

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*



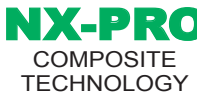


The economics of EAB treatments is always a touchy subject, but one that is probably the most important in terms of getting a conservation program started, how many trees can be treated, and for how many years treatments are to



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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Got Duckweed?

Steps to Maintaining Duckweed-Free

By Mark Koepsell, Healthy Ponds from Bioverse.



photo credit Andy Keyes, Assistant Superintendent at The Meadows at Mystic Lake

Hopefully at this point in the season you have gotten the algae in your pond under control, but here comes another menace -“Duckweed”. It starts out slow. Some small green oval-shaped body called a “frond” start growing around the edges of your pond. These fronds proliferate into colonies which if not treated, can cover the entire surface of the pond.

Common duckweed is a very

small light green free-floating, seed bearing plant. Duckweed has one to three leaves with a single root-hair. Duckweed reproduces by means of asexual reproduction called budding. One single duckweed plant forms a daughter bud per day. Duckweed spreads rapidly, especially in quiet water containing high levels of nitrogen and phosphates. Now what do you do?

e Ponds



There are basically two ways to control Duckweed. The natural option would be to rake or seine the surface of the pond. The other option is to treat the Duckweed chemically. The following are the chemical control options available:

- Liquid Diquat -brand name SeaPro or Litora - has been effective on duckweed. It is a contact algaecide and herbicide. Contact herbicides act quickly

and kill all plants cells the contact

- Floridone - brand names include SeaPro, Sonar AS, Avast, and Whitecap. These are broad spectrum, systemic herbicides that are absorbed and move within the plant to the site of action. Floridone compounds come in both liquid and granular forms. Systemic herbicides tend to act more slowly than contact herbi-



cides.

- Imazapyr - brand name Habitat - is a systemic herbicide that is effective on post-emergent floating and emergent aquatic vegetation. Imazapyr is effective at low-volume rates and does not contain heavy metals, organochlorides, or phosphates, making it safe for animals and humans.
- Liquid Penoxsulam - brand name Galleon - is a broad spectrum, systemic herbicide that is absorbed and moves within the plant to the site of action. Like Floridone, this herbicide tends to act more slowly than a contact herbicide.
- Flumioxazin - brand name Clipper- is a water dispersible gran-

ule which must be mixed in water first and then either sprayed or injected. This is a broad spectrum, contact herbicide that acts quickly. When using Flumioxazin, it is important that the pH level in the pond is below 8.5 or Flumioxazin will rapidly degrade and lose effectiveness.

Many aquatically registered herbicides have water use restrictions. It is important to always read and follow the label directions and check label for specific water use restrictions. It is also important to determine the correct area and/or volume of the pond to be treated. To determine the amount of gallons of water in the pond, use the following equation: