



The Emerald Ash Borer Arrives in Minnesota

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My colleagues and I at Rainbow made the initial detection of EAB larvae and a portion of an EAB adult in three different ash trees on May 14 in St. Paul (slightly East of 280 and slightly North of I94). The specimens were provided to the Minnesota Department of Agriculture on May 15 and then sent on to experts in Michigan for official confirmation. There were numerous additional ash trees in the surrounding area that had a tremendous amount of woodpecker activity and additional trees that displayed symptoms representative of EAB, including d-shaped exit holes.

Unfortunately, this most likely is not the only infested area within the metro as there were trees within this site that

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appeared to have been infested for multiple years.

I urge everyone to be on the lookout for infested trees and to help educate fellow peers in the green industry and the general public. If you suspect a possible EAB infestation contact an ISA certified arborist and or the MDA at "Arrest the Pest" Hotline 651-201-6684 - Metro Area.

Symptoms

- Symptoms of early infestations may be difficult to diagnose
- As infestation progresses, small vertical splits in the bark can be seen on twigs or trunk
- Typically the top 1/3 of crown dies first and works its way down the tree
- Trees appear to lose about 30%-50% of their canopy after two years of infestation
- Trees may die after 2-4 years or less (small trees)
- As the top of the tree continues to decline epicormic shoots form
- Epicormic shoots can arise at the interface between healthy and dead tissue anywhere in the canopy
- Be on the look-out for multiple declining ash in a given area
- Sapsucker holes and flaking of outer bark near sapsucker holes can be used to detect EAB in early stages
- Distinct "S" shaped frass filled larval galleries that score the outer sapwood and phloem underneath the bark
- Galleries in an affected area can range from 4-20 inches in length

- Galleries from an individual larvae become progressively wider as the larvae grows
- D-shaped exit holes (generally present after an infestation has been present for 1 yr. or more)
- Approximately 1/8 inch in diameter
- Dense root sprouting may occur after death of a tree
- Leaf symptoms from adult feeding are usually displayed in small irregularly shaped patches along the leaf margins

Signs of EAB

Adults

- Usually bronze or golden green with dark metallic emerald green wing covers
- Adults are slender and can be 1/4 inch to 1/2 inch in length
- Top of the abdomen under the wings is metallic purplish red (seen when wings are spread)
- Adults may be difficult to detect even in areas of high infestation
- Short period of activity (3-6 wks of activity)
- Generally active during the day (sunny and warm days)
- Adults will hang out in bark crevices or on foliage during rain, heavy cloud cover, high winds, or when temps reach above 90 F.



Larvae

Larvae

- Slender, flattened, segmented (10 total abdomen segments) cream-colored larvae with a brown head can be found by peeling back loose bark on infested trees
- Larvae range in size from 1 -1 1/4 inches in length
- Pincer-like appendage on the last segment
- Larvae hatch from eggs deposited in bark crevices