

Emerald Ash Borer: Myths and Truths



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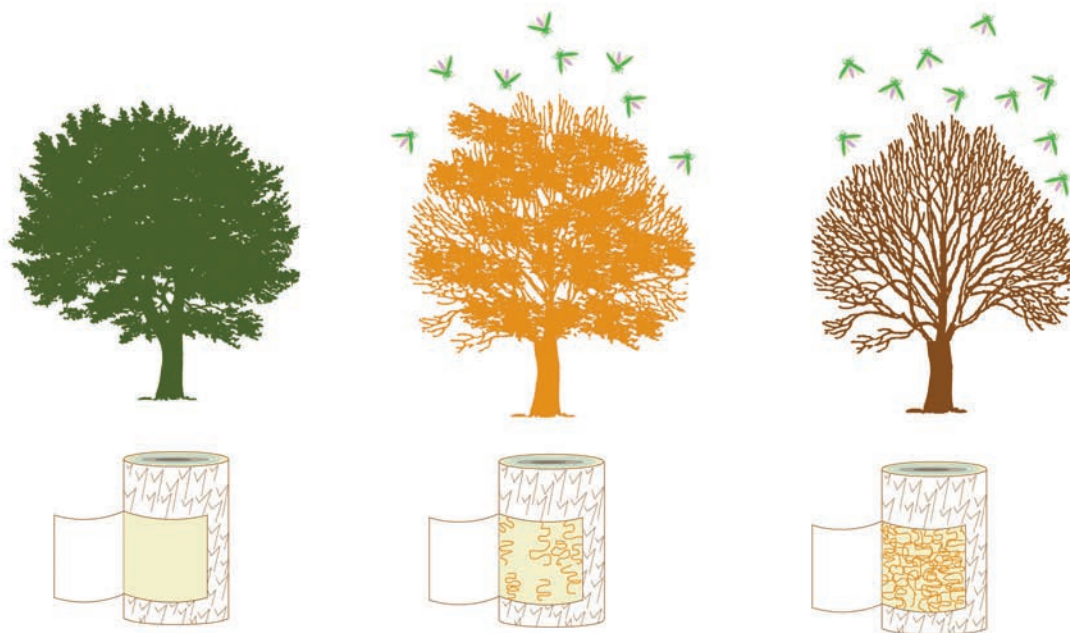
Since its discovery in Michigan in 2002, emerald ash borer has killed an estimated 100 million ash tree across the United States. Here in Minnesota, the impact of emerald ash borer is just beginning to be felt. Hundreds of valuable ash trees have already been cut down in Minneapolis and St. Paul. There are an estimated 937 million ash trees throughout

forests, parks, and neighborhoods in Minnesota. Here in the Twin Cities, one in five trees are ash, so the loss of this species will have a significant impact on the look and feel of our community. Just look around – you are likely to see an ash tree.

Emerald ash borer has set a new bar in terms of media interest



in fact, almost **1 in 5** trees in the Twin Cities, are ash!



and coverage for an urban forestry issue and as it continues it spread into our community this year, that media buzz is not likely to die out any time soon. While the media has been successful with getting a message out to the public about EAB, exactly what message has been reaching them can hurt as much as it can help. For as much quality information that is out there on EAB, there are more myths, confusions, half-truths, and flat out misconceptions that exist around this insect than maybe any other tree pest in history.

To help combat some of this misinformation, the Coalition for Urban Ash Tree Conservation was formed. The Coalition consists of academics, researchers, industry scientists, and strives to get consensus

from industry leaders on best management practices for treatments or removals, and provide a unified voice for the conservation of the ash tree. At a recent meeting, the Coalition discussed myths associated with EAB and its management. While this is by no means a comprehensive list of myths, it may touch on a few that



you may be hearing from the media, government agencies, or even from tree care companies in our area.

EAB Myth #1:

Tree removal slows EAB spread

Fact: ***Tree removal has a minimal impact on slowing the spread of EAB infestations***

This myth may seem counterintuitive at first – shouldn't less ash trees result in less ash borers?

If you are just considering, for instance, one city block where all the

ash trees have been removed then, yes, it will definitely slow to the spread to that block. However, EAB will then just find the next block with ash. The beetles are capable of flying up to 14 miles on their own; if we remove their food source in one spot they will simply fly further to find more. Municipal management strategies that have focused on removing boulevard ash trees simply move the insect to the homeowner's yards or to trees in naturalized areas. Preemptively removing ash trees actually helps quicken the spread of an established EAB population, rather than slow the spread as intended.



EAB Myth #2:

Treatments do not work

Fact: ***Treatments are highly effective against EAB***



In both field trials and in actual practice, treatments have been saving trees with predictably for many years now. There was a short time at the beginning of EAB management where application rates for certain treatments had not been optimized to defend ash trees against this new pest, but today EAB treatments are as effective and predictable as any tree health care management program in the industry. In fact, as a quarantined pest, any product labeled for EAB treatments must provide actual efficacy data to the EPA to be considered for registration. This means that every product available on the market for EAB has to have been shown to

work. In addition to data submitted to the EPA, numerous independent University trials have also shown treatments have a high level of success when used as directed.

A few years ago, removal was about the only recommendation coming from the State agencies on EAB. Today, even the Minnesota Department of Agriculture's message is: "Remember the 3 P's: Prepare, Protect, and Plant," which is a better message to homeowners than "Nothing can be done."

EAB Myth #3:

There is only one effective treatment for EAB

Fact: ***There are four effective treatments and three application methods that are effective***

This myth is no doubt the result of strong marketing efforts by product manufacturers. Since the one size fits all concept of EAB management is rarely the best option for either homeowners or municipalities, it is an important concept to dispel. When it comes down to it, there are literally dozens, if not hundreds of insecticides that would kill EAB if they came into contact together.

While EAB is a challenging insect for managers, it is still an insect, and thus can be killed by insecticides. That said, for the highest degree of control, combined with the realities of application operations, there are three main active ingredients that are recommended by universities and the Coalition. Those three are emmectin benzoate (TREE-age), imidacloprid (Xytect, Merit, others), and dinotefuran (Safari, Transtect). There are also several ways in which these treatments can be applied. Soil applications (imidacloprid, dinotefuran), tree injections (TREE-

age, imidacloprid), and systemic bark spray applications (dinotefuran) are all viable application methods for EAB management. Recently, an organic azadiractin option, TreeAzin, has become available in the US, broadening the management options further.

Choosing the perfect combination of active ingredient and application method will vary by threat level, economics, and management objections, but ensuring the stakeholders are aware of all the options available to them is important



The healthy trees on the left and right of this stand received a standard treatment to kill Emerald Ash Borer. Phot courtesy of D. Smitely from MSU.

so they can make the best informed decisions.

EAB Myth #4:

Treatments are too expensive

Fact: *Treatment is often less expensive than 'remove and replace' strategies*

The economics of EAB treatments is always a touchy subject, but one that is probably the most important in terms of getting a conservation program started, how many trees can be treated, and for how many years treatments are to

be utilized. The treatments will have different costs associated with them depending on the number of trees to be treated, application technique, cost of labor, speed and efficiency of application crews. The real value of treatments comes when compared to removal and replacement costs. In many cases, legacy-sized trees (15" in diameter or larger) can be successfully protected for decades for the same cost to the city or homeowner that removal would have been. Additionally, the cost of treatment is spread out annually or biannually during that time so they pay a small amount over 20 years rather than a

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several thousand-dollar tab per tree in one year.

Ash trees typically add about an inch of trunk diameter each year, so that means it will take about 20 years to replace a 20" diameter tree. Put into perspective, this is the same length of time it takes a newborn baby to become a college student. Considering the benefits the trees are providing, the cost of treatments versus removing and replacing, and being able to spread that cost over many years, it is easy to see why the belief that treatments are too expensive deserves to be dispelled.

The value of treatments extends well beyond just the price of treating versus the price of removing and replacing. A mature tree provides

numerous benefits in terms of property values and environmental impacts that a newly established tree cannot. The lesson learned from other cities that have been dealing with this devastating pest longer is the longer we wait for action, the more trees we will lose, and the greater impact on our urban forest.

Emerald ash borer, while garnishing comparisons to other prominent urban forestry epidemics like Dutch elm disease, is truly an unprecedented event. Stories in 2004 predicted the extinction of every North American ash species, as did 1960's articles on American elms. Only time will tell if either prediction was prophetic, or sensationalistic. In the meantime, all we can do is continue to educate the public on the options and save one tree at a time.



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