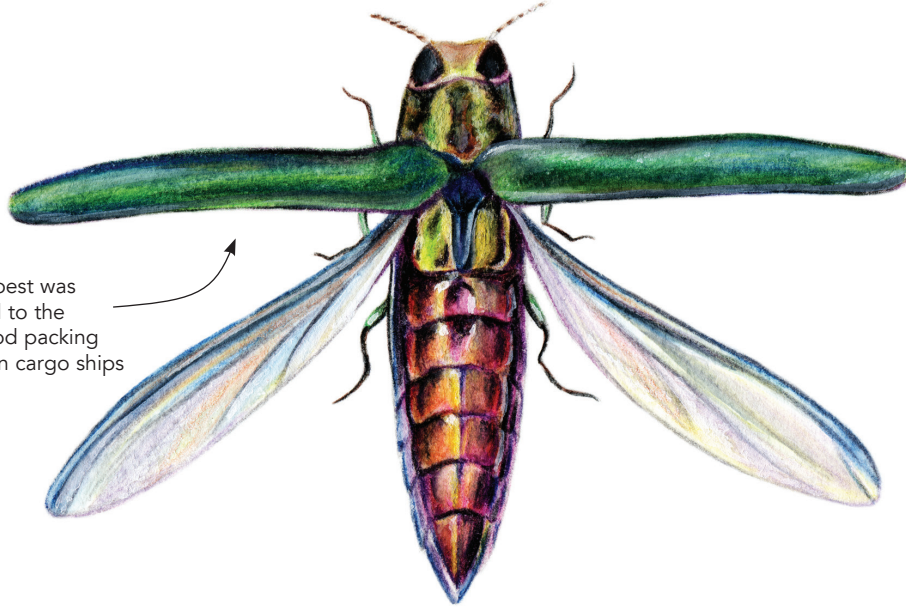




The Emerald Ash Borer is an insect that has killed over 20 million ash trees since its discovery in southeastern Michigan in 2002.

# Emerald Ash Borer



Native to Asia, this pest was probably introduced to the United States in wood packing material carried in on cargo ships or airplanes.

The Emerald Ash Borer is most recognizable by the metallic green wings.

## Emerald Ash Borer (EAB)

EAB is an invasive pest from Asia and threatens the ash tree population in the United States. In Michigan alone it has killed over 20 million trees since its discovery in 2002. Through a combination of natural spread and human activity it is now found in Ohio, Indiana, Illinois, and Maryland, placing millions of additional ash trees at risk. It will continue to spread and is probably a permanent member of our insect population.

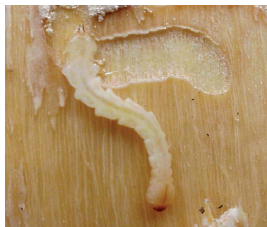
## Attacks Ash Trees

The Emerald Ash Borer has predominantly targeted green, black, and white ash in the US, although in Asia other types of ash have also been infested. Ash do not have natural defenses to the Emerald Ash Borer, and trees of all sizes and conditions have been killed.

## What To Do

Despite the challenges presented by the Emerald Ash Borer you can take steps to protect your tree. Current insecticide technology, Xytect, can protect your tree from EAB and other insects with one soil treatment. With Xytect your tree will have year long protection. Trees that are already infested with EAB may be treated with TREE-age using a tree injection method. TREE-age can be effective for multiple years and should be followed with Xytect soil treatments. Success is ultimately determined by both tree condition and treating the tree before it is challenged by Emerald Ash Borer.

Ash trees located within 20 miles of the nearest EAB infestation should be treated preventively. However, because symptoms from EAB can be difficult to identify, high value trees greater than 20 miles should be considered for treatment as well.



EAB larvae



## Emerald Ash Borer Symptoms

Adult beetles cause relatively little damage, but the larvae feed on the xylem layer and disrupt the movement of water and minerals within the tree. Early symptoms can be difficult to diagnose, but eventually the canopy dies from the top down. Trees may be infested for several years before symptoms are visible in the canopy.

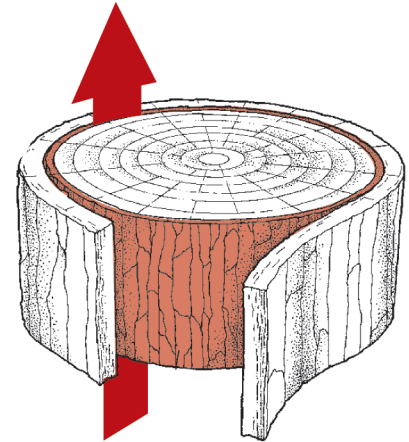
# Treatment Options: Emerald Ash Borer

## Xytect™

### How it works

Xytect is a systemic insecticide that protects the vascular system of the tree. Xytect applied to the soil at the base of the tree is evenly distributed throughout the canopy by the pull created by the leaves. When the insect ingests Xytect they quickly stop feeding and die.

Xytect can be applied in a variety of ways, most commonly by a basal drench or by soil injection. For trees with active borers or an immediate threat, a one time tree injection is the fastest way to get control. This is done into the root flares of the tree.



## TREE-age™

### How it works

If you have a tree that is infested, or a large tree that is in a high risk area your arborist may recommend a treatment using TREE-age. TREE-age is applied by injecting it into the root flares of the tree and has been shown in University trials to get excellent control of actively feed EAB larvae. TREE-age works for multiple seasons and is then followed up by annual soil treatments of Xytect.

### EAB Treatment Considerations

- Treat important trees first: specimen trees, trees shading your home, patio trees, etc. These trees should be healthy and vigorous.
- Research trials have shown systemic insecticide treatments are highly effective at protecting ash trees.
- Preventively treating your tree is the best defense against EAB.
- If the state starts doing eradication cutting and the tree you have been treating falls within the eradication area, the state will remove your tree even if the tree is healthy and free of EAB.
- Once treatments begin, you will need to treat your tree yearly to maintain protection.

### Added Protection

- Xytect will also protect your ash tree from these other insects: Ash Plant bug, Aphids, Spittle Bugs, Flat Head Borers, Leaf Hopper, Soft Shell Scale.



Soil injection of Xytect provides annual protection for your ash tree.



A tree injection of TREE-age can control EAB in an infested tree