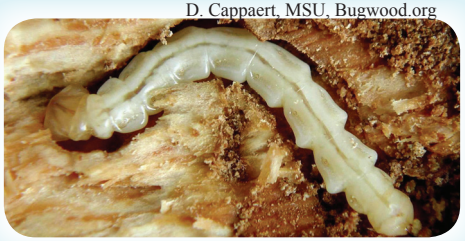

D. Cappaert, MSU, Bugwood.org

## WHAT IS THE BEETLE AND HOW DOES IT IMPACT ASH TREES?

Emerald Ash Borer (EAB), *Agrilus planipennis Fairmaire*, is an exotic beetle that was discovered in southeastern Michigan in 2002. It probably arrived in the United States on solid wood packing material carried in cargo ships or airplanes originating in its native Asia. The adult beetles nibble on ash foliage but cause little damage. The larvae (the immature stage) feed on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients. Unlike other trees like oak or elm, which remain relatively stable after they die, ash trees lose moisture internally very quickly and begin to fall apart soon after they die. The City's diversification efforts will help reduce impacts felt by the loss of ash trees.

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CEDAR RAPIDS
City of Five Seasons®


**Forestry Division**
**City Services Center (CSC)**
**500 15th Avenue SW**
**Cedar Rapids, IA 52404**

# TREATMENT OPTIONS FOR PROTECTING ASH TREES FROM EMERALD ASH BORER

T. DeGomez, UA, Bugwood.org

# WHAT TREATMENT OPTIONS ARE AVAILABLE FOR RESIDENTS?

It is important to remember that insecticide treatments are not guaranteed to eradicate EAB in ash trees. Health and condition of the tree, the age of the tree, soil moisture, soil compaction, and other site and environmental factors influence the effectiveness of these products. Current success rates are in the 90 percent range, but there is a possibility that you could invest the time and funds to treat your tree and it could still be infested and fail.

Treatments are not preventative. They are meant to be applied just before the insect infests the tree – which is difficult to predict – or once the tree is infested. You must be vigilant and learn the signs and symptoms of EAB. If your tree has an early EAB infestation, treatments may stop the infestation. You should consult with a certified arborist and have your tree evaluated for treatment if you wish to try and protect it.

Treatment is only part of an overall management program. The tree should be properly pruned on a regular basis (every 5 years or so), watered regularly and fertilized yearly. This will keep the tree in the healthiest state possible and allow it to be more effective in fighting off an infestation. This applies to all trees, not just ash. Most insecticide control measures against EAB must be used either yearly or every two years for the life of the tree.

## Treatment options for private property ash trees:

The chemical solutions Emamectin Benzoate (sold under the trade name Tree-Age) and Merit (Imidacloprid) are commonly used to treat ash trees. There are several things to keep in mind when treating ash trees with these products, and the City recommends residents review the options carefully:

1. Treatment should start when the insect is confirmed to be within 15-20 miles from your location. If you treat a parkway tree, you need to contact the Forestry Division so the tree can be evaluated, approved and put on a list so it is not removed prematurely. Confirmed infestation locations can be found at **http://www.EmeraldAshBorer.info**

2. An ISA Certified Arborist should evaluate private trees to see if they are in good condition. Once you start treatment on a tree, you will need to continue for the life of the tree. If stopped, the insect can infest the tree and kill it.

3. These products are not preventative and do not guarantee survival of the tree. To be effective, the insect's larva needs to ingest the chemical by chewing through the bark. In addition, some treatments require injections, which create small wounds and stress to the tree.

4. Merit, when applied as a ground treatment instead of a trunk injection, can contaminate groundwater if the per acre limitations are surpassed. Merit is used to control a variety of insects, not just EAB.

**CityofCR.com/EAB**

# WHAT IS THE KEY TO LIMITING THE SPREAD OF THE INSECTS?

The public can help limit the spread of EAB by only using and purchasing local firewood, as a key factor in the spread of the beetle is human activity.

# WHERE CAN I GO FOR STATE INFORMATION ON EMERALD ASH BORER?

- The Emerald Ash Borer Information website is: **http://www.EmeraldAshBorer.info**
- The Department of Natural Resources: **http://www.iowadnr.gov/Environment/Forestry/ForestHealth/EmeraldAshBorer.aspx**
- The Iowa State University Extension Service website is: **http://www.extension.iastate.edu/pme/EmeraldAshBorer.html**