EMERALD ASH BORER CANADIAN PROGRAM UPDATE
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Abstract

The emerald ash borer (Agrilus planipennis Fairmaire) is an invasive alien pest native to eastern Asia and was first confirmed to be present in Canada in August of 2002. Based on a pest risk assessment completed by the Canadian Food Inspection Agency in August 2002, the emerald ash borer was identified as a pest which could have a major impact on ash trees in both urban and forested settings throughout their range in Canada and the U.S.

Ash trees are very valuable both from an economic and an environmental perspective. They are commonly planted in urban settings, reforestation projects, shelter belts and are used in the manufacture of furniture and sporting goods, such as baseball bats and hockey sticks. They are a major component of southern Ontario forests.

The emerald ash borer is a primary tree killer, i.e. it attacks and kills healthy trees. Trees are killed when the larval stage of the beetle girdles the vascular area of the tree and cuts off the flow of nutrients. Most ash trees that are infested with the emerald ash borer will die within a year.

On September 17, 2002, a Ministerial Order was enacted to prevent the spread of the emerald ash borer from the Windsor, Ontario area. The order prohibits or restricts the movement of nursery stock, trees, logs, lumber and wood with bark attached, wood chips or bark chips in the genus Fraxinus (commonly known as Ash) and on firewood of all tree species. Surveys conducted by the Canadian Food Inspection Agency in 2003 indicated the beetle is now distributed throughout Essex County and it would be necessary to expand the area under quarantine. The Emerald Ash Borer Infested Places Order has been amended in November 2003 to include all of Essex County to ensure that newly discovered infested areas are regulated.

The Canadian Food Inspection Agency has the legal authority, under the Plant Protection Act, to take control actions to manage invasive quarantine pests, including the emerald ash borer, that are threats to Canada’s agricultural and forestry sectors. In the fall of 2002, the Agency brought together a Science and Risk Mitigation Committee to evaluate the known science, identify research priorities and to develop strategies and policies to contain the emerald ash borer. The Committee consists of scientists and regulatory experts from Natural Resources Canada - Canadian Forest Service, Ontario Ministry of Natural Resources, Ontario Ministry of Agriculture and Food, the United States Department of Agriculture and the Canadian Food Inspection Agency.

Both delimitation and detection surveys were conducted by the Canadian Food Inspection Agency throughout 2003 to determine the extent and severity of the emerald ash borer infestation in Ontario. To date, the pest has been detected in Essex County and in three isolated locations in the western end of the Municipality of Chatham-Kent. An estimated 200,000 ash trees in Essex County are believed to be infested and likely to die over the next year. The emerald ash borer has already killed over 7 millions ash trees in Michigan and has spread to Ohio, Maryland and Virginia.

The strategy for 2002-03 called for intensive surveys and strategic tree cutting of infested ash trees along the leading edge of the infestation. To date, the Canadian Food Inspection Agency has authorized removal of approximately 10,000 trees at the Agency’s expense. Much of the infested ash material has either been reduced to chips or burned. Targeted surveys are conducted at other high-risk areas in Ontario to which the emerald ash borer may have been artificially introduced such as parks, campgrounds and sawmills.

The Canadian Food Inspection Agency has accepted, in November of 2003, the recommendations of the Science and Risk Mitigation Committee that an ash-free zone would be effective in preventing or slowing the spread...
of the emerald ash borer to those areas east of Essex County that are more heavily forested. The ash-free zone is located along the leading edge of the infestation on the west end of the Municipality of Chatham-Kent. The area selected for the zone is 272.34 square kilometres of which only 2.16 square kilometres or 0.8% is forested. A recent census completed by the agency indicates that 64,000 trees (estimated at 25% of the total tree population) are ash. This location was chosen for the zone because it is on the leading edge of the infestation and is relatively treeless. Only ash trees will be removed prior to the emergence of emerald ash borer adults next spring, and the zone would have to be maintained to prevent any regrowth of ash trees over the next few years or until such time as the beetle population is controlled. In addition to the ash-free zone, an active suppression zone on its western perimeter and an intensive survey zone on its eastern perimeter, to detect any outlier populations that may have been established already through natural spread or through the movement of infested firewood or nursery stock in past years, have been established and will greatly enhance the effectiveness of the zone.

The Canadian Food Inspection Agency is working with the scientific community and regulatory experts in both Canada and the U.S. to obtain the most current information on the biology, behaviour and potential control of the emerald ash borer. At present, a Research Committee, has prioritized a list of potential research projects that would be deemed essential in support of the emerald ash borer management plan. The only proven method to combat this pest is to remove and destroy host trees infested, or suspected to be infested, by the emerald ash borer. Currently, there are no chemical or other controls available that are totally effective in controlling the emerald ash borer. Processes such as burning, chipping and grinding, which guarantee total control of the pest, are the only means acceptable to the agency and its regulatory counterparts in other countries.

Since the discovery of the emerald ash borer in Canada, the agency has implemented a public awareness campaign in Essex County to gain public support and to emphasize the dangers of moving wood outside of the quarantine area. These efforts have included the development of several posters and information brochures for distribution to the public, presentations to stakeholders and mailouts of information packages to local residents and all Ontario municipalities. The agency web site is updated regularly to provide current information on the emerald ash borer. In addition, signs have been placed on all roads leading into and out of the quarantine zone including Highway 401 and at all Canada Customs entry points from Sarnia to Pelee Island.