

Questions and Answers: USDA's 2010 Emerald Ash Borer Survey

Q. What is the 2010 Emerald Ash Borer Survey?

A. The 2010 Emerald Ash Borer (EAB) Survey will employ a manufactured detection tool or *trap* to monitor known EAB infestations and to locate other unknown beetle populations. Using grid-based and risk-based survey strategies, approximately 75,000 traps will be deployed in 49 States (the State of Hawaii will not survey for EAB).

The grid-based survey strategy will be used to monitor known EAB infestations, and the risk-based strategy will set traps at high-risk sites like campgrounds and sawmills to detect unknown beetle populations.

Q. What does the EAB detection tool or trap look like?

A. The EAB 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 ash trees or are secured to the trunks of trees. To increase the attractiveness of the traps to EAB, they are baited with a lure.

Q. Who is involved in the 2010 EAB Survey?

A. The EAB survey initiative is a collaborative effort between the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) and State departments of agriculture or natural resources. Forty-nine States will survey for EAB; however, not all States will employ the same trap density. Some States are participating in both grid-based and risk-based surveys.

The States of Illinois, Indiana, Iowa, Kentucky, Minnesota, New York, Pennsylvania, Vermont, Virginia, West Virginia, and Wisconsin will participate in grid-based surveys to monitor known EAB infestations.

The remaining States will participate in a risk-based survey in which purple traps will be placed in ash trees at high-risk locations such as campgrounds, recreational areas, saw mills, nurseries, and new commercial/residential developments. See the 2010 Emerald Ash Borer Survey Guidelines for additional information about these surveys.

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 work plan to determine resources necessary to successfully complete the survey and signed a cooperative agreement with USDA.

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

A. We frequently refer to these detection tools as *purple traps*, out of convenience. The detection tools are purple, and beetles that land on the sticky panels do become trapped, but they do not trap EAB in the sense of catching the beetle to reduce/deplete populations. The purple trap is currently the best tool we have for EAB detection; however, through our on-going research, we are working to make an even more effective detection tool available in the future.

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

A. In the insect world, color frequently plays an important role, and the EAB is no exception. In 2003, researchers began investigating EAB responses to different stimuli in an effort 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. The purple traps are baited with natural oils that contain compounds produced by ash trees when they are girdled or stressed. Research has shown that EAB is attracted to these compounds.

Q. How does the purple trap work?

A. In their adult stage, EAB 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. In mid-summer, survey crews will return to the trapping sites to refresh the lure and collect any insects stuck on the traps. In the fall, the crews will return to the trap sites a second time to collect samples and remove the trap.

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. As a result, the EAB are drawn to ash trees. All 16 native species of ash, including green, white, and black ash, 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. Why are purple traps being used instead of detection trees?

A. The purple traps offer a variety of advantages over detection trees. The traps are safer and less costly to set, and they do not harm the trees. They also provide uniformity in sampling and repeatability. Furthermore, the purple traps have been found to be as effective as detection trees.

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. The traps will be in ash trees throughout the summer; please do not disturb them. If you see one on the ground, please call 1-866-322-4512 to report it. If you call outside of regular business hours, leave your name, telephone number, and the State and location of the fallen trap.

Q. What can I do to support the 2010 EAB Survey Program?

A. Please talk to your family and friends about the EAB survey. Also, if you see one of the purple traps on the ground or damaged, please contact your State department of agriculture or natural resources to report your concerns. You may also call the toll-free USDA-EAB Hotline at 1-866-322-4512. In addition, please 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, burn it where you buy 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, telephone number, and the State you're calling from, and someone will return your call on the next business day.

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 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 goal of the 2010 EAB Survey is to define the outer boundaries of infested areas and to locate new EAB infestations.

Q. What resulted from the 2009 EAB Survey?

A. The 2009 survey resulted in the detection of EAB in 21 counties that previously did not have EAB. These new county detections occurred in Indiana, Kentucky, Michigan, Ohio, Pennsylvania, West Virginia, and Wisconsin. These 21 detections accounted for approximately 45 percent of all new county detections (47) during this EAB survey season. (Note: The purple traps also resulted in other EAB detections in areas already quarantined for the pest.)

The 2009 survey activities continued to elevate public awareness about the EAB program. Survey personnel setting and monitoring the traps in cities and towns created opportunities for discussions. The highly visible nature of the traps also piqued public interest and garnered media attention. Almost half (11) of the new county detections that were not the result of trap catches came from alert public citizens reporting signs of EAB in their neighborhood.

As a result of all these detections, Federal and State EAB quarantines were established and expanded. These quarantines prevent human-assisted spread of EAB by regulating the conditions under which various articles—including all hardwood firewood, green ash lumber, and other items made of or containing ash—can be transported out of the quarantined areas.

Lastly, survey activities also allowed the EAB program to monitor the outer boundaries of infested areas. This information helped to determine the placement of the EAB grid-based survey in 2010.

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