EMERALD ASH BORER

GUIDELINES FOR DELAWARE HOMEOWNERS

de.gov/ashtrees

A destructive, invasive beetle that kills ash trees, the emerald ash borer, has been confirmed in Delaware, making it the 28th state to have found the insect. The overall impact is expected to be minimal, as ash trees make up only around two percent of Delaware's tree stock and the state has been preparing for more than a decade. State forestry and plant health officials are providing advice to homeowners who may have questions. Visit **de.gov/ashtrees** for more information.

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What is emerald ash borer?

The emerald ash borer is a small, green beetle that belongs to a large family of beetles known as the buprestids, or metallic wood boring beetles.

They can travel to new areas by natural means, as well as on firewood, timber and nursery stock. The emerald ash borer feeds under ash tree bark during its larval stage, which damages and eventually kills the trees. Adult EABs emerge in the spring and mate shortly thereafter, with each female laying 60 to 90 eggs in a lifetime. In the spring, pupae transform into adults and emerge through "D"-shaped exit holes.

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Symptoms of an EAB infestation may not be apparent immediately, with damage taking up to three years to be visible. Symptoms can include branch dieback in the upper crown, vertical bark splits, and small shoots (epicormic branching) on the trunk, as well as woodpecker damage.

Native to Asia, EAB was unknown in North America until its discovery in southeast Michigan in 2002. Since then, EAB has killed millions of ash trees, with numbers rising every year. The potential for damage is very high. A previous study by the U.S. Forest Service once estimated that the ongoing EAB infestation could have an estimated cost of $10.7 billion nationally. In Delaware, ash are relatively minor components of the native forest, found mainly in streamside areas and flood plains. In some urban areas, ash is the predominant large street tree.

I'm a homeowner. What should I do?

> Find out if you have ash on your property and monitor trees for signs of poor health or damage.
> Don't plant ash if you are considering a new tree for your property. Instead, check out the list of recommended trees on the reverse side.
> Stay up-to-date on EAB in your area by checking out de.gov/ashtrees, emeraldashborer.info, stopthebeetle.info and hungrypests.com.

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How do I tell if my trees are ash?

Ash tree bark and leaves.

My tree looks fine. Should I treat it?

We encourage homeowners to consult a certified arborist for a tree health inspection; visit www.isa-arbor.com to search for ones near you. Trees that look fine or do not have EAB may have other health issues.

My tree looks sick. How should I treat it?

Trees already infested with EAB are treatable if the damage is not severe. Trees with more than 50 percent canopy loss will likely not recover. We encourage homeowners to consult with a certified arborist for a tree health inspection; visit www.isa-arbor.com to search for ones near you. A certified arborist can help you determine the best treatment option.

What trees should I not plant?

Trees that are not recommended because they are known to develop serious issues with pests or diseases include ash; northern red oak; pin oak; leyland cypress; hemlock; Japanese black pine; Austrian pine; any white-barked birch; American elm.

Trees that should not be planted because they are invasive and can displace native vegetation include Norway maple; tree of heaven (ailanthus); paulownia; mimosa; white mulberry; Bradford pear; and Chinese elm.

What are good alternatives?

Many broadleaf trees are available as replacement for ash:

LARGE TREES
Basswood
Beech
Blackgum
Buckeye
Catalpa
Chestnut Oak
Ginkgo
Hackberry
Hickory
Horse-chestnut
Kentucky Coffeetree
Littleleaf Linden
Pecan
Post Oak
Red Maple
River Birch
Silver Maple
Sugar Maple
White Oak
Willow Oak
Yellow Poplar

SMALL TO MEDIUM TREES
American Hornbeam
Black Birch
Honeylocust
Kousa Dogwood
Persimmon
Redwood
Serviceberry
Sassafras
Sweetbay Magnolia
Washington Hawthorn

EVERGREEN
American Holly
Eastern Red Cedar
Norway Spruce
White Pine
Loblolly Pine
Yew