USDA
United States Department of Agriculture

ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE

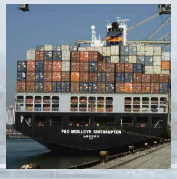
FEBRUARY 2015

Questions and Answers: USDA's 2015 Emerald Ash Borer Survey

Q. What is the 2015 Emerald Ash Borer Survey?
A. Similar to surveys done in past years, the U.S. Department of Agriculture's (USDA) 2015 Emerald Ash Borer (EAB) Survey will rely primarily on the purple prism detection tool, or "trap," to monitor known EAB infestations and locate other unknown beetle populations. This year, however, we will also incorporate another trap design into our plan.

The national survey will set 1,000 Lindgren green multi-funnel traps and 15,000 purple prism traps in the 36 participating States. (Fourteen States will not participate in the national EAB survey: Alaska, Connecticut, Hawaii, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Missouri, New Jersey, Ohio, Pennsylvania, Virginia, and West Virginia.)

Our survey strategy will continue to use a computer-generated, risk-based sample design, along with historical program data and regulatory knowledge. This design will enable USDA to monitor the leading edge of EAB infestations, determine whether undetected pockets of infestation are present, and identify locations best suited for biological control releases.



Q. What is biological control?
A. Biological control (biocontrol) is the reduction of pest populations through the use of natural enemies such as parasitoids (stingless wasps), predators, pathogens, antagonists (to control plant diseases), or competitors. It is a practical option to suppress pest populations and an environmentally sound method of pest control. USDA has reared three stingless wasp species and released them in EAB-infested areas of the United States. Two of the wasps attack EAB larvae, and one targets EAB eggs.

For more details on USDA's EAB biocontrol program, see our factsheet on this topic at www.aphis.usda.gov/publications/plant_health/2014/faq_eab_biocontrol.pdf.

Q. What do the EAB detection traps look like?
A. The purple 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 exterior sides. The purple traps are about 24 inches long and hang vertically in ash trees.

The green multi-funnel trap is made of 12 green plastic funnels that cascade into a white collection cup. When hanging vertically in an ash tree, the green trap is about 45 inches long.

Both traps are baited with a lure to enhance their attractiveness to EAB.

For trap images, go to www.aphis.usda.gov/plant-health/eab. Scroll down to the "Pest Management" section and click on "2015 Emerald Ash Borer Survey Guidelines."

Q. Who is involved in the 2015 EAB Survey?
A. The EAB survey initiative is a collaboration involving USDA's Animal and Plant Health Inspection Service (APHIS) and the department's Forest Service, various State departments of agriculture or natural resources, Tribal cooperators, and USDA contractors.

Q. Who is paying for the cost of surveying in my State?
A. USDA funds the national EAB survey. Each participating cooperator submits a work plan to determine the resources necessary for successful survey completion and signs a cooperative agreement with USDA.

Q. Why do you call the detection tools "traps?" Do they really trap EAB?
A. We refer to the detection tools as "traps" out of convenience. The detection tools do not trap EAB in the sense of catching the beetle as a way to reduce or deplete populations. The traps do, however, detect new infestations and monitor the natural spread of the

beetle. Through our ongoing research in trap design, we continue improving our ability to locate EAB infestations.

Q. Why are the colors purple and green significant, and what is the lure?
A. In the insect world, color frequently plays an important role, and EAB is no exception. In 2003, researchers began investigating EAB responses to different stimuli in an effort to develop an effective detection tool. Researchers discovered that EAB is attracted to specific shades of purple and green—our trap colors replicate these shades to attract the pest. Additionally, both traps are baited with a lure (using a chemical called (Z)-3-hexanol) that mimics a chemical signal that is emitted by ash trees and also attracts the beetle.

Q. How do the traps work?
A. In their adult stage, EABs fly around ash trees, feeding 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 purple traps to replace the lure and collect any insects stuck on them.

Unlike the sticky purple trap, the green trap is coated with a slippery plastic resin. This resin prevents EAB adults from clinging to the funnel walls, which makes the beetles slide into the collection cup at the bottom of the trap. Green funnel traps are monitored and specimens are collected every 2–3 weeks. In the fall, the crews will return to the trap sites, collect the specimens, and remove the traps.

Q. Is the green trap better than the purple trap?
A. The green trap and purple trap are comparable detection tools, but the green trap provides some advantages:

- Green traps catch more beetles. This, in turn, gives more data to inform decision making for biological control releases.
- Green traps are clean, neat, more compact, and easier to set because the resin is not sticky.
- Green traps can be quickly and more efficiently monitored and serviced through bulk specimen collection.
- Green traps can be stored and reused for multiple years.

Q. Why are the traps placed only in ash trees?
A. Ash trees (*Fraxinus* spp.) and a close relative of ash, the white fringetree (*Chionanthus virginicus*), are the only host species for EAB on the North American continent. The lifecycle of EAB depends on the ash tree; the adults feed on the leaves and lay eggs in its bark crevices, and the larvae develop under its bark. As a result, EAB is drawn to ash trees. All 16 native species of ash—including green, white, and black ash—are EAB hosts. White fringetrees, however, are too small to place traps in and are only a minor host for the pest.

Q. How long will the survey take to complete?
A. The traps will be placed in ash trees this spring and summer 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. Are the traps safe?
A. The traps pose no risk to people or pets. The purple traps, however, are covered with non-toxic glue and can be extremely sticky if touched. The traps will be in ash trees throughout the summer—please do not disturb them. If you see one on the ground, call 1-866-322-4512 to report it. If you call outside of regular business hours, leave your name, telephone number, State, and location of the fallen trap.

Q. What can I do to support the 2015 EAB Survey program?
A. Please talk to your family and friends about the EAB survey to raise awareness. Also, if you see one of the traps on the ground or damaged, 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 learn the signs and symptoms of an EAB infestation and inspect your own trees for them. Lastly, don't move firewood—or, a prudent alternative is to only purchase USDA- or State-certified, treated, and labeled firewood.

Q. What should I do if I see a trap on the ground?
A. If you see a trap on the ground, please contact your State department of agriculture or natural resources. You may also call USDA's toll-free number (1-866-322-4512). After regular business hours, please leave your name, telephone number, and the State from which you're calling, and someone will return your call on the next business day. The public contributes significantly to the quality of the EAB survey through phone calls that identify fallen trap locations. We value your efforts and appreciate your support.

Q. If EAB is not known to be in my State, will the traps attract EAB and draw the beetles to my State?
A. No. Traps do not attract or pull beetles into an area. The traps are a detection tool to help determine if EAB is present in the area.

Q. What happens when an EAB is found stuck on a purple trap or in the collection cup of a green trap?
A. The insect samples collected from the traps are cleaned and sent to a USDA insect identifier for verification. We then communicate any verifications of EAB to the appropriate State officials.

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

A. No. Traps only help detect EAB. A trap located in your community does not mean EAB is present—it just means we are looking for the beetle. The goal of the 2015 EAB Survey is to define the outer boundaries of infested areas, locate new EAB infestations, and identify locations best suited for biological control releases.

Q. What resulted from the 2014 EAB Survey?

A. The 2014 survey resulted in the detection of EAB in 47 new counties outside the Federal quarantine area. These new county detections occurred in Arkansas, Connecticut, Georgia, Iowa, Kansas, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Tennessee, and Wisconsin.

Of these 47 new county detections, 32 (68 percent) were captured in a purple trap. The other 15 (32 percent) new county detections resulted from an alert public reporting symptoms or State partners performing evaluations on select ash trees to help confirm a suspect tree or define the boundaries of a known EAB infestation. (*Note:* The purple traps also resulted in other EAB detections in areas already quarantined for the pest.)

The 2014 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 purple traps also piqued public interest and garnered media attention. As a result of the new detections, Federal and State EAB quarantines were expanded or established. These quarantines prevent the human-assisted spread of EAB by regulating the conditions under which various items, including all hardwood firewood and any ash tree material, may be transported out of the quarantined areas.

In addition, the 2014 EAB survey results gave data to support biological control management and direct field personnel to appropriate locations for parasitoid (stingless wasp) releases. Survey activities also allowed the EAB program to monitor the outer boundaries of infested areas. This information helped guide decisions on trap placement for the EAB survey in 2015.

Q. What are the benefits of the risk-based survey sampling design?

A. The survey sampling design is an objective, transparent, science-based survey. It preselects geographic locations (cells) to deploy EAB traps where the highest likelihood exists of detecting EAB. The expected benefits of the 2015 EAB survey include:

- An objective and transparent process to quantify risk and select trap locations.
- An increase in the number of successful EAB detections beyond the known infested area.
- An improvement in the capabilities of land managers to detect EAB close to the date of a new infestation.
- Findings of locations that are best suited to carry out biological control releases.

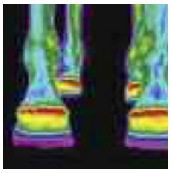
Q. Will traps be set in areas independent of what the model prescribes?

A. Yes. Some traps will be set in discretionary locations based on local conditions.

Q. What determines where a trap is set?

A. The 2015 EAB sampling survey uses a computer-generated design to identify the best locations to survey for EAB. At its foundation is a collection of environmental variables (e.g., soil moisture, land elevation, terrain) and EAB program variables (e.g., historical EAB survey data, targeted high-risk areas, pest pathways, scientific literature). The end product is a grid map that identifies locations (cells) where the likelihood of detecting EAB is greatest, as well as locations where we can gain the most information to improve the model for future sampling.

More information is available in the 2015 EAB Survey Guidelines. To download a copy, go to www.aphis.usda.gov/plant-health/eab and click on “2015 Emerald Ash Borer Survey Guidelines” (listed in the “Pest Management” section).



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