

Inside Grundy County
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Should I Spray or Let It Go?

Dr. Mark Shour, ISU Extension entomologist spoke to Butler County residents several years ago at an educational program on invasive tree species, including the emerald ash borer (EAB). His comment at that time was it is just a matter of “when” we will see EAB in Iowa. This pest was recently confirmed in Allamakee County. This pest has, rightfully so, many homeowners and local officials concerned about managing this pest once it arrives. Let’s review what we know about the emerald ash borer and available control options or strategies.

As far as experts know, this insect only attacks trees in the ash family or Fraxinus genus. There are four ash species in Iowa but the most common are green and white ash and an occasional black ash. Mountain ash is in the genus Sporbush, and therefore not threatened by the emerald ash borer. The emerald ash borer is likely to have arrived in the US aboard cargo ships, hidden in wooden pallets carrying goods from Asia. It was first “discovered” in the Detroit area and is now confirmed in 13 states and two Canadian provinces.

The borer is a small, slender beetle, ½ inch long by 1/16 inch wide and with a blue-green metallic color. The larva is the tree killer. The life cycle, according to the national EAB website, is as follows; the adult beetles can have a one- or two-year life cycle. Adults begin emerging mid- to- late May with peak emergence in late June. Females lay eggs about 2 weeks after emergence. Eggs hatch in 1-2 weeks, and the tiny larvae bore through the bark and into the cambium - the area between the bark and wood where nutrient levels are high.

The larvae feed for several weeks, from late July or early August through October. The larvae eventually reach a size roughly 1 to 1.25 inches long. Most EAB larvae overwinter in a small chamber in the outer bark or in the outer inch of wood. Pupation occurs in spring and the new generation of adults will emerge in May or early June, to begin the cycle again. Once EAB infects a tree, they will typically kill it in 2 to 4 years.

Once the larvae pupate, they emerge as adults, burrowing out from under the tree, leaving a D shaped hole. The adult beetles typically fly only ½ to two to miles from where they emerged. But this pest has likely been moved around the country by nursery stock, ash logs and as firewood. Don’t be fooled by other look a-likes beetles or other pests. Other insect pests such as the bronze birch borer, leave D ring shapes but on birch trees and the two-lined chestnut borer attacks stressed oaks. In other words, there are other native and invasive pests that feed on trees.

The public can learn all it wants to about this emerald ash borer through many educational programs and internet resources. I suggest starting with the ISU Extension web site on the emerald ash borer which can be found at;

<http://www.extension.iastate.edu/pme/EmeraldAshBorer.html>

But what homeowners and others want to know is, “When will it arrive?” “What should I do once EAB has been found in the local vicinity?” How do we make an appropriate decision whether to cut the tree down or apply an insecticide? We will soon be bombarded with all kinds of product advertising and other information about control methods for EAB. I wish the answer

was easy and straight forward, but it will vary depending on your income, where the tree shade sits on the landscape, personal emotions and other factors. But here's what we know.

We can delay the arrival of this pest by not moving firewood. Buy it or use local firewood wherever you camp or burn. Do not plant ash trees even if they're free! The following suggestions are what ISU Extension researchers currently recommend.

Do not treat trees until EAB, has been confirmed and is known to be about 15 miles away. It is not practical to treat woodlots. Recommended insecticides work best as a preventive, not curative treatment. Curative may work if there is less than 40% canopy dieback. Evaluate the tree for healthiness and longevity. Eventually, a judgment will have to be made as to whether the annual treatment costs are worth it versus tree removal.

If the ash trees are in an eradication zone, you must comply with the removal even if a preventive treatment was made. Systemic insecticides require time and active tree growth to work effectively. Soil treatments need 4 to 8 weeks and trunk injections 2 to 4 weeks prior to EAB activity.

The insecticide, imidacloprid, is available to homeowners and effective on trees up to 25 circumference or 8 inches in diameter. Use a soil drench method each year in early to mid-April. Trees larger than 8" in diameter may require the assistance of a commercial applicator. They use soil injection with imidacloprid or trunk spray with dinotefuran or a trunk injection with imidacloprid, bidrin or emamectin benzoate.

Canopy sprays are not recommended because of limited effectiveness, the need for special equipment and drift concerns.

The bottom line for us are to be knowledgeable about this pest, where it's found, don't panic and start treating trees if it's not confirmed in the area, and enjoy the ash tree while we can.