**How to Recognize Ash Trees**

- **Compound leaves**
  - 5-11 leaflets per leaf
- **Leaflets**
  - 2-5 inches long
- **Paddle-shaped seeds**
  - 1-2 inches long
- **Some trees are seedless**

Ash twigs occur in pairs on opposite sides of a branch.

Twigs of many other trees occur singly and alternate from side to side.

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**For killing more than 50 million ash trees in Michigan, Ohio, Indiana & Ontario**

Emerald ash borer (EAB) has caused extensive tree death since its discovery in Michigan in 2002. This notorious killer has also been found in several other states including Illinois, Pennsylvania, Maryland and West Virginia. It is only a matter of time before emerald ash borer is found in Nebraska.

The University of Nebraska-Lincoln does not discriminate based on gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation.

*All insect and damage photos courtesy of:*

- **Bugwood.org**
- **Cover: David Cappaert, Michigan State University**
- **Adult on bark:** Ed Czerwinski, Ontario Ministry of Natural Resources
- **Exit hole:** David R. McKay, USDA APHIS PPQ
- **Tunnels:** Ed Czerwinski, Ontario Ministry of Natural Resources
- **Dieback:** Joseph O'Brien, USDA Forest Service
- **Stripped bark:** Art Wagner, USDA APHIS PPQ
- **Infested wood:** Troy Kimoto, Canadian Food Inspection Agency
- **Larva:** David Cappaert, Michigan State University
- **Ash identification photos:** Laurie Stepanek, Nebraska Forest Service

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**Laurie Stepanek**

Nebraska Forest Service
How to Recognize Emerald Ash Borer

- D-shaped exit holes in ash bark
  - 1/8 inch diameter
- Zig-zag tunnels under ash bark
  - Tunnels packed with frass/sawdust
- Dieback beginning at top of ash tree
- Thin crown
- Woodpecker activity in ash trees
  - Bark stripping

Emerald Ash Borer Facts

- Discovered in 2002 killing trees near Detroit, Michigan
- Native to eastern Asia
- Kills trees by tunneling beneath the bark
- Trees usually die within a few years following infestation
- Easily transported to new areas in infested firewood
- Threatens to wipe out Nebraska’s 30 million ash trees
- Kills all North American species of ash* including green, white, black, and blue ash and their cultivars such as:
  - Marshall’s Seedless
  - Patmore
  - Bergeson
  - Cimmaron
  - Summit
  - Autumn Purple
  - Autumn Applause
  - Autumn Blaze
  - Fallgold
  - True Blue

* Emerald ash borer does not attack mountain-ash, which is not a true ash.

Help Us Control This Notorious Killer!

Emerald ash borer is easily transported long distances in infested firewood.

Do not carry firewood when you travel.
Collect or buy firewood at your destination.

If you think you have found the emerald ash borer please contact:

Nebraska Forest Service:
402-472-2944

Nebraska Department of Agriculture:
402-471-2394

USDA-APHIS-PPQ
Nebraska office:
402-434-2345

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