



EMERALD ASH BORER AND OTHER TREE DISEASE

FREQUENTLY ASKED QUESTIONS

1. WHAT IS EMERALD ASH BORER?

Emerald Ash Borer (EAB) is a native insect of Asia. It was first detected in the United States in 2002 and in Minnesota in 2009. EAB is a destructive insect pest of ash trees.

EAB attacks ash trees of all sizes. Once an ash tree is infested with EAB, it will die if the tree is unprotected. Over time, experts predict EAB will eventually kill all the country's ash trees if they are not treated with a specific EAB insecticide. Minnesota is home to nearly one billion ash trees, including about 16 million in Stearns County alone.

EAB moves approximately one-half to one mile per year from infested sites. It has spread faster though as people can carry it hundreds of miles when transporting firewood and other wood products, according to the University of Minnesota.

The EAB insect starts as a grub-like larvae. Adult EAB is a metallic green wood-boring beetle.



source: University of Minnesota

2. WHERE HAS EMERALD ASH BORER BEEN LOCATED WITHIN OUR SERVICE TERRITORY?

Currently, EAB has been located within 40 of Minnesota's counties, including Stearns and Kandiyohi counties within our service territory.

The Minnesota Department of Agriculture has an online tool that tracks the spread of EAB which you can view at <https://www.mda.state.mn.us/eab>.

3. WHAT ARE THE SIGNS OF EAB? HOW DO I KNOW IF MY TREES HAVE BEEN IMPACTED?

You are more likely to see damage caused by EAB than to see the pests. EAB larvae are what cause damage to the trees. EAB can be identified with these signs:

- **Woodpecker Holes** – Woodpeckers like EAB larvae, so you may notice increased woodpecker holes or activity.
- **D-shaped Exit Holes** – When adults emerge from ash trees, they create a small, "D-shaped" hole. (insert photo)
- **S-Shaped Galleries** – a distinct S-shaped gallery under tree bark of an ash tree is a good indication that a tree has been infested with EAB.
- **Bark Cracks** - EAB larvae tunneling beneath the bark can cause the tree bark to split open and reveal the s-shaped galleries beneath.
- **Canopy Dieback** – Ash trees with many dead branches at the top of the tree could indicate an EAB infestation.
- **Blonding** - Trees infested with EAB show signs of "blonding" where the bark falls off to reveal the blonde color underneath.



S-Shaped Gallery



D-Shaped Hole



Blonding

4. HOW LONG DOES IT TAKE FOR AN ASH TREE TO DIE ONCE IT IS INFESTED WITH EAB?

As the larvae infestation grows, ash trees will usually die withing 2 to 4 years after initial infestation.

5. WHAT SHOULD I DO IF I SUSPECT AN EAB INFESTATION?

If you cannot rule out EAB, contact the Minnesota Department of Agriculture (MDA) on its Arrest the Pest phone line at (888) 545-6684 or by email, arrest.the.pest@state.mn.us to report your suspicions.

6. IF MY TREES ARE INFESTED, CAN I DO ANYTHING TO PROTECT THEM OR SAVE THEM?

If you are within 15 miles of a known infestation and you would like to save your ash tree(s), you can choose to treat your ash trees to help protect them. For greatest success, only treat trees that have not been infested yet or trees that have most or all of its canopy. If a tree has lost a third of its canopy or more, treatment likely won't be effective.

Please know, treated trees need to be re-treated on a regular basis, generally every 1 to 3 years.

7. WHO CAN I CALL TO TREAT MY TREES?

Stearns Electric Association does not treat trees. Individuals who want to treat their trees are encouraged to do their own research on treatment options that work best for their property.

The Cooperative's subsidiary, Carr's Tree Service, employs individuals who can evaluate ash trees on your property and help you make a treatment plan if possible. Other companies throughout the area and state also offer similar services.

8. WHAT CAN I DO TO LIMIT THE SPREAD OF EAB?

Help limit the spread of EAB throughout Minnesota using the following tips:

- Don't import materials such as firewood or other ash wood items that could harbor EAB
- Don't move firewood unless it's Minnesota Department of Agriculture (MDA) certified. Remember, it is illegal to move all non-coniferous firewood outside of EAB quarantine areas and into Minnesota.
- Become knowledgeable about recognizing EAB.

9. WHAT ARE OTHER TREE DISEASES YOU HAVE SEEN IN YOUR SERVICE TERRITORY?

EAB is not the only tree disease we have seen in the Stearns Electric service territory. We have also seen Oak Wilt and Dutch Elm.

OAK WILT DISEASE:

- Disease of oak species; red oak die more quickly than white oak species.
- Caused by the fungus *Bretziella fagacearum*.
- Disease is spread below ground via connected roots or above ground via insects.
- Tree death can occur in as little as four weeks in red oak species; white oak species tree death takes between 2 and 5 years, or longer.

Signs in red oak species:

- Leaf wilting or leaf loss; look for leaves with brown edges and green centers.
- Wilting usually starts at the top or outer portions of the tree crown and quickly progresses downward.
- If bark is peeled back, blue staining on the wood surface might be visible.

Signs in white oak species:

- Leaves with brown edges and green centers.
- Dark brown or black discoloration might be found on the wood surface when bark is peeled back.
- Walled-off fungal infections that look like rings or narrow discolored wood may be visible in the cross section of an infected branch.

DUTCH ELM DISEASE:

- Disease of native elm trees. Has less of an impact on Chinese, Japanese or Siberian Elm.
- Caused by the invasive fungal pathogen *Ophiostoma novo-ulmi*.
- Spread by elm bark beetles when feeding. It can also spread from tree to tree through root grafts.
- Trees die depending on the susceptibility of the tree. It can take one season, or several years.
- Fungicide injections can project elm trees from infection. Infections can also be pruned out.

Signs in elm species:

- Leaves on one or more branches in outer crown turn yellow, wilt, then turn brown.
- Yellowing and wilting of leaves progresses down infected branch toward trunk of tree.
- Brown streaking can be visible along wilted branches if tree bark is removed.

10. WHAT IS STEARNS ELECTRIC'S POLICY ON REMOVING TREES?

Stearns Electric executes a four-year vegetation management tree-clearing cycle to remove danger trees and brush out of the ROW distance. If a diseased tree is identified as at least 30% infested or dead within the normal ROW or outside of the normal ROW but is a threat to our primary power lines, our clearing crews will top (or cut) the tree to below our power lines. The remaining tree and cleanup are left to the property owner to take care of.

Trees that are infested and identified as a threat to our secondary power lines, even if in the ROW distance, will be the responsibility of the property owner.

11. WILL THE COOPERATIVE REMOVE (CUT DOWN) MY DISEASED TREES?

No. Stearns Electric's tree clearing crews will top (or cut) a diseased tree identified as at least 30% infested or dead that is located within the normal ROW distance. The remaining tree and cleanup are left to the property owner to take care of and pay for.

12. WHY DOESN'T STEARNS ELECTRIC FULLY REMOVE (CUT DOWN) DISEASED TREES IN THE RIGHT-OF-WAY?

Because EAB infestation is so serious, and other tree diseases also exist, Stearns Electric needs to update its policies regarding ROW tree clearing and diseased trees. If we don't take these steps, it will become very costly for the Cooperative and our member-owners.

13. I HAD TO REMOVE MANY TREES AND NOW I WANT TO PLANT MORE. WHAT SHOULD I CONSIDER BEFORE PLANNING TREES ON MY PROPERTY?

Learn more about planting the right trees in the right places with this resource from Tree Trust: https://www.stearnslectric.org/wp-content/uploads/2019/03/Right_Tree.pdf.

The University of Minnesota Extension also provides recommendations on trees to plant in Minnesota: <https://extension.umn.edu/tree-selection-and-care/recommended-trees-mn>

14. WHERE CAN I LEARN MORE ABOUT EAB OR OTHER TREE DISEASES?

There are many resources available online:

- Minnesota Department of Natural Resource: <https://www.dnr.state.mn.us/invasives/terrestrialanimals/eab/index.html>
- University of Minnesota Extension: <https://extension.umn.edu/tree-and-shrub-insects/emerald-ash-borers>

15. WHERE CAN I FIND MORE INFORMATION OR ASK OTHER QUESTIONS?

Our website is a great resource. If you have questions or wish to speak directly to someone regarding Stearns Electric's vegetation management program, call our offices during regular business hours at (800) 962-0655.