

Insecticide Rotation Guide

These are our primary insecticide rotations of chemicals used to treat the pest issues that may develop in Proven Winners® and Proven Selections® crops. Our main stock supplier and Four Star Greenhouse will not be applying neonicotinoids to our young plant production.

APHIDS				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
High Pressure - Quick Knockdown	Orthene® T&O	1lb	Severe infestation	All stages of Aphids and use only as an emergency.
Aphid Rotation:	1. Mainspring™	4 oz	4 weeks	Use as a drench or spray as a safe alternative to neonicotinoids.
	2. Endeavor®	2.5 – 5 oz	At first sign	All stages of Aphids. Causes them to stop feeding.
	3. Xxpire™	2.75 oz	3 – 5 days later	All stages of Aphids. Takes a few days to see death.
	4. Aria®	20g	3 – 5 days later	All stages of Aphids. Aria stops feeding and TriStar® is a translaminar neonicotinoid.
	5. Rycar®	3.2 oz	3 – 5 days later	Effective on all stages of Aphids.
	6. Molt-x® / Botanigard®	8oz / 1lb	3 – 5 days later	Molting Inhibitor.
	7. Kontos®	50mL	3 – 5 days later	Systemic and contact.
	8. Orthene® T&O	1 lb	3 – 5 days later	Use where the products above are not achieving desired control and/or quick knockdown.

FUNGUS GNAT				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
High Pressure - Quick Knockdown	Mesuro® Spray	1lb	Severe infestation	For active adults and heavy infestation of larvae. Do not use Mesuro near or in conjunction with a Biological Control program.
Fungus Gnat Rotation:	1. Citation® Spench	2.66oz	At first sign, follow cultural procedure	Larvicide.
	2. Distance® Spench	2 – 6oz	3 – 5 days later	Immatures, Whiteflies, Scales, Mealybugs.
	3. Adept® Spench	.5 – 2oz	3 – 5 days later	Immatures, Whiteflies, Leafminers.
	4. Gnatrol® Spench	13 – 26oz	3 – 5 days later	Larvicide with a foul odor associated with it.

MITES				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
Mite Rotation:	1. Floramite® / Ovation®	8oz / 2oz	First day	Adult Mites and eggs.
	2. Judo™ / Hexygon®	4oz / 2oz	3 – 7 days later	Adults, nymphs, and eggs.
	3. Pylon®	5.2 oz	3 – 7 days later	Adults and nymphs. Great for Thrips and Whiteflies also.
	4. Triact® 70 (neem oil)	256 floz	3 – 7 days later	All life stages, plus Thrips, Whiteflies, Aphids.
	5. Avid® / Floramite®	8oz / 4oz	3 – 7 days later	Mites. Thrips.
	6. Sultan™	13.7 floz	3 – 7 days later	All life stages, Mites.
	7. Magus®	12 – 24 oz	3 – 7 days later	Adults and nymphs.
	8. Pylon® / Ovation®	5.2oz / 2 oz	3 – 7 days later	Adults, nymphs, and eggs.
Winter Rotation for Color Choice:	Triact® 70, Soaps, Oils	256 floz	Once a week, scout for pressure	Effective on all life stages, including Botrytis and Powdery Mildew. Spray once a week or biweekly depending on pressure. Do not use M-Pede® on <i>Buddleia</i> , <i>Hydrangea</i> or <i>Weigela</i> .



Insecticide Rotation Guide Continued

SHOREFLY				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
High Pressure - Quick Knockdown	Mesuroi® Spray	1lb	Severe infestation	For heavy infestation of active adults and larvae; Do not use Mesuroi near or in conjunction with a Biological Control program.
Shorefly Rotation:	1. Citation® Spench	2.66oz	At first sign, follow cultural procedure	Larvicide.
	2. Distance® Spench	2 – 6oz	3 – 5 days later	Immatures, Whiteflies, Fungus Gnats, Leafminers.
	3. Gnatrol® Spench	13 – 26oz	3 – 5 days later	Larvicide with a foul odor associated with it.

THRIPS				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
High Pressure - Quick Knockdown	Mesuroi® or Orthene®	1lb	At first sign of heavy pressure	Thrips, Aphids, Whiteflies, Beetles, Fungus Gnat Adults.
Thrips Rotation:	1. Molt-x® / Botanigard®	8oz / 1lb	1st day	Thrip pupae and young adults, Whiteflies, Aphids, Fungus Gnats (IGR + bacteria).
	2. Pylon®	5.2oz/	3 – 7 days later	All life stages of Thrips, Mites, Whiteflies (Tank mix w/ Endeavor® for control of Aphids).
	3. Pedestal® / Enstar® AQ	6oz / 25oz	3 – 7 days later	Thrips, Aphids, Whiteflies (use twice in a row for best results, watch phyto). Do not use Pedestal on <i>Lobularia</i> .
	4. Avid® / Decathlon®	8oz / 2.3oz	3 – 7 days later	Thrips and Mites (good contact kill)
	5. Overture® / Botanigard®	8oz / 1 lb	3 – 7 days later	Thrips.
	6. Conserve®	22oz	3 – 7 days later	Thrips, Mites, Aphids.
	7. Mavrik®	8oz	3 – 7 days later	Thrips, Aphids, Whiteflies, Mealybugs.

WHITEFLY				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
High Pressure - Quick Knockdown	Orthene® T&O	1lb	Severe infestation	Effective on all stages. Use as an emergency only.
Whitefly Rotation:	1. Sanmite®	4 – 6oz	At first sign	Eggs, nymphs, and adults.
	2. Pedestal®	6 – 8oz	3 – 5 days later	IGR effective on nymphs.
	3. Molt-X® / Botanigard®	8oz / 1lb	Every 3 days	Molting inhibitor effective on eggs, nymphs, and adults.
	4. Rycar®	3.2 oz	3 – 5 days later	Effective on all life stages.
	5. Talstar®	10 – 40oz	3 – 7 days later	Effective on all life stages.
	6. Scimitar®	1.5 – 5oz	7 – 14 days later	Effective on all life stages.
	7. Judo™	2 – 4oz	7 – 14 days later	Adults.

OTHER PESTS				
Category	Treatment	Rate per 100 gal.	When	Main Target/Other Targets & Notes
Beetles	Talstar®	10 – 40oz	First sign	Effective on all life stages.
Caterpillars	Orthene® T&O	4oz / 50mL	First sign	Effective on all life stages.
Loopers	Conserve® / DiPel® Pro	10oz / 1lb	First sign	Effective on all life stages.
Moths	Conserve® / DiPel® Pro	10oz / 1lb	First sign	Effective on all life stages.