

Woodland Words of Wisdom



U S D A N R C S S T P A U L M N

E M E R A L D A S H B O R E R D O N ’ T P A N I C , M A K E A P L A N

P O I N T S O F I N T E R E S T

- eab, small letters, is serious but not cataclysmic—yet.
- Help ashes defend themselves from all types of stresses.
- Windbreak renovation methods.
- Hackberry and other suitable alternatives to ashes.
- EAB the menace identified.

This issue of Woodland Words of Wisdom is devoted to the impending threat of the emerald ash borer (eab). I use small type letters to emphasize that while the im- pending threat is serious, it is not cataclysmic—yet.

Professionals in MN DNR speculate that the eab has already invaded somewhere in Minnesota; it just has not been detected. This gut feeling is credible because recent dendrochronology (dating by finding small populations using tree rings) in Michigan determined that the eab existed in Michigan at least 10 years before the population grew to detectable size.

Unfortunately an infested tree means death. There is no treatment and a cruel fact is that healthy trees are just as susceptible as stressed trees. Illinois contained infestations by finding small populations early and removing all the ash trees within a 1/2 mile area of the infection point.

The eab does not fly very far from its home tree. The

The good news is that the bug has not yet been found in states around Michigan and Wisconsin despite intensive surveying this summer. The moving ash firewood, logs

and in Maryland's case nursery stock. The bug came from infected solid packing material from China.

Much of the current devastation in infected areas is from lessons lost from the Dutch elm disease outbreak; lack of plant diversity in the landscape. We can start to protect our conservation trees by diversifying our tree and shrub planting practices and through renovation methods. The time to plan is now.

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D E F E N D I N G A S H T R E E S

What can you do to protect the ashes in your project? In Minnesota ashes are hardy and adaptable to many site conditions. That is one reason they have been overplanted.

Ashes suffer from many insect, disease and environmental stresses even before the

threat of the eab. There are several courses of action you can take to help ashes overcome these stresses. Defense mechanisms include: enable quick establishment, make sure ashes are adapted to the site, avoid monoculture plantings, choose resistant strains, reduce herbaceous competi-

tion, water adequately particularly in the first year, use mulch or fabric, plant acceptable cover, prepare the site appropriately for tree planting, start with a good design and follow through on management activities. Don't make ash trees an easy target for any disease or insect problem.

TECH TOPICS: RENOVATING SINGLE-ROW ASH WINDBREAKS

Use the NRCS Windbreak/Shelterbelt Renovation Standard, Code 650 to renovate older wind-breaks. Inventory and evaluate the existing windbreak to determine the current conditions and the reasons for deterioration. Renovation involves actions to restore or create the proper spacing, density, structure, and species composition of the windbreak while maintaining the minimum design density. Remove all woody vegetation and de-

bris that would interfere with the renovation. Determine adequate spacing for the desired density.

When planting new trees or shrubs: 1) use appropriate species, 2) use acceptable planting stock, 3) use adequate planting methods, 4) use proper site preparation. Following these guidelines will ensure that the renovated windbreak will remain effective and better resistant to future threats.



This image shows an older single-row green ash windbreak that is undergoing renovation. Notice that the older trees have been limbed up, the area under the windbreak cleared of debris and vegetative competition within the windbreak has been controlled. A closer look shows an interplanting of young trees protected by tubes. A pre-evaluation of the site showed that the trees were damaged by herbicide drift.

The Edgar Allen Poe
hackberry
grows in
Richmond
VA's
Enchanted
Garden

Common hackberry
(*Celtis occidentalis*)



What are suitable trees to replace ash, if it should come to that? One good alternative is a relative to the elms, common hackberry, *Celtis occidentalis*. This tree has a similar shape to that of ashes, is widely adaptable to many site conditions and is suitable to many Minnesota climates. The tree may suffer from planting shock for a couple of years, but once out of it, they grow quickly. Tree protection from deer and rodent predation

is necessary and shaping and pruning should start early.

Other trees suitable for wind-breaks are: bitternut hickory, silver maple, eastern red cedar, hawthorns, northern white cedar (arborvitae), black walnut, white spruce (also Black Hills spruce) and the lowly regarded box elder. Shrubs include: plums, chokecherry, choke berry, June- or service- berry, viburnums, sumacs and highbush cranberry.

PATHOGEN OF THE QUARTER

Emerald Ash Borer (eab): the menace itself

The eab is a bug that looks like several native borers found on stressed and healthy ashes. If you suspect eab, look for a group of ashes that seem to be suffering the same symptoms: branch dieback on upper limbs, excessive branching

on the trunk (epicormic branching), trunk sprouts, overly large leaves, bark splitting and excessive woodpecker feeding. Unfortunately, once a tree is invaded by these bugs, death happens very quickly. Large populations insulate this insect from effective pesticide management. For lots

of excellent detailed information about the eab in general use this web link: <http://www.emeraldashborer.info/>.

The following web link is an excellent publication about signs and symptoms of the eab including helpful pictures. <http://www.emeraldashborer.info/files/E-2938.pdf>.



Adult emerald ash borer



Larvae emerald ash borer