

Emerald Ash Borer

The Emerald Ash Borer is a shiny emerald green beetle that kills living ash trees. It originated in Asia, and most likely arrived in North America via pallet wood shipped from Asia. It has been in North America since 2002. It is a serious pest that has killed millions of ash trees in the north eastern USA and in southern Ontario and southern Quebec. It travels through the movement of firewood, logs, and nursery stock; it also likes to “hitch hike” on vehicles and trains, so it can be introduced into a community many kilometers away from a currently infested area. The current closest known locations of the EAB to Manitoba are Thunder Bay, ON and Minnesota, USA.

The adult beetle is very small: 7.0 to 8.0 mm long and 3.0 to 3.5 mm wide. The larvae feed between the sapwood and bark along the entire length of the ash tree’s trunk and on branches 2 cm in diameter or greater. It is this feeding (creation of galleries) that cuts off the flow of nutrients between the roots and the rest of the tree, which eventually kills it. An ash tree usually dies 5 to 7 years from the time it’s infected with EABs, and infected trees have a greater than 99% mortality rate. The tree dies from the top down (upper branches die first). While trees treated with basal injections early may survive the EAB attack (less than 1% chance), it is more likely that the treatment just slows the death of the trees, making it more cost effective to remove them gradually and replant accordingly.



www.bioforest.ca

The City of Dauphin’s urban canopy consists of approximately 25% ash, 25% elm, and 50% other species.

It is unknown when the EAB will get to Manitoba and how fast it will spread west. However, the ash trees in North America have no resistance to the EAB; furthermore there is no “silver bullet” to spray onto or treat the trees to make them resistant. Therefore, it is a matter of “when” and not “if” the EAB will get to Manitoba, and specifically Dauphin.

Infected and dead ash trees become dry and brittle very quickly. They tend to fall over easily due to the rotten/dry root system not anchoring them into the ground. It was advised to remove an ash tree that is more than 50% dead, so that it does not become a liability and perhaps fall unexpectedly, causing harm.



It is recommended, to help manage this EAB issue, the following be considered:

- Do not plant any new ash trees in a community.
- Do plant many other tree species (not just varieties of one species) to create an extremely diverse tree inventory.
- From an inventory of the ash trees, categorize them something like:
 - Ones where the life should be prolonged, say along boulevards or in prominent spots in a park, and basal inject them with a chemical even before the beetles are in the community.
 - Ones where the trees will need to be replaced, once again say along boulevards or in prominent spots in a park, plant another species of trees alongside or between them, so that when the ash tree dies there will already be a replacement that has several years of growth.
 - Ones that don't need to be saved or replaced, perhaps cut now for firewood for a local camp ground (do not move the wood) or commercially sell the logs before the area is regulated due to the EAB being present; plant new trees of other species if necessary.
- Do consider managing ash trees before the EAB is present but closing in on a community, by making a preparedness or management plan (templates/suggestions found on MB Sustainable Development's website).
- Do consider putting traps in the municipality, especially close to a rail line or major highway if the EAB is not necessarily close, to monitor "hitch hikers" into the community. Much science has gone into the design of a Prism Trap, that uses a specific shade of green and two chemicals (one that smells like leaves and one that smells like female EAB pheromones). However, once the adults are present in a community, the EABs have infested one or more trees, and that portion of the preparedness or management plan must be put into place immediately.

Websites that could provide good information about the Emerald Ash Borer are

- Bioforest, a private company that provides basal injections and ash management services: www.bioforest.ca
- Manitoba Sustainable Development, the provincial government agency responsible for Manitoba's forests: http://www.gov.mb.ca/sd/forestry/health/eab_2014.html
- Canadian Food Inspection Agency, the federal government that regulates, among others, forest products in Canada: <http://www.inspection.gc.ca/plants/plant-pests-invasive-species/insects/emerald-ash-borer/eng/1337273882117/1337273975030>
- City of Ottawa, which has an extensive EAB program (as it does for many other invasive species): <http://ottawa.ca/en/residents/water-and-environment/plants-and-animals/invasive-species>