

City of Golden

Emerald Ash Borer Management

(updated Fall 2018)

Background

Emerald Ash Borer (EAB), a devastating insect pest was first detected in Michigan in 2002 and has since then rapidly spread throughout the eastern part of the U.S. and Canada. EAB has now spread into 32 states with Colorado being the furthest state to the west. It has currently not been detected outside of Boulder County but is slowly moving further east from the initial finding in the City of Boulder. EAB has likely already made its way into other counties without being detected yet. We will need to be prepared for the impact the beetle will have on our urban forest. Golden's forestry department has been using several management techniques to lessen the impact of the beetle when it arrives. We have recommendations for treatments and replacement strategies for homeowners with ash trees on their properties.

Ash trees are a huge part of the urban tree canopy throughout the front range in Colorado. Green Ash (*Fraxinus pennsylvanica*), and White Ash (*Fraxinus Americana*) are estimated at 15%-20% of all trees in urban communities on the front range, and have proven to be a very hardy tree selection for harsh urban environments as well as tolerating our typical periods of drought. Ash species have also naturalized here and can be found growing in open spaces and natural areas.

Ash Inventory

Our Ash population is estimated at around 15,000 trees with the majority of those located on private property or in open space and natural areas. Golden's forestry department maintains approximately 800 of these ash trees located in streetscapes, rights of way, and in park areas. While taking into consideration value, location, and benefits provided to our community, we've selected about 300 of these ash trees to be good candidates for temporary or long-term preventative insecticide treatments.

Detection

Golden has been actively monitoring for evidence of EAB in our community since the beetle was found in Boulder in 2013. As of October 2019 we have yet to find it here or anywhere else in Jefferson County. As far as we know it is still contained to Boulder County, but will continue to prepare for its eventual arrival to our area in the near future.

Determining the presence of EAB is often difficult. Symptoms include sparse leaves or branches in the upper canopy, vertical splits in bark with S-shaped galleries beneath, smaller leaves at branch tips, D-shaped exit holes on branches, and water sprouts or epicormic shoots growing from the main trunk or near the center of the tree. Exit holes are often mistaken for the presence of other boring insects that also effect ash trees.

Forestry staff continues to monitor for EAB in Golden through trapping, and branch sampling of Ash which are showing signs of stress or decline. Golden residents are encouraged to contact the forestry department if a tree at a private residence is thought to be showing symptoms and they will come out to take a branch sample.

Treatment and Management Strategies

While there are effective insecticides available to protect ash trees from EAB, other management strategies exist for dealing with the pest, including monitoring trees for the presence of EAB, removing and/or replacing ash trees, and planting new trees nearby in an effort to get them established before the arrival of EAB. We encourage residents to seek professional advice on whether their ash is a good candidate for treatment and educate themselves on all available options and the costs associated with each to determine which route is the best to take. Decisions about how to manage ash trees will have to be made by every landowner for every ash tree, and should take into account the overall health of each tree and its value to the owner.

Golden has 760 ash trees in their active inventory of park space, public areas, and street trees. Our forestry department has chosen around 300 of these trees as good candidates for either long-term, or temporary chemical treatments. This number has decreased over the past few years as we have been able to re-plant some of these with anticipation of future removal of those existing ash. We will see this number decrease further as we continue to monitor the condition of ash trees currently receiving treatments, and continue to assess their value to the community. We are using 2 different systemic chemical treatments, a bark spray, and a trunk injection depending on trunk diameter.

We have increased our numbers of new plantings since 2014 significantly and have focused on areas where ash is a dominate species in parks, public areas, and neighborhoods. Species diversity should be a big focus for our community and the front range in general for future tree planting plans to prevent these devastating impacts to our urban forest. We try to follow a rule of 20-10-5 which allows for no more than 20 % of new plantings in a single family, no more than 10% from the same genus, and no more than 5% of the same species. We encourage property owners to also take this into consideration when planting new trees.

Our forestry department is committed to putting the community in a better position for dealing with emerald ash borer when we eventually find it here in Golden. Maintaining a diverse and increasing urban tree canopy coverage to promote a healthy community is our main goal.

Please visit <https://www.colorado.gov/pacific/agplants/emerald-ash-borer> for more information on Emerald Ash borer in Colorado.