



Ash Borers: Emerald Vs. The Rest of the Pack

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Emerald Ash Borer



Emerald Ash Borer adult. Photo by: Hanna Royals, screening aids, USDA APHIS PPQ, bugwood.org

- Adult beetles are metallic green and about 1/2 inch long
- Prefer stressed ash trees, but can infest unstressed
- Serpentine larval feeding galleries found immediately under the bark
- Attacks usually begin in the upper crown of the tree
- Larvae tightly pack their frass (sawdust and excrement) into gallery tunnels
- Emerging adults leave D-shaped exit holes



Emerald ash borer serpentine feeding galleries. Photo By: Brian Kunkel, University of Delaware

Lilac/Ash Borer



Ash Borer adult. Photo by: Mark Dreiling, bugwood.org

- Adult moths are wasp look-alikes
- Only infest stressed trees
- Larvae create irregular tunnels in the lower trunk

- Emerging adults leave irregularly round exit holes
- May leave empty, brittle brown pupal cases protruding from exit holes
- Expel frass from tunnels
- Cause structural damage to trunks;
- weakened trees may break during storms



Ash borer pupal skin. Photo by: Whitney Cranshaw, Colorado State University, bugwood.org

Redheaded Ash Borer

- The adult beetle is reddish-brown with four yellow bands across its back
- Attack most dead or dying hardwoods
- Larvae eat through inner bark and summer wood, cutting off sap flow
- Burrows horizontally and vertically through the trunk, making it susceptible to breakage during high winds
- Emerging adults leave oval exit holes



Redheaded Ash Borer adult and emergence hole. Photo by: Howard Ensign Evans, Colorado State University, bugwood.org

Treatment

If the tree is already infested, it must still be healthy enough to transport systemic insecticide through the trunk and into the branches and canopy in order for the treatment to be effective – if 50-60% of the canopy is dead, the tree is past saving.

Types of treatment:

- Systemic insecticides that are applied as soil drenches or soil injections
- Systemic insecticides applied as trunk injections
- Systemic insecticides applied as lower trunk sprays
- Insecticides applied as cover sprays to the trunk, main branches, and (depending on the label) foliage

Other Signs and Symptoms of Emerald Ash Borer



Vertical bark splitting (left) and increased woodpecker activity (right). Photo by: Brian Kunkel, University of Delaware



Canopy thinning. Photo by: Brian Kunkel, University of Delaware

Contact your local cooperative extension office about soil drenches, trunk injections, or trunk sprays for recommendations.

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Epicormic growth. Photo by: Brian Kunkel, University of Delaware