

Emerald Ash Borer: Too Close for Comfort!



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The Emerald Ash Borer (EAB), *Agilus planipennis* Fairmaire, is an exotic (non-native) beetle that was first discovered in the United States in southeastern Michigan near Detroit in the summer of 2002. Since then it has been found in Windsor, Ontario Canada, Ohio, and Indiana. Most recently (early June 2006), EAB was discovered in Kane county Illinois (St. Charles), less than 40 miles from the Wisconsin state line (Walworth county) as well as it was found in mid-June in South Bend, Indiana.

The larval (immature) stage is the damaging life stage of this pest; it feeds on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients. It is suggested that EAB likely arrived in the United States on solid wood packing material carried over 10 years previously in cargo ships or airplanes originating in its native Asia. In Michigan it has

only been found in ash trees (*Fraxinus* spp.) including green, white, blue, and black ash species. All ash trees, regardless of location (urban landscape or woodlot) or condition (health) may be affected.

Since its discovery, EAB has killed in upwards of 17 million trees in Michigan, Ohio and Indiana, most devastation occurring in southeastern Michigan. In response to this insect pest, respective state regulatory agencies have established quarantines of all ash materials (nursery stock, firewood, felled trees, mulch, etc.) to prevent the movement of EAB. The Michigan Department of Agriculture has adopted and implemented an EAB eradication program as recommended by the United States Department of Agriculture. The EAB eradication program consists of conducting a delineation survey of ash trees within a



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1/2-mile radius of the EAB infested ash tree, consequently, all ash trees regardless of an EAB infestation or not are felled (cut down). Although perceptually a quite harsh approach, theoretically this management approach has the greatest chance of providing the highest probability (closest to 100%) of reducing or minimizing the spread of EAB.

As you might expect, this approach can be quite costly; it is estimated that each 1/2-mile EAB eradication effort costs between \$600,000 and \$1,000,000 to conduct. Thus, if EAB is detected in numerous locations, this management approach can very quickly become cost prohibited due to the limited number of monetary resources available. This may have been the rational or justification that the Indiana Department of Agriculture used as they have elected not to participate or implement the EAB eradication program.

Currently, the Wisconsin Department of Agriculture, Trade and Consumer protection has an EAB Emergency Management Plan that includes EAB eradication. Again, this means that if EAB is discovered in Wisconsin, a delineation survey of ash trees within a 1/2-mile radius will be conducted and all ash trees (infested or not) will be felled and destroyed. A concerted and collaborative effort between the University of Wisconsin College of Agriculture and Life Sciences, University of Wisconsin-Extension, Wisconsin Department of Natural Resources, Wisconsin Department of Agriculture, Trade and Consumer Protection, and the United States Department of Agriculture/Animal & Plant Health Inspection Service/Plant Protection and Quarantine has been ongoing since 2003 regarding EAB. As a result, communication and plans with entities such as the Native American tribes, sawmills, paper mills, solid-wood packing, pallet, arborists, etc. have taken place to develop and establish response plans to most effectively respond in the event that EAB is discovered in Wisconsin.

Currently, no management strategies are suggested for Wisconsin. However, if or when EAB is discovered in Wisconsin, several insecticide treatment options are available. Based on research generated at Michigan State University, both homeowners (do-it-yourselfers) and professionals have some viable treatment options that are quite effective in managing EAB. For the homeowner, three treatment options are available: 1) Bayer Advanced Garden Tree and Shrub Insect Control; 2) Bonide Systemic Insecticide Bullets; and 3) ACECAP 97 Systemic Insecticide Tree Implants. Whenever using pesticides, ALWAYS read and follow label directions! For additional information regarding these products, visit www.emeraldashborer.info. Keep in mind, should you elect to preventatively treat your ash trees and you are within a 1/2-radius of where EAB

is discovered, even though you proactively treated your ash trees, they will be felled and destroyed.

More times than not, professionals typically have more products available than do homeowners, this is also true for EAB insecticide options. Professionals have access to additional products such as Onyx (bifenthrin), Mauguet Imicide and Mauguet Injecticide-B (bidrin), as well as other trunk injection technologies such as the ArborJet (a pressurized trunk injection system).

Should you choose to make EAB insecticide treatments, trunk injections, soil drenches and injections should begin in the early spring (mid-April through June); timing is highly dependent on the size (diameter at breast height or DBH) of the tree and larger trees (> 6 inches DBH) may require two to three months for uptake. Bark (trunk and limb) spray applications should be applied prior-to or when adult EAB are emerging.

For more information regarding EAB visit the University of Wisconsin-Madison, Department of Entomology, Emerald Ash Borer website at www.entomology.wisc.edu/emeraldashborer.



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