XHT1181

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Homeowner Guide to Emerald Ash Borer Insecticide Treatments

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Emerald ash borer insecticide treatment considerations. *Several insecticide products are available to homeowners for control of emerald ash borer (EAB). However, not all ash trees are worth treating with insecticides. Tree location, value, and health, as well as the cost of treatment are all factors to consider. Based on current research, treatments are suggested only for ash trees located within 15 miles of a confirmed EAB site, or for trees located within a quarantined area. Insecticide treatments are* ***not*** *necessary for ash trees located outside of these areas. Even within the 15 mile radius, not all trees should be treated. Due to the expense of yearly insecticide treatments, one should consider the value of a particular ash tree in relation to insecticide treatment costs before making any treatments. In addition, consider the health of each tree before treating. Research suggests that insecticide treatments are significantly more effective on EAB-infested ash trees with less than 50% canopy dieback. Insecticide treatments are* ***not*** *suggested for trees with greater than 50% canopy dieback. Trees with greater than 50% canopy dieback should be removed and destroyed in accordance with established guidelines.*

Emerald ash borer insecticide treatment options. *Insecticide products available for use by homeowners are summarized in Table 1. They include:*

- *ACECAP 97 Systemic Insecticide Tree Implants (acephate)*
- *Bayer Advanced Tree and Shrub Insect Control (imidacloprid)*
- *Bayer Advanced Tree and Shrub Protect & Feed (imidacloprid)*
- *Bayer Advanced Tree and Shrub Protect & Feed II (imidacloprid + clothianidin)*
- *Bonide Annual Tree and Shrub Insect Control (imidacloprid)*
- *Ferti-lome Tree and Shrub Systemic Drench (imidacloprid)*
- *Optrol (imidacloprid)*
- *Ortho Tree and Shrub Insect Control (dinotefuran)*

The Bayer Advanced Products, Bonide Annual Tree and Shrub Insect Control, Ferti-lome Tree and Shrub Systemic Drench, and Optrol are systemic insecticides applied as soil drenches around the base of an ash tree in mid-April to late-May and/or early-September to mid-October. Two of the Bayer Advanced Products (Tree and Shrub Protect and Feed, Tree and Shrub Protect and Feed II) and Ortho Tree and Shrub Insect Control are available in granular formulations. Be aware that many insecticide products available at hardware stores and garden centers look alike. Carefully check all product labels before purchase to make sure that you've selected the correct product/active ingredient. ALWAYS read and follow the respective pesticide label directions! University research indicates that soil applications of imidacloprid provide excellent EAB protection for small ash trees less than about 18 inches in circumference in the first year following treatment. Current research findings also suggest that EAB-infested ash trees greater than about 50 inches in circumference (16 inch DBH) should be treated in the fall and again the following spring. Additionally, larger trees may require two years of treatment before they are effectively protected. Thus, treatment of large tree should begin before the tree becomes infested. Lastly, insecticide treatments must be repeated each year.

Although ACECAP 97 Systemic Insecticide Tree Implants are available to homeowners, they are not suggested for use by homeowners because they require physically drilling into a tree during their application.

Revised May 12, 2013

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Table 1 Emerald ash borer insecticide treatments available to homeowners			
Product	**Active Ingredient**	**Timing**	**Type of application**
Bayer Advanced Tree & Shrub Insect Control (D) Bayer Advanced Tree & Shrub Protect & Feed (D or G) Bonide Annual Tree & Shrub Insect Control (D) Ferti-lome Tree & Shrub Systemic Drench (D) Optrol (D)	Imidacloprid	Mid-April to mid-May and/or early-Sept. to mid-Oct.	Soil Drench (D) or Granular (G)
Bayer Advanced Garden Tree & Shrub Protect & Feed II (D or G)	Imidacloprid + Clothianidin	Mid-April to mid-May and/or early-Sept. to mid-Oct	Soil Drench (D) or Granular (G)
Ortho Tree & Shrub Insect Control	Dinotefuran	Mid-May to mid-June	Granular
ACECAP 97 Systemic Insecticide Tree Implants	Acephate	Mid-May to mid-June	Trunk Implant

Other emerald ash borer treatment options. *Homeowners may also contact a certified arborist or certified pesticide applicator to treat their trees. See http://www.waa-isa.org for a list of certified arborists in Wisconsin. Professionals have access to some products that are not available to homeowners.*

The University of Wisconsin does not endorse commercially available insecticide products over those available directly to homeowners. Products discussed in this fact sheet have been evaluated in a variety of Michigan State University research tests on EAB.

For more information on controlling emerald ash borer: *See http://www.entomology.wisc.edu/emeraldashborer, http://www.emeraldashborer.wi.gov or http://www.emeraldashborer.info or contact your county Extension agent. For a video demonstration of treating your ash trees using a systemic drench, see http://www.entomology.wisc.edu/new-video-protecting-your-tree-emerald-ash-borer.*

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References to pesticide products in this publication are for your convenience and are not an endorsement or criticism of one product over similar products. You are responsible for using pesticides according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from pesticide exposure. Failure to do so violates the law.

Thanks to Kristin Krokowski, Phil Pellitteri and Robert Tomesh for reviewing this document.

A complete inventory of University of Wisconsin Garden Facts is available at the University of Wisconsin-Extension Horticulture website: http://hort.uwex.edu.