
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05			1	
		lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			1	
		methomyl (R) Lannate 2.4 LV Lannate SP	1-1 1/2 pt 1/3-1/2 pt	0.03-0.45			3	
		spinosad SpinTor 2 SC	3-6 oz	0.042-0.094		Follow label directions.	1	
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	3.2-4.0 oz	0.02-0.025			3	
		zeta-cypermethrin + bifenthrin Hero	4.0-10.3 oz	0.04-0.1			3	
		SWEET POTATO	Flea beetles, tortoise beetles	beta-cyfluthrin Baythroid XL	1.6-2.8 oz	0.013-0.022		
beta-cyfluthrin + imidacloprid Leverage 360	2.4-2.8 oz			0.056-0.066			7	
bifenthrin (R) Brigade 2 EC	2.1-6.4 fl oz			0.033-0.1		Follow label directions.	21	
carbaryl Sevin 4F Sevin XLR Plus	1-2 qt 1-2 qt			1.0-2.0	When damage occurs on leaves as needed.	DO NOT apply during bloom.	7	
lambda-cyhalothrin (R) Warrior II	1.28-1.92 fl oz			0.02-0.03			7	
spinosad SpinTor 2 SC	3-6 fl oz			0.047-0.094		Not labeled for tortoise beetle.	7	
Sweet potato weevil	beta-cyfluthrin Baythroid XL			1.6-2.8 oz	0.013-0.022			0
	beta-cyfluthrin + imidacloprid Leverage 360			2.4-2.8 oz	0.056-0.066			7
	carbaryl Sevin 4F Sevin XLR Plus		2.6 oz/gal 2.6 oz/gal		Use as a preplant dip for sweet potato weevil. Just prior to plant- ing, dip sweet potato cuttings in the suspension.	DO NOT apply during bloom.	7	
	lambda-cyhalothrin (R) Warrior II		1.28-1.92 fl oz	0.02-0.03			7	
	phosmet Imidan 5% dust		2-4 oz/50 lb bu stored		One application.			
	Wireworm, other soil insects		bifenthrin (R) Capture LFR			See label directions.		
TOMATO	Cabbage loopers		<i>Bacillus thuringiensis</i> Dipel, Javelin, Biobit, Agree		Check label.			

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>	
<b>TOMATO</b> (cont.)	Cabbage loopers (cont.)	chlordantraniliprole					1	
		Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098				
		Coragen eVo	1.2-2.5 fl oz	0.047-0.098				
		Shenzi 400SC	1.7-3.8 fl oz	0.045-0.098				
		chlordantraniliprole + lambda-cyhalothrin (R) Besiege	5-8 oz	0.05-0.08				5
		Cyantraniliprole		0.45-0.88				1
		Exirel 0.83 EC	7-13.5 fl oz					
		esfenvalerate (R)		0.03-0.05				1
		Asana XL 0.66 EC	5.8-9.6 oz					
		lambda cyhalothrin (R)		0.015-0.025				5
	Warrior II	0.96-1.60 fl oz						
	methomyl (R)		0.45-0.9		Apply on foliage as needed when loopers are small.		1	
	Lannate 2.4 LV	1 1/2-3 pt						
	Lannate SP	1/2-1 lb						
	methoxyfenozide		0.06-0.12				1	
	Intrepid 2F	4-8 oz						
	methoxyfenozide + spinetoram					Follow label directions.	1	
	Intrepid Edge	10-12 oz						
	Colorado potato beetles, flea beetles, stink bugs	beta-cyfluthrin	Baythroid XL	1.6-2.8 oz	0.013-0.022	2.8 oz for flea beetles.		0
			beta-cyfluthrin + imidacloprid					
Leverage 360		3.8-4.1 oz	0.089-0.096				0	
bifenthrin (R)			0.033-0.08				1	
Brigade 2 EC		2.1-5.2 oz						
carbaryl			1.0-2.0		Apply on foliage as needed.	DO NOT apply during bloom.	3	
Sevin 4F		1-2 qt						
Sevin XLR Plus		1-2 qt						
chlordantraniliprole					Foliar or chemigation applications.	For control of Colorado Potato beetle only.	1	
Coragen		3.5-7.5 fl oz	0.045-0.098					
Coragen eVo		1.2-2.5 fl oz	0.047-0.098					
Shenzi 400 SC		1.7-3.8 fl oz	0.044-0.098					
imidacloprid			0.047				0	
Admire Pro 4.6F		1.3 fl oz						
lambda cyhalothrin (R)			0.015-0.025				21	
Warrior II	0.96-1.60 fl oz							
spinosad		0.047-0.094			Follow label directions.	1		
SpinTor 2 SC	3-6 oz							
zeta-cypermethrin (R)		0.02-0.025				1		
Mustang Maxx 0.8 EC	3.2-4.0 oz							
zeta-cypermethrin + bifenthrin								
Hero	4.0-10.3 oz	0.04-0.1				1		
Cutworms	beta-cyfluthrin + imidacloprid	Leverage 360	3.8-4.1 oz	0.089-0.096			0	
		bifenthrin (R)		0.033-0.08			1	
	Brigade 2 EC	2.1-5.2 oz						



**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>		
<b>TOMATO</b> (cont.)	Cutworms (cont.)	bifenthrin (R) Capture LFR	0.29-0.39 oz/ 1,000 ft row OR 3.4-6.8 oz/acre	0.04-0.08	Apply in 5- to 7-inch band or in furrow ahead of press wheel. Compatible with liquid fertilizers.		30		
		carbaryl Sevin 4F Sevin XLR Plus	2 qt 2 qt	2.0	Apply to soil surface 2-3 days prior to transplanting or when damage occurs.	DO NOT apply during bloom.	3		
		diazinon Diazinon AG500 Diazinon 50 W Diazinon AG600C	2-4 qt 4-8 lb 51-102 oz	2.0-4.0	Broadcast to soil surface just prior to planting. Incorporate into soil 3-6 inches immediately. Mix in a minimum of 5 gallons of water/acre.				
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05	Broadcast prior to planting and work into soil 4-8 inches.		1		
		lambda cyhalothrin (R) Warrior II	0.96-1.60 fl oz	0.015-0.025			5		
		zeta-cypermethrin (R) Mustang Maxx 0.8 EC	1.28-4.0 oz	0.008-0.025			1		
		zeta-cypermethrin + bifenthrin Hero	10.3 oz	0.1			1		
		Leaf miners, aphids	acetamiprid + bifenthrin Savoy	4.9-9.6 oz				Aphids only. Follow label directions.	7
			abamectin (R) Agri-Mek 0.7 SC	1.75-3.5 fl oz	0.009-0.019	20 gallons of water/acre required.		Mites, leafminers, pinworms, potato beetle. Must be mixed with an adjuvant (NIS surfactant).	7
			acetamiprid Assail 30 SG	2-4 oz	0.038-0.075			Follow label directions.	7
	beta-cyfluthrin + imidacloprid Leverage 360		3.8-4.1 oz	0.089-0.096				0	
	bifenthrin (R) Brigade 2 EC		2.1-5.2 oz	0.033-0.08				1	
	dimethoate Dimethoate 400 Dimethoate 4EC Dimethoate 5 lb		1/2-1 pt 1/2-1 pt 6.4-12.8 oz	0.25-0.5				7	
	esfenvalerate (R) Asana XL 0.66 EC		9.6 oz	0.05			Use 5.8-9.6 oz of Asana per acre for aphids.	1	
	imidacloprid Admire Pro 4.6F		1.3 fl oz	0.047				0	
	methomyl (R) Lannate 2.4 LV Lannate SP		1 1/2-3 pt 1/2-1 lb	0.45-0.9			Aphids only.	1	
	sulfoxaflor Transform WG		0.75-1.0	0.023-0.031			Not for leaf miners. Check label for crop rotation restrictions.	1	
	zeta-cypermethrin (R) Mustang Maxx 0.8 EC		3.2-4.0 oz	0.02-0.025			Aphid control may be variable.	1	
	zeta-cypermethrin + bifenthrin Hero		4.0-10.3 oz	0.04-0.1				1	

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>		
<b>TOMATO</b> (cont.)	Pinworms	abamectin (R) Agri-Mek 0.7 SC	3.5 oz	0.019		Must be mixed with an adjuvant (NIS surfactant).  DO NOT exceed 0.5 lb ai/acre per season. Follow label directions. Follow label directions. All are alternatives. Check dosage on label. Read product label. Comes in a plastic coil that is wrapped around tomato vines or support stakes.	7		
		beta-cyfluthrin Baythroid XL	2.1-2.8 oz	0.017-0.022			0		
		beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz	0.089-0.096			0		
		chlorantraniliprole Coragen	3.5-7.5 fl oz	0.045-0.098			1		
		esfenvalerate (R) Asana XL 0.66 EC	5.8-9.6 oz	0.03-0.05			1		
		gamma-cyhalothrin Proaxis 0.5 EC	2.56-3.84 oz	0.01-0.015			5		
		indoxacarb Avaunt 30 DG	3.5 oz	0.065			3		
		lambda cyhalothrin (R) Warrior II	1.28-1.92 fl oz	0.02-0.03			5		
		methomyl (R) Lannate LV Lannate SP	1 1/2-3 pt 1/2-1 lb	0.45-0.9			1		
		methoxyfenozide Intrepid 2F	10-16 oz	0.16-0.25			1		
		No-Mate Spiral Bioinsecticide					Read product label.		
		Spider mites	abamectin (R) Agri-Mek 0.7 SC	1.75-3.5 oz	0.0094-0.019		DO NOT apply Agri-Mek in less than 20 gallons of water per acre.	Must be mixed with an adjuvant (NIS surfactant).	7
			bifenthrin (R) Brigade 2 EC	5.2-6.4 oz	0.08-0.1			Follow label directions.	1
			fenpyroximate Portal	2 pt			Apply in a minimum of 20 gallons of water per acre		1
			spiromesifen Oberon 2 SC	7-8.5 oz	0.11-0.13				1
Thrips	acetamiprid + bifenthrin Savoy	9.6 oz			Follow label directions.	7			
	beta-cyfluthrin + imidacloprid Leverage 360	3.8-4.1 oz	0.089-0.096			0			
	bifenthrin (R) Brigade 2 EC	2.1-5.2 oz	0.033-0.08			1			
	flonicamid Beleaf	2.4-4.8 oz	0.089-0.133			0			
	spinetoram Radiant 1 SC	6-10 oz	0.047-0.078		Will control thrips on foliage, but not in flowers.	1			

**VEGETABLE INSECT CONTROL RECOMMENDATIONS (COMMERCIAL)**

<b>Crop</b>	<b>Insect</b>	<b>Insecticide</b>	<b>Formulation Per Acre</b>	<b>Lb ai/Acre</b>	<b>Application</b>	<b>Remarks/Precautions</b>	<b>Days to Harvest</b>		
<b>TOMATO</b> (cont.)	Tomato fruitworm, Hornworms	carbaryl		1.0-2.0		DO NOT apply during bloom.	3		
		Sevin 4F	1-2 qt						
		Sevin XLR Plus	1-2 qt						
		chlorantraniliprole						1	
		Coragen 1.67 SC	3.5-7.5 fl oz	0.045-0.098			Coragen: 2.0-5.0 fl oz/ac for hornworms		
		Shenzi 400SC	1.7-3.8 fl oz	0.044-0.098			Shenzi: 1.0-2.5 fl oz and (0.026 - 0.065) lbs ai/acre for hornworms		
		Coragen eVo	1.2-2.5 fl oz	0.047-0.098					
		Cyantraniliprole			0.45-0.88			1	
		Exirel 0.83 EC	7-13.5 fl oz						
		chlorantraniliprole + lambda-cyhalothrin (R)							
		Besiege	6-9 oz	0.06-0.09				5	
		esfenvalerate (R)			0.03-0.05			1	
		Asana XL 0.66 EC	5.8-9.6 oz						
		lambda-cyhalothrin (R)			0.02-0.03	Five-day intervals.		5	
		Warrior II	1.28-1.92 fl oz						
		methomyl (R)			0.45-0.9			<i>Bacillus thuringiensis</i> 1/2 lb/acre may be used in combination with methomyl. Other areas have had good results.	
		Lannate 2.4 LV	1 1/2-3 pt						
		Lannate SP	1/2-1 lb						
		methoxyfenozide			0.06-0.25			1	
		Intrepid 2F	4-16 oz						
methoxyfenozide + spinetoram			0.06-0.25		Follow label directions.	1			
Intrepid Edge	10-12 oz								
rynaxypyr			0.045-0.065			1			
Coragen	3.5-5 fl oz								
spinosad			0.047-0.125			1			
SpinTor 2 SC	3-8 fl oz								
zeta-cypermethrin (R)			0.014-0.025			1			
Mustang Maxx 0.8 EC	2.24-4.0 oz								
zeta-cypermethrin + bifenthrin			0.04-0.1			1			
Hero	4.0-10.3 oz								
	Wireworms	bifenthrin (R)	0.29-0.39 oz/ 1,000 ft row or 3.4-6.8 oz/A	0.04-0.08	Apply in 5- to 7-inch band or in furrow ahead of press wheel. Compatible with liquid fertilizers.		30		
		Capture LFR							
		diazinon (R)		3.0-4.0	Broadcast prior to planting and immediately work into soil 4-8 inches.				
		Diazinon 50W	6-8 lb						
		Diazinon AG600	76 1/2-102 oz						
		Diazinon AG500	3-4 qt						
<b>VEGETABLES</b> (See labels for specific crops)	Red Imported Fire Ants	<b>ALL FIRE ANT BAITS – Apply when ants are active and soil temperature is above 60 degrees F. DO NOT treat if rain is anticipated within 6 hours.</b>							
		S-Methoprene	3-5 Tbsp/mound		Mound-to-mound treatment rate.	This product is an insect growth regulator (IGR).			
		Extinguish	1.0-1.5 lb/acre		Broadcast rate.	Apply 3 to 4 weeks prior to harvest date.			
		pyriproxyfen	2-4 Tbsp/mound		Mound-to-mound treatment rate.	This product is an insect growth regulator (IGR).			
		Esteem	1.5-2.0 lb/acre		Broadcast rate.				
		spinosad			Mound-to-mound treatment rate.	See label for specific rate and application instructions.			
		Eliminator Fire Ant Bait	4-6 Tbsp/mound		Broadcast rate.	Acceptable for organic production.			
		Green Light Fire Ant Control	2.5-5.0 lb/acre						
		Ortho Fire Ant Bait							
		Safer Fire Ant Bait							