

Ashes *to* Ashes

A little bug with a hefty appetite for destruction is attacking Michigan's ash trees at a dizzying pace, denuding streets, golf courses and cemeteries. And before you can yell 'timber!' another tree gets infested by the emerald ash borer. Despite a quarantine, the devastation is growing — and it's going to end up costing us a whole lot more than lost shade.

BY VINCE WADE | ILLUSTRATION BY SCOTT PETTY

Feature

With scores of ash trees forming a lush canopy over their sprawling Farmington Hills lot, Charles Cone and his wife had it made in the shade. Or so they thought. Today, most of the trees are gone. Over the past three years, Charles Cone has had to chop down 54 ash trees around his home.

“My kids came over to visit us and they thought they had the wrong street,” Cone says with a forced chuckle. “There’s nothing in the front anymore — no trees at all.” Cone has spent around \$25,000 felling his ash trees and replacing shade-loving flowers with plants partial to lots of sunshine.

Charles Cone and his beloved trees are the victims of a foreign invader known as the emerald ash borer beetle. This fast-moving pest is destroying Michigan ash trees by the millions. An adult emerald ash borer is dark metallic-green and can sit on a penny. Given a choice, it prefers to sit on ash leaves and eat them. The beetle also bores holes in the trunks of ash trees for its larvae, which tunnel back and forth disrupting the water and nutrients the tree needs for life.

State officials have tried to stop the infestation by establishing a quarantine zone to stop the transportation of ash wood. In the course of a year the quarantine area has grown from six to 13 Michigan counties.

There are about 700 million ash trees in Michigan of which 300 million are in urban/residential areas. They are excellent shade trees, perfect for golf courses, cemeteries, streets and boulevards.

A dead ash tree is a lawsuit waiting to happen. If it crashes on a house, a car or a person, the property owner is liable. That means litigation for homeowners, or in the case of street trees, the local municipality. Experts estimate there are about 449 thousand ash trees in the Detroit area that *must* be removed.

It will cost, on average, \$750 to take down each ash tree. (Some big ones will cost as much as \$3,000 to remove.) Multiply 750 by 449,000 and the tally is nearly \$337 million just to get rid of

this towering liability in our region. Replacement trees are another expense.

As of now, there’s no proven insecticide that can stop this pest. The experts say things will get worse before they get better. How did things get so bad so quickly?

Part of the problem is the fact that no one in the U.S. had ever heard of the bug known as emerald ash borer until it hit our area. It appears that Carl Dollhopf was one of the first Americans to confront the damage done by the foreign invader. In 1998 Dollhopf, a retired inspector with the Michigan Department of Agriculture (MDA), got a call from a landscaper who needed help.

The landscaper had planted more than 200 ash trees in a new subdivision in Canton Township the year before. Now, nearly all of them were dead or dying. The landscaper asked Dollhopf to figure out what was going on.

Dollhopf, a 37 year veteran of the MDA, looked at the doomed trees, and then drove around the area. He found that ashes beyond the new subdivision were dying, too.

At an automotive supply operation near the new subdivision, ash trees around the plant were dead or nearly so. There were wooden shipping crates sitting outside the building. Dollhopf theorized that a freight shipment from abroad carried with it an unwelcome passenger. Several serious exotic invasive pests have found their way to the United States in the wooden packing crates of the global economy.

The dead ash trees had strange D-shaped Borer holes in them.

Dollhopf guessed it might be the work of a two-lined chestnut borer or a bronze birch borer. He guessed wrong. “You pull on the resources you know,” Dollhopf says. “I didn’t know there was a new guy in town.”

Fast forward to the summer of 2001 when David Roberts of the Michigan State University extension service began researching why so many ash trees are dying in Canton Township, in Plymouth and in Westland and Livonia on the east side of I-275.

Roberts is not your typical lab-coated research professor. He’s an outdoorsy academic who bears a faint resemblance to actor Chuck Norris. The professor talked with puzzled municipal experts in western Wayne County, who theorized

**In the spring of 2002,
Roberts finally found the pest
that was attacking the ashes.
He had never seen it before.
He sent it to the entomology
experts at MSU. They didn’t
know what it was, either.
Samples of the bug were sent
to the national experts at the
Smithsonian. They were
baffled, too.**

Feature

the trees were the victims of a disease known as ash yellows. This theory proved to be wrong, too.

In the spring of 2002, Roberts finally found the pest that was attacking the ashes. He had never seen it before. He sent it to the entomology (insect) experts at MSU. They didn't know what it was, either. Samples of the bug were sent to the national experts at the Smithsonian. They were baffled, too.

"At that point we knew we had something exotic or new that had never been found before," Roberts says.

Finally, an entomologist in Eastern Europe identified the destructive pest as *Agrilus plannipennis*, a tree-destroying insect found in China, Japan, Korea and eastern Russia. Roberts and his colleagues later dubbed *Agrilus* the "emerald ash borer beetle."

Roberts agrees with Dollhopf on the likely origins of the infestation. "My guess is one of those industrial companies [in the Canton Township area along I-275] imported some heavy equipment or whatever. It [the ash wood shipping crate] was deposited outside and the insect escaped," Roberts says. The local company probably never knew the bugs were in the crates.

Ordinarily, Tom Wilson, Westland's director of public service, is a self-assured, take-charge kind of guy. These days, Wilson is a desperate man.

Westland was hit early and hard by the ash attack. There are an estimated 3,200 "street" ash trees in the western Wayne County community. Most are dead, or soon will be. The city of Westland must remove the trees — or face the consequences.

"That liability is staring us in the face," Wilson says glumly. "We have had the trees, the limbs, fall on cars. I don't believe I've had anybody hit, yet, but I've had a tree split down the middle and fall on a house."

Westland work crews are dashing around, removing ash trees that a roving supervisor has identified as most in danger of falling and causing damage.

Wilson likens his ash tree response to triage — the military system for deciding which battlefield injuries to treat first, based upon the urgency and

chance for survival. "It sounds crazy but we truly are doing that," Wilson says.

Federal forestry experts have made at least four pilgrimages to Westland to witness the ash tree devastation and how fast it is spreading.

"We took them to some trees where the bark literally exploded off the tree, Wilson recalls. "They asked, 'How did this get so far advanced without you guys knowing?' We said, 'It was just noticed a year ago.'"

In Livonia, emerald ash borer destruction was first spotted along the border with Westland, in an area where the city limits for both communities are mere yards across the I-275 freeway from the spot where Carl Dollhopf first saw infested ash trees in 1998. Livonia has nearly 7,000 ashes in public areas. The removal cost will exceed \$1 million. Those are tax dollars that have been eaten, in a very real sense, by the Asian tree pest.

William Bohlen, of the Oak Park DPW, notes that crews are taking down 400 ash trees in Shepard Park. The trees were planted years ago to replace the elms lost to Dutch elm disease.

Dan Stencil, of Oakland County Parks and Recreation, says the emerald ash borer has hit most of the county parks. Experts have told him there might not be any living ash trees in Oakland County within 10 years. Stencil believes them. He lost an ash tree in his own back yard.

The story is depressingly similar in the Huron-Clinton Metroparks. "We've got picnic areas that were once nicely shaded. Now, there's nothing there," says Paul Muelle, chief of natural resources for the Huron-Clinton park system.

State officials are desperately trying to warn southeast Michigan residents to avoid taking firewood from dead ash trees to cabins or cottages elsewhere in the state. Genesee, Ingham, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, Shiawassee, St. Clair, Washtenaw and Wayne counties are under quarantine in terms of moving or transporting ash wood. Marshalling yards to dispose of ash wood have been established in four locations. (See sidebar below.)

But the quarantine may be ineffective. Says MSU's Roberts, "I think the populations are increasing tenfold every year. And that's probably conservative."

"It's a huge problem. It's going to take a lot of money. But if you look at what it's going to cost if we don't do something, this is a bargain price."

**-David Roberts,
Michigan State University**

Feature

The ash tree crisis is mostly in Michigan, but it has spread from here to two other states and Canada.

In Ohio, the pest's destruction was first seen in the Toledo area last spring, but by late summer another infestation was found in Defiance county, near the Indiana border.

Maryland is also battling the bug after it was discovered in a shipment of landscape trees from Michigan.

In Canada, there's an ash wood quarantine around the Windsor/Essex County area. In mid-summer, the Essex County Council asked Canadian federal agencies to step up efforts to contain the infestation. There's mounting concern the pest is spreading in Canada, too.

If the emerald ash borer isn't contained, the impact on America's tree population will be catastrophic. The national ash tree population numbers in the billions. There are only a handful of states that don't have ashes. The U.S. Department of Agriculture Forestry Service has estimated the worth of ash trees on America's timberland at \$282 billion.

Dave Nowak, a researcher with the U.S. Forest Service, says no one has done a comprehensive inventory of trees in urban areas. The Davey Tree Co., developed tree inventories in nine U.S. cities — Detroit isn't one of them — because they had been contracted to do so by those communities.

The Forestry Service used that limited data to take a stab at figuring the potential impact if the emerald ash borer invades other major cities. They established a median value, using a standardized dollar per-square-foot for the "canopy cover." Forest Service experts estimated there are 30-90 million ashes in America's cities. If they are wiped out, the loss may be between \$20 billion and \$60 billion.

"That's based on very limited field data," Nowak says. "We don't know how to extrapolate these numbers upward. The estimate is probably low."

Those with ash trees on their property face a tough choice — spray with insecticides or take the tree down.

If the problem in your declining ash tree is identified as emerald ash borer, the decision is simple — take the tree down. Once the bug has attacked a tree, there's nothing that can be done to save it. Reputable companies will advise against wasting money on a doomed tree.

If you haven't seen signs of decline yet, it may be worth the long-term investment in fighting back. It *is* a long-term investment. A one-time treatment is useless, according to the experts. Spraying and injecting the tree and the ground around it will be necessary for years.

In many cases a large ash tree provides significant shade for a home. That means savings in cooling costs. In other cases if the ash is large and close to the home, the cost of removal could pay for years of treatments.

A documented treatment program could become a selling feature in home sales. Conversely, a buyer might demand that a homeowner remove an ash tree as a condition of sale.

MSU professor Roberts of Michigan State estimates project it will cost \$30-\$50 million annually, for a decade, to bring the emerald ash borer problem under control.

"It's a huge problem," he says. "It's going to take a lot of money. But if you look at what it's going to cost if we *don't* do something, this is a bargain price."

Nurseries and landscape companies in the quarantine area have lost an estimated \$4 million in ash tree inventories. Insurance doesn't cover this. Losses for Michigan's lumber industry are pegged at \$20 million.

"It is hurting very badly," says Amy Frankmann of the Michigan Nursery and Landscape Association. Frankmann speaks of the Emerald ash borer invasion in terms that affect everyone.

"In our lifetime these street trees won't be replaced to where they were," she says sadly. "There's nothing that grows that fast. It just makes you sick."

Wade is a freelance writer and TV producer. E-mail: editorial@hourdetroit.com