



EMERALD ASH BORER (EAB) in Kemper Park

Kemper Park and the surrounding neighborhoods are becoming infested with the Emerald Ash Borer which is killing the Ash trees in the park. Throughout the next few months, the Township will be removing a large number of dead or dying trees in the park and pruning and treating others that are not yet fully infested in hopes of preserving them for several years. Trees infested with this beetle grow brittle and can break unexpectedly. For the safety of our residents, we will remove those which a certified arborist deems to be hazardous.

FAQ's

Where did the emerald ash borer come from?

The natural range of *Agilus planipennis*, or the emerald ash borer, is eastern Russia, northern China, Japan, and Korea. Before June of 2002, it had never been found in North America.

How did it get here?

We don't know for sure, but it most likely came in ash wood used for stabilizing cargo in ships or for packing or crating heavy consumer products.

What types of trees does the emerald ash borer attack?

In North America, it has only been found in ash trees. Trees in woodlots as well as landscaped areas are affected. Larval galleries have been found in trees or branches measuring as little as 1-inch in diameter. All species of North American ash appear to be susceptible.

Where has it been found?

In 2002, EAB was thought to occur in six counties in southeastern Michigan: Livingston, Macomb, Monroe, Oakland, Washtenaw and Wayne, and in Essex County Ontario. The ability to detect and find EAB has substantially improved since then. It is now found in Michigan, Arkansas, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, Wisconsin, Ontario and Quebec, making EAB an international pest problem. Many of these infestations are not new; the ability to find infestations has improved as survey methods improve. However, it is important to watch for signs and symptoms of EAB in non-quarantine areas where the beetle may have been accidentally transported in ash firewood.

What happens to infested ash trees?

The canopy of infested trees begins to thin above infested portions of the trunk and major branches because the borer destroys the water and nutrient conducting tissues under the bark. Heavily infested trees exhibit canopy die-back usually starting at the top of the tree. One-third to one-half of the branches may die in one year. Most of the canopy will be dead within 2 years of when symptoms are first observed. Sometimes ash trees push out sprouts from the trunk after the upper portions of the tree dies. Although difficult to see, the adult beetles leave a "D"-shaped exit hole in the bark, roughly 1/8 inch in diameter, when they emerge in June.

Does it only attack dying or stressed trees?

Healthy ash trees are also susceptible, although beetles may prefer to lay eggs or feed on stressed trees. When EAB populations are high, small trees may die within 1-2 years of becoming infested and large trees can be killed in 3-4 years.

What do emerald ash borers look like?

The adult beetle is dark metallic green in color, 1/2 inch-long and 1/8 inch wide.



What is the life cycle of EAB?

Recent research shows that the beetle can have a one- or two-year life cycle. Adults begin emerging in mid to late May with peak emergence in late June. Females usually begin laying eggs about 2 weeks after emergence. Eggs hatch in 1-2 weeks, and the tiny larvae bore through the bark and into the cambium - the area between the bark and wood where nutrient levels are high. The larvae feed under the bark for several weeks, usually from late July or early August through October. The larvae typically pass through four stages, eventually reaching a size of roughly 1 to 1.25 inches long. Most EAB larvae overwinter in a small chamber in the outer bark or in the outer inch of wood. Pupation occurs in spring and the new generation of adults will emerge in May or early June, to begin the cycle again.

How is this pest spread?

We know EAB adults can fly at least 1/2 mile from the tree where they emerge. Many infestations, however, were started when people moved infested ash nursery trees, logs, or firewood into uninfested areas. Shipments of ash nursery trees and ash logs with bark are now regulated, and transporting firewood outside of the quarantined areas is illegal, but transport of infested firewood remains a problem. **PLEASE - do not move any ash firewood or logs outside of the quarantined area.**

What is being done on a statewide basis about this new pest?

Many agencies and universities are working together to educate citizens about identification of ash trees and EAB and options for protecting valuable shade trees. State and federal agencies have programs in place to help restore the urban forest in cities that sustained heavy EAB damage. Research is underway to learn more about the biology of EAB, its rate of spread, methods for EAB detection, predators and other natural enemies that may attack EAB, and how insecticides can be used to protect trees in infested areas.

How big a problem is emerald ash borer?

EAB is now considered the most destructive forest pest ever seen in North America. The scope of this problem will reach the billions of dollars nationwide if not dealt with. State and federal agencies have made this problem a priority. Homeowners can also help by carefully monitoring their ash trees for signs and symptoms of EAB throughout the year.

Who do I call to get more information on emerald ash borer or to report an infested tree?

Contact your county Extension office or the nearest Department of Agriculture office. You may also contact the USDA Emerald Ash Borer Hotline toll-free at (866) 322-4512.

How to Protect Your Ash trees from Emerald Ash Borer

1. **Early detection:** Have an ISA Certified Arborist evaluate your property for Ash trees and recommend the best action.
2. **Treat high value Ash trees with one of the options: systemic trunk injection; soil injection or drench; basal trunk sprays or topical cover sprays.** In performance tests, Michigan State researchers found that systemic trunk injections of TREE-age® with Emamectin Benzoate (Em Ben) applied every two years, achieved the best results.
3. **Regular Pruning** - Remove deadwood and prune to promote healthy growth in combination with treatment.
4. **Tree Removal:** When untreated Ash trees become unsafe or die, have them removed. This will always keep your property safe and beautiful.

This information has been provided by Michigan State University, Purdue University, the Ohio State University, the Michigan and Ohio departments of Agriculture; the Michigan, Indiana and Ohio departments of Natural Resources; the USDA Forest Service; the USDA Animal and Plant Health Inspection Service (APHIS); Giroud Tree & Lawn Service and the Canadian Food Inspection Agency. Our goal is to help you find answers to your questions about EAB.

