



## Insect and Mite Management Suggestions for Commercial, Field-grown Statice Production<sup>1</sup>

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Statice is a winter flower crop in Florida, grown in continuous plantings from September through Mother's Day. Culture typically is on plastic mulched, raised beds in open fields. Leaves are prostrate on or near the bed surface and white, yellow, or purple flowers are borne on 1-2 foot stalks arising from the plant center. Harvested flower stalks can be enjoyed both fresh and dried with a remarkable preservation of flower color.

Several arthropod species may damage this crop, but most losses are due to various armyworms that colonize early stages of crop. Flower thrips can become very numerous in the spring, but this crop possesses good tolerance to them during most of the season.

Table 1 presents the chemical control measures for use on commercial statice in Florida and includes microbial insecticides that may be considered components of biological control. Arthropod pests most likely to damage Statice are presented alphabetically as the following section headings:

### Aphids

Armyworms (see also Caterpillars)

Caterpillars (see also Armyworms and Loopers)

Dipterous leafminers

Loopers (see also Caterpillars)

Shore flies

Twospotted spider mite

Thrips

Commercial products available for control of each listed arthropod are grouped alphabetically by common chemical name of the pesticide product's active ingredient (a.i.). Usually only one example of any particular formulation is given; however, additional examples may exist that are as effective as those mentioned. Notes taken from labels are provided to qualify some uses and precautionary signal words and re-entry intervals are given to aid in

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- The use of trade names in this publication is solely for the purpose of providing specific information. UF/IFAS does not guarantee or warranty the products named, and references to them in this publication does not signify our approval to the exclusion of other products of suitable composition. Use pesticides safely. Read and follow directions on the manufacturer's label.

the safe use of the pesticides. More detailed information about a pesticide product should be obtained from a current specimen label. Electronic versions of specimen labels are usually available at the CDMS (<http://www.cdms.net/manuf/default.asp>), and C&P Press (<http://www.greenbook.net/>) web sites or the affiliated manufacturer

Many pesticides decompose (hydrolyze) in the spray tank when mixed with water above pH 7. Growers should be aware of their water's pH and when above 7, a buffering solution should be added to maintain pH in the 6.5 to 7 range.

This summary is only a guide to facilitate users' selection of pesticides. Care has been given to provide accurate and up-to-date information, but it is possible that, through label changes, author error, etc., improper uses may be indicated. In all cases it is the applicator's responsibility to read and comply with the label that accompanies each pesticide container.

As an additional precaution, keep the telephone number and address of the nearest county poison control center in a convenient location in case of an accidental poisoning. Also, keep clean copies of labels of all pesticides on the farm premises. In the event of a poisoning, the label of the pesticide involved should be taken to the poison control center or hospital.

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
<b>Aphids (Homoptera: Aphididae)</b>				
Abamectin	Avid 0.15 EC Lucid	Warning	12	Suppression only
Acephate	Acephate 97UP Orthene Turf Tree & Ornamental Spray	Caution	24	Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties.
Acetamiprid	TriStar 30 SG	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 23.9 ounces of TriStar 30 SG/Acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and Marathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
	TriStar 70 WSP	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 22 water soluble packs per acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and Marathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
Azadirachtin	Azatin XL Azatrol EC	Caution Caution	4 4	Waxy bloom on certain ornamental plants may be reduced after an application.
	Ornazin 3% EC	Warning	12	
Beauveria bassiana ATCC 74040	Naturalis L	Caution	4	Do not tank mix with fungicides. Wait a minimum of 48 hours after application before applying fungicides.
Beauveria bassiana strain GHA	Botanigard 22WP Botanigard ES Mycotrol O	Caution	4	Nursery and shade house; do not apply through a thermal pulse fogger.
Bifenthrin	Bifenthrin Pro Multi-Insecticide Golf Course/Nursery Onyx Pro	Caution	12	Nursery and shade house; RESTRICTED USE PESTICIDE.
	Talstar Nursery Flowable	Caution	12	RESTRICTED USE PESTICIDE.
				Nursery and shade house; do not apply more than 0.2 lbs. a.i. (40 fl. oz. of product) per acre per year for outdoor applications. RESTRICTED USE PESTICIDE.

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Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Chlorpyrifos	Chlorpyrifos E-Pro 2	Warning	24	Nursery: RESTRICTED USE PESTICIDE.
	Quali-Pro Chlorpyrifos	Caution	24	Nursery: direct spray to some open blooms may cause petal drop. RESTRICTED USE PESTICIDE.
	OrthoGuard ME			
Dursban 50W	Danger	24		Nursery: RESTRICTED USE PESTICIDE.
Clothianidin	Celero 16 WSG	Caution	12	Do not apply more than a total of 40 oz. of Celero 16WSG (0.4 lb. a.i.) per acre per season.
Cyfluthrin	Decathlon 20 WP	Caution	12	
Cyfluthrin & imidacloprid	Discus Nursery Insecticide	Caution	12	Field grown nurseries and container stocks; resistance management: Foliar application of any chloronicotinyl insecticide following a Discus soil application in the same crop is not recommended. Outdoor applications of Discus can not exceed a total of 244 oz. (0.62 lb. a.i.) per acre per year. Foliar applications may be re-applied every 14 to 28 days.
Deltamethrin	Deltagard GC 5 SC	Caution	12	Nursery: RESTRICTED USE PESTICIDE.
Dinotefuran	Safari 20 SG	Caution	12	Nursery, lath and shade house; suppression with foliar or broadcast sprays. Applications can be made to foliage or as a soil drench. Do not apply more than 2.7 lbs. (0.54 lb. a.i.) per acre of nursery. Do not apply Safari 20SG insecticide or other group 4A insecticides to consecutive generations of the same insect pest species. Regarding Safari or other group 4A insecticides: Do not drench soil media more than one time per crop cycle or 3 months, whichever is shorter. Do not make more than two foliar or broadcast sprays, or one soil drench and one foliar or broadcast spray, to a single crop during a 2 month period. Avoid runoff or puddling of irrigation water after application. Avoid application to areas that are water logged, saturated, or which will not allow penetration into the root zone of the plant. Avoid soil application when plants are dormant or not actively taking up water from the soil.
Fenpropathrin	Tame 2.4 EC	Warning	24	Nursery and shade house; RESTRICTED USE PESTICIDE.

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Imidacloprid	Marathon 1% G	Caution	12	Plants grown in containers, flats, beds and benches in nurseries; for outdoor ornamentals grown in beds, applications can not exceed a total of 40 lbs. per acre per year. On plants with a production cycle of less than 1 year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than 1 year, application may not exceed once a year.
	Marathon 60 WP	Caution	12	Nursery; this product is to be applied as a soil treatment only. For outdoor ornamentals grown in beds, applications can not exceed a total of 10.7 oz. (0.4 lbs. a.i.) per acre per year. On plants with a production cycle of less than 1 year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than 1 year, application may not exceed once a year. Do not allow leachate runoff for the first 10 days after application, in order to retain the product and facilitate full uptake of the active ingredient.
	Marathon II	Caution	12	For outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 pt. (0.4 lbs. a.i.) per acre per year.
Lambda-cyhalothrin	Lambda-Cy EC	Warning	24	Nursery and shade house; do not apply more than 0.36 lb. a.i. per acre per year.
	Scimitar GC	Caution	24	Nursery and shade house; do not apply more than 0.36 lbs. a.i. (52.4 fl. oz. of concentrate) per acre per year. RESTRICTED USE PESTICIDE.
Malathion	Malathion 8 Flowable	Caution	12	
	Malathion 5 EC	Warning	12	
Neem Oil	Triact 70	Caution	4	Do not apply to known sensitive species without prior testing. Applications should be made in early morning or late evening to minimize the potential for leaf burn.
Oxydemeton-methyl	MSR Spray Concentrate	Warning	48	Field grown nursery stock; do not make more than two applications per season. REI is increased to 72 hours where average rainfall is less than 25 inches per year. RESTRICTED USE PESTICIDE.
Permethrin	Perm-UP 3.2EC	Caution	12	Nursery stock; RESTRICTED USE PESTICIDE.
	Permethrin E-Pro	Caution	12	Nursery stock; do not apply more than 2.0 lbs. a.i. per acre per year.
Potassium salts of fatty acids	AllPro Insecticidal Soap 40%	Caution	12	Tank mixes with products containing chlorothalonil should be avoided as they can cause severe phytotoxicity.
Pymetrozine	M-Pede	Warning	12	Tank mixes with chlorothalonil should be avoided. Potential for injury increases on plants stressed by heat, humidity, drought, or insect, mite or disease pressure.
	Endeavor	Caution	12	Do not apply more than 48 oz. per acre per year.

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Pyrethrins	PyGanic Crop Protection EC 1.4	Caution	12	Suppression; for foliar spray application, apply Distance no more than two times per cropping cycle or no more than two times per 6 months. For sprench application, if a second application is needed, allow a minimum of 21 days between applications. For drench application: Do not drench plants more than one time per crop cycle.
	PyGanic Crop Protection EC 5.0	Warning	12	
Pyrethrins & piperonyl butoxide	EverGreen EC 60-6	Caution	12	Do not use the following chemicals: Captan, Folpet, oxythioquinox (Morestan), organic tin compounds (Du-Ter), during with or following an oil spray. A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: anilazine (Dyrene), chlorothalonil (Bravo), dichloran (Botran), dicofol (Kelthane), Dikar, dinocap (Karathane), permethrin (Ambush, Pounce). Do not use chlorothalonil (Bravo), dicofol (Kelthane), or dimethoate (Cygion) in a spray program with this product. Do not use propargite (Omite) with an oil spray or within 30 days before or after an oil spray. Caution: Spray no more than four times during the growing season; use a 2 week minimum application interval.
	Pyreth-It Pyrenone Crop Spray			
Pyrethrins, piperonyl butoxide & silicon dioxide	Diatect II Multipurpose	Caution	12	Do not use in combination with or immediately before or after spraying with fungicides such as Captan, oxythioquinox or any product containing sulfur. Also do not use with carbaryl (Sevin) or dimethoate. Do not use with any product whose label recommends the use of no oils. Do not use in combination with NPK foliar fertilizer applications.
Pyrethrins, Rotenone, & other associated resins	Pyrellin E.C.	Caution	12	
Pyriproxyfen	Distance Insect Growth Regulator	Caution	12	
Refined petroleum distillate	Purespray Green	Caution	4	
	Saf-T-Side Spray Oil	Caution	4	

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Tau-fluvalinate	Mavrik Aquaflo	Caution	12	Use higher rates and shorter retreatment intervals for green peach aphids. Do not exceed four applications per month or 16 applications per year for immature ornamental plants outdoors in containers up to 5 gal.; for mature ornamental specimen plants or plants in containers larger than 5 gal. outdoors, do not exceed four applications per month or 24 applications per year.
Thiamethoxam	Flagship 0.22G	Caution	12	Field nursery and shade house; do not exceed 120 lbs. (0.265 lb a.i.) of product per acre per crop or year, whichever is shorter.
	Flagship 25WG	Caution	12	Field nursery and shade house; do not exceed 8 oz. per acre per crop or year, whichever is shorter.
<b>Armyworms (Lepidoptera: Noctuidae) See also: Caterpillars</b>				
Acephate	Acephate 97UP Orthene Turf Tree & Ornamental Spray	Caution	24	Fall, southern and yellowstriped armyworm; multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties.
Azadirachtin	Azatrol EC	Caution	4	Waxy bloom on certain ornamental plants may be reduced after an application.
<i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> strain ABTS-1857	XenTari Dry Flowable	Caution	4	May be used to control small armyworms and/or podworms; for best results apply full coverage sprays when 1st or 2nd instar larvae are present. Where 4th or 5th instar larvae are present a contact insecticide should be used in combination to enhance control.
<i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> strain GC-91	Jackpot WP	Caution	4	Jackpot is most effective against small, newly-hatched larvae.
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain ABTS-351	Biobit HP Dipel Pro DF	Caution	4	May be used to control armyworms (1st and 2nd instar) when populations are light and full coverage sprays are applied. If mature armyworms or heavy populations are present a contact insecticide should be used to enhance control.
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain BMP 123	Baritone Bio-Insecticide	Caution	4	

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<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain EG2348	Condor Bioinsecticide	Caution	4	Do not use in combination with any chlorothalonil based fungicide (Bravo, Terranil etc.). Mixing with other oil based products or surfactants could increase the risk of phytotoxicity.
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain EG7826	Lepinox WDG	Warning	12	
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain EG7841	Crymax Bioinsecticide	Caution	4	
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain SA-12	Deliver	Caution	4	
Carbaryl	AllPro 10% Carbaryl Dust Carbaryl 4L	Caution Caution	12 12	Fall armyworm Nursery; application to wet foliage or during periods of high humidity may cause injury to tender foliage.
	Carbaryl 80S Sevin 80 WSP	Warning	12	Nursery; application to wet foliage or during periods of high humidity may cause injury to tender foliage.
	Cutworm & Cricket Bait Sevin SL	Caution Caution	12 12	Fall armyworm and <i>Pseudaletia unipuncta</i> (often called the 'true armyworm'); this product is not registered for the control of other armyworm species.
Chlorpyrifos	Chlorpyrifos E-Pro 2 Quali-Pro Chlorpyrifos 4E	Warning	24	Nursery; RESTRICTED USE PESTICIDE.
	Dursban 50W	Danger	24	Nursery; RESTRICTED USE PESTICIDE.
Diflubenzuron	Adept Insect Growth Regulator Dimilin SC Flowable	Caution	12	Shade house; do not make more than four applications per crop. Shade house
Fenpropathrin	Tame 2.4 EC	Warning	24	Beet armyworm; nursery and shade house; RESTRICTED USE PESTICIDE.

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Novaluron	Pedestal	Caution	12	Container grown ornamentals in shade house and nursery; do not apply more than once every 30 days. Do not make more than two applications per crop year. Do not apply more than 52 fl. oz. per acre per year per crop. Resistance management: Do not apply in successive applications, use only one application before rotation with other classes of insecticides with different modes of action. Use at least two alternative products between applications of Pedestal. Do not use more than once within each generation cycle.
Permethrin	Ambush 25W Perm-UP 25DF Permethrin 3.2 EC	Warning Warning Caution	12 12 12	Beet armyworm; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. Application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE. Beet armyworm; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. RESTRICTED USE PESTICIDE. Beet armyworm; field grown nursery stock; application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
<i>Steinerinema carpocapsae</i> juvenile nematodes	Millenium	Caution	0	
<b>Caterpillars (Lepidoptera) See also: Armyworms and Loopers</b>				
Acephate	Acephate 97UP Orthene Turf Tree & Ornamental Spray	Caution	24	Bagworms, budworms, California oakworm, canker worms (spring and fall), cutworm, gypsy moth larvae, leafrollers, tent caterpillars, webworms; multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties.
Acetamiprid	TriStar 30 SG	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 23.9 ounces of TriStar 30 SG/acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and Marathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
	TriStar 70 WSP	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 22 water soluble packs per acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and Marathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.

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Azadirachtin	Azatin XL Ornazin 3% EC	Caution Warning	4 12	
<i>Beauveria bassiana</i> ATCC 74040	Naturalis L	Caution	4	Leaf-feeding caterpillars; do not tank mix with fungicides. Wait a minimum of 48 hours after application before applying fungicides.
<i>Beauveria bassiana</i> strain GHA	Mycotrol O	Caution	4	Nursery and shade house; diamondback moth; do not apply through a thermal pulse fogger.
Bifenthrin	Bifenthrin Pro Multi-Insecticide Golf Course/Nursery Onyx Pro	Caution Warning	12 12	Leaf-feeding caterpillars; nursery and shade house; RESTRICTED USE PESTICIDE. Leaf-feeding caterpillars; RESTRICTED USE PESTICIDE.
	Talstar Nursery Flowable	Caution	12	Leaf-feeding caterpillars; nursery and shade house; do not apply more than 0.2 lbs. a.i. (40 fl. oz. of product) per acre per year for outdoor applications. RESTRICTED USE PESTICIDE.
Carbaryl	AllPro 10% Carbaryl Dust AllPro Carbaryl 50 WP Carbaryl 4L	Caution Caution Caution	12 12 12	Tent caterpillars Orange tortrix, puss caterpillar, tent caterpillars Nursery; cutworm, holly budmoth, oakworm complex, puss caterpillar, saddled prominent caterpillar
	Cutworm & Cricket Bait Sevin 80 WSP	Caution Warning	12 12	Cutworms Nursery; leafrollers, lucerne moth, mimosa webworm tip moth; oak leafminers [lepidopterous], oak moth, oak skeletonizer, oakworm complex, oleander caterpillar, orange-striped oakworm, poinsettia hornworm, puss caterpillar, range caterpillar, redhumped oakworm, saddled prominent caterpillar, sawflies (exposed), subtropical pine tip moth, tent caterpillars; application to wet foliage or during periods of high humidity may cause injury to tender foliage.

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Chlorpyrifos	Chlorpyrifos E-Pro 2 Quali-Pro Chlorpyrifos 4E	Warning	24	Nursery: cankerworms, catalpa sphinx, cutworms, cypress tip moth, European pine shoot moth, fall webworms, fiery skipper, gypsy moth, holly bud moth, hornworms, leafrollers, (such as: obliquebanded, pandemis), lucerne moth, mimosa webworms, oakworms, oleander caterpillars, orange tortrix, pandora moth, puss caterpillars, redhumped caterpillars, sawflies (exposed), subtropical pine tip moth, tent caterpillars, yellownecked caterpillars; RESTRICTED USE PESTICIDE.
	Duraguard ME	Caution	24	Nursery; cabbageworms, roseslugs, hornworms; direct spray to some open blooms may cause petal drop. RESTRICTED USE PESTICIDE.
Cryolite	Kryocide	Caution	12	Coddling moth larvae, gypsy moth caterpillar; should not be used in combination with lime or compounds containing free lime. Applications in spray solutions above pH 7.5, below pH 4, or in combination with calcium foliar nutrients should not be made due to possible crop injury on some crops.
Cyfluthrin	Decathlon 20 WP	Caution	12	Leaf-feeding caterpillars
Cyfluthrin & imidacloprid	Discus Nursery Insecticide	Caution	12	Leaf-feeding caterpillars; field grown nurseries and container stocks; resistance management: Foliar application of any chloronicotinyl insecticide following a Discus soil application in the same crop is not recommended. Outdoor applications of Discus can not exceed a total of 244 oz. (0.62 lb. a.i.) per acre per year. Foliar applications may be re-applied every 14 to 28 days.
Deltamethrin	Deltagard GC 5 SC	Caution	12	Leaf-feeding caterpillars; nursery; RESTRICTED USE PESTICIDE.
Fenpropothrin	Tame 2.4 EC	Warning	24	Coddling moth, leafrollers, orange tortrix, pandemis moth; nursery and shade house; RESTRICTED USE PESTICIDE.
Lambda-cyhalothrin	Lambda-Cy EC	Warning	24	Leaf-feeding caterpillars; nursery and shade house; do not apply more than 0.36 lb. a.i. per acre per year.
Malathion	Scimitar GC	Caution	24	Leaf-feeding caterpillars; nursery and shade house; do not apply more than 0.36 lbs. a.i. (52.4 fl. oz. of concentrate) per acre per year. RESTRICTED USE PESTICIDE.
	Malathion 8 Flowable	Caution	12	Bagworms, tent caterpillars
	Malathion 5 EC	Warning	12	Bagworms, tent caterpillars

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Permethrin	Ambush 25W	Warning	12	Cabbage looper, cutworms, <i>Heliothis</i> spp.; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. Application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
	Perm-UP 3.2EC	Caution	12	Leaf-feeding caterpillars; nursery stock; RESTRICTED USE PESTICIDE.
	Permethrin E-Pro	Caution	12	Leaf-feeding caterpillars; nursery stock; do not apply more than 2.0 lbs. a.i. per acre per year.
Phosmet	Imidan 70-W	Warning	24	Eastern pine shoot moth, eastern tent caterpillar, European pine shoot moth, gypsy moth, redhumped caterpillar, sawfly; nursery.
Potassium salts of fatty acids	AllPro Insecticidal Soap 40%	Caution	12	Buck moth larvae, sawfly larvae, tent caterpillar, gypsy moth eggs and larvae, cutworms; tank mixes with products containing chlorothalonil should be avoided as they can cause severe phytotoxicity.
	M-Pede	Warning	12	Buck moth larvae, cutworm, gypsy moth (eggs and larvae), sawfly larvae, tent caterpillar; tank mixes with chlorothalonil should be avoided. Potential for injury increases on plants stressed by heat, humidity, drought, or insect, mite or disease pressure.
Pyrethrins	PyGanic Crop Protection EC 1.4	Caution	12	
	PyGanic Crop Protection EC 5.0	Warning	12	
Pyrethrins & piperonyl butoxide	EverGreen EC 60-6 Pyreth-It Pyreneone Crop Spray	Caution	12	
Pyrethrins, piperonyl butoxide & silicon dioxide	Diatect II Multipurpose	Caution	12	
Pyrethrins, Rotenone, & other associated resins	Pyrellin E.C.	Caution	12	

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Refined petroleum distillate	Purespray Green	Caution	4	Leafrollers, sawfly (larvae), webworms; do not use the following chemicals: Captan, Folpet, oxythioquinox (Morestan), organic tin compounds (Du-Ter), during with or following an oil spray. A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: amilazine (Dyrene), chlorothalonil (Bravo), dicloran (Botran), dicofol (Keltthane), Dikar, dinocap (Karathane), permethrin (Ambush, Pounce). Do not use chlorothalonil (Bravo), dicofol (Keltthane), or dimethoate (Cygon) in a spray program with this product. Do not use propargite (Omite) with an oil spray or within 30 days before or after an oil spray. Caution: Spray no more than four times during the growing season; use a 2 week minimum application interval.
	Saf-T-Side Spray Oil	Caution	4	Sawfly, leafrollers, leaftiers, webworms, cankerworms; do not use in combination with or immediately before or after spraying with fungicides such as Captan, oxythioquinox or any product containing sulfur. Also do not use with carbaryl (Sevin) or dimethoate. Do not use with any product whose label recommends the use of no oils. Do not use in combination with NPK foliar fertilizer applications.
Spinosad	Conserve SC Turf and Ornamental	Caution	4	For areas of commercial production of herbaceous ornamentals in nurseries, including plant propagation beds, do not apply more than 10 times in a 12 month period per crop regardless of the pest being treated (excluding leafminers, spider mites and/or diamondback moths); if Conserve SC is used for leafminers, spider mites and/or diamondback moth control do not apply more than six times in a 12 month period per crop regardless if other insect pests are also being treated. Because generations of a specific pest may overlap, rotate control products and never apply more than three consecutive applications of Conserve SC or products containing the same active ingredient or having the same mode of action. Do not reapply within less than 7 days.
Tau-fluvalinate	Mavrik Aquaflo	Caution	12	Leaf-feeding caterpillars; do not exceed four applications per month or 16 applications per year for immature ornamental plants outdoors in containers up to 5 gal.; for mature ornamental specimen plants or plants in containers larger than 5 gal. outdoors, do not exceed four applications per month or 24 applications per year.
				<b>Dipterous Leafminers (Diptera: Agromyzidae)</b>

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Abamectin	Avid 0.15 EC	Warning	12	To manage susceptibility in <i>Liriomyza</i> leafminer species, apply a maximum of three applications of Avid and then rotate to Citation for a maximum of three applications before rotating back to Avid or using another product. The rotation between these two products should be based on the generation time to avoid applying Avid to successive generations.
	Lucid	Warning	12	Resistance management <i>Liriomyza</i> leafminer: Apply a maximum of three applications, then rotate to Citation for a maximum of three applications before rotating back to Lucid or using another product. The rotation between these two products should be based on the generation time of <i>Liriomyza</i> species to avoid applying Lucid to successive generations.
Acetamiprid	TriStar 30 SG	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 23.9 ounces of TriStar 30 SG/acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and placeMarathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
	TriStar 70 WSP	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 22 water soluble packs per acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and Marathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
Azadirachtin	Azatin XL	Caution	4	
Bifenthrin	Ornazin 3% EC Bifenthrin Pro Multi-Insecticide Golf Course/Nursery	Warning	12	Nursery and shade house; RESTRICTED USE PESTICIDE.
	Onyx Pro	Warning	12	RESTRICTED USE PESTICIDE.
	Talstar Nursery Flowable	Caution	12	Nursery and shade house; do not apply more than 0.2 lbs. a.i. (40 fl. oz. of product) per acre per year for outdoor applications. RESTRICTED USE PESTICIDE.
Cyfluthrin & imidacloprid	Discus Nursery Insecticide	Caution	12	Field grown nurseries and container stocks; resistance management: Foliar application of any chloronicotinyl insecticide following a Discus soil application in the same crop is not recommended. Outdoor applications of Discus can not exceed a total of 244 oz. (0.62 lb. a.i.) per acre per year. Foliar applications may be re-applied every 14 to 28 days.

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI <sup>2</sup> (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Cyromazine	Citation	Caution	12	Will not control adult stages of insect pests. Special precautions to minimize leafminer resistance: Do not use as the only control for leafminers, make no more than three applications at 7-day intervals, then switch to Avid as an alternative control for the same period, then Citation may be applied again at 7-day intervals if necessary. Do not make more than six applications to one crop.
Deltamethrin	DeltaGard GC 5 SC	Caution	12	Nursery: RESTRICTED USE PESTICIDE.
Dinotefuran	Safari 20 SG	Caution	12	Nursery, lath and shade house; applications can be made to foliage or as a soil drench. Do not apply more than 2.7 lbs. (0.54 lb. a.i.) per acre of nursery. Do not apply Safari 20SG insecticide or other group 4A insecticides to consecutive generations of the same insect pest species. Regarding Safari or other group 4A insecticides: Do not drench soil media more than one time per crop cycle or 3 months, whichever is shorter. Do not make more than two foliar or broadcast sprays, or one soil drench and one foliar or broadcast spray, to a single crop during a 2 month period. Avoid runoff or puddling of irrigation water after application. Avoid application to areas that are water logged, saturated, or which will not allow penetration into the root zone of the plant. Avoid soil application when plants are dormant or not actively taking up water from the soil.
	Safari 2G	Caution	12	Do not apply more than 27 lbs. (0.54 lbs a.i) per acre of nursery per year. To delay the development of resistance, do not make more than one soil application per crop cycle or 3 months, whichever is shorter. Only apply to moist soil or media; do not apply to dry or saturated soil or when plants are not actively taking up water from soil.
Fenpropathrin	Tame 2.4 EC	Warning	24	Nursery and shade house; RESTRICTED USE PESTICIDE.

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Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Imidacloprid	Marathon 1% G	Caution	12	Plants grown in containers, flats, beds and benches in nurseries; for outdoor ornamentals grown in beds, applications can not exceed a total of 40 lbs. per acre per year. On plants with a production cycle of less than 1 year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than 1 year, application may not exceed once a year.
	Marathon 60 WP	Caution	12	Nursery; this product is to be applied as a soil treatment only. For outdoor ornamentals grown in beds, applications can not exceed a total of 10.7 oz. (0.4 lbs. a.i.) per acre per year. On plants with a production cycle of less than 1 year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than 1 year, application may not exceed once a year. Do not allow leachate runoff for the first 10 days after application, in order to retain the product and facilitate full uptake of the active ingredient.
	Marathon II	Caution	12	For outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 pt. (0.4 lbs. a.i.) per acre per year.
Lambda-cyhalothrin	Lambda-Cy EC	Warning	24	Adult leafminers; nursery and shade house; do not apply more than 0.36 lb. a.i. per acre per year.
	Scimitar GC	Caution	24	Adult leafminers; nursery and shade house; do not apply more than 0.36 lbs. a.i. (52.4 fl. oz. of concentrate) per acre per year. RESTRICTED USE PESTICIDE.
Novaluron	Pedestal	Caution	12	Suppression; container grown ornamentals in shade house and nursery; do not apply more than once every 30 days. Do not make more than two applications per crop year. Do not apply more than 52 fl. oz. per acre per year per crop. Resistance management: Do not apply in successive applications, use only one application before rotation with other classes of insecticides with different modes of action. Use at least two alternative products between applications of Pedestal. Do not use more than once within each generation cycle.
Oxydemeton-methyl	MSR Spray Concentrate	Warning	48	Field grown nursery stock; do not make more than two applications per season. REI is increased to 72 hours where average rainfall is less than 25 inches per year. RESTRICTED USE PESTICIDE.

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Permethrin	Ambush 25W	Warning	12	Field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. Application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
	Perm-UP 25DF	Warning	12	Field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. RESTRICTED USE PESTICIDE.
	Permethrin 3.2 EC	Caution	12	Field grown nursery stock; application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
Potassium salts of fatty acids	AllPro Insecticidal Soap 40%	Caution	12	Tank mixes with products containing chlorothalonil should be avoided as they can cause severe phytotoxicity.
	M-Pede	Warning	12	Tank mixes with chlorothalonil should be avoided. Potential for injury increases on plants stressed by heat, humidity, drought, or insect, mite or disease pressure.
Pyrethrins & piperonyl butoxide	Pyrenone Crop Spray	Caution	12	
Pyrethrins, piperonyl butoxide & silicon dioxide	Diatect II Multipurpose	Caution	12	
Pyrethrins, Rotenone, & other associated resins	Pyrellin E.C.	Caution	12	

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

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Refined petroleum distillate	Purespray Green	Caution	4	Do not use the following chemicals: Captan, Folpet, oxythioquinox (Morestan), organic tin compounds (Du-Ter), during with or following an oil spray. A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: amilazine (Dyrene), chlorothalonil (Bravo), dichloran (Botran), dicofol (Keltthane), Dikat, dinocap (Karathane), permethrin (Ambush, Pounce). Do not use chlorothalonil (Bravo), dicotol (Keithane), or dimethoate (Cygon) in a spray program with this product. Do not use propargite (Omite) with an oil spray or within 30 days before or after an oil spray. Caution: Spray no more than four times during the growing season; use a 2 week minimum application interval.
	Saf-T-Side Spray Oil	Caution	4	Do not use in combination with or immediately before or after spraying with fungicides such as Captan, oxythioquinox or any product containing sulfur. Also do not use with carbaryl (Sevin) or dimethoate. Do not use with any product whose label recommends the use of no oils. Do not use in combination with NPK foliar fertilizer applications.
Spinosad	Conserve SC Turf and Ornamental	Caution	4	For areas of commercial production of herbaceous ornamentals in nurseries, including plant propagation beds, do not apply more than 10 times in a 12 month period per crop regardless of the pest being treated (excluding leafminers, spider mites and/or diamondback moths); if Conserve SC is used for leafminers, spider mites and/or diamondback moth control do not apply more than six times in a 12 month period per crop regardless if other insect pests are also being treated. Because generations of a specific pest may overlap, rotate control products and never apply more than three consecutive applications of Conserve SC or products containing the same active ingredient or having the same mode of action. Do not reapply within less than 7 days.
				<b>Loopers (Lepidoptera: Noctuidae) See also: Caterpillars</b>
Acetamiprid	TriStar 30 SG	Caution	12	Cabbage looper; do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 23.9 ounces of TriStar 30 SG/acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyl/neonicotinyls, such as Merit and placeMarathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
	TriStar 70 WSP	Caution	12	Cabbage looper; do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 22 water soluble packs per acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and placeMarathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI <sup>2</sup> (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Azadirachtin	Azatin XL	Caution	4	Waxy bloom on certain ornamental plants may be reduced after an application.
	Azatrol EC	Caution	4	
<i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> strain ABTS-1857	Ornazin 3% EC	Warning	12	
	XenTari Dry Flowable	Caution	4	
<i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> strain GC-91	Jackpot WP	Caution	4	Jackpot is most effective against small, newly-hatched larvae.
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain ABTS-351	Biobit HP Dipel Pro DF	Caution	4	
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain BMP 123	Baritone Bio-Insecticide	Caution	4	
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain EG2348	Condor Bioinsecticide	Caution	4	Do not use in combination with any chlorothalonil based fungicide (Bravo, Terramil etc.). Mixing with other oil based products or surfactants could increase the risk of phytotoxicity.
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain EG7826	Lepinox WDG	Warning	12	
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain EG7841	Crymax Bioinsecticide	Caution	4	

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<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain SA-11	Javelin WG	Caution	4	
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain SA-12	Deliver	Caution	4	
<i>Beauveria bassiana</i> strain GHA	Mycotrol O	Caution	4	Cabbage looper; nursery and shade house; diamondback moth; do not apply through a thermal pulse fogger.
Permethrin	Ambush 25W	Warning	12	Cabbage looper; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. Application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
	Perm-UP 25DF	Warning	12	Cabbage looper; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. RESTRICTED USE PESTICIDE.
	Permethrin 3.2 EC	Caution	12	Cabbage looper; field grown nursery stock; application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
Pyrethrins	PyGanic Crop Protection EC 1.4	Caution	12	
	PyGanic Crop Protection EC 5.0	Warning	12	
Pyrethrins & piperonyl butoxide	EverGreen EC 60-6 Pyrenone Crop Spray	Caution	12	
	Pyreth-It	Caution	12	Cabbage looper
Pyrethrins, piperonyl butoxide & silicon dioxide	Diatect II Multipurpose	Caution	12	
Pyrethrins, Rotenone, & other associated resins	Pyrellin E.C.	Caution	12	

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI <sup>2</sup> (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Spinosad	Conserve SC Turf and Ornamental	Caution	4	Cabbage looper; for areas of commercial production of herbaceous ornamentals in nurseries, including plant propagation beds, do not apply more than 10 times in a 12 month period per crop regardless of the pest being treated (excluding leafminers, spider mites and/or diamondback moths); if Conserve SC is used for leafminers, spider mites and/or diamondback moth control do not apply more than six times in a 12 month period per crop regardless if other insect pests are also being treated. Because generations of a specific pest may overlap, rotate control products and never apply more than three consecutive applications of Conserve SC or products containing the same active ingredient or having the same mode of action. Do not reapply within less than 7 days.
<b>Shore Flies (Diptera: Ephydriidae)</b>				
Azadirachtin	Azatin XL	Caution	4	
	Azatrol EC	Caution	4	Waxy bloom on certain ornamental plants may be reduced after an application.
	Ornazin 3% EC	Warning	12	
<i>Beauveria bassiana</i> ATCC 74040	Naturalis L	Caution	4	Do not tank mix with fungicides. Wait a minimum of 48 hours after application before applying fungicides.
Chlorpyrifos	Duraguard ME	Caution	24	Nursery: direct spray to some open blooms may cause petal drop. RESTRICTED USE PESTICIDE.
Diflubenzuron	Adept Insect Growth Regulator	Caution	12	Shade house; do not make more than four applications per crop.
Potassium salts of fatty acids	AllPro Insecticidal Soap 40%	Caution	12	Tank mixes with products containing chlorothalonil should be avoided as they can cause severe phytotoxicity.
	M-Pede	Warning	12	Tank mixes with chlorothalonil should be avoided. Potential for injury increases on plants stressed by heat, humidity, drought, or insect, mite or disease pressure.
Pyrethrins	PyGanic Crop Protection EC 1.4	Caution	12	Flies
	PyGanic Crop Protection EC 5.0	Warning	12	Flies
Pyrethrins & piperonyl butoxide	EverGreen EC 60-6 Pyrenone Crop Spray	Caution	12	Flies

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Pyrethrins, piperonyl butoxide & silicon dioxide	Diaetec II Multipurpose	Caution	12	Flies
Pyriproxyfen	Distance Insect Growth Regulator	Caution	12	For foliar spray application, apply Distance no more than two times per cropping cycle or no more than two times per 6 months. For sprinch application, if a second application is needed, allow a minimum of 21 days between applications. For drench application: Do not drench plants more than one time per crop cycle.
<i>Steinernerma carpocapsae</i> juvenile nematodes	Millenium	Caution	0	Three applications must be applied at 7 day intervals.
<b>Thrips (Thysanoptera: Thripidae)</b>				
Abamectin	Avid 0.15 EC Lucid	Warning	12	Suppression
Acephate	Acephate 97%P Orthene Turf Tree & Ornamental Spray	Caution	24	Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties.
Acetamiprid	TriStar 30 SG	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 23.9 ounces of TriStar 30 SG/acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and placeMarathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
	TriStar 70 WSP	Caution	12	Do not make more than five applications per year. Do not reapply more than once every 7 days. Do not apply more than 22 water soluble packs per acre (0.55 lb. a.i./acre) per year. Resistance to other chloronicotinyls/neonicotinyls, such as Merit and placeMarathon, may result in resistance to TriStar. Therefore, to minimize resistance, rotate with other classes of insecticides.
Azadirachtin	Azatin XL Azatrol EC	Caution	4	
<i>Beauveria bassiana</i> ATCC 74040	Naturalis L	Caution	4	Waxy bloom on certain ornamental plants may be reduced after an application. Do not tank mix with fungicides. Wait a minimum of 48 hours after application before applying fungicides.

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Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
<i>Beauveria bassiana</i> strain GHA	Botanigard 22WP Botanigard ES Mycotrol O	Caution Caution Caution	4 4 12	Nursery and shade house; do not apply through a thermal pulse fogger. Greenhouse thrips, Cuban laurel thrips, onion thrips, thrips palmi, western flower thrips; nursery and shade house; do not apply through a thermal pulse fogger. Nursery and shade house; RESTRICTED USE PESTICIDE.
Bifenthrin	Bifenthrin Pro Multi-Insecticide Golf Course/Nursery			RESTRICTED USE PESTICIDE.
Onyx Pro		Warning	12	Nursery and shade house; do not apply more than 0.2 lbs. a.i. (40 fl. oz. of product) per acre per year for outdoor applications. RESTRICTED USE PESTICIDE.
Talstar Nursery Flowable		Caution	12	Exposed thrips
Carbayl	AllPro 10% Carbaryl Dust AllPro Carbaryl 50 WP	Caution Caution	12 12	To avoid possible injury to tender foliage, do not apply to wet foliage or when rain or high humidity is expected during the next 2 days.
Carbayl 4L		Caution	12	Exposed thrips; nursery; application to wet foliage or during periods of high humidity may cause injury to tender foliage.
Sevin 80 WSP		Warning	12	Nursery; application to wet foliage or during periods of high humidity may cause injury to tender foliage.
Chlorpyrifos	Chlorpyrifos E-Pro 2 Quali-Pro Chlorpyrifos 4E	Warning	24	Nursery; exposed thrips; RESTRICTED USE PESTICIDE.
Duraguard ME		Caution	24	Nursery; direct spray to some open blooms may cause petal drop. RESTRICTED USE PESTICIDE.
Dursban 50W		Danger	24	Nursery; exposed thrips; RESTRICTED USE PESTICIDE.
Cyfluthrin	Decathlon 20 WP	Caution	12	
Cyfluthrin & imidacloprid	Discus Nursery Insecticide	Caution	12	Suppression; field grown nurseries and container stocks; resistance management: Foliar application of any chloronicotinyl insecticide following a Discus soil application in the same crop is not recommended. Outdoor applications of Discus can not exceed a total of 244 oz. (0.62 lb. a.i.) per acre per year. Foliar applications may be re-applied every 14 to 28 days.

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

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Dinotefuran	Safari 20 SG	Caution	12	Chili thrips (suppression); nursery, lath and shade house; applications can be made to foliage or as a soil drench. Do not apply more than 2.7 lbs. (0.54 lb. a.i.) per acre of nursery. Do not apply Safari 20SG insecticide or other group 4A insecticides to consecutive generations of the same insect pest species. Regarding Safari or other group 4A insecticides: Do not drench soil media more than one time per crop cycle or 3 months, whichever is shorter. Do not make more than two foliar or broadcast sprays, or one soil drench and one foliar or broadcast spray, to a single crop during a 2 month period. Avoid runoff or puddling of irrigation water after application. Avoid application to areas that are water logged, saturated, or which will not allow penetration into the root zone of the plant. Avoid soil application when plants are dormant or not actively taking up water from the soil.
	Safari 2G	Caution	12	Thrips including chili and western flower thrips (suppression); do not apply more than 27 lbs. (0.54 lbs a.i) per acre of nursery per year. To delay the development of resistance, do not make more than one soil application per crop cycle or 3 months, whichever is shorter. Only apply to moist soil or media; do not apply to dry or saturated soil or when plants are not actively taking up water from soil.
Fenpropathrin	Tame 2.4 EC	Warning	24	Nursery and shade house; RESTRICTED USE PESTICIDE.
Imidacloprid	Marathon 1% G	Caution	12	Suppression on foliage only; plants grown in containers, flats, beds and benches in nurseries; for outdoor ornamentals grown in beds, applications can not exceed a total of 40 lbs. per acre per year. On plants with a production cycle of less than 1 year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than 1 year, application may not exceed once a year.
	Marathon 60 WP	Caution	12	Suppression on foliage only; nursery; this product is to be applied as a soil treatment only. For outdoor ornamentals grown in beds, applications can not exceed a total of 10.7 oz. (0.4 lbs. a.i.) per acre per year. On plants with a production cycle of less than 1 year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than 1 year, application may not exceed once a year. Do not allow leachate runoff for the first 10 days after application, in order to retain the product and facilitate full uptake of the active ingredient.
	Marathon II	Caution	12	Suppression on foliage only; for outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 pt. (0.4 lbs. a.i.) per acre per year.
Kaolin	Surround WP	Caution	4	Suppression

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Lambda-cyhalothrin	Lambda-Cy EC Scimitar GC	Warning Caution	24 24	Nursery and shade house; do not apply more than 0.36 lb. a.i. per acre per year. Nursery and shade house; do not apply more than 0.36 lbs. a.i. (52.4 fl. oz. of concentrate) per acre per year. RESTRICTED USE PESTICIDE.
Malathion	Malathion 8 Flowable	Caution	12	
Methiocarb	Malathion 5 EC Mesurol-75W	Warning Danger	12 24	Western flower thrips; nursery and mature ornamental plantings; do not apply with oil. RESTRICTED USE PESTICIDE.
Novaluron	Pedestal	Caution	12	Container grown ornamentals in shade house and nursery; do not apply more than once every 30 days. Do not make more than two applications per crop year. Do not apply more than 52 fl. oz. per acre per year. Resistance management: Do not apply in successive applications, use only one application before rotation with other classes of insecticides with different modes of action. Use at least two alternative products between applications of Pedestal. Do not use more than once within each generation cycle.
Oxydemeton-methyl	MSR Spray Concentrate	Warning	48	Field grown nursery stock; do not make more than two applications per season. REI is increased to 72 hours where average rainfall is less than 25 inches per year. RESTRICTED USE PESTICIDE.
Permethrin	Ambush 25W Perm-UP 25DF	Warning	12	Citrus thrips; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. Application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
Permethrin 3.2 EC	Ambush 25W	Warning	12	Citrus thrips; field grown nursery stock; do not apply more than 2.0 lbs. a.i. per acre per season. RESTRICTED USE PESTICIDE.
Potassium salts of fatty acids	AllPro Insecticidal Soap 40% M-Pede	Caution	12	Citrus thrips; field grown nursery stock; application to blooming plants may cause browning of petals. RESTRICTED USE PESTICIDE.
Pyrethrins	PyGanic Crop Protection EC 1.4 PyGanic Crop Protection EC 5.0	Caution Warning	12 12	Exposed thrips; tank mixes containing chlorothalonil should be avoided as they can cause severe phytotoxicity. Exposed thrips; tank mixes with chlorothalonil should be avoided. Potential for injury increases on plants stressed by heat, humidity, drought, or insect, mite or disease pressure.

**Table 1.** Pesticides available to control insects and mites on field-grown statice in Florida.

Pesticide Common Name	Trade Name/Formulation <sup>1</sup>	Signal Word	REI <sup>2</sup> (Hrs) <sup>2</sup>	Notes from Label <sup>3</sup>
Pyrethrins & piperonyl butoxide	EverGreen EC 60-6 Pyrenone Crop Spray Pyreth-It	Caution	12	
Pyrethrins, piperonyl butoxide & silicon dioxide	Diatect II Multipurpose	Caution	12	
Spinosad	Conserve SC Turf and Ornamental	Caution	4	Exposed thrips; for areas of commercial production of herbaceous ornamentals in nurseries, including plant propagation beds, do not apply more than 10 times in a 12 month period per crop regardless of the pest being treated (excluding leafminers, spider mites and/or diamondback moths); if Conserve SC is used for leafminers, spider mites and/or diamondback moth control do not apply more than six times in a 12 month period per crop regardless if other insect pests are also being treated. Because generations of a specific pest may overlap, rotate control products and never apply more than three consecutive applications of Conserve SC or products containing the same active ingredient or having the same mode of action. Do not reapply within less than 7 days.
Tau-fluvalinate	Mavrik Aquaflo	Caution	12	Do not exceed four applications per month or 16 applications per year for immature ornamental plants outdoors in containers up to 5 gal.; for mature ornamental specimen plants or plants in containers larger than 5 gal. outdoors, do not exceed four applications per month or 24 applications per year.
<b>Twospotted Spider Mites (<i>Tetranychus urticae</i>)</b>				
3,7,11-trimethyl-2,6,10-dodecatriene-1-ol & 3,7,11-trimethyl-1,6,10-dodecatriene-3-ol	Stirrup M	Caution	12	Behavior modifying biochemical used in combination with miticides in the suppression of tetranychid mites.
Abamectin	Avid 0.15 EC Lucid	Warning	12	
Acequinocyl	Shuttle 15 SC	Caution	12	Do not exceed 25.6 fl. oz./acre/year. Allow a minimum of 14 days between treatments. Do not tank mix with strongly alkaline material and do not combine with Phos-ethyl (Foseetyl).
Azadirachtin	Azatrol EC	Caution	4	Acarina; waxy bloom on certain ornamental plants may be reduced after an application.

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<i>Beauveria bassiana</i> ATCC 74040	Naturalis L	Caution	4	Mites; do not tank mix with fungicides. Wait a minimum of 48 hours after application before applying fungicides.
Bifenazate	Floramite	Caution	4	Do not make more than two applications per crop per year. Do not apply more than 16 oz. per acre per year. Apply only one application of Floramite before rotating to products of an alternative chemical class and use at least two alternative products between treatments of Floramite.
	Floramite SC	Caution	12	Apply only one application before rotating to products of an alternative chemical class. Use at least two alternative products between treatments of Floramite SC. Do not make more than two applications per crop per year. Do not apply more than 32 fl. oz. per acre per year.
Bifenthrin	Bifenthrin Pro Multi-Insecticide Golf Course/Nursery	Caution	12	Spider mites; nursery and shade house; RESTRICTED USE PESTICIDE.
	Onyx Pro	Warning	12	Spider mites; RESTRICTED USE PESTICIDE.
	Talstar Nursery Flowable	Caution	12	Spider mites; nursery and shade house; do not apply more than 0.2 lbs. a.i. (40 fl. oz. of product) per acre per year for outdoor applications. RESTRICTED USE PESTICIDE.
Chlorpyrifos	Chlorpyrifos E-Pro 2 Chlorpyrifos Pro 2	Warning	24	Nursery; RESTRICTED USE PESTICIDE.
	Duraguard ME	Caution	24	Spider mites; nursery; direct spray to some open blooms may cause petal drop. RESTRICTED USE PESTICIDE.
	Dursban 50W	Danger	24	Nursery; for effective control of spider mites when large numbers of eggs are present, apply a second spray 3 to 5 days after initial treatment to control newly hatched nymphs. RESTRICTED USE PESTICIDE.
	Quali-Pro Chlorpyrifos 4E	Warning	24	Nursery; for effective control of spider mites when large numbers of eggs are present, apply a second spray 3 to 5 days after initial treatment to control newly hatched nymphs. RESTRICTED USE PESTICIDE.
Clofentezine	Ovation SC	Caution	12	Shade house, container grown or field grown nursery stock; recommended application frequency is once per crop cycle in saran house, and shade house culture, and once per each crop cycle occurring within a year for outdoor ornamentals. Highly active on mite eggs and early mite stages. If a high population of adult mites is present at time of application, Ovation should be tank mixed with an adult miticide.
Deltamethrin	Deltagard GC 5 SC	Caution	12	Suppression; nursery; RESTRICTED USE PESTICIDE.

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Dicofol	Kelthane 50WSP	Danger	48	Nursery: applicators must be in enclosed cabs or cockpits. Do not make more than two applications per crop or season. Resistance management: As a general rule, the utility of Kelthane 50WSP can be maintained indefinitely by rotating use of Kelthane 50WSP with miticides with different modes of action and by limiting the number of applications of Kelthane 50WSP to an average of one per season. If two applications are made in a single growing season, no application should be made during the following year.
Etoxazole	TetraSan 5 WDG	Caution	12	Controls in egg and nymph stages of growth. Resistant management: Do no apply more than two times per cropping season or within a 6 month period. Apply second application no sooner than 14 days after the first application. If rapid control (less than 7 days) is required, apply in combination with a contact adulticide.
Fenbutatin-oxide	ProMite 50WP	Danger	48	When daily temperatures at application average below 70° F. performance is reduced. RESTRICTED USE PESTICIDE.
Fenpropothrin	Tame 2.4 EC	Warning	24	Nursery and shade house; RESTRICTED USE PESTICIDE.
Fenpyroximate	Akari 5SC	Warning	12	Spider mites; do not apply more than 48 fl. oz. per crop cycle or per growing season, whichever is longer. Do Not use in successive applications in the same production area. Allow at least two different chemicals with two different modes of action to be used between treatments of Akari 5SC. Make sequential application of a miticide, with a different mode of action, up to 21 days after the initial Akari application.
Hexythiazox	Hexygon DF	Caution	12	Apply only once per crop cycle. If crop cycle is longer than 1 year do not apply more than once per year. Do not use Plyac® or household detergents in tank-mix combinations with Hexygon.
Lambda-cyhalothrin	Lambda-Cy EC	Warning	24	Spider mites; nursery and shade house; do not apply more than 0.36 lb. a.i. per acre per year.
Malathion	Malathion 8 Flowable	Caution	24	Spider mites; nursery and shade house; do not apply more than 0.36 lbs. a.i. (52.4 fl. oz. of concentrate) per acre per year. RESTRICTED USE PESTICIDE.
Methiocarb	Malathion 5 EC	Warning	12	Spider mites
Milbemectin	Mesurol-75W	Danger	24	Mites; nursery and mature ornamental plantings; do not apply with oil. RESTRICTED USE PESTICIDE.
	Ultiflora	Caution	12	Maximum rate is 128 fl. oz. Ultiflora per acre per growing season. Allow at least 3 days between spray applications. Do not use in combination with spray oils without checking for plant injury. RESTRICTED USE PESTICIDE.

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Neem Oil	Triact 70	Caution	4	Mites; do not apply to known sensitive species without prior testing. Applications should be made in early morning or late evening to minimize the potential for leaf burn.
Oxydemeton-methyl	MSR Spray Concentrate	Warning	48	Mites; field grown nursery stock; do not make more than two applications per season. REI is increased to 72 hours where average rainfall is less than 25 inches per year. RESTRICTED USE PESTICIDE.
Potassium salts of fatty acids	AllPro Insecticidal Soap 40%	Caution	12	Spider mite; tank mixes with products containing chlorothalonil should be avoided as they can cause severe phytotoxicity.
	M-Pede	Warning	12	Spider mite; tank mixes with chlorothalonil should be avoided. Potential for injury increases on plants stressed by heat, humidity, drought, or insect, mite or disease pressure.
Potassium silicate	Sil-MATRIX Fungicide/Miticide/Insecticide	Caution	4	Mites; suppression; begin applications when pests first appear and repeat applications as necessary to maintain suppression, but no sooner than every 7 days.
Propargite	Ornamite	Danger	7 days	Applications in temperatures exceeding 85° may result in phytotoxic symptoms. Total number of sprays per year is three.
Pyrethrins, piperonyl butoxide & silicon dioxide	Diatect II Multipurpose	Caution	12	Mites
Pyrethrins, Rotenone, & other associated resins	Pyrellin E.C.	Caution	12	Mites
Pyridaben	Sanmite	Warning	12	Maximum seasonal use rate: Do not exceed 21.34 ounces per acre per year. Do not use Sanmite in successive miticide applications. Use in rotation with other treatments having different modes of action.

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Refined petroleum distillate	Purespray Green	Caution	4	Spider mites; do not use the following chemicals: Captan, Folpet, oxythioquinox (Morestan), organic tin compounds (Du-Ter), during with or following an oil spray. A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: amilazine (Dyrene), chlorothalonil (Bravo), dicloran (Botran), dicofol (Keithane), Dilkar, dinocap (Karathane), permethrin (Ambush, Pounce). Do not use chlorothalonil (Bravo), dicofol (Keithane), or dimethoate (Cygon) in a spray program with this product. Do not use propargite (Omite) with an oil spray or within 30 days before or after an oil spray. Caution: Spray no more than four times during the growing season; use a 2 week minimum application interval.
	Saf-T-Side Spray Oil	Caution	4	Spider mites; do not use in combination with or immediately before or after spraying with fungicides such as Captan, oxythioquinox or any product containing sulfur. Also do not use with carbaryl (Sevin) or dimethoate. Do not use with any product whose label recommends the use of no oils. Do not use in combination with NPK foliar fertilizer applications.
	Ultra-Fine Oil	Caution	4	Spider mites; caution: Spray no more than four consecutive sprays. The frequency of consecutive sprays should not exceed once every 2 weeks. Early morning applications are recommended. Do not tank mix with insecticide or miticide whose label indicates that it should not be used with oil. Do not use with captan, chlorothalonil, climethoate, methiocarb, oxythioquinox, propargite, or any product containing sulfur.
Spinosad	Conserve SC Turf and Ornamental	Caution	4	For areas of commercial production of herbaceous ornamentals in nurseries, including plant propagation beds, do not apply more than 10 times in a 12 month period per crop regardless of the pest being treated (excluding leafminers, spider mites and/or diamondback moths); if Conserve SC is used for leafminers, spider mites and/or diamondback moth control do not apply more than six times in a 12 month period per crop regardless if other insect pests are also being treated. Because generations of a specific pest may overlap, rotate control products and never apply more than three consecutive applications of Conserve SC or products containing the same active ingredient or having the same mode of action. Do not reapply within less than 7 days.
Spinosad	Judo	Caution	12	Nursery: phytotoxicity has been observed on geraniums ( <i>Pelargonium</i> spp.) and impatiens ( <i>Impatiens</i> spp.), it is recommended that Judo not be used on these. Resistance management: Using Judo in successive miticide applications during the same cropping cycle is not recommended. Do not apply Judo more than four times per season.