

Planning our Strategy on the Emerald Ash Borer:

Important factors to consider related to chemical treatment

As the map of emerald ash borer (EAB) findings in MI, OH and IN illustrates more and more infestations, Wisconsin must prepare for the inevitable—EAB in our state. In spite of efforts to contain the insect outside our borders and detect it in state, EAB may already be in Wisconsin at a low population level.

The following discussion focuses on only one part of the plan for managing EAB—eradication and questions regarding chemical treatment.

Emerald ash borer is particularly problematic. It affects multiple industries, has cultural implications for Native Americans, impacts tourism and even touches citizens in their own backyards. Prevention of artificial movement of this destructive pest (particularly the movement of firewood from infested areas to non-infested areas), early detection and decisive control actions are most important to stopping the spread of this pest. The collaboration of federal and state regulators in reaching a workable consensus is the key to implementing decisions related to EAB management options that are effective. This collaboration must also include input from those affected as well as partners who may be part of the solution—this is critical to creating a successful outcome. We appreciate and welcome vigorous discussion regarding initial and long-term management plans.

A consistent treatment policy in dealing with EAB finds—based on the best available and most current science—will lend credibility to the plan and confidence in the program, both regionally and nationally. No single group or agency can manage this insect on its own; we all need each other's help. This is perhaps the largest tree-health challenge that we have faced in the last 25 years. We look forward to working with professionals in the nursery, landscape, forest and arboriculture industries as a team in this most urgent battle.

What guides the plans for EAB?

EAB is regulated nationally by USDA Animal Plant Health Inspection Service (APHIS) and within the state by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). Decisions related to management options are guided by a national science advisory panel that is staffed with APHIS and state department of agriculture representatives as well as research scientists that are experts on the biology and management of this insect.

What will the *initial* plan be when EAB is found in Wisconsin?

Currently, the national strategy recommends eradication when an *isolated population* is identified. This strategy is being followed in Michigan, Ohio and Indiana. When EAB is found, a delimiting survey will be conducted to determine the extent of the infestation. Depending on the results of that survey, a plan will be formulated. If eradication is chosen, all ash trees within a half mile radius of any infested tree will be removed; stumps will be treated with an herbicide to prevent sprouting and some stumps may be ground. Non-symptomatic trees within the half mile radius must be removed because trees in the early stages of infestation often do not show symptoms.

Either a quarantine or other regulatory status will be applied to the infested area. There will be specific rules regarding the movement of ash material out of the regulated area. These are currently being developed by DATCP. Ash trees removed within the eradication zone will have to be treated (destroyed or processed to specifications) according to DATCP's rules; every effort will be made to facilitate utilization of the material.

When EAB is found in Wisconsin, all options will be reexamined before eradication is pursued. Recommendations of the national science advisory panel and availability of funds will be a key factor in the final decision.

Eradication doesn't appear to be working in Michigan, why are we planning this activity?

Wisconsin has an advantage over Michigan; we are also in a very different position. We have had time to survey for EAB before its population is too large to eradicate. When EAB is found in Wisconsin, it is not likely to be widespread over several counties but rather found in localized infestations, thus our chances of effectively eradicating it or significantly slowing the movement are very good. Michigan continues to eradicate EAB in isolated infestations.

The emerald ash borer does not move rapidly on its own. The isolated outlying populations have been shown to originate from artificial movement (primarily through infested firewood). The slow natural movement makes the possibility of eradication more likely. A firm commitment to managing the movement of firewood by regulating agencies and the public is also part of the EAB management plan.

Why would we put so much effort into eradication? Does it ever work?

The ash resource—stretching west, north and south of Wisconsin—is at stake. Over 700 million ash trees in Wisconsin alone inhabit three timber types. Ash is the second most common tree in our urban forests. It is a key component of our bottomland hardwood forests and in our ash swamps. Black ash, our most common species, is an important tree for Wisconsin's Native American tribes because it is used for weaving baskets. Losing ash in any of our timber types would decrease biodiversity but would be particularly devastating to our bottomland forests where regeneration of the few species that grow in bottomlands is already a challenge. EAB kills healthy trees and has already proven its ability to move through an area, killing all species of North American ash.

Eradication of exotic plant pests is often not successful yet recent quick and aggressive actions in Chicago appear to have successfully eradicated the Asian longhorned beetle. Research on alternative treatments is proceeding at a rapid pace and new approaches will be developed in time. ***We need time for new management options to be developed and tested.*** Eradication could delay establishment of EAB and give us the critical time needed to implement better strategies. Eradication is not an activity that state or federal plant pest professionals enter into lightly. It will not be easy or popular; it is the most effective method known of eliminating a pest population in an isolated infestation.

If an ash tree in the eradication zone has been treated, will it be removed?

Yes. Research has shown that no current chemical treatment is 100% effective. Eradication will take diligence and dedication to completely eliminate all sources of infestation. Treated trees can still harbor EAB.

Doesn't it make sense to treat trees in the immediate vicinity of eradicated areas?

If eradication is successful, it will not be necessary to treat nearby trees with insecticides. There is no guarantee that insects will only lay eggs on treated trees. EAB may lay eggs on several trees and if any nearby trees are not treated (for example on wild fence rows, woodlot or rights of way trees), they will eventually show symptoms and the new infested area will have to undergo eradication.

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Doesn't cutting all the trees down eliminate the possibility of detecting or developing natural resistance?

Cutting and destroying trees will not be a widespread practice. This practice is reserved for isolated infestations. Also, the Natural Resource Conservation Service is coordinating a national effort to collect and preserve ash seed in the event that EAB does destroy the ash resource.

Are there any circumstances when treating trees with insecticides would be recommended as part of a management plan for EAB?

Yes. In the future, it is possible that APHIS will not be able to provide all of the funding for EAB eradication statewide. This process could occur as the insect moves from one area of the state to another. Some parts of the state could be considered generally infested and no longer suitable for eradication, while other areas may still be part of an eradication program. Thus, several different management activities may be going on at the same time within our state. In that case, use of pesticides may be encouraged under certain conditions, but for now, use of pesticides is not part of the eradication plan for Wisconsin.

Should pesticide treatments become part of the management plan for EAB, who do I contact for the latest information about treatment options?

Dr. Chris Williamson, UW–Madison Extension entomologist, is gathering information on chemical treatment options. Dr. Williamson will make this information available through various means.

Melody Walker – DATCP Plant Pest Survey

Dr. Chris Williamson – UW–Extension

Entomologist

Jane Cummings-Carlson – DNR Forest Health Protection

JoAnn Cruse – APHIS Plant Protection and Quarantine