Emerald Ash Borer

I want to take this opportunity to notify the citizens of Verona of a very destructive pest that will be affecting some of our local shade trees in the near future. The Emerald Ash Borer (Agrilus planipennis) is a very devastating insect pest to all Ash trees and the White Fringe Tree. At this point in time there aren't any natural controls here in North America.

The insect recently has reached Montclair our neighbors to the east. So I would expect that the insect will be here in Verona this year.

Most of the Ash trees in town are on private property and wooded lots. It is recommended that homeowners contact local tree experts to assess their trees and to develop a plan of action. In Verona we have very few Ash trees as street trees.

The Emerald Ash Borer is a small greenish insect, 0.3 to 0.5 in length, which lays its eggs on the stem and branches of the Ash tree. The eggs then hatch and the larva burrow their way in to the cambium layer of the tree. This is where it feeds and develops. The channels that it makes while feeding disrupts the flow of water and nutrients though out the tree, killing the tree in two to four years.

If no action is taken then it is almost certain death to the Ash tree. Because of the brittleness of the dead Ash tree wood. They and their parts poise a falling hazard to people and structers. There are chemical controls that work well but it is a long term program, twenty years or more in length. Homeowners need to assess the value of the Ash trees on their property while developing plan of action against the Emerald Ash Borer.

For more information visit – www.emeraldashborer.nj.gov
For a list of NJ Certified Tree Experts visit – njtreeexperts@gmail.com

Bob Dickison, Chairman
Verona Shade Tree Commission

Gloria Machnowski, Chairwoman
Verona Environmental Commission


Figure 1. Adult emerald ash borer


Adult beetle


Larva


Galleries under bark

EAB PREPARATION CHECKLIST
FOR NEW JERSEY MUNICIPALITIES

Emerald Ash Borer (EAB) is a tree-killing non-native pest that was first detected in New Jersey in 2014. Although initial findings occurred in Somerset, Mercer, and Burlington Counties, it is expected to spread throughout the state in coming years. This checklist helps municipalities prepare.

1. Collaborate & Plan → 2. Take Action → 3. Decide → 4. Educate

1. Collaborate & Plan

- ☐ **FORM AN EAB WORKING GROUP**
  Bring together key players in your municipality such as Shade Tree Commissions, Environmental Commissions, Parks and Recreation, Planning, Township Forester, and Department of Public Works, Green Teams. The group will define roles and responsibilities for EAB preparedness. Identify someone to be a "champion" to keep momentum going.

- ☐ **DEVELOP AN EAB PLAN**
  Your Community Forestry Management Plan (CFMP) should address EAB mitigation or amend a current CFMP to address EAB mitigation. Contact NJ State Forest Service's Community Forestry Program for more information on CFMPs 609-633-2320
  www.communityforestry.nj.gov
  View list of Approved Foresters
  www.forestry.nj.gov

2. Take Action

- ☐ **DETERMINE YOUR EAB MANAGEMENT ZONE**
  Visit emeraldashborer.nj.gov to find your EAB Management Zone and review recommendations. There are three management zones in New Jersey. Your zone depends on how close you are to a known infestation. Recommendations for woodlot owners and homeowners have been developed for each zone.

- ☐ **COMPLETE AN INVENTORY**
  To plan effectively, know how many ash trees are present and their size, location, and condition. There are several ways to inventory. While surveying, affix ash ID tags to ash trees with high foot traffic.

- ☐ **SURVEY FOR EAB**
  A late winter windshield survey is an efficient way to look for infestations, when bark flecking (evidence of woodpecker activity), is visible at the tops of the trees. In the summer, look for signs of crown dieback, bark cracks, and epicormic branches at the base and trunk.

- ☐ **NOTIFY WOODLAND OWNERS**
  Residents who have more than five acres of woodland should work with an approved forester to develop a forest management plan that specifically addresses EAB, Wetlands and Flood Hazard Areas, and mitigation. View a list of foresters at www.forestry.nj.gov

3. Decide

- ☐ **TREAT OR REMOVE ASH**
  Identify high-value ash trees to preserve through chemical treatment, as well as trees that will need to be removed. You may be able to complete this step during your inventory. View a list of wood utilizers at www.forestry.nj.gov

- ☐ **BUDGET FOR THE FUTURE**
  Consider treatment, removal, and replacement costs. Use the EAB Cost Calculator to help estimate these costs
  http://extension.entm.purdue.edu/treecomputer/

- ☐ **DON'T PLANT EAB HOST TREES**
  Every host tree you plant now will need to be treated or removed when EAB arrives in your municipality. Currently known host trees include ash and white fringetree. Replant host trees removed with non-host species minimally at a 1:1 ratio.

4. Educate

- ☐ **HOLD A PUBLIC EDUCATION PROGRAM**
  Everyone will be affected when EAB arrives. Residents, homeowners, and woodland owners should know what to expect and the options available. View a list Certified Tree Experts that serve your municipality that residents can hire at www.njtreeexperts.org

- ☐ **HOLD A FIELD TRAINING EXERCISE**
  Involve municipal staff as well as others who manage trees. Go over ash identification and signs of EAB, especially bark flecking caused by woodpecker activity.

- ☐ **MAKE EAB INFORMATION AVAILABLE**
  Provide a link to www.emeraldashborer.nj.gov on the municipal website, in the municipal newsletter, and on municipal social media accounts. Download printable fact sheets from and make available at the municipal office.

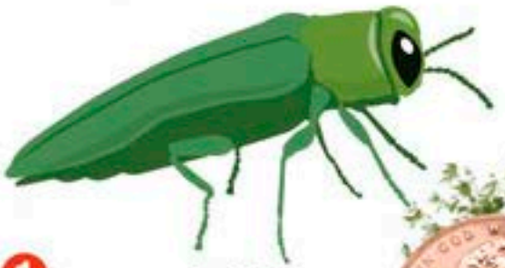
More information:

www.emeraldashborer.nj.gov

This document was adapted from a UNHCE (University of New Hampshire Cooperative Extension) document, Emerald Ash Borer Preparation Checklist for New Hampshire Towns and Cities 2015. NJ EAB Task Force oversaw and approved all updates and changes.

Emerald Ash Borer Task Force

Presence of Emerald Ash Tree Borer Confirmed in Essex County



1 Adult

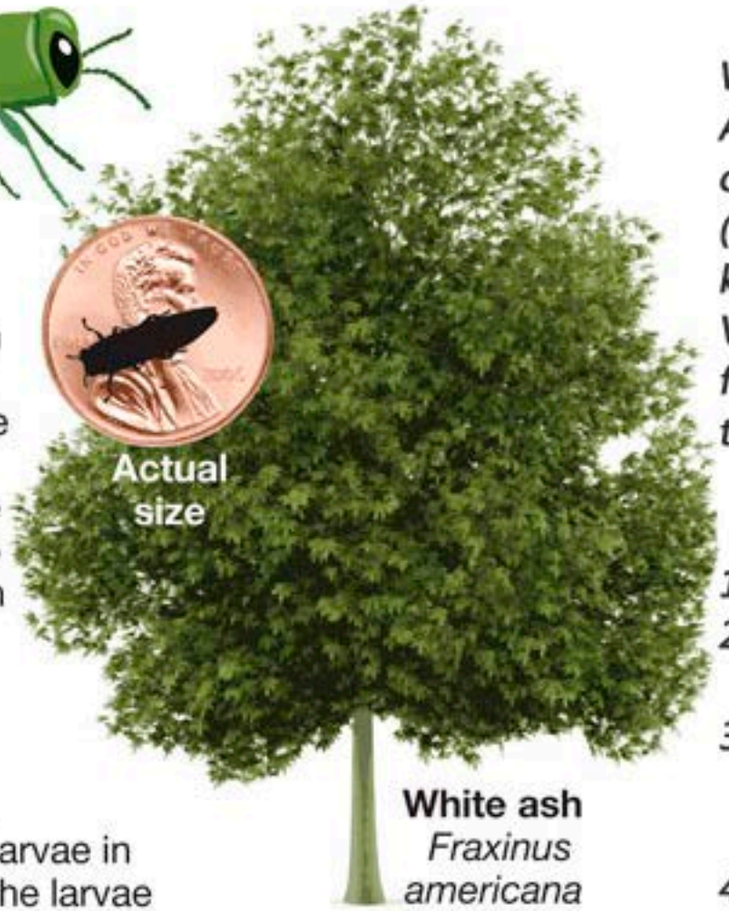
Adults emerge from mid- to late May until August and live and breed for two to three weeks. The female will lay up to 90 eggs in cracks in the bark of ash trees.

2 Eggs

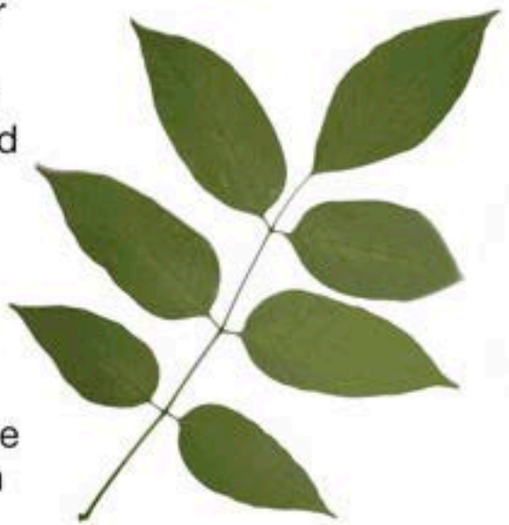
The eggs hatch as larvae in seven to 10 days. The larvae bore through the outer layer of bark and live, eat and grow in the inner bark layer (phloem) through the fall and winter.

3 Larvae

In the spring, the larvae become pupae and then mature into adults. When the adults emerge, they feed on the leaves of the tree.



White ash
Fraxinus americana



Sources: United States and New Jersey departments of agriculture

We strongly recommend Verona residents to protect their Ash trees. The New Jersey Department of Agriculture confirmed the presence of tree-killing Emerald Ash Borer (EAB) in Montclair in 2016. As this pest spreads rapidly, it kills 99% of all ash trees. Most of the Ash trees in Verona are on private property and wooded lots, only a few are street trees. Declining ash trees pose a hazard to residents and infrastructure.

Essex County residents should do the following:

1. *Determine if there are ash species on your property;*
2. *Retain a N.J. Certified Tree Expert or ISA Certified Arborist to inspect trees for the pest;*
3. *Trees infected may have to be removed and chipped and/or burned; wood that cannot be chipped must stay within the municipality;*
4. *Select ash trees can be saved through insecticide treatments, but all other ash trees will succumb after EAB infestation.*

The extensive damage in trees sampled so far indicate the pest has been in Montclair for several years, and is likely widespread. Trees with no visible symptoms may already be infested; only a trained professional will know.

For more information visit www.emeraldashborer.nj.gov
To obtain a listing of Certified Tree Experts please contact njtreeexperts@gmail.com - Thank you.

White Ash

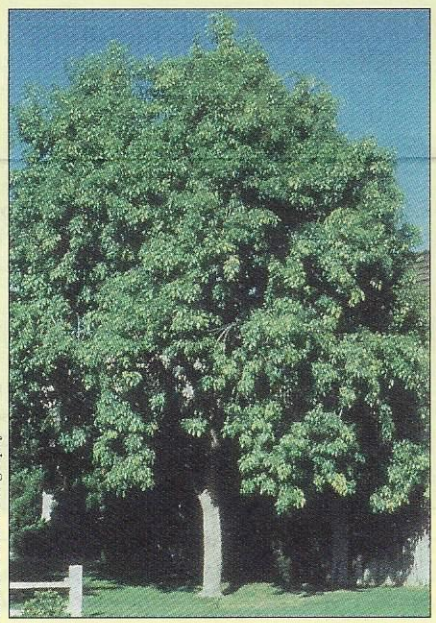
Fraxinus americana

FORM: A medium-sized tree that reaches 50 – 80 feet in height with an oval or rounded crown that is almost as wide. Medium growth rate.

PLANT in a large, open area away from overhead wires, severe compaction, paving and similar impacts. Prefers full sun and deep, moist, well-drained soils, but will tolerate a wide range of pH and other soil conditions. Suitable for hardiness zones 4 – 9.

ROOTS: Deep in porous soil, but spreading and shallow in rocky or other poor soil.

LEAVES: Compound, with 5 – 9 (usually 7) oval or spearhead-shaped leaflets that have short stems. Approximately 8 – 15 inches in length and arranged opposite on the branch. Margins are slightly toothed, but sometimes smooth. Fall colors are purple to deep yellow.



Horticultural Photography

FLOWERS AND FRUITS: Clusters of inconspicuous, purplish or greenish flowers with males and females on separate trees. The resulting fruit is produced in drooping clusters. Each is approximately 1 – 2 inches long and 1/4 inch wide, comprised of an oblong seed at the base of a long, narrow wing.

BARK: Grayish with distinctive, diamond-shaped furrows between flat, interlocking ridges.

WHITE ASH, the largest of all ashes, is famous as the source of baseball bats and tool handles. This is because what its wood lacks in beauty, it more than makes up for in strength, pliancy and light weight. It is a desirable forest tree throughout its large natural range that covers the entire eastern United States except the southern coasts and the highest Appalachians. This species is popular in parks and other large landscapes because of its adaptability to various soils, including an ability to withstand dryness. Its other attributes include serving wildlife, with finches and cardinals especially fond of its seeds.

An official publication of
The National Arbor Day Foundation®
100 Arbor Avenue • Nebraska City, NE 68410
arborday.org 402-474-5655

White ash can be ordered from *The Tree Book*, or online at arborday.org/treestore.

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White Ash

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Fraxinus americana

Factsheet 48

Height: 50′ to 80′
Width: 40′ to 70′
Hardiness Zone: 3 to 8

Crown: irregularly ovate, medium texture
Foliage: compound, leaflets 3″ to 5″, yellow to maroon in fall
Flowers: inconspicuous, male and female plants
Fruit: 1″ to 2″ samaras on female trees

Description: Native to moist sites throughout eastern U.S. into Canada. It is intermediate in shade tolerance and has a fast growth rate. Gray bark has small diamond-shaped fissures and narrow ridges.

Advantages: A handsome tree for parks and broad streets. Branching habit is superior to green ash grown from seed. Medium shade is cast which permits grass to grow underneath.

Limitations: Sensitive to drought conditions. Ash decline or dieback, which has complex causes, has become common in some localities. Other diseases usually are not very severe. Susceptible to borers, flower gall on male trees, sawfly, scale insects, bark splitting, leaf rusts, leaf spots, and cankers. Some problems with graft incompatibility have been observed with all cultivars.

Site and Culture: Transplants readily. Soil preferably moist and well drained, somewhat acid to neutral. Tolerates partial shade. Avoid white ash cultivars budded on green ash.

Cultivars: Selections made for superior crown form, branching, and foliage are better than trees grown from seed.

Notes:

Municipal Tree Restoration Program, School of Forest Resources, The Pennsylvania State University, University Park, PA 16802