

# HORTICULTURAL CROPS

## HOME VEGETABLE INSECT CONTROL

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NOTE: Insecticide registrations can change rapidly and can vary with the specific product or formulation of the product used (e.g. not all products containing malathion are labeled for use on the same crops; not all formulations of Sevin have the same use patterns). Always carefully read and follow the label instructions for the specific product being applied. If using transplants, make sure plants are free of pests before purchasing.

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS	
All crops	Multiple pests	pyrethrins pyrethrins+PBO	RTU	0	Provides rapid knock down and suppression of most pests directly contacted. Little or no residual activity.	
	Soil pests	bifenthrin 0.115% granular	1 lb. per 500 sq. ft.		Apply prior to planting and work into top 4-6 inches of soil. (May also be applied to bifenthrin labeled crops with PHI same as foliar applications).	
	Slugs and Snails	metaldehyde	See label		Do not contact plants with material.	
		iron phosphate	See label		Do not contact plants with material.	
	Fire Ants	Esteem Ant Bait is registered for use in many vegetable crops (see label). Spinosad products may be used as a mound drench in crops where foliar applications are allowed (see label). Other ant baits may be used around the garden, which for small gardens is frequently adequate.				
Leafminers	No general use insecticides provide control of leafminer larvae inside leaves. Spinosad products may provide some suppression on registered crops. Leafminer problems are frequently caused by overuse of insecticides. Hand-pick mined leaves.					
Asparagus	asparagus beetle, cutworms	carbaryl (Sevin) 22.5%	1.5 oz.	1	Also available as a ready-to-use product.	
		permethrin 2.5% 0.25% dust	1.5 oz. Dust plants lightly	1 1		
		spinosad 0.5%	2 oz.	60	Post-harvest treatment only.	
Beans, Peas	aphids	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	green-3 dry-21	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	7		
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		malathion 50%	1.5-2 tsp.	bean-1 peas-3		
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.	
	bean beetles (Mexican bean beetle, bean leaf beetle), caterpillars (corn earworm), cowpea curculio, stink bugs	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product.	
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5-1 lb. 0.25-0.5 lb.	fresh-3 dry-21	Also available as a ready-to-use product. Not for stink bugs or caterpillars.	
		esfenvalerate 0.425%	2 Tbs.	green-3 dry-21	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	7		
		spinosad 0.5%	2 oz.	3	For caterpillar pests only. Will also suppress thrips and leafminers.	
		NOTE: For cowpea curculio make 3 applications at 5 day intervals starting when pods are ½ inch long.				

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS	
Beans, Peas (cont.)	spider mites	malathion 50%	1 Tbs.	beans-1 peas-3	Marginal control of this pest.	
		sulfur 90%	2 Tbs.	0	Do not use if > 95 degrees. Do not use within 3 weeks of oil spray.	
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.	
	NOTE: Bifenthrin applied at high rates may provide suppression of mites.					
	whitefly	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product.	
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		insecticidal soap	Follow label directions	0	No residual activity. Thorough coverage is essential.	
		pyrethrins+PBO	RTU	0	No residual activity.	
	Beets	flea beetles	carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.25-0.5 lb. 0.125-0.25 lbs.	Root-7 tops-14	Also available as a ready-to-use product.
cyfluthrin 0.75%			1 Tbs.	0	Also available as a ready-to-use product.	
malathion 50%			1 Tbs.	7		
Broccoli, Brussels Sprouts, Cabbage, Cauliflower	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
	aphid	acetamiprid 0.006%	RTU	7		
		bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	3	Not for use on Brussels Sprouts. Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs.	1	Also available as a ready-to-use product.	
		lambda-cyhalothrin 0.5%	1 Tbs.	1	Also available as a ready-to-use product.	
		malathion 50%	1.5-2 tsp.	broccoli-3 others-7		
		permethrin 2.5% 0.25% dust	1 oz. Dust plants lightly	1		
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.	
	caterpillars on foliage, cutworms	<i>Bacillus thuringiensis</i> (Dipel, Thuricide and other formulations)	Follow label directions.	0	Not for cutworms. Treat as soon as damage is found and repeat as needed. Susceptible larvae will stop feeding soon after eating treated foliage but may not die for several days.	
		bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	3	Not for use on Brussels Sprouts. Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs.	1	Also available as a ready-to-use product.	
		lambda-cyhalothrin 0.5%	1 Tbs.	1	Also available as a ready-to-use product.	
		permethrin 2.5% 0.25% dust	1 oz. Dust plants lightly	1	Not registered for cutworms.	
spinosad 0.5%		2 oz.	1	Not registered for cutworms.		

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS
Broccoli, Brussels Sprouts, Cabbage, Cauliflower (cont.)	flea beetles, stink bugs, harlequin bug	bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.25-0.5 lb. 0.125-0.25 lb.	3	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	3	Not for use on Brussels Sprouts. Also available as a ready-to-use product.
		gamma-cyhalothrin 0.25%	1 Tbs	1	Also available as a ready-to-use product.
		lambda-cyhalothrin 0.5%	1 Tbs.	1	Also available as a ready-to-use product.
		permethrin 2.5% 0.25% dust	1 oz. Dust plants lightly	1	
Cantaloupe, Cucumber, Pumpkin, Squash, Watermelon Apply sprays late in the day to reduce kill of pollinating insects.	aphid	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	3	Also available as a ready-to-use product.
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
		malathion 50%	2 tsp.	Pumpkin-3 Others-1	Use and registration varies with specific product. Do not apply unless leaves are dry.
		permethrin 0.25% dust	Dust plants lightly	0	
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
	cucumber beetle adults, squash bug, pickleworm, melonworm, rindworms	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product.
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5 lb. 0.25 lb.	3	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	3	Also available as a ready-to-use product.
		permethrin 0.25% dust	Dust plants lightly	0	
		spinosad 0.5%	2 oz.	cucumber-1 others-3	For caterpillar control only.
		NOTE: Late planted crops are heavily attacked by pickleworm and melonworm. Begin treatments at first bloom and repeat weekly as needed.			
	Squash vine borer	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product. Direct sprays at base of plants.
		esfenvalerate 0.425%	2 Tbs.	3	Also available as a ready-to-use product. Direct sprays at base of plant.
	Spider mites	insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
		malathion 50%	2 tsp.	Pumpkin-3 Others-1	Use and registration varies with specific product. Marginal control of this pest. Do not apply unless leaves are dry.
		NOTE: Bifenthrin applied at high rates may provide suppression of mites.			

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS	
Cantaloupe, Cucumber, Pumpkin, Squash, Watermelon (cont.)	whitefly	bifenthrin 0.3%	1.5 oz.	3	Also available as a ready-to-use product.	
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.	
		pyrethrins+PBO	RTU	0	No residual activity.	
Collards	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		aphid	acetamiprid 0.006%	RTU	7	
	aphid	esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
		malathion 50%	2 tsp.	7	Use and registration varies with specific product.	
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.	
	caterpillars on foliage	Bacillus thuringiensis (Dipel, Thuricide and other formulations)	Follow label directions.	0	Treat as soon as damage is found and repeat as needed. Susceptible larvae will stop feeding soon after eating treated foliage but may not die for several days.	
		carbaryl 22.5% 5% dust 10% dust	1.5 ozs. 0.5-1 lb. 0.25-0.5 lb.	14	Also available as a ready-to-use product.	
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
	flea beetles, harlequin bug, stink bugs	carbaryl 22.5% 5% dust 10% dust	1.5 ozs. 0.25-0.5 lb. 0.125-0.25 lb.	14	Also available as a ready-to-use product.	
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
	Corn, Sweet	corn earworm, fall armyworm, European corn borer flea beetle, cucumber beetle, stink bug	bifenthrin 0.3%	1.5 oz.	1	Also available as a ready-to-use product.
			carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.75-1.0 lb. 0.4-0.5 lb.	2	Not for stink bug control. Also available as a ready-to-use product.
cyfluthrin 0.75%			1 Tbs.	0	Also available as a ready-to-use product.	
esfenvalerate 0.425%			2 Tbs.	1	Also available as a ready-to-use product.	
gamma-cyhalothrin 0.25%			1 Tbs.	21	Also available as a ready-to-use product.	
lambda-cyhalothrin 0.5%			1 Tbs.	21	Also available as a ready-to-use product.	
permethrin 2.5% 0.25% dust			1.5 oz. Dust plants lightly	1		
spinosad 0.5%			2 oz.	1	For control of caterpillar pests only.	
NOTE: For caterpillar pests of ears, begin treatment when silks appear. Repeat at 2 day interval with sprays directed at ears.						

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS	
Eggplant	aphid	acetamiprid 0.006%	RTU	7		
		bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	5		
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		malathion 50%	2 tsp.	3	Use and registration varies with specific product.	
		insecticidal soap	Follow label directions	0	No residual activity. Thorough coverage is essential.	
	Caterpillars on foliage Colorado potato beetle flea beetle	bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		carbaryl 22.5%	1.5 oz.	3	Also available as a ready-to-use product.	
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	5		
		permethrin 2.5% 0.25% dust	3 oz. Dust plants lightly	3		
		spinosad 0.5%	2 oz.	1	Not for use against flea beetles..	
	lacebug	bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		carbaryl 22.5%	1.5 oz.	3	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	5	Also available as a ready-to-use product.	
	spider mite	insecticidal soap	Follow label directions	0	No residual activity. Thorough coverage is essential.	
		malathion 50%	2 tsp.	3	Use and registration varies with specific product. Marginal control of this pest.	
		NOTE: Bifenthrin applied at high rates may provide suppression of mites.				
	whitefly	acetamiprid 0.006%	RTU	7		
		bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
		insecticidal soap	Follow label directions	0	No residual activity. Thorough coverage is essential.	
		pyrethrins+PBO	RTU	0	No residual activity.	
	Lettuce, Spinach	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
		aphid	acetamiprid 0.006%	RTU	7	
bifenthrin 0.3%			1.5 oz.	7	For use on head lettuce only. Also available as a ready-to-use product.	
gamma-cyhalothrin 0.25%			1 Tbs	1	For use on lettuce only. Also available as a ready-to-use product.	
lambda-cyhalothrin 0.5%			1 Tbs.	1	For use on lettuce only. Also available as a ready-to-use product.	
malathion 50%			1.5-2 tsp.	head - 7 leaf - 14 spinach - 7	Use and registration varies with specific product.	
insecticidal soap			follow label directions	0	No residual activity. Thorough coverage is essential.	

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS
Lettuce, Spinach	caterpillars on foliage, flea beetles, harlequin bug, and stink bug	<i>Bacillus thuringiensis</i> (Dipel, Thuricide and other formulations)	Follow label directions.	0	For control of caterpillar pests only. Treat as soon as damage is found and repeat as needed. Susceptible larvae will stop feeding soon after eating treated foliage but may not die for several days.
		bifenthrin 0.3%	1.5 oz.	7	For use on head lettuce only. Also available as a ready-to-use product.
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5 - 1 lb. 0.25 - 0.5 lb.	14	Also available as a ready-to-use product.
		gamma-cyhalothrin 0.25%	1 Tbs.	1	For use on lettuce only. Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		lambda-cyhalothrin 0.5%	1 Tbs.	1	For use on lettuce only. Also available as a ready-to-use product.
		permethrin 2.5% 0.25% dust	2 oz. Dust plants lightly		
		spinosad 0.5%	2 oz.	1	For control of caterpillar pests only.
Mustard greens	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
	aphid	insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
		acetamiprid 0.006%	RTU	7	
		malathion 50%	2 tsp.	7	Use and registration varies with specific product.
	caterpillars on foliage	<i>Bacillus thuringiensis</i> (Dipel, Thuricide and other formulations)	Follow label directions.	0	Treat as soon as damage is found and repeat as needed. Susceptible larvae will stop feeding soon after eating treated foliage but may not die for several days.
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5 - 1.0 lb. 0.25 - 0.5	14	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
	flea beetles	carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.25 - 0.5 lb. 0.125 - 0.25 lb.	14	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
	Okra	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21
aphid		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
		malathion 50%	2 tsp.	1	Use and registration varies with specific product.
caterpillar pests		Carbaryl 22.5%	1.5 oz.	3	
		spinosad 0.5%	2 oz.	1	

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS	
Onions	thrips	gamma-cyhalothrin 0.25%	1 Tbs	14	Also available as a ready-to-use product.	
		lambda-cyhalothrin 0.5%	1 Tbs.	14	Also available as a ready-to-use product.	
		malathion 50%	2 tsp.	3	Use and registration varies with specific product.	
Peppers	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.	
	aphid	acetamiprid 0.006%	RTU	7		
		bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	5		
		malathion 50%	2 tsp.	3	Use and registration varies with specific product.	
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.	
	caterpillar pests, flea beetle	bifenthrin 0.3%	1.5 oz.	7	Also available as a ready-to-use product.	
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5 - 1 lb. 0.25 - 0.5 lb.	3	Also available as a ready-to-use product.	
		cyfluthrin 0.75%	1 Tbs.	7	Also available as a ready-to-use product.	
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.	
		gamma-cyhalothrin 0.25%	1 Tbs	5		
		permethrin 2.5% 0.25% dust	2 oz. Dust plants lightly	3		
		spinosad 0.5%	2 oz.	1	For control of caterpillar pests only.	
		spider mites	insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
	malathion 50%		2 tsp.	3	Use and registration varies with specific product. Marginal control of this pest.	
	NOTE: Bifenthrin applied at high rates may provide suppression of mites.					
	Potatoes, Irish	aphid	esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.
			malathion 50%	1.5-2 tsp.	0	
			permethrin 2.5% 0.25% dust	1.5 oz. Dust plants lightly	14	
insecticidal soap			follow label directions	0	No residual activity Thorough coverage is essential.	

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS
Potatoes, Irish (cont.)	Colorado potato beetle, flea beetles, potato tuberworm	carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.25 - 0.5 lb. 0.125 - 0.25 lb.	7	Not for control of potato tuberworm. Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.
		permethrin 2.5% 0.25% dust	1.5 oz. Dust plants lightly	14	
		spinosad 0.5%	2 oz.	7	
		NOTE: For potato tuberworm, treat when foliage or tuber damage is noticed. Store tubers promptly after digging to avoid tuberworm infestation in storage.			
Potatoes, sweet	Flea beetles, cucumber beetles	carbaryl 22.5%	1.5 oz.	7	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		malathion 50%	4 tsp.	3	
	Caterpillars on foliage	<i>Bacillus thuringiensis</i> (Dipel, Thuricide and other formulations)	Follow label directions.	0	Treat as soon as damage is found and repeat as needed. Susceptible larvae will stop feeding soon after eating treated foliage but may not die for several days.
		carbaryl 22.5%	1.5 oz.	7	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		spinosad 0.5%	2 oz.	7	
	sweet potato weevil	carbaryl 22.5%	1.5 oz.	7	Also labeled as pre-plant dip (follow label). Also available as a ready-to-use product.
cyfluthrin 0.75%		1 Tbs.	0	Also available as a ready-to-use product.	
Radishes	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
	aphid	esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.
		malathion 50%	1.5 - 2 tsp.	7	
		insecticidal soap	Follow label directions	0	No residual activity. Thorough coverage is essential.
	flea beetle	carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.25 - 0.5 lb. 0.125 - 0.25 lb.	7	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	7	Also available as a ready-to-use product.
Tomato	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
	aphid	acetamiprid 0.006%	RTU	7	
		bifenthrin 0.3%	1.5 oz.	1	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	1	Also available as a ready-to-use product.
		gamma-cyhalothrin 0.25%	1 Tbs	5	Also available as a ready-to-use product.
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
		lambda-cyhalothrin 0.5%	1 Tbs.	5	Also available as a ready-to-use product.
		malathion 50%	1.5 - 2 tsp.	1-7	PHI varies with specific product.
insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.		

**HOME VEGETABLE INSECT CONTROL (continued)**

VEGETABLE	INSECT	INSECTICIDE AND FORMULATION	AMOUNT OF FORMULATION PER GALLON OF SPRAY	PHI (DAYS)	REMARKS AND PRECAUTIONS
Tomato (cont.)	flea beetles, Colorado potato beetle, fruitworm, hornworm, tomato pinworm	bifenthrin 0.3%	1.5 oz.	1	Also available as a ready-to-use product.
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5 - 1 lb. 0.25 - 0.5 lb	3	Primarily for control of beetles. Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	1	Also available as a ready-to-use product.
		gamma-cyhalothrin 0.25%	1 Tbs	5	Also available as a ready-to-use product.
		lambda-cyhalothrin 0.5%	1 Tbs.	5	Also available as a ready-to-use product.
		permethrin 2.5% 0.25% dust	1.5 oz. Dust plants lightly	0	Not registered for cutworms.
		spinosad 0.5%	2 oz.	1	Not registered for flea beetles or cutworms.
	spider mites	sulfur 90%	2 Tbs.	0	Do not use if > 95 degrees. Do not use within 3 weeks of oil spray.
		insecticidal soap	follow label directions	0	No residual activity Thorough coverage is essential.
		NOTE: Bifenthrin applied at high rates may provide suppression of mites.			
	stink bug, leaffooted bug	bifenthrin 0.3%	1.5 oz.	1	Weekly treatments may be needed for late season control.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
		esfenvalerate 0.425%	2 Tbs.	1	Also available as a ready-to-use product.
		gamma-cyhalothrin 0.25%	1 Tbs	5	Also available as a ready-to-use product.
		lambda-cyhalothrin 0.5%	1 Tbs.	5	Also available as a ready-to-use product.
		NOTE: Weekly treatments may be needed for late season control.			
	whitefly	acetamiprid 0.006%	RTU	7	
		bifenthrin 0.3%	1.5 oz.	1	Also available as a ready-to-use product.
		imidacloprid 0.235%	Follow label directions	21	Apply at or shortly after plant emergence or transplanting.
		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
		pyrethrins+PBO	RTU	0	No residual activity.
	Turnips	aphids, whiteflies	imidacloprid 0.235%	Follow label directions	21
aphid		insecticidal soap	follow label directions	0	No residual activity. Thorough coverage is essential.
		malathion 50%	2 tsp.	7	Use and registration varies with specific product.
caterpillars on foliage		<i>Bacillus thuringiensis</i> (Dipel, Thuricide and other formulations)	Follow label directions.	0	Treat as soon as damage is found and repeat as needed. Susceptible larvae will stop feeding soon after eating treated foliage but may not die for several days.
		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.5 - 1 lb. 0.25 - 0.5	Tops - 14 Root - 7	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.
flea beetles, harlequin bug		carbaryl 22.5% 5% dust 10% dust	1.5 oz. 0.25 - 0.5 lb. 1.25 - 2.5 lb.	Tops - 14 Root - 7	Also available as a ready-to-use product.
		cyfluthrin 0.75%	1 Tbs.	0	Also available as a ready-to-use product.

# WEED CONTROL IN HOME VEGETABLE GARDENS

A. Stanley Culpepper, Extension Agronomist – Weed Science  
Lynn Sosnoskie – Weed Science

APPLICATION/ TIMING	HERBICIDE	CROPS	REMARKS AND PRECAUTIONS
Preplant or Preemergence	glyphosate (Roundup, many others)  See label for specific product used.	Beans, Garden Beets, Broccoli, Brussels sprouts, Cabbage, Carrot, Cauliflower, Celery, Collards, Garlic, Kale, Lettuce, Mustard greens, Okra, Onion, Peas, Potato, Spinach, Sweet potato, Tomato, Turnip; See label for use on additional crops.	Controls most annual weeds and suppresses or controls many perennial weeds. <b>Apply at least 3 days prior to the emergence of direct seeded vegetables and at least 3 days prior to transplanting vegetables. Products can vary with respect to plant-back restrictions. Read label first before seeding or transplanting any crop into the treated area.</b>  Most weeds can be controlled by applying 0.75 to 2.0% glyphosate-solution using a hand held sprayer and spraying to wet; see label for exact rates for specific weed problems and application methods.  For nutsedge and bermudagrass, sequential applications at 1.5 to 2.0 % glyphosate solution will likely be necessary. Recommendations are valid for products containing glyphosate as the only active ingredient.
		Cantaloupe, Cucumber, Eggplant, Gourds, Melons (all), Muskmelon, Pepper, Pumpkin, Squash (summer, winter), Tomato, Watermelon	Allow at least 3 days after application before planting these crops. <b>Products can vary with respect to plant-back restrictions. Read label first before seeding or transplanting any crop into the treated area.</b>  Recommendations are valid for products containing glyphosate as the only active ingredient.
		All vegetables listed above	If growing vegetables on plastic or in high plant residues, care must be taken to remove the glyphosate from the plastic or plant residue prior to transplanting. Glyphosate can be removed by a single 0.5 inch application of water by irrigation or rainfall.  Recommendations are valid for products containing glyphosate as the only active ingredient.
Preplant incorporated, preemergence, or postemergence	trifluralin, (Weed Preventer, others)  See label for specific product used.	<b>From Seed:</b> Broccoli, Brussels Sprouts, Cabbage, Carrots, Cauliflower, Celery, Collard, Green Peas, Kale, Lima Beans, Mustard Greens, Okra, Snap Beans, Southern Pea, and Turnip Greens	<b>DOES NOT CONTROL EMERGED WEEDS.</b>  <b>From Seed:</b> For residual control of annual grasses and small seeded broadleaf weeds. Apply to prepared soil and incorporate 2 inches deep before planting.  Be careful with use rate especially on broccoli, cabbage, cauliflower, turnip greens, mustard greens, collard and kale.
		<b>Before Transplanting:</b> Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Eggplant, Onions, Pepper and Tomato	<b>Before Transplanting:</b> For residual control of annual grasses and small seeded broadleaf weeds. Apply to prepared soil and incorporate 2 inches deep before planting.
		<b>Post Emergent:</b> Cantaloupe, Cucumber and Watermelon	<b>Post Emergent:</b> Provides residual control of annual grasses and small seeded broadleaf weeds. Apply after plants have developed at least 5 leaves. Apply between plants taking care to limit spray drift on plants.
		<b>After planting:</b> Potato	<b>After planting but before emergence:</b> Use care not to damage seed pieces in cultivating nor to allow treated soil to contact emerged plant foliage.
		All vegetables listed above	In all cases, cultivate into the soil after application using care not to damage emerged crops.

WEED CONTROL IN HOME VEGETABLE GARDENS (continued)

APPLICATION/ TIMING	HERBICIDE	CROPS	REMARKS AND PRECAUTIONS
Preplant incorporated, preemergence, or postemergence (cont.)	DCPA (Dacthal) W-75 (Dacthal) 6F	<p><b>At seeding:</b> Mustard greens, Turnip</p> <p>-----</p> <p><b>At seeding or transplanting:</b> Broccoli, Brussels Sprouts, Cauliflower, Cabbage, Collards, Kale, Garlic, Onions, Sweet potato</p> <p>-----</p> <p><b>When plants have 4 to 5 true leaves:</b> Seeded melons: (Cantaloupe, Honeydew, Watermelon)</p> <p>-----</p> <p><b>4-6 weeks after transplanting or direct seeding plants at 4-6 inches tall:</b> Tomato and Eggplant</p>	<p><b>DOES NOT CONTROL EMERGED WEEDS</b></p> <p>Apply uniformly to soil as a spray at time of planting for residual control of grasses and small seeded broadleaf weeds.</p> <p>-----</p> <p>Apply uniformly to the soil as a spray for residual control of grasses and small seeded broadleaf weeds. Can be sprayed directly over transplants without injury.</p> <p>-----</p> <p>Apply only when plants have 4 to 5 true leaves, are well established, and growing conditions are favorable. Will not control emerged weeds.</p> <p>-----</p> <p>Can be applied overtop of transplants for residual control of annual grasses and small seeded broadleaf weeds.</p>
Postemergence	sethoxydim (Poast) 1.53 EC	Broccoli, Cabbage, Carrots, Cantaloupe, Cauliflower, Celery, Collard, Cucumber, Eggplant, Garlic, Green pea, Kale, Leek, Lettuce (head and leaf), Lima bean, Mustard, Okra, Onion, Pepper, Potato (Irish and sweet), Pumpkin, Spinach, Squash, Snap bean, Southern pea, Tomato, Watermelon	<p>Does not control broadleaf weeds or sedges. Apply postemergence over-the-top for control of emerged annual and perennial grasses at 1 pt per acre or approximately 0.75 Tbs/gal/1000 sq. ft. Use a crop oil concentrate (adjuvant) at a rate of 1 qt. per acre or approximately 1.5 Tbs./gal./1000 sq. ft.</p> <p>Do not apply within 14 days of harvesting cantaloupe, cucumber, okra, pumpkin, squash, or watermelon.</p> <p>Do not apply within 15 days of harvesting leaf lettuce, spinach, succulent beans, or succulent peas.</p> <p>Do not apply within 30 days of harvesting broccoli, cabbage, carrots, cauliflower, celery, collard, dry beans or peas, garlic, kale, leek, (head) lettuce, mustard, potato, or onion.</p> <p>Do not apply within 20 days of harvesting eggplant, pepper, or tomato.</p>
	bentazon (Basagran) 4 SL	English pea, Green pea, Kidney bean, Lima bean, Navy bean, Pinto bean, Snap bean, Southern pea	<p>For postemergence control of yellow nutsedge and some broadleaf weeds. Does not control grasses. Apply when weeds are small and actively growing. Adjust rate according to weed size as suggested on label. Do not apply before the third trifoliate leaf is fully expanded. Do not apply when peas or beans are in bloom. Add adjuvant according to label. Do not apply to dry peas within 30 d of harvest of succulent peas within 10 d of harvest. See label about tank mixture.</p>
	glyphosate (Roundup WeatherMax) 5.5 SL	<p><i>Brassica:</i> broccoli, cabbage, collard, kale, mustard greens</p> <p><i>Bulb crops:</i> garlic, leek, onion</p> <p><i>Cucurbits:</i> cucumber, melons, pumpkin, squash, watermelon</p> <p><i>Leafy vegetables:</i> celery, lettuce (head and leaf), spinach</p> <p><i>Fruiting vegetables:</i> eggplant, pepper</p> <p><i>Legumes:</i> lima bean, snap bean, southern pea, English pea, garden pea</p> <p><i>Root and Tuber:</i> beet, carrot, parsley, radish, rutabaga, sweet potato</p> <p><i>Other:</i> globe artichoke, okra, sugar beet</p> <p>See label for use on additional crops.</p>	<p>Apply as a hooded spray in row middles or as a wiper application in row middles. <b>DO NOT ALLOW HERBICIDE MIXTURE TO CONTACT ANY PART OF THE CROP INCLUDING THE ROOTS!</b></p> <p>For crops that vine, applications must be made to row middles prior to vine development.</p> <p>Application must be made at least 14 days before harvest.</p> <p>May be applied as a POST-harvest application. Apply at least 30 days prior to planting any non-labeled crop.</p>

# FOLIAR CALCIUM SPRAYS

George Boyhan, Professor and Extension Vegetable Specialist

CROP	MATERIAL	AMOUNT OF FORMULATION	REMARKS
Asparagus	Stoller Calcium 5X	1-2 qt/A	Apply when crowns begin to grow. Repeat after each cutting.
	Sorba-Spray CaB	1-4 qt/A	Apply when flowers are in bud stage. Repeat every 2-3 weeks. Also contains 5% nitrogen and 1.5% Boron.
Beans	Stoller Calcium 5X	1-2 pt/A	Apply at 4-5 inch stage, at early bloom and at early pod set.
	Stoller Calcium 5S	16 oz/A	Apply before flower bud formation or use half rate every 7-10 days beginning at third trifoliolate.
	Sorba-Spray CaB	1-2 qt/A	First application at bud to early bloom. Repeat in 2-3 weeks. Also contains 5% nitrogen and 1.5% Boron.
Broccoli	Ele-Max Clear Cal 12.1%	2 qt/A	Apply in 20 gallons water at head development. Repeat two to three times at 10-14 day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-5 leaves and every 10-14 days.
	Stoller Calcium 5S	12 oz/A	Apply at 4-5 leaf stage and then every 7-14 days.
	Sorba-Spray CaB	1-4 qt/A	Make 1-3 applications at intervals of 2-3 weeks beginning when plants are 3-4 weeks old. Also contains 5% nitrogen and 1.5% Boron.
Cabbage	Ele-Max Clear Cal 12.1%	2 qt/A	Apply in 20 gallons water at head development. Repeat two to three times at 10-14 day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-5 leaves and every 10-14 days.
	Stoller Calcium 5S	12 oz/A	Apply at 4-5 leaf stage and then every 7-14 days.
	Sorba-Spray CaB	1-4 qt/A	Make 1-3 applications at intervals of 2-3 weeks beginning when plants are 3-4 weeks old. Also contains 5% nitrogen and 1.5% Boron.
Cantaloupe	Ele-Max Clear Cal 12.1%	2 qt/A	Make two to three applications in 20 gallons of water beginning at first fruit set at seven day intervals. Also contains 21% Cl.
	Sorba-Spray CaB	1-2 qt/A	Make two or more applications at 2-3 week intervals starting just prior to bloom. Also contains 5% nitrogen and 1.5% Boron.
	Stoller CabY	1-2 qt/A	To correct physiological disorders begin 2-3 weeks after full bloom and continue at two week intervals. Also contains Boron.
Carrots	Ele-Max Clear Cal 12.1%	2 qt/A	Apply in 20 gallons water when crop is 4-6 inches tall. Repeat two to three times at 10-14 day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1 qt/A	Apply at enlarged root initiation and 2-3 weeks later.
	Sorba-Spray CaB	1-4 qt/A	Apply when plants are 3-4 weeks old. Repeat every 3-4 weeks. Also contains 5% nitrogen and 1.5% Boron.
Corn	Stoller Calcium 5S	16 oz/A	Apply at 2-6 leaf stage and half rate at 7-21 day intervals until end of tasseling.
	Stoller Calcium 5X	1 qt/A	Apply at 4-6 leaf stage.
	Sorba-Spray CaB	1-4 qt/A	As needed for nutrient stress. Also contains 5% nitrogen and 1.5% Boron.
Cucumbers	Ele-Max Clear Cal 12.1%	2 qt/A	Make two to three applications in 20 gallons of water beginning at first fruit set at seven day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-8 inch stage, at early bloom and at start of fruiting.
	Stoller Calcium 5S	8 oz/A	Apply at flower bud initiation and then at 7-10 day intervals.

**FOLIAR CALCIUM SPRAYS (continued)**

<b>CROP</b>	<b>MATERIAL</b>	<b>AMOUNT OF FORMULATION</b>	<b>REMARKS</b>
Eggplant	Stoller Calcium 5X	1-2 qt/A	Apply just prior to first bloom then 10 and 20 days later.
Leafy vegetables	Sorba-Spray CaB	1-4 qt/A	Make 1-3 applications at intervals of 2-3 weeks beginning when plants are 3-4 weeks old. Also contains 5% nitrogen and 1.5% Boron.
	Stoller Calcium 5S	12 oz/A	Apply at 4-5 leaf stage and then every 7-14 days.
Melons	Ele-Max Clear Cal 12.1%	2 qt/A	Make two to three applications in 20 gallons of water beginning at first fruit set at seven day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-8 inch stage, at early bloom and at start of fruiting.
	Stoller Calcium 5S	8 oz/A	Apply at flower bud initiation and then at 7-10 day intervals.
	Sorba-Spray CaB	1-2 qt/A	Make two or more applications at 2-3 week intervals starting just prior to bloom. Also contains 5% nitrogen and 1.5% Boron.
	Stoller CabY	1-2 qt/A	To correct physiological disorders begin 2-3 weeks after full bloom and continue at two week intervals. Also contains Boron.
Onions	Ele-Max Calcium FL4%	1-2 qt/A	Apply at 6-leaf stage and 10-14 days later in 3-20 gallons of water.
	Ele-Max Clear Cal 12.1%	2-4 qt/A	Apply in 20 gallons per acre at bulb swelling and repeat at 7-14 days intervals as needed. Also contains 21% Cl.
	Stoller Calcium 5S	12 oz/A	Apply two weeks after emergence and at 10-14 day intervals.
	Sorba-Spray CaB	1-4 qt/A	As needed for nutritional stress. Also contains 5% nitrogen and 1.5% Boron.
Peas	Ele-Max Calcium FL4%	2 qt/A	Apply at 4-6 inch stage and 10-14 days later in 3-20 gallons of water.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-5 inch stage, at early bloom and at early pod set.
	Sorba-Spray CaB	1-2 qt/A	First application at bud to early bloom. Repeat in 2-3 weeks. Also contains 5% nitrogen and 1.5% Boron.
Peppers	Ele-Max Calcium FL4% Ele-Max	2 qt/A	One to four applications from flowering up to one month before harvest in 50 gallons of water. Allow 7 days between applications.
	Clear Cal 12.1%	2 qt/A	Apply one to four applications in 50 gallons water beginning at flowering. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 qt/A	Apply just prior to first bloom then 10 and 20 days later.
	Stoller Calcium 5S	8 oz/A	Begin at transplant then at 7-14 day intervals.
	Sorba-Spray CaB	1-4 qt/A	Make 1-3 applications at intervals of 3-4 weeks starting prior to bloom. Also contains 5% nitrogen and 1.5% Boron.
Potatoes	Ele-Max Calcium FL4% Ele-Max	2 qt/A	Two to three applications commencing at tuber initiation in 20 gallons of water. Allow 10-14 days between applications.
	Clear Cal 12.1%	2-4 qt/A	Two to three applications commencing at tuber initiation in 20 gallons of water. Allow 10-14 days between applications. Also contains 21 % Cl.
	Stoller Calcium 5X	1 qt/A	Apply at first tuber set and then 2-3 weeks later.
	Stoller Calcium 5S	1 qt/A	Apply at tuber initiation and use half rate at 8-10 leaf stage and every 10-14 days.
	Sorba-Spray CaB	1-4 qt/A	Apply when plants are 4-12 inches high and repeat three weeks later. Also contains 5% nitrogen and 1.5% Boron.

**FOLIAR CALCIUM SPRAYS (continued)**

<b>CROP</b>	<b>MATERIAL</b>	<b>AMOUNT OF FORMULATION</b>	<b>REMARKS</b>
Squash	Ele-Max Clear Cal 12.1%	2 qt/A	Make two to three applications in 20 gallons of water beginning at first fruit set at seven day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-8 inch stage, at early bloom and at start of fruiting.
	Stoller Calcium 5S	8 oz/A	Apply at flower bud initiation and then at 7-10 day intervals.
	Sorba-Spray CaB	1-2 qt/A	Make two or more applications at 2-3 week intervals starting just prior to bloom. Also contains 5% nitrogen and 1.5% Boron.
Sweet Potatoes	Sorba-Spray CaB	1-4 qt/A	Apply when plants are 3-4 weeks old. Repeat every 3-4 weeks. Also contains 5% nitrogen and 1.5% Boron.
Tomatoes	Ele-Max Calcium FL 4%	2 qt/A	One to four applications from flowering up to one month before harvest in 50 gallons of water. Allow 7 days between applications.
	Ele-Max Clear Cal 12.1%	2 qt/A	Apply one to four applications in 50 gallons water beginning at flowering. Allow 7 days between applications. Also contains 21% Cl.
	Stoller Calcium 5X	1 qt/A	Apply at transplanting and 2-3 weeks after first bloom.
	Stoller Calcium 5S	8 oz/A	Apply at flower bud initiation and at 7-10 day intervals.
	Sorba-Spray CaB	1-4 qt/A	Make 1-3 applications at intervals of 3-4 weeks starting prior to bloom. For blossom end rot apply 2qt/A every 7-10 days. Also contains 5% nitrogen and 1.5% Boron.
	Stoller CabY	1-2 qt/A	To correct physiological disorders begin 2-3 weeks after full bloom and continue at two week intervals. Also contains Boron.
Vegetables	Tracite Calcium 6%	1-2 qt/A	Apply every two weeks after first bloom.
	Dyna Gold Calcium 8.25% (Solanceous, Brassica and Cucurbits)	1-2 qt/A	Apply in enough water for thorough coverage at regular intervals.
	Dyna Gold CB Mix 6.0% (flowering crops)	1-1½ qt/A	Apply in enough water for thorough coverage. Make 2 to 3 applications. Also contains 2% boron.
	Foli-Gro Link Calcium 6%	1-2 pt/A	Apply at appropriate crop stage in 20 gallons of water.
	Foli-Gro Calcium 6%	1-2 pt/A	Apply each week in normal spray program in 20 gallons of water.
	Metalosate Calcium 6%	1-2 pt/A	Apply during periods of rapid growth. May repeat two times.
	Pro Natural Calcium 5%	2-32 oz/A	Apply during periods of rapid growth. May repeat two times.
Watermelons	Tracite Calcium 6%	1-2 pt/A	Apply in normal spray program at the low rate once per week. Increase to maximum rate during times when deficiency usually occurs.
	Ele-Max Clear Cal 12.1%	2 qt/A	Make two to three applications in 20 gallons of water beginning at first fruit set at seven day intervals. Also contains 21% Cl.
	Stoller Calcium 5X	1-2 pt/A	Apply at 4-8 inch stage, at early bloom and at start of fruiting.
	Stoller Calcium 5S	8 oz/A	Apply at flower bud initiation and then at 7-14 day intervals.
	Sorba-Spray CaB	1-2 qt/A	Make two or more applications at 2-3 week intervals starting just prior to bloom. Also contains 5% nitrogen and 1.5% Boron.
	Stoller CabY	1-2 qt/A	To correct physiological disorders begin 2-3 weeks after full bloom and continue at two week intervals. Also contains Boron.

# FOLIAR BORON SPRAYS

George Boyhan, Professor and Extension Vegetable Specialist

CROP	MATERIAL	AMOUNT OF FORMULATION	REMARKS
Asparagus	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Beans and Peas	Foli-Gro Boron 10	½-1 pt/A	Apply pre-bloom and repeat in 14-21 days.
	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Broccoli, Cabbage, Cauliflower	Tracite Liquid Boron 10%	2-4 qt/A	As needed for nutrient stress at two week intervals.
Carrots	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Cucumbers	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Melons	Foli-Gro Boron 10	1-3 pt/A	Apply pre-bloom and repeat in 14-21 days.
Onions	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
	Foli-Gro Boron 10	1-2 qt/A	Apply three weeks after establishment and then three weeks later.
Potatoes	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Peppers	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Tomatoes	Tracite Liquid Boron 10%	1-2 qt/A	As needed for nutrient stress at two week intervals.
Vegetables	Metalosate Boron 5%	8-16 oz/A	Apply during periods of rapid growth or nutrient stress. May be repeated 2-3 times during the season.

Note: Never apply more than two pounds of elemental Boron to any crop during the season.