

Homeowner Guide to Treating the Emerald Ash Borer

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Emerald ash borer (*Agrilus planipennis Fairmaire*), an invasive insect native to Asia, has killed tens of millions of ash trees in urban, rural and forested settings. The emerald ash borer, (EAB) was found in Arkansas in the summer of 2014 and is now a permanent resident in parts of SW Arkansas. In areas where it is present, home owners will have to make a decision about protecting their ash trees. Control is possible but will have to be maintained for the life of the tree.

Decision Making Steps

Homeowners can decide if treatment is necessary and what treatment options best suit their situation by asking themselves a few simple questions.

Question 1: Is it an ash tree? If it is not an ash tree, then it is not EAB.



*Does your tree have
opposite, compound leaves?
If so, then it is an ash tree.*

If it's not an ash, then there might be some other issue but it's not EAB!

Question 2: Is your tree already infected with EAB?



NO. If not, then you must decide to either keep or remove the tree.

YES.

If so, what percent or proportion of the tree canopy is still alive?

Take a look at these photos. Which one best describes your tree?

 <small>UGA5038083</small>	 <small>UGA1398091</small>	 <small>UGA1523071</small>
100% Crown Healthy tree: no damage	30 to 50% Crown damage	More than 80% crown damage



Determine your risk.
Where is EAB relative to
your location?



Treat in early Spring
or remove



Remove tree

If your tree has less than 30% crown damage, here are your options:

- 1) **Remove the tree:** Homeowners need to understand the costs of treating their ash trees for the foreseeable future versus the cost of removing the tree. If you remove the tree, please pay attention to any quarantine in your area. **DO NOT MOVE** the wood outside of any quarantined area! To see if you are in the quarantine area go to:
- 2) **Protective Cover Sprays:** The first type of insecticide treatment targets the adults. Insecticides that serve as a protective cover sprays are applied to the trunk, main branches, and (depending on the label) foliage and kill the adults as they feed on the ash leaves. These treatments are best timed during the peak period of adult activity which is usually just after the adults emerge in the Spring. Permethrin, bifenthrin, cyfluthrin, and carbaryl are all preventive trunk, branch, and foliage cover sprays.
- 3) **Systemic insecticides:** Early stage larvae that tunnel under the bark can be killed with insecticides that move systemically in the tree. These treatments work best when timed to be present when the young larvae are present and before there has been extensive injury.

There are three types of insecticides used for control of EAB fall into three categories:

- 1) Systemic insecticides: Applied as soil injections or drenches
- 2) Systemic insecticides: Applied as trunk injections or trunk implants
- 3) Systemic insecticides: Applied as a trunk spray

Insecticide formulations and application methods that have been evaluated for control of EAB are listed in Table 1. Some products can be purchased and applied by homeowners while other can only be applied by professional applicators. Strategies for their effective use are described below.

Please note that pesticide labels and registrations may change. It is YOUR legal responsibility as the pesticide applicator, to read, clearly understand, and follow all current label directions for the specific pesticide product being used.

Insecticide Options for Professionals and Homeowners for Controlling Emerald Ash Borer in Arkansas*

Insecticide Formulation	Active Ingredient	Application Method	Recommended Timing
<i>Products Intended for Sale to Professional Applicators</i>			
Merit® (75WP, 75WSP, 2F)	Imidacloprid	Soil injection or drench	Early to mid-spring or mid-fall
Safari™ (20 SG)	Dinotefuran	Soil injection or drench	Mid- to late spring
Xytect™ (2F, 75WSP)	Imidacloprid	Soil injection or drench	Early to mid-spring or mid-fall
Zylam® Liquid Systemic Insecticide	Dinotefuran	Soil injection or drench	Mid- to late spring
Imicide®	Imidacloprid	Trunk injection	Mid- to late spring after trees have leafed out
TREE-äge™	Emamectin benzoate	Trunk injection	Mid- to late spring after trees have leafed out
TreeAzin®	Azadirachtin	Trunk injection	Mid- to late spring after trees have leafed out
Safari™ (20 SG)	Dinotefuran	Systemic bark spray	Mid- to late spring after trees have leafed out
Zylam® Liquid Systemic Insecticide	Dinotefuran	Systemic bark spray	Mid- to late spring after trees have leafed out
Astro®	Permethrin	Preventive trunk, branch, and foliage cover sprays	Two applications at 4-week intervals; first spray should occur at 450-550 degree days (50°F, Jan.1); coincides with black locust blooming
Onyx™	Bifenthrin		
Tempo®	Cyfluthrin		
Sevin® SL	Carbaryl		
<i>Products Intended for Sale to Homeowners</i>			
Bayer Advanced™ Tree & Shrub Insect Control	Imidacloprid	Soil drench	Early to mid-spring
Optrol™	Imidacloprid	Soil drench	Early to mid-spring
Ortho Tree and Shrub Insect Control Granules®	Dinotefuran	Granules	Mid- to late spring
<p>All chemical information provided above is given with the understanding that no endorsement of named products is intended, nor is criticism implied of similar products that are not mentioned. Individuals who use pesticides are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Before purchasing or using any pesticide, always read and carefully follow the label directions.</p> <p>*from Herms DA, McCullough DG, Smitley DR, Clifford CS, Cranshaw W. 2014. Insecticide options for protecting ash trees from emerald ash borer. North Central IPM Center Bulletin. 2nd Edition. 16 pp.</p>			

REFERENCES