

Special trees used as decoys to lure emerald ash borer, a pest not yet found in Oregon

ODA uses "trap trees" to detect unwanted beetle

May 30, 2007... It looks harmless enough. A newly planted ash tree that has been girdled and wrapped in a band of purple cellophane. To the emerald ash borer— an invasive wood-boring beetle that literally kills trees— it looks like a welcome new home. This tree, however, is a trap designed to lure the insect onto its sticky surface so that Oregon Department of Agriculture insect trappers can detect whether the insidious bug has entered the state.

"We've been looking for emerald ash borer for several years but have not yet detected it in Oregon," says Kathleen Johnson, supervisor of ODA's Insect Pest Prevention and Management Program. "We have many ash trees in Oregon, both in the urban environment and in riparian areas. This is a pest we don't want established in Oregon. If these beetles have entered the state, we want to find them early."

The emerald ash borer has caused extensive damage to ash trees in Michigan and parts of Indiana, Ohio, Illinois, and Ontario, Canada. Infested ash nursery stock has also been found in Maryland and Virginia. Adult beetles are metallic green and about a half inch long. Tree removal is used to eradicate emerald ash borer. Signs of the insect in ash trees include small, D-shaped emergence holes, branch or tree dieback with branch or root sprouting below the dead tissue, and serpentine feeding tunnels in outer sapwood and phloem layers. The exotic wood-boring pest originally came from Asia and is believed to have entered the U.S. for the first time in the 1990s. It was first discovered in the Detroit area in 2002 and officials say it probably arrived in wood packing crates.

Even though Oregon is about 2,000 miles away from the Great Lakes region and even farther from the beetle's native Asia, the pest can show up via solid wood packing material imported from China, ash nursery stock originating from infested areas of the Midwest, or even firewood brought to Oregon by visiting campers and new residents who have literally moved everything in their possession from their previous homes back east. All those potential scenarios are enough for ODA to keep checking.

"This is the time of year that emerald ash borers, if they are in Oregon, would be emerging from ash trees," says Johnson.

In the past, ODA survey technicians have simply done visual inspections of ash trees as they went about checking thousands of gypsy moth and Japanese beetle traps throughout Oregon. They have been trained to look for the telltale D-shaped holes in the trees and other signs of the emerald ash borer. This year, ODA is taking an additional step by using the so-called trap trees.

"We are using 40 ash trees that are in a susceptible stage and large enough to be attacked by emerald ash borer, and planting them at 12 sites in the greater Portland metro area," says Johnson. "We

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then stress each tree by removing at least a three-inch band of bark around the trunk. Purple cellophane is wrapped above the girdled area and a sticky substance is sprayed onto the cellophane. Adult emerald ash borers are attracted to the color purple and to stressed trees. We will peel back the bark in search of signs of the insect as the trap trees are removed in the fall. If the emerald ash borer comes in, we'll detect it as soon as possible."

The 40 ash trees were donated to ODA by J. Frank Schmidt and Son Nursery in Boring.

There is no reason to believe this year represents any more danger of emerald ash borer showing up in Oregon than any other year. But the threat is real. Wood-boring insects continue to be transported around the world in raw wood products and solid wood packing materials. Large volumes of packing materials and dunnage from Asia are received by Oregon and other west coast ports, making those high-risk locations for exotic beetle introduction. Also, the fact that the emerald ash borer has established in multiple locations back east– including through movement of nursery stock– increases the possibility of spreading the bug from infested areas of the Midwest to the Pacific Northwest. In either case, the emerald ash borer commands a great deal of attention for an insect that has yet to show up in Oregon and is listed as one of the state's 100 most dangerous invasive species.

Then there is the issue of firewood.

"It's important for Oregonians to use local firewood," says Johnson. "Firewood should not be moved from other parts of the country into Oregon, especially from areas where emerald ash borer has been detected."

In addition to refraining from bringing in firewood from out-of-state, Oregonians can help by providing an extra pair of eyes. Anyone seeing evidence of the ash-boring insect is encouraged to contact ODA's Plant Division at 1-800-525-0137 or the Invasive Species Hotline at 1-866-INVADER. The public can also learn more about emerald ash borer by visiting <<http://oregon.gov/ODA/PLANT/IPPM/index.shtml>>.

Emerald ash borer has already devastated millions of ash trees in the Great Lakes region, especially in southeast Michigan. Currently, the U.S. Department of Agriculture has imposed a quarantine in all states where the beetle has been detected. That quarantine prevents host material like firewood, bark, and wood chips from crossing state lines. This is the kind of scenario Oregon hopes to avoid.

"The Great Lakes states have tried a strategy of containing emerald ash borer first and then moving ahead to eradicate it," says Johnson. "They have not been successful and it continues to spread."

So far, there have been no signs of the insect in Oregon. But the time period for emerging beetles has just begun. With the help of the trap trees, their noticeable purple cellophane, and the sticky goo that would secure the insect, officials expect to find emerald ash borer if it is in Oregon– at least in the Portland area. By the end of the season, ODA hopes that no news is good news when it comes to the tree-boring invaders.

For more information, contact Kathleen Johnson at (503) 986-4662.

For emerald ash borer and "trap" tree images, go to <http://oregon.gov/ODA/PLANT/gallery_eab.shtml>