

# Emerald Ash Borer Factsheet



## Background

The Emerald Ash Borer is a beetle that is native to Asia. It was first found in southwestern Ontario in 2002 and has spreading northward and eastward. In 2013, the south shore of Rice Lake and the north end of Port Hope. Based on the extent of damage at one of the sites in Northumberland, it has likely been present for the south shore of Rice Lake. It is estimated that the Emerald Ash Borer has already killed millions of ash trees and its economic impact could reach into the billions of dollars.

## What trees are affected by Emerald Ash Borer?

Aside from some horticultural varieties of ash tree, Northumberland County has 3 species of ash tree: White Ash, Green Ash and Black Ash. Black Ash is found in wet areas, while the other species can be found in almost any urban and rural location.

## How to Identify?



**Bark:** Diamond shaped pattern in mature bark (Black Ash has corky ridges but is not likely found on most properties).



**Seeds:** Paddle shaped seeds that hang in clusters.



**Leaves:** Compound leaves with 5-9 leaflets, always with one leaflet at end.



**Opposite Branches:** Branches and buds are directly across from each other rather than staggered; however, due to the death and grooming of individual branches, it is possible that not every branch will be opposite.

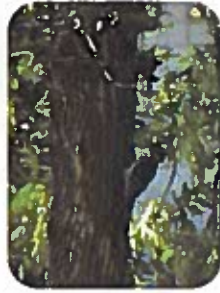
## My ash tree is dying, how do I know if it has Emerald Ash Borer?

Not all ash trees that are dying in Northumberland County are infested with Emerald Ash Borer. Some of the trees that are dying are the result of droughts in previous years as well as other environmental changes (e.g., pollution, local changes in hydrology) and native insects. Early detection of Emerald Ash Borer can be difficult as the infestation usually begins in the crown (top) of the tree. So, without checking branches in the trees canopy it can be difficult. The main signs that a tree is infested are:



**Defoliation:**

Branches throughout the top of the tree will start dying and the damage will extend downward through the canopy over time.



**Woodpecker**

**Damage:** One of the earliest signs of Emerald Ash Borer will be extensive woodpecker damage as they feed on the larva beneath the bark.



**D-shaped exit holes:**

The Emerald Ash Borer lays eggs under tree bark throughout the summer. When the larva become beetles, they eat their way out of the tree, leaving a D-shaped exit hole. The flat side of the exit hole can be oriented in any direction.



**S-shaped galleries (notches) under the bark:**

As the larva feed on the tree under the bark, they leave behind a large amount of S-shaped tunnels that they have been moving through. These will be especially obvious in areas where the bark is peeling off of the tree and where woodpeckers have been feeding.



**Shoot sprouting (epicormic branching) at the base of the tree and heavy seed crop:**

The tree dies it will send out new branches from the base of the tree where there is still living tissue in attempt to continue to survive. AS well, the tree will have large amounts of seeds in late summer in attempt to reproduce before dying.

**The best way to identify the presence of Emerald Ash Borer is to contact a professional in the arboricultural industry.**



**How does Emerald Ash Borer spread?**

The Emerald Ash Borer can fly up to 10km, but they are more likely to fly short distances. The main way that Emerald Ash Borer is spread is through the movement of firewood, nursery stock, harvested timber and mulch. The best protection for ash throughout Northumberland County and Ontario is not to move firewood and mulch infested branches on site. One of the infested sites in Northumberland County was clearly a case of moving infested firewood from another region. Even movement of ash firewood within Northumberland County will speed the spread, so all ash firewood should be burned close to the area it was cut down.

**Should I just cut my ash trees down?**

Deciding what to do about an ash tree can be a difficult decision. A landowner must decide what values area associated with the tree (shade, aesthetics, buffer) and how much money they are willing to spend to save the tree. There are solutions for saving trees which have less than 30% dieback such as injections of systemic insecticides. Costs can vary between products and applicators but a good rule of thumb is \$4-\$8 per centimeter diameter of tree. Treatments are generally required every second year once started. Although this may initially seem costly, there are many costs associated with removing a tree such as cutting the tree, removing the stump and planting a new tree and waiting for it to grow.

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