ORNAMENTAL INSECT CONTROL FOR HOMEOWNERS
OUTDOOR ORNAMENTAL INSECT CONTROL

Pesticide labels for commercial and homeowner products that are currently registered for use in Arkansas may be found through the Arkansas Department of Agriculture/State Plant Board website by clicking on the following link: https://agriculture.arkansas.gov/crops-industry/pesticides/pesticide-registration/

Pest	Insecticide and Formulation*	Amount Formulation Per Gallon Spray	Remarks and Precautions
Aphid	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	bifenthrin		Follow label directions.
	cyfluthrin		Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	horticultural oils	1%-2%	Follow label directions.
	imidacloprid (Bayer Advanced)		Follow label directions.
	insecticidal soap	1%-2%	Thorough coverage is necessary. Spray must contact pests to be effective. Repeat spray three times at 5- to 7-day intervals.
	malathion (various)		Follow label directions.
	pyrethrin/pyrethrum		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
Azalea Leaf Miner	acephate (Orthene, etc.) 75S	1 tsp	Per label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced)		
Bagworm	*Bacillus thuringiensis* (Biotrol WP, Thuricide, Sok-Bt)	2 tsp	Per label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	malathion (various)		Per label directions. In winter, hand-pick and burn if only a few bagworms are present.
	pyrethroids (various)		Per label directions.

Pest	Insecticide and Formulation*	Amount Formulation Per Gallon Spray	Remarks and Precautions
Beetles (foliage feeding such as elm leaf beetle)	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	carbaryl		Apply to foliage when injury first noted.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced)		Follow label directions.
Borers (various kinds)	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Dinotefuran is effective against flat-headed borers and some clear-winged moths only.
	imidacloprid (Bayer Advanced)		Dinotefuran is effective against flat-headed borers and some clear-winged moths only.
	permethrin	per label	Apply to trunk and lower limbs in spring as per label directions.
Boxwood Leaf Miner	acephate (Orthene, etc.) 75S	2 tsp	Per label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced)		Per label directions.
	malathion (various)		Per label directions.
Caterpillars (such as armyworm, cutworm and looper)	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Not for cutworm control. Follow label directions.
	Bacillus thuringiensis (Dipel, Thuricide)		Follow manufacturer's suggestions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	bifenthrin	ready to use	Follow label directions.
	carbaryl		Follow label directions.
	cyfluthrin		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
	spinosad (various)	1 tsp	Some organic certified products are available.

Pest	Insecticide and Formulation*	Amount Formulation Per Gallon Spray	Remarks and Precautions
Fungus gnats	dinotefuran (Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
Holly Leaf Miner	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced)		Spray in late spring to kill larvae in mines. Per label directions.
Japanese Beetle (adults)	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%)		Per label directions.
	carbaryl (Sevin) 50WP	2 Tbsp	Treat as needed. Repeat applications as necessary.
	imidacloprid (Bayer Advanced)		Per label directions.
	malathion (various)		Per label directions.
Lace Bug	acephate (Orthene, etc.) 75S	1 tsp	Apply in early spring when nymphs of first generation are present.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced)		Per label directions.
	malathion (various)		Per label directions.
Mealybug	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	bifenthrin	ready to use	Follow label directions.
	cyfluthrin		Follow label directions.

Pest	Insecticide and Formulation*	Amount Formulation Per Gallon Spray	Remarks and Precautions
Mealybug (cont.)	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	horticultural oil	1%-2%	Coverage is important. Spray must contact pests.
	imidacloprid (Bayer Advanced)		Follow label directions.
	insecticidal soap	1%-2%	Thorough coverage is necessary. Spray must contact pests to be effective. Repeat spray three times at 5- to 7-day intervals.
	malathion (various)		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
Plant Bugs Leafhopper (cont.)	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
	carbaryl		Apply to foliage as needed.
	cyfluthrin		Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Follow label directions. Leafhoppers ONLY.
	imidacloprid (Bayer Advanced)		Per label directions.
	insecticidal soap	1%-2%	Thorough coverage is necessary. Spray must contact pests to be effective. Repeat spray three times at 5- to 7-day intervals.
	malathion (various)		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
Rose Midges	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
Rose Slugs	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions.
Scale Insects	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.

Pest	Insecticide and Formulation*	Amount Formulation Per Gallon Spray	Remarks and Precautions
Scale Insects (cont)	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions. Effective against crawler stages.
	bifenthrin		Follow label directions.
	carbaryl		Follow label directions.
	cyfluthrin		Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	horticultural oils	1%-2%	Follow label directions.
	imidacloprid (Bayer Advanced)		Follow label directions.
	insecticidal soap	1%-2%	
	malathion (various)		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
Slug and Snail	iron phosphate (Slug-Go)		Follow label directions.
	methaldehyde		Attention should be given to moist areas or water leaks. DO NOT use in home gardens.
	Mesurol 2B	1 lb/100 sq ft	Follow label directions.
Sowbug and Pillbug	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions. Effective against crawler stages.
	carbaryl	Follow label directions	Clean up breeding and hiding places; i.e., treat any mulched area of ornamental shrubbery.
	malathon (various)		Follow label directions.
Spider Mite	bifenthrin 0.012%	ready to use	Follow label directions.
	horticultural oil	1%-2%	
	insecticidal soap	1%-2%	Coverage is important. Spray must contact pests to be effective.
	malathion (various)		Follow label directions.
Stalk Borer	carbaryl	Follow label directions	Treat as often as needed beginning when first damage is noted. DO NOT allow ragweed to grow near flower beds.
Thrips	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.

Pest	Insecticide and Formulation*	Amount Formulation Per Gallon Spray	Remarks and Precautions
Thrips (cont.)	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions. Effective against crawler stages.
	carbaryl		Follow label directions.
	cyfluthrin		Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced)		Follow label directions.
	insecticidal soap	1%-2%	Thorough coverage is necessary. Spray must contact pests to be effective. Repeat spray three times at 5- to 7-day intervals.
	malathion (various)		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
	spinosad (various)	1 tsp	Some organic certified products are available.
Whitefly	acephate (Orthene, etc.) 75S		Follow label directions.
	acetamiprid (Ortho Flower, Fruit & Vegetable Insect Killer Concentrate)		Follow label directions.
	beta-cyfluthrin 0.0015% + imidacloprid 0.012% (Bayer Advanced Dual Action Rose & Flower Insect Killer Ready-To-Use)	ready to use	Follow label directions. Effective against crawler stages.
	bifenthrin	ready to use	Follow label directions.
	cyfluthrin		Follow label directions.
	dinotefuran (Ortho Tree & Shrub Insect Control Plus Miracle-Gro Plant Food Concentrate 0.43%, Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	horticultural oils	1%-2%	
	imidacloprid (Bayer Advanced)		Follow label directions.
	insecticidal soap	1%-2%	
	malathion (various)		Follow label directions.
	pyrethrins/pyrethrum		Follow label directions.
	pyrethroids (various)	ready to use and concentrate	Follow label directions.
White grubs	dinotefuran (Ortho Tree & Shrub Insect Control Granules 2.0%)		Per label directions.
	imidacloprid (Bayer Advanced Season Long Grub Control		Per label directions.

*Numerous products containing insecticide are available to homeowners. Products containing the same insecticide may vary in the concentration of the active ingredient. Always consult the product label for information on rate of application.

ORNAMENTAL INSECT CONTROL FOR HOMEOWNERS
INDOOR ORNAMENTAL INSECT CONTROL

Note: Many formulations of insecticides for use in the home are combinations of active ingredients. The following list of insecticides is given as a guide to determine which pests an active ingredient is effective in controlling. Many pyrethroids and other compounds are now off label, and there may be several brand names for different chemicals. Only the active ingredient of insecticides is listed. Other compounds, especially oils, contain a mixture of oils, and these are listed under the general category of oils. The trade names below are only examples of several different formulations available and are not given as recommendations. Check the label on the insecticide container to determine what plants can be treated and the active ingredients present in the product. When possible, place plants outdoors or in an area not likely to come in contact with people, pets or food while making insecticide application. If plants cannot be moved outside for treatment, follow label precautions for indoor treatment.

Insecticide and Formulation*		**Rate**	**Comments**
bifenthrin	Ortho Houseplant and Garden Insect Killer, other Ortho products	as directed	mealybugs, mites, whiteflies, aphids, and most chewing pests.
cyfluthrin	Bayer Advanced Home Pest Control	as directed	gnats, centipedes, earwigs, scorpions Follow label directions.
horticultural oil	SunSpray Ultrafine, Saf-T-Side, Superior Oil, Golden Natural Spray Oil, Volck Oil; found in Green Light products and others	1%-2%	scale, whiteflies, mites Coverage is important; spray must contact pests to be effective.
imidacloprid + fertilzer	Bayer Advanced Garden 2-in-1 Plant Spikes	as directed	aphids, mealybugs, whiteflies
insecticidal soap	M-Pede and Safer Soap	1%-2%	aphids, mealybugs, scale, thrips, mites, whiteflies Coverage is important; spray must contact pests to be effective.
pyrethrins, pyrethrum	Pyrethrum (aerosol); found in several Safer products, Garden Safe	as directed	aphids, mealybugs, thrips, whiteflies

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