



EMERALD ASH BORER

FAQs

1. What is the Emerald Ash Borer (EAB)?

EAB is an exotic, invasive, wood-boring insect that infests and kills ash trees, both in forests and landscape plantings.

2. Where did the EAB come from?

The native range of EAB is eastern Russia, northern China, Japan and Korea.

3. What does the Emerald Ash Borer look like?

The adult beetle is dark metallic green, bullet-shaped and about 1/2 inch long and 1/8 inch wide. The body is narrow and elongated, and the head is flat with black eyes. The EAB larva is white and flat, has distinctive bell shaped segments and can grow up to 1.2 inches long. There are many other green insects that look similar to the adult EAB. For examples, please refer to photos at eab.missouri.edu.

4. When was EAB first discovered in North America?

EAB was first identified in southeast Michigan in 2002. It likely arrived several years earlier.

5. How did it get to North America?

It most likely traveled in ash wood used for stabilizing cargo in ships or for packing consumer products.

6. Where is EAB now?

As of April 2010, EAB had been found in 14 states, including Missouri, and in two Canadian Provinces.

7. Where and when was EAB found in Missouri?

The only known EAB infestation was discovered July 2008 in the campground at the Wappapello Lake U.S. Army Corps of Engineers (USACE) Greenville Recreational Area in Wayne County, Missouri.



Help slow the spread of EAB. Know the signs and symptoms of EAB and most importantly, burn firewood where you get it.

8. What is being done about EAB at the Greenville Recreational Area?

The USACE has begun removing ash trees from a 1,400-acre area surrounding the campground. Contract loggers cut down ash trees in the area, gather logs into piles and burn them on the spot to kill any insect in the wood. To date, more than 1,000 ash trees have been burned. Also, purple triangular traps have been placed in and around the campground in a "detection and delimit" campaign.

9. Has EAB been found anywhere else in Missouri?

No, as of April 2010 EAB has not been found anywhere else in Missouri.

10. What is Missouri doing to monitor the EAB situation in the state?

Annual surveys to detect the arrival of EAB are conducted by the Missouri Department of Agriculture (MDA) and the U.S. Department of Agriculture (USDA) at selected state parks, public and commercial campgrounds, nurseries and high-risk urban sites. These efforts include visual surveys as well as the use of purple prism shaped traps and detection trees.

11. How does EAB harm ash trees?

Adult females lay their eggs on the bark of ash trees. When the eggs hatch, the larvae burrow under the bark and eat the living tissue they find there. As they do, they cut off the life-giving channels that carry nutrients—water and sugars—to the tree. After 2-4 years, enough of the channels are cut off so the tree starves to death.

12. Which trees are susceptible?

All ash species found naturally in Missouri—green, white, pumpkin and blue ash—as well as horticultural cultivars (e.g. Autumn Purple white ash or Marshall Seedless green ash) have been killed by EAB, which infests trees ranging in size from saplings to fully mature trees. While most native borers kill only severely weakened trees, the emerald ash borer also kills healthy trees making it especially devastating.



13. How important are ash trees to Missouri?

Ash trees account for 3 percent of the native forest. The fast-growing shade trees are popular for landscaping, though, and about 14 percent of trees lining streets in urban settings are ash. In some neighborhoods and parks the figure reaches as high as 30 or 40 percent.

14. How does EAB spread?

Although the EAB can fly short distances on its own, much of its spread is due to humans transporting it as larvae burrowed under the bark of firewood or landscape trees.

15. What is being done to stop EAB from spreading?

There is a national effort to limit the spread and impact of EAB. Infested areas are quarantined to prevent movement of EAB in firewood and other ash products that can carry it. Many states are educating the public on the dangers of moving firewood; the primary way EAB and many other invasive pests and diseases of trees are spreading. Ongoing research and development of safe and effective pesticides, traps and other management strategies is taking place at state and national levels.

16. What is being done in Missouri?

State, federal, local agencies and groups are working together to educate the public and slow the spread of infestations. Alerting the public to the risk of moving firewood and spreading EAB is key to prevention. This is a slow moving insect, except when people allow it to hitchhike on firewood.

17. Are there any areas in Missouri under quarantine?

Yes. Wayne County is under a federal quarantine to prevent the accidental spread of the beetle. This means the interstate (between states) movement of EAB host wood and wood products – nursery stock, green lumber, waste, compost, chips of ash species and firewood of all hardwood species – from Wayne County is regulated. Likewise, MDA has enacted a state interior quarantine, which prohibits the intrastate (within state) movement of EAB regulated articles from Wayne County.

18. What is prohibited from moving out of Wayne County, Missouri?

Regulated articles for both the federal and state quarantines are: the emerald ash borer in any living state, nursery stock, green lumber, firewood of any non-coniferous (hardwood) species and other material living, dead, cut or fallen – including logs, stump roots, branches and composted and uncomposted chips – of the genus *Fraxinus*.

19. Are there any natural enemies of the emerald ash borer?

Yes, scientists have observed parasitic wasps attacking egg or larval stages of the emerald ash borer. These wasps have been released at EAB-infested sites in multiple states for 2-3 years. Unfortunately, this process is time-consuming and it will be several years before these beneficial wasps will have a significant impact on EAB containment efforts. Other studies are testing various fungi and bacteria that infect beetles for possible use as “natural insecticides.”

20. Are dying ash trees always an indication of an EAB infestation?

No, ash trees are affected by several diseases and insects. Ash trees throughout the state exhibit dying branches and/or decline and some may show signs of heavy woodpecker damage. This may or may not be due to the Emerald Ash Borer.

21. What signs are the best evidence that EAB may be attacking my tree?

Look for 1/8 inch diameter D-shaped holes in the bark where the beetles have exited and short (3-5 inches) vertical splits in the bark that reveal S-shaped “trails” (tunnels) under the bark.

22. What if I discover EAB in my trees, what should I do?

If you suspect your ash is infested, please contact the Missouri Department of Conservation at 1.866.716.9974.

23. How can I help stop the spread of EAB?

Don't spread pests. Burn firewood where you get it. Second, don't plant ash trees. Instead, choose other large shade trees for landscaping. Lastly, be on the lookout for potential EAB infestations.

Educate yourself on how to recognize signs and symptoms of EAB.