

Gardening Basics

Emerald Ash Borer

The year 2021 was rough for the Denton area's ash trees. The extended freeze that February caused considerable damage or outright killed several types of trees, including ashes. That environmental stress has lasting effects plus ashes are now also battling a killer beetle, the emerald ash borer. It was first spotted within the Denton city limits in May 2020 and has since spread to other neighborhoods. Most tree experts agree that emerald ash borer may be the most important exotic tree pest to enter the country since chestnut blight, with some experts worrying that die-back of natural populations could threaten extinction for the 15-plus species of native ash in the U.S. Between freeze damage and EAB, this 1-2 punch may be more than an ash tree, or your wallet, can bear.

Freeze damage, EAB infestation, or both?

Some symptoms of freeze damage and emerald ash borer (EAB) infestation are similar. Epicormic sprouting (where leafy shoots emerge directly from the tree trunk rather than at the tips of branches) is common in both conditions. Epicormic sprouts indicate significant damage to the vascular system under the bark.

Splitting bark is another symptom of both freeze damage and EAB. A freeze/thaw cycle creates fissures in the bark from expansion and contraction. The EAB larvae chew extensive serpentine tunnels that horizontally crisscross the tree's vascular system interrupting the flow of water and nutrients. As the vascular tissue is consumed, the bark separates from the tree. Splitting or missing bark due to an EAB infestation will typically expose the characteristic 'S-shaped' tunnels underneath and contain the 1/8" D-shaped exit holes where the mature larvae emerged as adult beetles.



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Where freeze damage usually causes dramatic, sudden dieback of major limbs, the presence of emerald ash borer generally causes a more subtle loss over time usually starting in the upper canopy where it may not be immediately visible.

Woodpecker activity may be an additional symptom of the presence of EAB.

Can the ashes be saved?

The answer was "No" to a huge ash adjacent to Denton City Hall. Sadly, it was a victim of the February freeze, and dead limbs on ash trees are very brittle and can be a major safety hazard to people and property. Homeowners should monitor their ashes, and if a tree has a thinning canopy, epicormic growth, or splitting or bark loss with insect galleries visible, it should be evaluated for EAB and possible removal by a Certified Arborist. The confirmed presence of EAB in several Denton neighborhoods means you may only be delaying the inevitable as infested trees die in 2-3 years.

Prevention of EAB infestation

There are several preventative treatment options for emerald ash borer. They consist primarily of insecticide injections into individual ash trees by licensed lawn care companies (usually lasting 2-3 years) or do-it-yourself treatments are also available from garden centers. They involve soil drenches with insecticides containing imidacloprid, azadirachtin or



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dinotefuran. DIY treatments must be reapplied annually. Consider though, that it is generally more cost-effective to treat healthy, mature ash trees than to remove and replace them.

If planting new trees, diversify your landscape and choose other trees suited to our climate, instead of ash. The Texas A&M Forest Service's Tree Planting Guide is a valuable tool for selecting the right tree for the right place:

<https://texastreeplanting.tamu.edu/>

Also, to prevent the further spread of EAB, do not transport firewood into or out of our area.

Questions?

For more information on EAB, it's ID, biology, and control, go to <http://www.emeraldashborer.info/>

Denton residents with questions or concerns about Emerald Ash Borer can contact Haywood Morgan, the City of Denton's Urban Forester, at 940.349.8337 or Haywood.Morgan@cityofdenton.com.

Resources:

After the Storm, Can My Tree Be Saved, Texas A&M Forest Service:

<https://tfsweb.tamu.edu/afterthestorm/canmytreebesaved/>

Emerald Ash Borer Information Network: <http://www.emeraldashborer.info/>

Find a Certified Arborist, International Society of Arboriculture:

<https://www.treesaregood.org/findanarborist/findanarborist>

(Use your zip code and 25 miles to find a list of Certified Arborists that services your area)

Forest Health: Emerald Ash Borer, Texas A&M Forest Service: <https://tfsweb.tamu.edu/eab/>

Visual Guide to Detecting Emerald Ash Borer Damage, Canadian Forest Service:

<https://cfs.nrcan.gc.ca/pubwarehouse/pdfs/26856.pdf>