



Commonly Asked Questions

The emerald ash borer is devastating trees in Southern Ontario. Will this insect be equally destructive in the Ottawa area? Has it been found here yet? What are its general characteristics?

The emerald ash borer (*Agilus planipennis*) is an invasive, alien insect species that was first found in North America in June 2002 in Detroit, Michigan and, shortly after, in Windsor, Ontario. In these areas it is thought to be responsible for the death of as many as 20 million trees. In July of 2008 its presence was confirmed in the St-Laurent Blvd. and Ogilvie Rd. area of Ottawa. Since then it has been found on both private and City-owned properties in the general vicinity.

The emerald ash borer (EAB) only attacks ash trees (genus *Fraxinus*). Mountain-ash trees (genus *Sorbus*) are not impacted by this beetle. Since ash trees comprise roughly 25-30% of the trees within Ottawa this pest poses a very serious threat to our urban forest. In some neighbourhoods ash trees are the predominant street tree. In forested areas they account for a third or more of the species composition. In both instances these trees are very much threatened by this insect.

The EAB is native to China and

eastern Asia. It is believed to have been accidentally introduced to North America in imported wood packaging or crating material. The adult beetle is metallic green in colour and is 8.5-14mm long and 3-3.5mm wide. The larvae are white and flat, with distinctive bell-shaped segments to their body. It is at the larval stage of their life cycle when the insect is at its most destructive.

The larvae create galleries when they feed within the cambium (the layer under the tree's bark). These galleries (see picture) are distinctively serpentine or S shaped. The cambium is responsible for transporting nutrients and water throughout the tree. With its transportation system blocked a healthy ash tree can die in only one to two years when infestations of EAB larvae are severe. Signs of EAB infestation usually only become apparent once a tree has been heavily infested. These signs include the loss of green colour in the uppermost leaves (chlorosis) and thinning and dieback of the crown. As the infestation continues, the tree may develop sprouts (epicormic shoots) from the roots, trunk or branches, in an effort to find new ways to transport nutrients. Eventually however, with more and more of the crown dying, the tree will starve to death.

Adult EAB beetles typically begin to emerge from the tree in May, creating small D-shaped exit holes. These adults will then fly to the next avail-

able ash tree and feed on leaves until they lay eggs on the bark, which eventually become larvae and then the cycle begins again.

In the fight against the spread of EAB a natural insecticide has been developed to provide protection for individual trees. This treatment is injected into the cambium and inhibits the growth of larvae and prevents the emergence of adult emerald ash borer. Although the removal of infested host trees is no longer considered to be an effective control measure from a municipal standpoint, smaller ash populations on private property can be protected. Through early detection, a proactive sanitation program for heavily infested trees and an injection program for mildly or uninfested trees, ash trees on residential and commercial properties can be retained.



Credit: CFIA staff

Did you know... on Campbell Island, Antarctica there's a Norway spruce that is more than 222km away from the nearest other tree? (source: Guinness World Records)



Integrated Forestree Services Inc. is a full-service

*forestry firm offering consulting and contracting services in urban forestry and forest management. **Integrated Forestree Services Inc. is fully Canadian owned and operated.***

Integrated Forestree Services Inc. is the only tree care firm in Ottawa with a degreeed (B.Sc.F.) Registered Professional Forester on staff. Also, we guarantee that all of our working arborists are graduates of college-level arboricultural and/or forestry programs.

Integrated Forestree Services Inc.: About Our Services

Trees on residential and commercial properties, together with those on public lands, make up the City of Ottawa's urban forest. Just as with trees in forests, those in our urban forest provide many benefits including producing the oxygen we breath. However, because of their proximity to buildings, roads, sidewalks and the property of others, trees in urban areas need to be carefully maintained to ensure that they don't cause conflicts, or worse, catastrophes. This is where **Integrated Forestree Services Inc.** can help. We provide complete tree maintenance and management ser-

vices for both residential and commercial properties.

Tree Maintenance Services

- ✓ Tree and stump removal
- ✓ Tree pruning
- ✓ Cabling, bracing and propping (including storm damage repairs)
- ✓ Deep-root fertilizing
- ✓ Installation of root barriers
- ✓ Disease and insect control
- ✓ Systemic injections and organic spraying
- ✓ Vertical mulching
- ✓ Tree planting
- ✓ Delivery of composted woodchip mulch

Tree Management Programs

- ✓ Tree evaluation and hazard assessment (including use of a Resistograph Decay Detector)
- ✓ Assessment of treescapes
- ✓ Soil testing (for macro and micro nutrients, pH, texture, etc.)
- ✓ Disease and insect diagnostic services
- ✓ Tree valuation to International Society of Arboriculture Standards
- ✓ Species-to-site compatibility (prior to tree planting)
- ✓ Tree surveys - soil subsidence, etc.

How to Contact Us:

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We are members of the following associations:



New for 2009...

As of spring 2009 we will be offering systemic injections to protect trees against emerald ash borer attack. The insecticide used is an environmentally safe botanical insecticide. It is injected into the base of the tree and translocated through the cambium where it inhibits the growth of larvae and prevents the emer-

gence of adult emerald ash borer. Unlike traditional chemical treatments it is not broadcast sprayed and so is not released into the larger environment. The treatment can be applied to trees under attack or as a preventative measure. Pricing is based on the size and status of the tree (*i.e.* under attack or not). **Call us for a quote!**