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## *I Won't Buy an Ash this Year*

*by Marilyn Loser*

The deadly Emerald Ash Borer (EAB- *Agrilus planipennis* Fairmaire) was identified within the city limits of Boulder in late September, 2013. Since it was first discovered in Michigan during 2002, it has infected ash trees in 22 states and eastern Canada. At this point, Colorado is the only state west of the Mississippi River.

Named for its shiny green exoskeleton, EAB has killed tens of millions of trees in 11 years. It is native to Asia and most likely arrived in the United States on wood packing material. Apparently, any type of ash (*Fraxinus*) is vulnerable.

While the EAB can fly, it doesn't travel more than about one-half mile per year on its own, according to Colorado State University entomologist Whitney Cranshaw. He said someone brought it here -- probably four to six years ago. Often tourists bring their own firewood when camping. It could also have come in on nursery stock.

I've written previously regarding the importance of not transporting firewood very far. You transfer the firewood as well as any pests and diseases within the wood. The Colorado Department of Agriculture reminds people yearly to "Buy it where you burn it" to protect our state forests.

There are fewer than 40 ash trees in Alamosa Parks and along its streets. There are many more in residential yards. I have three in my yard. I don't plan on adding more or taking action at this point. I'll just pay attention to the spread of the EAB. Trees can be treated, but it's not inexpensive and requires yearly treatment.

This isn't the first time American forests have seen devastation. American Chestnuts and American Elms had their day. "The American Chestnut originally dominated much of the forestland in the Eastern United States," writes Eric Rutkow in the book "American Canopy." Treasured not only for its tasty nuts, the wood was used for furniture and fencing. And it regrew vigorously from the stumps of felled trees. First noticed at the Bronx Zoo in 1904, some thought it was a common fungus that could easily be eradicated. Unfortunately, it was a previously unknown (in America) destructive parasite. Once it infested a tree it essentially girdled the tree by stripping the under layer of bark all around the trunk.

The likely source of the disease was imported Asian nursery stock from the late nineteenth century. It spread rapidly through tiny spores that could travel long distances on the wind. According to Rutkow, "Scientists estimated that it killed between three and four billion American Chestnut trees."

While chestnuts were esteemed for their stateliness and usefulness, American Elms have been prized for their beauty. "By the time of the Revolution, some wealthy individuals in larger Yankee communities,

especially along the Connecticut River Valley, started to fund expansive elm plantings in their respective downtowns as a philanthropic gesture,” according to Rutkow.

They thrived under many conditions including drought, salt, ice, and heavy foot traffic. A problem of dying trees was first noted in Europe during the closing months of World War I. One theory blamed the war as initially infected areas were in the path of the war. They thought it might be the aftereffects of nerve gas and extensive military fire. It turns out that the fungal Dutch Elm Disease (DED) was spread by the elm-bark beetle, a tree-boring insect.

The United State placed a quarantine on the importation of all nursery stock. But it was too late. DED was expected to be first noted in port cities, but the first outbreak of disease was in Cleveland, Ohio. Eventually, writes Rutkow, DED was “discovered in a French shipment of elm burls – fancy-grained growths used for furniture veneers. These burls had fallen outside the blanket quarantine.” The infected shipments had been entering the US since 1926.

To further the devastation, a huge storm in 1938 downed more than one million elms. Many of the trees were transported to wood lots and junk yards that provided a wonderful breeding ground for DED. Concerns over World War II effectively stopped the flow of federal dollars used to attack DED.

Universities such as Colorado State are trying to create elms resistant to DED. During Arbor Week, two New Horizon Elms will be planted in the cemetery along with eight other trees of four different species. Planting a variety of species can help reduce devastation to entire forests if a pest or disease takes out one of the species.

*“The Emerald Ash Borer is always one truckload away from your backyard.”* Colorado State University entomologist Whitney Cranshaw