

SOME INSECTICIDES / ACARICIDES LABELED FOR USE IN GREENHOUSES AND INTERIOR PLANTSCAPES

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Read the product label before purchasing and using any of these products. Note: Trade names are used to simplify the information presented in this newsletter. No endorsement by the Cooperative Extension Service is intended, nor is criticism implied of similar products that are not named.

Product Format

Brand name	Manufacturer	G=Greenhouse	I=Interiorscape	Signal Word
(Common name)		Restricted Entry Interval (ag)		
Brief Description				

BIOLOGICAL / BOTANICAL / PHYSICAL

Botanigard 22WP Naturalis-O	Mycotech Whitmire Micro-Gen	G	I	Caution
(Beauveria bassiana spores strain GHA, TB-1)		REI 4 hrs ag or spray dry		
Whitefly, aphids, thrips, psyllids, weevils, and mealybugs in ornamentals and vegetables, indoor/outdoor nurseries, greenhouses, shadehouses, commercial landscape/interiorscape Active ingredient is a pathogenic fungus. Spores must land on insect, taking 3 to 7 days to kill.				

Dipel DF	Valent	G		Caution
Javelin WG Certis (Bacillus thuringiensis kurstaki) Agree WG Certis (Bt aizawai) XenTari Valent (Bt aizawai)		REI 4 hrs		
Caterpillars only, most effective against small larvae. Destroys the intestinal lining. Larvae stop feeding soon after ingestion but may not die for several days. For use on ornamentals, herbs, and selected vegetables.				

Gnatrol	Valent	G	I	Caution
(Bacillus thuringiensis israelensis)		REI - 4 hr		
Fungus gnat larvae only (no effect on shore flies) Ornamentals and vegetables. Apply with adequate water by soil drench				

Insecticidal Soap 49.52 CF	Olympic	G	I	Warning
Safers Insecticidal Soap (Potassium salts of fatty acids)		REI 12 hrs		
Ornamentals or vegetables Causes substantial but temporary eye injury, skin irritation. Broad spectrum, contact only, foliar, aphids, crickets, earwigs, fungus gnats, mealybugs, mites. Soil drench for springtails Use soft water, avoid mechanical agitation, do not use on new transplants, newly rooted cuttings, or plants stressed by drought, avoid application when leaf temperature exceeds 85F				

PT Ultra-Fine Oil	Whitmire Micro-Gen	G	I	Caution
(paraffinic oil)		REI 4 hrs		
Broad spectrum contact insecticide that works by suffocation. Paraffinic oils have less chance of causing phytotoxicity than refined oils.				

ENERGY DISRUPTOR

Pylon	Olympic	G		Caution
chlorfenapyr		REI 12 hrs		
For use on greenhouse ornamentals to control mites, some caterpillars, and fungus gnat larvae. Good contact activity, excellent activity from ingestion. Disrupts ability of target pests to produce energy.				

FEEDING DISRUPTOR

Endeavor 50WPG	Syngenta	G	I	Caution
(pymetrozine)		REI 12 hrs		
For control of aphids and whiteflies on greenhouse ornamentals. Stops feeding activity of insect within hours. Insects remain on the plant for 2 to 4 days.				

GROWTH REGULATOR / CHITIN INHIBITORS

Adept WSB	UniroyalIGR	G	I	Caution
(diflubenzuron)		REI 12 hrs		
disrupts molting process but is slow working soil or foliar applications Ornamentals to control shore flies fungus gnats as a coarse spray or drench. Armyworms, lepidopterous leafminers, whitefly suppression (combination or rotation). Exceeding label rates, volumes, number of applications can cause serious foliar injury to poinsettias, hibiscus, Regier begonia.				

Azatin XL (azadirachtin)	Olympic	G	I	Caution
Ornazin 3% EC	SePro	REI 12 hrs		
Ornamentals, vegetables. Botanical insecticide from neem tree. Anti-feedant and growth regulator effects. Aphids, armyworms, beetles, fungus gnats, leafhoppers, leafminers, thrips, whiteflies. Controls larvae or nymphs but not adults. Interferes with molting process.				
Citation 75WP	Syngenta	G	I	Caution
(cyromazine)	REI 12 hrs			
Ornamentals To control dipterous leaf miners, fungus gnats, and shore flies.				
Confirm T/O	DowAgro MAC	G	I	Caution
(tebufenozide)	REI 12 hrs			
Ornamentals Narrow spectrum lepidopterous larvae - primarily by ingestion, best against small larvae.				
Distance	Valent	G	I	Caution
(pyriproxyfen)	REI 12 hrs			
To control insects such as whiteflies, scales, shore flies and fungus gnats; suppression of aphids and mealybugs. Affects all life stages, does not control adults but reduces production of viable eggs.				
Enstar II	Wellmark	G	I	Warning
(S-kinoprene)	REI 4 hrs			
Ornamentals Aphids, scales, whiteflies, fungus gnats, and other soft bodied insects				
Ovation SC	Aventis	G		Caution
(clofentezine)	REI = 12 hrs			
For mite control on greenhouse ornamentals				
Pedestal 10%SC	Uniroyal	G		Caution
(novaluron)	REI 12 hrs			
For use on ornamentals to control thrips, whiteflies, leafminers, and caterpillars. Do not make sequential applications.				
Precision	Syngenta	G		Caution
(fenoxycarb)	REI 12 hrs			
Carbamate insecticide and growth regulator. Ornamentals for control of aphids, caterpillars, leafminers, mealybugs, mites, scales, weevils, and whiteflies.				

NERVOUS SYSTEM

ORGANOPHOSPHATES - SYNAPTIC

DuraGuard ME*	Whitemire Micro-Gen	G		Caution
(microencapsulated chlorpyrifos)		REI 24 hrs		
Control of a wide variety of insects on greenhouse ornamentals.				

Orthene TR Orthene 97	Whitmire Micro-Gen Valent	G		Caution
(acephate)		REI 12 hrs		
Broad spectrum contact and stomach poison. Ants, black vine weevils, aphids, bagworms, lacebugs, mealybugs, scales, grasshoppers, chinch bugs, mole crickets				

SPINOSYN - POST SYNAPTIC

Conserve SC	DowAgro Science	G		Caution
(spinosad)		REI 4 hrs or spray dry		
Spinosad is a fermentation metabolite of the actinomycete <i>Saccharopolyspora spinosa</i> , a soil-inhabiting microorganism with contact and stomach activity against caterpillars, some beetle larvae, leaf miners, and thrips.				

CHLORONICOTINYL - POST SYNAPTIC

Marathon II F Marathon 1G Merit 75 WP	Olympic Lesco	G	I	Caution
(imidacloprid)		REI 12 hrs		
Ornamentals foliar applications and broadcast sprays. Controls variety of sucking insects, thrips suppression, some beetles. Good systemic via root uptake.				

PYRETHRINS / PYRETHRIODS - AXONIC

Astro 3.2 EC Permethrin Pro	FMC TopPro	G	I	Caution
(permethrin)		REI 12 hrs Non-ag - When spray dry		
Ornamentals broad spectrum chewing and sucking insects, contact or stomach poison. For use on plants intended for aesthetic purposes in interior landscapes, ornamental gardens or parks. Not for use on plants grown for sale or for research purposes. Direct application to blooms may cause petal browning. Marginal leaf burn may occur in <i>Salvia</i> , <i>Dieffenbachia</i> and <i>Pteris</i> fern.				

Decathalon 20 Wp	Olympic	G	I	Caution
(cyfluthrin)		REI 12 hrs		
Ornamentals broad spectrum				

Mavrik Aquaflo	Wellmark	G	I	Caution
<i>Tau</i> -fluvalinate		REI 12 hrs or spray dry		
Use respirator for indoor applications Broad spectrum for chewing and sucking insects.				

Pyreth-it	Whitmire Micro-gen	G		Caution
(pyrethrins + piperonyl butoxide)		12 hrs ag or spray dry		
Botanical insecticide. Broad spectrum contact insecticide with quick knockdown but little residual effect. Extracted from certain Chrysanthemum flowers.				

Scimitar GC	Syngenta	G		Caution
(lambda-cyhalothrin)		REI 24 hrs non-ag spray dry		
Broad spectrum insecticide with some miticidal activity at higher rates. For use on greenhouse grown ornamentals				

Talstar F	FMC	G	I	Caution
(bifenthrin)				
Ornamentals for control of whiteflies, mites, thrips, aphids, fungus gnats, mealybugs and scales.				

Tame 2.4 EC*	Valent	G	I	Warning
(fenpropathrin)		REI 24 H		
Foliar spray for control of some mites, sucking insects, and a few other pests of ornamentals.				

ACARICIDES

Akari 5SC	SePro	G		Warning
(fenpyroximate)		REI 12 hrs		
Control of spider mites on greenhouse ornamentals. Most effective on larvae followed by nymphs, adults and eggs. The product blocks cell respiration causing the pest to lose motor control and collapse.				

Avid EC	Syngenta	G		Warning
(abamectin)		REI 12 hrs or spray dry		
Derived from soil organism <i>Streptomyces avermitilis</i> , it works at the nerve synapse. Controls mites and leafminers, suppresses aphids, whiteflies, and thrips on ornamental and foliage plants.				

Cinnamite	Whitmire Micro-Gen	G		Caution
(cinnamaldehyde)		REI 4 hrs		
A derivative of cinnamon oil, it is a botanical acaricide for control of aphids and mites on ornamentals, and vegetables.				

Floramite	Uniroyal	G	I	Caution
(bifenazate)		REI 4 hrs or spray dry		
Especially effective against spider, red, and grass mites. Does not adversely affect many predator mites and beneficial insects used in integrated control programs.				

Ovation SC	Scott's	G		Caution
(clofentezine)		REI 12 hrs		
For mite control on greenhouse ornamentals				

Sanmite 75WP	BASF	G		Warning
(pyridaben)		REI 12 hrs		
For mite control on greenhouse ornamentals				

FUMIGANTS - SMOKES

DDVP Fumigator*	Fuller	G		Danger-Poison
(dichlorvos) OP				
Organophosphate insecticide for control of red spiders (mites), aphids, whiteflies, and mealybugs				

Nicotine Fumigator*	Fuller	G		Danger-Poison
(nicotine)				
Botanical insecticide for control of aphids and thrips				

Thiodan Insecticidal	Fuller	G		Danger-Poison
Smoke* (endosulfan)				
Chlorinated hydrocarbon insecticide for control of aphids and whiteflies				

Plantfume 103	Plant Products Corp.	G		Danger-Poison
Smoke Generator* (sulfotepp)				
Organophosphate insecticide for control of aphids, spider mites, thrips, soft brown scale, mealybugs and whiteflies.				

Total Release Aerosols - Contact

Attain TR and Micro TR	Whitmire Micro-Gen	G		Warning
(bifenthrin)		REI 12 hrs		
Pyrethroid insecticide for control of aphids, armyworms, caterpillars, fungus gnats, mealybugs, plant bugs, scales, thrips, mites, and whiteflies of ornamentals in commercial greenhouses.				

Duraplex TR*	Whitmire Micro-Gen	G		Warning
(chlorpyrifos + cyfluthrin)		REI 24 hrs		
Organophosphate + pyrethroid insecticide for control of aphids, caterpillars, fungus gnats, mealybugs, mites, scales, shore flies, thrips, and whiteflies on ornamentals in commercial greenhouses.				

Preclude TR	Whitmire Micro-Gen	G		Caution
(phenoxy carb)		12 hrs		
Carbamate insecticide and growth regulator. Ornamentals for control of aphids, caterpillars, leafminers, mealybugs, mites, scales, weevils, and whiteflies.				

PT 1100 Pyrethrum TR	Whitmire Micro-Gen	G		Warning
(pyrethrins + piperonyl butoxide)		REI 12 hrs		
Botanical insecticide for use in commercial greenhouses to control a wide range of pests on herbs, vegetables, and ornamentals.				

PT 1300 Orthene TR	Whitmire Micro-Gen	G		Caution
(acephate)		REI 24 hrs		
Organophosphate insecticide for use in commercial greenhouses to control a wide range of pests on ornamentals.				

Pyrethrum TR	Whitmire Micro-Gen	G		Caution
(pyrethrins + piperonyl butoxide)		REI 12 hrs		
Botanical insecticide for control of a variety of insects on ornamental and vegetable plants				