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Timely Information

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Available Insecticides for Control of Wood Boring Insects in Ornamental Plants

Chazz Hesselein, Extension Horticulturist

Most wood boring insects are secondary pests that are attracted to and subsequently attack stressed or damaged plants. Using insecticides to control wood boring insects in ornamental plants is usually a poor alternative to cultural practices that would prevent the infestation in the first place. Plants attacked by secondary pests often indicate that the attacked plant's health has been compromised. However, some wood boring insects will attack seemingly healthy plants. These insects, known as primary pests, include such notable imported pests as the Asian ambrosia beetle, the emerald ash borer and the Asian longhorn beetle. In addition, sometimes insect populations dramatically increase, and these "outbreak" populations can overcome and successfully attack otherwise healthy trees. For more information on wood boring insects and recommended control tactics see the following sources:

<http://insects.tamu.edu/extension/bulletins/b-5086.html> and
<http://ucce.ucdavis.edu/files/filelibrary/5253/4221.pdf>.

Insecticide Update:

Insecticides with the active ingredients chlorpyrifos (e.g., Dursban) and benzene hexachloride, BHC, (e.g., Lindane) have been recommended for wood boring insect control in the past. Currently, chlorpyrifos can only be used on commercial sites and BHC is labeled only for use as a seed treatment and treatment of human head lice. Synthetic pyrethroids, e.g., permethrin, are filling in the voids caused by the losses of chlorpyrifos and BHC and, in some instances, are superior products without the negative

attributes of the older products. For protective trunk sprays, emulsifiable concentration formulations adhere better to bark surfaces and have longer residual activity than other formulations.

Examples of Insecticides labeled for control of wood boring insects:

Active Ingredient	Brand Name Examples	Commercial Use (Ag)	Residential Use	Notes
bifenthrin	ONYX	No	Yes	Protective trunk sprays
chlorpyrifos	DURSBAN 50W	Yes	No	Restricted Use Pesticide Protective trunk sprays.
dicrotophos	INJECT-A-CIDE "B"	No	Yes	Restricted Use Pesticide Highly mobile compound, very toxic, but very effective against any borer that eats into the cambium area. Available only as a trunk injection by professionals.
imidacloprid	MARATHON (various formulations) MERIT (various formulations) BAYER ADVANCED GARDEN™ TREE & SHRUB INSECT CONTROL CONCENTRATE IMICIDE POINTER	Yes (MARATHON)	Yes (MERIT, Imicide and Pointer for commercial use, BAYER ADVANCED for homeowner use)	Only works as a preventive for coleopterous (beetle) borers. Takes about 30 to 50 days to be taken up (by soil drench), but stays in the tree for an entire season. Imicide and Pointer are trunk injection products.

Active Ingredient	Brand Name Examples	Commercial Use (Ag)	Residential Use	Notes
permethrin	ASTRO	Greenhouse only	Yes	Protective trunk sprays
permethrin	PERM-UP 3.2 EC	Yes	Yes	RESTRICTED USE PESTICIDE Protective trunk sprays
permethrin	HI-YIELD 38 PLUS TURF, TERMITE, & ORNAMENTAL INSECT CONTROL CONCENTRATE TERMITE KILL III CONCENTRATE	No	Yes	Protective trunk sprays
oxydemeton metyl	INJECT-A-CIDE	No	Yes	RESTRICTED USE PESTICIDE INJECT-A-CIDE is a trunk injection product

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Pesticide recommendations are based on the best information currently available for each pesticide listed. Follow directions carefully with respect to dosage levels, number of applications, and minimum interval between application and harvest. THE APPLICATOR IS LEGALLY RESPONSIBLE for problems caused by drift from his or her property to other properties. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.