

WAA EAB Treatment Position

5/9/07

Emerald ash borer (EAB) is a very serious problem that **threatens all ash** trees in the Midwest. It has **not** been found in Wisconsin as of 5/9/07 but is in multiple sites in northern Illinois. An important pressing question is, "If and when should I start preventative treatment if I want to protect an ash tree?"

Unfortunately, there are differing opinions on this question and the facts are not fully conclusive. Most of the money (\$100 million +) that has been spent on EAB has gone into removal of trees with the hope of eradication. While some additional funding has been put towards research to develop trapping methods and better understanding of the EAB life cycle, there still is much to be learned.

One important point to remember - **you have time to deal with this!** It has not been found in Wisconsin. It is very likely that recommendations will change over time. Researchers are working hard to find out more about EAB and better ways to detect it. As we learn more, the management recommendations are going to change. It will be important to be aware of these changes.

In our opinion, if you would like to consider treatment there are some important points to consider (and relay to your clients/residents) before any action is taken:

1.) Treatment:

- **Candidates:** High value or important trees (specimen trees, ones shading your home or patio, etc.) are best candidates for treatment. Ultimately, the tree owner will have to decide what a high value tree is after all facts are presented.

- Any trees considered for treatment should be vigorous and structurally sound.
- If the tree is located within an eradication cutting zone, the tree will be removed, even if it is being treated. The use of eradication cutting by the state will be evaluated on a case-by-case basis.

- **Products: Imidacloprid has been shown to protect trees from EAB.** Studies suggest it is 85% effective. It is best if the treatment is in place ahead of insect pressure.

- Imidacloprid will not control all ash insects such as most native ash borers (clearwing borers) but will control leafhoppers, plantbugs and aphids. Proper diagnosis is important if other problems exist.

- Trunk injections of imidacloprid (Imicide, IMA-jet, Pointer) and Bidrin (Injecticide-B) have been shown to control EAB but have to be balanced against potential trunk damage.

- There is some question as to the ability of imidacloprid to control larger instar stages of borers.

- Multiple insecticide trunk sprays of bifenthrin (Onyx), cyfluthrin (Tempo), permethrin (Astro), or carbaryl (Sevin) may be effective at preventing egg laying and are a treatment option.

- **Methods: soil injection is the preferred treatment** technique for Imidacloprid. Trunk injection should only be done in emergency situations (high value trees with active EAB). Trunk injections do damage and stress trees and repeated annual injections will likely cause significant tissue damage.

- New methods such as bark penetrates may offer options and will have to be evaluated.

- Sprays may also have to be combined with Imidacloprid treatments when the beetle infestation is high.

- **Annual treatment is needed** or trees will lose protection, so cost may be a factor (planting may be a less expensive option in the long run).

- Preliminary work suggests in the 10 to 20 year time frame, prevention of EAB infestation is warranted and this also affords time for replacement trees to be planted in the near term and grow into sizable trees.

2.) Planting:

- Planting replacement trees is also an important option to consider instead of, or in combination with, treatment. In many situations, planting is the best step to take.

- **Planting a variety of trees is critically important!** One of the key reasons EAB could be so destructive in Wisconsin is that there were too many ash planted in our communities after Dutch elm disease. We **must** prevent this same scenario from happening again in the future! Review: *Alternative to Ash Trees: Commercially Available Species and Cultivars* by Dr. Laura Jull for planting ideas at <http://www.uwex.edu/ces/wihort/landscape/AshAlternatives.doc>.

Be sure you know what you have:

Misdiagnosis could be a big problem. Do not remove a living ash tree because of EAB unless you are sure of what is wrong because there are several look-alike problems. There are also many other problems with ash trees caused by wet and cool spring conditions and from previous years of drought or moisture stress. Most ash insect and disease problems will not warrant removal. If trees are infested with EAB they will need special handling (this will be covered separately). Take time to properly assess the problems and collect all of the relevant facts before you take any action. Remember – you have time!

When should treatment be started? Some people say you could be wasting money and materials in treating when EAB is not very close. Others will point out that early protection is most effective and without good detection methods, we do not know where EAB is for sure. Be aware that current UW Extension recommendations are conservative and do not recommend treatment because EAB has not been found in Wisconsin yet. We feel it is important to learn from other states with EAB. Given the facts that where it has been found it has been present for 3 to 6 years and early protection is best; it is important to acknowledge the potential role of proper early treatment in protecting high value trees. What is right for one person may not be right for another. Each ash tree owner will have to make up their own mind.

You and your clients/residents should have all of the facts before you take removal or treatment action. It is important to include ethical decision making as we move forward. EAB is a problem that will see recommendations change as the infestation changes and as researchers gather more facts. You can rely on the WAA to help bring those facts to you so you can best manage the state's urban forests.

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