

Tree Farming for

Summer 2016



Better Forests



*Meet Emily Hill.
She is just where
she wants to be - close
to Dad and in the
woods.
(See story on page 6)*

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Tree Farming for **Better** Forests

Summer 2016



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Published by the Minnesota Tree Farm Program
& BetterFORESTS Magazine.

Tree Farming for BetterFORESTS
is sent FREE of charge to Minnesota Tree Farmers.

It is also available by subscription for \$24.00 per year
or \$46/two years for non-Tree Farmers.

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On the cover...

The photo on the cover of this issue of **Tree Farming for BetterFORESTS** was taken by Sonja Hanson of Grand Rapids. This stay-home mother of two is a very active volunteer in her daughter's elementary school, and a good friend of Emily Hill's family.

Editorial

By Kathleen Preece

Dear Meg,

This morning's walk is punctuated with ripe raspberries. And everything else is lined up, just as it should be: roadsides are orange-splashed with black-eyed Susans, oaks are committed to acorns, and the perfume of milkweed sweetens entire hillsides. All of this reminds me of you. Like the seasons, you had a way of being there – appropriate, on schedule, right time/right place.

For nearly four decades, through your professional service to the natural resources community, you touched lives, Meg. Arbor Day. Arbor Month. The School Forest Program. The Minnesota State Fair. Posters, speeches, artwork, program development, cheerleading. You educated the public about Dutch Elm Disease, introduced Project Learning Tree to Minnesota, created a large stack of posters and outreach products such as the *Arbor Month Packet* and *A Teachers' Guide to Arbor Month*, *Minnesota's Forestry Primer*, *Citizens' Guide to DNR Forestry*, and *Tree Talk*, along with policy documents and legislative work too numerous to count.

You made certain that all of us 'wrote it right.' You told us that the better we communicated, the better we would do our jobs. You said writing was a key to success.

Your attention to the proper use of words, including their spelling, capitalization and usage was impeccable. You told us to use red pine, not Norway pine; that 'timberland' was one word and 'box elder' was two.

As your Department of Natural Resources colleague Laura Duffey pointed out, the world was a much different place when you began your work in natural resources. Women in non-clerical positions were rare in the workplace. You broke many glass ceilings as you moved up the ranks into supervisory roles with the DNR. You were a trailblazer and a consummate professional.

Your office was a jungle of live plants, photos of rescued dogs and cats, and pictures of the horses to whom you dedicated so much of your life— all evidence of your passion for living things.

Your untimely death on Memorial Day, a month before your retirement, challenged many of us. Your obituary concluded with a phrase from Robert Frost's poem "Birches."

"Earth's the right place for love. I don't know where it's likely to go better. I'd like to go by climbing a birch tree, and climb black branches up a snow-white trunk - toward heaven."

We brought your ashes north, Meg. Per your wishes, we will scatter them throughout nature. Earth is the right place for you. And we are better for it. ■

Nonforested or non-forested?
Groundwater or ground water?
Balm-of-Gilead or balm-of-Gilead?
Douglas fir or Douglas-fir?
Houseflies or house flies?
Jack pine or jack pine?
Nonnative or non-native?
Forestland or forest land?
Saw log or sawlog?
Smokey Bear or Smoky Bear?

In the Capitol Halls of Washington DC

On Wednesday April 20th, Congressman Bruce Westerman (R-Arkansas) and a bipartisan group of members of Congress launched the *Working Forests Caucus*. The caucus, which is co-chaired by Rep. Westerman and charter members Jaime Herrera Beutler (R-Washington), Sanford Bishop (D-Georgia), and Collin Peterson (D-Minnesota) was created to promote the benefits of America's working forests and support policies to promote this renewable resource.



A new House coalition was created to call attention to, and facilitate discussions on America's private-owned working forests including family-owned forests.

The co-chairs are seeking other House members to join the Caucus. Joining members are not committing to any specific policy positions, but are rather expressing their interest and support for America's working forests, including family and individually-owned forests.

Updates to the tax code, as well as changes in how the Environmental Protection Agency (EPA) treats forest

biomass and declaring it carbon neutral, are goals of the caucus. A total of 45 members from the Democratic and Republican parties from all over the United States have signed on to be inaugural members of the Working Forests Caucus.



Minnesota Tree Farm Tom Ploof joined Congressmen Westerman, Peterson, Herrera-Beutler and Bishop on a panel to help launch the Caucus,

Minnesota's Tom Ploof testified: "Minnesota forest owners and loggers provide a healthy respect for forests while producing some of the finest products in the world," Ploof said. "The forest industry supports more than 30,000 hardworking people in Minnesota and grows three times as much as is harvested. I am looking forward to the Working Forests Caucus and promoting the benefits of private timberlands for our nation's rural economy."

Read a bit more about Tom Ploof and his brothers on page 18 to learn what he does 'back home' when he is not in the halls of the nation's Capitol.

Minnesota State Tree Farm Committee:

I want to say THANK YOU for finding an excellent Tree Farmer in Mr. Tom Peterson's district for the Working Forest Caucus event. Tom Ploof stole the show--he was personable, had a great story to tell, and overall did exceptional.

I had more than a dozen people come up to me after the event (which was a packed room--probably 100 people) and tell me that Mr. Ploof was one of the most compelling of the speakers.

Thank you! He represents Minnesota, and all Tree Farmers exceptionally!

*Rita Hite, Executive Vice President
American Tree Farm System of the
American Forest Foundation*

... in the halls of the Minnesota Capitol

A few major items for forestry have come out of the 2016 Minnesota Legislative Session:

1. Sustainable Forestry Initiative reform was included in the Tax Bill.
2. \$2.5 million was appropriated to the Minnesota Department of Natural Resources (DNR) - Division of Forestry to help rebuild their capacity to provide assistance to private forest land owners. Some of this will be for cost share assistance.
3. While there was no bonding bill, the DNR Division of Forestry was appropriated an additional \$1 million from the Forest Management Investment Account for reforestation.
4. Language was included in the Supplemental Appropriations bill that provides the authority to the DNR to use the Forest Management Investment Account for Good Neighbor Authority projects. This language also allows other similar partnering activities.

As we go to press, the comments above assume the Governor has signed the Tax and Supplemental Appropriations bills.

Tamaracks Under Duress

By Brian Schwingle,
Minnesota Department of Natural Resources Forest Health Specialist

An unprecedented outbreak of mountain pine beetle in the West has gotten a lot of press in recent years. If northern Minnesota had mountains to show the general public its tamarack forests, our eastern larch beetle would be getting a lot of media attention too. Eastern larch beetle is a tiny native bark beetle that has had an enormous appetite since 2000, and there is no sign that it's going to stop.



Photo shows a large quantity of tamarack killed and being killed (the yellow ones) by eastern larch beetle.

The DNR and U.S.F.S. monitor the health of Minnesota's forests in several ways, one of which is through aerial surveys. Lots of dying tamaracks were noted during surveys in 2000, and in 2001 the cause was determined to be the eastern larch beetle. From past outbreaks of larch beetle throughout North America, scientists predicted the outbreak would last a few years and then stop.

This bark beetle did not follow population dynamics of the past though. The DNR determined that from 2001 to 2015, eastern larch beetle devastated at least 160 square miles of Minnesota forest. That's an area significantly larger than the municipalities of St. Paul and Minneapolis combined! Not every beetle-infested tamarack forest has been devastated though: eastern larch beetle has or is affecting to some degree at least 365 square miles of Minnesota forest (an area equal to 6¼ times the footprint of Minneapolis).

Researchers with the University of Minnesota and U.S.F.S. have delved into the possible causes of this outbreak. Their work shows that in recent decades, northern Minnesota winters haven't had as many minimum temperatures that kill overwintering larch beetles. Also a U. of Minnesota

researcher demonstrated that with a longer growing season, the bark beetle has the potential to achieve a second generation. Less winter die-off of overwintering beetles plus additional generations would greatly speed the population growth of the bark beetle. Since areas across the continent along the southern range of tamarack are now starting to see eastern larch beetle infestations, it seems reasonable to conclude that

climate is a factor in promoting this bark beetle.

When weather conditions are driving the population of a native pest across an enormous area, little to no action can be done to control the insect, evidenced by the problems the West has had with mountain pine beetle. Goals of forest managers in such situations focus on making forests resilient or not susceptible to the pest in question. Ideally forest managers would harvest, regenerate, and possibly diversify every tamarack stand that has just been attacked or is near an attack. Unfortunately managing tamarack is challenging and not simple. Tamaracks grow on sites that generally can only be accessed by harvesting equipment in the winter, but not every winter allows for harvesting in any given tamarack swamp. Perhaps more important at limiting management of tamarack is the lack of robust markets for tamarack wood.

Incidentally, tamarack's woes don't stop with eastern larch beetle. A little caterpillar called the larch casebearer has also been in outbreak mode since 2000. The larch casebearer has defoliated, to some degree or another, about 190 square miles of Minnesota's tamarack forests since 2000.




Once the casebearer has dined for the year, heavily defoliated tamaracks grow a second set of needles. Tamarack can tolerate such feeding for many consecutive years, but it does slow their growth and increase stress. At this point, about 7.5% of the area impacted by casebearer also has mortality, presumably from the eastern larch beetle.

In summary tamaracks across a huge area are under attack by a native bark beetle that is probably being promoted by climate of the last two decades. Forest managers could lessen the ecological and financial impact of this pest if winters consistently froze

tamarack swamps for harvesting and if there was a strong demand for tamarack wood. Unfortunately, the necessary harvesting conditions are inconsistent and the demand for tamarack wood is weak. Eastern larch beetle continues to kill many of Minnesota's mature tamaracks and there is no sign it's going to stop. To add insult to injury, larch casebearer has also been stressing many tamaracks since 2000. ■



Devastated forests are defined in this article as forests where surveyors noted over 50% of mature trees dead.



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Like Father.

Like Daughter.

What could a person put into words about Emily Hill, that a picture didn't say much better?

Twelve-year-old Emily is, according to her dad, Mike, probably the most overpaid and underworked employee he has – and he likes it that way.

If Emily had her way, she likely would be taking over her timber harvester dad's Calument-based business. In fact, as a young child, she began doing just that. Mike, a logging contractor with Blandin Paper, and his wife Debbie, admit that their daughter “wanted to be with her dad” when she was just a toddler. So, still, in diapers, Emily went to the woods with Mike.



“If I wanted to hang out with my dad, that was the only way it was going to happen,” she admits of her hard-working dad. “Plus, I like being in the woods and I like the physical work of woods-work.”

She admits she is scared only sometimes, and that is of the thought she might pull the wrong lever or “get my fingers smacked!”

Firewood cutting and stacking were always on the work schedule, with Emily doing a lot of stacking before she began running the equipment. She started her woods work behind the wheel of an all-terrain-vehicle; Emily now is behind the wheel and the computer of a firewood multi-processor.



“If I wanted to hang out with my dad, that was the only way it was going to happen.”

This otherwise traditional middle school-er loves tennis and basketball when she is not in the woods. She doesn't plan to take over her dad's business, but she does want to be 'close to wood,' perhaps as a refinisher of furniture and to do woodworking herself.

Proud, but cautious dad Mike concurs with Emily's thoughts of a job less – well, less rigorous. Mike admits: “I am teaching her a job skill I truly hope she doesn't use!” ■



Take Time to Appreciate 'Big Sponge'

By Aitkin County
Land Commissioner
Mark Jacobs



Editor's note:

Aitkin County Land Commissioners 'shines a light' on the waters of Aitkin County in this opinion piece, first published in the 'Aitkin Age' county newspaper. In this land of over 10,000 lakes, it is prudent for all of us to shine a light on those waters in our part of the woods.

In light of the recent celebration of Earth Day and Arbor Day, I'd like to shine a light on what may be our most important forest product - water.

It's sometimes difficult to appreciate water this time of year when it seems to be everywhere, but the quantity and quality of our local water resources is something to be treasured. To illustrate the importance of our water, Gov. Dayton recently held a summit to focus on water quality in Minnesota. Much of the media reports from the summit focused on the impaired waters in the state; primarily in southern and western Minnesota.

At a recent conference I attended on forests and water it was apparent that Aitkin County ranks very high in water quality.

The primary reason for the high water quality is that the Aitkin County land base has over 750,000 acres of forest; interspersed with thousands of wetlands. Aitkin County is part of the "big sponge" of the Upper Mississippi River watershed ... the large block of forests and wetlands that filter water going to our lakes and streams; and ultimately the Mississippi River.

New York City figured out the connection between forests, land use, and water quality years ago. Instead of spending billions of dollars on water treatment facilities, they invested in promoting responsible forestry and agricultural practices through

education, acquisition, and financial incentives; within the 2,000 square-mile watershed that provides drinking water to nine million people. This not only provides clean water and incredible savings on water treatment, but retains the economic benefits of forestry, farming, and recreation in the watershed.

Aitkin County's roughly 1,200 square miles of forest also supplies clean water to millions of people downstream. Our forests are also working forests; as roughly 2 percent of our forests have timber harvesting activity annually. Historically, it has been implied that timber harvesting is a significant threat to water quality; however decades of research in Minnesota indicates differently. Long term studies in Minnesota show that when rain falls on forests an average of 40 percent evaporates, 50 percent soaks into the soil, and only 10 percent runs off. Even after a clearcut the runoff increases but it accounts for less than 20 percent of the total onsite rainfall.

That run off percentage decreases each year as the new forest grows; returning to preharvest levels in 10-15 years. In an average urban setting more than 55 percent of rainfall runs off site. The studies also show that a mosaic of open land, young forest, mature forest, and wetlands across a watershed desynchronizes spring snow melt, reducing flood events. Watersheds with a significant amount of wetlands intercept and filter much of the runoff before it ever reaches lakes or streams.

Monitoring the Guidelines

By Jennifer Corcoran

Minnesota Department of Natural Resources-Division of Forestry



The Minnesota Forest Resources Council's (MFRC) *Site-Level Forest Management Guidelines* establishes best management practices for harvest and management on forested lands in Minnesota. Monitoring of the usage of these guidelines has been done since 2000 and the most recent report was released earlier this year. Forest disturbances were mapped using satellite and aerial imagery, detecting a total of about 33,000 acres of change occurring between summers of 2010-2014 within 10 major watersheds in the forested portions of MN (total area = 9.6

million acres: Mississippi Headwaters; Mississippi Grand Rapids; Rainy and Vermillion River; North and South Lake Superior; Rum River; and Red Lake, Red Lake River, and Clearwater watersheds).

Overall use of key guidelines in 172 randomly selected harvest sites showed improvement compared to previous reports, including (implementation rates across all sites are shown in parentheses): management within Riparian Management Zones (80%), filter strip management (97%), retention of leave trees (84%) and snags (96%), retention of fine woody debris on biomass harvest sites (69%), avoiding rutting on wetland crossings (87%), minimizing infrastructure (e.g. roads and landings; 82%), and coarse woody debris retention (99%). Guidelines that demonstrate lower or no improvement of implementation include avoidance of wetland crossings (72%), use of erosion control where needed (20%), development of written management plans on private lands (50%), and implementation of some visual quality guidelines (75%).

Conducting guideline monitoring at the watershed scale has increased the understanding of variation in guideline implementation across the state and reveals interesting results and relationships not previously identified with purely statewide estimates. Specific opportunities for improvement at the watershed scale are noted throughout the report. Recommendations include general introductory training for new foresters and loggers, outreach to stakeholders to increase awareness and implementation of the 2012 revised guidelines, targeted training related to wetland identification to avoid crossing wetlands, and identification of situations where water diversion and erosion control practices need to be implemented. Continuing education programs, such as Minnesota Logger Education Program and the Sustainable Forestry Education Cooperative, are encouraged to continue their efforts related to these recommendations, and work to develop new educational opportunities to address the specific topics identified above.

If appropriate best management practices (BMP), such as filter strips to trap sedimentation from runoff, are applied little or no sediments leave a timber harvest site.

In 2014/2015, 172 forest harvesting sites were evaluated in six Minnesota watersheds for BMP compliance, by the Minnesota Forest Resources Council (see sidebar on right for information on the monitoring program). Of the 838 filter strips evaluated, in only one instance did any sedimentation make it to a water body, illustrating that BMPs are a reliable safeguard for water quality. In watersheds that include portions of Aitkin County, the 57 sites audited indicated a 99 percent compliance rate in appropriate filter strip implementation.

Aitkin County's working forests provide wood products, wildlife habitat, recreation opportunities, clean air, and clean water. So take time to appreciate the "big sponge" - our vast, healthy forests and their contribution to our quality of life, including clean water for us and those downstream. ■

BIG news for SMALL Woodland Owners

On April 5, the U.S. Green Building Council (USGBC), the governing body for the Leadership in Energy and Environmental Design (LEED) green building rating system, announced it will begin encouraging more responsibly-sourced building materials through a new compliance “path.” This path includes wood harvested from family forests that has been certified by the American Tree Farm System (ATFS).

This change in the LEED rating system is a win for wood, allowing a significantly larger portion of sustainable wood products to qualify for the LEED standard; builders and architects can now receive credit when they build with wood that has been harvested from family-owned forests. And it’s a win for woodland owners. Allowing more wood to be used in green buildings creates more markets for Tree Farmers.

As background, the USGBC was established in 1993 with a mission to promote sustainably-focused practices in the building and construction industries. A coalition was formed among the building industry, and an endorsement for a ‘green building rating system’ was decided upon. This later became LEED.

LEED, unveiled in 2000, has become an international standard for environmentally sound buildings. It is a certification program that guides the design, construction, operations and maintenance of building projects toward sustainability. In order to count towards a LEED point, the user must first know that 100 percent of the forest products are from legal sources, 70 percent from responsible sources, and the remainder must be certified sources as evidenced by a chain of custody certification.

This new path to Tree Farms has not been an easy one to bushwhack. In the past, points for

wood did not add up in the LEED system, thus there were few incentives for builders to choose wood instead of other building products, such as concrete and steel. Procurement standards failed to recognize all credible forest product certification programs, and LEED-only legislation has predominated.

Landowners, building product producers, and ATFS have worked for almost a decade to change LEED and its dominance over government policy so that wood has a level playing field in the green building markets, and to open up LEED to be more receptive to U.S.-grown forest products. Today, there are nearly 75,000 commercial projects participating in LEED across the globe, with around 1.85 million square feet being certified daily.

So what does this mean to you, as one of the nation’s Tree Farmers? Simply said, LEED will now be giving credit to builders who use wood from ATFS certified forests. The decision has been touted as a major victory for Tree Farmers.

The new LEED path will help support markets for sustainable wood from land certified through ATFS as well as from the Sustainable Forestry Initiative (SFI) and Programme for the Endorsement of Forest Certification, and the Forest Stewardship Council.

It has been proven that wood is up to the task! (In 2015, the University of British Columbia approved an 18-story residential building for students that will be made almost entirely of wood. The Tall Wood Student Residence will rise 174 feet into the air, making it the tallest wooden building in North America.)



It's 1941. President Franklin D. Roosevelt is inaugurated for an unprecedented third term; Germany and Italy declare war against the United States; the thoroughbred, Whirlaway, becomes the fifth horse ever to win the coveted Triple Crown; and Yankee center fielder Joe DiMaggio's hitting streak is ended by pitchers Al Smith and Jim Bagby of the Cleveland Indians.

And, on June 12, Washington State Gov. Arthur Langlie joins other dignitaries to dedicate 120,000 acres of Weyerhaeuser land as the nation's first official Tree Farm. The Tree Farm showcases a new-growth forest of both naturally seeded and planted trees on land that has been logged and burned.

In conjunction with the commemoration, the Weyerhaeuser company suggests using an equation that will help all forest landowners become Tree Farmers:
fire protection + fair taxation + forestry expertise = an entirely new sustainable industry built on forest management.

"Fire protection." "Fair taxation." "Forestry expertise." The factors in the infamous equation have been added, multiplied, divided, and served in summation for over seven decades to showcase ATFS and its commitment to giving people the tools they need to be effective stewards of America's forests. Now, the organization and its program celebrate a diamond jubilee: 75 years of the American Tree Farm System (ATFS).

It's 2016. The American Tree Farm System celebrates a diamond jubilee with the light of over 90,000 Tree Farms across the nation whose landowners individually and collectively contribute to the vitality and sustainability of the nation's forests.

Here in Minnesota, the light of nearly 2,000 Tree Farmers serves as the marquee that says: "Water, Woods, Wildlife, Recreation." The following pages share just a few of the stories of the Tree Farmers who keep that message shining.

Minnesota Honors its Tree Farmers



*From Minnesota State Tree Farm
Chairwoman Mary Perala:*

Wood. Water. Wildlife. Recreation. The four sides of the Tree Farm sign tell the story of sustainable forestry ... a thriving forestland that has clean water, healthy wildlife habitat, and recreational opportunities. Our green and white diamond shaped Tree Farm and Family Forest signs are widely recognized across the country. This year, the Tree Farm program celebrates 75 years of supporting private land-owners in the stewardship of their woodlands. It is a network of nearly 85,000 family forest owners who are committed to excellence in forest stewardship in 46 states with the support of professional foresters.

The Reister Family is being recognized in BetterFORESTS as the Minnesota Region 4 Tree Farmer of the Year . The Riesters have 230 acres in the Tree Farm program in Goodhue County. Tree Farm Inspector Larry Westerberg nominated the Riesters for the region award highlighting their exemplary sustainable management practices and public outreach efforts. I am delighted to also share that the Riesters were elected by the State Tree Farm Committee to receive the honor and distinction of overall 2016 Minnesota Tree Farmers of the Year.

Read on to learn a bit more about the Riester Tree Farm!

The Riester Tree Farm has been a labor of love for the extended family and they have done an outstanding job implementing a variety of practices.

Minnesota State Tree Farmers of the Year: *John & Vicki Riester & Family*



by **Linda K. Dinkel**, Editor, **Minnesota Woodlands**

It's not difficult to get Minnesota Forestry Association members John and Vicki Riester to talk about the family, friends, foresters, soil and water conservationists and contractors who have worked with them over the years to improve their 602-acre property near Red Wing, Minnesota, nor is it hard to get them share stories of the many people and organizations who enjoy their land. What is tough is to get them to take credit for their years of work and commitment to improving their Tree Farm. That will have to change, however, since being recognized as Minnesota's 2016 Outstanding Tree Farmers of the Year. It's a spotlight that they're quick to share with others.

"So many people have worked out here and helped us over the years, planting or pruning trees, planting wildlife feed plots or installing water retention ponds. They deserve recognition as much as we do, especially our kids, Ryan, Kevin and Katie. And our neighbors, Charlie and Diane Grabow, had started conservation prac-

tices before we even bought land from them," said John. Indeed, the Riester's property has been a hub of outdoor work and activity for many people from the Red Wing area.

John and Vicki both grew up near Wabasha, meeting in high school. The nine Riester siblings learned conservation practices early in life from their parents, Leonard and Mae, as they pruned and planted in the woodlands surrounding their farm. John considered pursuing a degree in forestry, then attended Rochester Community College until enlisting in the military and serving in Korea for two years. During this same time, Vicki attended Winona State, graduating with a degree in Art in 1975. After the service, John went through the MN State Southeast Technical College's Refrigeration program, and the couple married in 1975, settled in Red Wing, and started their business, Riester Refrigeration, that same year. The business still occupies a great deal of their time.

Continued on page 14...



“Our business and our family have always kept us really busy. When we bought the first 160 acres here in 1990, there was even more work to be done, but it was a different kind of work. For us, working on the land out here is recreation,” said John. Originally, the farm was an active, 30-acre orchard business. “We really didn’t have enough time to run both the apple orchard and the refrigeration business,” said Vicki. Over the years, they changed the priorities, eliminated the orchard business, and focused their efforts on purchasing more land and managing it for quality timber, wildlife habitat, farm land and expanding recreational uses. The opportunities and blessings haven’t been lost on their children. “Ryan, Katie and I have been fortunate enough to call this property home. We’ve used it for recreation, but we’ve also learned a great deal about managing property and the work that it takes to maintain it. We have our parents to thank for that,” said Kevin Riester.

If you ask John how they came by their knowledge of woodland management, he smiles sheepishly and says, “We were just too busy to attend workshops, even though we wanted to. I had learned some fundamentals from my dad, and after that, we learned by doing, and by getting a lot of advice from Soil and Water

and DNR people. I can’t say enough about how knowledgeable they are, and how good they are at what they do. People like Terry Helbig, Chris Fritz, Tom Steger, Larry Westerberg, Bruce Zumbahlen, Mary Perala, Keith Jacobson, Paul Callas, and Beau Kennedy played a big part in teaching us what we needed to know to manage our land.”

Currently, the Riesters have 230 of their 324 woodland acres certified in the Minnesota Tree Farm program. They rent out an additional 270 tillable acres to Hadler Farms and Balow Farms, who are committed to following good conservation practices. Some of their woodland management practices include an initial planting of black walnut, oaks, and ash interspersed with soft maple to encourage rapid, straight growth, followed by pruning and removal of the maple as the crop trees mature. John also sprays Garlon on the lower 12 inches of box elder trees to eliminate these trees and encourage more desirable species. Removal of buckthorn is planned for this summer.

Touring their farm, one is struck by the beauty of the rolling fields nestled between wooded hills and steep ravines. “Any hard rain we get here is in the Mississippi within an hour, so control-



ling erosion and water flow is an important focus for us," said John. With guidance from the Goodhue County Soil and Water Conservation District, the Riesters planted grass buffer zones and waterways between fields and forests and have installed twenty water impoundments and ponds to reduce soil erosion. "We really depended on Soil and Water to steer us in the right direction," said John. "We received some cost share from the state for the impoundments, and we just thought that if we were going to receive this help from the state to improve our land, it was important to share the land with others," said John. In addition to the many friends and family who enjoy hunting, working and skiing on the farm, Riesters also worked with the Red Wing Snowmobile Club to establish a trail on theirs and neighboring property and encourage outdoor activities and learning by sharing their property with Red Wing High School, the National Wild Turkey Federation, Pheasants Forever, Ducks Unlimited, and the Red Wing Environmental Learning Center. It's about passing on a love for the outdoors to others.

"Our parents and grandparents on both sides of the family really instilled a love of the outdoors in us," said Vicki. "Living out here, working with our friends and kids, and now our grandkids on the land, teaching them to identify birds and

care for the woods and wildlife, I think we've been able to pass on that love to them. That's really the most important thing we can do with the land, is pass on that passion to others." With grandchildren in the area, that part of the plan seems likely to succeed. "I hope that our kids can enjoy the property like we have. They're all pretty young yet, but they've already helped haul firewood and plant trees. I think that having them help with these things will teach them a good work ethic and help them appreciate the outdoors and the property. My parents learned these values from their parents and they taught us the same. We plan to continue that trend with our children," said Kevin.

For their efforts in conservation, woodland and wildlife management, and their willingness to share their land and outdoor experiences with others, the Riesters, (and their family and friends!) embody all that the American Tree Farm program represents. Congratulations, John and Vicki!

Region 2 Tree Farmers of the Year: *Don and Lorri Mitchell.*

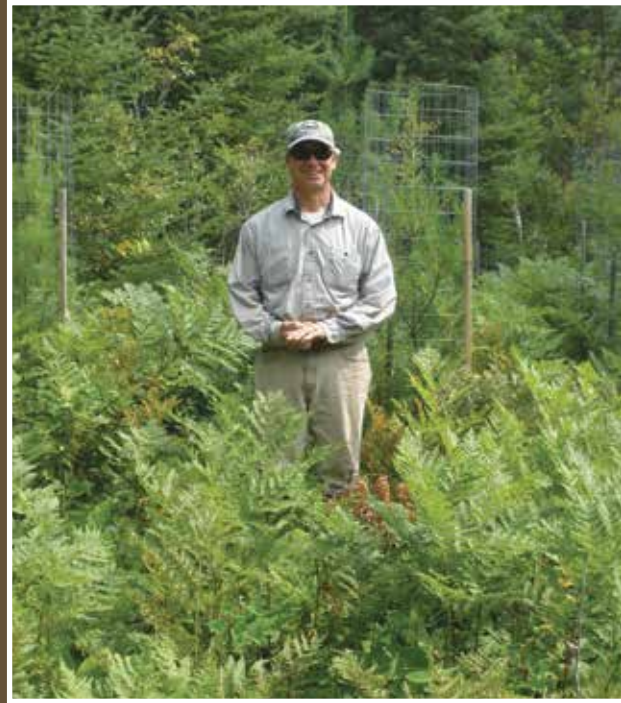


The Minnesota State Tree Farm Committee is honored to present the 2016 Region 2 Tree Farmer of the Year award to Don and Lorri Mitchell of Duluth.

The Mitchell's have owned and managed their 160 acres in St. Louis County for more than 20 years. They are passionate forest land managers and have harvested pulpwood and firewood from their land. They also maintain trails and wildlife openings throughout.

Starting in 2008, with the help of their sons, they have planted 2,500 trees that include a variety of tree species along with fruit bearing shrubs to provide habitat diversity to their landscape. Being avid trout anglers and lifetime members of Trout Unlimited, in 2013, the Mitchells entered into a stream easement project with the DNR to provide protection and angler access along the French River that winds through their property and flows into Lake Superior. The Mitchell's were nominated by Tree Farm Inspector Jan Bernu.

The Tree Farm Committee applauds the Mitchells for their commitment to the woods, wildlife, waters, and recreation of the State of Minnesota.



Region 3 Tree Farmer of the Year: *Allen Billstrom*



The Minnesota State Tree Farm Committee is honored to present the 2016 Region 3 Tree Farmer of the Year Award to Allen Billstrom of Mora.

Allen has owned his 56 acres in Kanabec County for 40 years and has been a member of the Tree Farm Program for 26 years. Allen is a highly engaged landowner and has actively managed his land planting trees, thinning Norway pine, harvesting Silver Maple logs, implementing invasive species controls, and preserving the integrity of the riparian area long the Snake River that runs through his property.

He has generously hosted a "Walk in the Woods" public field tour on his Tree Farm to share his management knowledge with the local community. Allen exemplifies the values of the Tree Farm Program by managing his property sustainably for the values of Woods, Water, Wildlife and Recreation. Allen was nominated by Tree Farm Inspector Tony Miller.

The Tree Farm Committee takes off its hat to Allen for his passion for woodlands, and for opening his woodlands as a demonstration area for pine thinning, invasive species control, and protection of the Snake River.



Tree Farm Inspector of the Year:

Tony Miller



The backbone behind the Tree Farm Program is its "inspectors." Tony Miller was selected the 2016 Minnesota Tree Farm Inspector of the Year. Tony is a forester employed with the Minnesota Department of Natural Resources - Forestry Division. He recently marked his 20-year service anniversary and currently works out of the Mora office. Tony's professional responsibilities include assisting private landowners. He has been a Tree Farm Inspector for the past 16.

The Capitol Tree Farmers

On page 3 of this issue of Tree Farming for BetterFORESTS, you learned that Tom Ploof did some "Tree Farming" within the halls of the State Capitol in Washington, D.C.



That is not the place, however, that Tom and his brothers expend most of their Tree Farming efforts. The brothers were, in fact, the 2008 Minnesota State Tree Farmers of the Year, based on their commitment to Tree Farming in Minnesota.

Tom, Doug, Galen, and Peter own various parcels of land in Morrison County. Doug, a teacher; Gale, a self-employed landscaper; Tom, a Morrison County chief deputy; and Peter of the National Guard own a combined acreage of 770 acres – all which is certified Tree Farm and has been under a forest management plan for 30 years.

The Ploofs have incorporated everyone from the US Fish and Wildlife Service to the Minnesota Department of Natural Resources for the betterment of their Tree Farm. This cooperation has resulted in their ability to achieve far-reaching multi-use objectives that range from wetland creation, riparian buffer establishment, timber harvest and regeneration, to a family-run Christmas tree/maple syrup/nursery operation.

Over 1,500 cords and over 55,000 board feet of timber have been harvested and regenerated, over 100,000 seedlings planted and tended, more than 2,000 acres of timber stand improvement were conducted, and 125 acres of wetlands restored.

This diverse form of management could have resulted in "analysis paralysis" if applied by a different set of owners. The Ploof brothers, however, have had the ability to communicate and move forward quickly from planning to implementation.

They complement one another: One owns a Farmi winch and one owns a Woodmizer! They can take their trees from the forest to the kiln.



FOREST MANAGEMENT PLAN MAP THOMAS PLOOF

Parcel L.D. #	Description	Sec.	Twp.	Rge.	County
24-0012600	N 1/2 SW 1/4	12	131	32	Todd



Google earth imagery 2013

Map Key

Date: December 19, 2015

Cover Type #	Description	Acres
1	Tree Regeneration - Aspen & Hdwds	7
2	Aspen & Hardwood Small Poles	6
3	Mature Aspen & Pole Timber	5
4	Recent Aspen Harvesting	1
5	Natural White Pine	5
6	White Pine Plantation	3
7	Red Pine & White Spruce Plantation	2
8	Mixed Hardwoods	27
9	Northern Red Oak	37

Cover Type #	Description	Acres
UB	Upland Brush	4
UG	Upland Grass	3.6
FP	Food Plots	0.4
LG, LB	Lowland Grass, Lowland Brush	11.5
e	Ephemeral Ponds	0.5
BP	Beaver Ponds	45
Total of Cover Types =		158
Homestead =		2
Total of Parcels =		160

——— Property Boundary (red)
- - - - - Woods Trails (black)
——— Cover Type Boundary (white)

The evolution of the Tree Farm began in the mid-1980s when they began to acquire scattered parcels of land. The fragmented nature of their ownership gives them great timber diversity, from white pine saw logs and high quality oak saw logs to pine and aspen pulp.

Perhaps as exemplary as is their forest management activities is their unified passion for land stewardship. Their individual personal and professional diversities meld into one when Tree Farm management is on the table.

FOREST MANAGEMENT PLAN MAP THOMAS PLOOF

Parcel L.D. #	Description	Sec.	Twp.	Rge.	County
24-0012500	Southeast 20 acres of SW 1/4 SW 1/4	12	131	32	Todd
24-0012600	Most of S 1/2 SW 1/4	12	131	32	Todd



Google earth imagery 2013

Map Key

Date: December 19, 2015

Cover Type #	Description	Acres
1	Tree Regeneration - Aspen & Hdwds	7
2	Aspen & Hardwood Small Poles	6
3	Mature Aspen & Pole Timber	5
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——— Property Boundary (red)
- - - - - Woods Trails (black)
——— Cover Type Boundary (white)

Eastern Bluebird (*Sialia sialis*) – Happiness on Wings

By Jodie Provost, *DNR Private Land Habitat Coordinator*



Eastern bluebirds are a symbol of summer happiness and likely one of Minnesotans' most beloved birds, up there with chickadees and loons. When enjoying a spring or summer day on our hobby farm, I can't help but pause to take in this small thrush's sweet, warbling song and brilliant colors. They have been cheerful company on many days of garden, horse and chicken chores.

A Recovery Success Story

While eastern bluebirds are currently common due to the proliferation of nest boxes and bluebird trails, that hasn't always been the case. They declined dramatically from the 1930s to the 1960s due to loss

of habitat and nest site competition from house sparrows and European starlings, two non-native birds and bluebird enemies. Together, partners like the DNR Nongame Wildlife Program and Bluebird Recovery Program sponsored workshops, published education materials and promoted bluebird houses. Restoration efforts paid off. Minnesota now has one of the most successful bluebird recovery projects in the nation.

Not Really Blue

Eastern bluebirds have big, rounded heads, large eyes, plump bodies, and alert posture. Their wings are long, tail and legs fairly short, and bill short and straight. Males are a vivid, deep blue above and rusty or brick-red on the throat and breast. Females are grayish above with bluish wings and tail, and a subdued orange-brown breast. And guess what? They aren't really blue, but gray. Their feathers bend light so they look blue. When light enters their feathers, it bounces off tiny air pockets and cells so that only the blue wavelengths reach our eyes.

Habitat Mix

Bluebirds prefer habitat of mixed hardwood forest and grassland with short, sparse, mowed or grazed vegetation. Perches such as scattered trees, powerlines or fences are important. They inhabit open woodlands, meadows, old fields, roadsides, pastures, hay lands, prairies, orchards, golf courses, backyards or city parks of every county in Minnesota. Bugs and Berries Bluebirds are ground foragers, primarily catching insects caught on the ground much of the year. Major prey include caterpillars, beetles crickets, grasshoppers, and spiders. They typically hunt by sitting alertly in the open on a perch and scanning the ground. They drop to the ground after insects with fluttering wings, followed by a quick return to the perch. Occasionally, they catch insects in midair. They can sight their tiny prey from 60 feet or more away. In fall and winter, bluebirds eat large amounts of fruit such mistletoe, sumac, blueberries, dogwood berries, hackberries, and juniper berries.

Bluebird Tweets

Bluebird language is diverse. Their song is a fairly low-pitched warble of several phrases. Typically, unpaired males sing this song from a high perch or sometimes in flight to attract a mate. Their most common call is a soft, short, low-pitched tu-a-wee with a querulous tone. Bluebirds use it in all seasons to stay in touch or signal to nestlings that food is on its way. When bluebirds get too close to each other, they let out a single, harsh screech. If nervous at the approach of a ground predator, a loud, continual chit-chit-chit is uttered. And when attacking predators or other intruders, bluebirds may dive-bomb them and clack their bills.

Devoted Parents

Some bluebirds winter in Minnesota, but most migrate south, returning in March. They nest April to July, typically raising two broods. They depend on cavities excavated by other wildlife, such as woodpeckers, or nest boxes. The male fights feistily over and defend about five acre territories. He displays at his nest cavity to attract a female, bringing nest material to the hole, going in and out, and waving his wings while perched above it. The female builds the nest by loosely weaving together grasses or pine needles, lining it with fine grasses and occasionally horse hair or feathers. The eggs, usually five to six, are pale blue, or rarely white, and incubated 13-16 days by the female. After a nestling period of 18-19 days, the young take flight. Bluebirds typically live two-three years, five if lucky. The oldest recorded eastern bluebird was over 10 years old. Birds of prey, snakes, and various mammals, especially cats and raccoons, are their main predators.

Keeping Bluebirds Common

How can you help ensure this cheerful bird remains common?

1. Keep open habitats healthy. Encourage a diversity of native grasses, forbs and fruit-bearing shrubs that will provide insects and fruit, and periodic disturbance such as haying, mowing, grazing or prescribed burning. This management will also benefit monarchs and pollinators such as bees.
2. Keep cats indoors or on a leash, as noted in the 2015 February-March Creature Feature.
3. Reduce or eliminate use of chemicals that may negatively affect bluebirds and their food.
4. Buy or build nest boxes carefully designed with entry holes and dimensions that meet bluebird needs. See the Peterson plan in “Woodworking for Wildlife” for a tried and true design (attached). This useful book is available from Minnesota’s Bookstore on line.
5. Properly place and maintain nest boxes.
 - a. Choose locations in open habitat with short vegetation, with nearby perching sites, at least 300 feet from brush, and on high ground.
 - b. Call 811 before sinking posts to have the site checked for underground utilities. Use predator guards to eliminate climbing predators or ½ inch metal electrical conduit over ½ inch rebar. Entrance holes should be five to six feet above the ground and face east or northeast.
 - c. Do not overload an area with nest boxes. Space them at least 100 yards apart.
 - d. Allow nest box use by native birds such as chickadees and tree swallows. To accommodate tree swallows that are competing with bluebirds, pair two nest boxes about 20 feet apart.
 - e. Avoid placing boxes where house sparrows are abundant. Remove house sparrow nests and eggs.
 - f. Avoid brushy areas where house wrens are likely to reside. They poke holes in other birds’ eggs, carry out nestlings and take over nest boxes by filling them with sticks.
 - g. Check nest boxes at least once a week during the nesting season until nestlings are 12 days old to identify and address problems such as blowfly infestations or house sparrow nests. After that, monitor only from a distance to prevent chicks from jumping or flying prematurely. Remove old nests as soon as the brood has flown.
6. Establish and maintain a bluebird trail of five or more nest boxes where they can be easily checked.
7. Consider recording nesting data with NestWatch (nestwatch.org), a nationwide monitoring program to track status and trends in the reproductive biology of birds.
8. Join the Bluebird Recovery Program (bbrp.org). Founded 1979, it was the first state bluebird organization in the nation. Enjoy its next annual Bluebird Expo on April 16 in Byron.
9. Learn even more from the North American Bluebird Society (nabluebirdsociety.org).

List of English Terms of Venery, By Animal



Do you know your venery? Venery is an archaic word for 'hunting.'
Test your knowledge of collective terms of animals!
(Who hasn't thought of an 'unkindness' of ravens?!)

A

Antelopes herd
Ants army, colony, nest, or swarm

B

Badgers cete
Bats colony
Bears sleuth or sloth
Beavers colony or family
Bees swarm or drift
Birds flock, flight, pod
Bittersn sedge or sege
Butterflies flutter, swarm
Buzzards wake

C

Caribou herd
Caterpillars army
Cockroaches intrusion
Cormorants gulp
Coots covert
Coyotes pack

Cranes sedge or sege
Crows murder

D

Deer herd, bunch, mob, parcel
Dove flight, piteousness

E

Eagles convocation

F

Finches charm or chirm
Flies business, cloud, swarm
Fox leash, skulk
Frogs army

G

Geese flock, gaggle, plump (flying close),
skein (in flight)
Gnats rabble, swarm
Goldfinches charm
Goshawks flight
Grouse covey, pack

flock • gaggle

pack



H

Hares down, drove, flick, husk
Hawks boil, cast, kettle (large numbers), lease

I

Insects flight, horde, plaque, rabble

J

Jays band, party, scold

L

Larks bevy, exaltation

M

Magpies congregation, gulp, murder
Mallards puddling, sord, suit
Moles company, labor
Moose herd
Mosquitoes scourge

N

Nightingales watch

O

Owls parliament

P

Partridges covey
Pheasants bouquet, nest, nide, nye
Pigeons kit

Q

Quail bevy, covey, drift

R

Raccoons gaze
Ravens unkindness

S

Snakes bed, den, knot, nest
Snipes walk, whisp
Sparrows host
Squirrels colony, scurry
Starlings chattering, cloud, murmuration
Swallows flight, gulp
Swans bank (on the ground), drift, flight, game, wedge

T

Toads knot, nest
Trout hover
Turkeys gang, rafter
Turtles bale, dole, nest

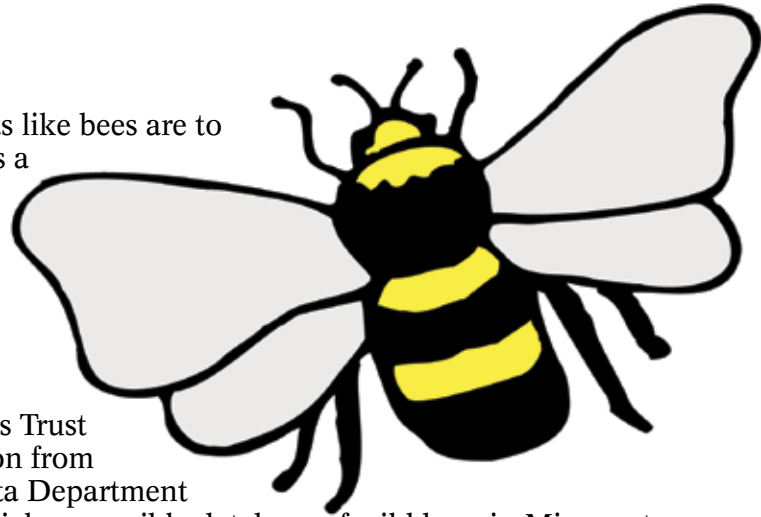
W

Waterfowl bunch, knob, raft
Weasels colony, pack
Wolves pack, route (when in movement)
Woodcocks fall
Woodpeckers descent
Wrens herd

Help Create the Minnesota Bee Atlas

By Emily Dombek and Britt Forsberg

We all know how vitally important pollinating insects like bees are to our ecosystem and food chain. But did you know that as a forest landowner in Minnesota there are opportunities to help pollinators thrive? In addition to making important stewardship decisions to help bees on your land **now** there is a program for Minnesotans to help researchers track the hundreds of wild bee species that live in our state.



Funded by the Environmental and Natural Resources Trust Fund, the **Minnesota Bee Atlas** will combine information from the University of Minnesota Insect Collection, Minnesota Department of Natural Resources, and other sources to create a publicly accessible database of wild bees in Minnesota.

The last time a survey of Minnesota bees was completed was in 1919 when only 67 species were listed. Scientists suspect that there may be closer to 400 species but we need the help of citizens like you to find them all. Your observations, combined with historical records from the Minnesota Department of Natural Resources and the University of Minnesota Insect Collection, will provide important information on the diversity of species in Minnesota. The information gathered on species distribution and diversity will be important to help us track if or how bee populations are changing and how those changes might affect land management decisions.

Volunteers may participate in several different ways depending on interest and desired time commitment. Opportunities include submitting photos of bees, identifying bumblebees on an assigned transect route, monitoring a nesting block, and creating backyard bee habitat and reporting observations. More information about each of these opportunities can be found at z.umn.edu/beatlas.

When most people hear the word “bee” they probably start to picture a yellow and black striped honey bee or a big, fluffy bumble bee. Honey bees and bumble bees are easily recognized and play an important role in pollination, but they are a small fraction of the almost 20,000 bee species in the world. In contrast to honey bees and bumble bees, most bees are solitary and build their own nests alone. They may live near other bees of the same species but they do not work together to form one colony. These are the bees the Minnesota Bee Atlas will focus on.

There are three ways to participate in the Minnesota Bee Atlas:

- submit anecdotal observations when you see bees out and about,
- observe bumble bees on an assigned route, or
- submit observations of a nesting block

More Information

If you have any questions or would like to know more about participating in the Minnesota Bee Atlas, contact beatlas@umn.edu.

For information about upcoming workshops on wild bees, check out:
<http://www.minnesotamasternaturalist.org/courses/>.

Two frogs with mottled grey and brown skin are perched on the rim of a teal-colored bowl. The bowl is set against a teal background. The frogs are looking towards the camera.

*Excuse us! Excuse us, please!
We need your help!*

Your Minnesota State Tree Farm Committee wants to better serve you. The committee is cleaning up the database of its Minnesota Tree Farmers.

- You can help by letting us know your
- correct address (if we are not using it!);
 - your email address, (if you have one); and
 - updates pertaining to Tree Farms that you are familiar with (are their owners deceased? have they ‘moved on,’ are they needing a contact with a forester?)

Please connect with us via snail mail
(K. Preece, PO Box 3095, Bemidji, MN 56619;
or email: treefarmstatemn@gmail.com)

We hope to hear from you!

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