



## EAB MANAGEMENT OPTIONS

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University and federal researchers are studying methods of controlling emerald ash borer (EAB). The latest information on insecticide evaluations can help arborists, landscapers, and homeowners decide if and how they can treat trees for EAB. However, there are many unanswered questions concerning the prevention or control of EAB, including the uncertainty of the long-term effectiveness of insecticides.

### Recommended Management Options

A concerted effort to stop EAB has been launched by state and federal agencies.

- ERADICATION efforts by state and federal agencies in Michigan, Ohio, Indiana, Illinois and Canada are designed to prevent small (low population) infestations from growing into large infestations. Eradication includes the removal and destruction of all ash trees within a ½-mile radius of a confirmed EAB infestation, based on the current recommendation of the National EAB Science Panel.
- QUARANTINES are in place to prevent interstate movement of regulated articles that originate within the quarantine area. Regulated articles include ash nursery stock and green lumber; any other ash material including logs, stumps, roots, branches, as well as composted and un-composted wood chips. Due to the difficulty in distinguishing between species of hardwood firewood, all hardwood firewood, including ash, oak, maple and hickory, are regulated articles. Recently, the USDA/Animal and Plant Health Inspection Service expanded the EAB quarantine to include the entire states of Illinois, Indiana, and Ohio. The objective is to prevent the spread of EAB while the science community continues to work to develop solutions to combat EAB, including improved detection and control strategies.
- CHEMICAL treatment research is being conducted at universities to evaluate the effectiveness of various treatments for control of EAB. Research results suggest that some insecticide treatments are effective, however it is important to consider the

following when making a decision to use insecticides:

- Using insecticides preventatively to control EAB on ash trees is an option within an EAB quarantine area but only recommended within 10-12 miles from a confirmed EAB infestation. If your ash trees are located outside of this area, using insecticides is not recommended.
- If your tree is located within an area designated for eradication, it may be removed by regulatory agencies even if it has been treated.
- Insecticide treatments are more effective on smaller trees, with a trunk diameter of less than 10 inches.
- If numerous untreated, infested ash trees are nearby, insecticides and other controls are less likely to protect trees due to the pressure of a large population of EAB beetles.
- Once trees become infested, insecticides will be less effective even if trees are showing few EAB symptoms.
- It is still unclear if insecticides are enhancing tree survival or just delaying tree death.
- When using any pesticide, ALWAYS read and follow label directions. It's the law!

### Professional Insecticide Treatments

- Soil injections or drenches of imidacloprid (Merit) applied in a grid pattern around the basal area of the trunk (<2 feet from the trunk) on an annual basis may protect ash trees from EAB.
- Trunk injections of imidacloprid (Imicide, IMA-jet, Pointer) and bidrin (Injecticide-B) may provide control of EAB.
- Foliar and bark spray applications of bifenthrin (Onyx), cyfluthrin (Tempo), permethrin (Astro), or carbaryl (Sevin) in late May and June may control visiting adult EAB and hatching larvae.

### Homeowner (do-it-yourself) Insecticide Treatments

- Soil drenches and injections of imidacloprid (Bayer Advanced Garden Tree and Shrub Insect Control) may provide effective control of EAB.

- Soil treatments are best when applied in a grid pattern to the basal area of the trunk (<2 feet from the trunk).
- Trunk injections of acephate (ACECAP 97 Systemic Insecticide Tree Implants and Bonide Systemic Insecticide Bullets) in ash trees >3 inches trunk diameter may provide control of EAB.
- Due to the potential of insecticide drift and the specialized equipment needed for application to large trees, bark and foliar applications are best left to arborists and professional horticulturalists who are licensed pesticide applicators and have the necessary equipment.

### Insecticide Treatment Considerations

- Soil injections and drenches require 1-2 months to move throughout the tree. Smaller trees (<10-inch trunk diameter) should be treated in April or May while larger trees (>10-inch trunk diameter) may need to be treated the preceding fall to ensure uptake.
- Trunk injections typically take about 2 weeks to move throughout the tree.
- Repeated trunk injections may cause long-term damage.
- Bark sprays must be applied before EAB egg hatch (June-July) to prevent larvae from burrowing (chewing) through the bark into the tree.
- Foliar sprays should be applied during EAB adult activity (late May-August).

To date, EAB has NOT been discovered in Wisconsin. Thus, using insecticides is not recommended. For the latest information regarding the regulatory status of EAB in your area, please visit the Wisconsin Department of Agriculture, Trade and Consumer Protection's Web site (<http://www.datcp.state.wi.us/arm/environment/insects/emerald-ash-borer/index.jsp>) or contact your University of Wisconsin–Extension county office.

References to pesticide products in this publication are for your convenience and are not an endorsement of one product over other similar products. You are responsible for using pesticides according to the manufacturer's current label directions.