Wisconsin

Milwaukee protects against emerald ash borer

City ash trees to be pre-treated with insecticide

By Lee Bergquist of the Journal Sentinel

Posted: Apr. 9, 2009

Milwaukee isn't waiting until the emerald ash borer is discovered in the city but instead is mounting a major offensive with a new insecticide against the destructive beetle.

Starting in mid-May, city crews will start treating 32,000 ash trees located on city property. The work will take two years.

By moving proactively against the invasive insect, Milwaukee appears to be the biggest city in the country to take on the bug - before it hits, according to federal authorities.

The only other Wisconsin community thought to be heading in the same direction is Cedarburg - nine miles from the closest known outbreak near Newburg in Ozaukee County.

The emerald ash borer was discovered in Newburg in August and has been found in 44 different spots in Ozaukee and Washington counties since then.

On Tuesday, authorities reported an infestation along the Mississippi River in Victory, a small community in Vernon County.

The emerald ash borer, a native of Asia, has killed tens of millions of ash trees since it was discovered in Michigan in 2002. The outbreak now ranges from Maryland to Missouri.

In Milwaukee, ash trees will be treated on parkways and on the strips of grass that lie between streets and sidewalks.

Planning for the project began last year. The first year's funding of $600,000 was approved in the city's 2009 budget, said David Sivyer, forest services manager with the city.

He said the city wanted to move forward with the project because experts have no idea where the next infestation may strike. Milwaukee has an estimated 500,000 ash trees on public and private property.

"We believe a major public resource is at risk," Sivyer said.

By the city's estimate, it would cost $27 million to cut down and replace the city's street trees.

Cedarburg is embracing a similar proactive approach to Milwaukee's. The price million. of replacing dead ash in Cedarburg has been estimated at $1.3

The suburb hired a contractor to apply insecticide to 654 trees last year. This year, it will treat the entire public inventory of 1,600 ash trees that are 12 inches in diameter or larger, said Kevin Westphal, parks and forestry superintendent.

"They provide such a benefit for the city - they're worth saving," Westphal said.

Milwaukee experimented on a few trees last summer. As work gets under way this year, city crews will start on the north side, where the trees have been inventoried, and move to the south side in 2010.

Repeated annual treatments are expected for at least several years, Sivyer said.

Chemical injected

Milwaukee is using a chemical known as emamectin benzoate, which is marketed under the trade name Treeäge.

It works by injecting the chemical into the base of a tree with a gun-like contraption. The insecticide is taken up in the vascular system of the tree.

Ordinarily, ash trees are killed when emerald ash borer larvae living beneath the bark feed off the nutrients moving through the tree.

On a healthy tree, emamectin benzoate moves quickly and will be ready to kill larvae if they show up, according to entomologist Deborah G. McCullough of Michigan State University.

Her research on the effectiveness of several insecticides has been funded by the U.S. Forest Service.

Thus far, emamectin benzoate has been nearly 100% effective on infected trees, she said.

"With all honesty - and I don't make any money off this - the product is incredible," McCullough said.

Cedarburg is using a different insecticide known as imidacloprid.

Milwaukee's approach differs from the recommendation of the University of Wisconsin Extension, which suggests that treatment of healthy ash trees isn't necessary beyond 10 to 12 miles from a known infestation.

But R. Chris Williamson of the UW-Extension and officials with the state Department of Natural Resources still like Milwaukee's approach.

Also, "EAB is extraordinarily difficult to detect - you don't know where it could be," Williamson said.

Milwaukee is also planning a billboard campaign later this month to publicize the importance of urban trees for air quality, carbon sequestration and shade.

And as part of its efforts, the city is using a $160,000 grant to fund aerial photographs with emerging technology that has the ability to identify tree species on a block-by-block basis. The photographs show that some streets are bereft of ash but many are filled with them.