

THE STUMP

INFORMATION BY THE BOARD FOOT

DECEMBER 2019

KNOT THE HOLE NEWS

Time to Treat Ash

Emerald ash borer has been steadily expanding its area of invasion across Missouri. Just as it has across other places it has invaded. It is estimated 99 percent of all ash, that are not treated with chemical, will die. This will cause changes in ecosystems as the ash disappear. There are over 100 species that are ash specialists. Many of these are even totally dependent on ash.

MDC used to state to not treat an ash until EAB was found within 15 miles of your tree or within your county. Recent research has extended this range to 30 miles. With the extensive coverage of EAB now in Missouri, it is now time to treat trees that are not infested yet or not to much.

It is not practical to treat all ash. Healthy ash trees in places people want them make good candidates for treatment, justifying the cost. First you have to decide if your tree is healthy. If you have healthy ash, now is the time to prepare for treatment late next spring. You need to decide which chemical and delivery method is best for your tree and then in most cases, find a licensed pesticide applicator that can do it correctly. To help with these decisions,

Emerald Ash Borer Management Guide for Missouri Homeowners

The emerald ash borer (EAB) is a serious threat to ash trees in Missouri. This invasion pest will eventually kill untreated ash trees. Many trees can be saved with the careful use of systemic insecticides, however, not all ash trees should be treated, and for many locations the cost of treatments should be weighed. This guide will assist you in making decisions about protecting your trees from this invasive pest. Find more information at www.missouri-conservation.org/sites/default/files/downloads/mo_eab_management_guide.pdf

Signs & Symptoms of EAB

- Adult adults are greenish-black, about 1/2" long, and lay through July.
- 2-4 round exit holes about 1/8" wide.
- Feeding galleries under the bark.
- Worms are small, greenish-white, and found in the larger part of the tree.

Use Care When Applying Insecticides

Water Quality

When using insecticides applied to the soil or sprayed on bark, use the following precautions:

- Follow all label directions.
- Avoid applications when heavy rainfall is expected within 48 hours.
- Do not apply when soil is frozen or waterlogged.
- Avoid using within 20 feet of bodies of water or runoff to water such as street curbs and storm drains.
- Sealing up ground openings of stormwater and drainage.

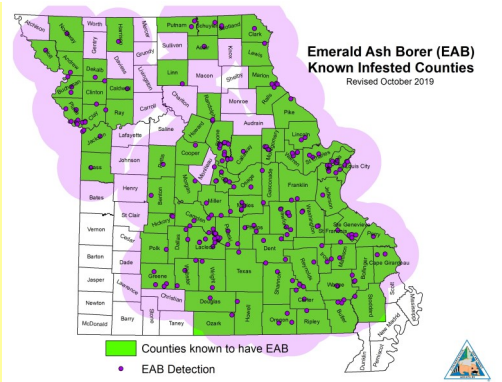
Pollination

Recent evidence shows that some systemic insecticides may be present in pollen of plants are treated prior to blooming. Caution is required when applying insecticides to trees, particularly to plants that are pollinated by bees. Ash trees are primarily wind-pollinated, but honey bees are important pollinators. Applying insecticides prior to or after the time indicated in the treatment options tables on page 1 will avoid or limit pollen exposure to the bees.

Avoid planting flowering plants adjacent to trees where systemic insecticides will be applied to the soil and may be absorbed by flowering plants. If flowering plants are adjacent, do not apply systemic insecticides to the soil before or during blooming.

More Information: See "Frequently Asked Questions Regarding Emerald Ash Borer" at www.missouri-conservation.org/sites/default/files/downloads/mo_eab_management_guide.pdf

Missouri Department of Conservation and Missouri Department of Natural Resources. The EAB is an insect that is highly invasive and destructive. It is a threat to the health of our forests and the economy. This guide is for informational purposes only and does not constitute a warranty. April 2015



use the publication “Emerald Ash Borer Management Guide for Missouri Homeowners”. Get it at:

www.missouri-conservation.org/sites/default/files/downloads/mo_eab_management_guide.pdf.

If you are not going to treat the tree, it is recommended to remove it when you first notice Emerald Ash Borer damage. The trees that have been killed by an emerald ash borer infestation, dry out quickly. This makes the trees extremely brittle. The trees may break randomly and not in any way that is predictable. Some trees have fully or partially failed as soon as a chainsaw touched them. Many people have been injured and killed by EAB killed ash during removal attempts.



Washington hawthorn
Crataegus phaenopyrum

Washington hawthorn is a small, deciduous tree with a mature height of 25 to 30 feet and spread of 20 to 25 feet. Joint holder of the Missouri State Flower designation with other hawthorns, this tree is appropriate for small and larger yards and near utility lines. Excellent for wildlife, it’s thorns provide protection from predators and food from the small red fruits in the fall. The showy white flowers in the spring, the orange to red leaves and red fruits in the fall add beauty to the landscape. The specie does best on better drained soils and can withstand drought. Some pests may affect this specie with lace bugs being the most serious. Several cultivars exist with 'Clark,' 'Manbeck Select,' and 'Princeton Sentry' providing the most benefits.

Images: MDC

Do Topped or Untopped Trees Cool Better?

Topping is a form of pruning that has been shown to be detrimental to the tree, but it still happens. In 2016, researchers in Italy received a grant from the TREE Fund via the Jack Kimmel International Grant championed by the Canadian TREE Fund.

They posed the question of whether a topped tree affected the temperature of air and soil and air relative humidity more, less, or similar to untopped trees. These items combine to effect the thermal comfort of people. The trees used for this research were not in a community, but in a research farm. All the trees started as similar with half severely topped. They collected data with a combination of a set of automated weather equipment and field observations.

To determine the human comfort in these study trees, the Apparent temperature index (ATI) developed in 1979 and reviewed in 1994 and represents the temperature equivalent perceived by humans, caused by the combined effects of air temperature, relative humidity and wind speed. They found that topped trees resulted in ATI temperatures being up to 18 degrees Fahrenheit more than untopped trees at the hottest part of the day and averaged 9 degrees Fahrenheit more throughout the day.

Tree Research and Education Endowment Fund (TREE Fund) is shaping the future of trees and the arboriculture profession. It is supported by donations to provide research funds for arboriculture. Learn more by visiting: <https://treefund.org>



Special Presentation by: Eric North Ph.D

Dr. Eric North will present on several topics on January 8 in Joplin and 9 in Springfield. Both sessions will be identical and begin at 8:30 AM. Topics to be covered include Basic Tree Biology, Young Tree Maintenance, and the latest research on tree performance after sidewalk construction and storm damage using tree ring analysis.

Registration is required by calling 417-629-3434 (Joplin for January 8) or 417-895-6881 (Springfield for January 9). Look for the workshop flier. If you have not received soon or already, contact Jon for one.



<https://climatekids.nasa.gov/tree-rings/>

Web Review - TREE Fund Webinars

TREE Fund webinars bring you the latest in tree research, directly from the scientists themselves. TREE Fund's one-hour webinars are free and offer 1.0 CEU (only for live broadcast) from the International Society of Arboriculture (ISA), the Society of American Foresters (SAF), the National Association of Landscape Professionals (NALP) and sometimes the Landscape Architecture Continuing Education System (LACES). See webinar descriptions for specifics. Visit the site at: <https://treefund.org/webinars>.

Japanese Maple Scale (*Lopholeucaspis japonica*)



MO Dept of Ag. Japanese Maple Scale (JMS) is a relatively new pest to Missouri being first observed in 2013. Since then, it has been found more often being commonly shipped into the state on nursery stock. Originally detected in Connecticut in 1914, JMS has now been spread over much of the eastern US. These scale are only 1 - 2 mm in length and can be difficult to spot on light colored bark. They can even be confused with lenticels. Often not noticed until population is large and plant dieback is occurring. JMS are not picky eaters as the scale's known host range includes trees and shrubs in more than 45 genera in 27 families. They can reproduce extremely quickly with two hatches a growing season. The crawler stage is the most susceptible to control options, but only susceptible for a 2 - 3 day window. There are several control options available, but use of only one once often does not totally suppress this insect. To learn more and see control options see these web documents from: Univ. of Missouri Extension - <http://agebb.missouri.edu/agforest/archives/v23n3/gh6.php>; Univ. of Maryland Extension - <https://www.extension.umd.edu/sites/extension.umd.edu/files/docs/programs/ipmnet/JapaneseMapleScale-UMD-1.pdf>; and Tennessee State Univ. Extension - http://www.tnstate.edu/extension/documents/Japanese_Maple_Scale_in_the_Nursery.pdf.



Univ. of MD Extn.

December 8 - 11

2019 ASCA Annual Conference, New Orleans, LA, Early-Bird Registration due Nov. 8. Information at: www.asca-consultants.org/mpage/AC2019.

December 17

SWMCFC meeting, 8:30 - 10 AM, MDC SW Regional Office, Springfield, MO.

December 17

ISA Certified Arborist, Utility Specialist, and Municipal Specialist Exam, Springfield, MO, Information and Register at www.isa-arbor.com/Credentials.

January 8

Special Presentation by Eric North, Ph.D - Shoal Creek Conservation Education Center, Joplin, 8:30 AM, Registration Required - 417-629-3434 or email jon.skinner@mdc.mo.gov.

January 9

Special Presentation by Eric North, Ph.D - Springfield Nature Center, Springfield, 8:30 AM, Registration Required - 417-895-6880.

January 9

ISA Certified Arborist, Utility Specialist, and Municipal Specialist Exam, Columbia, MO, Information and Register at www.isa-arbor.com/Credentials.

January 21

SWMCFC meeting, 8:30 - 10 AM, MDC SW Regional Office, Springfield, MO.

January 23

JMCFC meeting, 7 - 9 AM, Shoal Creek Conservation Education Center, Joplin, MO.

January 28

TRAQ Renewal Course- Overland Park, KS, Registration Required, information at: <https://mwisa.growthzoneapp.com/ap/Events/Register/9p9lkxqr>.

January 29

ISA Certified Arborist, Utility Specialist, and Municipal Specialist Exam, Overland Park, KS, Approval Pending, Check and Register at www.isa-arbor.com/Credentials.

January 29 - 31

MW-ISA 74th Annual Conf. and Trade Show, Overland Park, KS, Early-Bird Registration due Jan. 15. Information at: <https://mwisa.org/annual-conference-and-trade-show>.

February 9 - 13

TCIA Winter Management Conf., Puerto Vallarta, Mexico, Information and Registration at: <https://wmc.tcia.org>.

February 18

SWMCFC meeting, 8:30 - 10 AM, MDC SW Regional Office, Springfield, MO.

February 27

JMCFC meeting, 7 - 9 AM, Shoal Creek Conservation Education Center, Joplin, MO.



Arbol que crece torsido jamas su tronco se enderesa.

(A tree that grows crooked will never straighten its trunk.)

- Spanish Proverb

WHAT'S HAPPENING

"The Stump" web site:
<https://thestumpnewsletter.weebly.com>

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