

Questions and Answers: USDA's 2008 Emerald Ash Borer Survey

The emerald ash borer (EAB) is a small, metallic-green, wood-boring beetle that was discovered in southeast Michigan in 2002. Native to Asia, it is believed to have been unknowingly transported to the United States in wood packing material. Since its discovery, the EAB has been detected in six other States—Illinois, Indiana, Maryland, Ohio, Pennsylvania, and West Virginia. Federal and State quarantines have been established in these States to mitigate the spread of EAB. Quarantines prohibit the movement (within the State and out of the State) of regulated articles, which include ash nursery stock, green ash lumber, pallets, branches, stumps, etc., and all hardwood chips and firewood.

Q. What is the 2008 EAB Survey?

A. The 2008 EAB Survey's goals are to identify the leading edge of known EAB infestations and to locate other outlying EAB populations. The survey, conducted in 48 States, will use approximately 60,000 detection tools or "traps" throughout the country.

Q. Who is involved in the 2008 EAB Survey?

A. The EAB survey initiative is a collaborative effort between the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) and numerous State departments of agriculture or natural resources. In all, 48 States will survey for EAB; however, because of their differing survey objectives, not all States will employ the same trap density.

The States of Illinois, Indiana, Iowa, Kentucky, Maryland, Michigan, New York, Ohio, Pennsylvania, West Virginia, and Wisconsin will participate in a delimiting survey within a 100-mile band of known EAB infestations. These States will deploy purple traps in a 1.5-mile by 1.5-mile grid where ash is found growing. (See 2008 Emerald Ash Borer Survey Guidelines for a map of the survey area). For more information visit www.purpleeabsurvey.info.

The remaining States will participate in a risk-based survey where purple traps will be placed in ash trees at high-risk locations such as in campgrounds, recreational areas, saw mills, nurseries, and new commercial/residential developments.

Q. Who is paying for the cost of surveying in my State?

A. The EAB survey is funded by USDA. Each participating State has submitted a cooperative agreement and work plan to determine resources necessary to successfully complete the survey.

Q. What do the traps look like?

A. The trap is a three-dimensional triangle or prism. It's made out of thin, corrugated, purple plastic that has been coated with non-toxic glue on all three sides. The purple prisms are about 24 inches long and hang vertically in an ash tree or are secured to the trunk of a tree. To increase the attractiveness of the trap to the beetles, it is baited with a lure (Manuka oil).

Q. Why do you call these detection tools "purple traps"? Do they really trap EAB?

A. We frequently refer to the detection tools as "purple traps" out of convenience. The current purple trap is the best tool available today for EAB detection.

Q. Why is the color purple significant and what is the lure?

A. For many insects, color frequently plays an important role, and the EAB is no exception. In 2003, researchers began investigating the EAB to develop an effective detection tool. Scientists from Tennessee State University (TSU) found that buprestids (the insect family to which EAB belongs) in general are more attracted to red and purple hues compared to other colors. Therefore, researchers initiated a study using a variety of red and purple traps to determine which trap attracted the most beetles; the purple trap achieved the best results.

To improve the purple traps' attractiveness to EAB adults, they are baited with oil from the Manuka tree. Researchers found that there are four active compounds in Manuka oil that are also produced when an ash tree is girdled or stressed. Researchers also discovered there was an EAB antennal response to these compounds. In field tests when baited traps and non-baited traps were compared, traps baited with Manuka oil attracted more beetles than traps that were not baited.

Q. Why are the purple traps only placed in ash trees?

A. Ash trees are the only host species for EAB. The lifecycle of EAB is dependent upon the ash tree; the adults feed on the leaves, lay eggs in its crevices, and

the larvae develop under its bark. All ashes (green, white, black, etc.) are EAB hosts.

Q. How long will the survey take to complete?

A. The purple traps will be placed in ash trees this spring before EAB adults emerge. The traps will be monitored and remain in place throughout the summer during the beetles' flight season. This fall all traps will be removed.

Q. Is the purple trap safe?

A. The purple traps pose no risk to humans, pets, or wildlife; however, the non-toxic glue can be extremely sticky and messy if touched. If you see one on the ground, please call USDA at 1-866-322-4512 to report it.

Q. What should I do if I see a purple trap on the ground?

A. If you see a purple trap on the ground, please contact your State department of agriculture or natural resources. You can also call the USDA toll free number (1-866-322-4512); after regular business hours, please leave your name, phone number, and the State you're calling from. Someone will return your call on the next business day.

Q. How does the purple trap work?

A. During EAB adult emergence, beetles fly around ash trees, nibbling on leaves and looking for a mate. If an EAB lands on a purple trap, it will get stuck in the glue. Mid-summer survey crews will visit trapping sites to refresh lures and collect any insects stuck on the traps. In the fall, crews will return to trap sites a second time to collect samples and remove the traps.

Q. If EAB is not known to be in my State, will the purple trap attract EAB and draw the beetles to my State?

A. Purple traps do not attract or pull beetles into an area. The traps are a detection tool to help find EAB if it is present in the area.

Q. What happens when an EAB is found on a purple trap?

A. The insect samples collected from the traps will be cleaned and sent to a USDA identifier for verification. All verifications of EAB will be communicated to the appropriate State plant regulatory official.

Q. If a purple trap is in my area, does that mean EAB is there?

A. Purple traps help detect EAB. A trap located in your community does not mean EAB is present; it means we are looking for the beetle. The goals of the 2008 EAB Survey are to define the leading edge of the infested area and to locate new outlying EAB infestations.

Q. What can I do to support the 2008 EAB Survey Program?

A. Please talk to your family and friends about the EAB survey to make them aware. Survey traps will be in ash trees throughout the summer; the public is being asked to please not disturb them. If you see a purple trap on the ground or damaged, please contact your State department of agriculture or natural resources to report it. You may also call the USDA EAB Hotline at 1-866-322-4512.

In addition, become familiar with the signs and symptoms associated with an EAB infestation and inspect your own trees for any indications. Lastly, don't move firewood; buy it at your destination instead.

For more information on EAB, please visit the APHIS Web site at www.aphis.usda.gov.

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