



D. Miller, USDA, Bugwood

What to do.

If you suspect that you have found an emerald ash borer or infested ash, please contact the Clemson University Department of Plant Industry or your local Clemson University Cooperative Extension Service office.

For more information on emerald ash borer and other invasive species, visit our website or find us on social media.



A partnership to protect your agricultural & natural resources.

Who we are. What we do.

The Department of Plant Industry, a part of Regulatory Services in Clemson University's Public Service and Agriculture, helps prevent the introduction of new plant pests into South Carolina as well as the spread of existing plant pests to non-infested areas.

Plant pest surveys, inspections, quarantines, control and eradication programs are among the tools used to safeguard the state's agricultural and natural resources.

We help horticultural businesses - such as nurseries, greenhouse growers, transplant growers and turf grass producers - as well as farmers, agricultural industries and South Carolina consumers in shipping plant material intrastate, interstate and internationally.

Inspections and certification services help ensure that plants are pest-free, which is essential for movement of plant material to other states and foreign countries.

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Emerald Ash Borer



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An Invasive Pest.

Emerald ash borer, *Agrilus planipennis*, is a small, wood boring bark beetle. This destructive metallic green beetle is native to China and eastern Asia. It probably came to North America in wood packing material in shipping crates.

EAB was first discovered in North America near Detroit, MI in 2002. However, evidence suggests that it had been present for several years. Since then the beetle has been detected in 18 other states and parts of Canada.

To prevent artificial spread of the insect, USDA has established quarantines to prohibit the movement of ash materials and hardwood firewood out of EAB infested areas.



In June, 2013 EAB was detected in Granville County, NC. Signs of EAB were also found in Person and Vance counties. Located on the Virginia-North Carolina border, all three counties are under quarantine to slow the spread of EAB.

Keep EAB out of our state by reporting suspect beetles and decline in ash. Never move firewood: burn it where you buy it!

At Risk Host Species.



As its name suggests, emerald ash borer attacks ash trees (*Fraxinus* spp.) in North America. South Carolina has several ash species including green, white, pumpkin, and Carolina ash

and all of these appear to be at risk.

Ash species have compound leaves with 7 to 11 leaflets. Ash trees have opposite branching, which means branches and leaves arise from opposite sides at the same point on the stem. Shown above, green ash has 7 leaflets and braided bark that creates a diamond pattern.

A Killer on the Move.

EAB larvae feed on the tissue between the bark and the sapwood. Elaborate tunnels known as galleries disrupt the movement of water and nutrients, starving the tree.

After maturing into adults, the beetles eat their way out of the bark, leaving characteristic D-shaped exit holes. EAB adults are strong fliers, but usually only fly short distances (about 1/2 a mile). Human activity, including the movement of common ash products such as firewood, nursery stock, and lumber, is the primary contributor to the beetles' spread.



The Purple Trap.

Early detection and rapid response programs are the most effective tools for guarding our state against emerald ash borer. While EAB is not known to be in South Carolina, DPI is setting traps to detect its presence.

The purple traps are baited with natural oils that contain compounds produced by ash trees when they are stressed. Research has shown that EAB is attracted to these compounds which are not harmful to humans, pets or wildlife.



Each year since 2008, DPI places hundreds of EAB traps throughout the state in locations that are thought to be at risk. These high risk sites include national and state parks, lumber companies, nurseries and garden centers. To date, there has been no detection of the emerald ash borer in South Carolina.

Emerald Ash Borer (EAB) *Agrilus planipennis* Fairmaire
Detection Likelihood Composite Model

