



# ; Emerald Ash Borer; FAQ's

By; **Ed Hayes, Owner, Hayes Trees, LLC**, 2306 Crimson Ridge Circle NW, Rochester, MN 55901 Cell; 507-319-7149, E-mail; [ed@edhayestree.com](mailto:ed@edhayestree.com), Web; [www.edhayestree.com](http://www.edhayestree.com).

**Update; January 2015!** The EAB was found in Rochester and Olmsted County in the fall of 2014. If you have ash trees in your landscape that you plan to retain and protect from the building infestation and if not already under treatment, plan on beginning treatments in the spring of this year, 2015. I would recommend treatments begin from as far west as Dodge Center, north to Lake City and east to Wisconsin. ANTICIPATE additional finds at any place throughout this entire area on any given day.

THIS WILL BE A LANDSCAPE CHANGE. IN A FEW SHORT YEARS ALL UN-PROTECTED (UN-TREATED) ASH TREE SPECIES IN THIS ENTIRE LANDSCAPE WILL BE KILLED BY THIS BEETLE.

This loss will be painful and costly. The costs to public and private landowners will be in the millions of dollars just within this region alone. The majority of this impact will be on private property. Our native ash trees have no resistance to the EAB and the introduced natural enemies being tested will likely have little effect over time.

**What is the EAB?** The EAB is a wood-boring beetle that will in time; kill all untreated ash trees in North American.

**Where did the emerald ash borer come from?** The EAB is from northern Asia. Its natural range is eastern Russia, northern China, Japan, and Korea. Before June of 2002, it had never been found in North America.

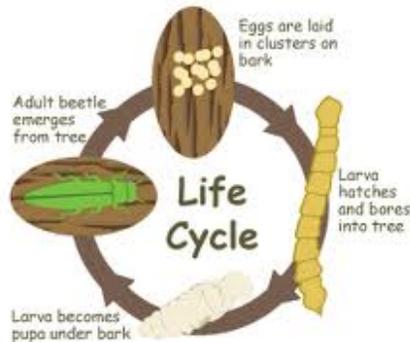
**How did it get to the US?** This remains unknown; however we do know that it arrived into the greater Detroit area in the early 1990s, probably in ash wood used for stabilizing cargo in ships or for packaging consumer products.

**Where is the EAB now?** The EAB is busy attacking and killing ash trees in numerous eastern states, Ontario and Canada. You may view a map of these millions of infestations at; [http://www.emeraldashborer.info/files/MultiState\\_EABpos.pdf](http://www.emeraldashborer.info/files/MultiState_EABpos.pdf)

**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. There are many images on the internet. Search Emerald Ash Borer on Google Images.



**Can the adult beetles be confused with other insects?** Yes, there are several metallic (green) beetles that can easily be mistaken for the EAB. For examples see; <http://www.mda.state.mn.us/en/Global/MDADocs/pestsplants/eab/eablookalikes.aspx>



**What is the life cycle?** Adults; mid - May to June. Adults feed on ash leaves, mate, and females begin laying eggs. The eggs hatch in 1-2 weeks, and the tiny larvae bore into tree under the bark. The larvae feed from late July or early August - October. Larvae pass through four size stages, eventually reaching 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, the new adults emerge.

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**What species of ash trees are susceptible?** All species of ash trees in North American are susceptible including all the green, white, and black ash in this region. The EAB does not attack the small tree, European mountain ash. All ash trees in woodlots and private landscapes will be infested and killed. Larval galleries have been found in trees or branches measuring as little as 1/2-inch in diameter.

**What happens to infested ash trees?** They will eventually die if not protected by treatment. The crown of infested trees begins to thin above the infested portions of the trunk and major branches as the borer larvae have *severed the water and nutrient conducting tissues under the bark*. Branch dieback starts in the top of the tree. One-third to one-half of the branches may die in one year. Most of the tree will be dead within 2 years after the signs are first observed. Some infested ash trees will grow sprouts (more branches) from the trunk and large branches after the upper portions of the tree dies. When mature adult beetles emerge from dying trees, they leave a "D"-shaped exit hole in the bark, roughly 1/8 inch in diameter.

**Does the EAB attack only stressed or dying trees?** No! Healthy ash trees are also infested and killed. As populations of beetles increase even small trees are attacked. Small trees will die within 1-2 years of becoming infested and large trees will die within 3-4 years.

**How does the EAB spread?** We know most of the existing infestations were likely started by people moving infested ash firewood once their yard trees died. Additionally, infested nursery trees and logs likely contributed significantly to the spread across the US. Shipments of ash nursery trees and ash logs with bark attached are now regulated, and transporting firewood outside of quarantined areas is illegal, however transport of infested firewood still remains a major source of movement. **Winona** County is now under state quarantine.

EAB adults can fly at least 1/2 mile from the tree where they emerge. Once populations reach high levels and where general widespread mortality is occurring, the infestation and mortality can spread at a rate of 10 miles per year where there are still ash trees to infest. **Within 4-8 years most of the ash trees in southeast Minnesota communities will be dead or dying.**

**Note;** generally cities and or municipalities will pay for the removal of a boulevard ash tree hoping that you will help pay for replacement tree of another species. They will not have the resources to assist in the cost share for the removal of the ash trees on your property.

*Additionally in some communities they may enforce a sanitation program in which you will be required to remove infested trees as they try to reduce the populations of beetles in the area.*

Check with your city officials. **Note:** boulevard ash in front of your homes may be protected (treated) by you and your Arborist. Contact your city officials!

**Please note;** the dead ash trees will fall apart fast! Dead trees will start to shed large branches in the second or third year. As these trees start to fail you will want to make sure they are in locations that personnel injury and property damage will be avoided as you will be responsible for these damages.

**What should you do if you have ash trees? Plan now and begin treatments this year or have your ash trees removed or replaced, do not wait. Begin this year.**

Other Options; ***Do nothing***; your trees will die. Be sure they are in locations where there can fall down with no risk of personnel injury or property damage.

***Remove;*** some or all of your ash trees and replace with a different species or not.

***Protect (treat)*** one or more individual ash trees that are providing important benefits (shade, privacy, etc. see benefits below) to your property. There are excellent proven treatments that can protect one or more of your ash trees for as long as you remain on the property.

**Note;** before starting on a course of protection, have your trees inspected by an experienced Arborist. Is your tree in good health; is it in the right location? Are there any structural issues that should be addressed? As an example, co-dominant weak branch unions that can fail (split apart) in storm events.

**Note;** we take trees for granted, but they do come with both real benefits and real costs. Fortunately, the benefits easily exceed the costs. A 20" ash trees can provide \$201 dollars in benefits per year to the property owner and the environment, see [www.treebenefits.com](http://www.treebenefits.com). The annual costs include periodic maintenance (pruning) and eventual tree removal and replacement.

**Should I treat the trees myself or hire an Arborist? What are the costs?** You can treat your trees yourself, however the savings may be minimal and hiring an Arborist may be safer for the environment.

**Can I treat infested trees and save them?** For the most part, No. The treatments are meant to be preventative. Once the branches and stems are infested there is little possibility of getting the insecticide effectively into the tree.

**How long will I have to keep treating my ash trees to keep them protected from the EAB?** Plan on treating your ash tree or trees for as long as they continue to provide benefits for your property. Following the initial large wave of mortality the background populations of the EAB will decrease, however they will remain a threat to the ash tree population for the foreseeable future.

*This fact sheet updated by Ed Hayes, Owner/Operator of Hayes Tree, LLC and Safe Trees, LLC in February, 2015. Best web site for current EAB information;*  
<http://www.emeraldashborer.info/index.cfm>



ISA Certified Arborist; MN-0341A

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*Galleries under the bark (left) & “D” – shaped exit hole (below right).*



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Rochester, MN 55901, Cell; 507-319-7149,**

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