## Ash Twig

Branches and buds grow directly across from one another (opposite branching).



Ash Leaf

Usually seven to eleven leaflets in a compound leaf.

### For More Information:

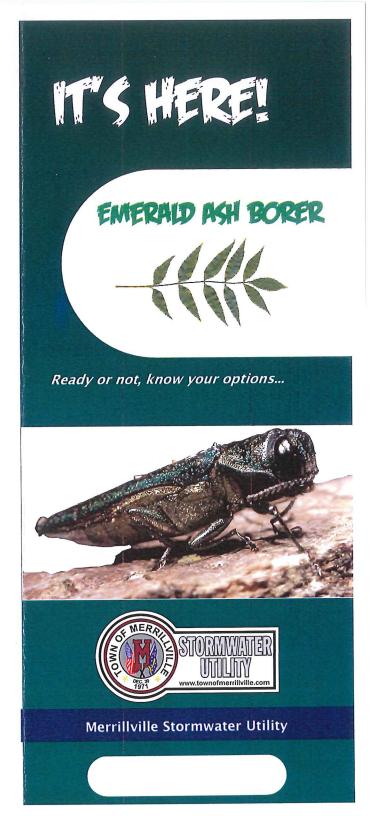
- USDA Forest Service EAB Information http://www.emeraldashborer.info/
- Indiana Department of Natural Resources,
   Division of Entomology and Plant Pathology
   Nursery Inspector and Compliance Officer
   (812) 284-0693
- Purdue University Department of Entomology https://ag.purdue.edu/entm/Pages/default.aspx
- Purdue Extension, Lake County
   <a href="http://extension.entm.purdue.edu/EAB/">http://extension.entm.purdue.edu/EAB/</a>
   (219) 755-3240



**Merrillville Stormwater Utility** 

July 2012





# **ABOUT EAB**

The Emerald Ash Borer (Agrilus planipennis Fairmaire) is an invasive pest which was brought to the USA from Asia. This pest has killed millions of ash trees (Fraxinus Spp.) since being discovered in 2002. The adult EAB emerges from ash trees between April and June, leaving D-shaped exit holes in the bark. From mid-May to mid-August, adults feed on ash tree leaves. Adults live about 3-4 weeks, then females lay eggs in Ash bark crevices. The eggs hatch 7-10 days after being laid and the larvae burrow into the tree. EAB larvae kill Ash trees by feeding and tunneling into the layer of vital wood just under the bark that transports food and water throughout the tree. As the larvae feed, they create S-shaped galleries throughout the tree's inside layer. Extensive feeding disrupts the flow of food and water which eventually girdles and kills the tree. This insect only infests and kills species of Ash trees.

Adult

Larvae

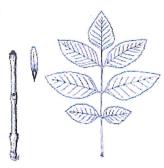




#### **IDENTIFYING ASH TREES**

Ash is a very common urban tree and has some of the following characteristics:

- Compound leaves made up of small, glossy green leaflets.
- Bark of mature trees is gray and furrowed, often appearing in a diamond pattern.
- Leaves and twigs grow in opposite pairs.
- Seeds are small and paddleshaped.



#### **VERIFYING INFESTED TREES**

- Excessive woodpecker activity on branches
- Suckers sprout from trunk.
- Dieback of leaves from top down
- Splitting bark along trunk and branches.
- "D" shaped exit hole along trunk (from emerging adult beetle).
- S-shaped galleries just under peeling bark
- Presence of adult emerald green beetle (1/8"diameter).





#### YOUR OPTIONS

#### **OPTION A: Treatment**

- Begin annual or biannual treatment now if you want to protect your tree.
- Treatment is only an option if infested tree has lost less than 30% of its leaves.
- Trunk-Injected Systemic Insecticides

TREE-Age<sup>™</sup>
IMA-jet<sup>®</sup>
Imicide<sup>®</sup>
Inject-A-Cide B<sup>™</sup>



- Systemic Bark Sprays
   Safari<sup>™</sup> (20SG)
- Soil-Applied Systemic Insecticides Merit (75WP, 75WSP, 2F)
   Xytect<sup>™</sup>
- Protective Cover Sprays (bark and foliage)

Astro<sup>®</sup> Onyx<sup>™</sup> Tempo<sup>®</sup> Sevin<sup>®</sup> SL

### **OPTION B: Removal**

If a tree has lost more than 30% of the canopy, the best option is removal.

- Remove limbs, trunk, and stump of the tree(s).
- Burn (need IDNR Open Burn permit) or chip trees on site.
- Try not to move any un-chipped wood from the site.
- Do not move any wood during adult borer flight season (late April through August).
- Plant a new tree to replace the old. For recommended tree species to plant, contact the Merrillville Environmental Resource Committee.



