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# University of Wisconsin Pest Alert

## 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). Since the presence and infestation level of EAB is quite difficult to determine at early stages of an infestation, insecticide treatments may be merited to mitigate damage by EAB. However, not all ash trees should be treated as some may be too extensively compromised or in poor condition to receive treatment. Tree location, value, and health, as well as the cost of treatment are all factors to consider. 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 thinning. Insecticide treatments are **not** suggested for trees with greater than 50% canopy thinning. Trees with greater than 50% canopy thinning should be removed and handled in accordance with local guidelines. For a more detailed discussion on this topic, see University of Wisconsin Garden Facts XHT1215, *Is My Ash Tree Worth Treating for Emerald Ash Borer*.

**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 12 Month Tree and Shrub Insect Control II (imidacloprid)
- Bayer Advanced 12 Month Tree and Shrub Protect & Feed (imidacloprid)
- Bayer Advanced 12 Month Tree and Shrub Protect & Feed II (imidacloprid + clothianidin)
- Bonide Annual Tree & Shrub Insect Control with SYSTEMAXX (imidacloprid)
- Compare N Save Systemic Tree & Shrub Insect Drench (imidacloprid)
- Ferti-lome Tree and Shrub Systemic Drench (imidacloprid)
- Monterey Once a Year Insect Control II (imidacloprid)
- Optrol (imidacloprid)
- Ortho Tree & Shrub Insect Control Granules (dinotefuran)
- Several other products containing imidacloprid are also currently available

Most of the products available to homeowners are systemic insecticides containing imidacloprid and are applied as soil drenches around the base of an ash tree. A few granular products are also available. Recent university research suggests that applications of imidacloprid should be made in spring to be most effective. Research also has demonstrated that soil applications of imidacloprid-containing homeowner products provide excellent EAB protection for ash trees that are less than about 47 inches in circumference [i.e., 15 inches in diameter at breast height (DBH)]. Due to differences in application rates and label restrictions, treatment by a tree care professional (e.g., arborist) may be the best option for larger trees. For best results, treatment of trees should begin before trees become infested. Lastly, insecticide treatments must be repeated each year to maintain the health of ash trees.

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 have selected the correct product/active ingredient. ALWAYS read and follow the pesticide label directions on the product that you select!

Finally, note that although ACECAP 97 Systemic Insecticide Tree Implants are available to homeowners, we do NOT recommend that homeowners use these because they require physically drilling into a tree during their application.



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Table 1 Emerald ash borer insecticide treatments available to homeowners			
Product	Active Ingredient	Timing	Type of application
Ortho Tree & Shrub Insect Control Granules (G)	Dinotefuran	Early-June to mid-June	Granule (G)
Bayer Advanced 12 Month Tree & Shrub Insect Control II (D) Bayer Advanced 12 Month Tree & Shrub Protect & Feed (D or G) Bonide Annual Tree & Shrub Insect Control with SYSTEMAXX (D) Compare N Save Systemic Tree & Shrub Systemic Insect Drench (D) Ferti-lome Tree & Shrub Systemic Drench (D) Monterey Once a Year Insect Control II (D)	Imidacloprid	Mid-April to mid-May	Soil Drench (D) or Granular (G)
Optrol (D)	Imidacloprid	Mid-April to mid-May and/or Early-Sept. to mid-Oct.	Soil drench (D)
Bayer Advanced 12 Month Tree & Shrub Protect & Feed II (D)	Imidacloprid + Clothianidin	Mid-April to mid-May	Soil Drench (D)
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 university research tests on EAB.

**For more information on controlling emerald ash borer:** See <http://labs.russell.wisc.edu/eab/>, <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://labs.russell.wisc.edu/eab/2014/07/12/protecting-your-tree-from-the-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.

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A complete inventory of University of Wisconsin Garden Facts is available at the University of Wisconsin-Madison Division of Extension Plant Disease Diagnostics Clinic website: <https://pdcd.wisc.edu>.