

Emerald Ash Borer, EAB, is coming to town whether we like it or not. Since this alien insect kills all ash tree species and ash trees probably account for one in ten of Ohio trees, most Ohioans will be affected by the loss of trees. Please read these three, short articles from ODNR and then plan to attend one of the following public education programs: Tuesday March 6th, 7pm at Cox Arboretum or Wednesday March 21st, 7pm in the Council Chambers in Middletown. Information web sites and phone numbers are included in each article. Let's get educated and prepared!

Article #1

The Scoop on Emerald Ash Borer

Emerald Ash Borer (EAB) is an insect from Asia that is attacking the Midwest's ash trees. EAB is a member of the metallic wood boring beetle family. It attacks all native, North American ash trees regardless of the tree's health. Once an EAB infestation occurs, it kills the tree in three to five years.

EAB is believed to have arrived in the United States in shipping pallets or cargo from eastern Asia approximately 10 years before it was discovered. It was first identified in the Detroit, Michigan area in July 2002 and then in Lucas County, Ohio, in February 2003. EAB has since been discovered in Michigan, Ohio, Indiana, Illinois, Maryland, and Ontario Canada.

EAB is a slightly illusive insect because it spends the majority of its life under the bark. The larvae develop beneath the bark of ash trees and are flat, creamy white, with bell-shaped segments, and are about an inch long. Adult EAB are dark metallic green and a half-inch long.

EAB Life Cycle

From late spring through autumn adult beetles mate, and the female lays 60-90 individual eggs on ash tree bark. The eggs hatch 7 to 10 days later, and the larvae tunnel into the tree just beneath the bark where they feed on the live tissue of the tree. The larvae's S-shaped feeding pattern, called *galleries*, disrupts the transport of water and nutrients, eventually killing the tree. Over the winter, the larvae remain under the bark. When warmer weather arrives, larvae enter the pupal stage and then transform into adults. The beetles emerge through the bark leaving behind 1/8 inch, distinctive D-shaped exit holes. The adults feed on leaves before mating and laying eggs, starting the cycle over again.

How to Tell if Your Tree Has EAB

There are several things that may indicate your ash tree has Emerald Ash Borer.

- Branch dieback at the top of the tree
- Vertical splits in the bark
- Sprouting on the trunk and at the base of the tree
- Scratched bark from woodpeckers feeding on the larvae
- Distinct 1/8 inch, D-shaped exit holes in the bark
- S-shaped, sawdust-packed galleries under the bark

EAB is very difficult to detect until a tree has been infested for at least a year because the larvae feed from the top of the tree first. When looking for EAB it is important to peel off the bark to look for the larvae and the galleries.

EAB Contacts

To report an infestation, please contact the Ohio Department of Agriculture, 1-888-OHIO-EAB, or visit www.ohioagriculture.gov/eab. If you are interested in rural or urban forest management assistance, please contact the Ohio Division of Forestry, 1-877-247-8733, or visit www.ohiodnr.com/forestry. For questions regarding yard trees and pesticide recommendations please contact your local Ohio State University Extension office.

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Article #2

Emerald Ash Borer Impacts All Ohioans

Nurseries Stuck with Thousands of Trees. Woodland Owners at Risk of Losing Timber Investment. Heating and Cooling Costs on the Rise. These headlines may sound like the effects of a dwindling economy, but all of this is occurring because of a little green insect called Emerald Ash Borer (EAB). EAB's impact, both environmental and economic, is being felt all over Ohio. In fact, nearly one out of every 10 trees in Ohio is an ash, making the species an important component in Ohioans' yards, parks, tree-lined streets, and rural forests.

Ash is a major wetland and waterway tree, keeping our streams and rivers cool and clean. Tourist areas, campgrounds, parks, and schoolyards all are facing the loss of the shade and character visitors love. Ash offers forest diversity, valuable hardwood lumber, and protection for a number of other forest plants and animals. Not to mention, ash is a popular landscape tree. Community streets, parks, and yards all over Ohio planted with ash trees are facing the loss of property value, summer cooling effects, and massive removal costs as a result of EAB.

Estimated costs to Ohio residents and businesses for removal, disposal, and replacement of ash trees is in the billions of dollars over the next decades. Individuals need to keep a close eye on their trees and take the best action for the situation. Ash is a tricky species due to its structural nature: as it declines and dies, large branches break or the entire tree topples over soon after death. Therefore, the safety hazard created by EAB in communities littered with dead ash trees creates a costly and dangerous problem for municipal leaders and homeowners. Removing dead and dying trees cost significantly more to remove because of the unpredictable nature of the wood. Safely removing trees around homes, buildings, and backyards compounds the cost of dead tree removal. To head off these concerns, several Ohio communities are working to systematically remove ash trees ahead of the borer.

Respect the Quarantines- Don't Move Firewood

Ohio Department of Agriculture's (ODA) quarantine prohibits the movement of all non-coniferous firewood, ash trees and all parts of ash trees from being moved out of quarantined areas. At the time this article was written, Williams, Fulton, Lucas, Ottawa, Defiance, Henry, Wood, Sandusky, Delaware, Miami, Marion, Cuyahoga, Seneca, Warren, Wyandot, Medina, Lorain, and Erie counties and townships in Huron, Hancock, Auglaize, and Franklin counties are quarantined. ODA also has quarantined the entire State of Michigan and nine EAB-infested counties in Indiana.

Moving non-coniferous firewood or any ash tree material out of an EAB quarantined area may result in fines up to \$4,000. The Emerald Ash Borer Task Force encourages everyone to buy firewood locally and burn what you buy.

EAB Contacts

For questions about the EAB quarantine or to report an infestation, please contact the Ohio Department of Agriculture at 1-888-OHIO-EAB or visit www.ohioagriculture.gov/eab. If you are interested in rural or community forest management assistance, please contact the Ohio Division of Forestry at 1-877-247-8733 or visit www.ohiodnr.com/forestry. For questions regarding yard trees and insecticide recommendations please contact your local Ohio State University Extension office or visit ashalert.osu.edu.

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Article #3

EAB Management--Why Plan Now?

Most people realize the tough reality that emerald ash borer (EAB) is popping up in communities throughout the Lake States. Even though this insect only moves a half mile per year on its own, it will travel much farther when assisted by humans. With this in mind, the time is *now* to plan for EAB.

Communities At Risk

All Ohio communities are at risk for an EAB infestation, but some have higher risk levels than others. Communities located near known infestations, major roadways, tourist areas, or campgrounds have increased probability that EAB could be introduced through travelers toting firewood. Other factors contributing to community risk are sawmills, tree care companies, and even nurseries that could unknowingly import infested ash tree material in their daily operations.

It is important to realize that ash trees infested by EAB, including healthy trees, die in three to five years and quickly become safety hazards. It is critical for a community to prevent its streets from being littered with dozens, hundreds, or even thousands of dying ash trees threatening to topple onto streets, homes, vehicles, or even citizens. Therefore, developing and implementing an EAB Management Plan *before* EAB infests a community offers a proactive alternative to costly damages and emergency clean up. It justifies expenditures and shows citizens that community leaders are wisely using tax dollars.

Elements of an EAB Management Plan

In order to manage a resource, you must know what you have. Communities can do this by utilizing an existing tree inventory or doing an ash tree inventory to locate the trees and document their current condition. Other basic elements communities should outline in a management plan include budgeting, tree removal, wood utilization/disposal, replanting efforts, follow-up tree care, and policy about how private trees will be addressed. Let's not forget that someone needs to administer your program and that public education and communication are important components in the success of any program.

Assistance Is Available

The Ohio Division of Forestry has developed a template to help communities get started on an EAB Management Plan. Regional urban foresters are available to assist communities in developing a customized plan based on local needs and goals. Every plan is different, depending on each community's unique situation. Emerald Ash Borer is not an easy pest to manage, but planning will certainly help take some of the guessing out of the equation.

Contact Information

For assistance with preparing an EAB Management Plan please contact the Ohio Division of Forestry at 1-877-247-8733 or visit www.ohiodnr.com/forestry/eab/management.htm for an on-line copy of the management recommendations. For questions about the EAB quarantine or to report an infestation, please contact the Ohio Department of Agriculture at 1-888-OHIO-EAB or visit www.ohioagriculture.gov/eab. For questions regarding landscape tree management and pesticide recommendations, please contact your local Ohio State University Extension office.