

# EAB Web Resources

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Silv-Econ Ltd.



# www.invasiveinsects.ca

## Purpose:

Education & information transfer

## Approach:

What do I do?

## Audience:

Anyone that owns or manages ash trees

e.g.

Municipalities

Land managers

Woodlot owners

Homeowners

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## **Emerald ash borer is here, now what do I do?**

A toolkit for Canadian landowners and land managers

Information for:	Identify:	Municipal planning:
Municipalities	Ash trees	Tree inventory
Homeowners	EAB-infested trees	Survey for EAB
Woodlot owners	Emerald ash borer	Planning for EAB
Land managers	Resources	Insecticide options

### Current, science-based Emerald Ash Borer information for:

- Municipal delegates tasked with finding out more about emerald ash borer (EAB), how it may affect their community, and options for dealing with it.
- Homeowners trying to decide what to do about the ash tree in the yard.
- Rural landowners making decisions about how to manage ash trees in their woodlot, windbreak or yard.
- Land managers responsible for trees on private land such as school grounds, golf courses, or businesses.





From left: healthy ash tree; prism trap; EAB galleries; ash trees dying of EAB attack. Images: Silv-Econ Ltd.

If you think you have found EAB in Canada outside of an EAB regulated area, contact the Canadian Food Inspection Agency: 1-866-463-6017.

[Contact us to give us your feedback.](#)

Development of this initiative funded by:



#### Tweets

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**Emerald ash borer** @EABCanada 11 Mar

Montreal wants to beef up defence against emerald ash borer [montrealgazette.com/technology/Mo](http://montrealgazette.com/technology/Mo)

Show Summary

**Chris MacQuarrie** @CMacQuarrie 10 Mar

2 emerald ash borer workshops next week, Kingston and Orillia, details: [forestar.ca/?page\\_id=354](http://forestar.ca/?page_id=354) (deadline for registration is tomorrow)

t3 Retweeted by Emerald ash borer

Expand

**Emerald ash borer** @EABCanada 8 Mar

Opinion: What the emerald ash borer infestation should teach us [shareus/PpJMG](http://shareus/PpJMG) via @sharethis

[Tweet to @EABCanada](#)

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Template design by Andreas Viklund

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## For municipalities:

- Information about EAB
- Tree inventory
- EAB detection
- Planning strategies and tools
- Networking
- Other sources of information

## 1. Find out more about emerald ash borer:

Emerald ash borer (EAB) arrived accidentally from Asia in solid wood packaging material. The beetle attacks true ash (*Fraxinus*) tree species and is a highly effective tree-killer in North America - since it was first detected in 2002, it has killed millions of ash trees and is expected to kill billions more.

- What trees are at risk, and what is the impact?
- Where is it from and how did it get here?
- Why is it such a big problem here in North America?
- Emerald ash borer identification and biology
- How much time do I have to work with?
- How do I know if a tree is infested with EAB?
- What is being done about EAB?

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### Information for municipalities

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- How much time do I have to work with?
- How do I know if a tree is infested with EAB?
- What is being done about EAB?

**2. Determine your community risk:**


Do you have ash trees in locations where they could become a hazard to people, buildings or other structures? A up-to-date tree inventory will enable you to assess the potential impacts of EAB on your community. It will allow you to set management goals and objectives, and to develop an EAB management plan and budget that is best for your community. There are different inventory strategies, depending on your budget and on how much time you have to work with. There are also a number of software programs available to facilitate management and analysis of the inventory data.

- Tree inventory approaches

**3. Find out if EAB is in your community:**

There are a few methods used to detect the beetle, but survey trapping and branch sampling, augmented by visual surveys, are used most often in Canadian communities. The distribution of trapping or sampling locations depends on your community and its objectives. If you have a very limited budget and are near to a known infestation (less than 25 km), a detection survey may not be necessary since the beetle's arrival is imminent; however, confirming the presence of EAB could help to secure funding for the management program.

- Basic survey approaches
- Prism trap survey
- Branch sampling
- Visual survey
- Other survey methods



EAB-infested ash trees. Images from left: Chris Gorman, Silv-Econ Ltd. Loganne Howard, Silv-Econ Ltd.

**4. Come up with a plan:**

An EAB management plan outlines your objectives and approaches to addressing the impact of EAB in your community over the duration of the EAB infestation. An up-to-date tree inventory (see #2 above) is essential for an effective plan. Plan for a ten-year period, updating the plan yearly. Be prepared to regularly re-evaluate and adapt the plan as new information becomes available.

- Overview of a typical management plan
- Ash tree management options
- Insecticide options
- Tree removal and planting
- Ash wood movement, disposal and utilization
- Public awareness and outreach
- Communications planning
- Sample management plan: AshTown, Ontario
- A checklist for municipalities

**5. Network:**

- The Canadian Urban Forest Network listserv is an appropriate place to post your questions about municipal aspects of EAB.
- LinkedIn interest groups such as ASCA Consulting Arborists, International Society of Arboriculture, and Urban Forestry have active discussion on aspects of EAB; Urban Forest Products Alliance has discussions on urban wood utilization.

**6. Keep informed:**

Information about EAB is changing rapidly, there are a number of helpful websites, including:

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**7. Resources:**

- Helpful links

Contact us to give us your feedback.

**Slow The Spread:**

Delay the entry of EAB into your community: take measures to prevent movement of infested ash wood



Stop the Spread: Delay the Entry of EAB into your community

**Information for:**

- Municipalities
- Homeowners
- Woodlot owners
- Land managers

**Resources & links:**

- Resources page
- CFIA
- NRCan
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- **Basic survey approaches**
- **Prism trap survey**
- **Branch sampling**
- **Visual survey**
- **Other survey methods**

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Photo: Top Photo: University of Guelph; Bottom Photo: University of Guelph

#### Information for:

- Municipalities
- Homeowners
- Woodlot owners
- Land managers

#### Resources & links:

- Resources page
- CFIA
- NRCan
- EAB Info



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## For homeowners:

## Developed from common questions from homeowners

- Do I have an ash tree
- What are my options
- How do I decide what to do
- About EAB
- Other sources of information

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### Information for homeowners

#### 1. Do I have an ash tree?:

Emerald ash borer (EAB) only attacks true ash (*Fraxinus*) trees. So, the first thing to do is determine whether or not your tree is an ash. Mountain ash (*Sorbus*) is not a true ash so is not at risk.

- [Guide to ash tree identification](#)

#### 2. What are my options?:

You've determined you have an ash tree, now what? If EAB is in your region, your ash tree will be attacked by the beetle before long. But you have an option to conserve your tree. If your tree is healthy, an effective insecticide treatment is available to protect it; without the treatment the tree will die and need to be removed.

- [Ash tree treatment for EAB](#)



From left: healthy ash; declining ash; ash trees dying from EAB attack. Images: Silv-Econ Ltd.

#### 3. How do I decide whether to treat my tree?:

There are some things to consider before making the decision to treat your ash tree. However, if you are close to, or within an EAB regulated area, decide soon while you still have options - EAB moves quickly. However, be skeptical of high-pressure sales pitches - there are reports of unscrupulous businesses pushing expensive treatments or tree removals.

- [Is my tree a good candidate for treatment?](#)
- [What are the costs of treating or removing my tree?](#)
- [How is the treatment applied?](#)
- [What should I know about treatment?](#)
- [What can I plant instead?](#)

#### 4. About emerald ash borer:

Want to know more about the beetle threatening your tree? Emerald ash borer arrived accidentally in Canada in solid wood packaging material. Since it was first detected in 2002 near Windsor Ontario, it has spread quickly and is now killing ash in many areas of southern Ontario and southwestern Quebec.

- [What trees are at risk, and what is the impact?](#)
- [Where is it from and how did it get here?](#)
- [Why is it such a big problem here in North America?](#)
- [Emerald ash borer identification and biology](#)
- [How do I know if a tree is infested with EAB?](#)
- [What is being done about EAB?](#)

#### 5. Learn more:

Many municipalities and organizations offer EAB workshops for homeowners, contact your local municipality or search online to find out about workshops in your area.

There are a number of helpful websites, including:

- [CFIA](#) is a good source for learning about the current distribution and regulation of EAB in Canada.
- An overview of EAB as well as some Canadian research on the beetle is available from [Canadian Forest Service](#).
- Information for homeowners can be found at [EAB Info](#). Please note - insecticide options described in this U.S. website are not available in Canada.

#### 6. Resources:

- [Helpful links](#)

Contact us to give us your feedback.

#### Slow The Spread:

EAB hitchhikes in firewood, and on vehicles and people:  
 \*Use local firewood.  
 \*Check your car and clothing for adult beetles before leaving EAB-infested areas



Images: L. Blaser, USDA Forest Service Northern Research Station, Bugwood.org

#### Information for:

[Municipalities](#)

[Homeowners](#)

[Woodlot owners](#)

[Land managers](#)

#### Resources & links:

[Resources page](#)

[CFIA](#)

[NRCan](#)

[EAB Info](#)

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## For woodlot owners:

- Do I have an ash tree
- Managing ash trees in woodlots
- Managing ash trees in yards
- Managing ash trees in shelterbelts
- EAB information
- Other sources of information

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### Information for woodlot owners

#### 1. Do I have ash trees?:

Emerald ash borer (EAB) only attacks true ash (*Fraxinus*) trees. So, the first thing to do is determine whether or not the trees in your woodlot, yard or windbreak are ash trees. Mountain ash (*Sorbus*) is not a true ash so is not at risk.

- [Ash tree identification](#)

#### 2. I have ash trees in my woodlot, what should I do?:

If ash make up a very small proportion of your woodlot, you may not need to do anything. Otherwise, your woodlot will benefit from planning for the arrival of EAB. The best woodlot management approach will depend on how soon EAB is expected to arrive in the woodlot.

- [If your woodlot is infested with EAB, or if EAB is close by](#)
- [If EAB is still far from your woodlot](#)



Left: EAB-infested woodlot. Image: Daniel Herms, The Ohio State University, Bugwood.org  
Right: EAB-infested trees. Image: Chris Gynan, Silv-Econ Ltd.

#### 3. What about the ash trees in my yard?:

If the ash trees in your yard are healthy there are insecticide treatment options available to help to protect them; without the treatment the tree will die and need to be removed.

There are some things to consider before making the decision to treat your ash tree. However, if you are close to, or within an EAB regulated area, decide soon, while you still have options - EAB moves quickly.

- [Ash tree treatment for EAB](#)
- [Is my tree a good candidate for treatment?](#)
- [What are the costs of treating or removing my tree?](#)
- [How is the treatment applied?](#)
- [What should I know about treatment?](#)
- [What can I plant instead?](#)

#### 4. Windbreaks, shelterbelts and buffer zones:

If there is a large component of ash in your shelterbelt, windbreak or riparian buffer, its function will be impaired when trees are lost to EAB. Plan to mitigate the loss of ash in these important forests.

- [Buffer forests and ash](#)

#### 5. About emerald ash borer:

Want to know more about the beetle threatening your trees? Emerald ash borer arrived accidentally in Canada in solid wood packaging material. Since it was first detected in 2002 near Windsor Ontario, it has spread quickly and is now killing ash in many areas of southern Ontario and southwestern Quebec.

- [What trees are at risk, and what is the impact?](#)
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- [How do I know if a tree is infested with EAB?](#)
- [What is being done about EAB?](#)

#### 6. Learn more:

There are a number of helpful resources to help you learn more about EAB, including:

- [Ash identification and woodlot management video](#) delivered by experts and produced by the Eastern Ontario Model Forest and collaborators
- Ontario Forestry Association offers workshops about EAB as well as provides a range of useful resources for woodlot owners.
- The CFIA is a good source for learning about the current distribution and regulation of EAB in Canada.
- An overview of EAB as well as some Canadian research on EAB is available through Canadian Forest Service.
- Information about various aspects of EAB can be found at EAB info. Please note - insecticide options described in this U.S. website are not available in Canada.

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Image 1: Borer (EAB) Found on Firewood  
Northern Forestry Centre, Regina, Saskatchewan

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## For land managers:

## Developed for wide audience

- Are there ash trees
- Determining risk (inventory)
- EAB detection
- Planning for EAB
- EAB information
- Other sources of information

## More input required

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Information for land managers

1. Are there ash trees to manage?:



Emerald ash borer (EAB) only attacks true ash (*Fraxinus*) trees. So, the first thing to do is determine whether or not any of the trees on the land that you manage are ash. Mountain ash (*Sorbus*) is not a true ash so is not at risk.

- Identifying ash trees

2. Determine your risk:

If some of the trees are ash, are they in locations where they could become a hazard to people, buildings or other structures if they start to break apart? If so, you may need a tree inventory - a list of trees including their species, location, size and condition. An inventory will allow you to manage for hazard trees, set priorities for treatment or removal of ash trees, and to budget. There are different inventory strategies, depending on how many trees that you have, your budget and how much time you have to work with. Professionals can be hired to do this work for you - this may be useful if there are many trees to evaluate.

- Tree inventory strategies



Left: EAB-infested trees. Image: Chris Dwyer, Silv-Econ Ltd.  
Right: Ash tree with broken limbs. Image: Pennsylvania Department of Conservation and Natural Resources - Forestry Archive, Bugwood.org.

3. Is there is emerald ash borer on the property?:

There are a few methods used to detect emerald ash borer (EAB) - branch sampling and visual surveys may work best in this situation. Prism traps are also available. If you are near to a known infestation a detection survey may not be necessary since its arrival is imminent, but confirming its presence could help to secure funding for managing for the beetle.

- Visual survey
- Branch sampling
- Prism trap survey

4. Come up with a plan:

Ash trees killed by EAB can become hazardous quickly, creating safety and liability issues. Because of this, if you have ash trees in locations where they could injure people or damage property if they break apart, you'll need to have a plan for what to do about them. A management plan outlines your objectives and approach to dealing with ash trees, and usually summarizes your budget. Depending on your organization and the number of ash trees this may be very simple and informal, or it may be a detailed, formal document.

- Components of a typical management plan
- Ash tree management options
- Insecticide options
- What trees are good candidates for treatment?
- What are the costs of treating versus removing a tree?
- How is the treatment applied?
- What should I know about treatment?
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5. About emerald ash borer:

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Image: Ryan, Chris Dwyer, Silv-Econ Ltd.

Information for:

Municipalities

Homeowners

Woodlot owners

Land managers

Resources & links:

CFIA

NRCan

EAB Info

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## Resources, external links:

- Ash tree ID
- Detection support
- Inventory
- Decision support tools for homeowners
- Managing woodlots for EAB
- Urban ash utilization
- Finding an arborist, forester or service provider
- Support programs
- Networking
- General EAB information

### Emerald ash borer detection

#### Visual detection of emerald ash borer:

- [Survey guide for detection of emerald ash borer](#) (Natural Resources Canada/Canadian Food Inspection Agency)
- [A visual guide to detecting emerald ash borer damage](#) (Natural Resources Canada)
- [Emerald ash borer: a guide to identification and comparison to similar species](#) (Michigan State University)
- [Jewel beetle field guide \(download\)](#) (produced by Canadian Food Inspection Agency and collaborators)

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- [Synergy Semiochemicals](#)
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A toolkit for Canadian landowners and land managers

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#### Urban ash wood utilization

##### For municipalities and landowners:

- [Wood utilization options for urban trees infested by invasive species](#) (USDA)
- [Community urban wood utilization planning worksheet](#) (Southeast Michigan Resource Conservation and Development Council)
- [Ash utilization options project](#) (Southeast Michigan Resource Conservation and Development Council)

##### For homeowners:

- [Toronto directory of urban wood products and services](#) (City of Toronto)
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This website features resources for southern Ontario residents

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- [BioForest Technologies listing of licensed TreeZin™ providers.](#)
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#### Financial and logistics support programs

- [Trees Canada: Programs](#)
- [LEAF residential planting programs](#) (For southern Ontario)

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- [Canadian Urban Forest Network listserv](#)  
Post questions about municipal management of EAB on this listserv
- [LinkedIn interest groups](#) such as ASCA Consulting Arborists, International Society of Arboriculture, and Urban Forestry have active discussion on aspects of EAB; Urban Forest Products Alliance has discussions on urban wood utilization

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Image: A person using a chainsaw to cut a log. Source: Natural Resources Canada, Canadian Forest Service.

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Image 1: Using local firewood. Northern Forestry Station, August 2009

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## **Emerald Ash Borer University**

### **Spring 2014 Webinar Series**

Once again, a line-up of informative and educational webinars has been developed that target the invasive wood-boring pest, the emerald ash borer, as well as other pest and disease threats to our forests and trees.

These live sessions will provide an opportunity for participants to ask questions of the session presenter and moderators.

If you have questions, contact Robin Usborne with MSU at [robinu1@cns.msu.edu](mailto:robinu1@cns.msu.edu).

Please join us on these dates to learn more:



View past webinars and materials from EAB University.

**EAB OnDemand >>>**

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### **2014 Emerald Ash Borer Research Update**

Thursday, March 20, 2014 at 11am ET

Dan Herms, PhD, from The Ohio State University

**ACCESS THE WEBINAR THE DAY OF THE EVENT**

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### **Success Stories (and How to Become One) in EAB Management**

Thursday, April 10, 2014 at 11am ET

Adam Witte, Exotic Forest Pest Educator, from Purdue University

**ACCESS THE WEBINAR THE DAY OF THE EVENT**

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## Next steps:

Expand section for municipalities:

- EAB management plans
- Costing model

Expand land manager section

Add section for professionals

Add insects: HWA, ALHB

## Suggestions?

[Skip to: content](#) | [sidebar](#)


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#### Current, science-based Emerald Ash Borer information for:

- **Municipal delegates** tasked with finding out more about emerald ash borer (EAB), how it may affect their community, and options for dealing with it.
- **Homeowners** trying to decide what to do about the ash tree in the yard.
- **Rural landowners** making decisions about how to manage ash trees in their woodlot, windbreak or yard.
- **Land managers** responsible for trees on private land such as school grounds, golf courses, or businesses.





From left: healthy ash tree; prism trap; EAB galleries; ash trees dying of EAB attack. Images: Silv-Econ Ltd.

If you think you have found EAB in Canada outside of an EAB regulated area, contact the Canadian Food Inspection Agency: 1-866-463-6017.


[Contact us to give us your feedback.](#)

Development of this initiative funded by:



#### Tweets

[Follow](#)




11 Mar

Montreal wants to beef up defence against emerald ash borer

[montrealgazette.com/technology/](#)

Show Summary




10 Mar

2 emerald ash borer workshops next week, Kingston and Orillia, details: [forestar.ca/?page\\_id=354](#) (deadline for registration is tomorrow)

t1 Retweeted by Emerald ash borer

Expand



8 Mar

Opinion: What the emerald ash borer infestation should teach us

[what-we-can-learn-from-the-emerald-ash-borer-infestation](#)

Tweet to @EABCanada

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