



Visit our website:
RiverwoodsAtNewHope.org

Millions of Ash Trees Have Been Killed by the Emerald Ash Borer

This insect is now infecting Ash trees in Warrington, PA & is expected to arrive here soon.

BACKGROUND & INTRODUCTION:

The Emerald Ash Borer (EAB) is a small insect accidentally imported from Asia to the US via wood crates in 2002. Its destructive Ash tree infestation and killing wave began in Michigan, spread through the Midwest and now is advancing within Pennsylvania, New York & other northeastern states. The resulting economic devastation is calculated in the tens of millions of dollars. The wave appears unstoppable.

This is not something we can just ignore and hope that it will go away; all of the agricultural & environmentally responsible officials seem to agree that the threat is real, is nearby now and will potentially kill all of the Ash trees that become infected in the area (Bucks & Montgomery Counties). It takes 2-3 years after infestation to kill a tree while the “die-back” (loss of leaves) progresses downward from the top parts of the tree to the lower parts. See photos.

In October 2013 & January 2014 two Association Board members (Cliff Montgomery & Dennis Haggerty) attended a total of 12 hours each of informational presentations held in Philadelphia & Warrington hosted by the Philadelphia Horticultural Society. The PA state agency leading the effort against this pest is the Forestry Department of the Department of Conservation & Resources (DCNR); their representatives and other industry experts presented detailed information at these meetings. They also provided information on many additional valuable resources to better understand the dynamics of the problem and the possible options for homeowners to address the problem. Please note that no governmental agency will try to “fix” or otherwise deal with this problem on private property. Some municipalities have made plans and have taken action to deal with the Ash trees on their municipal properties (parks, downtown streets, libraries, municipal buildings, etc.). New Hope Borough currently has their plan in draft form; it focuses on the municipal property which is their responsibility.



Ash street trees in Toledo, OH before and after EAB. Photo Courtesy of Dr. Dan Herms, OARDC



RECENT NEWS:

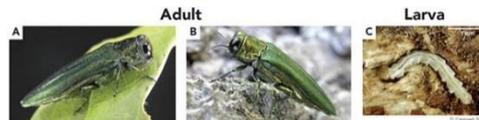
In response to one of our recent inquiring emails, a senior DCNR Forestry Manager replied, “What I can tell you is, if you want to treat your ash trees you better start in the spring. The systemic insecticide treatments are meant to act as a prevention method and the infestation will build up rapidly in the area over the next 3-5 years. Trust me, they are already there and they are building – doubling every year. Then you will see massive ash tree mortality and there is nothing else you can do then except cut down the hazard trees and just let the infestation go.”

This issue was first publically raised in Riverwoods at our 2012 Annual Meeting, it was last publically discussed without much detail at the 2013 annual Meeting where sample branches of Ash trees were also shown. A lot of information has been acquired since then and additional infestations have been publically recorded ([Maps of EAB Infestation PA Counties](#)) The time for action is now more imminent.

On the front page of the March 16, 2014 Philadelphia Inquirer there was a very well done article on this topic; it was entitled “[Next arbor crisis: Insect that destroys ash trees](#)”. A copy & link is posted on our website; the article contains some of the same generic information about the problem as in this letter but of course nothing about how the problem may relate to Riverwoods.

WHAT IS THE EMERALD ASH BORER?

The adult beetles are very small (1/2”), they nibble on Ash tree foliage but cause little damage. The larvae (the immature stage) feed on the inner bark of ash trees, creating serpentine pathways and disrupting the tree's internal ability to transport water and nutrients. They are difficult to detect and do their internal destructive damage over several years. Their numbers expand exponentially over several seasons. Woodpecker activity is often an indicator of their presence as they feed on the larvae..

**WHY ARE WE TELLING YOU ALL THIS?**

The main reason is to inform you that this insect will most likely affect your property in some way and will likely cost you some money – even if you decide to do nothing about the Ash trees on your property. Infected Ash trees killed by EAB become brittle and are more easily felled by wind & snow. If they are big enough and close enough that they can fall onto your home or even onto your property they are obviously a potential “Hazard” tree and a concern to be considered. And this doesn’t address the aesthetic impact of the dead trees or the void created.

To be clear, it appears that there will be an almost inevitable economic, environmental and aesthetic impact on the Riverwoods Community, on your private property and on the Common Area; there are decisions & choices to be made both by you and by the Association. They need to be informed ones.

The decisions can be grouped into 4 general management options:

Ash Tree Management Options

	Options	Considerations/Actions
A	No Special Action	Most Ash Trees will be killed by the end of the infestation; areas will be barren & some hazardous trees will require removal
B	Preemptive Management	Remove & replace; Time actions to spread out costs
C	Aggressive Management	Manage with chemical treatment (long term process)
D	Selective Management	“High Value” trees will be actively managed using chemical control; removal & replacement selectively used as appropriate and as cost effective.

Like with any decision there are a number of factors to consider and many are still unknown. Notably the unknowns include the number of Ash trees on or near your property and in Common Areas, the cost of regular chemical treatment and/or the cost of removing & replacing Ash trees with other species. Also the later cost of removing dead “hazard” Ash trees.

DO YOU HAVE ASH TREES ON OR NEAR YOUR PROPERTY?

As mentioned, one of the most obvious unknowns is whether or not you have Ash trees on or near your property, and if so, how many and of what approximate size (treatment cost varies by tree diameter). You will have to come up with your own appraisal of that information. The trees on your property are of course your responsibility. Information on how to identify an Ash tree is included below and in the Reference section.

One of the best steps to identify them is to view the very instructive [YouTube Video](#) that illustrates the distinguishing characteristics of Ash trees as well as provides significant additional information. It was produced by the Wisconsin Department of Agriculture; a state whose ash trees were substantially ravaged by the EABA. A trained Arborist can certainly perform that evaluation for you if you cannot. Without foliage in bloom the Ash trees are of course a bit harder to discern but they are still identifiable by their unique branching features

A Board member (Dennis Haggerty) who is not a trained arborist did do an informal summertime survey of Riverwoods just to get some idea of the Ash tree presence in the community. That survey included only the observable trees that were in the street area or front yards of the private property and in the street areas of the Common property; it is important to realize that the balance of the private property and all of the wooded Common Property was not included.

That survey showed that there were 122 Ash trees in those areas of the private property and 33 Ash trees in those areas of the Common property, this was an Ash tree proportion of almost 30% of the total observed trees. Again, other areas were not included so there are surely a good number of additional Ash trees on private & on Common property. About 80% of the observed Ash trees were on private property.

WHAT TO DO & WHERE TO GO FROM HERE?

To a large extent homeowners and the Association Board both face similar tasks in making their decisions about what to do. But one of the first steps for each is to get a reliable Ash tree survey of the property they are responsible for.

To help visualize the decision making process a very useful Decision Guide is included in the [References](#) section and linked here.

The next step is to develop a plan for the management, treatment and/or removal of the Ash trees; this should reflect the aesthetic & ecosystem value of the trees and the costs of the options. The plan should include a sequence and timeframe for implementation. Sample plans and plan templates are included in the References material.

There are a number of Insecticide treatment alternatives; the costs of each are quite different. Their effectiveness may also vary. There is an excellent guide "[Insecticide Options for Protecting Ash Trees](#)"; it is one of the most comprehensive & informative websites/documents regarding every aspect of the EAB threat. The size of the tree (usually expressed in "Diameter at Breast Height" in inches (DBH) is a big factor in treatment costs since it relates to the size of the infected area and the quantity of required insecticide chemicals to effectively treat it. For research on the impact of these chemicals on the environment see the References.

The costs of removal and/or replacement require input from local tree companies and arborists; the costs depend on tree size as well as location (access). Replacement cost will depend on the chosen species and the size/diameter of the replacement tree (FYI: DBH or "Caliper" are the same parameter).

Note that the recent Inquirer article includes the following quotation from Donald Eggen, DCNR Forestry Manager; "This is what's going to happen: 99 percent of your ash trees are going to die".

SUMMARY & CONCLUSION:

The threat and the damage potential from the EAB to the Ash trees in Riverwoods is real.

Evaluations and decisions about a plan of action need to be made in the near term. "High Value" and potentially hazardous Ash trees are particularly important to recognize. "High Value" trees are those that the responsible party considers in special need of being saved (treated). The reasons could include its aesthetic value, the cost of its removal & replacement or its importance not to become a "Hazard" tree (i.e., one that, when eventually dead, may fall on a home or private property).

No matter what, there will be a cost and aesthetic impact to many private property owners as well as a cost and aesthetic impact to the entire Riverwoods Community via the Common property— in fact to all of New Hope, Solebury and Bucks County whether individually or collectively.

The Association is in the process of engaging an arborist to more fully and accurately evaluate the Ash trees on the common property and will continue its evaluative process.

Due to its lack of expertise and resources, the Association Board is in no position to offer advice to any resident regarding their individual plan or decisions. Our intention in providing this document is to inform Riverwoods residents of the threat and its potential impact as well as to provide some reference resources so that residents can consider the various involved issues, can have a better informed discussion with their arborist and make their own informed decisions about their private property

CLOSING:

Please see the “References” on the following pages for additional information.

An Emerald Ash Borer page has been set up on our community website [“RiverwoodsAtNewHope.org”](http://RiverwoodsAtNewHope.org). Its purpose is to make this paper and all of its linked references easily accessible for your reference. It will get updated as things change or when additional relevant information becomes available.

Legal Disclaimer: Note that the author and the Homeowner’s Association cannot be held responsible for the accuracy or completeness of this material or any of the referenced resources. This paper was prepared as a public service for the use of the Homeowner’s Association Board and Riverwoods community residents however they may choose.

Prepared by Dennis Haggerty,
Homeowners Association Board Member

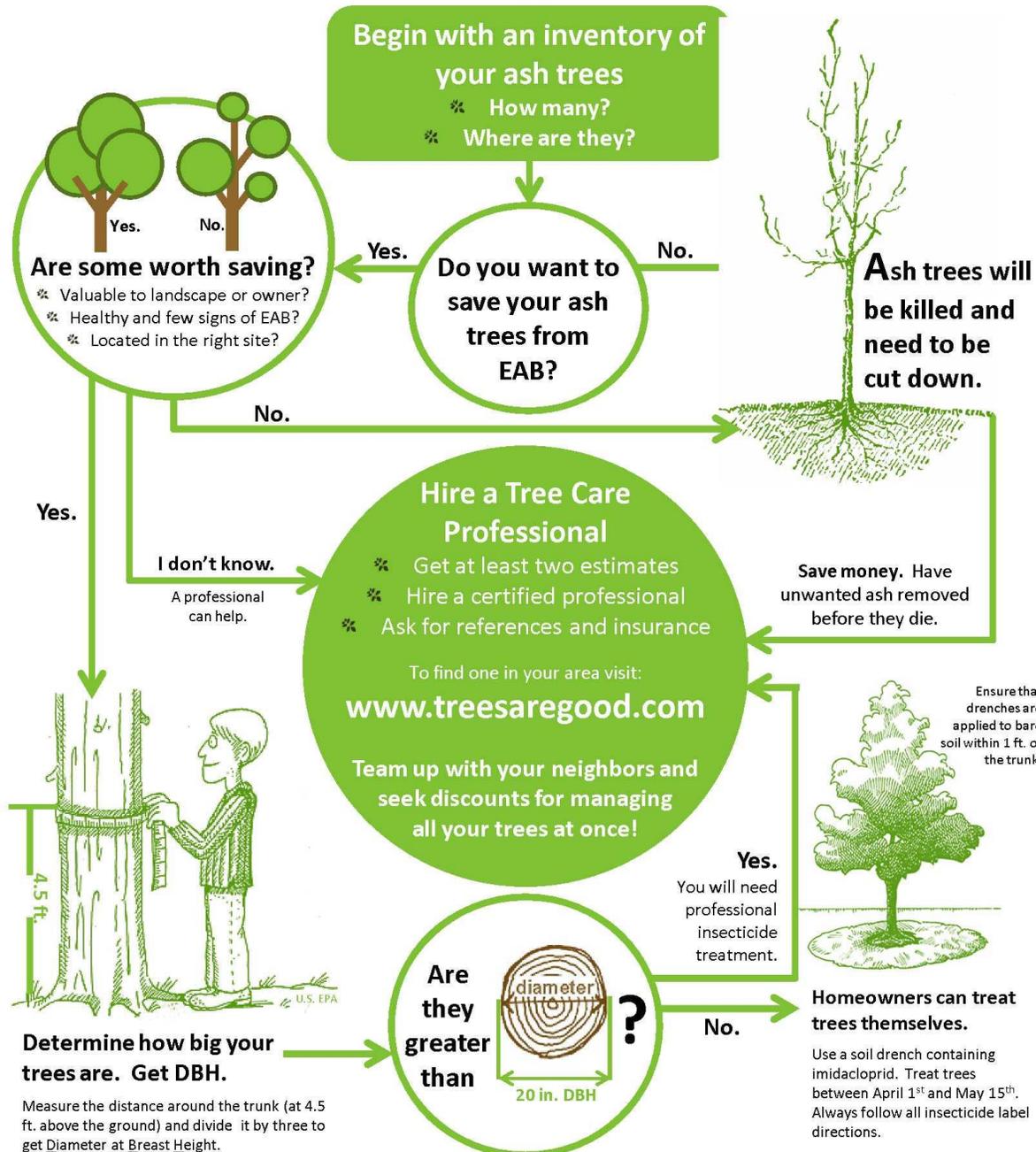
PS. Now would be a good time for those who have not yet signed up for our website update service to do so. The email service provides email notices on the infrequent occasions when the website is updated with new information. As an example, after posting, this letter was emailed to the approximately 50% of the residents who have previously signed up. The email version of this letter is of course in color and importantly has many easily accessible live links to the many helpful resources referenced in this letter.

Simply send an email to info@RiverwoodsAtNewHope.org , type “OK to email” in the Subject and please include your street address.

References



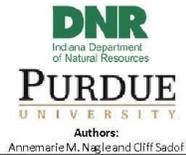
Managing Emerald Ash Borer: Decision Guide



Protect your urban forest. Act Now. Save Trees. Save \$!



Managing Emerald Ash Borer: Decision Guide



Which trees can be saved?

Trees CAN be saved if they are:

- **Healthy** and vigorously growing, with more than half their leaves.
- Enhancing the landscape.
- Valuable to the owner.
- Showing only few outward signs of EAB infestation.



These ash trees are healthy, have all of their leaves, and provide shade and beauty to the landscape. They would be good treatment candidates.

Trees should NOT be saved if they are:

- **Unhealthy**, with more than half of their leaves missing.
- Planted in poor sites or are not important to the landscape.
- Showing many outward signs of EAB infestation, such as woodpecker damage, bark splits, and water sprouts at the tree base.



John Chermansky, Extension Entomology, Purdue University

These ash trees are too unhealthy to be effectively treated.

This ash tree is not planted on the right site. It will require maintenance to keep it clear of power lines.

Contact your city forester about local ordinances before performing any tree work!

What are the treatment options?

Homeowners can protect healthy ash trees:

- With a trunk **less than 20 in.** Diameter at Breast Height (see reverse for DBH measurement).
- With over the counter soil drench products containing 1.47% imidacloprid. These products are most effective when applied between April 1st and May 15th.

Professionals can protect ash trees:

- With a trunk **greater than 20 in.** DBH.
- Later in the year, using specialized equipment to apply insecticides that contain imidacloprid, dinotefuran, or emamectin benzoate.

Want more information on hiring a professional to treat your larger trees?

Visit: www.treesaregood.com

Which new trees should be planted?

The tree species you choose should match the conditions of the site. Remember that some trees can become very large. Contact your city forester, or your local garden center or nursery for advice on choosing a good replacement.

For a list of replacement trees, visit:
www.eabindiana.info



REMEMBER: Choose Diversity!

Replant with several different tree species to increase your neighborhood's resilience to future pest problems.

Additional References

(many of which were referred to above)

[Emerald Ash Borer – A cooperative emerald ash borer website developed by the federal government, state agencies and universities](#): See also section titled “EAB University”

<http://www.emeraldashborer.info/#sthash.FhiTHIQu.dpbs>

EAB Insecticide Options Fact Sheet (16 Pages)

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

Emerald Ash Borer: PA DCNR

<http://www.dcnr.state.pa.us/forestry/insectsdisease/eab/index.htm>

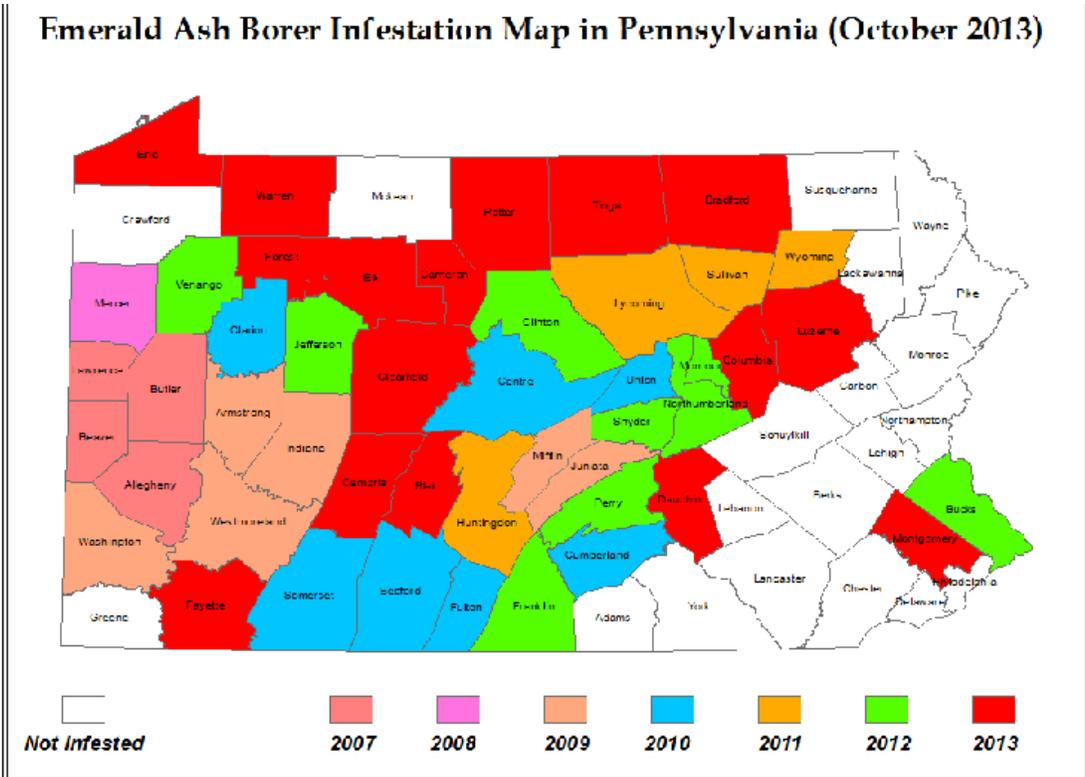
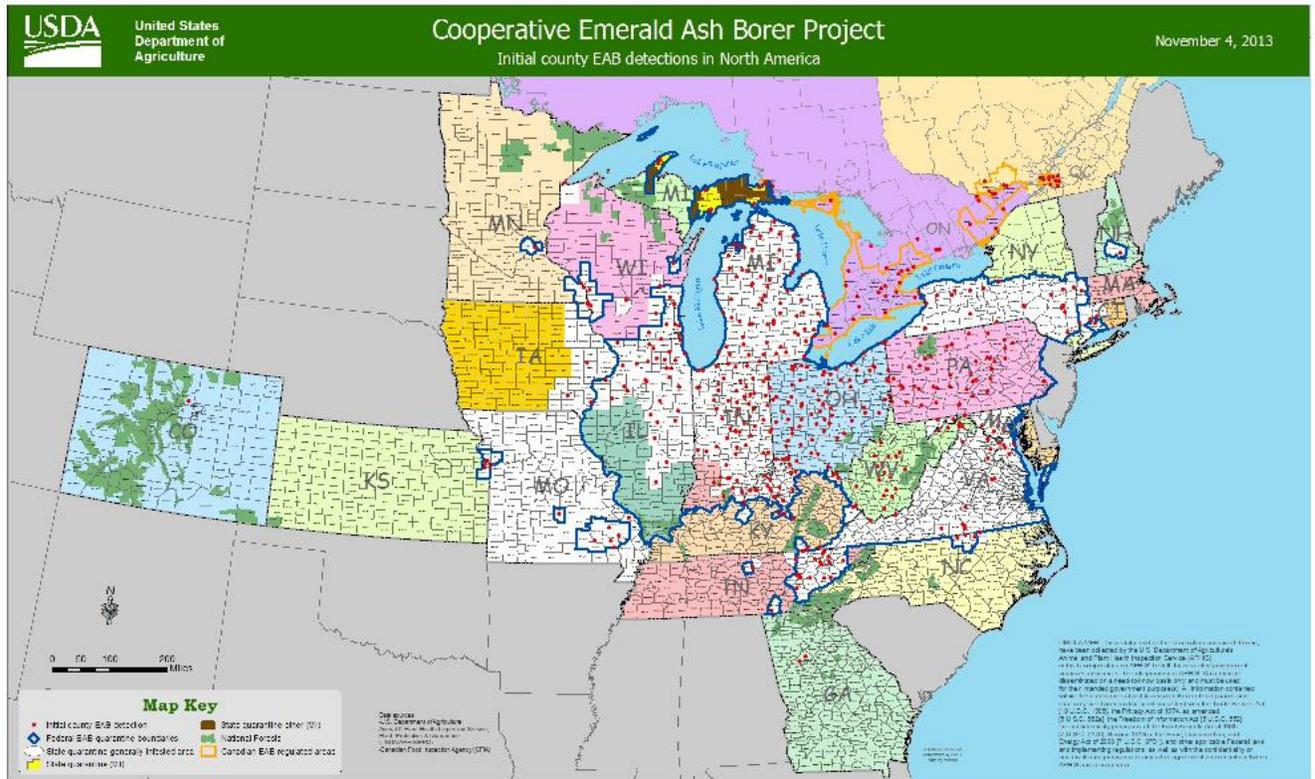
Wisconsin Department of Agriculture: Everything you need to know:

<http://www.youtube.com/watch?v=WfelszMuUgk>

[New York State Urban Forestry Council](#)

<http://www.nysurbanforestrycouncil.com/index.asp>

Regional & PA State Maps of EAB Infestation



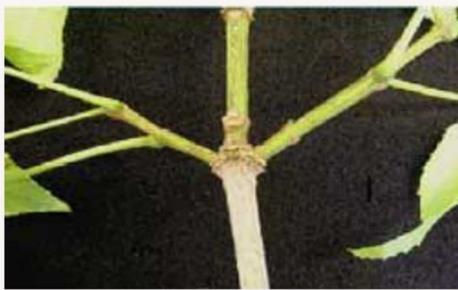
Ash Tree Identification:

<http://www.youtube.com/watch?v=WfelszMuUgk> (includes everything you need to know about tree ID, EAB & disease symptoms)

Leaf Arrangement is very distinguishable; Bark design is less distinguishable



Ash leaves are arranged oppositely meaning leaves and branches are located across from each other. The leaves of many other species are arranged alternately.



Opposite branching and leaf arrangement of blue ash (*Fraxinus quadrangulata*)



Alternate branching of beech (*Fagus* sp.)

Ash leaves are compound and made up of more than one distinct leaflet. In contrast, simple leaves such as those on most maples are undivided. A compound leaf of green ash (*Fraxinus pennsylvanica*)

Most ash leaves have 5-9 leaflets with a single terminal leaflet. If there are less than 5 leaflets or more than 9, it is generally not an ash. However, occasionally black ash and blue ash can have up to 11 leaflets.

