



# Minnesota Woodlands

MFA: an organization of, by and for Minnesota's private woodland owners and friends.

www.MinnesotaForestry.org

## Minnesota Forestry Association (MFA)

Information@MinnesotaForestry.org  
218-326-6486  
PO Box 496  
Grand Rapids  
MN 55744

## MFA Newsletter Vol. 14 No. 5

October/November 2012  
The Minnesota Woodlands Newsletter is published by the Minnesota Forestry Association.

## MFA Board Meetings

Cambridge DNR Office, 10 am – 3 pm

- October 23, 2012
- January 15, 2013
- April 16, 2013

### Conference Calls

8 – 9 am

- November 20, 2012
- December 18, 2012
- February 19, 2013
- March 19, 2013
- May 14, 2013

## Editor

Editor@MinnesotaForestry.org

## Design/layout

Peg Churchwell  
Lady Dog Design  
peg@ladydogdesign.com



## The Good News

You'll see plenty of negative news about Minnesota's forestry scene in this newsletter and elsewhere.

Our oaks and ash trees are under siege from a spreading oak wilt disease and the emerald ash borer. Six mills have closed in recent years resulting in a reduced market for our trees. DNR's private forest management budget has been slashed while the private consulting industry has not yet expanded to fill the void. The price of natural gas has plummeted from over \$8 per million cubic feet in 2008 to under \$3 today, calling into question the viability of biomass as a fuel.

### *So is there any good news?*

You bet! Our woodland is still our legacy. Benefiting future generations is a main reason woodland owners in their 50s, 60s and beyond still plant seedlings every spring, battle buckthorn and other invasive species and work at improving their timber stand.

It can be very satisfying knowing that one will leave their woodland in better condition than they found it.

## Duluth's Georgia-Pacific Plant Closed

*Adopted from a story in the Duluth News-Tribune*

Georgia-Pacific has permanently closed its Duluth hardboard plant, putting 141 employees out of work.

The plant made a thin hardboard product called Superwood that's widely used in the auto industry for interior parts like visors, door inserts, rear shelves and spare tire covers.

*Continued on page 3*





Minnesota Forestry  
Association  
2012 Board of Directors

**John O'Reilly**, *president*  
40361 Grace Lake Road  
Hinckley, MN 55037  
320-655-3901  
President@MinnesotaForestry.org

**Chuck Erickson**, *vice president*  
34115 County Highway 74  
Battle Lake, MN 56515  
218-495-3321  
Cell: 218-205-9001  
CYErick@prtcl.com

**Dennis Thompson**, *treasurer*  
130 Southgate Drive  
Aitkin, MN 56431  
218-927-6565  
Treasurer@MinnesotaForestry.org

**Lyle Keller**, *secretary*  
28814 Gilbertson Drive  
Peterson, MN 55962  
507-875-2215

**Bruce ZumBahlen**,  
*past president*  
8203 Innsdale Avenue South  
Cottage Grove, MN 55016  
651-458-0483  
ZoomerBruce@aol.com

**Al Schacht**  
58145 350th Avenue  
Zumbro Falls, MN 55991  
507-753-3214  
Schacht2Schacht@aol.com

**Gary Michael**  
DNR Forestry Program  
Coordinator  
1810 30th Street NW  
Faribault, MN 550211843  
507-333-2012  
Gary.Michael@state.mn.us

**Jim Hunder**  
15795 25th Court North  
Plymouth, MN 55447  
763-476-6310  
JHund@aol.com

**David Roerick**  
319 NE 8th Street  
Grand Rapids, MN 55744  
218-326-3774  
DRoerick@gmail.com

**Steve Earley**  
3173 Town Road 8  
International Falls, MN 56649  
218-283-9589  
Earley@FrontierNet.net

*Ex-Officio Members*  
**Mike Reichenbach**  
Regional Extension Educator  
U of MN Extension  
179 University Road  
Cloquet, MN 55720  
218-726-6470  
Reich027@UMN.edu

**Jim Lemmerman**  
6316 Nashua Street  
Duluth, MN 55807  
218-624-3847  
J.Lemmerman@clearwire.net

*Administrative Assistant*  
**Carol Cartie**  
PO Box 496  
Grand Rapids, MN 55744  
218-326-6486  
Information@Minnesota  
Forestry.org.

## MFA Board Actions

The MFA board meets every month. During January, April, July and October, the meeting is face-to-face at the Cambridge DNR Forestry office starting at 10 a.m. During all other months, the meeting is held via conference call. Any MFA member is welcome to sit in on the face-to-face meetings and listen in on the conference calls. See a list of board members and meeting dates elsewhere in this newsletter. Contact any board member for further information.

For a copy of minutes from any recent meeting, contact Carol Cartie at Information@MinnesotaForestry.org or 218-326-6486.

**Approving a concept for public service announcements.** The goal of the announcements will be to get private woodland owners coming to MFA's web site, www.MinnesotaForestry.org, seeking no-cost information on managing their woodland. Two announcements will be ready for distribution in mid-November, after the election.

**Appointing Steve Earley**, International Falls, to serve out the rest of David Lindroth's term. (See more below.)

**Discussing ways MFA can contribute to the National Tree Farm Convention** coming to Minneapolis July 25 – 27, 2013. (See more on page 8.)

**Discussing questions received from MFA members through our Call Before You Cut program** and how to serve the members best.

## Steve Earley Appointed

Following the sad and untimely death of MFA board member David Lindroth, Steve Earley was appointed by the board to serve out the 18 months remaining in David's term.

Steve has been a member of MFA for many years. He lives near International Falls and is a third-generation owner of forest and farm land in northern Koochiching County. Along with his wife, Christy, and two children, Steve operates Cedar Grove Farm, LLC, a Christmas wreath business and vegetable-flower farm selling through the local Farmers Market. Steve has a Master of Science degree from the University of Minnesota and is retired from Boise, Inc. as the Midwest Woodlands Manager. Earlier in his forestry career, Steve worked for the Wisconsin Department of Natural Resources, University of Minnesota and the U. S. Forest Service.

Steve's contact information is: 218-283-9589; Earley@FrontierNet.net



## Nominating Committee

MFA's nominating committee has recommended that Chad Converse, Motley; Peggy Meseroll, Esko, and Pat Lanin, Brainerd, be nominated for board positions. Their names will be included on the ballot sent to members with the next newsletter.

If you are interested in serving on MFA's board, contact committee chair Bruce ZumBahlen at 651-458-0483 or ZoomerBruce@aol.com.

## Fun Forestry Facts:

There are more trees in Minnesota today  
than 50 years ago.

Almost 100% of a tree can be used in the  
manufacturing of paper or wood products.



# Tree Care Advisors Core Course Training: OUTSTANDING!

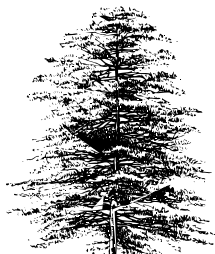
Tree Care Advisors is a vibrant program, similar to Master Gardeners, that focuses on the urban forest in Minnesota's towns and cities. The program operates under the enthusiastic leadership of Dr. Gary Johnson, U of M Department of Forest Resources, with Valerie Price as Volunteer Coordinator.



Tree Care Advisor Core Course Training is comprehensive. The next session will be conducted 8:30 a.m. to 3:30 p.m. over six consecutive Saturdays from April 6 through May 11, 2013. Entire Saturdays are devoted to deciduous trees with opposite leaves, deciduous trees with alternative leaves and coniferous trees plus other topics like plant selection, best planting practices, pruning trees and shrubs and evaluating tree and shrub conditions.

If you want to learn more about trees and shrubs, you will thoroughly enjoy these sessions!

There are two ways to pay for the training. One is to pay \$119 and commit to 50 hours of volunteer work the first year and 25 hours the second and following years or pay \$451 with no volunteer requirement.



For more information, see the enclosed brochure and the Tree Care Advisor web site at [www.MNTCA.org](http://www.MNTCA.org).

*Plant Closing continued from page 1*

## A statewide problem

"The Duluth closing is another blow to the wood products industry," said Wayne Brandt, executive vice president of Minnesota Forest Industries and the Minnesota Timber Producers Association.

"This is now the sixth large mill in the state that's been permanently closed in five years," he said. "That's a third or more of the industry."

Since 2008, three oriented strand board manufacturing mills closed in Grand Rapids, Bemidji and Cook with a loss of hundreds of jobs. In Deerwood, 158 jobs were lost when Weyerhaeuser closed its strand lumber plant.

Fueled by a recession and a slower construction market, the use of wood in the state dropped from 2005 to 2008 from about 4.1 million cords to 2.7 million, Brandt said. Things had begun to bounce back recently, he said.

## A paper mill closes too

And just this summer, the Verso Paper Mill in Sartell closed for good after a deadly Memorial Day explosion and fire. This closure left five paper mills still operating in the state. They are in Grand Rapids (UPM/Blandin), International Falls (Boise White Paper), Duluth (NewPage), Cloquet (SAPPI North America) and Brainerd (Wausau Paper).

## Meet a Tree Bitternut Hickory

Bitternut hickory also called bitternut, swamp hickory, pignut hickory, and yellow-bud hickory is the most abundant and uniformly distributed of all the hickories. Living to about 200 years, it is also the shortest lived hickory species. This dark brown, close-grained hardwood is highly shock resistant which makes it excellent for tools. It also makes good firewood.

In Minnesota, bitternut hickory is commonly found growing on moist, well-drained, sandy soils in the central and southeastern part of the state. Seed production does not begin until the tree is approximately 30 years old. Good seed crops occur every 3 to 5 years after that with nuts being dispersed from September to December. Because bitternut hickory wood is hard and durable, it is used for furniture, paneling, dowels, tool handles, and ladders. It is also a choice fuel for smoking meats.

Bitternut hickory seeds are eaten by wildlife but are of little value for human consumption because of their high tannin content and extreme bitterness. Early settlers used oil extracted from the nuts for oil lamps. They also believed the oil could be used as a cure for rheumatism.



Photos by Paul Wray, Iowa State University

# Buckthorn CAN be beaten. *John & Mary Peterson proved it!*

**Minnesota Woodlands editor:** “John, I know you and Mary have done a lot with buckthorn. Since our next issue will feature this pest, I’d like to come out to your place in Delano to talk about what you are doing and take a few photographs of actual work on the buckthorn.”

**John Peterson:** “You are welcome to come and we’re always happy to share what knowledge we’ve gained about dealing with buckthorn. But, if you want photos, we’ll have to go over to our neighbors since we no longer have any on our property.”

**Minnesota Woodlands editor:** “This I gotta see! I’ll be out.”

The land was homesteaded by the Peterson family in 1899 and is currently in a family trust. It is located on Highway 12, just east of Delano. Twenty-five acres of the land is wooded while the rest is cropland and wetland. John and Mary’s home is nestled in the woods, far enough from the highway that one gets the feeling of total privacy, yet they are just a mile and a half from a McDonald’s.

The Petersons’ buckthorn story began five years ago, in 2007, at a Woodland Advisor class where buckthorn was discussed. John & Mary checked their 25 acres and concluded, “It’s everywhere!” Next came motivation as DNR foresters Art Widerstrom and Alan Olson presented the Petersons with a sign designating their woodland as a Big Woods Heritage Forest. With that John said, “We became motivated to get rid of the buckthorn to help live up to the recognition Art and Alan gave us.”

In 2008, John and Mary went to work. Their first efforts were failures. John tried a foliar spray with 2,4,D but it did nothing. Then he tried cutting a few plants off at ground level but learned they would re-sprout. He tried digging up some smaller buckthorn plants but learned you have to get nearly 100% of the root or what is left will sprout. Finally, he tried pulling up some larger plants with a Weed Wrench. He found it is easiest to do when the ground is wet but it was still far too much work.

Finally, later in 2008, John and Mary settled on the approach they would follow to complete elimination of their buckthorn: Cut off the stem and, to prevent re-sprouting, immediately treat the stump with a mixture of one part Garlon and two parts base oil. For cutting, they use a chainsaw, lopping shears or hand clipper depending on the size of the stems. A pint-sized oil can is used to apply the Garlon-oil mixture to the entire stump of small plants and to just the cambium layer of larger plants.

Helpers in the process have been their son, who has a full-time career managing rock bands, and John’s mother, who is 87.

John likes clean-looking woods so he and Mary loaded all the larger stems onto a hay wagon and hauled them off to one of many burning piles.



*Above: Speaking of neat, even the Petersons’ firewood pile is perfectly straight!*

*Right: This Big Woods Heritage Forest sign, presented by DNR foresters Art Widerstrom and Alan Olson, provided motivation to deal with buckthorn.*



A few other things John and Mary have learned along the way that may help others include:

- The Petersons have worked on their buckthorn in all seasons but the fall is best because buckthorn holds its leaves longer than other plants so it is easy to spot, plus there are no mosquitoes and temperatures are cool.
- The female seed-bearing plants (the ones with the berries) are the priority. If John were to start over on the buckthorn project, he’d look for and deal with these plants first to stop reproduction. Young female plants do not produce seeds until the stems are about  $\frac{3}{4}$  inch, which is about seven years old, so there is plenty of time to go back and deal with the young female and all male plants.
- Working in patches of young buckthorn plants, John has determined he can cut and treat 400 per hour. (For us older folks, that means bending over 400 times an hour!)
- The process of eliminating buckthorn takes time. With good records of their work, John knows he and Mary invested 200 hours in 2008, 400 hours in 2009 and 500 hours in 2010!
- While Garlon is expensive (about \$125 per gallon), the oil can approach to applying the Garlon-oil mixture is very economical. John bought a 2- $\frac{1}{2}$  gallon jug of Garlon four years ago and still has half of it left.
- After leaves have dropped, it is hard to distinguish





*Above: The Petersons hauled all of the buckthorn brush out of the woods to burning piles.*

*Right: At 87, mom Lorraine Peterson still helps in the woods.*

*Far right: John Peterson's main tools, a lopping shears and an oil can for applying the Garlon-oil mixture to stumps.*



between buckthorn and chokecherry. However, after it is cut, the chokecherry wood is white and the buckthorn wood is more orange. When John does accidentally cut a chokecherry, he just doesn't treat the stump with Garlon so it will re-sprout.

- In working with buckthorn, you never get it all on the first trip through. John and Mary have covered parts of the land five times.

Thanks to John and Mary Peterson for demonstrating that buckthorn can be beaten!

## **The Minnesota Logging Education Program conducted a survey of loggers and learned the average logging business:**

- Has been in business 28 years
- Employs 3.9 full-time and 1.6 part-time workers
- Harvests timber with a feller buncher
- Is likely to replace old equipment with used equipment
- Reported their profit was "much worse" in 2011 compared to 2008
- Is concerned about stumpage prices, market prices and rising cost of doing business
- Anticipates being in business five years from now
- Is unlikely to transfer the business to a relative.



### **Where to get the materials:**

Obtain Garlon and Bark Oil Blue (less smelly than diesel fuel) from:

Dale Sutherland, Territory Manager  
 Timberland Division of CPS  
 23173 Hardwood Road, Bovey MN 55709  
 Office: 218-245-1903  
 Cell: 218-259-3605

Obtain the oiler online for \$12.99 plus tax and shipping at [www.Dutton-Lainson.com](http://www.Dutton-Lainson.com). Look for Industrial Oiler #720, part #56256.



# Oak Wilt is Spreading!



*Ryan Blaedow, Forest Health Specialist, Minnesota Department of Natural Resources*

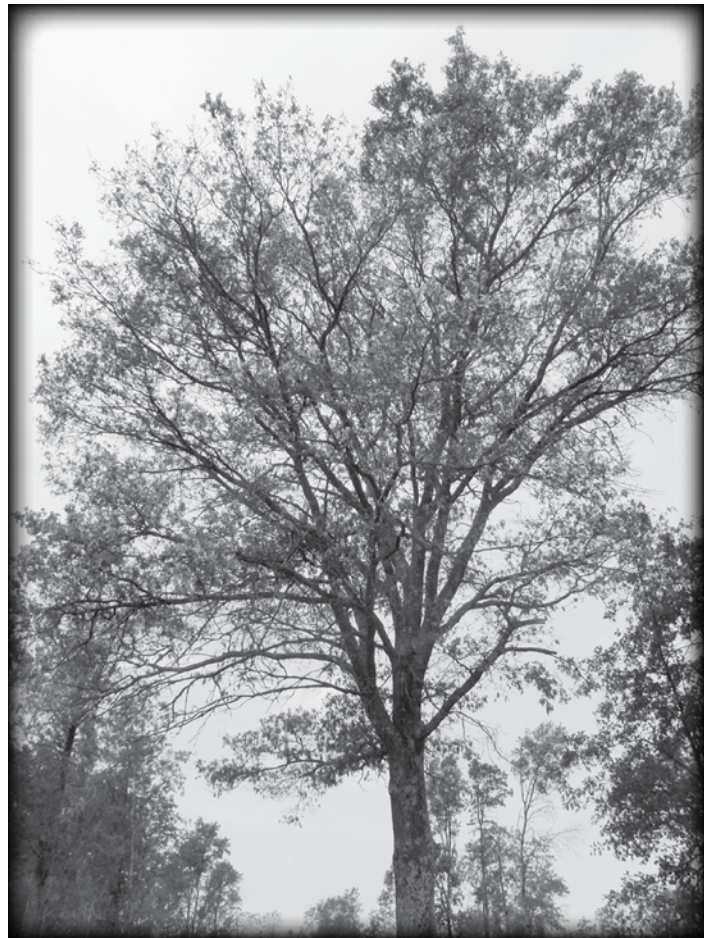
Oak wilt was first discovered in five counties in southeastern Minnesota in 1944, shortly after the disease was initially discovered and described in neighboring Wisconsin that same year. For years scientists were unsure if the fungus that causes oak wilt was native or introduced from some

other location, but there is now a growing consensus based on genetic studies and other evidence that *C. fagacearum* is in fact a non-native fungal species. However, its origin still remains a mystery as the fungus has never been found outside the eastern United States. Since its initial discovery, oak wilt has spread north and westward and can now be found in over 20 Minnesota counties. The disease was most recently discovered in Pine, Kanabec, and Benton counties and experts believe it is continuing to spread. It is not known for how long oak wilt will continue to spread naturally, if there is some limiting factor constraining its range, or what effect it might have on forests in northern Minnesota. However, where oak is prevalent there is a significant risk that this disease could have a devastating impact on our forest ecosystems.

Oak wilt is a deadly disease of oaks caused by the fungus *Ceratocystis fagacearum*. The fungus invades the xylem which is the portion of a tree's vascular system that transports water from the roots to the leaves. In response to infection, oaks "plug up" their vascular system to stop the invading pathogen from spreading, but this defensive reaction also restricts the movement of water in the xylem and as a result the tree quickly wilts. While all oak species in Minnesota are susceptible to the disease, white oaks and bur oaks may live for several years after becoming infected because the defense response is often limited to only those branches where the fungus is present. In contrast, members of the red oak group, such as northern red oaks and northern pin oaks, rapidly wilt and die within a few weeks to a few months of becoming infected because the defense response is triggered throughout the entire tree very quickly.

The year after a tree is killed, the oak wilt fungus produces a special structure called a "spore mat" beneath the bark. This spore mat, usually produced in spring on red oaks, is a black mass of fungal mycelium and is covered in millions of sticky spores. It is also very sweet and fruity smelling, often likened to bananas or bubble gum. The spore mat grows in size eventually cracking the bark open and lures in insects with its fruity aroma.

Several species of sap-feeding beetles, particularly *Colopterus truncatus* and *Carpophilus sayi*, are attracted to oak wilt spore mats to feed on the sweet smelling fungus where they become covered in the oak wilt spores. These beetles also feed on the sap produced from tree wounds such as those



*Northern red oak killed by oak wilt in St. Croix State Park in Pine County, MN; July 2012.*

*Photo by Mike Albers, Forest Health Specialist, MN DNR.*

caused by pruning or storm damage. If the wound is fresh, spores can be transmitted from the beetle to the wound and the fungus will then spread into the tree's vascular system.

Once the oak wilt fungus is transmitted to a fresh wound, it kills the tree and then spreads down into the root system. There, it can survive for many years and can easily spread to neighboring trees through root grafts, which are points at which the roots of two trees have grown together. Root grafts are very common between trees of the same species, but rarely occur between different tree species. Root grafts between oaks are very common in our forests, especially on sandy soils, so oak wilt can spread from tree to tree quite easily creating a pocket of dead and dying trees known as an oak wilt "disease center." In Minnesota, the vast majority of new infections are the result of root graft transmission of the fungus in disease centers. Overland transmission by insects, however, is responsible for the formation of new disease centers and long distance spread across the landscape.

Prevention is critical! Once a disease center forms, oak wilt can be very difficult to control, so the best option is to avoid wounding oak trees between April and July when spore-carrying beetles are most active. Wounds accidentally created during these months should be treated immediately with pruning paint. Diseased trees should be removed and the wood destroyed or tightly sealed under a plastic tarp to reduce the risk of beetles transmitting the fungus to

additional trees in the area. The only practical option for managing oak wilt, once the fungus begins to spread below ground, is to sever the root grafts between diseased and healthy trees with a vibratory plow or an alternative piece of trenching equipment. This process, while invasive and relatively expensive, is highly effective when conducted properly. While systemic fungicides are available that can be injected into oaks to provide one to two years of disease

protection, these treatments are expensive and usually reserved for high-value shade trees.

For more information on oak wilt and other forest insects and diseases, please visit the Minnesota DNR's Forest Health website at [http://www.dnr.state.mn.us/treecare/forest\\_health/](http://www.dnr.state.mn.us/treecare/forest_health/).



# Creature Feature



*By Jodie Provost, DNR Private Land Wildlife Habitat Specialist*

## Red Squirrel (*Tamiasciurus hudsonicus*)

The vocal, tenacious, little red squirrel is our creature of interest this newsletter. They belong to the family of small to medium-sized rodents called Sciuridae which includes tree squirrels, ground squirrels, chipmunks, marmots, flying squirrels, and prairie dogs. Ranging throughout our nation's snowbelt and most of Canada where forest and thickets exist, they are most at home in mature, continuous, coniferous forests. Despite causing occasional damage to trees and cabins, red squirrels are a very important element of a sustainable, functioning forest ecosystem.

Weighing less than 10 ounces, rusty red above, with a whitish belly, gray sides, and ears that are tufted in winter, red squirrels are noted for its bright eyes, perky disposition, and chattering, rattling call. Many a deer hunter has suffered their foot stomping, tail flicking, alarm display while in the deer stand.

Red squirrels mate in late winter following dizzying courtship chases. After a gestation of 35 -38 days, females give birth in early spring to two to five hairless babies. Nests are built in hollow trees or tree tops using leaves, twigs and bark to create a ball-shaped nest or "drey". Young squirrels are independent within 12 weeks. Only 25 percent survive their first year, when they reach sexual maturity. Life expectancy is five or six years.

Conifers seeds (especially pine, fir, spruce, and cedar seeds which have a high energy content), acorns, mushrooms, hickory nuts, walnuts and maple seeds are common foods of red squirrels. After eating, they may leave piles of shredded cones, husks and hulls more than a foot high. Thousands of cones, nuts and seeds are buried, either in small piles or singly, for use on winter days, creating "middens" for food storage which they fiercely defend. Perhaps you've observed mushrooms adorning a tree, wondering "What the

heck?" This phenomenon is caused by red squirrels picking mushrooms and impaling them on tree branches to dry. Other foods include buds, berries, insect larvae, sap oozing from holes drilled by woodpeckers, birds' eggs and young, and young rabbits and mice.

Though small in stature, the red squirrel's role in forest ecosystems and its benefit to humans is great and should not be underestimated. By burying seeds and nuts which are not always retrieved, they act as critical seed dispersers and tree planters in forest ecosystems. Their nests and midden tunnels serve as cover for other wildlife, such as martens and other small mammals. They are also an important prey base for many species of wildlife. Their predators are numerous, including hawks, owls, coyotes, foxes, weasels, fisher, marten and bobcats. They may be the single most common prey for marten, especially in the fall, based upon preliminary data from a current marten study in Minnesota by the DNR.

Finally, red squirrels also provide recreation for many hunters each fall. Although small, they are good eating. Minnesota squirrel hunting season extends from September 15th through the end of February. It's a wonderful way to introduce a young hunter to small game hunting and the pleasure of fall outdoor activities.



*A typical red squirrel midden or food storage area.*



## Tree Farm Convention Coming to Minnesota

The American Tree Farm System's 20th National Convention is coming to Minnesota from Thursday, June 25th through Saturday, June 27th, 2013. The convention's headquarters will be the Depot Renaissance Hotel in Minneapolis (the old Milwaukee Railroad Depot). This is a wonderful opportunity for Minnesota woodland owners to participate in a classic event. (You need not be a Tree Farmer to participate.)

The Minnesota Tree Farm Committee has begun the process to nail down the details. But, at this point, this is what you can expect:

- Thursday afternoon: registration, exhibits and silent auction followed by a welcoming general session and kick-off reception.
- Friday will feature breakout educational sessions followed by presentation of the regional candidates for Outstanding Tree Farmer of the Year, sponsored by STIHL, Inc.
- A convention highlight on Saturday will be a field trip to a local Tree Farm. Back at the hotel for the evening awards banquet, the 2013 National Outstanding Tree Farmer of the Year will be announced.

Given the size of the crowd expected and the numerous activities, MFA has offered to help the MN State Tree Farm Committee with volunteers. If you would like to help at the convention as a volunteer, or if you are not now a Tree Farmer but would like to become one, contact Bruce ZumBahlen, MFA's representative on the State Committee, at: zoomerbruce@aol.com or 651-458-0483.



### Pickaroon Winners

Congratulations to Jenny & Sam McFadden, Deer River, winners of a pickaroon for being drawn from among those who correctly answered this question: "Identify the name and hometown of the person pictured on our web site blowing Gabriel's horn at our Spring Field Day Event." The correct answer is Jim Ballenthin, Backus, Minnesota.

### We have another pickaroon to give away. Here is how YOU can win it:

1. Go to our web site, [www.MinnesotaForestry.org](http://www.MinnesotaForestry.org)
2. In the middle of the page under Meet a Member, find the last names of the three families pictured.
3. Send your answer in an email before November 15th to: [Information@MinnesotaForestry.org](mailto:Information@MinnesotaForestry.org)

The winner of the pickaroon will be determined by a drawing of those who correctly answer the question. If you can't wait and want to buy a pickaroon, call Pat Lanin at 218-764-3315.

Have you seen all the photos of Spring Field Days?  
Check them out at [www.MinnesotaForestry.org](http://www.MinnesotaForestry.org).



Thinking of harvesting timber on your land?

*Call Before You Cut*

A free service for members of the  
Minnesota Forestry Association

**218-326-6486**