

## Frequently Asked Questions (FAQs) about Emerald Ash Borer (EAB ) and ash trees

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## ***What is Emerald Ash Borer (EAB)?***

Emerald Ash Borer (EAB) is a non-native, invasive insect that attacks and kills all species of ash trees.

The scientific name for Emerald Ash Borer is *Agrilus planipennis* Fairmaire.

## ***Why is EAB an important concern?***

EAB is an important concern to municipalities and residents because of the damage it causes to urban and natural forests. The beetle kills virtually all infested ash trees, which can make up more than 15% of all trees in some Ontario communities.

By killing these trees, the Emerald Ash Borer reduces the benefits provided by forests, such as shading and air quality improvement. It is also forcing municipalities and residents to spend more money to remove and replace dead or infested trees, or to protect trees with insecticides. The ash lumber industry is also greatly threatened by EAB.

## ***What does EAB look like?***

EAB beetles are metallic green in colour and have small (7.5 mm to 13.5 mm in length), narrow and elongated bodies. Their heads are short and flat, and they have large kidney-shaped eyes. EAB beetles can be spotted on ash trees or in flight between late May to August. EAB should not be confused with other metallic green beetles, such as Japanese beetles or Tiger beetles.

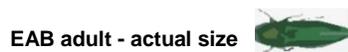
EAB larva, which cause most of the damage to ash trees, are difficult to spot because they live under the bark of infested ash trees. The larva are creamy-white in colour, with distinct flattened and bell-shaped body sections.



Emerald ash borer (EAB) adult beetle



EAB larva in various development stages



EAB adult - actual size



EAB larva – maximum size

### ***Where did EAB come from?***

EAB is native to China and other parts of eastern Asia. It is believed to have been accidentally introduced to North America in infested wooden packaging materials in the late 1980s. The beetle was first officially discovered in Detroit, Michigan and Windsor, Ontario in 2002. Since that time, it has spread across much of the northeastern United States, southern Ontario and parts of Quebec, and has killed many millions of ash trees.

### ***How does EAB spread?***

Although adult beetles can fly for short distances, EAB is mostly spread through the movement of infested ash wood material. Although ash logs and nursery stock can spread EAB, by far the most common method of spread is the movement of infested ash firewood for campfires and fireplaces. This is why it is so important to buy and burn firewood locally, and to not transport firewood.

### ***What trees does EAB affect?***

EAB only affects ash trees. This includes common species found in urban areas such as white ash, green ash, black ash and European ash, as well as less common ash species usually found only in forests. EAB does not affect mountain-ash trees, which are not true ash trees. True ash trees belong to a group of trees known as the genus *Fraxinus*.

### ***What do ash trees look like?***

Ash trees (genus *Fraxinus*) have certain characteristics which make them easily identifiable.

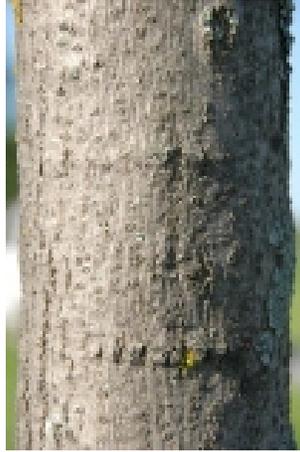
Ash trees (especially older ones) usually have tight, rough and diamond-patterned bark. Their twigs are stout, and are arranged directly opposite of each other along branches. Leaves are compound, with a long stem and between five and eleven finely-toothed leaflets. Seeds are oar-shaped and hang down in clusters.

Ash trees may sometimes be confused with Manitoba maple (boxelder), walnut or hickory trees. EAB does not affect these or any other tree species except true ash trees.

**If you are considering any management of your privately-owned trees, please be sure to first correctly identify the tree species.**



Ash tree leaf



Young ash tree bark



Mature ash tree bark

### ***How can I tell if an ash tree is infested by EAB?***

Unfortunately, signs and symptoms of EAB infestation usually only appear once the tree is heavily infested.

Signs of physical damage caused by EAB include small, D-shaped holes in the bark; S-shaped larval feeding galleries found under the bark; long and thin cracks in the bark; or leaves with ragged edges caused by adult beetle feeding.

Symptoms of EAB infestation include top-down crown thinning; weak-looking or yellow leaves; heavy sprouting of new leaves on the trunk and along branches; and dead ash trees.



D-shape exit hole



Declining ash tree



EAB larval galleries under bark

### ***What if I find an infested ash tree?***

If you see an ash tree that appears to be in poor health, check carefully for the signs and symptoms of EAB to rule out other possible causes of decline such as drought or physical injury.

If you find an EAB-infested ash tree along a street or road in the Town of New Tecumseth, contact the Public Works Department at 705-435-3900 x1400 or: [publicworks@newtecumseth.ca](mailto:publicworks@newtecumseth.ca)

If you find an EAB-infested ash tree in a public park in the Town of New Tecumseth, contact the Parks, Recreation and Culture Department at 705-435-4030 x1500 or: [recreation@newtecumseth.ca](mailto:recreation@newtecumseth.ca).

If you find an EAB-infested ash tree on private property, please contact an arborist (tree expert) to discuss options such as removal or protection. You should only choose an arborist certified by the International Society of Arboriculture (ISA) or registered with the American Society of Consulting Arborists (ASCA).

### ***Is EAB present in New Tecumseth?***

As of April 2014, the presence of EAB has not been officially confirmed in the Town of New Tecumseth.

However, EAB was recently discovered in the nearby communities of Bradford and Orangeville and is widespread in communities further south.

Because EAB is often only identified several years after the first local infestation, it is likely that the beetle is already present somewhere in New Tecumseth. Efforts will be made to monitor ash trees for signs and symptoms of EAB infestation and to take a proactive approach to managing this pest in New Tecumseth. Simcoe County, in association with the Town, will also install and monitor EAB population survey 'traps' in several locations throughout the Town. These traps contain are not harmful to wildlife or humans, but should not be disturbed.



EAB population survey trap

### ***How will EAB affect New Tecumseth when it arrives?***

It is difficult to predict the full extent of EAB infestation and its effects in New Tecumseth over the coming years. All ash trees in the Town on both municipal and private property are threatened by EAB.

On municipal property, ash trees account for approximately 10% of street trees in Alliston, Beeton and Tottenham. Another 2,000 – 2,500 ash trees can be found along rural roads throughout the Town. The number of ash trees in Town parks is currently unknown. The Town will need to expend resources to protect significant ash trees and to remove and replace infested ash trees.

The number of ash trees on private properties is unknown. Community residents may need to manage their ash trees to protect them against EAB or to reduce risk from dead or dying ash trees as the infestation progresses.

### ***Who is responsible for EAB management?***

All levels of government, as well as private citizens, share responsibility for EAB management.

The Canadian federal government, through the Canadian Food Inspection Agency (CFIA), enforces the *Plant Protection Act, 1990* and establishes quarantine regulations. The CFIA also monitors for new populations of EAB in areas outside of quarantine zones. The Canadian Forest Service (CFS) conducts research into EAB management practices, control and monitoring. The federal government no longer undertakes activities such as ash tree removal to slow the spread of EAB, and does not provide compensation for ash tree removals due to the infestation.

The Ontario provincial government, through the Ministry of Natural Resources (MNR), undertakes scientific research and community outreach activities, and provides limited support to municipalities through information sharing.

Individual municipalities, regions and counties are responsible for EAB and ash tree management on their respective properties, including road rights-of-way, facilities, parks and forests.

Private property owners are responsible for EAB and ash tree management on their own properties.

### ***What is the Town doing to manage EAB?***

The Town of New Tecumseth will implement a pro-active approach to EAB and ash tree management in the coming years.

In 2013, the Town retained Urban Forest Innovations, Inc., a Mississauga-based urban forestry consulting firm, to develop a long-term Emerald Ash Borer Management Strategy. The main objectives of the EAB Strategy are to minimize risk to people and property, offset the anticipated loss of ash trees and their benefits, restore the canopy, optimize resource expenditures, and protect significant ash trees. The EAB Strategy has been approved by Town Council.

The EAB Strategy outlines numerous tools that the Town will use in managing EAB over the next 15 years, including an inventory of all Town-owned ash trees, proactive tree removal, insecticidal treatment, tree replacement, and others. Implementation of the EAB Strategy will ensure that the Town's EAB management program is adequately funded and undertaken in a pro-active, cost-effective, and efficient manner. The EAB Strategy recognizes that some ash trees will require removal and replacement, while others will be protected.

### ***Will the Town assist property owners with EAB management?***

Through the 'Tree Maintenance Program', the Town offers residents a financial incentive to maintain trees on privately-owned properties. The program currently covers up to 50% of the cost of arborist services, up to a maximum rebate of \$250 per year per property, provided original receipts are provided confirming that works are undertaken by a Certified Arborist in accordance with ANSI standards. The program description currently includes pruning, trimming, and crown maintenance. Rebates will also be available towards ash tree protection through stem injection. [Click here for more information](#) about the Town of New Tecumseth Tree Maintenance Program.

The Town also encourages residents "to promote the growth and enhancement of the tree canopy by encouraging homeowners/tenants to plant and maintain hardwood tree species on their property". A one-time financial incentive is available to cover one hardwood tree per property, with a refund of 50% of the purchase cost, up to \$75.00. This program will be available to assist property owners who wish to plant a replacement tree (non-ash species) if their ash tree requires removal due to EAB. [Click here for more information](#) about the Town of New Tecumseth Tree Planting Program.

Please note that the Town will not inspect, inject, remove, plant, replace or otherwise maintain trees located on private property.

### ***Can I protect ash trees on my property against EAB?***

Yes!

Ash trees with less than approximately 20% canopy dieback can be protected using stem-injected insecticides. Currently, three insecticide products are registered for use in Canada to protect ash trees against EAB. An arborist will be able to advise you about the best options for your ash tree. To be most effective, injection should begin before the tree is infested by EAB.

More information about protecting ash trees can be found [here](#).

### ***Can I leave my ash tree alone and wait for EAB to 'move on'?***

This is not recommended.

EAB is expected to infest nearly every ash tree in southern Ontario; it is only a matter of time. It is unlikely that any ash tree in a community setting will be unaffected by EAB.

It is important to know that following mortality (tree death) due to EAB, ash trees can quickly become brittle and more prone to branch breakage or uprooting. Therefore, it is important to either protect ash trees with stem-injectable insecticides or to remove ash trees within 1 year of EAB-caused mortality.

### ***Is there anything else to be done about EAB or other tree pests?***

Yes!

All residents are strongly encouraged to educate themselves about and comply with Federal regulations concerning the transportation of wood materials, particularly firewood. Spread the word to friends, family and neighbours – **Don't Move Firewood!** Buy and burn all firewood locally.

Residents who remove ash trees due to EAB infestation are also encouraged to replace these trees with non-ash species, in order to promote the many benefits provided by urban forests.

### ***Will ash trees go extinct because of EAB?***

In many parts of Ontario and elsewhere, ash trees will largely disappear from the landscape due to EAB infestation. However, extinction of ash tree species is not expected to occur for several reasons.

Firstly, efforts to preserve ash tree seeds are underway and will be used to replant ash trees when EAB populations decline. Secondly, research is underway in Canada and the United States into natural EAB population controls, such as predatory and parasitic wasps and fungi. It is hoped that this research will lead to effective methods to keep EAB populations in check. Finally, ash trees often re-sprout from stumps after EAB-induced mortality, meaning that trees will continue to re-grow into the future. If EAB populations stabilize due to natural dynamics or control methods, ash trees will someday return to the natural and urban forests of North America. However, forest composition will be drastically changed for many years to come as EAB infestation continues to spread across the continent.

### ***Where can I find out more about EAB and ash trees?***

Please visit the Town of New Tecumseth [Links to External Resources page](#) for more information about Emerald Ash Borer and ash trees.



A single piece  
of firewood  
can **DESTROY**  
millions of trees.



Moving firewood, even just a few kilometres away,  
can spread invasive insects and diseases to our forests.

# DON'T MOVE FIREWOOD

Buy it locally. Burn it on site. Never bring it back home.

For more information call **1-800-442-2342** or visit [www.inspection.gc.ca](http://www.inspection.gc.ca)



Canadian Food  
Inspection Agency

Agence canadienne  
d'inspection des aliments

Canada