City of Whitewater

Information for homeowners on Emerald Ash Borer

This site contains vital information on how to protect your private ash trees from the looming and imminent infestation of Emerald Ash Borer (EAB).

EAB has been found in close proximity to Whitewater, and according to the Wisconsin DNR, and Department of Agriculture, a plan of action is strongly recommended to lessen the environmental impact and safety hazards due to the destructive effects of this insect.

The City of Whitewater has a plan in place for all the public ash trees, and is currently implementing various aspects of this plan as of January, 2013.

Please note that our City Forester as well as another city arborist evaluated each and every public ash tree within Whitewater and hand selected over 300 viable ash trees over 4 inches in diameter for treatment with Tree-Age (more info on Tree-Age below). If you are a homeowner and your terrace ash tree is selected for removal, you may have the option of partnering with the City of Whitewater to treat with Tree-Age and save your tree. Please be aware that the City Forester has considered all necessary factors in selecting viable trees for treatment, and your ash may show substantial grounds against treatment.

Should you have any questions or concerns regarding EAB, please contact our City Forester, Chuck Nass at (262) 473- 0542 or email him at: cnass@whitewater-wi.gov.

If any one thing is certain, it is this: **EAB is coming, and an infestation WILL KILL all true ash trees if the trees go untreated.**

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What is EAB?

The Emerald Ash Borer is a metallic-green, wood-boring insect native to parts of Asia. Although it does not kill the ash trees in its native range, it will very likely kill all the true ash trees in the western hemisphere if those trees are left untreated. EAB entered the U.S. in the early 2000s (or earlier) by way of shipping crates, and has wiped out millions of ash trees in the wake of their path.

The adult beetle feeds on the leaves of an ash tree, and lays its eggs on the bark. Once hatched the larvae tunnel under the bark to feed, and disrupt the tree's systems that transport food and water, eventually starving and killing the tree.

Find out where emerald ash borer infestations are by clicking either of the links below.

http://www.emeraldashborer.info/files/MultiState_EABpos.pdf.

https://onlineservices.datcp.wi.gov/eab/article.jsp?topicid=2.

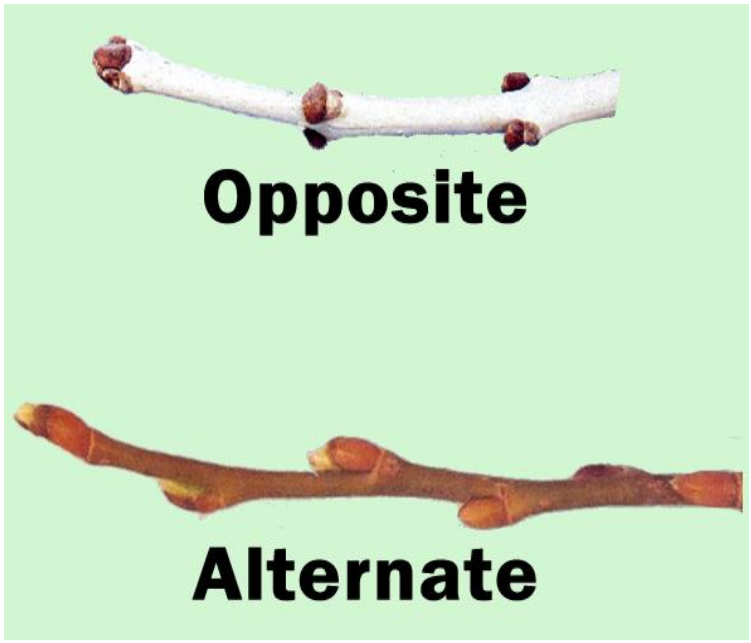
IDENTIFYING AN ASH TREE

***It is important to note that **mountainash** and **pricklyash** are NOT true ash trees. They are a different species altogether, and therefore are not affected by EAB. ***

There are several ways to properly identify an ash tree

Opposite Branch and Bud Arrangement

In an ash tree, branches and buds form directly opposite one another. When looking for opposite branching in trees, please consider that buds or limbs may have died; therefore not every branch/bud will have an opposing mate.



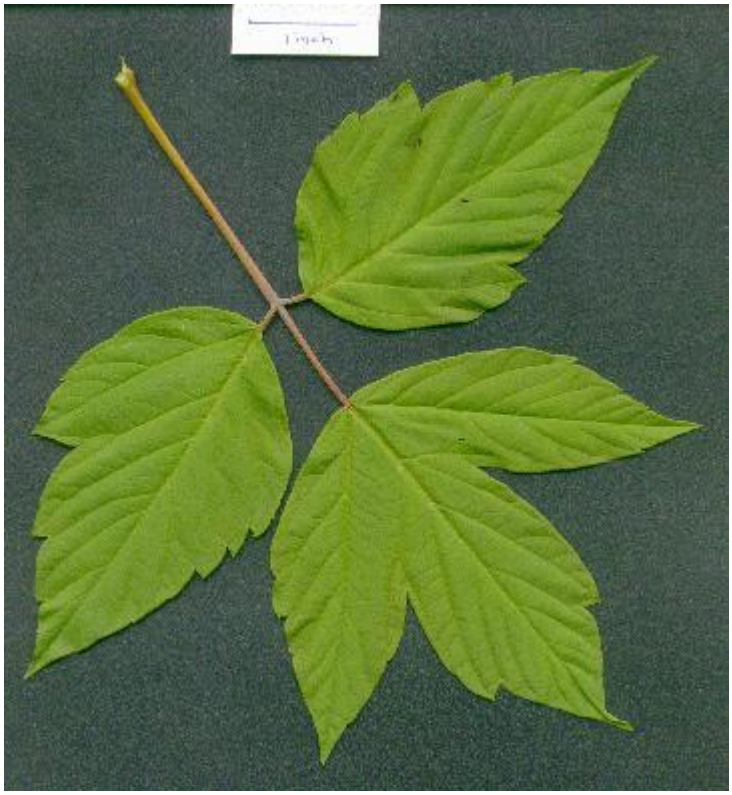
An illustration defining opposite and alternate budding


An ash tree branch showing opposite branching

Leaves

Leaves of an ash tree are compound, meaning there are many small “leaflets” on one leaf stalk. An ash tree leaf has between 5-11 leaflets. The only other oppositely branched tree with compound leaves is a boxelder tree, which almost always has 3-5 leaflets on a leaf.

Ash leaf



Boxelder leaf – commonly mistaken for an ash

Bark

On mature ash trees, the bark has a distinctive diamond-shaped pattern of deep ridges. On young trees, the bark is relatively smooth.

Photo showing deep ridges forming a diamond shaped pattern on a mature ash

Photo showing the smooth bark of a young ash

Seeds

When present on trees, the seeds are dry, oar-shaped and occurring in clusters. They typically hang on trees until late fall or early winter.

Identifying an infested tree

An infested tree is sometimes difficult to identify, since the EAB will infest the tree starting at the top or crown of the tree.

An infested tree will likely not show any symptoms for perhaps as many as 3 years after infestation.

We are often unaware of the presence of EAB until we see ash trees in significant decline. There are a number of factors that will alert you to an infestation.

Canopy dieback

Since the EAB infests a tree from the top to the bottom, an infested tree will show canopy dieback.

Photo shows significant canopy dieback - more than 50%

In a futile attempt to survive, a tree sends out new growth called epicormic shoots below EAB activity.

Photo shows shoots or “suckers” emerging beneath EAB activity

“D” shaped exit holes on the bark approximately 1/8” in diameter. Made by adult insect s it exits the tree.

Photos show characteristic D shaped exit holes in bark

An infested tree will also show classic serpentine marks under the bark where the larvae has fed.

“S” shaped serpentine “galleries” under bark

Heavy woodpecker activity. Most notably in the winter months.

Vertical splits in the tree's bark

What are my options concerning the future of my ash tree?

Your ash tree has a 90-95% chance of survival if it is treated before the canopy shows 40% or less dieback. Those are great odds!

There are currently several options that are available to homeowners to prevent their ash trees from succumbing to EAB.

Be aware that simply **cutting your tree down** might prove to be more costly than one would imagine.

- Consider the cooling effects (shade) your tree provides your home and lawn, and how your energy and water bills will be affected.

- Consider the stormwater your tree absorbs, and what a lack of such absorption might do to basements, etc.

- Consider your home's value. Mature trees can improve one's property value by as much as 10%.

- **IMPORTANT!!** If you choose to remove your ash tree, you must be aware that Whitewater is in a quarantined area; therefore you must comply with the regulations set by the City Forester for proper disposal of your tree, bark, leaves, twigs, stump, etc. For proper disposal information, contact the Chuck Nass (262) 473-0542. **cnass@whitewater-wi.gov.** By no means are the remains of the tree to be transported outside the counties of Walworth or Rock.

Remove and Replace

Given those factors however, it may be more cost effective to remove and replace small or struggling ash trees rather than pay the cost of ongoing treatment. Additionally, trees in poor health are not likely to respond well to regular treatment. Do not treat trees with more than 50% canopy decline, for they are unlikely to recover, even if treated. If removal of your ash tree is necessary, you are required to follow proper disposal procedures to prevent further infestation. For information on disposing your ash tree, contact City Forester, Chuck Nass (262) 473-0542. **cnass@whitewater-wi.gov**

You can protect your tree with insecticide treatments. Keep in mind that treatment requires a long term commitment. Once EAB arrives in an area, it is likely to remain a constant threat to ash trees. Periodic treatments may be needed for the life of the tree.

Below you will find a table outlining the different treatment options currently available for homeowners.

Insecticide Active Ingredient	Examples of Products	Treatment Frequency and Optimal Timing	Application Methods	Environmental Profile	Approximate Cost
Emmamectin Benzoate. **Restricted use pesticide. Can only be applied by a certified arborist or licensed applicator.**	TreeAge	Once every 3 years Early May- mid June	Trunk injection	Trunk injections have fewer concerns for water quality, unless accidentally spilled. If spilled, highly toxic to exposed mammals, fish and invertebrates.	
Dinotefuran	Safari, Green Light Emerald Ash Borer Killer	Once Per year. Early May- Early June	Bark spray, Soil injection, Soil applied drench. Product comes in a granular form.	Potential to leak to shallow groundwater. Must not use spray on windy days.	

Imidocloprid	Bayer Advanced Tree and Shrub Insect Control, Ortho Max Tree and Shrub Insect Control	Once Per Year. Late April thru Late May, or in the fall before the ground freezes.	Soil-applied drench using product in a granular form.	Potential to leach to shallow groundwater. Highly Toxic to Aquatic Invertebrates. .	
Neem Tree Seed Oil	TreeAzin	Once per year – though promise is shown every 2 years. Early May – Mid June	Trunk Injection	Minimum or no risk to non-target organisms, habitats, or water.	Go to arrowpestcontrolinc.com or call them at: (262) 248-6828 to speak with a certified application specialist.

Noteworthy items:

The City of Whitewater recommends carefully following the manufacturing instructions when applying soil applied products due to high toxicity of products and potential harm.

Follow manufacturer's directions and recommendations when applying insecticides. The Minnesota Department of Agriculture conducted a special registration review of insecticides in 2011. The review concluded that insecticides commonly used to control EAB are not likely to result in unreasonable risks to human health or the environment when used according to the label's directions.

Generally, professionally applied trunk injections have fewer concerns for water quality.

For soil-applied products and bark sprays, the following considerations are important:

- Properly prepare application site and apply product according to label instructions. Consider avoiding use if within 25 feet of water bodies. This includes lakes, streams, ponds, wetlands, or conduits to surface water or groundwater such as street curbs, sumps, storm drains or well heads, as some products are highly toxic to aquatic invertebrates.

- Do not apply insecticides when heavy rainfall is expected within 24 hours of planned application.
- Do not use insecticides when soil is frozen or saturated.
- Products can leach into groundwater. Use only recommended amount to treat trees.
- Sweep up any granular product from sidewalks or driveways back onto treatment area around tree.

There is recent evidence showing Dinotefuran in a bark spray method is less effective in treating larger ash trees. (over 14" diameter).

The City of Whitewater is working with Winchester Hardware to try to make available as many of the listed products as possible. To check availability, call Winchester Hardware at (262) 473-4264.

More links to information and insecticide advice:

Saving Your Ash: What you can do about the Emerald Ash Borer (EAB) presentation, go to:
http://vimeo.com/51012791

http://www.mptv.org/video/watch/?id=492

http://datcpservices.wisconsin.gov/eab/index.jsp

http://datcpservices.wisconsin.gov/eab/article.jsp?topicid=19

Drench Method Video:
http://hort.uwex.edu/articles/protecting-your-tree-emerald-ash-borer

Basel Bark Spray Video:

http://www.youtube.com/watch?v=GpRl2LEL428&feature=player_embedded

Link to UW Extension page on EAB:

http://labs.russell.wisc.edu/eab/