

Chapter 8. Eggplant Production

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Botany and Planting

Eggplant, Oriental, Thai, and Indian eggplant - *Solanum melongena*.

Table 8.1. Planting information for eggplant.

Planting dates	Eggplant	Japanese / Chinese / Indian Eggplant	Thai Eggplant
North Florida	Aug/Feb - Mar	Feb - Mar	Feb - Mar
Central Florida	Aug - Sept/Jan - Feb	Aug - Sept; Jan - Feb	Aug - Sept; Jan - Feb
South Florida	Aug - Feb	Aug - Feb	Aug - Feb
Planting information			
Distance between rows (in)	36 - 72	36 - 72	36 - 72
Distance between plants (in)	18 - 40	18 - 40	36 - 60
Seeding depth (in)	0.5-0.75	0.5 - 0.75	0.5 - 0.75
Seed per acre to seed (lb)	1	0.25 - 0.5	0.25 - 0.5
Seed per acre to transplant (lb)	0.25 - 0.50		
Days to maturity from seed	90 - 115		
Days to maturity from transplant	70 - 90		
Plant population (acre)	9,680	9,680	9,680

Information on "Asian" solanums is included in this chapter. The Asian solanum group includes three types of eggplant and bird's eye pepper (Thai pepper). Pea eggplant, which was discussed in previous editions of the Handbook, is on the Federal Noxious Weed list, so it has not included in the current version. The harvestable product includes fruits which are eaten at the immature or mature stage. All can be grown on raised beds with or without plastic mulch and using either drip or subsurface irrigation. As with most eggplants, these types tend to be short-lived perennials, especially the Thai eggplant which is a relatively compact, stocky plant. They can be severely pruned or ratooned and allowed to regrow if staking does not prohibit this operation. Fertilizer recommendations for eggplant should be used for the three types of eggplant, while those for peppers should be followed for bird's eye peppers. These crops can be started from seed or transplants. All the indeterminate types of eggplant needsome type of staking support.

Cultivars

For more information on eggplant variety descriptions and disease resistance see use the link below

<http://edis.ifas.ufl.edu/pdf/HS/HS124300.pdf>

1. TRADITIONAL TYPES

Classic. Erect, vigorous plant glossy, glossy deep purple-black elongated oval, green calyxed fruit, medium tall upright plant, fancy fruit appearance. Heavy yields of high quality fruit. Does not perform well in cooler weather. R to ToM.

Nadia. Oval long, vigorous plant with good fruit set under cool conditions. Very firm, attractive, purple-black fruit with long harvest period, and set well under cool conditions.

Night Shadow. Elongate oval, widely adapted with high yield potential. Strong plants produce firm fruit which maintain rich, dark glossy black color right through harvest. R to ToM.

Santana. Tall, upright plant with few spines, firm, white flesh, glossy black-purple exterior with attractive bright green calyx. Continuous setting.

Triviata. Fruit are half-long in shape, very uniform in size and very attractive shiny purple in color. Strong growing, well balanced plant.

2. SPECIALTY TYPES

Zebra. Elongated oval, purple with white stripes, very attractive with good flavor.

Megal. Italian cylindrical fruit, purple black color, very uniform, excellent shelf life and flavor, few spines, early maturity. R to CM, ToM.

Vitoria. Very long cylindrical, deep purple Imperial type, green calyx, mild flavor. R to ToM.

Millionaire. Slender, oriental type, dark purple fruit color, purple calyx, early maturing.

Italian pink. Open pollinated cultivar, oval fruit, cream/rose color, mature fruit color is rose pink, purple calyx.

Birgah. A Sicilian style eggplant with a round, heavy, firm fruit, deep purple color and sweet taste and white flesh.

Ghostbuster. Hybrid variety to produces oval shaped white fruit that are 6-7 inches long.

DISEASE KEY: CM = cucumber mosaic, ToM = tomato mosaic, R = resistant, IR = intermediate resistance, T = tolerant.

Table 8.2. Ethnic eggplant cultivars

Oriental (Japanese) eggplant	
Black Shine	Money Maker 2
Hybrid Mangan	
Oriental (Chinese) eggplant	
Bride Hybrid	Ma-Zu Purple
Hybrid Purple Charm	
Thai eggplant	
White: Hybrid White Ball	Purple: Round Purple
Green: Green Beauty	Variegated: Hybrid Tiger
Purple: Hybrid Violet Prince	Variegated: Petch Siam
Indian eggplant (dark, wine colored)	
Hybrid Bharata	Hybrid Chu-Chu

Table 8.3. Herbicides approved for managing weeds in eggplant.

Labels change frequently. Be sure to read a current product label before applying any chemical.			
Active ingredient lb. a.i./A	Trade name product/A	MOA code	Weeds controlled / remarks
*** PREEMERGENCE / PRETRANSPLANT ***			
Bensulide 5.0 - 6.0	(Prefar) 4 E 5 - 6 qt.	8	Annual broadleaves and grasses. Incorporate 2 - 4 in. with mechanical cultivation or irrigation.
Carfentrazone up to 0.031	(Aim) 2 EC up to 2 fl. oz.	14	Apply as a pre-plant burndown for emerged broadleaf weeds up to 4 inches tall or rosettes less than 3 inches across. Good coverage is essential. A nonionic surfactant, methylated seed oil, or crop oil concentrate is recommended. No pre-transplant interval.
Flumioxazin up to 0.128	(Chateau) 51 WDG up to 4 oz.	14	Annual broadleaves. Apply to row middles of raised plastic mulched beds that are at least 4 in. higher than the treated row middles and 24 in. bed width. Label is a Third-Party Registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Tank mix with a burndown herbicide to control emerged weeds.
Glyphosate	(various formulations) consult labels	9	Emerged broadleaves, grasses and nutsedge. Apply as a preplant burndown. Consult label for individual product directions.
Halosulfuron 0.024 - 0.05	(Sanda, Profine) 75 DF 0.5 - 1.0 oz.	2	Broadleaves and yellow/purple nutsedge. Apply to row middles only. Do not exceed 2 oz./A per 12 month period. 30 day PHI.
Lactofen 0.25 - 0.5	(Cobra) 2 EC 16 - 32 fl. oz.	14	Broadleaves. Label is a Third-Party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Apply to row middles only with shielded or hooded sprayers. Cobra contacting green foliage or fruit can cause excessive injury. Drift of cobra treated soil particles onto plants can cause injury. Limit of 1 PRE and 1 POST application per growing season. 30 day PHI.
S-metolachlor 0.64 - 0.95	(Dual Magnum) 7.62 EC 0.67 - 1.0 pt.	15	Annual broadleaves, grasses and yellow / purple nutsedge suppression. Label is a Third Party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Apply to the finished bed immediately before laying the plastic. Do not exceed 1.68 pt. of Dual Magnum/A per crop cycle. 60 day PHI.
Napropamide 1.0 - 2.0	(Devrinol) 50 DF 2.0 - 4.0 lb. (Devrinol 2-XT) 2-4 quarts	15	Annual broadleaves and grasses. Transplanted eggplant only. Use the lower rate on light soils (coarse textured-sandy). Do not apply more than 4 lbs/A. per crop cycle.
Paraquat 0.5 - 1.0	(Gramoxone) 2 SL 2.0 - 4.0 pt. (Firestorm) 3 SL 1.3 - 2.7 pt.	22	Emerged broadleaf and grass weeds. Apply as a preplant burndown treatment. Surfactant recommended.
Pelargonic acid	(Scythe) 4.2 EC 3 - 10% v/v		Emerged broadleaves and grasses. Apply as a preplant burndown treatment. Product is a contact, nonselective, foliar applied herbicide with no residual control. May be tank mixed with soil residual compounds
Pendimethalin 0.48 - 0.72	(Prowl H ₂ O) 3.8 1.0 - 1.5 pt.	3	Broadleaves and grasses. Apply to row middles or under the plastic. Do not exceed 3.0 pt./A per year. 70 day PHI.
Pyraflufen 0.001 - 0.003	(ET Herbicide) 0.208 EC 0.5 - 2.0 fl. oz.	14	Emerged broadleaves less than 4 in. tall or rosettes less than 3 in. diameter. Apply as a preplant burndown treatment. Nonionic surfactant or crop oil concentrate recommended.
Sulfentrazone 0.09	Willowood Sulfentrazone 3 fl. Oz	14	Broadleaves, grasses and nutsedge. Apply under the plastic mulch or in row middles. Do not use on soils with less than 1% organic matter.

Table 8.3. Herbicides approved for managing weeds in eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.			
Active ingredient lb. a.i./A	Trade name product/A	MOA code	Weeds controlled / remarks
Trifluralin 0.5	(Treflan, Triflurex) 4 EC 1 pt.	3	Annual broadleaves and grasses. Do not apply in Dade County. Incorporate 4 in. or less within 8 hr. of application. Results in Florida are erratic on soils with low organic matter and clay contents. Do not apply after transplanting. Not all trifluralin herbicides are labeled in eggplant so consult labels before application.
*** POSTTRANSPLANT ***			
Carfentrazone up to 0.031	(Aim) 2 EC up to 2 fl. oz.	14	Emerged broadleaves. Apply as a hooded application to row middles only. Do not exceed 6.1 fl. oz./A. per cropping season. A nonionic surfactant, methylated seed oil, or crop oil concentrate is recommended. 0 day PHI.
Clethodim 0.09 - 0.13 0.07 - 0.25	(Select, Arrow) 2 EC 6 - 8 fl.oz. (Select Max) 1 EC 9 - 16 fl. oz.	1	Perennial and annual grasses. In fields with heavy grass pressure or larger grass weeds, use higher rates or repeat applications 14 days apart. Use a crop oil concentrate at 1 % v/v or a nonionic surfactant with Select Max. 20 day PHI.
DCPA 6.0 - 7.5	(Dacthal) W-75 8 - 10 lb. (Dacthal) 6 F 8 - 10 pt.	3	Annual broadleaves and grasses. Apply to weed-free soil 6 to 8 wk. after crop is established and growing rapidly or to moist soil in row middles after crop establishment. Note label precautions against replanting non-registered crops within 8 months.
Diquat 0.5	(Reglone Dessiccant) 1 qt.	22	Broadleaves and grasses. Apply to row middles only. Maximum of 2 applications per season. Prevent drift to crop. Nonionic surfactant recommended. 30 day PHI.
Halosulfuron 0.024 - 0.05	(Sanda, Profine) 75 DF 0.5 - 1.0 oz.	2	Broadleaves and yellow/purple nutsedge. Apply to row middles only. Include a nonionic surfactant. Do not exceed 2 oz./A per 12 month period. 30 day PHI.
Lactofen 0.25 - 0.5	(Cobra) 2 EC 16 - 32 fl. oz.	14	Broadleaves. Apply to row middles only with shielded or hooded sprayers. Cobra contacting green foliage or fruit can cause excessive injury. Drift of Cobra treated soil particles onto plants can cause contact injury. Limit of 1 PRE and 1 POST application per growing season. Surfactant recommended. 30 day PHI.
S-metolachlor 0.95	(Dual Magnum) 7.62 EC 1.0 pt.	15	Annual broadleaves and grasses. Yellow/purple nutsedge suppression. Label is a Third-Party registration (TPR, Inc.). Use without a signed authorization and waiver of liability is a misuse of the product. Direct spray solution to row middles only. Do not exceed 1.68 pt. of Dual Magnum/A per crop. 60 day PHI.
Paraquat 0.5	(Gramoxone) 2 SL 2 pt. (Firestorm) 3 SL 1.3 pt.	22	Emerged broadleaves and grasses. Direct spray over emerged weeds 1 to 6 inches tall in row middles between mulched beds. Use low pressure and shields to control drift. Do not apply more than 3 times per season. Nonionic surfactant recommended.
Pelargonic acid	(Scythe) 4.2 EC 3 - 10% v/v		Emerged broadleaves and grasses. Direct spray to row middles. Product is a contact, nonselective, foliar applied herbicide with no residual control. May be tank mixed with several soil residual compounds.
Pendimethalin 0.48 - 0.72	(Prowl H ₂ O) 3.8 1.0 - 1.5 pt.	3	Broadleaves and grasses. May be applied post transplant to row middles if previously untreated. Do not exceed 3.0 pt./A per year. 70 day PHI.
Sethoxydim 0.19 - 0.28	(Poast) 1.5 EC 1.0 - 1.5 pt.	1	Actively growing grasses. A total of 4.5 pt./A applied in one season. Unsatisfactory results may occur if applied to grasses under stress. Crop oil concentrate recommended. 20 day PHI.
*** POSTHARVEST ***			
Diquat 0.5	(Reglone Dessiccant) 2.0 pt.	22	Minimum of 35 gal./A. Thorough coverage is required. Nonionic surfactant recommended.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant.

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
Aphids (including green peach aphid, potato aphid, aphid transmitted viruses)	1A	*Lannate LV; *SP (methomyl)	LV: 0.75-3.0 pt SP: 0.25-1.0 lb	No more than 15 pints/A per crop. No more than 5 lbs/A per crop.	48	5	No more than 10 applications per crop.
	1A	*Vydate L (oxamyl)	2-4 pt (foliar)	Do not apply more than 24 pt per acre per season.	48	1	
	1B	*Dibrom 8 EC (naled)	1	Do not apply more than 6 pints/A per season.	48	1	Apply no more than 1 pt/acre in Florida. Do not apply when temperature is over 90°F.
	1B	Malathion 8F (malathion)	1.56 pt	Maximum application/A per crop is 6.24 pints.	12	3	Maximum number of applications is 4.
	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Do not apply at less than 7-day intervals.
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	This product can kill bees and other insect pollinators.
	4A	Actara (thiamethoxam)	2.0-5.5 oz	Maximum of 11 oz/acre per season. Maximum of 11 oz/acre per season.	12	0	Do not use if a soil application of a neonicotinoid has been used.
	4A	Admire Pro (imidacloprid) (for rates for other brands, see labels)	7-10.5 fl oz	Maximum 10.5 fl. oz. /A per crop per season.	12	21	Application restrictions exist for this product because of risk to bees and other insect pollinators. Follow application restrictions found in the direction for use to protect pollinators. Most effective if applied to soil at transplanting.
	4A	Admire Pro (imidacloprid)	0.44 fl oz/10,000 plants		12	21	Planthouse: 1 application. See label.
	4A	Assail 30 SG (acetamiprid)	1.5-4.0 oz	Do not exceed a total of 16.0 ozs. /A per growing season, including any pre-transplant applications of acetamiprid.	12	7	Begin applications for whiteflies when first adults are noticed. Do not apply more than 4 times per season or apply more often than every 7 days.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	4.8 -6.4 oz (soil application)	Do not apply more than 6.4 oz per acre per season.	12	Apply at planting	See label for application instructions. Do not release irrigation water from the treated area.
4A	Platinum	5.0-11.0 fl oz	Do not exceed a total of 11 fl. oz. Platinum/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.	

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Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	4A	Platinum 75SG (thiamethoxam)	1.66-367.0z	Do not exceed a total of 3.67 Platinum 75 SG/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Provado 1.6F (imidacloprid)	3.8-6.2 oz	Maximum per crop per season 19.2 fl oz/A.	12	0	Do not apply if imidacloprid or thiamethoxam have been used at planting.
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz Soil: 9-10.5 fl oz	Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Use only one application method
	4A	Venom Insecticide (dinotefuran)	foliar: 1-4 oz soil: 5-6.0 oz	Do not apply more than 6 oz, foliar; or 12 oz, soil, per season.	12	foliar - 1 soil-21	Do not use both application methods. No more than 3 applications per season.
	4A & 28	Durivo (thiamethoxam & chlorantraniliprole)	10-13 oz	Do not exceed a total of 13 fl. oz./A.	12	30	May be applied to soil by one of several methods—see label.
	4A & 28	Voliam Flexi (thiamethoxam & chlorantraniliprole)	4.0-7.0 oz	Limited to 14 oz/acre per growing season.	12	1	
	4D	Sivanto Prime (flupyradifurone)	7.0-14.0 fl. oz.	Do not apply more than 28.0 fl. oz./A per year.	4	1	Minimum interval between applications: 7 days.
	9B	Fulfill (pymetrozine)	2.75 oz	Do not apply more than 5.5 oz/acre per crop.	12	0	Apply before populations build to damaging levels. Minimum of 7 days between applications. Do not make more than two applications.
	23	Movento (spirotetramat)	4.0-5.0 fl oz	Maximum of 10 fl oz per acre per season.	24	1	
	28	Exirel (cyantraniliprole)	13.5-20.5 fl. oz.	Do not apply a total of more than 0.4 lb ai/A per crop.	12	1	Application restrictions exist for this product because of risk to bees and other pollinators. Follow application restrictions found in the directions for use to protect pollinators. Minimum application interval between treatments is 5 days.
	28	Verimark (cyantraniliprole)	6.75-13.5 fl. oz.	Do not apply more than 0.4 lb ai/A per crop	4	1	
	29	Beleaf 50 SG (flonicamid)	2.0-2.8 oz	Do not apply more than 8.4 oz/acre per season.	12	0	Begin applications before pests reach damaging levels.
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Molt-X (azadirachtin)	10 fl oz		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	M-Pede 49% EC Soap , insecticidal	1-2% V/V		12	0	OMRI-listed.
	-	BotaniGard ES (<i>Beauveria bassiana</i> strain GHA)	0.25 - 1 quart per acre. Apply in sufficient water to cover foliage, typically 5 - 100 gallons per acre.		4	0	May be used in greenhouses. Contact dealer for recommendations if an adjuvant may be used. Compatible in tank mixes with some fungicides.
	-	Mycotrol ESO (<i>Beauveria bassiana</i> strain GHA)	0.25 - 1 quart per acre. Apply in sufficient water to cover foliage, typically 5 - 100 gallons per acre.		4	0	May be used in greenhouses. Contact dealer for recommendations if an adjuvant must be used. Compatible in tank mixes with some fungicides. OMRI listed.
	-	PFR-97 (<i>Isaria fumosorosea</i> Apopka strain 97)	1.0-2.0 lbs		4	0	Repeat applications at 3-10 days are needed to maintain control. Can be used in greenhouse for food crop transplants raised to be planted into the field. OMRI listed.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
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Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	-	Requiem 25EC (extract of <i>Chenopodium ambrosioides</i>)	2-4 qt		4	0	Begin applications before pests reach damaging levels.
	-	SuffOil-X (mineral oil)	1-2 gallons per 100 gallons of water.		4	0	OMRI listed.
	-	Ultra-Fine Oil JMS Stylet-Oil Saf-T-Side (oil, insecticidal)	3-6 qts/100 gal (JMS) 1-2 gal/100 gal water		4	0	Do not exceed four applications per season. Stylet-oil will not control aphids or beetles. Organic Stylet-Oil and Saf-T-Side are OMRI-listed.
Beetles (including blister beetle, Colorado potato beetle, cucumber beetle, flea beetle)	1A	Carbaryl 4L (carbaryl)	1/2 quart-2 quarts	Do not apply more than a total of 8 quarts /A per crop per year.	12	3	Toxic to honeybees and other bees.
	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 XLR, 4F: 0.5-2 qt	Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
	1A	*Vydate L (oxamyl)	2-4 pt (foliar)	Do not apply more than 24 pt per acre per season.	48	1	
	1B	*Dibrom 8 EC (naled)	1	Do not apply more than 6 pints/A per season.	48	1	Apply no more than 1 pt/acre in Florida. Do not apply when temperature is over 90°F.
	3A	*Ambush 25W (permethrin)	6.4-12.8 oz	Do not apply more than 2 lb ai per acre per season. (128 oz)	12	3	
	3A	*Asana XL (0.66 EC) (esfenvalerate)	5.8-9.6 fl oz	Do not apply more than 0.35 lb ai per acre per season.	12	7	
	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Do not apply at less than 7-day intervals.
	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	Do not make applications less than 7 days apart.
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	Do not make applications less than 7 days apart.
	3A	*Pounce 25 W (permethrin)	6.4-9.6 oz	Do not apply more than 0.6 lbs ai/acre per season.	12	3	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl oz	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	This product can kill bees and other insect pollinators.
3A & 28	*Besiege (lambda-cyhalothrin & chlorantraniliprole)	5.0-9.0 fl oz	Do not exceed a total of 31 fl oz of Besiege per acre per year.	24	5		
4A	Actara (thiamethoxam)		Maximum of 11 oz/acre per season.	12	0	Do not use if a soil application of a neonicotinoid has been used.	

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Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	4A	Admire Pro (imidacloprid) (for rates for other brands, see labels)	7-10.5 fl oz	Maximum 10.5 fl. oz. /A per crop per season.	12	21	Application restrictions exist for this product because of risk to bees and other insect pollinators. Follow application restrictions found in the direction for use to protect pollinators. Most effective if applied to soil at transplanting.
	4A	Assail 30 SG (acetamiprid)	1.5-4.0 oz	Do not exceed a total of 16.0 ozs. /A per growing season, including any pre-transplant applications of acetamiprid.	12	7	Do not apply more than 4 times per season or apply more often than every 7 days.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area.
	4A	Platinum	5.0-11.0 fl oz	Do not exceed a total of 11 fl. oz. Platinum/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Platinum 75SG (thiamethoxam)	1.66-367.0z	Do not exceed a total of 3.67 Platinum 75 SG/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Provado 1.6F (imidacloprid)	3.8-6.2 oz	Maximum per crop per season 19.2 fl oz/A.	12	0	Do not apply if imidacloprid or thiamethoxam have been used at planting.
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz Soil: 9-10.5 fl oz	Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Use only one application method
	4A	Venom Insecticide (dinotefuran)	foliar: 1-4 oz soil: 5-6.0 oz	Do not apply more than 6 oz, foliar; or 12 oz, soil, per season.	12	foliar - 1 soil - 21	Do not use both application methods. No more than 3 applications per season.
	4A & 28	Durivo (thiamethoxam & chlorantraniliprole)	10-13 oz	Do not exceed a total of 13 fl. oz./A.	12	30	May be applied to soil by one of several methods—see label.
	4A & 28	Voliam Flexi (thiamethoxam & chlorantraniliprole)	4.0-7.0 oz	Limited to 14 oz/acre per growing season.	12	1	
	4D	Sivanto Prime (flupyradifurone)	7.0-14.0 fl. oz.	Do not apply more than 28.0 fl. oz./A per year.	4	1	Minimum interval between applications: 7 days.
	5	Entrust SC (spinosad)	1.5-10 fl oz	Do not use more than 29 oz per acre per crop.	4	1	Do not apply to seedlings grown for transplant. OMRI-listed.
	5	Radiant SC (spinetoram)	5-10 fl oz	Maximum of 34 fl oz per acre per season.	4	1	
	6	*Agri-Mek SC (abamectin)	1.7-3.5 fl oz	Do not apply more than 10.25 fl. oz. /A in a growing season.	12	7	Do not make more than 2 sequential applications. Must be used with a non-ionic activator type wetting, spreading, or penetrating adjuvant.
	15	Rimon 0.83EC (novaluron)	9-12 fl oz	Do not apply more than 36 fl oz per acre per season.	12	1	Do not use with an adjuvant.
	28	Coragen (rynaxypyr)	3.5-7.5 fl oz	Do not apply more than 15.4 fl oz per acre per crop.	4	1	Can be applied by drip chemigation or as a soil application at planting as well as a foliar spray. See label. For hornworms, can use as little as 2.0 fl oz/acre when applied as a foliar spray.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	28	Exirel (cyantraniliprole)	7.0-13.5 fl. oz.		12	1	For control of Colorado potato beetle. This product has pollinator protection warning information on the label.
	28	Verimark (cyantraniliprole)	6.75-13.5 fl. oz.	Do not apply more than 0.4 lb ai/A per crop	4	1	Colorado potato beetle and flea beetles
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Neemix 4.5 (azadirachtin)	4-16 fl oz		12	0	IGR and feeding repellent. OMRI-listed.
	-	SuffOil-X (mineral oil)	1-2 gallons per 100 gallons of water.		4	0	OMRI listed.
Caterpillars (including cabbage looper, imported cabbageworm, corn earworm, garden webworm, hornworms, loopers, salt marsh caterpillar, tobacco budworm, tomato fruitworm, beet armyworm, fall armyworm, southern armyworm).	1A	Carbaryl 4L (carbaryl)	1/2 quart-2 quarts	Do not apply more than a total of 8 quarts /A per crop per year.	12	3	Toxic to honeybees and other bees.
	1A	*Lannate LV; *SP (methomyl)	LV: 0.75-3.0 pt 0.25-1.0 lb	SP: LV: No more than 15 pints/A per crop. SP: No more than 5 lbs/A per crop.	48	5	No more than 10 applications per crop.
	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 lb XLR, 4F: 0.5-2 qt	Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
	3A	*Ambush 25W (permethrin)	6.4-12.8 oz	Do not apply more than 2 lb ai per acre per season. (128 oz)	12	3	
	3A	*Asana XL (0.66 EC) (esfenvalerate)	5.8-9.6 fl oz	Do not apply more than 0.35 lb ai per acre per season.	12	7	
	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Do not apply at less than 7-day intervals.
	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	Do not make applications less than 7 days apart.
	3A	*Danitol 2.4 EC (fenpropathrin)	10.67 fl oz	Do not exceed 42.67 fl. oz. total application /A per season.	24	3	Maximum of 4 applications (0.8 lb ai/acre) per season.
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	Do not make applications less than 7 days apart.
	3A	*Pounce 25 W (permethrin)	6.4-9.6 oz	Do not apply more than 0.6 lbs ai/acre per season.	12	3	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	
3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	This product can kill bees and other insect pollinators.	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	3A & 28	*Besiege (lambda-cyhalothrin & chlorantraniliprole)	5.0-9.0 fl oz	Do not exceed a total of 31 fl oz of Besiege per acre per year.	24	5	
	4A & 28	Durivo (thiamethoxam & chlorantraniliprole)	10-13 oz	Do not exceed a total of 13 fl. oz./A.	12	30	May be applied to soil by one of several methods—see label.
	4A & 28	Voliam Flexi (thiamethoxam & chlorantraniliprole)	4.0-7.0 oz	Limited to 14 oz/acre per growing season.	12	1	
	5	Entrust SC (spinosad)	1.5-10 fl oz	Do not use more than 29 oz per acre per crop.	4	1	Do not apply to seedlings grown for transplant. OMRI-listed.
	5	Radiant SC (spinetoram)	5-10 fl oz	Maximum of 34 fl oz per acre per season.	4	1	
	6	*Proclaim (emamectin benzoate)	2.4-4.8 oz	No more than 28.8 oz/acre per season.	12	7	
	6 & 28	*Minecto Pro (abamectin & cyantraniliprole)	5.5-10 fl oz	Do not apply more than 20 fl oz per acre per year.	24	7	This label contains pollinator warnings.
	11A	Crymax WDG (<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i>)	0.5-2.0 lb		4	0	Use high rate for armyworms. Treat when larvae are young. Not for organic production.
	11A	Deliver (<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i>)	0.25-1.5 lb		4	0	Use higher rates for armyworms. OMRI-listed ² .
	11A	DiPel DF (<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i>)	0.5-2.0 lb		4	0	Treat when larvae are young. Good coverage is essential. Can be used in greenhouses. OMRI listed ² .
	11A	Javelin WG (<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i>)	0.12-1.50 lb		4	0	Treat when larvae are young. Thorough coverage is essential. OMRI-listed.
	11A	Biobit HP (<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i>)	0.5-2.0 lb		4	0	Treat when larvae are young. Good coverage is essential. Can be used in the greenhouse. OMRI-listed.
	11A	Xentari DF (<i>Bacillus thuringiensis</i> subspecies <i>aizawai</i>)	0.5-2.0 lb		4	0	Treat when larvae are young. Thorough coverage is essential. May be used in the greenhouse. Can be used in organic production.
	15	Rimon 0.83EC (novaluron)	9-12 fl oz	Do not apply more than 36 fl oz per acre per season.	12	1	Do not use with an adjuvant.
	18	Confirm 2F (tebufenozide)	6-16 fl oz	Do not apply more than 64 ounces product per season.	4	7	Do not apply more than 16 ounces per application.
	18	Intrepid 2F (methoxyfenozide)	4-16 fl oz	Do not apply more than 64 oz product per season.	4	1	Do not apply more than 16 oz per application.
	28	Coragen (chlorantraniliprole/rynaxypyr)	3.5-7.5 fl oz	Do not apply more than 15.4 fl oz per acre per crop.	4	1	Can be applied by drip chemigation or as a soil application at planting as well as a foliar spray. See label. For hornworms, can use as little as 2.0 fl oz/acre when applied as a foliar spray.
	28	Exirel (cyantraniliprole)	7-20.5 fl. oz.	Do not apply a total of more than 0.4 lb ai/A per crop.	12	1	Application restrictions exist for this product because of risk to bees and other pollinators. Follow application restrictions found in the directions for use to protect pollinators. Minimum application interval between treatments is 5 days.
	28	Verimark (cyantraniliprole)	5-13.5 fl. oz.	Do not apply more than 0.4 lb ai/A per crop	4	1	
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Molt-X (azadirachtin)	10 fl oz		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Checkmate TPW-F (pheromone)	1.2-6.0 fl oz		0	0	For mating disruption of tomato pinworm. See label for details of use.
	-	Grandevo Chromobacterium subtsugae strain PRAA4-1	1-3 lb		4	0	Can be used in organic production. OMRI-listed.
	-	MBI-203 EP (<i>Chromobacterium subtsugae</i>)	4.0-12.0 quarts		4	0	OMRI listed. Can be used in the greenhouse.
	-	Neemix 4.5 (azadirachtin)	4-16 fl oz		12	0	IGR and feeding repellent. OMRI-listed.
Fire Ants	7A	Extinguish (S-Methoprene)	1.0-1.5 lb		4	0	Slow-acting IGR (insect growth regulator). Best applied early spring and fall where crop will be grown. Colonies will be reduced after three weeks and eliminated after 8 to 10 weeks. May be applied by ground equipment or aerially.
	7C	Esteem Ant Bait (pyriproxyfen)	1.5-2.0 lb		12	1	Apply when ants are actively foraging.
Grasshoppers	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	Do not make applications less than 7 days apart.
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	This product can kill bees and other insect pollinators.
	3A & 2B	*Besiege (lambda-cyhalothrin & chlorantraniliprole)	5.0-9.0 fl oz	Do not exceed a total of 31 fl oz of Besiege per acre per year.	24	5	
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz Soil: 9-10.5 fl oz	Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Use only one application method
	4A	Venom Insecticide (dinotefuran)	foliar: 1-4 oz soil: 5-6.0 oz	Do not apply more than 6 oz, foliar; or 12 oz, soil, per season.	12	foliar - 1 soil - 21	Do not use both application methods. No more than 3 applications per season.
Lace bugs	1A	Carbaryl 4L (carbaryl)	1/2 quart-2 quarts	Do not apply more than a total of 8 quarts /A per crop per year.	12	3	Toxic to honeybees and other bees.
	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 lb XLR, 4F : 0.5-2 qt	Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
	1B	Malathion 8F (malathion)	1.56 pt	Maximum application/A per crop is 6.24 pints.	12	3	Maximum number of applications is 4.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
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Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
Leafhoppers	1A	Carbaryl 4L (carbaryl)	1/2 quart-2 quarts	Do not apply more than a total of 8 quarts /A per crop per year.	12	3	Toxic to honeybees and other bees.
	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 lb XLR, 4F: 0.5-2 qt	Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Do not apply at less than 7-day intervals.
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	Do not make applications less than 7 days apart.
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	This product can kill bees and other insect pollinators.
	4A	Actara (thiamethoxam)	2.0-5.5 oz	Maximum of 11 oz/acre per season.	12	0	Do not use if a soil application of a neonicotinoid has been used.
	4A	Admire Pro (imidacloprid) (for rates for other brands, see labels)	7-10.5 fl oz	Maximum 10.5 fl. oz. /A per crop per season.	12	21	Application restrictions exist for this product because of risk to bees and other insect pollinators. Follow application restrictions found in the direction for use to protect pollinators. Most effective if applied to soil at transplanting.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	4.8 -6.4 oz (soil application)	Do not apply more than 6.4 oz per acre per season.	12	Apply at planting	See label for application instructions. Do not release irrigation water from the treated area.
	4A	Platinum	5.0-11.0 fl oz	Do not exceed a total of 11 fl. oz. Platinum/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Platinum 75SG (thiamethoxam)	1.66-367.0z	Do not exceed a total of 3.67 Platinum 75 SG/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
4A	Provado 1.6F (imidacloprid)	3.8-6.2 oz	Maximum per crop per season 19.2 fl oz/A.	12	0	Do not apply if imidacloprid or thiamethoxam have been used at planting.	
4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz Soil: 9-10.5 fl oz	Foliar: Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Use only one application method	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	4A & 28	Durivo (thiamethoxam & chlorantraniliprole)	10-13 oz	Do not exceed a total of 13 fl. oz./A.	12	30	May be applied to soil by one of several methods—see label.
	4A & 28	Voliam Flexi (thiamethoxam & chlorantraniliprole)	4.0-7.0 oz	Limited to 14 oz/acre per growing season.	12	1	
	4D	Sivanto Prime (flupyradifurone)	7.0-14.0 fl. oz.	Do not apply more than 28.0 fl. oz./A per year.	4	1	Minimum interval between applications: 7 days.
	16	Courier 40SC (buprofezin)	9.0-13.6 fl oz	Do not apply more than 27.2 fl. oz./A per crop cycle.	12	1	Immature insects only. No more than 2 applications per crop cycle.
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Molt-X (azadirachtin)	10 fl oz		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	M-Pede 49% EC Soap , insecticidal	1-2% V/V		12	0	OMRI-listed.
	-	SuffOil-X (unsulfonated residue of petroleum oil)	1-2 gallons per 100 gallons of water.		4	0	OMRI listed.
	-	Ultra-Fine Oil JMS Stylet-Oil Saf-T-Side (oil, insecticidal)	3-6 qts/100 gal (JMS) 1-2 gal/100 gal water		4	0	Do not exceed four applications per season. Stylet-oil will not control aphids or beetles. Organic Stylet-Oil and Saf-T-Side are OMRI-listed.
Liriomyza leafminers	1A	*Vydate L (oxamyl)	2-4 pt (foliar)	Do not apply more than 24 pt per acre per season.	48	1	
	1B	*Dibrom 8 EC (naled)	1	Do not apply more than 6 pints/A per season.	48	1	Apply no more than 1 pt/acre in Florida. Do not apply when temperature is over 90°F.
	3A	*Ambush 25W (permethrin)	6.4-12.8 oz	Do not apply more than 2 lb ai per acre per season. (128 oz)	12	3	
	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	Do not make applications less than 7 days apart.
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Pounce 25 W (permethrin)	6.4-9.6 oz	Do not apply more than 0.6 lbs ai/acre per season.	12	3	
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area. Supplemental label (expires 12-30-13) for rates above 2.1 oz per acre.
	4A	Belay 50 WDG (clothianidin)	4.8 -6.4 oz (soil application)	Do not apply more than 6.4 oz per acre per season.	12	Apply at planting	See label for application instructions. Do not release irrigation water from the treated area.
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz Soil: 9-10.5 fl oz	Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Use only one application method

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical. Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.							
Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	5	Entrust SC (spinosad)	1.5-10 fl oz	Do not use more than 29 oz per acre per crop.	4	1	Do not apply to seedlings grown for transplant. OMRI-listed.
	5	Radiant SC (spinetoram)	5-10 fl oz	Maximum of 34 fl oz per acre per season.	4	1	
	6	*Agri-Mek SC (abamectin)	1.7-3.5 fl oz	Do not apply more than 10.25 fl. oz. /A in a growing season.	12	7	Do not make more than 2 sequential applications. Must be used with a non-ionic activator type wetting, spreading, or penetrating adjuvant.
	6 & 28	*Minecto Pro (abamectin & cyantraniliprole)	5.5-10 fl oz	Do not apply more than 20 fl oz per acre per year.	24	7	This label contains pollinator warnings.
	15	Rimon 0.83EC (novaluron)	9-12 fl oz	Do not apply more than 36 fl oz per acre per season.	12	1	Can be applied by drip chemigation or as a soil application at planting as well as a foliar spray. See label. For hornworms, can use as little as 2.0 fl oz/acre when applied as a foliar spray.
	28	Coragen (chlorantraniliprole/rynaxypyr)	5.0-7.5 fl oz	Do not apply more than 15.4 fl oz per acre per crop.	4	1	Application restrictions exist for this product because of risk to bees and other pollinators. Follow application restrictions found in the directions for use to protect pollinators. Minimum application interval between treatment is 5 days.
	28	Exirel (cyantraniliprole)	13.5-20.5 fl. oz.	Do not apply a total of more than 0.4 lb ai/A per crop.	12	1	
	28	Verimark (cyantraniliprole)	6.75-13.5 fl. oz.	Do not apply more than 0.4 lb ai/A per crop	4	1	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	IGR and feeding repellent. OMRI-listed.
	-	Molt-X (azadirachtin)	10 fl oz		4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Neemix 4.5 (azadirachtin)	4-16 fl oz		12	0	Repeat applications at 3-10 days are needed to maintain control. Can be used in greenhouse for food crop transplants raised to be planted into the field. OMRI listed.
	-	PFR-97 (<i>Isaria fumosorosea</i> Apopka strain 97)	1.0-2.0 lbs		4	0	Begin applications before pests reach damaging levels.
	-	Requiem 25EC (extract of <i>Chenopodium ambrosioides</i>)	2-4 qt		4	0	OMRI listed.
	-	SuffOil-X (mineral oil)	1-2 gallons per 100 gallons of water.		4	0	Do not exceed four applications per season. Stylet-oil will not control aphids or beetles. Organic Stylet-Oil and Saf-T-Side are OMRI-listed.
	-	Ultra-Fine Oil	3-6 qts/100 gal (JMS)		4	0	
		JMS Stylet-Oil	1-2 gal/100 gal water				
		Saf-T-Side (oil, insecticidal)					Immature insects only. No more than 2 applications per crop cycle.
Mealybug	16	Courier 40SC (buprofezin)	9.0-13.6 fl oz	Do not apply more than 27.2 fl. oz./A per crop cycle.	12	1	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical. Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
Mites (including banks grass mite, broad mite, carmine spider mite, tomato russett mite, twospotted spider mite)	1A	* Vydate L (oxamyl)	2-4 pt (foliar)	Do not apply more than 24 pt per acre per season.	48	1	Apply no more than 1 pt/acre in Florida. Do not apply when temperature is over 90°F.
	1B	* Dibrom 8 EC (naled)	1	Do not apply more than 6 pints/A per season.	48	1	Maximum number of applications is 4.
	1B	Malathion 8F (malathion)	1.56 pt	Maximum application/A per crop is 6.24 pints.	12	3	Do not make applications less than 7 days apart.
	3A	* Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	Maximum of 4 applications (0.8 lb ai/acre) per season.
	3A	* Danitol 2.4 EC (fenpropathrin)	10.67 fl oz	Do not exceed 42.67 fl. oz. total application /A per season.	24	3	
	3A	* Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	* Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	
	3A	* Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	Do not make more than 2 sequential applications. Must be used with a non-ionic activator type wetting, spreading, or penetrating adjuvant.
	6	* Agri-Mek SC (abamectin)	1.7-3.5 fl oz	Do not apply more than 10.25 fl. oz. /A in a growing season.	12	7	Do not make more than one application per season. Do not use with an adjuvant or surfactant.
	6 & 28	* Minecto Pro (abamectin & cyantraniliprole)	5.5-10 fl oz	Do not apply more than 20 fl oz per acre per year.	24	7	This label contains pollinator warnings.
	10B	Zeal Miticide (etoxazole)	2-3 oz	Do not apply more than 3 oz./A per season.	12	7	Apply when mites first appear. No more than 3 applications per year.
	12B	* Vendex 50 WP (fenbutatin-oxide)	2-3 lb	Apply no more than 9 lbs/A per year.	48	3	Allow a minimum of 21 days between treatments. Do not make more than two applications per year. Do not use an adjuvant.
	20B	Kanemite 15 SC (acequinocyl)	31 fl oz	Do not apply more than 62 fl. oz/A per season.	12	1	Do not make more than 2 applications per season.
	21A	Portal (fenpyroximate)	2.0 pt	Do not apply more than 4.0 pints/A per crop cycle.	12	1	No more than 3 applications.
	23	Oberon 2SC (spiromesifen)	7.0-8.5 fl oz	Maximum amount per crop: 25.5 fl oz/acre.	12	7	
-	Acramite-50WS (bifenazate)	0.75-1.0 lb	One application per season.	12	3	Antifeedant, repellent, insect growth regulator. OMRI-listed.	
-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0		
-	MET52 EC (<i>Metarhizium anisopliae</i> strain F52)	drench: 40-80 fl. oz.; foliar: 0.5 pint - 2qt		0	0	OMRI-listed.	
-	M-Pede 49% EC Soap , insecticidal	1-2% V/V		12	0	Repeat applications at 3-10 days are needed to maintain control. Can be used in greenhouse for food crop transplants raised to be planted into the field. OMRI listed.	
-	PFR-97 (<i>Isaria fumosorosea</i> Apopka strain 97)	1.0-2.0 lbs		4	0	OMRI listed.	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	-	SuffOil-X (mineral oil)	1-2 gallons per 100 gallons of water.		4	0	Do not exceed four applications per season. Stylet-oil will not control aphids or beetles. Organic Stylet-Oil and Saf-T-Side are OMRI-listed.
	-	Ultra-Fine Oil JMS Stylet-Oil Saf-T-Side (oil, insecticidal)	3-6 qts/100 gal (JMS) 1-2 gal/100 gal water		4	0	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
Plant bugs and Tarnished plant bug	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 lb 4F: 0.5-2 qt	XLR, Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not make applications less than 7 days apart.
	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	Do not make applications less than 7 days apart.
	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	This product can kill bees and other insect pollinators.
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	
	3A & 28	*Besiege (lambda-cyhalothrin & chlorantraniliprole)	5.0-9.0 fl oz	Do not exceed a total of 31 fl oz of Besiege per acre per year.	24	5	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	See label for application instructions. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	4.8 -6.4 oz application	(soil) Do not apply more than 6.4 oz per acre per season.	12	Apply at planting	Begin applications before pests reach damaging levels.
	9C	Beleaf 50 SG (flonicamid)	2.0-2.8 oz	Do not apply more than 8.4 oz/acre per season.	12	0	OMRI-listed.
	-	M-Pede 49% EC Soap, insecticidal	1-2% V/V		12	0	Immature insects only. No more than 2 applications per crop cycle.
Planthoppers	16	Courier 40SC (buprofezin)	9.0-13.6 fl oz	Do not apply more than 27.2 fl. oz./A per crop cycle.	12	1	Use only one application method
Psyllids	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz 9-10.5 fl oz	Soil: Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Minimum interval between applications: 7 days.
	4D	Sivanto Prime (flupyradifurone)	7.0-14.0 fl. oz.	Do not apply more than 28.0 fl. oz./A per year.	4	1	
	23	Movento (spirotetramat)	4.0-5.0 fl oz	Maximum of 10 fl oz per acre per season.	24	1	Do not apply at less than 7-day intervals.
Soil insects (garden symphylans)	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Toxic to honeybees and other bees.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
Stink bugs (including brown stink bug, green stink bug, southern green stink bug, squash bug)	1A	Carbaryl 4L (carbaryl)	1/2 quart-2 quarts		12	3	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 lb 4F: 0.5-2 qt	XLR, Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not apply at less than 7-day intervals.
	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Do not make applications less than 7 days apart.
	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	Maximum of 4 applications (0.8 lb ai/acre) per season.
	3A	*Danitol 2.4 EC (fenpropathrin)	10.67 fl oz	Do not exceed 42.67 fl. oz. total application /A per season.	24	3	
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	Do not make applications less than 7 days apart.
	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	This product can kill bees and other insect pollinators.
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	Do not use if a soil application of a neonicotinoid has been used.
	4A	Actara (thiamethoxam)	2.0-5.5 oz	Maximum of 11 oz/acre per season.	12	0	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	Use only one application method
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz 9-10.5 fl oz	Soil: Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Do not use both application methods. No more than 3 applications per season.
	4A	Venom Insecticide (dinotefuran)	foliar: 1-4 oz 5-6.0 oz	soil: Do not apply more than 6 oz, foliar; or 12 oz, soil, per season.	12	foliar - 1 soil - 21	
	4A/28	Voliam Flexi (thiamethoxam & chlorantraniliprole)	4.0-7.0 oz	Limited to 14 oz/acre per growing season.	12	1	Do not use with an adjuvant.
15	Rimon 0.83EC (novaluron)	9-12 fl oz	Do not apply more than 36 fl oz per acre per season.	12	1	Antifeedant, repellent, insect growth regulator. OMRI-listed.	
-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Toxic to honeybees and other bees.	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
Thrips: check label for species controlled (eastern flower thrips, western flower thrips, Florida flower thrips, foliar feeding thrips, chilli thrips, melon thrips)	1A	Carbaryl 4L (carbaryl)	1/2 quart-2 quarts	Do not apply more than a total of 8 quarts /A per crop per year.	12	3	Do not apply more than seven times. Applications must be at least 7 days apart. Do not apply to crops or weeds in bloom.
	1A	Sevin 80 S; XLR; 4F (carbaryl)	80S: 0.63-2.5 lb 4F: 0.5-2 qt	XLR, Do not apply more than 8 qt or 10 lb per acre per crop.	12	3	Do not apply at less than 7-day intervals.
	3A	*Baythroid XL (beta-cyfluthrin)	1.6-2.8 fl oz	Maximum amount per season: 16.8 fl oz per acre.	12	7	Do not make applications less than 7 days apart.
	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	Application restrictions exist for this product because of risk to bees and other insect pollinators. Follow application restrictions found in the direction for use to protect pollinators. Most effective if applied to soil at transplanting.
	4A	Admire Pro (imidacloprid) (for rates for other brands, see labels)	7-10.5 fl oz	Maximum 10.5 fl. oz. /A per crop per season.	12	21	Begin applications for whiteflies when first adults are noticed. Do not apply more than 4 times per season or apply more often than every 7 days.
	4A	Assail 30 SG (acetamiprid)	1.5-4.0 oz	Do not exceed a total of 16.0 ozs. /A per growing season, including any pre-transplant applications of acetamiprid.	12	7	See label for application instructions. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	4.8 -6.4 oz application)	(soil Do not apply more than 6.4 oz per acre per season.	12	Apply at planting	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Platinum (thiamethoxam)	5.0-11.0 fl oz	Do not exceed a total of 11 fl. oz. Platinum/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Platinum 75SG (thiamethoxam)	1.66-367.0z	Do not exceed a total of 3.67 Platinum 75 SG/A per growing season.	12	30	Use only one application method
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz 9-10.5 fl oz	Soil: Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Do not use both application methods. No more than 3 applications per season.
	4A	Venom Insecticide (dinotefuran)	foliar: 1-4 oz 5-6.0 oz	soil: Do not apply more than 6 oz, foliar; or 12 oz, soil, per season.	12	foliar - 1 soil - 21	May be applied to soil by one of several methods—see label.
4A & 28	Durivo (thiamethoxam & chlorantraniliprole)	10-13 oz	Do not exceed a total of 13 fl. oz./A.	12	30	Minimum interval between applications: 7 days.	
4D	Sivanto Prime (flupyradifurone)	7.0-14.0 fl. oz.	Do not apply more than 28.0 fl. oz./A per year.	4	1	Do not apply to seedlings grown for transplant. OMRI-listed.	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	5	Entrust SC (spinosad)	1.5-10 fl oz	Do not use more than 29 oz per acre per crop.	4	1	
	5	Radiant SC (spinetoram)	5-10 fl oz	Maximum of 34 fl oz per acre per season.	4	1	Do not make more than 2 sequential applications. Must be used with a non-ionic activator type wetting, spreading, or penetrating adjuvant.
	6	*Agri-Mek SC (abamectin)	1.7-3.5 fl oz	Do not apply more than 10.25 fl. oz. /A in a growing season.	12	7	Do not use with an adjuvant.
	6 & 28	*Minecto Pro (abamectin & cyantraniliprole)	5.5-10 fl oz	Do not apply more than 20 fl oz per acre per year.	24	7	This label contains pollinator warnings.
	15	Rimon 0.83EC (novaluron)	9-12 fl oz	Do not apply more than 36 fl oz per acre per season.	12	1	
	28	Exirel (cyantraniliprole)	13.5-20.5 fl. oz.	Do not apply a total of more than 0.4 lb ai/A per crop.	12	1	
	28	Verimark (cyantraniliprole)	10.0-13.5 fl. oz. tray drench/transplant water; 10 fl oz drip	Do not apply more than 0.4 lb ai/A per crop	4	1	
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	
	-	MET52 EC (<i>Metarhizium anisopliae</i> strain F52)	drench: 40-80 fl. oz.; foliar: 0.5 pint - 2qt		0	0	OMRI-listed.
	-	M-Pede 49% EC Soap , insecticidal	1-2% V/V		12	0	Product contains live spores of a naturally-occurring fungus. Some fungicides may interfere with efficacy. OMRI listed.
	-	BotaniGard ES (<i>Beauveria bassiana</i> strain GHA)	0.25 - 1 quart per acre. Apply in sufficient water to cover foliage, typically 5 - 100 gallons per acre.		4	0	May be used in greenhouses. Contact dealer for recommendations if an adjuvant may be used. Compatible in tank mixes with some fungicides.
	-	Mycotrol ESO (<i>Beauveria bassiana</i> Strain GHA)	0.25-1 quart		4	0	May be used in greenhouses. Contact dealer for recommendations if an adjuvant may be used. Compatible in tank mixes with some fungicides. OMRI listed.
	-	PFR-97 (<i>Isaria fumosorosea</i> Apopka strain 97)	1.0-2.0 lbs		4	0	Begin applications before pests reach damaging levels.
	-	Requiem 25EC (extract of <i>Chenopodium ambrosioides</i>)	2-4 qt		4	0	OMRI listed.
	-	SuffOil-X (mineral oil)	1-2% v/v		4	0	Do not exceed four applications per season. Stylet-oil will not control aphids or beetles. Organic Stylet-Oil and Saf-T-Side are OMRI-listed.
	-	Ultra-Fine Oil JMS Stylet-Oil Saf-T-Side (oil, insecticidal)	3-6 qts/100 gal (JMS) 1-2 gal/100 gal water		4	0	Do not make applications less than 7 days apart.
Weevils	3A	*Mustang (zeta-cypermethrin)	2.4-4.3 oz	Do not apply more than 0.3 lb ai/acre per season.	12	1	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient)	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	This product can kill bees and other insect pollinators.
	3A & 4A	*Endigo ZC (lambdacyhalothrin & thiamethoxam)	4.0-4.5 fl. oz.	Do not exceed a total of 19.0 fl oz per acre per season.	24	5	Antifeedant, repellent, insect growth regulator. OMRI-listed.
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed		4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Azatin XL (azadirachtin)	5-21 oz		4	0	Do not make applications less than 7 days apart.
Whiteflies	3A	*Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	Do not apply more than 0.2 lb active ingredient per acre per season.	12	7	
	3A	*Hero (bifenthrin & zeta-cypermethrin)	4.5-11.2 oz.	Do not apply more than 43.26 fl. oz./A per season.	12	7	
	3A	*Proaxis Insecticide (gamma-cyhalothrin)	1.92-3.84 fl oz	Do not apply more than 2.88 pints per acre per season.	24	5	Pyrethrins degrade rapidly in sunlight. Thorough coverage is important. OMRI-listed. Do not apply more than 10 times per season.
	3A	Pyganic Crop Protection EC 5.0 (pyrethrins)	4.5-18.0 fl oz	11.25 pints.	12	0	
	3A	*Warrior II (lambda-cyhalothrin)	0.96-1.92 fl oz	Do not apply more than 0.36 lb ai/acre per season.	24	5	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Platinum	5.0-11.0 fl oz	Do not exceed a total of 11 fl. oz. Platinum/A per growing season.	12	30	For most crops that are not on the label, a 120-day plant-back interval must be observed. To manage resistance, avoid using Provado or other related pesticides (Actara, Assail) in conjunction with Platinum.
	4A	Platinum 75SG (thiamethoxam)	1.66-367.0z	Do not exceed a total of 3.67 Platinum 75 SG/A per growing season.	12	30	Do not use if a soil application of a neonicotinoid has been used.
	4A	Actara (thiamethoxam)	2.0-5.5 oz	Maximum of 11 oz/acre per season.	12	0	Application restrictions exist for this product because of risk to bees and other insect pollinators. Follow application restrictions found in the direction for use to protect pollinators. Most effective if applied to soil at transplanting.
	4A	Admire Pro (imidacloprid) (for rates for other brands, see labels)	7-10.5 fl oz	Maximum 10.5 fl. oz. /A per crop per season.	12	21	Planthouse: 1 application. See label.
	4A	Admire Pro (imidacloprid)	0.44 fl oz/10,000 plants		12	21	Begin applications for whiteflies when first adults are noticed. Do not apply more than 4 times per season or apply more often than every 7 days.
	4A	Assail 30 SG (acetamiprid)	1.5-4.0 oz	Do not exceed a total of 16.0 ozs. /A per growing season, including any pre-transplant applications of acetamiprid.	12	7	Do not use an adjuvant. Toxic to bees. Do not release irrigation water from the treated area.
	4A	Belay 50 WDG (clothianidin)	1.6-3.2 oz	Do not apply more than 6.4 oz per acre per season.	12	7	See label for application instructions. Do not release irrigation water from the treated area.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical. Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)		Max rate product per season	REI (hours)	Days to Harvest	Remarks
	4A	Belay 50 WDG (clothianidin)	4.8 -6.4 oz application)	(soil)	Do not apply more than 6.4 oz per acre per season.	12	Apply at planting	Do not apply if imidacloprid or thiamethoxam have been used at planting.
	4A	Provado 1.6F (imidacloprid)	3.8-6.2 oz		Maximum per crop per season 19.2 fl oz/A.	12	0	Use only one application method
	4A	Scorpion 35SL Insecticide (dinotefuran)	Foliar: 2-7 fl oz 9-10.5 fl oz	Soil:	Do not apply more than 10.5 fl oz per acre per season as foliar sprays or more than 21 fl oz to soil.	12	foliar - 1, soil - 21	Do not use both application methods. No more than 3 applications per season.
	4A	Venom Insecticide (dinotefuran)	foliar: 1-4 oz 5-6.0 oz	soil:	Do not apply more than 6 oz, foliar; or 12 oz, soil, per season.	12	foliar - 1 soil - 21	May be applied to soil by one of several methods—see label.
	4A & 28	Durivo (thiamethoxam & chlorantraniliprole)	10-13 oz		Do not exceed a total of 13 fl. oz./A.	12	30	
	4A & 28	Voliam Flexi (thiamethoxam & chlorantraniliprole)	4.0-7.0 oz		Limited to 14 oz/acre per growing season.	12	1	Minimum interval between applications: 7 days.
	4D	Sivanto Prime (flupyradifurone)	7.0-14.0 fl. oz.		Do not apply more than 28.0 fl. oz./A per year.	4	1	Immature insects only. Apply when nymphs first appear. Make no more than two applications.
	6 & 28	*Minecto Pro (abamectin & cyantraniliprole)	5.5-10 fl oz		Do not apply more than 20 fl oz per acre per year.	24	7	This label contains pollinator warnings.
	7C	Knack IGR (pyriproxyfen)	8-10 fl oz		Do not exceed 20 fl. oz./A per season.	12	1	Apply before populations build to damaging levels. Minimum of 7 days between applications. Do not make more than two applications.
	9B	Fulfill (pymetrozine)	2.75 oz		Do not apply more than 5.5 oz/acre per crop.	12	0	Do not use with an adjuvant.
	15	Rimon 0.83EC (novaluron)	9-12 fl oz		Do not apply more than 36 fl oz per acre per season.	12	1	Immature insects only. No more than 2 applications per crop cycle.
	16	Courier 40SC (buprofezin)	9.0-13.6 fl oz		Do not apply more than 27.2 fl. oz./A per crop cycle.	12	1	Do not make more than 2 applications per season.
	21A	Portal (fenpyroximate)	2.0 pt		Do not apply more than 4.0 pints/A per crop cycle.	12	1	
	23	Movento (spirotetramat)	4.0-5.0 fl oz		Maximum of 10 fl oz per acre per season.	24	1	No more than 3 applications.
	23	Oberon 2SC (spiromesifen)	7.0-8.5 fl oz		Maximum amount per crop: 25.5 fl oz/acre.	12	7	Application restrictions exist for this product because of risk to bees and other pollinators. Follow application restrictions found in the directions for use to protect pollinators. Minimum application interval between treatment is 5 days.
	28	Exirel (cyantraniliprole)	13.5-20.5 fl. oz.		Do not apply a total of more than 0.4 lb ai/A per crop.	12	1	Foliar application.
	28	Verimark (cyantraniliprole)	6.75-13.5 fl. oz. tray drench/ transplant water; 6.75-10.0 fl oz drip.		Do not apply more than 0.4 lb ai/A per crop	4	1	Soil application.
	-	Aza-Direct (azadirachtin)	1-2 pts, up to 3.5 pts, if needed			4	0	Antifeedant, repellent, insect growth regulator. See label for rates for specific pests.
	-	Azatin XL (azadirachtin)	5-21 oz			4	0	
	-	Molt-X (azadirachtin)	10 fl oz			4	0	Antifeedant, repellent, insect growth regulator. OMRI-listed.

Table 8.4. Insecticides labeled for management of arthropod pests of eggplant. (continued)

Labels change frequently. Be sure to read a current product label before applying any chemical.
Also refer to Table 19.1 for biopesticide and other alternative products labeled for disease management.

Insect or mite pest	MOA Code ¹	Trade Name (Active Ingredient) *Restricted	Rate (Product/acre)	Max rate product per season	REI (hours)	Days to Harvest	Remarks
	-	MET52 EC (<i>Metarhizium anisopliae</i> strain F52)	drench: 40-80 fl. oz.; foliar: 0.5 pint - 2qt		0	0	Product contains live spores of a naturally-occurring fungus. Some fungicides may interfere with efficacy. OMRI listed.
	-	M-Pede 49% EC Soap , insecticidal	1-2% V/V		12	0	May be used in greenhouses. Contact dealer for recommendations if an adjuvant may be used. Compatible in tank mixes with some fungicides.
	-	BotaniGard ES (<i>Beauveria bassiana</i> strain GHA)	0.25 - 1 quart per acre. Apply in sufficient water to cover foliage, typically 5 - 100 gallons per acre.		4	0	May be used in greenhouses. Contact dealer for recommendations if an adjuvant may be used. Compatible in tank mixes with some fungicides. OMRI-listed.
	-	Mycotrol ESO (<i>Beauveria bassiana</i> Strain GHA)	0.25-1 qt		4	0	Repeat applications at 3-10 days are needed to maintain control. Can be used in greenhouse for food crop transplants raised to be planted into the field. OMRI listed.
	-	Neemix 4.5 (azadirachtin)	4-16 fl oz		12	0	Begin applications before pests reach damaging levels.
	-	PFR-97 (<i>Isaria fumosorosea</i> Apopka strain 97)	1.0-2.0 lbs		4	0	OMRI listed.
	-	Requiem 25EC (extract of <i>Chenopodium ambrosioides</i>)	2-4 qt		4	0	Do not exceed four applications per season. Stylet-oil will not control aphids or beetles. Organic Stylet-Oil and Saf-T-Side are OMRI-listed.
	-	SuffOil-X (mineral oil)	1-2 gallons per 100 gallons of water.		4	0	
	-	Ultra-Fine Oil JMS Stylet-Oil Saf-T-Side (oil, insecticidal)	3-6 qts/100 gal (JMS) 1-2 gal/100 gal water		4	0	

¹ Mode of Action (MOA) codes for plant pest insecticides from the Insecticide Resistance Action Committee (IRAC) Mode of Action Classification v. 8.2 March 2017. Number codes (1 through 29) are used to distinguish the main insecticide mode of action groups, with additional letters for certain sub-groups within each main group. All insecticides within the same group (with same number) indicate same active ingredient or similar mode of action. This information must be considered for the insecticide resistance management decisions. - = unknown, or a mode of action that has not been classified yet.

² Information provided in this table applies only to Florida. Be sure to read a current product label before applying any product. The use of brand names and any mention or listing of commercial products or services in the publication does not imply endorsement by the University of Florida Cooperative Extension Service nor discrimination against similar products or services not mentioned. OMRI listed: Listed by the Organic Materials Review Institute for use in organic production.

* Restricted use insecticide.

Table 8.5. Eggplant fungicides ordered by disease and then FRAC group according to their mode of action.

Pertinent Diseases or Pathogens	Fungicide Group ¹	Chemical (active ingredients)	Max. Rate/Acre		Min. Days to		Remarks ²
			Applic.	Season	Harvest	Reentry	
Labels change frequently. Be sure to read a current product label before applying any chemical. Refer to Table 19.2 for biopesticide and other alternative products labeled for disease management.							
Alternaria blight/ Early blight	M1	(copper compounds) Many brands available: AmeriCop 40DF, Badge SC, Badge X2, Basic Copper 53, C-O-C-S WDG, Champ DP, Champ F2 FL, Champ WG, COC WDG, COC DF, COC WP, Copper Count N, Cueva, Cuprofix Ultra 40D, Kentan DF, Kocide 3000, Kocide 2000, Kocide DF, Master Cop, Nordox, Nordox 75WG, Nu Cop 50WP, Nu Cop 3L, Nu Cop 50DF, Nu Cop HB	SEE INDIVIDUAL LABELS		Varies by product from 0 to 1 day	Varies by product from 4 hr to 2 days	
	M1 & M2	Top Cop with Sulfur (basic copper sulfate + sulfur)	2 qt			1	
	3	Tebuzol, Toledo (tebuconazole)	SEE INDIVIDUAL LABELS				
	7	Fontelis (penthiopyrad)	24 fl oz	72 fl oz	0	0.5	
	7	Endura (boscalid)	3.5 oz	21 oz	0	0.5	
	9 & 3	Inspire Super (cyprodinil + difenoconazole)	20 fl oz	47 fl oz	0	0.5	
	9 & 12	Switch (cyprodinil + fludioxonil)	14 oz	56 oz	0	0.5	Follow resistance management recommendations on label
	11	Cabrio EG (pyraclostrobin)	16 oz	96 oz	0	0.5	
	11	Aftershock Evito 480 EC (fluoxastrobin)	5.7 fl oz	22.8 fl oz	3	0.5	Do not use in greenhouse production, see label for additional instructions.
	11	Flint, Gem (trifloxystrobin)	3.0 oz	16 oz	3	0.5	
	11	Reason 500 SC (fenamidone)	8.2 fl oz	24.6 fl oz	14	0.5	
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5	
	7 & 11	Luna Sensation (fluopyram + trifloxystrobin)	7.6 fl oz	27.1 fl oz	3	0.5	
19	Ph-D WDG (polyoxin D zinc salt)	6.2 oz	See label	0	4 hr		
Anthracnose	M1	(copper compounds) Many brands available: AmeriCop 40DF, Badge SC, Badge X2, Basic Copper 53, C-O-C-S WDG, Champ DP, Champ F2 FL, Champ WG, C-O-C DF, C-O-C WP, Copper Count N, Cuprofix Ultra 40D, Cueva, Kentan DF, Kocide 3000, Kocide 2000, Kocide DF, Master Cop, Nordox, Nordox 75WG, Nu Cop 50WP, Nu Cop 3L, Nu Cop 50DF, Nu Cop HB	SEE INDIVIDUAL LABELS		Varies by product from 0 to 1 day	Varies by product from 4 hr to 2 days	
	M1 & M2	Top Cop with Sulfur (copper sulfate + sulfur)	2 qt			1	
	M5	(chlorothalonil) Many brands available: Bravo Ultrex, Bravo Weather Stik, Chloronil 720, Echo 720, Equus 720 SST, Initiate	SEE INDIVIDUAL LABELS		See label	0.5	
	M5 & U15	Orondis Opti (chlorothalonil + oxathiapiprolin)	2.5 pt	10 pt per year	3	0.5	See label

Table 8.5. Eggplant fungicides ordered by disease and then FRAC group according to their mode of action. (continued)

Pertinent Diseases or Pathogens	Fungicide Group ¹	Chemical (active ingredients)	Max. Rate/Acre		Min. Days to		Remarks ²
			Applic.	Season	Harvest	Reentry	
Labels change frequently. Be sure to read a current product label before applying any chemical. Refer to Table 19.2 for biopesticide and other alternative products labeled for disease management.							
	M5 & 27	Ariston	2.44 pt	17.5 pt per 12 month	3	12 hr	
	3 & 4	Aprovia Top (difenoconazole, benzovindiflupry)	13.5 fl oz	53.6 per 12 month	0	12 hr	
	3	Rhyme (flutriafol)	7 fl oz	28 fl oz	0	12 hr	Use of silicone or oil-based additives may result in negative crop response. In situations where an adjuvant is necessary; use of a nonionic surfactant 0.125% V/V is recommended
	7	Fontelis (penthioopyrad)	24 fl oz	72 fl oz	0	See label	Disease suppression only
	9 & 3	Inspire Super (cyprodinil + difenoconazole)	20 fl oz	47 fl oz	7	0.5	
	11	Cabrio EG (pyraclostrobin)	16 oz	96 oz	0	0.5	
	11	Flint, Gem (trifloxystrobin)	3.0 oz	16 oz	3	0.5	
	11	Many brands available: Quadris, Aframe, Azoxystar, Azixystrobin, Azoxystone, Equation, Heritage, Satori, Trevo, Willowood Azoxy (azoxystrobin)	15.5 fl oz	61.5 fl oz	0	4 hr	See individual labels
	11 & 3	Quadris Top (azoxystrobin + difenoconazole)	14 fl oz	55.3 fl. oz	0	0.5	
	11 & 3	TopGuard EQ (azoxystrobin + flutriafol)	8 fl oz	32 fl oz	0	0.5	
	7 & 11	Luna Sensation (fluopyram + trifloxystrobin)	7.6 fl oz	27.1 fl oz	3	0.5	
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5	
	19	Ph-D (polyoxin D zinc salt)	6.2 oz	See label	0	4 hr	Disease suppression only
Phomopsis blight	M1	(copper compounds) Many brands available: Americop 40DF, Badge SC, Badge X2, Basic Copper 53, C-O-C-S WDG, Champ DP, Champ F2 FL, Champ WG, C-O-C DF, C-O-C WP, Copper Count N, Cuprofix Ultra 40D, Kentan DF, Kocide 3000, Kocide 2000, Kocide DF, Master Cop, Nordox, Nordox 75WG, Nu Cop 50WP, Nu Cop 3L, Nu Cop 50DF, Nu Cop HB	SEE INDIVIDUAL LABELS		Varies by product from 0 to 1 day	Varies by product from 4 hr to 2 days	
	M1 & M2	Top Cop with Sulfur (basic copper sulfate + sulfur)	2 qt			1	
Powdery mildew	M2	(sulfur) Many brands available: Cosavet DF, Kumulus DF Fungicide-Acaricide, Micro Sulf, Microfine Sulfur, Microthiol Disperss, Suffa, Sulfur 90 W/ Yellow Jacket Wettable Sulfur	SEE INDIVIDUAL LABELS		1	1	
	M5	(chlorothalonil) Many brands available: Bravo Ultrex, Bravo Weather Stik, Chloronil 720, Echo 720, Equus 720 SST, Initiate	SEE INDIVIDUAL LABELS			0.5	
	3	Rally 40WSP Sonoma 40WSP (myclobutanil)	SEE INDIVIDUAL LABELS		0	1	

Table 8.5. Eggplant fungicides ordered by disease and then FRAC group according to their mode of action. (continued)

Pertinent Diseases or Pathogens	Fungicide Group ¹	Chemical (active ingredients)	Max. Rate/Acre		Min. Days to		Remarks ²
			Applic.	Season	Harvest	Reentry	
Labels change frequently. Be sure to read a current product label before applying any chemical. Refer to Table 19.2 for biopesticide and other alternative products labeled for disease management.							
	M5 & U15	Orondis Opti (chlorothalonil + oxathiapiprolin)	2.5 pt	10 pt per year	3	0.5	See label
	3 & 4	Aprovia Top (difenoconazole, benzovindiflupry)	13.5 fl oz	53.6 per 12 month	0	12 hr	
	3	Rhyme (flutriafol)	7 fl oz	28 fl oz	0	12	Use of silicone or oil-based additives may result in negative crop response. In situations where an adjuvant is necessary; use of a nonionic surfactant 0.125% V/V is recommended
	7	Fontelis (penthiopyrad)	24 fl oz	72 fl oz	0	0.5	
	9 & 3	Inspire Super (cyprodinil + difenoconazole)	20 fl oz	47 fl oz	0	0.5	
	9 & 12	Switch (cyprodinil + fludioxonil)	14 oz	56 oz	0	0.5	Follow resistance management recommendations on label
	11	Cabrio EG (pyraclostrobin)	16 oz	96 oz	0	0.5	
	11	Many brands available: Quadris, Aframe, Azoxystar, Azixystrobin, Azoxyzone, Equation, Heritage, Satori, Trevo, Willowood Azoxy (azoxystrobin)					See individual labels
	11 & 3	Quadris top (azoxystrobin + difenoconazole)	14 fl oz	55.3 fl. oz	0	0.5	
	11 & 3	TopGuard EQ (azoxystrobin + flutriafol)	8 fl oz	32 fl oz	0	0.5	
	7 & 11	Luna Sensation (fluopyram + trifloxystrobin)	7.6 fl oz	27.1 fl oz	3	0.5	
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5	
	13	Quintec (quinoxifen)	6 fl oz	24 fl oz	3	12 hr	See label.
	19	Ph-D WDG (polyoxin D zinc salt)	6.2 oz	See label	0	4 hr	
	U8	Vivando (metrafenone)	15.4 fl oz	46.2	0	12	Apply prior to symptoms of powdery mildew
Damping off (<i>Pythium</i> , <i>Rhizoctonia</i> and other seed-borne and soil-borne fungi)	M3	Signet 480FS, 42-S Thiram (thiram)	6.5 fl oz/100 lb seed			1	
	4	(mefenoxam) Many brands available: Apron XL, Ridomil Gold SL, Ridomil Gold EC, Ultra Flourish	SEE INDIVIDUAL LABELS			2	
	4	(metalaxyl) Many brands available: Acquire, Allegiance FL, Metastar 2E, Sebring 2.65 ST, Sebring 318 FS, Sebring 480 FS	SEE INDIVIDUAL LABELS				
	11	Dynasty (azoxystrobin)	0.38 fl oz/100 lb seed			4 hr	
	11	Many brands available: Quadris, Aframe, Azoxystar, Azixystrobin, Azoxyzone, Equation, Heritage, Satori, Trevo, Willowood Azoxy (azoxystrobin)	See label		0	4 hr	For Rhizoctonia seedling rot
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5	
	12	Maxim 4 FS Spirato 480 FS Dynashield (fludioxonil)	0.16 fl oz/100 lb seed			0.5	See individual labels

Table 8.5. Eggplant fungicides ordered by disease and then FRAC group according to their mode of action. (continued)

Pertinent Diseases or Pathogens	Fungicide Group ¹	Chemical (active ingredients)	Max. Rate/Acre		Min. Days to		Remarks ²		
			Applic.	Season	Harvest	Reentry			
Labels change frequently. Be sure to read a current product label before applying any chemical. Refer to Table 19.2 for biopesticide and other alternative products labeled for disease management.									
Crown rot (<i>Phytophthora capsici</i>)	4	Metastar 2E AG (metalaxyl)	8 pt	12 pt	7	2	See label for specific instructions		
	4	Ridomil Gold SL Ridomil Gold EC Ultra Flourish (mefenoxam) Orondis Gold B (mefenoxam)	SEE INDIVIDUAL LABELS		1 pt	1.5 lb ai/A	7	2	See label; suppression
	U15	Orondis Gold (oxathiapiprolin)	9.6 fl oz	19.2 fl oz per year	0	4 hr	Apply at transplant; see label		
	40 & 45	Zampro (dimethomorph + ametoctradin)	14 fl oz	42 fl oz	4	See label			
	Phytophthora blight and Crown rot	M1	(copper compounds) Many brands available: Badge SC, Badge X2, Cueva, C-O-C WDG	SEE INDIVIDUAL LABELS		Varies by product from 0 to 1 day		Varies by product from 4 hr to 2 days	
	11	Aftershock Evito 480 EC (fluoxastrobin)	5.7 fl oz	22.8 fl oz	3	0.5	For disease suppression only; Do not use in greenhouse production		
	11	Cabrio EG (pyraclostrobin)	16 oz	96 oz	0	0.5			
	11	Flint, Gem (trifloxystrobin)	3.0 oz	16 oz	3	0.5			
	11	Reason 500 SC (fenamidone)	8.2 fl oz	24.6 fl oz	14	0.5	Disease suppression only		
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5	Disease suppression only		
	22	Elumin (ethaboxam)	8 fl oz	16 fl oz	2	0.5	See label		
	21	Ranman (cyazofamid)	2.75 fl oz	16.5 fl oz	0	0.5			
	29	Omega 500F	1.5 pt	9 pt	12	30 days			
	33	(Phosphites) Many brands and formulations: Confine Extra, Fosphite, Fungi-Phite, K-Phite, Rampart	SEE INDIVIDUAL LABELS						
	40	Forum (dimethomorph)	6 oz	30 oz	0	0.5			
	40	Revus (mandipropamid)	8 fl oz	32 fl oz per season	1	4 hr	Disease suppression only		
	43	Presidio (fluopicolide)	4 fl oz	12 fl oz	2	0.5			
	40 & 45	Zampro (dimethomorph + ametoctradin)	14 fl oz	42 fl oz	4	See label			
	U15 & 40	Orondis Ultra (oxathiapiprolin + manipropamid)	8 fl oz	32 fl oz/A/yr	1	4 hr	See label		
	U15	Orondis Gold (oxathiapiprolin)	9.6 fl oz	19.2 fl oz per year	0	4 hr	Apply at transplant; see label		
	4	Orondis Gold B (mefenoxam)	1 pt	1.5 lb a.i.	7	2			
Gray leaf spot	9 & 3	Inspire Super (cyprodinil + difenoconazole)	20 fl oz	47 fl oz	0	0.5			
	3 & 4	Aprovia Top (difenoconazole, benzovindiflupry)	13.5 fl oz	53.6 per 12 month	0	12 hr			
	11	Flint, Gem	3.0 oz	16 oz	3	0.5			

Table 8.5. Eggplant fungicides ordered by disease and then FRAC group according to their mode of action. (continued)

Pertinent Diseases or Pathogens	Fungicide Group ¹	Chemical (active ingredients)	Max. Rate/Acre		Min. Days to		Remarks ²	
			Applic.	Season	Harvest	Reentry		
Labels change frequently. Be sure to read a current product label before applying any chemical. Refer to Table 19.2 for biopesticide and other alternative products labeled for disease management.								
		(trifloxystrobin)						
	11 & 3	Quadris Top (azoxystrobin + difenoconazole)	14 fl oz	55.3 fl. oz	0	0.5		
Septoria leaf spot	M1	Cueva (copper octanoate)	SEE LABEL					
	7	Fontelis (penthiopyrad)	24 fl oz	72 fl oz	0	0.5		
	11	Cabrio EG (pyraclostrobin)	16 oz	96 oz	0	0.5		
	11	Flint, Gem Fungicide (trifloxystrobin)	3.0 oz	16 oz	3	0.5	Disease suppression only	
	9 & 3	Inspire Super (cyprodinil + difenoconazole)	20 fl oz	47 fl oz	0	0.5		
	11	Reason 500SC (fenamidone)	8.2 fl oz	24.6 fl oz	14	0.5	Disease suppression only	
	7 & 11	Luna Sensation (fluopyram + trifloxystrobin)	7.6 fl oz	27.1 fl oz	3	0.5		
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5		
White mold	7 & 11	Luna Sensation (fluopyram + trifloxystrobin)	7.6 fl oz	27.1 fl oz	3	0.5	Disease suppression only	
	7 & 11	Priaxor (fluxapyroxad + pyraclostrobin)	8 fl oz	24 fl oz	7	0.5		

¹ FRAC code (fungicide group): Number (1 through 46) and letters (U and P) are used to distinguish the fungicide mode of action groups. All fungicides within the same group (with same number or letter) indicate same active ingredient or similar mode of action. This information must be considered for the fungicide resistance management decisions. U = unknown, or a mode of action that has not been classified yet and is typically associated with another number; P = host plant defense inducers. Source: FRAC Code List 2018; <http://www.frac.info/> (FRAC = Fungicide Resistance Action Committee).

² Information provided in this table applies only to Florida. Be sure to read a current product label before applying any chemical. The use of brand names and any mention or listing of commercial products or services in the publication does not imply endorsement by the University of Florida Cooperative Extension Service nor discrimination against similar products or services not mentioned.

Table 8.6 Non-fumigant nematocides for eggplants in Florida.

Product	Application Directions
Vydate L (a.i. oxamyl)	Apply 1/2 to 1 gal/acre at planting, preferably via drip application. Make additional applications on a 10-14 day interval. Do not apply more than 3 gal per acre per season. Minimum retreatment interval is 7 days unless a longer interval is stated. Do not make more than 8 applications per season.
Nimitz (a.i. fluensulfone)	All applications must be incorporated either physically or via drip or overhead irrigation. Make preplant applications at a rate of 3.5 to 7 pints, (56.0 to 80.0 fl. oz.) per acre, a minimum of seven days before planting. Do not plant any unlisted crops into treated land for 365 days after application of the product. Do not apply more than one application per crop, and no more than 112 fl. oz. of product per acre, per year (365 days). Provides control only for nematodes. Growers applying Nimitz must consult the product label to observe the plant-back (recropping) intervals for a variety of leafy vegetables and brassica crops, onions, bananas, sugarcane, and other crops.
Velum (a.i. fluopyram)	Apply max 6.84 fl oz/acre using only Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. Observe minimum 5-day interval between soil applications. Do not apply more than 13.7 fl oz of Velum (0.446 lbs Fluopyram) per acre per year, regardless of formulation (Velum and/or Luna) or method of application (soil or foliar). For soil application, to limit the potential for development of disease resistance to this chemical class, the first foliar fungicide application after Velum should be a product from a different FRAC group.

Vydate is an insecticide/nematicide; Velum is a fungicide/nematicide; Nimitz is a true nematicide. Unlike fumigants, these products are not volatile and will move through the soil via water; depending on the water solubility, these products will have different recommendations as far as how to best apply them (see specific label recommendations); when nematode pressure is high, they may not be as consistently effective against root nematodes as the fumigants.

Table 8.7. Fumigant nematicides for eggplants in Florida.

Nematicide	Broadcast Application ¹		In the Row Applications
	Gallons or Lbs Per acre	Fl oz /1000 ft / chisel spaced 12" apart	
Telone II ^{2,3}	9 to 12 gal	26 to 35	For any row spacing, application rates given may be concentrated in the row, but shall never exceed the labeled maximum for broadcast applications. Consult the product label for additional detail.
Telone C-17 ^{2,3}	10.8 to 17.1 gal	31.8 to 50.2	For any row spacing, application rates given may be concentrated in the row, but shall never exceed the labeled maximum for broadcast applications. Consult the product label for additional detail.
Telone C-35 ^{2,3}	13 to 20.5 gal	38 to 60	For any row spacing, application rates given may be concentrated in the row, but shall never exceed labeled maximum for broadcast applications. Consult the product label for additional detail.
Telone InLine ^{2,3}	13 to 20.5 gal	-	For drip fumigation, consult the product label for overall rate, drip concentration and flow modifying application directions.
Pic Clor 60 ^{2,3}	19.5 - 31.5 gal	57 to 90	Consult product label for overall rate and chisel flow modifying application directions.
Pic Clor 60 EC ^{2,3}	19.5 - 31.5 gal	-	For drip fumigation, consult product label for proportionately reduced overall rates, drip concentration and drip flow modifying directions and procedures.
Vapam HL	75 gal	-	For drip or in-row fumigation and crop termination, consult product label for proportionately reduced overall rates, drip concentration and flow modifying directions and procedures.
KPam HL	60 gal	-	For drip or in-row fumigation and crop termination, consult product label for proportionately reduced overall rates, drip concentration and flow modifying directions.
Dimethyl ² Disulfide (DMDS)	51.3 gal	-	Compared to broadcast application, apply proportionately less for in the row applications based on the ratio of bed width to row spacing. Consult the product label for additional detail and rate modifying recommendation and mandatory requirements for totally impermeable plastic mulch films (TIF).
Allyl Isothiocyanate (AITC) Dominus	40 gal	-	For drip or in-row fumigation and crop termination, consult product label for overall rates, drip concentration and flow modifying directions

¹ Gallons /acre and Fl oz / 1000 feet provided only for mineral soils. Higher rates may be possible for heavier textured (loam, silt, clay) or highly organic soils.

² All of the fumigants mentioned are for retail sale and use only by state certified applicators or persons under their direct supervision. New supplemental labeling for the Telone products must be in the hands of the user at the time of application. See label details for additional use restrictions based on soil characteristics, buffer zones, requirements for Personal Protective Equipment (PPE), mandatory good agricultural practices (GAP's), product and applicator training certification, and rate modifying recommendations with use of highly retentive Totally Impermeable mulch films (TIF).

³ Higher application rates are possible in the presence of cyst-forming nematodes.

Rates are believed to be correct for products named, and similar products of other brand names, when applied to mineral soils. Higher rates are required for muck (organic) soils. However, the **grower** has the final responsibility to see that each product is used legally; **read the label** of the product to be sure that you are using it properly.