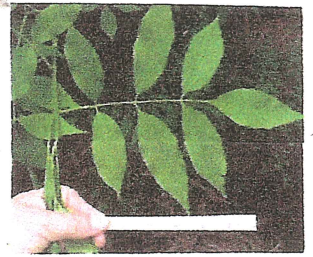
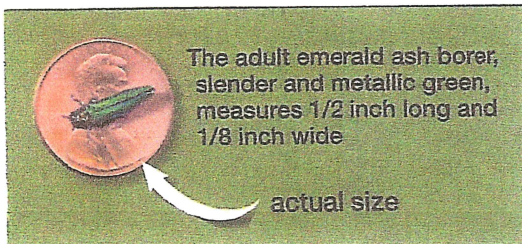


WARNING!!



ASH TREES, NOW YOU SEE THEM, SOON YOU WON'T!!



Emerald Ash Borer is now in our area. This introduced insect from Asia has already killed millions of Ash Trees in North America and is now here. First identified in Detroit Michigan in 2002, Emerald Ash Borer has spread rapidly into 30 US States and two Canadian Provinces. If you have Ash Trees on your property that you wish to save, please give me a call for a free consultation.



TIMBER TREE & SHRUB SPRAYING L.L.C.
Rick Buchtman, NJ Licensed Tree Expert # 482
33 Chickadee lane
Hewitt NJ, 07421
(973) 853-8271

EAB Detections in New Jersey

SUSSEX

2017 Montague Twp

WARREN

2017 Harmony Twp
2017 Hardwick Twp

HUNTERDON

2016 West Amwell Twp
2017 Alexandria Twp
2017 Delaware Twp

SOMERSET

2014 Bridgewater Twp
2014 Hillsborough Twp
2015 Franklin Twp
2016 Bound Brook Boro
2016 South Bound Brook Boro

MERCER

2014 Ewing Twp
2015 Hamilton Twp
2015 West Windsor Twp
2015 Princeton Boro
2015 Hopewell Boro
2016 Pennington Boro
2016 Hopewell Twp
2017 Robbinsville Twp
2017 Trenton City

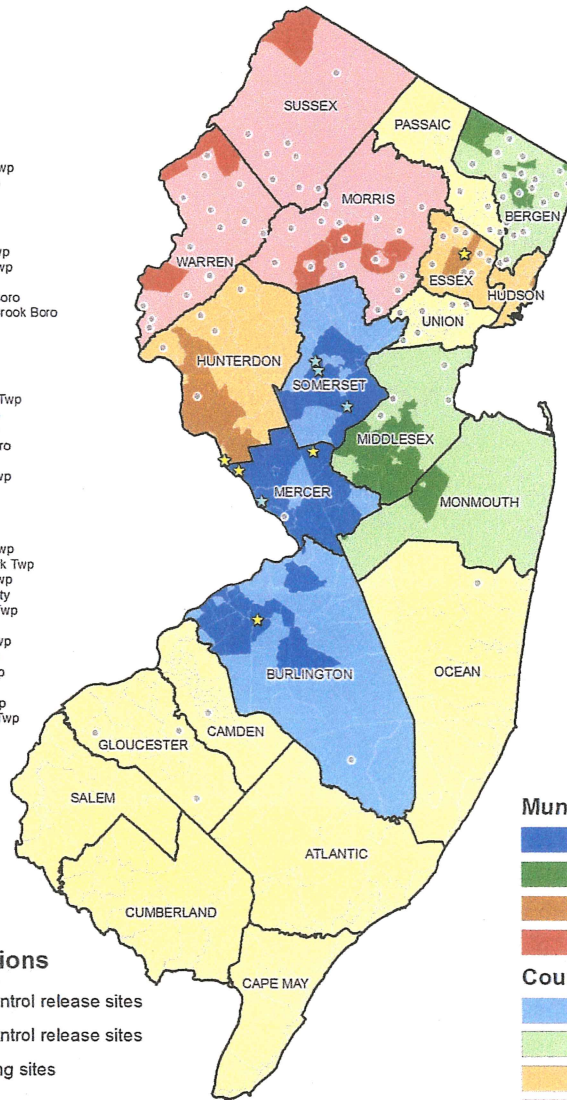
BURLINGTON

2014 Westampton Twp
2015 Edgewater Park Twp
2015 Moorestown Twp
2016 Bordentown City
2016 Cinnaminson Twp
2016 Delanco Twp
2016 Eastampton Twp
2016 Mt. Laurel Twp
2016 Hainesport Twp
2017 Delran Twp
2017 Willingboro Twp
2017 Southampton Twp
2017 Mansfield Twp

Activity locations

- ☆ 2016 Bio-control release sites
- ★ 2017 Bio-control release sites
- 2017 trapping sites

Updated July 19, 2017



BERGEN

2015 Hillsdale Boro
2016 Mahwah Twp
2016 Ho-Ho-Kus Boro
2017 River Edge Boro
2017 Paramus Boro
2017 Rockleigh Boro

MORRIS

2017 Morris Twp
2017 Chester Twp
2017 Hanover Twp
2017 Randolph Twp

HUDSON

2016 Hoboken City

ESSEX

2016 Montclair Twp
2017 West Orange Twp

MIDDLESEX

2015 South Brunswick Twp
2015 Monroe Twp
2016 Cranbury Twp
2016 East Brunswick Twp

MONMOUTH

2015 Allentown Boro
2017 Manalapan Twp

Municipalities with EAB

- 2014 county detection
- 2015 county detection
- 2016 county detection
- 2017 county detection

Counties with EAB

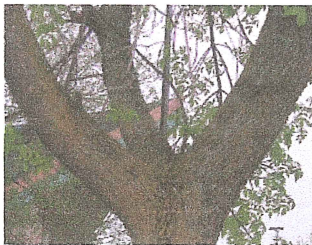
- 2014 detection
- 2015 detection
- 2016 detection
- 2017 detection

Ash Tree Identification

Ash species attacked by emerald ash borer include green (*Fraxinus pennsylvanica*), white (*F. americana*), black (*F. nigra*), and blue (*F. quadrangulata*), as well as horticultural cultivars of these species. Green and white ash are the most commonly found ash species in the Midwest with blue ash being rare.

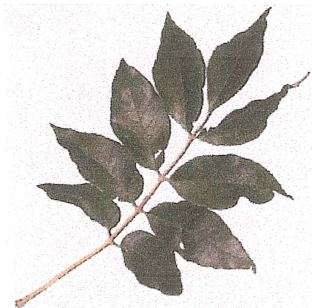
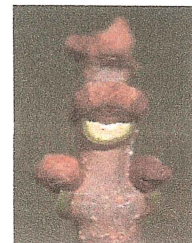
While other woody plants, such as mountainash and pricklyash, have "ash" in their name, they are not true ash, or *Fraxinus* species. Only true ash are susceptible to attack by emerald ash borer.

To properly identify ash trees, use the following criteria:



Branch and Bud Arrangement

Branches and buds are directly across from each other and not staggered. When looking for opposite branching in trees, please consider that buds or limbs may die; hence not every single branch will have an opposite mate.



Diane Brown-Rytlewski

Leaves

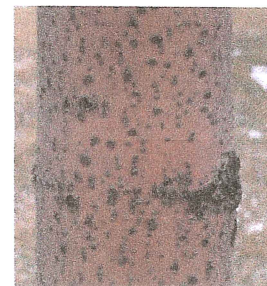
Leaves are compound and composed of 5-11 leaflets. Leaflet margins may be smooth or toothed. The only other oppositely branched tree with compound leaves is boxelder (*Acer negundo*), which almost always has three to five leaflets. White ash (on left) and green ash (on right)



*Paul Wray, Iowa State University

Bark

On mature trees (left), the bark is tight with a distinct pattern of diamond-shaped ridges. On young trees (right), bark is relatively smooth.



*Paul Wray, Iowa State University

Seeds

When present on trees, seeds are dry, oar-shaped samaras. They usually occur in clusters and typically hang on the tree until late fall, early winter.

MICHIGAN STATE
UNIVERSITY
EXTENSION



**Emerald
Ash Borer**

Pest Alert

Emerald Ash Borer *Agrilus planipennis*



The exotic emerald ash borer (EAB) has been killing ash trees across North America. Native to China, eastern Russia, Japan, and Korea, it was first discovered near Detroit in 2002 and has since spread to 25 states, including New Jersey.



Damage

This metallic green insect infests and kills ash trees—all ash species are susceptible, with the exception of mountain ash. EAB larvae feed on the inner bark and disrupt the movement of water and nutrients, essentially girdling the tree. This insect often infests the upper branches of the tree first and may affect branches as small as 1" in diameter. It takes 2-4 years for infested trees to die, but mortality is imminent.

Images by David Cappaert



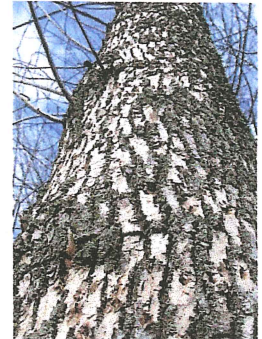
Adult beetle



D-shaped exit hole



Larva



Woodpecker damage on an EAB infested tree

Signs and symptoms

Often the first sign that a tree is infested is woodpecker damage.

When feeding on EAB, woodpeckers scrape off outer bark, leaving smooth, light colored patches. Under the bark of an infested tree, you can often see S-shaped galleries weaving back and forth on the surface of the wood. The beetles also leave 1/8" D-shaped exit holes. Between May and August, you may find the 1/2" long metallic green adult beetles which have a copper color abdomen under the wing covers.

Emerald Ash Borer in New Jersey

Since its discovery in North America, EAB has spread rapidly. It occurs in 25 states and 2 Canadian provinces. It was first discovered in NJ in 2014. The greatest impact will be for community trees and privately owned trees.

The beetles are strong fliers, and good at finding ash trees. When the beetle first arrived in Maryland, the infested area expanded about 1/2 mile per year.

Often people unintentionally spread this insect when they move firewood from an infested area to a new location. Beetles and larvae also hitchhike to a new area in nursery trees and saw logs.

**Over the next few years,
99% of NJ ash trees
will die due to emerald
ash borer infestations**

Ash in New Jersey Facts

- Forests contain 24.7 million ash trees
- 24% of all forested land contains ash
- Ash is found in forests throughout the state, but concentrated in northern New Jersey
- Ash has been commonly planted as a street and landscape tree throughout the state

Managing Your Ash Trees

For Landowners

EAB is in New Jersey. Plan for EAB now if you have ash. Know what's at risk: how much ash you have, its size and quality, and where it's located. Consider the ecological, aesthetic, and economic value of your ash, your tolerance of risk, and your objectives for ownership.

Forest Management Plan

If your land is enrolled in Farmland Assessment or the Forest Stewardship Programs, you must follow your approved forest management plan or an approved amendment.

Contact your consulting forester if you wish to change your planned activities, treatment schedule, or management objectives. Remember that the state forester needs to approve any changes before the management activity begins.

With an approved forest management plan that addresses EAB, you can salvage and restore ash in riparian areas when they follow the prescribed Best Management Practices.

Reassess your plan if EAB is detected in or near your county. To date, EAB has been found in Somerset, Mercer and Burlington Counties. The threat of imminent tree mortality increases when EAB is within 10 miles of your property.

Salvaging Ash Logs

Work with a consulting forester or Certified Tree Expert to get the most from your forest. Studies have shown that owners who use professional forestry services before they cut make more money and are more satisfied with the results than owners who sell timber on their own.

More information www.myhealthywoods.nj.gov

For Municipalities

If your municipality or county currently has an approved Community Forest Management Plan and ash is a major component of your community's forests along streets or in parks, consider including a section in your plan that addresses your community's response to EAB. Contact a Certified Tree Expert for assistance.

Municipalities with ash trees should:

- Conduct a tree inventory: know the size, health status, and where ash trees are located
- Begin to remove ash trees that are in decline and replace with non-host species
- Identify high value ash trees that you would like to treat to protect them from EAB
- Determine how infested ash tree removals be handled
- Identify a contact for EAB management issues (i.e.; Shade Tree Commission, Department of Public Works, Environmental Commission)
- Plan for restoration efforts with non-host species

More information on the community forestry management plan program

www.communityforestry.nj.gov

More information on the emerald ash borer
www.emeraldashborer.nj.gov



EAB infested ash wood

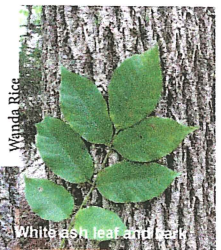
Take action

Identify ash trees. Ash species have opposite branches and leaves and a compound leaf with 5-11 leaflets. The bark has a unique diamond-shaped ridge bark on older trees, but younger trees may have smoother bark.

Monitor your ash trees for EAB, you will know when the risk of mortality becomes urgent. Look for the dying branches at the top of the tree, woodpecker damage, galleries under the bark, D-shaped holes, green adult beetle, and sprouting.

Spread the message, "Don't Move Firewood." Visitors who bring infested firewood to second homes or campgrounds near you put your trees at risk. Talk with neighbors and campground owners in your community.

Report EAB sightings to the NJ Department of Agriculture. Collect and/or photograph any suspect insects and larvae. Note that several insects look similar to the EAB.



Wanda Rice

White ash leaf and bark



Daniel Herms

S-shaped galleries

New Jersey EAB Task Force



More information

www.emeraldashborer.nj.gov

Report sightings to Department of Agriculture 609.406.6939
State Forestry Services Forest Health 609.984.3861

Info from USDA
Look-alike beetles

www.stopthebeetle.info
www.nyis.info/index.php?action=identification



EMERALD ASH BORER

Insecticide Guide



This guide is intended to assist N.C. homeowners & natural resource professionals in selecting and applying a pesticide to treat or protect ash trees from emerald ash borer. Regardless of the content of this publication, applicators must follow all pesticide labels. Remember: the label is the law!

What is the emerald ash borer?

The emerald ash borer, *Agrilus planipennis*, is a non-native invasive insect that was first found in the U.S. near Detroit, MI in 2002. Through both natural dispersal and human-assisted movement in infested materials such as firewood, this beetle has spread to many additional states, including North Carolina where it was first found in 2013. The emerald ash borer has already killed tens of millions of ash trees in the U.S. and has the potential to eliminate the species from the landscape. Pesticides are the most promising option for protecting high-value trees from the pest.



When to begin treatment

It's best to begin treating ash trees before they become infested. Studies indicate that if more than half the canopy has been thinned or killed by emerald ash borer, then it is too late to save the tree. It may take several years to notice tree health improvement following a treatment. To prevent infestation, it is recommended to begin treatments when the emerald ash borer is known to be within 10-15 miles. The [NCFS local range map](#) is continuously updated to show the most recent knowledge regarding its whereabouts. Depending on the pesticide used, retreatment intervals vary. Always follow the label's application instructions.

Insecticide treatment options

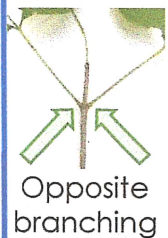
The insecticides used against the emerald ash borer can be separated into four categories based on application method:

- **Soil injection or drench:** Systemic insecticides that are applied via the soil, then taken up by the tree. This method is commonly used, is simple to do, and has shown to be effective.
- **Trunk injection:** Systemic insecticides injected directly into the tree. Tree uptake is excellent, some application knowledge is required, and it may cause damage to the tree if used year after year.
- **Systemic bark spray:** Systemic insecticides that are sprayed onto the lower trunk bark, then taken up by the tree.
- **Cover spray:** Covers bark or foliage; kills the borer as the adult feeds on foliage or the larva bores into the tree and they consume the insecticide. This option is not highly recommended as it will not kill borers already feeding within the tree and you must apply a thorough coat on the entire tree for optimum efficacy.

Always read the label!

Pesticide users must comply with all instructions and restrictions on the pesticide label. Always wear appropriate personal protective equipment when handling pesticides.

Is it ash? Ash trees have:



Opposite branching

Compound leaves, 5-7 leaflets



Clustered, oar-shape seeds (Fall)

Is my ash infested with emerald ash borer?

If you see:

- Canopy thinning
- Sprouting from trunk
- Woodpecker activity
- Vertical cracks in bark

LOOK CLOSER FOR



D-shaped exit holes (1/8")



Galleries beneath bark

This document was developed in September 2015 by the N.C. Forest Service – Forest Health Branch. Special thanks to Lee Davis, NCDA&CS Pesticide Section.

For more emerald ash borer information, visit http://www.ncforestservice.gov/forest_health/fh_eabfaq.htm

For more ash tree identification help, visit http://ncforestservice.gov/forest_health/pdf/NC_ash_identification_brochure.pdf