

# CSI: YOUR ASH TREES

Dying ash trees. Winding S-shaped tunnels just under the bark. Small D-shaped holes on the trunk. Emerald Ash Borer (EAB) has destroyed millions of ash trees and has been found in at least 30 states. Help stop its spread! Use this brochure to investigate your yard or timber lot.

## SUSPECT PROFILE

- ◆ Small metallic green beetle, ½ inch long
- ◆ Native to Asia
- ◆ Attacks only ash trees
- ◆ First detected in the U.S. in Michigan in 2002
- ◆ Spread to at least 23 states (as of July 2014)
- ◆ Larvae feed under bark, cutting off the flow of water and nutrients to the tree
- ◆ Travels in infested firewood and nursery stock



## PART 1: IDENTIFY THE VICTIM

EAB attacks only ASH TREES.

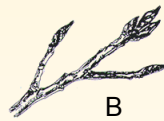
If your tree isn't an ash, you do not have EAB.

### Step 1: Look at the tree's branches

Oppositely branched as in Figure A? If yes, go to step 2.



Alternately branched as in Figure B? If yes, STOP! Your tree is not an ash.



### Step 2: Look at your tree's leaves

Simple—a single leaf joined by a stalk to a woody stem as in Figure C. STOP! Your tree is not an ash.



Compound—a group of leaflets joined by a stalk to a woody stem as in Figure D or E? Go to step 3.



### Step 3: Look at the leaflets

3 to 5 leaflets, margin smooth or coarsely toothed as in Figure D? STOP! Your tree is not an ash.

5 to 9 leaflets, margin smooth or finely toothed as in Figure E? Your tree is an ash. Go to Part 2.



## PART 2: EXAMINE THE VICTIM

Does your tree look healthy or is it showing signs of attack? Look for these clues. If your ash tree shows two or more of these symptoms, move on to Part 3.

		
Sparse leaves and/or branches dying in the upper part of the tree	New sprouts on the roots, lower trunk or lower branches	Short (3-5 inches), vertical splits in the bark
		
Increased activity of woodpeckers on the tree	Winding, S-shaped tunnels just under the bark	White or cream-colored larvae under the bark

Photo credits clockwise from left: Daniel Herms, Ohio State University, Bugwood.org; James W. Smith, USDA APHIS PPQ, Bugwood.org; Joseph O'Brien, USDA Forest Service, Bugwood.org; Jim Rathert; Art Wagner, USDA APHIS PPQ, Bugwood.org; David Cappaert, www.forestryimages.org

## PART 3: CHECK FOR EXIT WOUNDS

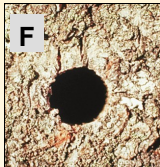
**Step 1. Do you see multiple holes in the trunk of your ash tree? If so, what shape are they?**

*Tip: Use a knife to slightly shave the bark flat so you can gauge the true shape of the hole.*

Round as in Figure F? STOP! EAB does not make round holes

Oval-shaped as in Figure G? STOP! EAB does not make oval holes

D-shaped as in Figure H? Go to step 2.



**Step 2: How wide are the D-shaped holes?**

¼ inch or wider? STOP! EAB holes aren't usually this wide.

About 1/8 inch. Your tree may be infested with EAB. Call (785) 564-6698

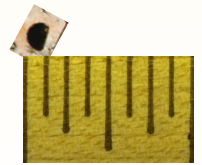


Photo credits: EAB on penny—Howard Russell, Michigan State Univ. Bugwood.org; F—Minnesota Dept. of Natural Resources Archive, bugwood.org; G—Hannes Lemme, Bugwood.org; H—Joseph O'Brien, USDA Forest Service, Bugwood.org



Ash trees near death due to EAB

## Emerald Ash Borer

Help slow the spread of this killer. Here are some ways you can help:

Don't move firewood

- ◆ EAB can be transported long distances in firewood. When you camp, leave your wood at home. Buy only local firewood, and burn it all before you leave. Once transported into new areas, EAB can become established and kill local trees.

Avoid planting ash trees

- ◆ EAB kills only ash trees. Choose other shade trees for landscaping.

Investigate potential EAB infestations

- ◆ Follow the steps in this brochure to determine whether your ash tree suffers from EAB or some other ailment.

*Photo credits: top left—Joseph O'Brien, USDA Forest Service, Bugwood.org; top right—Daniel Herms, The Ohio State University, Bugwood.org; cover adult EAB—David Cappaert, Michigan State Univ., bugwood.org; cover emergence hole—Noppadol Paothong, MO Dept of Conservation*

**If you live in a county where the emerald ash borer has not been detected and believe your ash tree is infested, please call (785) 564-6698**

Not sure if your ash tree suffers from EAB? Use these websites to locate a qualified arborist or KFS forester in your area:

**International Society of Arboriculture**  
[tinyurl.com/omsugc6](http://tinyurl.com/omsugc6)

**Kansas Forest Service**  
[tinyurl.com/u58tavt](http://tinyurl.com/u58tavt)

**Kansas Arborists Association**  
[tinyurl.com/28848pey](http://tinyurl.com/28848pey)

**For more information about EAB, visit the following websites:**

**Kansas Forest Service**  
[tinyurl.com/upjljn5](http://tinyurl.com/upjljn5)

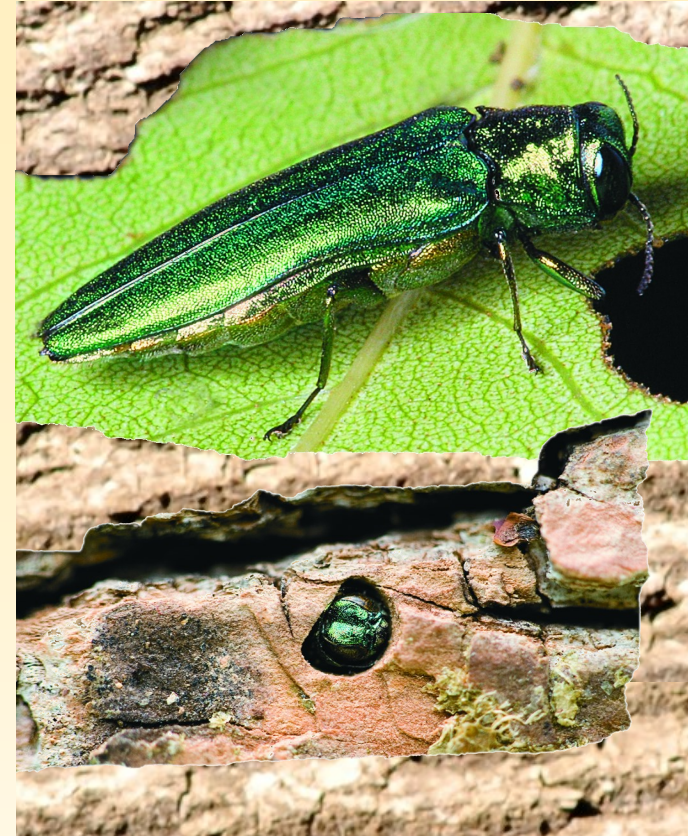
**Kansas Dept. of Agriculture**  
[tinyurl.com/3j7t7e84](http://tinyurl.com/3j7t7e84)

[www.emeraldashborer.info](http://www.emeraldashborer.info)



**K-STATE**  
Research and Extension

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# Emerald Ash Borer CSI

**Are your ash trees dying?  
A small green beetle could be the culprit.  
Do some crime scene investigation to find out!**