Minnesota Forestry Association (MFA) Information@ MinnesotaForestry.org 1111 Cloquet Ave. Suite 7 Cloquet, MN 55720 218-879-5100

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MFA Board Meetings **DNR Cambridge Office** 10 a.m. - 3 p.m.

- July 14, 2020
- October 13, 2020

Conference Calls 8 - 9 a.m.

- June 9, 2020
- August 11, 2020
- September 8, 2020
- November 10, 2020

Editor Kassandra Tuten editor@minnesota forestry.org

Graphic Design Peg Churchwell Lady Dog Design PegChurchwell17@ gmail.com

Minnesota Communities Receive Nearly \$1 Million in Grants to Fight EAB

From Minnesota DNR

Minnesota communities across the state have received funding to combat emerald ash borer (EAB) and manage city-owned ash trees through two grants from the Minnesota Department of Natural Resources. Collectively, 25 communities spanning from Bemidji to Winona will receive nearly \$1 million for tree inventories, management plans, ash removal and tree planting.

The grants enhance Minnesota's effort against the invasive beetle that kills ash trees, helping cities build preparedness and coordinate response.

"These funds will help front-line communities prepare for EAB," said Emma Schultz, community forest project specialist with the DNR. "And in areas where the beetle is established, this funding is important to manage ash and diversify urban tree canopies."

In New Ulm, where more than 20% of the trees are ash and boulevards are dotted with 2,600 ash trees, the discovery of EAB last year raised concern over how the city would cover the cost of tree removal and replacement.

"In addition to reducing the financial burden for city residents, our grant allows us to reduce the potential for future insect and disease problems by replanting with a diversity of tree species," said New Ulm City Planner John Knisley.

Preparing for Emerald Ash Borer in Community Forests

The first group of grants will assist communities in conducting tree inventories and removing and replacing ash. The \$679,000 for these grants was appropriated from Minnesota's General Fund.

- City of Bayport, \$53,100
- City of Bemidji, \$14,235
- City of Brooklyn Park, \$100,000
- City of Columbia Heights, \$100,000
- City of Duluth, \$92,400
- City of Kellogg, \$30,000
- City of Lake Crystal, \$4,500
- City of Lakeville, \$25,000
- City of Mahnomen, \$6,413
- City of Mankato, \$65,000
- City of Moorhead, \$50,000
- City of New Ulm, \$88,352
- City of Owatonna, \$50,000

Continued on page 2



An ash tree (center) with a declining tree canopy shows signs of potential emerald ash borer infestation.

Minnesota Forestry Association

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Dave Roerick, president 319 NE 8th Street Grand Rapids, MN 55744 218-256-2405 DRoerick@gmail.com

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Stan Grossman, sergeant-at-arms 3015 S. Highway 169 Grand Rapids, MN. 55744 218-252-8572 iws@wcta.net

For the following Board members' contact information, see www.MinnesotaForestry.org or call MFA at 218-879-5100.

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Away from home for a time? Please contact the MFA office if you'll be away from home for an extended time and let us know when you'll be back. We'll hold onto the newsletter until you return so you won't miss a single issue! Information@

MinnesotaForestry.org or call 218-879-5100.

EAB Grants continued

EAB Community Forest Response Tree Planting

The second group of grants will assist communities in planting trees on public land in response to EAB. The \$300,000 in funding for these grants is from Minnesota's lottery-funded Environment and Natural Resources Trust Fund.

- City of Blaine, \$28,364
- City of Hutchinson, \$30,000
- City of Maplewood, \$30,000
- City of Mendota Heights, \$12,715
- City of Morris, \$16,996
- City of Rochester, \$30,000
- City of Roseville, \$30,000
- City of St. Louis Park, \$30,000
- City of St. Paul, \$30,000
- City of Sauk Centre, \$29,500
- City of West St. Paul, \$25,000
- City of Winona, \$7,425

To date, EAB has been confirmed in 23 Minnesota counties.

For more information, visit the DNR website or contact the DNR Community Forestry Grants Team at ucf.dnr@state.mn.us.



New Website and Missing Newsletters

Early in April 2020, MFA brought on Marissa Berguson from Itasca Woodland Services (Stan Grossman, CEO and MFA board member) to redesign and implement a new website. While the new version of the website shows only a few visual differences compared with the previous version, there are behind-the-scenes improvements that have helped create a more dynamic online space for the Minnesota Forestry Association. The usability of the website has been significantly improved for mobile and tablet users, as well as computer-based website visitors.

In order to fully protect personal information submitted to the MFA online, a state-of-the-art security encryption protocol has been installed on the website to protect information submitted to the MFA in the form of membership applications, payments or donations. A space that has been worked on the most is the Newsletter page. There, one can view the most recent newsletter and access a database of archived newsletters dating all the way back to 2008.

In a major project taken on by Berguson, with the assistance of board member Bill Sayward, the database of archived newsletters has been nearly completed with one unfortunate exception — some newsletters were missing or the files were broken.

Upon combing through years of old newsletters, six were found to be missing or have broken files. The following are newsletters we are looking for:

2015 August - September

2015 October - November

2015 December - January

2017 August - September

Are you able to help us recover these newsletters? If so, please email a scanned copy to marissa@minnesotaforestry.org or mail them to:

Minnesota Forestry Association 1111 Cloquet Avenue, Suite 7 Cloquet, MN 55720

Visit the new website at: www.minnesotaforestry.org

EAB Risk Status in Minnesota is Active

The Active Period for Emerald Ash Borer is May 1-Sept. 30

Adapted from My Minnesota Woods

Emerald ash borer (*Agrilus planipennis*) attacks ash trees from as small as one-inch diameter to large mature trees. This exotic borer is a native of Asia and was first found in Minnesota in May 2009. EAB has also been found in many other states, and has been discovered in Ontario and Quebec, Canada.

The destructive beetle has killed hundreds of millions of ash trees where it has been discovered.

EAB feeds on the tissue of ash trees between the bark and sapwood, disrupting the nutrient and water flow of the tree and eventually killing the tree after several years of feeding.

There are nearly one billion ash trees in Minnesota, one of the largest concentrations of ash in the country. EAB infests and kills all species of the trees in Minnesota, including black, green and white ash. Research has found little to no resistance to EAB in our native ash.

During the EAB active period:

- Avoid the removal of ash branches, stumps or trees because insects may fly and infest nearby ash trees.
- If removal is required,
 - Prune and remove ash trees only if absolutely necessary.
 - Chip at least the outer 1" of bark and wood on-site and transport to the nearest ash tree waste disposal site where the material will be processed quickly.
 - Or, transport at least the outer 1" of bark/wood in an enclosed vehicle to the nearest ash tree waste disposal site that can quickly process the material. Material should be sealed until it can be chipped.

It is important to follow pruning and removal guidelines throughout Minnesota because the signs and symptoms of EAB can lay dormant in the tree for up to five years. (It takes a year alone for the larvae to move throughout the tree.)

If the tree is infested but not showing signs of EAB, pruning and transporting ash wood during the active period can move EAB to a region of the state where it was not present before.

Contact the Minnesota Department of Agriculture's Arrest the Pest hotline at 888-545-6684 or arrest.the.pest@state.mn.us if you suspect EAB damage on your property. Note the exact location of the tree and take a digital photo if possible.

What is the best way to handle the ash logs and debris once the tree has been removed or pruned?

The best way to handle ash logs and debris is to send them to the nearest ash tree waste disposal site to have them



processed before May 1 in the low activity period. If you are dealing with this debris during the active period, it is important to seal the debris and logs and transport them to the nearest facility to be processed immediately.

Is there any control for EAB once it's in the tree?

It may be helpful to use insecticides in the early stages of infestation. But keep in mind that once the insect infests the tree, the damage which is caused is irreversible. If the tree begins to show symptoms of damage such as canopy dieback beyond 30%, it may not be helpful to inject insecticides because of the volume of tissue loss and decreased ability for the tree to move the insecticide, nutrients and water throughout the tree. Before canopy dieback reaches 30%, insecticides have been shown to be successful.

Is there any treatment to prevent EAB from entering and damaging an ash tree?

There are two common treatments which target the adult insect. These treatments include tree trunk injections and soil and root drenching applications. It has been found that the injection treatment is less harmful on the environment and gives the tree direct injection into the tissue of the tree. It is common that the homeowner pay for these services, and a licensed professional is needed in order to apply the insecticide.

Is it safe to mill any lumber from the ash tree that has been removed? If so, how?

It is safe to mill the lumber from ash trees if the wood does not leave the county it was cut down from, especially if it is a quarantined county and if the outer 1½-inch of sapwood is removed and disposed of to kill any EAB present.

Can the EAB be transported via wood chips?

If moving the ash wood is unavoidable, chipping will be the most cost effective approach and destroys the ability for EAB to reproduce. However, chips must be small enough (two-sided and less than 1-inch) to successfully kill the EAB larvae and/or pupae.

Looking for a tree to plant in place of your ash?

Here are Seven Good Options

From UMN Extension

The emerald ash borer (EAB) has left behind many dead ash trees across Minnesota. All Minnesota counties have at least one variety of ash, and ash is found on 4.3 million acres in the state.

Maybe the ash tree in your yard was taken down recently because of damage from EAB. Or maybe you have hundreds of ash trees in your woodland and you're thinking about which tree species could replace them.

Minnesota forests are home to three native ash species:

- Black ash is the most common ash tree in Minnesota, and is commonly found in forested wetlands.
- White ash is common in mesic forests throughout central and southern Minnesota.
- Green ash is more common on upland sites.

Unfortunately, all of these ash trees are susceptible to EAB.

Here are seven native tree species in parts of Minnesota that you can consider for replacing your ash. Each species has its own unique characteristics and is adapted to different sites.

American elm (the disease-resistant ones)

Best reason to plant: You'll bring back a charismatic tree to Minnesota's landscape.

You may be thinking, "Didn't all of the elms die from a disease about 50 years ago?" Yes, they did! But an incredible amount of research and testing have provided a number of disease-resistant elm trees. These elms have been planted widely across Minnesota.

In Minnesota's forests and woodlands, elm and ash trees have historically been found in very similar growing conditions. Both species can tolerate wet conditions. Elms are slightly different in that they require full sun for the best growth.

Consult your tree or nursery supplier for suggestions on the right variety for the qualities that you want in an elm. The Valley Forge and Princeton varieties are most similar to the native American elm and have the classic vase-like form when mature. A number of hybrid Asian elms tend to be shorter in height compared to other varieties and grow well on tough sites.

Aspen

Best reason to plant: You want to maintain trees in an ash woodland.

All of Minnesota's trees in the Populus genus — trees like quaking aspen, big-toothed aspen and balsam poplar — may be good alternatives in woodlands formerly dominated with ash.





Top: Accolade elm is a disease-resistant variety.

Bottom: Quaking aspen is a tree that sprouts vigorously.

Quaking aspen is the most common tree in Minnesota today, making it a good choice to replace ash. Balsam poplar may do well in wetter soils, while quaking and big-toothed aspen may do better on drier sites.

In fact, you may not need to plant aspen in a woodland if the species is close by. Aspen sprouts vigorously, a form of reproduction without using seeds. It is often one of the first species to come back to an area after a timber harvest or fire. Forest managers in Northern Minnesota have been successful with planting cuttings from balsam poplar in black ash wetlands

Northern white cedar

Best reason to plant: You want a conifer that's characteristic of the Minnesota Northwoods.

Northern white cedar is an iconic tree that is a part of northeastern Minnesota. In its natural habitat, it can form dense stands and survives well in moist soils. If you're looking for an ornamental variety, it is sold under the name arborvitae.

Northern white cedar trees will attract wildlife, especially white-tailed deer. Cedar is one of the most heavily browsed tree species by deer. Any choice to plant cedar will need to be immediately followed up with protecting seedlings. Ideally, this would happen with fencing around trees or groups of trees.

Stands of cedar are often used as deer wintering areas. Deer may congregate in these areas in the winter to avoid heavy snow depths in other open areas, such as those with deciduous trees.

Swamp white oak

Best reason to plant: You want to plant a tree that's predicted to do well in Minnesota's future climate.

Also known as bicolor oak, this species can tolerate heavy and wet soil which makes it a good replacement for black ash. While native only to southeastern Minnesota, swamp white oak is known as a climate change "winner" and has been planted with success in research trials in Northern Minnesota.

Swamp white oak does not grow as tall as bur oak and white oak, two similar species. The tree is also less susceptible to the oak wilt fungus compared to red oaks. The acorns on this tree will attract a number of wildlife species.

Hackberry

Best reason to plant: You want a hardy shade tree that can survive a tough environment.

Hackberry is a hardy tree that can grow in harsh urban environments. It can survive heat and drought or wind

and ice, making it suitable for Minnesota's climate. In its native habitat it can be found in floodplains and along rivers in the central and southern portions of the state.

Its corky bark sets hackberry apart from other trees in Minnesota. Birds and other wildlife will be attracted to its berry-like fruits.

Silver maple

Best reason to plant: You want a fast-growing tree that provides a lot of shade.

Silver maple is one of the fastestgrowing maples. It is common in southern Minnesota and grows into the north-central part of the state, typically along rivers.

Silver maple is widely planted as a shade or ornamental tree. Its

leaves are dark green on top and "silvery" on bottom, giving the tree its name.

River birch

Best reason to plant: You want a stately tree for your yard in the Twin Cities Metro or Blufflands.

Most birches across the world are found in cool climates and grow into the boreal forest. River birch is a different kind of birch; it is adapted to warm climates as far south as Florida. It can thrive in floodplains and near stream banks that are sometimes flooded.

The river birch can be a single- or multi-stemmed tree, making it a great tree to consider for the landscape around your home. Its copper-colored bark makes it stand out from other common trees.

Diversify

Not sure which species to plant? Plant several! Diversifying your yard or woodland with a variety of species gives you reassurance that your landscape can survive future insect and disease outbreaks.

Any decision about which tree to plant requires careful planning and thinking. For more options, Extension's replacement trees for ash page can help you figure out which trees will grow well in your plant community.

Many municipalities maintain a list of suggested replacement trees for ash, so check with your local city or county's forestry division. Consult an arborist or forester for more advice to make sure you plant the right trees in the right spot.





Left: Extension Educator Mike Reichenback plants a northern white cedar along Lake Superior's North Shore.

Right: The copper-colored bark of river birch sets it apart from other trees.

Avoid Pruning or Wounding Oak Trees to Prevent the Spread of Oak Wilt Disease

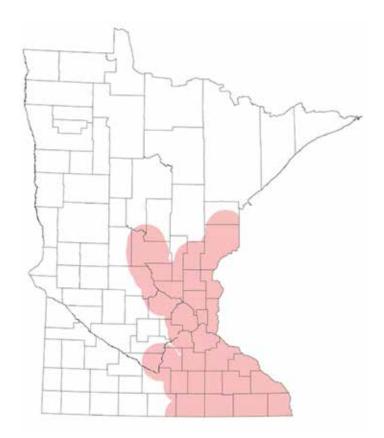
To help prevent oak wilt, forest health specialists are asking homeowners and landowners to avoid pruning or wounding oak trees in the spring. High risk months in Minnesota are typically April, May and June.

Oak wilt, first discovered in Minnesota around 1950, is a deadly disease that affects all species of oaks (Quercus) found in Minnesota. It is caused by a non-native, invasive fungus (*Bretziella fagacearum*, formerly *Ceratocystis fagacearum*) which invades the water-conducting vessels of oaks, eventually killing infected trees. While the oak wilt pathogen can infect all species of oak, those in the red oak group (leaves with pointed lobes) die about two months after infection. Bur oaks die between one and seven years after infection, while white oaks die from one to over 20 years after infection.

Spring is a particularly high risk season for oak wilt as the weather promotes the activity of sap-feeding beetles that can transmit the fungus that causes the disease.

Oak wilt infection spreads in two ways: above ground by sap beetles, and below ground through roots that have grown together, called root grafts.

To manage oak wilt, avoid construction activities near oaks and only prune trees if it is absolutely necessary, and seal the wound immediately with shellac or water-based paint. It



Known range in Minnesota where oak wilt is threatening shown in red areas.



Oak wilt-infected tree.

is also important not to move any firewood from oaks that may have died from oak wilt to other locations. Even if trees have been cut down for firewood, the fungus can survive underneath the bark for several months.

Today, oak wilt is widespread in the southern half of Minnesota and continues to expand its range northward, covering about one-third of the area where Minnesota oaks grow.

To slow the northward progression of oak wilt, focus on early detection, advising property owners with at-risk or infected trees, and oak wilt control on public lands at the northern edge of where oak wilt is found.

If you see oak wilt outside of the high risk zone, take photos of the tree, record the location, and email that information to your local DNR forest health specialist or DNR forester.



For MFA members, the two best online sources of woodland information are the MFA website at minnesotaforestry.

org, and the University of Minnesota Extension Forestry website at myminnesotawoods.

umn.edu.



Black Ash

By Kassandra Tuten, Editor

Black ash, *Fraxinus nigra*, is a medium-sized tree 40 to 65 feet tall with opposite, pinnately compound leaves 10 to 15 inches long with 7 to 11 leaflets. Trunks often appear leaning or crooked with thin, soft, ashy gray bark which tends to flake off when rubbed by hand. Black ash can be distinguished from all other ashes by the sessile lateral leaflets, meaning they have no petiole or stalk (although the terminal leaflet does have a stalk). It occurs primarily in poorly drained swamps and wet depressions.

Black ash most commonly grows in moist to wet muck or shallow organic soils, especially in swamps, floodplains, terraces, ravines and on small, poorly drained upland pockets. It is also the ash of northernmost distribution in the Lake States region.

Due to susceptibility to emerald ash borer (EAB), black ash is considered threatened and is not recommended for planting in the region and usually requires removal and/ or replacement if attacked. Most black ash will eventually be gone from our natural landscapes, so enjoy finding them out in the woods while there are still some around.

Black ask is a shade intolerant species and normally becomes established in even-aged pockets or stands following disturbance. Seedlings, saplings and sprouts tend to dominate the regeneration layer under partial openings in the canopy. Black ash is usually mixed with eastern white cedar, tamarack, black spruce, balsam fir, American elm, red

Right: Opposite on stem, length 9 to 16 inches, pinnately compound with seven to 11 yellowish-green leaflets each 4 to 5 1/2 inches long, oblong in shape, and not stalked except the terminal leaflet; terminal bud is large and pointed; leaves smooth on both surfaces; turn yellow to brown in autumn.

Far right: Flat, winged, oneseeded samara, 1 to 1 1/2 inches long; the wide, thin wing that is rounded or slightly notched at the end nearly surrounds the seed part; seeds usually germinate and start growth in the second year. maple and silver maple. It may also be sparsely present in mature forests dominated by larch, birch and beech maple.

The wood of black ash is strongly ring-porous, making it ideal for basketry splint, barrel hoops, snowshoe frames, canoe ribs and material for woven chair seats. The tree was also traditionally used as a medicine for many tribes in eastern North America.

Wildlife that frequents black ash habitat includes beavers, game birds, insect pollinators, migrant birds and songbirds. The winged seeds are eaten by a number of birds including wood ducks, quail, bobwhite quail, purple finches and pine grosbeaks. Mammals such as beaver, porcupines and white-footed mice also eat the seeds. Rodents and sometimes wild turkeys shuck off the wing and eat only the seed inside. White-tailed deer and moose feed on the twigs and foliage.

Did you know? Alternate common names for black ash, according to the USDA, include basket ash, hoop ash, brown ash, swamp ash and water ash.





Upcoming Events

Find more events, and more information on these events, at the MFA website, <u>www.MinnesotaForestry.org</u>,or by calling MFA at 218-879-5100.

Webinar: Native Plants for Pollinators June 11, 7-8:30 p.m.

A free webinar presented by Maplewood Nature Center. Learn how to start gardening with native plants to provide native bees and butterflies with what they need to thrive. Learn more online at www.maplewoodnaturecenter.com.

Webinar: Bee a Scientist with iNaturalist June 18, 1:30-2:30 p.m.

A free webinar presented by Maplewood Nature Center. Learn how a walk outdoors with your camera or smartphone can be transformed into research science observations that can be used by professional scientists. Learn more online at www.maplewoodnaturecenter.com.

Webinar: Organic Methods for Preparation and Maintenance of Wild Gardens

June 27, 10-11:30 a.m.

A free webinar presented by Maplewood Nature Center. Learn how to prep your pollinator project site using organic methods such as solarization and smothering. Learn how various treatments can change your soil chemistry to foster the things you want to grow, and discourage invasive weeds. Taught by Bob Dahm of Organic Bob. Learn more online at www.maplewoodnaturecenter.com.

Webinar: The Bombus Among Us -Bumble Bee Basics July 18, 2020, 1-2 p.m.

Author Heather Holm will illustrate the bumble bee life cycle through the growing season; the importance of selecting the right native (woody and herbaceous) plants to meet the nutritional needs of the queens, workers and males; their habitat; the impacts on populations from climate change; and common upper Midwestern and eastern bumble bee species. She will also feature species in decline including the federally endangered rusty patched bumble bee. Learn more online at www.maplewoodnaturecenter.com.

Webinar: An Update on Northern Long-Eared Bat and Canada Lynx Management and Monitoring on the Superior National Forest July 21, 12-1 p.m.

Speakers: Ron Moen, University of Minnesota Duluth and Dan Ryan, Superior National Forest. Learn about recent research on the northern long-eared bat and Canada lynx. Learn more and register: www.eventbrite.com/e/2020-sfec-umn-extension-forestry-webinar-series-registration-72744477691.

Save the Date:

MFA Annual Meeting

Oct. 2-3, 2020

St. John's University

More details to follow as the agenda gets firmed up in the coming year.



1111 Cloquet Ave. Suite 7 Cloquet, MN 55720 www.MinnesotaForestry.org

Change Service Requested

Letter to the Editor:

On Being Outside in the Time of Coronavirus

Recently, my wife and I drove up to our 80 acres of pine plantation and woodlands. We did not interact with anyone except our neighbors, and we kept social distance from them.

We had not been in the woods since late last fall because of the deep snow and poor conditions all winter for XC skiing, snowshoeing and ATV use.

But now, most of the snow was gone, and we were able to take an ATV tour of most of the property.

We saw no winter damage at all. We did see lots of opportunities for work in the woods, which we look forward to during these weeks of restrictions.

And I tried out my new Huskvarna lithium battery powered chainsaw, which worked great!

~ Don Janes