

Ash Tree Decline - Tips & Links

October 2015

The emerald ash borer (*Agrilus planipennis*) is a destructive wood-boring pest of ash trees (*Fraxinus* spp.). It has been identified in neighboring New Jersey communities of Bridgewater, Hillsborough, Westhampton, Ewing and West Windsor. The Emerald Ash Borer (EAB) is responsible for the destruction of over 50 million ash trees in the U.S. since its discovery in Michigan since 2002. The White Ash tree is the primary target of this invasive pest, but it effects all 16 of the native ash varieties in the Northeast states and the Eastern Canadian provinces. The impact has been likened to the chestnut blight and Dutch elm disease which devastated rural and urban areas in the last century. While other borers and Ash Yellow disease also effect ash decline, 90% of the trees (including green, white, black and blue ash) that will fall victim to EAB throughout North America over the coming years are expected to succumb.

A healthy tree can be killed in two to four years. In a rural community like Readington the numbers of trees can be significant given the natural settings in old growth forests and farmstead watersheds and hedgerows. Signs of infection include tree canopy die-back, yellowing and browning of leaves, epicormic sprouts growing from the roots and trunk and the smaller size of remaining leaves and s-shaped tunnels under the bark.



ADULT BORER



D-SHAPED EXIT HOLE



EPICORMIC SHOOTS



S-SHAPED TUNNELS

The adult insect (about a half-inch long with an emerald green exoskeleton) isn't the real problem. The destruction lies with the larval stage of the insects life. Adult insects lay their eggs on the outside of tree bark. Two to three weeks later, larvae hatch and begin to chew through the outer bark to the inner layer of tree bark where they create a distinctive serpentine pattern – destroying the soft, under bark cambium layer structures that carry water and nutrients throughout the entire tree. The larvae spend the winter inside the tree bark. Then in May and June they emerge as adults, leaving D-shaped exit holes. Their presence typically goes undetected until trees show symptoms of being infested. Within another year the tree's inability to provide water and nourishment causes its death.

For the moment it is important to note that the value of the ash tree wood is not compromised. If not left to decay while standing the wood is highly prized as firewood and is good for lumber (and baseball bats) where it can be easily harvested. Trees that are identified as special or are sited importantly in the landscape and that have more

than 50% leaf cover remaining are candidates for treatment with systemic pesticides that can protect for up to two years per treatment. Studies are also underway testing the effectiveness of three wasps that are the only predators of the borer. Residents are encouraged to learn more and to create a plan for their property which may be a combination of harvesting and treating.

THE LINKS BELOW LEAD TO ARTICLES ON IDENTIFYING THE TREES AND THE PEST AND UNDERSTANDING THE OPTIONS AVAILABLE TO THE LANDOWNER FOR ACTION.

Learn. Plan. Then Act.

If you have ash trees, stop and learn more before you act. The threat of emerald ash borer (EAB) is real. However, acting without understanding the specific threat to your trees, regulations and quarantines, and understanding your options for removing, reusing or treating them could cause the unnecessary loss of treasured shade trees, or loss of substantial income from your woodlot. Knowing how to hire a certified professional will protect your safety and your investment in the work to be done and your home or business.

State and national task forces are working on this issue. Readington Township is one of 87 municipalities where test traps have been set to monitor the advance of the pest. The Township is developing a plan through the Shade Tree and the Environmental Commissions in concert with other Township departments. A report and information about actions we can take as property owners will be forthcoming.

Learn more by visiting these sites:

1. <http://www.nj.gov/agriculture/divisions/pi/prog/emeraldashborer.html>
 - NJ Department of Agriculture articles on Ash Borer: Excellent pictures and explanations
http://www.nj.gov/agriculture/divisions/pi/pdf/Emerald_Ash_Borer_Update.pdf - NJ Update
2. http://www.state.nj.us/dep/parksandforests/forest/community/Emerald_Ash_Borer.htm
 - NJ Department of Environmental Protection: Focus is on forest woodland harvesting
3. <http://www.dec.ny.gov/animals/7253.html>
 - NY State DEP pages on EAB: very thorough collection of educational links
4. http://twp.freehold.nj.us/assets/files/forms_pdfs/shade_tree/how_to_hire_cte.pdf
 - How to Hire a Tree Care Professional by Rutgers University Agricultural Extension Service
5. <http://www.emeraldashborer.info/#sthash.mUnzymH9.dpbs>
 - Official Nationwide Emerald Ash Borer Information Site
6. The NJ Department of Environmental Protection has a Pest Alert for the Emerald Ash Borer on the Forestry Services page: www.njstf.org/EAB_Pest_Alert.pdf & www.emeraldashborer.nj.gov

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October 1, 2015

Readington Township Environmental Commission