

Emerald Ash Borer

A serious threat to North American ash trees

U.S. Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry



Description: Emerald ash borer (EAB), *Agrilus planipennis*, a native of Asia, is the most devastating forest insect to reach North America in modern times. Few if any ash trees survive in EAB-infested areas. Millions of ash trees in Michigan, Indiana, Ohio, Illinois, and beyond have already died.

EAB surfaced near Detroit in July 2002 and shortly afterward in Windsor, Ontario. Movement of infested nursery stock and wood products has further contributed to the spread of the insect. EAB is now confirmed in 22 States: Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin, and Tennessee; in 2013, it surfaced in Colorado, Georgia, New Hampshire, and North Carolina. Annual national detection surveys continue to find emerald ash borer in more counties in these and other States. The insect is also continuing to turn up in new locations in Ontario and Quebec, Canada.

Key Issues:

- The estimated value of ash trees in forests and urban areas exceeds \$300 billion.
- Widespread ash tree mortality is happening across a larger area, with the insect just now invading areas containing the largest concentrations of ash trees.
- Movement of infested firewood is a major cause of new infestations.
- None of the 16 native North American ash species appear to be completely resistant, although specialists have found a few individual trees that may have some resistance.
- Green ash and black ash are common along river corridors and in wetland forests; losing these trees would significantly impact water quality.
- Ash is the most common street and landscape tree in many cities. Removing infested and dead trees and planting replacement trees could cost local governments and homeowners \$12.5 billion over 10 years, according to a recent study.
- Detection and treatment tools are still limited but advances are being made.
- We need to continue to develop and improve tools and tactics to manage EAB and its aftermath.
- Finding, introducing, and establishing natural enemies of EAB may provide long-term help in managing EAB populations and spread.
- Steady, long-term assistance to State and local governments is needed, particularly for activities to prepare for the arrival of EAB and to deal with affected areas in the aftermath of outbreaks.

Accomplishments:

The U.S. Forest Service is a major partner in EAB response. We support lead Federal and State plant pest regulatory agencies and work with numerous partners to develop tools and technology to manage EAB and its impacts. In cooperation with State partners, the Forest Service helps communities and landowners prepare for the arrival of EAB. Accomplishments in 2013 include:

- Sponsored the *Emerald Ash Borer University*—a series of EAB-related Webinars for forest health practitioners, local officials, and others—in cooperation with Purdue, Ohio State, and Michigan State Universities. The Webinars are continuing into 2014.
- Supported continuation of the national EAB Web portal, *emeraldashborer.info*, and the production and national distribution of EAB display kits in cooperation with Michigan State University.

- Provided State and Private Forestry Redesign funds to the Pennsylvania Bureau of Forestry to help communities prepare for EAB. The Bureau is conducting inventories and helping selected communities develop EAB plans. Communities with plans that meet Bureau guidelines will be eligible for future financial assistance for EAB treatments.
- Provided financial assistance to the Borough of West Chester (PA) for an EAB suppression demonstration. The project will treat 106 high-priority, at-risk ash trees; remove 18 high-risk trees; survey and assess 124 trees; and reach out to the public and private citizens in West Chester and two neighboring townships.
- Provided technical and financial assistance to Federal and State partners to collect ash seed for preservation.
- Printed and distributed EAB information to all cooperators and interested parties as part of our emphasis on early detection.
- Provided technical and financial assistance to the Department of Veterans Affairs to treat EAB-infested and at-risk trees at the National Cemetery at Fort Snelling in Minnesota.
- Supported evaluations of possible resistance in native ash trees.
- Cooperated with State partners to utilize the solitary wasp, *Cerceris fumipennis*, as an early detection tool for EAB in six States (CT, MA, ME, NH, RI, VT).
- EPA funding through the Great Lakes Restoration Initiative was allocated to five projects in three States (IL, MI, OH) in the Great Lakes watershed to restore urban forests that were adversely affected by EAB infestations.

Budget History:

Emerald Ash Borer <i>(dollars in thousands)</i>				
Source	FY 2011	FY 2012	FY 2013	FY 2014
Forest Health Management ¹	\$2,865	\$1,250	\$577	TBD
S&PF Redesign	175	685	187	TBD
Great Lakes Restoration Initiative ²	1,330	1,229	1,041	TBD
Totals	\$4,370	\$3,164	\$1,805	TBD

¹ Includes appropriated EAB funds, carryover, and other funds directed by the FHP national director

² Funding provided by EPA for EAB preparedness and restoration projects in the Great Lakes watershed

Future Direction:

- Help Federal, Tribal, State, and local governments; homeowners; and landowners prepare for EAB.
- Develop effective management tools and strategies to deal with the aftermath of EAB outbreaks.
- Promote the release and establishment of EAB biocontrol agents.
- Reduce EAB-induced impacts in high-value areas and unique ecosystems.
- Promote and restore healthy, sustainable urban and natural forests.

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