

South Dakota Emerald Ash Borer Response Plan Field Procedures

By Dr. John Ball, Forest Health Specialist
Updated August 7, 2014

If a landowner suspects a tree is infested with emerald ash borer (EAB)

The first step is talk with the concerned party over the telephone or email. Are they certain the tree is an ash? What symptoms are occurring that makes them suspect that the tree is infested? If there is the possibility of the tree being infested with emerald ash borer a site visit may be made. However, you may not enter a property without the permission of the landowner. Sometime the caller may be concerned about the neighbor's tree but you cannot respond to a call unless it is from the tree owner.

Once on the property go through the checklist in the South Dakota Cooperative Extension Bulletin FS954 *Is My Ash Tree Infested with Emerald Ash Borer?* to determine whether the tree is an ash and has symptoms consistent with those commonly associated with emerald ash borer. If so, take digital photographs of the trees and symptoms and send these to me at john.ball@sdstate.edu. The pictures should include one of the entire tree, any emergence (exit) holes and any other key symptoms. If possible, and with the tree owner's permission, pull some of the bark away near any exit holes and examine the surface of the sapwood for tunnels (galleries). Photograph any tunnels.

If you find a larvae or an adult insect that fits the description of emerald ash borer these should be placed in a secured sealed container, preferable a plastic vial. Store the insect in a freezer or refrigerator. Do not mail any sample until you have emailed me and I have request it be forwarded. The address for samples is:

John Ball
Rm 230 Berg Agricultural Hall, Box 2207A
South Dakota State University
Brookings, SD 57007

Be sure to include a copy of the email requesting the sample in the box.

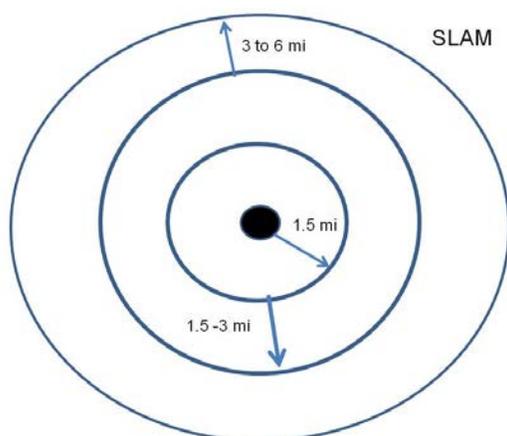
If a wood sample is requested it should be double bagged and sealed. Most likely you will not be asked to send any wood samples between May 1 and September 30 to reduce the possibility of spreading the adult insect. Instead digital photographs are the best means of providing the initial screening.

If the sample appears to be emerald ash borer, the Animal and Plain Health Inspection Service (APHIS) office in Pierre will be contacted and sample submitted to them for verification. APHIS is the final authority as to whether the pest is emerald ash borer.

Once an infested tree is confirmed

The SLAM (Slow Ash Mortality) approach is a means of reducing the emerald ash borer (EAB) population expansion from isolated infestations. Slowing the rate provides time for resource managers to better prepare by treating or replacing ash trees. There are four key components to SLAM. These are applied after the initial confirmed report of emerald ash borer. Usually there will be several infested trees discovered within a few hundred feet of the initial find and this will be considered the core to the infestation.

1) Survey of EAB distribution



Conduct delimiting surveys of infested area utilizing branch sampling. Select 10 live green ash trees that are closest to the core of the infestation. The selected trees must be open-grown with wide, open crowns. These trees should be between 20 and 50 feet tall and the trunk between 7 and 20 inches diameter at 4.5 feet above the ground. In each tree two live branches in mid-canopy, between 2 and 3 inches diameter at the base, will be selected from the south side of the tree. These branches will be pruned off and carried or dropped to

the ground. On the ground, the lower 3 feet of these branches will be cut off as a section. These sections will have the bark removed with a draw or paring knife along the basal 2 feet. The sapwood surface will be examined for EAB galleries and larvae. If any of these trees are found to be infested, branch sampling will be conducted on an additional 10 ash within 1.5 miles of the core.

2) Survey of ash density and distribution

Knowing the distribution and size of the ash population in the area of the infestation is important for planning suppression efforts. If inventories are not available for the area, conduct GPS inventory of all ash by size and location within a 1.5 mile radius infested core.

3) Suppression of EAB population

This involves three tactics

- a) Removal of infested trees – since infested trees can release about 10 adults per square foot, removal all known infested trees during the dormant season can be a good means of reducing the population. Infested trees will be identified and mark for removal by crews trained in identification by the South Dakota Department of Agriculture. Trees may be removed anytime between September 1 and May 1. The infested trees should be destroyed as close to the infestation as possible and destruction can involve removal of the bark or chipping to a woodchip size no greater than 1 inch on two sides.
- b) Sinks of girdled trees – girdled trees can serve as sinks to absorb the next generation of beetles. In known infestation, create clusters of 3-4 girdle trees (each cluster will serve as a sink for approximately ¼ mile radius).
- c) Insecticide treatments – treat the ash along the leading edge of the infestation (approximately 600 yards of the outmost infested trees) to serve as a buffer to intercept and kill any EAB that are dispersing out from the infestation core. The use of insecticide treatments as a buffer is dependent on tree availability and tree owners willing participation thus this tactic may have limited value but it may be an option for small infestations.

4) Regulatory measures

Quarantine the movement of all ash logs, firewood and nursery stock from the infested county. Infested trees should not be cut down between May 1 and September 30. Ash trees that are cut down in counties with an EAB infestation should be processed by debarking, chipping, or burning as close to the stump as possible, but not outside the county. Only processed ash wood can be moved outside the affected county.

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