

EMERALD ASH BORER

Emerald Ash Borer is a potential threat to the Green Ash trees in the city of Wahpeton. This destructive insect is from eastern Asia and was discovered in 2002 near Detroit, Michigan. It is killing all of the native ash trees (genus *Fraxinus*) in that region, and it has slowly been expanding its range and is now in St. Paul, Minnesota. Green ash is the most common tree species in North Dakota shelterbelts and was the species of choice in urban areas to replace American elm trees lost to Dutch elm disease. EAB will have a huge impact in North Dakota and the City of Wahpeton.

Identification – EAB adults are a bright, metallic green, about 1/3 to 1/2 inch long (Figure 1). Larvae (Figure 2) grow to about 1 to 1 1/4 inches in length. The larvae destroy the inner bark of ash trees, eventually killing them. Adults can be difficult to locate and, depending on the time of the year, even impossible to find. Locating larvae beneath the bark is possible only by scraping or peeling the bark away. This destructive sampling may not always be desired. Locating exit holes (Figure 3) may be a better way to locate EAB in an ash tree. However, EAB infestations usually begin near the top of the tree, so finding exit holes may initially require some climbing. The initial symptom of EAB infestation is a gradual dieback of the tree crown. However, this symptom can be found on many ash trees, so it cannot be used as the only characteristic for diagnosing an infestation of EAB.

Figure 1. Emerald ash borer adult. The adults feed on the leaves of ash trees, but the primary damage is done by the larvae. Photo from USDA-APHIS.



Figure 2. EAB larvae, which grow to about 1 to 1 1/4 inches in length, destroy the inner bark of ash trees, eventually killing them. Larvae can be found in ash saplings as small as 1 inch in diameter. Photo from USDA-APHIS.

Treatment – Because EAB has not yet been identified in North Dakota, preventative insecticide treatments are not yet recommended. The chemical insecticide imidacloprid, sold under several trade names, has been used to treat trees for EAB though it is not 100% effective. Imidacloprid's main advantage is that the homeowner can apply it as a simple soil drench around the tree. Injections of imidacloprid, applied by professionals, have been more effective than soil drenches. The chemical emamectin benzoate, sold under the trade name TreeAge (pronounced triage), can also be injected into trees for control of EAB. Early test results with this chemical show nearly 100% effectiveness. However, treatments are expensive and must be applied every year.

One of the most asked questions regarding EAB is, **"When will it be found in North Dakota?"** Indeed, that is the million-dollar question. The main method of dispersal for EAB is by people moving infested firewood. EAB has travelled hundreds of miles by this mechanism and this is likely how it will be introduced into North Dakota. If you have visitors from out-of-state, please make sure they leave their firewood at home.

Figure 3. D-shaped exit hole, approximately 1/8-inch diameter, caused by emerald ash borer. Many other insects attack ash trees in North Dakota; however, their exit holes are distinctly different from those of EAB. Photo from USDA-APHIS.



Adapted from information from Joseph Zeleznik, Extension Forester, NDSU Extension Service, Fargo, ND

NDSU EXTENSION SERVICE

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Maintenance of Street Trees

City of Wahpeton

Street trees play a large role in maintaining the City's attractive appearance, in creating a positive impression of the City for current and potential homeowners and business people, and in cooling and cleaning the atmosphere in the City. However, street trees come with some costs, such as trimming and cleaning up after major storm or disease damages, as well as occasional, relatively low cost maintenance.

One maintenance item required of street trees is trimming. City of Wahpeton Ordinance 12-173 requires that property owners trim and maintain trees at their expense in the boulevards along streets and alleys adjacent to their properties to provide proper clearance above streets, alleys, and sidewalks for public safety and to prevent damage to street sweeping, snow plowing, and garbage collection equipment. For unobstructed travel to pedestrians and vehicles, trees are to be trimmed to eight (8) feet above the sidewalk and fifteen (15) feet above the street or alley surface. For proper visibility for traffic and signs, boulevard trees must be trimmed to be at least eighteen (18) inches above traffic signs and nine (9) feet above the boulevard within fifty (50) feet of intersections. Shrubs and bushes must be trimmed to be no higher than thirty (30) inches above the street within fifty (50) feet of intersections.

Street trees not kept or maintained at or above the specified heights above streets and sidewalks are defined as public nuisances. The ordinance provides that in the event that a property owner fails to trim or maintain boulevard trees, the City shall make the necessary arrangements for the work and bill the owner directly and if the owner does not pay the bill, the City shall Special Assess the cost to the property.

The Tree Disposal Site located at the east end of 23rd Avenue North, it is open 24 hours a day, at no cost to Wahpeton residents only. No garbage leaves, yard waste, or tree stumps may be disposed at the Tree Disposal Site, and violators

are subject to up to \$500 penalty. For a list of tree contractors licensed to trim or remove trees within the City contact the Public Works Department at 642-6565.

Citizens wishing to plant street trees in the boulevards in public right-of-way are requested to apply to the City for a Permit to Work in Public Right-of-Way to allow City staff opportunity to check that the proposed planting site is not over buried utilities. Trees planted over an underground utility line are at risk of being removed for repair or replacement of the utility which may occur long before the end of the tree's normal life span. Contact the Public Works Department at 642-6565 for further information regarding tree planting in street boulevards.

- Remember to call ND One Call at 1-800-795-0555 before you dig holes to plant trees.

Important Forestry Ordinances

- Lowest tree branch should be 8' above sidewalk and 15' above street or alley.
- No shrub or hedge should protrude over sidewalks, streets or alleys.
- Campground firewood must be purchased locally from a state-approved vendor.

If you have questions about EAB or suspect that your trees are infested with EAB, please contact:

Jason Goltz, NDSU Extension
Service/Richland County, 642-7793
jason.goltz@ndsu.edu, or
Jim Selken, City Forester, 642-6565.