The Emerald Ash Borer Presentation Script

Mission

- ReForest London is a non-profit organization dedicated to partnering with our community to enhance environmental and human health in the Forest City, through the benefit of trees.
- ReForest London has three goals:
    - Empowerment
    - Ecosystem Health
    - Education

Million Tree Challenge

- Has anyone ever heard of the Million Tree Challenge before?
- The Million Tree Challenge is the goal of planting 1,000,000 trees in London in 10 years
- It can be any species, planted by anyone, anywhere within the City of London
- If you have planted any trees since 2011, please take the time to register them at milliontrees.ca to be counted

Ash Trees

- In Norse mythology, the World Tree Yggdrasil is an ash tree, and the first man, Ask, was formed from an ash tree.
- Snakes were said to be repelled by ash leaves or a circle drawn by an ash branch.
- Irish folklore claims that shadows from an ash tree would damage crops.
- In Cheshire (England), it was said that ash could be used to cure warts or rickets.
- In Sussex (England), the ash and elm tree were known as the Widow Maker because the large boughs would often drop without warning

How to Identify Ash Trees

- **Ridged Bark:** On mature trees bark is tight and displays patterns of diamond shaped ridges
- **Compound "Opposite" Leaves:** Leaves contain 5 to 11 leaflets with smooth or toothed margins (tips). Leaflets are positioned opposite with one at the top
- **Seeds:** When present, seeds usually hang in clusters and are dry and oar-shaped
- **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

London's Ash Trees

- 10.2% of the total number of trees and 7.3% of the City's total leaf cover
- Many planted after Dutch elm disease spurred a massive die-off of elm trees in the 1960s and 1970s.

About the Bug

- Discovered in London in November 2006 on a few properties
- Poses a significant risk to about 20,000 trees in our yards and city streets

- It also poses a serious risk to about 10% of all trees in natural areas

How Did it Get Here?

- Its North American origin is believed to be Detroit/Windsor and it is thought to have been introduced accidentally on wood pallets from Asia

What Does the Bug do?

- The adult EAB is actually quite harmless
- Most of the damage is a result of the feeding larvae, the insect's young
- The tiny white larvae gouge paths through the cambium, the layer just below the bark that transports nutrients to the rest of the tree
- By cutting off nourishment, the young borers slowly starve the tree to death

How to Identify Infected Trees

- **Crown Die-Back:** Severely attacked trees may exhibit crown dieback as the canopy dies from the top down. Leaves may wilt or turn yellow during the growing season
- **Bark Cracks:** Vertical splits of 7 - 10 cm are often present over larval galleries. These are often more noticeable on young trees that do not already have splits from growth-related expansion
- **Woodpeckers:** Woodpeckers feed on the larvae under the bark. Look for increased Woodpecker feedings or signs of their probing in the bark
- **Exit Holes:** Once fully mature, the adult beetles emerge through exit holes they chew through the bark. These holes are distinctly D-shaped and are 3.5 to 4 mm across
- **Tunnels:** Winding S-shaped larval tunnels snake under the bark where larvae bore channels. Removing the bark exposes larvae and sawdust-filled galleries

Extent of the Problem

- Since discovered in 2002 the EAB has killed tens of millions of ash trees across much of eastern north America.
- The insect has cost municipalities, property owners, nursery operators and forest products industries tens of millions of dollars.

For us this means:

- London will loose over half a million ash trees worth approximately $130 million dollars over the next 7-10 years.
- The impact to our urban forest will be substantial.

What is the City's Plan?

- Emerald Ash Borer Strategy presented September, 2011
- The strategy presents three main remedial activities

Injections

- TreeAzin, a bio-insecticide injected directly into the base of the tree with no hazard to the user or environment.

Removal of Hazardous Trees

- City crews are removing dead and hazardous trees on City property and identifying locations for replanting as part of on-going operations.
- Wood is then either mulched or used by homeowners as firewood

2:1 Planting Plan

- Not all planted trees will survive.
- Planting two trees for each one lost will ensure that the City's long-term overall leaf cover is not compromised.
- The City is struggling to keep up with this plan due to funding

What Can You Do?

- 98% of ash trees are found on private property
- If you have the Emerald Ash borer in your ash tree, take immediate steps to determine the degree of infestation, the health of the tree and appropriate action.

Options for Action

- Depending on the health of the tree you have the same options as the city:
  - Tree injection treatments
  - Proactive removal while the tree is partially alive; or
  - Removal of dead and hazardous trees

Treatment: Tree Azin

- Treating your tree is usually less expensive than removing it. If the tree is healthy with 70% or more of its leaves, TreeAzin injections have been proven to provide very good control of EAB.
- Costs range from $150 for a small tree upwards to $650 for a 80 cm diameter at breast height Ash tree

Doing Nothing: A Dangerous Option

- If you do nothing, the tree will die become brittle, break easily and present a hazard.

Diversity Rules

- Planting a wide range of native tree species will protect us from large species specific losses in the future

If You Need Help

- To get help to assess your tree call the **City of London** at: 519-661-2500 ext. 5783
- You can always call us here at **ReForest London**: 519-936-9548
    info@reforestlondon.ca
    www.reforestlondon.ca