



What Can Homeowners Do To

Protect Their Trees From The Emerald Ash Borer?

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Homeowners would like to know if they can treat their ash trees themselves to protect them from the emerald ash borer. Before you hire an arborist, or purchase insecticide to treat your ash trees yourself, make sure that you need to. First, make sure that you have ash trees and not some other type of tree. Only ash trees will be attacked. Second, insecticide treatments are not likely to help dying trees with extensive dieback. Insecticides will probably work best as preventive treatments to **healthy ash trees**. Finally, there is no need to treat ash trees unless you live in one of the infested counties: Wayne, Oakland, Macomb, Livingston, Washtenaw or Monroe. Protecting ash trees may be a good idea if you live where emerald ash borer adults can fly to your trees. Ash trees within 0.5 to 1.0 miles of a known infestation are at risk next year. If you live anywhere in an infested county, it is likely that emerald ash borer will become a problem sometime in the next 3 years, if it isn't already. Unfortunately, emerald ash borer will be costly. Paying an arborist to treat your trees or treating them yourselves will be expensive, and so is the cost of removing dead trees. At this time, most of the infested ash trees are dying 1-3 years after dead branches are first found. Remember, if you decide to treat your ash trees with insecticide, they will need treating each year.

Spring treatments. Insecticides applied in the spring will probably work best on trees with little or no borer damage. We do not yet know if trees already damaged by borers will benefit from insecticide treatments, or at what point trees are too damaged to recover. It is unlikely that systemic insecticides applied as trunk injections, soil drenches, or soil injections will move very well in trees with extensive tunneling injury. Trees with more than 20% canopy die-back usually have extensive damage that will be difficult to overcome, even if the trees are protected from further attack by

trunk and foliage sprays. We will be conducting more tests this spring and summer to see how well the following treatments work: (1) trunk injections in the spring, (2) soil injections in spring, and (3) trunk and foliage sprays in spring and early summer.

We will be testing the same kind of strategies that are used for a closely related insect, the bronze birch borer. We will be treating ash trees with:

- 1) a soil-injected, or soil-drenched systemic insecticide, over the root system in April (imidacloprid)
- 2) systemic insecticides injected into the trunk in May or June (imidacloprid or bidrin),
or
- 3) contact insecticides (cyfluthrin, bifenthrin, carbaryl or acephate) sprayed over the foliage, trunks and limbs on June 1st and July 1st to protect trees from the adult beetles and from young larvae tunneling into trees after egg hatch. We expect adult beetles to be active from late May to early August. Adult emergence information will be reported weekly in spring issues of the Landscape CAT Alert (order at: catalert@msue.msu.edu).

If you hire an arborist they should be considering one of the treatments listed above. Arborists and landscapers usually do a much better job of treating trees (especially large trees) with insecticide than homeowners do, and homeowners cannot make trunk injections of imidacloprid or bidrin on their own. However, if a homeowner prefers to make insecticide treatments themselves, they can purchase most of the insecticides listed above as the products in Table 1.

Imidacloprid should be applied to the root zone of ash trees in April because it takes some time to be absorbed by the roots and moved up to the foliage. The label says that "translocation delay can take up to 60 days". For emerald ash borer, we want the imidacloprid to be there in the soil in late April when the tree starts to move water and nutrients up to the branches. Imidacloprid drenches can be applied by spraying the insecticide over the tree roots in the area inside the tree canopy drip-line. It can also be mixed in a bucket and poured over the roots. Bayer recommends that you apply most of the insecticide within 10 feet of the trunks of large trees, and within 3 feet of the trunks of

smaller trees. Water the insecticide into the soil immediately after spraying with a garden hose, or by running a lawn sprinkler long enough to fill a bucket placed on the lawn under your ash tree, to a height of ½ to 1 inch. We have also been asked about what happens if a homeowner uses ***Bayer Advanced Lawn Season-long Grub Control*** (imidacloprid) or the new ***Grub-Ex*** containing imidacloprid (last year the Grub-Ex active ingredient was halofenazide) on their lawn, including under ash trees, for grubs. Although these products contain the same active ingredient (imidacloprid) as ***Bayer Advanced Garden Tree and Shrub Insect Control***, they are not labeled for tree and shrub pests and will not work well for borers when applied for grubs because the area under your ash tree will only receive about 1/10 of the amount needed for borer control.

Trunk and foliage sprays can be applied to small trees with hand-pump sprayers, or garden-hose spray attachments. Wear gloves, long pants, a long sleeve shirt, shoes and socks when applying any insecticide. Avoid getting spray mist on your skin or breathing it. Be sure to follow all label directions, and do not mix insecticides at concentrations higher than the rate on the label.

Cultural Practices and Sanitation. Ash trees in areas where the borer is active should be watered during dry spells to avoid drought stress. Also, removing infested trees is desirable. Next spring, adult emerald ash borers will be emerging from infested trees. Removing infested trees this winter and early spring before the adults emerge will help reduce the population. Trees must be chipped, de-barked, or burned to prevent beetles from emerging. Just cutting the trees and stacking the logs as firewood will not kill the beetles. If trees are going to be removed, cutting and chipping them **before May 1st** will prevent adults from emerging. Ash logs and branches can be taken to one of the marshalling yards listed below for disposal at no cost. Ash wood cannot be moved out of the 6-county area that is infested. Please advise neighbors and friends not to take ash logs to their cabins or on camping trips for firewood.

Resources:

USDA Forest Service: www.na.fs.fed.us/spfo/eab/index.html

Michigan Department of Agriculture: www.michigan.gov/mda

Michigan State University: www.msue.msu.edu/reg_se/roberts/ash/index.html

Table 1. Homeowner products for the insecticides mentioned in this bulletin.

Chemical name	Product name(s)	Applications
Imidacloprid	Bayer Advanced Garden Tree and Shrub Insect Control	Soil drench with 1 oz per inch of tree circumference
Bidrin	Not for homeowners	
Cyfluthrin	Bayer Advanced Garden Multi-Insect Killer	Trunk and foliage spray
Carbaryl	Sevin Bug Killer Concentrate, others	Trunk and foliage spray
Acephate	Orthene Systemic Insect Control, others	Trunk and foliage spray
Bifenthrin	Not for homeowners	

Marshalling yards. The following locations are now open for business to receive ash tree materials for disposal at no cost to the parties delivering the wood. There are a total of four locations available with their hours included. Additional sites will be shared as they come on line. The MDA website will be updated with this information as well.

Mid Michigan Recycling 24935 21 Mile Road Macomb, MI 48042 HOURS: Mon - Fri 8 to 5	City of Pontiac Sanitation Division 575 Collier Road Pontiac, MI 48326 HOURS: Mon - Fri 9 to 4
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Asplundh Tree Expert Co Plymouth Industries Yard 13101 Eckles Road Plymouth, MI 48170	City of Westland Department of Public Service 37137 Marquette Westland MI 48185
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