

# 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). Based on current research however, 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 Garden Tree and Shrub Insect Control (imidacloprid)
- Bonide Annual Grub Beater (imidacloprid)
- Bonide Bullets (acephate)
- Ferti-lome Systemic Tree and Shrub Drench (imidacloprid)
- Gordon's Tree and Shrub Insect Killer (imidacloprid)
- Green Light Tree and Shrub Systemic Insect Killer (imidacloprid)
- Ortho Max Tree and Shrub Insect Killer (imidacloprid)
- VPG Hi-Yield Grub Free Zone (imidacloprid)

Bayer Advanced Garden Tree and Shrub Insect Control, Bonide Annual Grub Beater, Ferti-lome Systemic Tree and Shrub Drench, Gordon's Tree and Shrub Insect Killer, Green Light Tree and Shrub Systemic Insect Killer, Ortho Max Tree and Shrub Insect Killer and VPG Hi-Yield Grub Free Zone 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. 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. ALWAYS read and follow the respective pesticide label directions! University research indicates that a soil drench of imidacloprid provides 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 Bonide Bullets and 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.

**Table 1**  
***Emerald ash borer insecticide treatments available to homeowners***

<b>Product</b>	<b>Active Ingredient</b>	<b>Timing</b>	<b>Type of application</b>
Bayer Advanced Garden Tree and Shrub Insect Control	Imidacloprid	Mid-April to mid-May and/or early-Sept. to mid-Oct.	Soil Drench
Bonide Annual Grub Beater			
Ferti-lome Systemic Tree and Shrub Drench			
Gordon's Tree and Shrub Insect Killer			
Green Light Tree and Shrub Systemic Insect Killer			
Ortho Max Tree and Shrub Insect Killer			
VPG Hi-Yield Grub Free Zone			
Bonide Bullets	Acephate	Mid-May to mid-June	Trunk Implant
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 [www.waa-isa.org](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 [www.entomology.wisc.edu/emeraldashborer](http://www.entomology.wisc.edu/emeraldashborer), [www.emeraldashborer.wi.gov](http://www.emeraldashborer.wi.gov) or [www.emeraldashborer.info](http://www.emeraldashborer.info) or contact your county Extension agent.



## The Wisconsin Emerald Ash Borer Program

# AN EAB GUIDE FOR HOMEOWNERS



Threats to your ash tree's health may be lurking in your neighborhood or woodlot. As a property owner you can take steps to reduce the threat and spread of the emerald ash borer (EAB) by following these simple guidelines. Doing so will contribute to healthy urban and rural forests in Wisconsin and potentially in surrounding states.

The emerald ash borer, first observed in Wisconsin in 2008, is a significant threat to the health of the state's ash resource. Here's what you can do about it:

- Keep ash that is infested with EAB in place – do not move it off your property.
- Keep hardwood firewood local – do not move your own from your property and if you are buying it, buy from a local or certified firewood dealer near where you will use it.
- Protect high value ash trees with products that are labeled for controlling EAB.
- Replace infested ash with other tree species.

Further information on how to identify and manage EAB is available at [www.emeraldashborer.wi.gov](http://www.emeraldashborer.wi.gov).

### Ash Tree Identification

Ash trees have:

An opposite branching pattern where two branches come off the main stem, one on each side and opposite each other.

*(photos: Jeff Roe)*



Compound leaves with 5-11 leaflets. Leaflets may have finely toothed or smooth edges. Leaflets may be on a short stalk, or without a stalk.



### Locations of EAB Infestations

Information on the location of EAB changes quickly. For the most recent updates, visit [www.emeraldashborer.wi.gov](http://www.emeraldashborer.wi.gov) (statewide) or [www.uwex.edu/ces/cty/](http://www.uwex.edu/ces/cty/) (local) or contact your county extension office.

### Laws Regarding EAB

The emerald ash borer is regulated by the Wisconsin Department of Natural Resources (DNR) through Chapter NR 40, Wis. Adm. Code and by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) in Chapter ATCP 21, Wis. Adm. Code.

**It is illegal to move any life stages of EAB under NR 40 ([www.legis.state.wi.us/rsb/code/nr/nr040.pdf](http://www.legis.state.wi.us/rsb/code/nr/nr040.pdf)).** DATCP, however, allows certain exemptions for businesses authorized through a compliance agreement. For more information about compliance agreements email [agriculture@wisconsin.gov](mailto:agriculture@wisconsin.gov). Compliance agreements are available to businesses only. They are not available for individual or private use.



## Management Options

Research has shown that EAB-infested trees may show no symptoms until they have been infested for more than two to three years. Assume that all ash trees within 15 miles of a known infestation are infested.

### 1. Treat with an Insecticide

**Treat with an insecticide only if the tree is apparently healthy or less than 40 percent of the crown has died, is discolored or has sparse foliage.** Research has shown that trees with more than 40-50 percent crown dieback do not benefit from treatment. (photos: Courtesy of Michigan State University and the USDA Forest Service)



0% dieback



30% dieback



50% dieback



80% dieback

Treating with an insecticide reduces the population of EAB and prolongs the life of your tree. Treatment requires a long-term commitment. It is not known how long EAB will remain in an area, threatening the health of ash, thus several treatments may be required or treatments may be needed for the rest of the tree's life. Contact a certified arborist ([www.waa-isa.org/arborists/search.asp](http://www.waa-isa.org/arborists/search.asp)) to evaluate your treatment options. For more information on treating ash trees to prevent ash mortality visit [www.emeraldashborer.wi.gov/articleassets/InsecticideOptionsForProtectingTreesFromEAB.pdf](http://www.emeraldashborer.wi.gov/articleassets/InsecticideOptionsForProtectingTreesFromEAB.pdf).

### 2. Remove and Replace

This is an option for ash in all stages of health. Contact a certified arborist to remove trees in your yard and to appropriately process wood to prevent additional spread of EAB. Replace trees with a non-ash species suitable to your site. A list of replacement trees can be found at <http://wihort.uwex.edu/landscape/AshAlternatives.doc>. Trees larger than 10 inches diameter produce more EAB and should be considered a priority for removal.

### 3. Do Nothing

Observations in states where EAB has been present for several years show that all ash trees are susceptible to infestation and mortality. If you take this option, expect your tree to become infested and die. Be prepared to handle the hazards associated with dead trees such as falling branches which may damage property or endanger life.

## Disposal of Infested Ash Wood

- Keep the wood at your home and use it for firewood or mulch on site.
- Work with a certified arborist to properly dispose of infested material.

### Wisconsin Emerald Ash Borer Program

Wisconsin Department of Agriculture, Trade & Consumer Protection, Wisconsin Department of Natural Resources, University of Wisconsin Madison & Extension, US Forest Service, US Department of Agriculture APHIS PPQ