



Helping People Help the Land

# Conservation Notes

USDA - Natural Resources Conservation Service - Michigan

May/June 2017

## Hillsdale Top Finisher in Michigan Envirothon

A team of Hillsdale High School students took first place in a statewide environmental competition held by the Michigan Association of Conservation Districts. The three-day Michigan Envirothon state competition held at Michigan State University concluded on May 19.

The Hillsdale team finished first among 24 teams competing in the state competition. The Envirothon consists of outdoor "eco-stations" for hands-on testing in the areas of forestry, urban forestry, soils, aquatic ecology, wildlife, energy, and agriculture. Each team also completed a community outreach project prior to the competition and gave a presentation about their project to a panel of judges. As the first-place finisher, the Hillsdale team will represent Michigan in the North American Envirothon competition at Mount St. Mary's University in Emmitsburg, Md. They will compete against teams from across the United States and Canada at the event held from July 23 to 29.

Members of the "Conservation Commandos" team from Hillsdale High School include Bridget Demoor, Kamren Johnson, John Mackie, Kristin Miller, Racheal Morgan and alternate Emily Pachoud. In addition to winning the overall competition, the team also took first place for their community outreach project. Their project included the installation of water bottle refill stations at their school to reduce the plastic waste produced by bottled water. The team also raised money for

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Envirothon participants take measurements during the forestry portion of the state competition held at Michigan State University.

- photo provided by MACD



United States Department of Agriculture

### Natural Resources Conservation Service

Michigan State Office  
3001 Coolidge Road, Suite 250  
East Lansing, MI 48823  
Phone: 517/324-5270  
www.mi.nrcs.usda.gov



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## State Conservationist's Message

On The week of June 19 to 25, was designated as Pollinator Week. More than perhaps any other Midwestern state, pollinators play an important part in Michigan's agricultural economy. NRCS has committed resources and formed partnerships to educate about the importance of pollinators and to provide financial and technical assistance to create and improve pollinator habitat.

In recent years, NRCS targeted financial assistance in select states, including Michigan, to help protect honey bees. During 2018, there will be NRCS Environmental Quality Incentives Program assistance targeted to improving habitat for another pollinator, the monarch butterfly. Although this assistance is targeted to individual pollinator species, any improvements in habitat for honey bees and monarchs will also benefit Michigan's many other pollinator species.

Partnerships are important in promoting conservation including conserving our pollinators. NRCS has partnered with the Xerces Society along with many other public, non-profit, and for-profit organizations to protect pollinators. An example of this is the annual pollinator posters produced by the Pollinator Partnership which includes NRCS. NRCS is also a partner in the Monarch Joint Venture which raises awareness to the declining number of monarch butterflies.

Recently, NRCS has supported the Xerces Society and Oregon Tilth in the Bee Better Certification campaign. Bee Better Certification recognizes farmers who are helping to conserve pollinators. Farmers who dedicate 5 percent of their land to pollinator habitat, adopt pest management practices that minimize risks to pollinators and take other conservation measures can have

their operations Bee Better Certified. These operations can then display the Bee Better Certified Seal on their farms, products and farmstands. To learn more about Bee Better Certification go to <https://beebettercertified.org/>.



*Acting State Conservationist  
Diane Gray*

It's only July so most people are not thinking about the end of the year, for the USDA however, a

new fiscal year begins on Oct. 1. A new fiscal year brings a new round of funding for conservation programs like the Environmental Quality Incentives Program (EQIP). Applications for EQIP are accepted on a continuous basis and we want producers to know that it's not too early to begin applying for fiscal year 2018 conservation assistance.

Each year, NRCS in Michigan announces cut-off dates when EQIP applications are ranked and selected for funding. In Michigan, we plan to have a cut-off date in the fall of 2017. Producers are encouraged to submit their applications well in advance so that all of the state's EQIP funds

can be allocated in the fall without additional selections later in the fiscal year.

An exact cut-off date for EQIP applications will be announced as soon as possible and at least 30 days in advance. The fall sign-up will include program initiatives such as funds for organic producers, honey bee habitat, the National Water Quality Initiative, and assistance for MAEAP verification.



## Working Lands for Wildlife to Include Blanding's Turtle

One of the new species NRCS will focus on through the Working Lands for Wildlife initiative is the Blanding's turtle. Although Michigan is not currently included in the Blanding's Turtle project area, the turtle can be found here.

The Blanding's turtle is a large, long-lived turtle featuring a bold yellow throat and a high-domed, dark shell flecked with yellow spots. A 1999 Michigan Natural Features Inventory documented the turtle in 36 counties in the Lower Peninsula. They have been reported in several Upper Peninsula counties but populations there are more localized. The turtle is not considered endangered in Michigan but there is cause for concern due to loss of habitat.

The Blanding's turtle requires large, well-connected wetland complexes consisting of sedge meadows, buttonbush swamps, open bottomland forest, and herbaceous wetlands of varying hydrology. Also of great importance to the Blanding's turtle are tree- and shrub-free, sandy, upland nesting areas adjacent to wetland habitats. It is crucial that habitat can be accessed by the turtles without the need to cross roads or risk traffic fatalities.



*The Blanding's Turtle*

Working Lands for Wildlife projects focus on declining species that have needs compatible with agricultural practices and rural land management and that can benefit from conservation on private lands. There are a number of conservation practices landowners can utilize that benefit the Blanding's Turtle, contact your local NRCS office to learn more.

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## Hillsdale Top Finisher in Michigan Envirothon

purchasing reusable water bottles for students and faculty at their school and gave presentations on the importance of reducing plastic waste.

Members of the Hillsdale team received a scholarship to MSU and other awards and prizes. Finishing second and third for overall score were the "Eh" team from Glen Lake High School and the Branch Area Career Center team respectively. The 24 teams that participated in the state competition qualified through regional contests held around the state throughout the month of March. Through Envirothon, students learn about the environment from conservation professionals working for government, non-profit and for-profit organizations. Michigan Envirothon is a high school environmental education and community action program administered by the Michigan Association of Conservation Districts. High school students from anywhere in Michigan are eligible to compete.



*The Hillsdale High School Envirothon team including members (front row l - r) Kristen Miller, Olivia Baumbacht, Emily Pachoud, Bridget Demoor, Rachel Anderson (second row l - r) team coach Chip Patterson, Kamren Johnson and Johnston Mackie.*

# Volunteers Help Create a Corridor for Pollinators

Volunteers gathered near a TransCanada pipeline compressor station on June 8 and 9 to plant milkweed and other native flowers.

About 40 volunteers showed up over the two days to help with planting near Big Rapids. MAEAP technician Tony Wernette estimated about 750 plants were transplanted during the afternoon he volunteered. The Mecosta Conservation District assisted TransCanada by providing contacts for local native plant nurseries.

The project is part of the Save our Monarchs Foundation [Corridors for Pollinators](#) program. The program partners with public departments of transportation and utility companies to create monarch and pollinator habitat on service corridors and easements. Save our Monarchs estimates there are about 60 million acres of utility easements in the United States.

NRCS District Conservationist Jennifer Taylor and Soil Conservationist Frank Terrance gave a presentation on pollinators and USDA programs as part of the event.

Other partners on the Big Rapids project included the Ferris State University Card Wildlife Education Center, Pheasants Forever, and the Muskegon River Watershed Assembly.



*Volunteers plant milkweed and native flowers as habitat for monarch butterflies on a TransCanada compressor station near Big Rapids.*

## Tips for Hosting a Better Field Day

*Sustainable Agriculture Research and Education*

You've done some interesting work: You had a great idea, tried it on your farm and got surprising results. Now, you want to share those results with other farmers and ranchers. The only problem is, you're busy and constantly pressed for time. Who has time to plan a field day? Thankfully, SARE's new [Farmer Field Day Toolkit](#) is here to take off some of the pressure and get the right tools and tips into your hands.

Our free, digital Farmer Field Day Toolkit is a comprehensive resource of step-by-step instructions, timelines, and downloadable tools and templates for planning and hosting a successful event. Plus, users will learn the ins and outs of working with the media, creating press releases and PSAs, generating public interest, capturing the event with video and sharing it online.

Whether through trial and error or the completion of an on-farm research project, farmers and ranchers are the keepers of knowledge and skills that can help

others succeed. With advance planning and coordination, you can use your field day to educate others on best practices, specific management practices and equipment, or to highlight research methods and results.

It's a win-win for you, who may benefit from an increased market and brand recognition, and your attendees, who may be inspired to take what they've learned and adapt it for their own production system.

This toolkit offers ideal support to farmers and ranchers who have received a SARE grant and are interested in holding a field day to fulfill their outreach requirement. But our toolkit can be used by anybody interested in hosting a field day, so download it now and start planning an event of your own.



# Estimating a Forest's Timber Volume

by Bill Cook, Michigan State University Extension

Selling timber is not the only reason for understanding some basic ecological characteristics of a forest. Certainly, species composition, wood volume, and forest density are key components of establishing a timber sale, but they are also essential to assessing forest health, condition, habitat quality and other attributes.

Species composition means, in part, an ability to identify the trees. It's rather difficult to fully appreciate a forest when you don't know who lives there. Michigan has some of the most diverse forests on the planet. Composition also includes factors such as age, relative species abundance, and variability across the landscape and where a forest lies in the time continuum.

Traditionally, the volume of wood in the trunk, up to a specified top diameter, has been considered "merchantable". Of course, merchantability also depends upon nearby markets. Diverse markets translate to better merchantability, improved tree utilization, more management options, and healthier forests.

Tree volume can be estimated by formulae that use diameter and height, or sometimes just diameters. The top diameter is often around 4.5 to 5 inches, when pulpwood has a market. Several "scales" have been developed to estimate board foot volume of the sawlog portion of trees. Each scale has a different application and is subject to the odd ways that trees grow. And then, there are different scales to estimate the volume in cut logs.

Estimating the volume in a forest stand is more than simply adding up all the volumes of individual trees. There are too many!

Trees in sample plots are measured. Statistical methods expand sample volumes to represent the whole timber stand or forest. Accuracy depends upon knowledge of the forest, skill in measuring and resources available.

Most forest owners can learn to roughly estimate stand volumes by purchasing a diameter tape,

making a "height stick" and figuring out a sampling procedure. Michigan State University Extension has a good bulletin on the topic, number E-461 "How Much Lumber In That Tree." However, keep in mind that experience and skill produce more accurate estimates. Don't go to the bank with what you do on your own.



Stand density is one of the most critical measures of ecological condition. Forests that are too dense become stagnant. Forests that are too open won't fully occupy a site and undesirable characteristics can develop.

Density considers both the number of trees and the sizes of trees. Foresters use a measurement unit called "basal area", or the number of square feet of trunk cross-sectional area per acre. The cross-sections are at a height of 4.5 feet from the ground. Imagine the forest converted to 4.5-foot-tall stumps. The number of square feet of the stump tops will be the basal area.

Most of our mature forest types have around 100-150 square feet of basal area per acre, but this can vary widely. Considerable amounts of research have demonstrated optimum growth and vigor occurs at particular levels of basal area, depending upon the age of the stand, the site and other factors.

Our most common forest type, northern hardwoods (sugar maple, beech, basswood, etc.), grow best at around 90 square feet of basal area. The optimum distribution of diameter classes has also been determined. These are targets that foresters try to meet when managing northern hardwoods.

Many specialized, and often expensive, tools have been developed to measure basal area. However, pretty good ballpark estimates can be done using a string and a penny.

1. Drill a hole in the center of a penny.
2. Knot a string through the hole.
3. Mark the free end of the string a distance 24.75 inches from the penny.

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## Mediation: A Tool for Michigan Farmers

### *Michigan Agricultural Mediation Program*

The typical Michigan farmer's toolkit contains a jumble of production and management tools – GIS, CREP, PA116, GAAMPs, UAV, GMO, EQIP, E85, and lastly, the Michigan Agricultural Mediation Program (MAMP).

With the MAMP, Michigan farmers have the option of mediating eligible disputes with agricultural lenders, creditors or U.S. Department of Agriculture (USDA) agencies. Mediation enables the participants to talk informally about the issues and suggest solutions that align with the law and work for all concerned. A trained neutral mediator helps the participants build trust, communicate constructively and focus on the issues. The participants, not the mediator, make the decisions. There is no cost to producers for using the service.

"Mediation is a great way to give everyone their time to be heard. It is a less formal way of discussing and educating," according to Dr. Betsy Dierberger, State Resources Conservationist for the Natural

Resources Conservation Service, a USDA agency, in East Lansing.

The Farm Service Agency (FSA), another USDA agency, encourages farmers who have received an adverse determination to consider mediation through the MAMP.

"While USDA program provisions are not subject to change through the mediation process per se, sometimes new information about the farm's or farmer's specific circumstances will emerge, which may result in a different outcome," says Mr. Ken Schapman, FSA Mediation Coordinator in East Lansing.

Michigan farmers considering mediation or wishing to learn more can call (616) 774-0121 or visit [www.agmediation.org](http://www.agmediation.org). Mediation is designed to resolve disputes more quickly and with less stress than formal proceedings such as due process hearings. It helps Michigan farmers get back to growing food and fiber for the residents of Michigan and beyond.



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## Estimating a Forest's Timber Volume

4. Hold the marked end under your eye.
5. Stretch the penny out the full distance.
6. "Count" the number of trees that are wider than the penny. Multiply the tree count by 10 and you have an estimate of the basal area at that spot.
7. Repeat the procedure in various places throughout the timber stand, recording each basal area measurement.

The recordings should begin to group around an average. That will be the approximate basal area, or estimate of density, for the forest stand. You can look up what a healthy basal area should be for your particular stand. Contact a forester or a Conservation District.

As you might imagine, there are many other considerations in determining stand volume, stand density and assessing forest conditions. As simple as some concepts seem on the surface, accurately evaluating a forest takes skill and experience.

Employing a consulting forester renders dividends. Nevertheless, for an interested forest owner, there are inexpensive ways to employ some simple practices that can yield reasonable assessments. It's not only interesting to practice, but it's a good way to monitor what's going on with, what can often be, a valuable investment.

*This article was published by Michigan State University Extension. For more information, visit [www.msue.msu.edu](http://www.msue.msu.edu)*

## Have Benefits Questions?

Since the administrative transformation at NRCS, current employees and retirees may not know where to go with their benefits questions and requests for service.

Current NRCS employees should direct their questions and service requests for assistance with retirement, health and life insurance, election requests and other benefits issues to the Benefits Services Branch. The Benefits Services Branch can be contacted by email at [sm.rc.benefitservices@nrcs.usda.gov](mailto:sm.rc.benefitservices@nrcs.usda.gov).

Retirees should direct their benefits inquiries to the Office of Personnel Management. Retirees can contact OPM by calling 1-888-767-6738. When contacting OPM, retirees will need to provide their Civil Service Annuity (CSA) number.

## Center for Excellence Field Day

The Lenawee County Center for Excellence Field will start at 8 a.m. on Aug. 9, at Bakerlads Farm in Clayton.



The event will be held earlier this year, in its 20 preceding years it was held on the third Wednesday of August. The morning session is held at Bakerlads Farm and the afternoon session, and lunch, are at the Raymond and Stutzman Farm in Morenci.

The event includes educational sessions and tours of conservation practices such as water and sediment control basins, a two-stage ditch installation and a saturated buffer. The event concludes at 3:45 p.m.

Contact the Lenawee Conservation District to register or for more information at 517/263-7400 ext. 3.

## NRCS Outreach - NRCS Outreach - NRCS Outreach - NRCS Outreach

### Hudsonville High School



NRCS employees Heather Varboncoeur and Kristian Williams hosted an exhibit at the "Where the Water Meets the Land" event at Hudsonville High School.

### Grand Rapids



(l-r) Sharcy Ray, Anneke Vermeulen and Jason DeMoss from NRCS represented USDA at the Grand Rapids Pride Festival on June 17.

# Upcoming Events - Upcoming Events - Upcoming Events - Upcoming Events

## July

- 10 Hands-On Hoophouse Build Workshop, 9 a.m. to 5 p.m., Black Earth Farm - Riley, for more information call 734/546-8657 or email [SRA.SEMichiganHighTunnel@gmail.com](mailto:SRA.SEMichiganHighTunnel@gmail.com)
- 15 Macatawa Water Festival, 9 a.m. to 1 p.m., Windmill Island - Holland, for more information go to [www.the-macc.org/event/macatawa-water-festival/](http://www.the-macc.org/event/macatawa-water-festival/)
- 15 Hop Tour & Integrated Pest Management Demonstration, 1 p.m., Black Creek Hops - Scottville, for more information and to register go to <http://hopgrowersofmichigan.com/events/>
- 25 Fall & Winter Crop Planning and Scheduling for Hoophouses, 6 to 8 p.m., Lake Orion Public Library - Lake Orion, for more information call 734/546-8657 or email [SRA.SEMichiganHighTunnel@gmail.com](mailto:SRA.SEMichiganHighTunnel@gmail.com)
- 25 Ingham Forestry Field Day, 9 a.m. to 1 p.m., Ingham Conservation District Education Building - Mason, for more information call 517/676-2290 or go to [www.inghamconservation.com](http://www.inghamconservation.com)

## August

- 1 Education on the Farm, 9 a.m. to 5 p.m., Hunter's Ridge Belted Galloways - Dafter, for more information call 906/632-9611 ext. 101 or email [mike.mccarthy@macd.org](mailto:mike.mccarthy@macd.org)
- 4 MACD District 7 Summer Meeting, Robinette's Orchard - Grand Rapids, call 616/222-5801 for more information
- 5 Hop Tour & Integrated Pest Management Demonstration, 1 p.m., Bruce Lundins Hops - Empire, for more information and to register go to <http://hopgrowersofmichigan.com/events/>
- 1-9 Aquatic Invasive Species Landing Blitz, throughout week at boat access sites statewide, for more information go to [www.michigan.gov/invasives](http://www.michigan.gov/invasives)
- 9 Center for Excellence Field Day, 8 a.m., Bakerlads Farm - Clayton, for more information and to register call 517/263-7400 ext. 3

## August ctd.

- 11 Water Quality Cruise on the Clinton River, noon to 3 p.m., for more information call 810/984-3001 ext. 5
- 14 Hands-On Hoophouse Build Workshop, 9 a.m. to 5 p.m., Criterion Urban Farm - Detroit, for more information call 734/546-8657 or email [SRA.SEMichiganHighTunnel@gmail.com](mailto:SRA.SEMichiganHighTunnel@gmail.com)
- 17 Beef Grazing/Cover Crop Workshop, 6 to 9 p.m., Grove Farm - Gladwin, for more information call 989/426-7741 or email [thurlowk@anr.msu.edu](mailto:thurlowk@anr.msu.edu)
- 21 Hoop Full Harvest-Ideal Crops for Fall and Winter, 6 to 8 p.m., Plum St. Market Garden - Detroit, for more information call 734/546-8657 or email [SRA.SEMichiganHighTunnel@gmail.com](mailto:SRA.SEMichiganHighTunnel@gmail.com)
- 24 Nutrient Management Field Day, 7:30 a.m., Stoney Ridge Farms - Waldron, for more information and to register call 517/849-9890 ext. 3174
- 24 MAEAP on Farm Field Day, Branch Area Career Center - Coldwater, for more information call 517/227-2725 ext. 5 or go to [www.branchcd.org](http://www.branchcd.org)

## September

- 9 Forestry Field Day, 9 a.m. to 3 p.m., Interlochen Center for the Arts - Interlochen, for more information and to register call 231/256-9783 or email [kama.ross@macd.org](mailto:kama.ross@macd.org), registration deadline is Sept. 7
- 10 High Tunnel Tour, Plum St. Market Garden - Detroit, 10 a.m. to 2 p.m., for more information call 734/546-8657 or email [SRA.SEMichiganHighTunnel@gmail.com](mailto:SRA.SEMichiganHighTunnel@gmail.com)
- 12 Winter Marketing, Pricing & Economics, 6 to 8 p.m., U of M Campus Farm - Ann Arbor, for more information call 734/546-8657 or email [SRA.SEMichiganHighTunnel@gmail.com](mailto:SRA.SEMichiganHighTunnel@gmail.com)
- 16 Ties to the Land - A Family Forest Ownership Succession Workshop, 9 a.m. to 4 p.m., Boardman River Nature Center - Traverse City, 1/256-9783 or email [kama.ross@macd.org](mailto:kama.ross@macd.org), registration deadline is Sept. 7

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