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Homeowner Guide to Emerald Ash Borer Insecticide Treatments

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Emerald ash borer insecticide treatment considerations. A variety of insecticide products are available to homeowners for control of emerald ash borer (EAB). Based on current research however, treatments are suggested only for ash trees located within 10 to 12 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 10 to 12 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 40% canopy dieback. Insecticide treatments are **not** suggested for trees with greater than 40% canopy dieback. Trees with greater than 40% 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. These products include:

- Bayer Advanced Garden Tree and Shrub Insect Control (imidacloprid)
- Ferti-lome Systemic Tree and Shrub Drench (imidacloprid)
- Bonide Bullets (acephate)
- ACECAP 97 Systemic Insecticide Tree Implants (acephate).

Both Bayer Advanced Garden Tree and Shrub Insect Control and Ferti-lome Systemic Tree and Shrub Drench are systemic insecticides applied as soil drenches around the base of an ash tree in mid-April to mid-May. Because there are several Bayer Advanced Garden products, be sure to select the "Tree and Shrub Insect Control" that contains imidacloprid as the active ingredient. Per the label instructions of both the Bayer and Ferti-lome products, use one fluid ounce of product (i.e., insecticide) per every inch of distance around the tree trunk (i.e., circumference). These products are available at most local hardware and garden stores. More information about these products is available at www.bayeradvanced.com and www.fertilome.com.

Research from Michigan State University indicates that a soil drench of imidacloprid provides excellent EAB protection for small ash trees (less than six inches diameter at breast height or about 18 inches in circumference) in the first year following treatment. Larger trees may require two years of treatment before they are effectively protected. Thus, treatment of large trees should begin before the trees become infested. Insecticide treatments must be repeated each year.



Both Bonide Bullets and ACECAP 97 Systemic Insecticide Tree Implants contain the active ingredient acephate and are used in mid-May to mid-June. Although these two products are available on the homeowner market, they are not suggested for use by homeowners because they require physically drilling into a tree during their application. Thus, use of these products has the potential to cause injury to trees (especially smaller trees), and may provide entry points for certain disease-causing fungi [e.g., *Nectria* (see University of Wisconsin Garden Facts XHT1094)].

Table 1
Emerald ash borer insecticide treatments available to homeowners

Product	Active Ingredient	Timing	Type of application
<i>Bayer Advanced Garden Tree and Shrub Insect Control</i>	<i>Imidacloprid</i>	<i>Mid-April to mid-May</i>	<i>Soil Drench</i>
<i>Ferti-lome Systemic Tree and Shrub Drench</i>	<i>Imidacloprid</i>	<i>Mid-April to mid-May</i>	<i>Soil Drench</i>
<i>Bonide Bullets</i>	<i>Acephate</i>	<i>Mid-May to mid-June</i>	<i>Trunk Implant</i>
<i>ACECAP 97 Systemic Insecticide Tree Implants</i>	<i>Acephate</i>	<i>Mid-May to mid-June</i>	<i>Trunk Implant</i>

Other emerald ash borer treatment options. Homeowners may also contact a certified arborist or certified pesticide applicator to treat their trees. See 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. No matter which insecticide you use, always be sure to read and follow the label instructions before using the product that you selects. Be sure to avoid skin contact with insecticides, and be sure to store insecticides where children cannot reach them.

For more information on controlling emerald ash borer: See www.entomology.wisc.edu/emeraldashborer, www.emeraldashborer.wi.gov or www.emeraldashborer.info or contact your county Extension agent.

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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: w hort.uwex.edu.