

Woodland Advisor
Program's Vision:

To be
Minnesota's
leading resource
for citizens
participating in
forestry learning.

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woodland ADVISOR

Pressurized Biomass Creates Plastics & Fuels

A research team at Iowa State University (ISU) recently announced the in the *Biomass Energy Journal* that they discovered a way to pressurize and change wood biomass into ethylene glycol and propylene glycol or, to the less chemically savvy among us, plastics, cosmetics, and fuels. This accident of chemistry could change the way we make plastic bottles, moisturizer, and antifreeze. The ISU team demonstrated how to efficiently convert cellulose - or wood - into several important industrial compounds under laboratory conditions.

These researches were using a high-temperature chemistry process to obtain sugar derivatives from celluloses, but they discovered not only the expected cellulose but also an unexpected surprise: significant amounts of propylene glycol and ethylene glycol. These two chemicals are used in many, many every day products.

This process, for which Iowa State University is currently seeking patent rights, is based on the chemistry of supercritical fluids which heats fluids under pressure until their liquid and gas phases merge.

Maybe one day this will be another biomass market for Minnesota's forest industry!

Article adopted by Angela Gupta from Chris's article titled *Innovative Breakthrough: Pressurized Biomass Creates Plastics, Cosmetics and Fuels* in the *Biomass Energy Journal*, <http://biomassenergyjournal.com/innovative-breakthrough-pressurized-biomass-creates-plastics-cosmetics-and-fuels/>



Photo by Gary Wyatt



Photo by ezezfun

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Photo by John O'Riley

Barb Spears: Energy, Dedication, and Hard work!

Barb Spears is a dedicated advocate of private woodland management. She joined the Minnesota Forestry Association (MFA) and became the Chair of the MFA Metro Chapter in 2002. It was then, as the new Metro Chapter Chair, that she got connected with the Woodland Advisor program. During the winter of 2003-2004 she worked with Extension to organize and offer 12 core Woodland Advisor classes in the Metro.

After joining MFA in 2002, she served on several Board committees before she was elected to the Board of Directors serving from 2003-2008. During those years she chaired the Chapter Relations Committee and Land Committee. In addition, Barb has been very active representing MFA on several statewide advisory and planning committees including the MN Invasive Species Advisory Council, MN Shade Tree Advisory Committee, EAB Readiness Taskforce, MFRC Forest Protection Plan Taskforce, and the DNR Invasive Species Education Planning Committee.

Barb's involvement in the Woodland Advisor Program is not limited to the Metro Chapter; she volunteered during strategic planning efforts in the early 2000s that lead to major programmatic changes.

Besides all her volunteering on behalf of the Woodland Advisor Program and MFA Barb has a degree in urban forestry from the U of MN and is currently working ¾ time with the MN DNR as the Woody Biomass Project Coordinator for the Division of Ecological and Water Resources. Outside of her work at the DNR she's a consultant for her TWF Consulting firm which is currently helping with Extension's new MN Women's Woodland Network (MN WWN) and volunteers as Chair of the Metro MN WWN group.

But wait, she's not done! Barb was invited and serves on the St. Paul Tree Advisory Panel to represent St. Paul City Council Ward 4. She serves on the Hamline Midway Coalition Environment Group that recently completed a residential ash tree inventory and tree giveaway. The inventory was conducted by 25 community volunteers and local Tree Care Advisors. Watch for an article about this project in the next Shade Tree Advocate!

Barb's dedication as a volunteer and a professional is outstanding! Please join me in offering thanks for her fabulous effort!

Oak in the Driftless Area

Oak in SE Minnesota's driftless area faces many challenges as outlined in a recent article by researchers Tricia Knott and Lisa Schulte Moore from Iowa State University. They interviewed forest professionals to assess the future of oak in the region. Historically oak has grown in high light conditions and been an important resource for wildlife and timber production. However, in the last century the disturbances that favored oaks, including fire and grazing, have largely been removed from the forest leading to forest succession to other species including sugar maple, basswood, and elms. Other factors are also stacked against oak regeneration such as deer browse, competition from invasive species, diseases and pests of oaks, forest parcellization, and changing landowner goals.

Don't write oaks off yet though, with dedication and specific oak management it is possible to establish and grow oak in the understory. Landowners who are interested in oak should identify that as a specific goal in their forest management plan and then actively work to favor and protect oak on appropriate sites.

The article, *Research review: The future of oak forests in the Driftless area*, by Tricia Knott & Lisa Schulte Moore was recently featured on the *MyMinnesotaWoods.umn* website at: <http://www.mymnnesotawoods.umn.edu/2010/12/research-review-the-future-of-oak-forests-in-the-driftless-area/>



Oak Regeneration photo by Eli Sagor

Eastern US Forests Resume Decline



From GoogleMap

An article published in the *American Institute of Biological Sciences* written by Mark A. Drummond and Thomas R. Loveland of the US Geological Survey states that forest cover in the eastern US has begun declining after recent decades of the net increase in forest cover as fallow agricultural fields return to forest.

Drummond and Loveland used many methods to assess the change in Eastern forest cover from 1973 to 2000 and learned that there was a 4.1% decline, equal to 9.14 million acres (an area roughly the size of Maryland and Connecticut combined), of forestland lost, which is a "substantial and sustained net loss." There was a lot of regional difference with more net loss in the southeastern plains. The article states: "Most net forest loss occurs as result of mechanical disturbance of forests for timber production, which keeps some land free of forests, and as a result of urban expansion, which is generally a permanent change." It also sites mountaintop removal, a form of mining in Appalachia, as a "sustainable impact" resulting in over 1 million acres of forest lost in the eastern land cover.

The article points out "that their findings suggest forest transitions may not plateau and stabilize after reaching a point of maximum recover, which 'has important implications for sustainability, future carbon sequestration, and biodiversity.'"

Volunteer Opportunities

*"Unless someone like you cares a whole awful lot,
nothing is going to get better. It's not."*

~ Dr. Seuss

- **Project Get Outdoors (GO)** - Southern MN - Help kids get outdoors after school through the GO program. Program volunteers are needed to help with youth actives from 3-5 PM. Experience with youth is helpful but not required, training is provided. A background check will be performed. For more information about locations and days of the week contact Sara Grover, Project GO Coordinator/Assistant Naturalist, Whitewater State Park, 507-932-3007 ext. 226 or email Sara.grover@state.mn.us
- **Instructor/Mentor for the MN DNR Firearms Safety Hunter Education Program** - Statewide - Be part of a team of Instructors/Mentors in your area that guides Firearms Safety Hunter Education Students, ages 11 and older, through a 5-6 hour Range and Field Day so youth can complete their certification process after taking the HunterExam online course. All Instructors/Mentors need to understand the basic principles of mentorship and facilitation of sceneries. General knowledge of various types of hunting activities and knowledge of the principles of safe, responsible and ethical hunting are required. Must be 18 yrs or older and pass a background check. Applicants must complete the [instructor prerequisites](#) listed on the DNR web site along with additional All Day Range and Field Day training by a DNR Trainer and receive instructor certification. Range and Field Days are usually held on Saturdays and vary depending on the time of year. The DNR's goal is to have 10 instructors/mentors in every community across the state. For more information contact the Enforcement Education Program Staff at Camp Ripley, 15011 Hwy. 115 Little Falls MN 56345. Call 1-800-366-8917 or email enforcement.education@state.mn.us



Photo by Katie Dudley

Angela Gupta is the Woodland Advisor Volunteer coordinator. To contact her call (888)241-4536 or agupta@umn.edu

Upcoming Events

Activities: Woodland Advisor Program Classes are underlined. For more information please see the web-site <http://woodlandadvisor.org/>
As is normal during his time of year, few classes are offered as we gear-up for next fall. Enjoy your land and the good weather.

January 2011

- Sat, Jan 1 - Have a Save and Happy New Year!
- Fri, Jan 14, Energy Saving Landscape/Windbreak System, 1:00-4:00 pm, Douglas Co. Extension Public Meeting Room, Alexandria. For info contact Diomy Zamora, 612-626-9272. To register contact Sue Crotty, 218-828-2275 or crott012@umn.edu
- Mon, Jan 17 - Martin Luther King Jr. Day - some government offices closed
- Fri, Jan 21, Recreational Train Design (Online), noon-1:00 pm, first of two webinars, register online at <http://z.umn.edu/2011webinars>
- Thurs, Jan 27, Assessing Airphotos and Custom Maps Online, 6:00-8:30 pm, University of Minnesota Rochester, Rm 414, downtown Rochester. For info contact Angela Gupta, agupta@umn.edu or 507-280-2869 to register contact Mary Jane Stearns, mstearns@umn.edu or 507-536-6310
- Fri, Jan 28, Recreational Train Design (Online), noon-1:00 pm, second of two webinars, register online at <http://z.umn.edu/2011webinars>

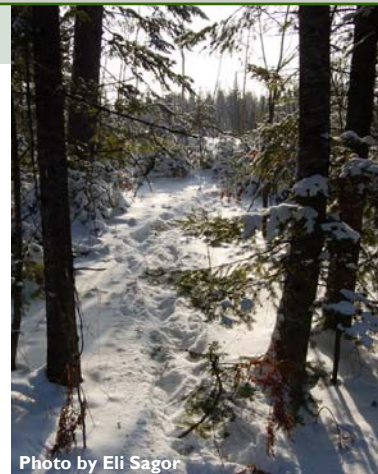


Photo by Eli Sagor

February 2011

- Thurs, Feb 3, Tax Relief and Incentive Payments for Woodland Owners, 6:30-8:00 pm, Multipurpose Room, U of MN North Central Research and Outreach Center, Grand Rapids, for info contact Julie Miedtke at 218-327-7365 or julie.miedtke@co.itasca.mn.us
- Fri, Feb 4, Forest Farming, 1:00-4:00 pm, Land Services Building, Mtg Rm 1, 322 Laurel St., Brainerd. For info contact Diomy Zamora, 612-626-9272. To register contact Sue Crotty, 218-828-2275 or crott012@umn.edu
- Thurs, Feb 10, Forest History & Global Climate Change, 1:00-4:00 pm, Hientz Center, RCTC, Rochester. For info contact Angela Gupta, agupta@umn.edu or 507-280-2869 to register contact Mary Jane Stearns, mstearns@umn.edu or 507-536-6310
- Fri, Feb 11, Non-Timber Forest Products, 1:00-4:00 pm, U of MN North Central Research and Outreach Center, Grand Rapids. For info contact Diomy Zamora, 612-626-9272. To register contact Sue Crotty, 218-828-2275 or crott012@umn.edu
- Mon, Feb 14 - Valentine's Day
- Tues, Feb 15, What's Bugging Your Trees, 6:30-8:00 pm, U of MN North Central Research and Outreach Center, 1861 E. Highway 169, Grand Rapids. For info contact Julie Miedtke at 218-327-7365 or julie.miedtke@co.itasca.mn.us
- Mon, Feb 21 - President's Day - some government offices closed



March 2011

- Fri, March 4, Economic and Environmental Benefits of Agroforestry, 1:00-4:00 pm, Stearns Co. Extension, Midtown Office Complex, #108, 3400 1st St., St. Cloud. For info contact Diomy Zamora, 612-626-9272. To register contact Sue Crotty, 218-828-2275 or crott012@umn.edu
- Sun, March 13 - Daylight Savings Time begins - spring forward
- Tues & Wed, March 15-16, 49th Annual MN Shade Tree Short Course, Bethel University, Arden Hills. More info and to register online go to <http://www.cce.umn.edu/shadetree>
- Thurs, March 17 - St. Patrick's Day

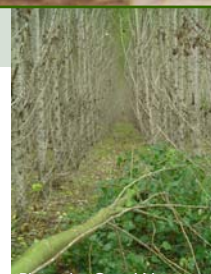


Photo by Gary Wyatt

Honors & Awards

Extension Forestry Team, of which the Woodland Advisor program is a part, has received several awards and honors recently. At Extension's Conference in October the First Pest First Detector Program, including Angie Gupta, Gary Wyatt, and Mike Reichenbach won several awards including the prestigious Dean's Teamwork Award. Angela Gupta won the Effective Leadership award from the Minnesota Association of Extension Educators and Eli Sagor and Philip Potyondy won an Extension award for their poster on the MyMinnesotaWoods website. Also, Dave Wilsey recently got an article published in the Journal of Extension regarding work his forestry on Tribal lands.

In addition I just learned the Wisconsin Cooperative Extension and Wisconsin Woodland Owners Association just received the Family Forests Education Award from the National Association of University Forest Resources Programs for the Wisconsin Woodland Leadership Institute. A program some of our Woodland Advisors have completed!

Please join me in offering congratulations for to everyone for their hard work and recognition.



Woodland Advisor Program



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Return Service Requested

We're on the web!
<http://woodlandadvisor.org/>

*University of Minnesota
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Suggested Reading

Tax Tips for Forest Landowners for 2010 Tax Year

This publication from the US Forest Service is about federal taxes, but it might be important as you prepare your documents for the upcoming tax season.

<http://www.fs.fed.us/spf/coop/library/taxtips10.pdf>



Also be sure to check the **Legal & Financial** section on the MyMinnesotaWoods.umn.edu website for more tax information!

**Woodland
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Woodland Advisor Team Updates



Eli Sagor

Mike Reichenbach

Maybe you've heard, maybe not... Two of our team members are pursuing their PhDs. Eli Sagor is hoping to defend his this spring. He's focusing on peer-to-peer learning within forestry. Mike Reichenbach is working on his PhD in Education.

Mel Baughman our Forestry Group leader is preparing to retire this summer. He's still working hard with several big projects in the pipe, but we're all preparing for his retirement. He will be deeply missed.

So be sure to offer congratulations and support to these three valuable team members for their individual achievements if you see them in the next few months!



Mel Baughman

What is the Woodland Advisor Program?

The Woodland Advisor Program is your opportunity to learn about forests and forestry. Classes are generally 3 hours in length. Participants who complete 45 hours of woodland ecology and management classes receive a certificate of completion. Classes also provide foresters and Stewardship Plan preparers with continuing education credit. Participants who are interested in ongoing educational opportunities after completing 45 hours of classes and want to participate as a volunteer can become a Woodland Advisor Volunteer. Woodland Advisor Volunteers are leaders in their communities. They help their neighbors learn more about the options and opportunities that exist for their forestland. This helps all Minnesota's citizens by helping to maintain the health, beauty, and productivity of Minnesota's forest land.

Classes are open to anyone on a pay-as-you-go basis. Costs may vary, but most 3-hour sessions cost \$20. A discount may be available for Minnesota Forestry Association Members on classes where registration is handled through the University of Minnesota Extension. Inquire when you register about a discount.

For class times and locations, registration information, or more about the Woodland Advisor program, contact the Cloquet Forestry Center at 888-241-0724 or visit cfc.cfans.umn.edu/wa/.