



U.P. Ag Connections Newsletter

April 2016

Agricultural News from MSU Extension and AgBioResearch

Volume 20 Issue 4

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Welcome new farmers!

If you walk into the hoophouse at the Michigan State University North Farm in Chatham, you will be welcomed by thousands of young plants, stretching skyward as they prepare themselves for the upcoming season in the hoophouses or the fields. While a large percentage of these seedlings are managed by the staff at The North Farm, many are being grown out by the four farmers participating in the Apprentice Farmer Program (AFP).

The North Farm Apprentice Farmer Program is a farm incubator designed to provide growers the opportunity to start their farm business in a low-risk environment. Participating growers have access to the farm's equipment, facilities, resources, and staff for two years, during which time they develop their business and marketing plans, build capital through produce sales, and fine-tune their production skills. In this second year of the program, four farmers will be growing their businesses in Chatham.

Bean Pole Farm

Landen Tetil is the first participant in the AFP, now entering her second year at The North Farm. Originally from the thumb of Michigan, she graduated from Northern Michigan University having focused on environmental studies and soils. After a brief stay in Wisconsin, she returned to the Upper Peninsula to start Bean Pole Farm in Chatham. She grows a wide variety of fruits and vegetables, but as her farm name implies, is particularly fond of beans.

Full Heart Garden

Also a graduate of NMU, Brigitte Derel has spent many years working on a variety of farms in the Midwest and Northeast. She most recently spent time furthering her northern climate production skills at Seeds & Spores Family Farm in Marquette. Brigitte recently purchased land in Skandia and is looking forward to using the next two years to establish her business and prepare for a transition of production to her home farm.

Mastfell Farm

Joining us from Cincinnati, Ohio, Alan Kissinger comes via the Student Organic Farm located on the MSU campus in East Lansing. He participated in MSU's Organic Farmer Training Program and served as the SOF farm stand manager before deciding to head north. He aims to focus on perennial and woody species on his future farm, and will spend the next two years experimenting with northern climate production and developing his business model.

Treasa's Treasures

Returning to the farm after a long hiatus, Treasa Sowa is expanding her already existing farm located in Au Train. She has a unique history with the farm in Chatham, having worked at the research station as a young girl in the 1960s. She now returns to the farm to learn new skills and access more land, which she hopes will provide her with additional product for sale at multiple farmers markets.

Those local to the Chatham area, keep an eye out for more information on the AFP farm stand that will take place throughout the growing season at The North Farm! To learn more about the program and its participants, please head over to www.msunorthfarm.org.

Collin Thompson
Community Food System Educator, MSU Extension

Michigan State University

AgBioResearch

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Bay de Noc Gardening Conference Scheduled for April

April 6th is the registration deadline for the Bay de Noc Gardening Conference in Escanaba. The all-day event will be held at Bay College on Saturday, April 23. Melinda Myers, nationally known horticulture expert, will be back as the featured speaker. Her topic, "Low Maintenance, Big Impact Perennial Gardens," will give attendees ideas for perennial plant combinations and varieties that provide big impact with minimal care, as well as tips on selecting perennials for all sorts of situations. Maintenance for keeping perennial gardens looking beautiful year round will also be covered. Melinda Myers presentations are presented by ATC and Grow Smart.

Participants will then be able to choose three of the fifteen additional classes that will be offered. Melinda Myers will teach a class on shade gardening beyond hostas. Other conference topics include sustainable gardening, roses and flowering shrubs, plant supports, heather and heath, vegetables in small spaces, companion planting, rhubarb and asparagus, living decor, fruit tree varieties, small fruit, lawn care, and attracting birds to your yard. Dr. Dave Gafner will answer gardening questions, and Chef Robin Holmes of Pacinos will be back to demonstrate simple cooking techniques.

The cost of the program is \$38.00 per person, which includes morning refreshments, lunch, and up to three classes plus the keynote presentation. Only pre-paid registrations will be accepted. Brochures can be picked up in the Escanaba area at Flinn's Flowers & Garden Center, Wickert Floral, Escanaba Downtown Development Authority, and the Bonifas Arts Center. In the Marquette area, brochures are available at Flower Works and Garden Bouquet and Design. The brochure can be downloaded from the Delta County Master Gardener Association website at <http://dc-mga.myfreesites.net/> as a pdf file.

For a registration brochure or more information call 906-398-8145. The program is open to anyone with an interest in gardening, regardless of experience. The program also qualifies for Master Gardener educational credit.



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Breeding soundness exams for bulls – know he's ready

by Frank Wardynski

Fertility testing breeding bulls is a minor production cost and can help prevent severe reproductive failure. Turning infertile males into breeding pastures will frequently yield a high percentage of open cows. High feed costs along with other increasing production costs have created a situation that by keeping these open cows through an unproductive year is cost prohibitive. Rising values of pregnant and young females are driving replacement costs up. Also, because beef calf prices are at historic highs, the lost opportunity to sell calves due to cows not becoming pregnant can have significant financial impact on a beef cow/calf operation.

Breeding bulls can remain fertile with high quality semen for 10 plus years. However, bulls may exhibit low fertility performance at any age. Low fertility can be caused by a number of factors including frost damaged testicles, infection, poor nutrition, and genetic predisposition. Younger bulls may exhibit breeding problems due to these same reasons; in addition, they may not have reached full sexual maturity or may have small scrotal circumference.

Bulls can be tested for fertility utilizing a breeding soundness exam. During the exam they are inspected and observed for anatomical correctness and abnormalities such as penile warts, reproductive tract infection, scrotal circumference, and semen quality. Semen quality is determined by collecting a semen sample to determine sperm cell motility, concentration and morphology.

Conducting breeding soundness exams on breeding bulls is an important first step to ensure that the breeding season will be successful. Michigan State University will be conducting Breeding soundness exams at various locations across the U.P. April 25 – 28. The schedule is listed below. The cost is \$60/bull. To register bulls for exams please contact Frank Wardynski, Ruminant Educator with Michigan State University Extension at 906-884-4386 (office) or 906-281-0918 (mobile) or wardynsk@anr.msu.edu.

April 25	John Haindl	Cooks
April 26	Dan Dalgord	Garden
	UPREC	Chatham
April 27	Scott Wallace	Bark River
April 28	Steve Acciaccia	Pelkie
	Dykstra Farm	Ontonagon
	Jon Ahlberg	Iron River

Vegetable Skill Building

Growing the skills that grow your life

Healthy food is an essential building block to a healthy community. This skill building workshop will help you grow more healthy food while caring for the resources that care for you.

April 2, 2016

8:50 am—4:00 pm

BMCC West Campus

Migizi Hall—12214 W Lakeshore Drive

Brimley, MI 49715

Cost for this event is \$10 and includes materials and lunch

For more information or to enroll online:

www.events.anr.msu.edu/EastEndVeg/

Approved for MAEAP Phase I Educational Credit

Featured speakers and topics

Michigan State University:

- Ron Goldy
- Ben Werling
- Ben Phillips
- Collin Thompson

Michigan Agriculture Environmental Assurance Program

- Mike McCarthy
- Erin Satchell

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GUPAA Priorities Set

The GUPAA board and research advisory committee met and reviewed the Project GREEN Research Priorities and Livestock Priorities for the U.P., which are listed below.

Top Agronomy Priorities

1. Promote the integration of crop and livestock systems.
2. Investigate and develop methods to improve soil health.
3. Evaluate cost-effective methods to maintain or increase the economic viability of forage production in the UP.
4. Continue to investigate and develop malting barley and other potential cash crop production and marketing.

Top Livestock Priorities

1. Promote the integration of crop and livestock systems.
2. Investigate programs that add value to UP produced Holstein deacon calves and other classes of livestock.
3. Encourage methods to enhance small and/or beginning farm development and sustainability.
4. Utilize the beef herd at the Upper Peninsula Research and Extension Center to enhance research capabilities.

GUPAA was recently accepted as the U.P. stakeholder organization for the Michigan Alliance for Animal Agriculture (M-AAA), a partnership between Michigan's animal agriculture industries, the MSU College of Agriculture and Natural Resources, MSU AgBioResearch and MSU Extension. GUPAA is proposing the following priorities:

1. Integration of annual crops into livestock production systems
2. Investigate programs that add value to U.P. produced Holstein deacon calves
3. Methods to enhance U.P. farm development and sustainability

GUPAA members will have the opportunity to discuss and ratify these lists of priorities at this year's annual meeting.

GUPAA Annual Meeting

Wednesday, March 30th

Heirman University Center @ Bay College, Escanaba

Registration—10:30 am

Business Meeting—11 am

Lunch

Featured speaker—Collin Thompson, The North Farm at the Upper Peninsula Research and Extension Center

Northern Michigan Livestock

Gaylord, MI—I-75 (Exit 282), 2 miles West on M-32 to N. Townline Road; Go 2 miles North to Sale Yard

2016 Spring Feeder Cattle Sales

Note: All Sales are on Fridays @ 1 pm
April 8 • April 22 • May 6

Pre-conditioned cattle will be sold first on April 22, proof required

- ◆ Pre-conditioning program strongly recommended
- ◆ All feeders must meet proper TB & ID requirements
 - ◆ Request cattle be brought in the day before sale
- ◆ Bred cattle and breeding bulls may be sold at sales
 - ◆ Steers in question will be sold as bulls

Sale Barn (989) 732-5732

Frank or Jan Leist (231) 439-5679

See us at our website:

www.northernmichiganlivestock.com

USDA Encourages Landowners to Sign-Up for Conservation Planning

EAST LANSING, Feb. 10, 2016 – The U.S. Department of Agriculture is calling on Michigan farmers and private forest owners to sign up for conservation planning assistance by **30 April**. Conservation planning helps farmers and private forest owners identify resource concerns on their land and identify different methods to address them.

The USDA **Natural Resources Conservation Service** provides conservation planning services to farmers and private forest owners at no cost. NRCS also provides financial assistance for conservation activities on private land that help reduce soil erosion, improve water and air quality, and improve wildlife habitat. Some practices eligible for NRCS financial assistance include windbreaks, livestock waste storage, nutrient and pest management plans, grassed waterways, cover crops, and timber stand improvement.

During conservation planning, an NRCS conservationist and the landowner or operator, walk the land and identify resource concerns. A conservation plan is developed prioritizing resource concerns and how the landowner can alleviate them. When the conservation plan is completed, the landowner may apply for USDA financial assistance to implement conservation practices that address the resource concerns identified in the plan. Participants are not required to address the resource concerns identified, enrolling in USDA conservation programs is completely voluntary.

Applying for USDA conservation financial assistance is a competitive process. Completing a conservation plan does not guarantee that a landowner will receive financial assistance. However, developing a conservation plan is the first required step for enrolling in USDA conservation programs.

To learn more about USDA conservation programs and technical assistance contact your local USDA office or go the USDA Natural Resources Conservation Service website at www.mi.nrcs.usda.gov.

Submitted by; Bill Cook, MSU Extension Forester



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Bovine Leukosis Virus—Beef Cow Longevity Project

Bovine leukosis is a chronic, incurable disease of cattle caused by the virus Bovine Leukemia Virus (BLV). Current levels of BLV infection in the US dairy industry are alarming. Research by Michigan State University in 2010 estimated that 83% of dairy herds in Michigan are infected with BLV. In a national study conducted by USDA in 1997, it was estimated that 38% of beef cow-calf herds are infected with BLV. BLV can have significant economic impacts on cattle herds. In a study done at MSU, dairy cattle infected with BLV were 23% more likely than uninfected herd mates to be culled over a 19 month monitoring period. We lack similar information on the longevity of beef cow infected with BLV. **Our BLV Research Team is interested in determining if beef cows infected with BLV are more likely to leave the herd earlier when compared to non-infected herd mates. We are currently recruiting beef cattle herds in Michigan to participate in this USDA Funded study to answer this and other questions about this important disease**

What this study entails

1. We will take a blood sample from all cows at a single point in time, preferably prior to breeding. This could be during vaccination prior to calving, spring vaccination or when cows are being synchronized for breeding. This sample will be taken ONE time only.

2. We will then ask you to provide us records on those sampled cows over the next two years including breeding/pregnancy outcome, calf weaning weight (if available) and if, when and why cows were culled or died.

What you will get

1. We will provide you with a BLV herd profile on the percentage of cows infected.
2. At the end of the study, we will provide you the individual cow results.
3. We will work with you and your veterinarian in designing a BLV control strategy.
4. Participation in the generation of new knowledge that has the potential to help the entire cattle industry

If you are interested in participating in this study, please contact:

Dr. Dan Grooms
grooms@cvm.msu.edu
Mobile # 517-896-7334

Submitted by Renee Coyer, D.V.M.,
Thompson Veterinary Clinic

V.O.I.C.E.:

Veterinarians Organizing Information for Client Education

Clare County Livestock Auctions 2016 Feeder Cattle Sales

All cattle weighed at sale time. Accepting cattle on
Wednesday all day.

Wednesday cattle will be fed and watered!

Colored and Holstein steers, heifers, calves
(some pre-conditioned)

**Sales on Thursday and start at 1:00 pm
April 14th • May 5th**

Clare County Livestock Auction, LLC
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Secretary: Mary Robertson



Equity Cooperative Livestock Sales Association

**WAUKON, IOWA
Feeder Sales Schedule**

• 2nd & 4th Wednesdays

(563) 568-4501

www.equitycoop.com

MAEAP Education and Forage Night



MAEAP Phase 1
Event

April 7, 2016
6:00—8:00 pm
Garfield Township Hall
N6760 M-117
Engadine, MI



Free refreshments

Agenda

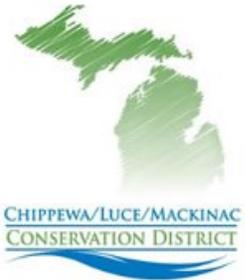
Mike McCarthy, Chippewa Luce Mackinac Conservation District—Implementing MAEAP on the farm

Travis Kangas, Chippewa Luce Mackinac Conservation District—Local forest management

Jeremy Sweeten, Cisco Seeds—Planting improved forage varieties

Jim Isleib, MSU Extension—Soil health and organic matter in the U.P.

RSVP is not required but is greatly appreciated. To RSVP or for more information please call Mike McCarthy at (906)632-9611, ext. 101 or email mike.mccarthy@macd.org.



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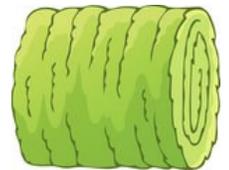


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Market Report

Livestock prices accessed 3/16

Choice Steers	\$115—\$129 per 100 lbs.
Holstein Steers	\$100—\$119 per 100 lbs.
Hogs	\$58—\$64 per 100 lbs.
Lambs	\$120—\$160 per 100 lbs.
Cull cows	\$60—\$75 per 100 lbs.
Calves	\$150—\$290 per 100 lbs.
Goats	\$110—\$150 per 100 lbs.

Breeding and Feeder Animals

Grade Holstein cows	\$1600—\$2200/head
Grade Holstein bred heifers	\$1600—\$2500/head

Feed Prices across the U.P.

	Avg. \$/cwt	Avg. \$/ton	Price Range
Corn	\$10.21	\$204.25	\$160-270
Soymeal	\$20.49	\$409.75	\$338-556
Oats	\$9.51	\$190.25	\$160-236
Barley	\$9.71	\$194.25	\$150-242
Average price/100 wt. for 1 ton lots			



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Cover Crops as a Livestock Feed

By Frank Wardynski

Cover crops have increased use over recent years to assist crop farmers to capture soil nutrients, protect soil, preserve moisture and generally improve soil health. Many cover crops are grown during fallow time between the main cash crops grown on the farm. Livestock producers can reap these same conservation benefits while capturing forage nutrients by grazing or harvesting as hay/silage.

Some cover crops are grown to specifically aid in production of the next crop. Legumes are frequently grown because of their [ability to fix nitrogen](#). Much of this nitrogen can be utilized by the next or subsequent crops grown in future years. Grazing legume cover crops provides livestock with high quality feed while returning some of the nitrogen back into the soil via manure and urine.

Other cover crops may be planted with intentions of improving soil structure in no-till systems. Especially on clay soils, crops such as oilseed radish, turnips, soybeans and field peas have the ability to break compaction and prepare soil for a more favorable seed bed in no-till systems. These cover crops are particularly useful on [clay soils](#). Michigan State University Extension Educators frequently recommend utilizing no-till systems on heavy clay soils to establish grazing crops. Tilled clay soils are easily damaged from intense hoof traffic if soil moisture conditions are too wet.

Grazing of cover crops appears to provide greater soil improvement benefits than harvesting forages as a stored feed.



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Harvesting forages as hay or silage removes organic matter that could potentially remain of the field and be incorporated back into the soil. The point isn't to indicate that harvesting forages is detrimental, but rather simply that grazing the forages can provide enhanced soil improvement benefits. For an example winter rye is frequently planted in the fall as a cover crop after a grain or silage harvest. Harvesting this whole plant winter rye the following spring as hay or silage allows high quality feed resources to be captured and is more beneficial to soil health than leaving the field lay fallow through the winter months.

Grazing or harvesting cover crops offers livestock producers the opportunity to capture highly digestible nutrients for their animals and provides benefits to the soil in their cropping systems. For more information about utilizing cover crops as a livestock feed source contact Frank Wardynski, Ruminant Extension Educator with Michigan State University at wardynsk@anr.msu.edu or 906-884-4386.

Upper Peninsula Research and Extension Center

First Short Course of the season to be hosted at The North Farm April 17th!

by Abbey Palmer, The North Farm Education Coordinator

The North Farm is hosting a series of MSU Extension short courses starting in April on topics designed for market gardeners, small farms, and skill-seekers interested in diversified vegetable production. These short courses are an in-depth exploration of farming fundamentals and best practices for diversified vegetable growers. Each five-hour learning session has an emphasis on hands-on activities so participants can practice what they learn, and includes the cost of materials for a project.

All workshops will be held on-site starting at 1 pm EST and will include a combination of experiential and classroom-based learning. Short courses qualify for education hours through the [MSU Extension Master Gardener program](http://www.msunorthfarm.org).

Registration is required for these events and can be accessed at www.msunorthfarm.org. Questions? Contact Abbey Palmer at palmerab@msu.edu or 906-439-5114.

Season Extension – Sunday, April 17 • 1-6 pm

Growing food throughout the year increases food security and can bolster your farm's earnings. This course will be valuable for individuals in the planning stages of hoop house construction.

Hands-on: Bend hoops for a 4'X12' bed

Topics:

Which hoop house is right for your operation?

Siting considerations

Hoop house planting schedules

Crops for year-round production

Other scheduled short courses:

Small Farm Systems – Sunday, June 26

Whole Farm Health – Sunday, August 28

Seed Saving – Sunday, October 9

TOGETHER AT THE FARM: U.P. LOCAL FOOD CONFERENCE

SATURDAY, JULY 30TH

MSU UPPER PENINSULA RESEARCH AND EXTENSION CENTER

*SAVE THE DATE!
MORE DETAILS TO COME!*

SAVE THE DATE: UPREC Consignment Auction *Supporting UPREC Special Project Fund* **Saturday, May 21st**

Last year, members from the Growing U.P. Agricultural Association (GUPAA) and the Upper Peninsula Research and Extension Center (UPREC) Advisory Council met to discuss generation of funds to support special projects identified by key stakeholders. Although UPREC has a research endowment created from the sale of the dairy herd, the amount does not support sizable work and growing the endowment to a scale that would support the types of projects requested seemed improbable in the short-term. A sub-committee was formed during the July 2015 UPREC Advisory Council meeting to explore funding options to address these special projects and to identify and prioritize projects the fund could support. The UPREC Special Project Fund was born from these discussions.

Purpose:

Raise money for the UPREC Special Projects Fund established to support research, education and outreach targeted specifically for the U.P. agricultural community

Specific projects to support:

1. Develop teacher institutes for secondary educators focused on food and agriscience education for the purpose of establishing formal agricultural education programs
2. Support on-farm research and demonstration trials led by MSU Extension field staff to address research priorities within local agricultural communities

Auction:

Items to consign include farm machinery, gardening tools and implements, hay and straw, and more. Money earned from the sale of the items you bring to the auction will be split three ways; 1) auctioneer commission, 2) UPREC commission, and 3) profit to the seller. Commission percentages will be determined based on the value of the item.

Additional details will be shared in the May newsletter—but for now, mark your calendars for May 21st! To have your items listed in the sale, contact Michelle @ (906) 439-5114.

Auctioneer—Col. Dan Samson

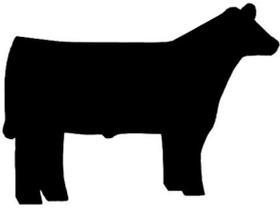
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www.facebook.com/MSU.UPREC

Malting barley trials useful in variety selection

by Ashley McFarland

In 2015, a two-site variety trial was managed by staff from the [Michigan State University Upper Peninsula Research and Extension Center](http://www.uprec.msu.edu/) (UPREC). The trial was supported by a grant through the [American Malting Barley Association](http://www.amalt.org/). The primary goal of this research was to examine a set of malting barley varieties for yield and quality performance in various climatic regions of Michigan. MSU collaborated on this trial with 8 other states and two locations in Canada, through the Eastern Spring Barley Nursery program – spearheaded by the [Craft Maltsters Guild](http://www.craftmaltstersguild.com/). The two trial locations were 1) Upper Peninsula Research and Extension Center in Chatham, MI (Alger County) and 2) Hampel Farm (Grand Traverse County). Residing in diverse regions, each area has a long history of small grain production, and multiple craft malthouses due to start production with the intent to source locally grown barley. Each plot utilized a rectangular lattice experimental design, which allows for good statistical analysis of results. Twenty-seven varieties were tested in four replications. Complete data for all varieties across both locations can be found at the [UPREC Malting Barley website](http://www.uprec.msu.edu/malting-barley-website/). Grain was analyzed by [North Dakota State University](http://www.ndsu.edu/) and malt analysis was conducted by the USDA-ARS Cereals lab in Madison, WI.

The Chatham site experienced below average yields, but many varieties had favorable grain and malt quality parameters. The plot mean yield was 52 bushels/acre, although the 7-year average in Chatham is 62 bushels/acre. Despite lower than average yields, the Chatham site experienced no presence of DON in any of the varieties. Twelve of the 27 varieties met the AMBA ideal malt protein criteria for all malt two row, which is under 12.0%. All but four varieties were under 13.0%. Incidence of pre-harvest sprout was much better than years past with 12 varieties with an RVA of over 120, and only 2 below 50. The majority of the varieties had suitable malt quality profiles, with the exception of overall high FAN scores.

The Buckley site was significantly challenged by weather. An excessive rainfall event occurred 12 days before harvest followed by a pattern of heavy dews and consistent rains. This delayed harvest presented the opportunity for considerable sprout damage, as evidenced by the very low RVA numbers. As shown by previous research, varieties native to the United Kingdom fared much better in terms of resistance to pre-harvest sprout than their North American counterparts. Yield at Buckley was significantly higher than Chatham, with a respective plot mean of 75 bushels/acre. DON levels were not a concern and grain protein was consistently below 12.0%. In terms of malt quality, excessive sprout damage likely affected malting profiles. FAN levels were also high.

Staff at UPREC plan to host a three-site trial (Alger, Presque Isle, and Barry Counties) in 2016 to continue to build on the data collected on these varieties. Information gained from these trials have and will continue to be used to inform producers and seed growers on what varieties have potential in the state.

Michigan State University

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Calendar of Events

- April 2 Vegetable Growing Workshop, Brimley
- April 12 Pesticide applicator training session & exams, Kewadin Casino, SSM (9 am review, 1:30 pm exam)
- April 17 Season Extension Short Course, The North Farm @ UPREC (1-6 pm)
- April 23 Bay de Noc Garden Conference, Bay College in Escanaba—*Registration deadline April 6th*
- April 25-28 Bull soundness exams (throughout U.P.)
- May 21 UPREC consignment auction fundraiser
- June 26 Small Farm Systems Short Course, The North Farm @ UPREC (1-6 pm)
- July 30 Together at the Farm: U.P. Local Food Conference, Upper Peninsula Research and Extension Center
- August 28 Whole Farm Health Short Course, The North Farm @ UPREC (1-6 pm)
- October 9 Seed Saving, Short Course, The North Farm @ UPREC (1-6 pm)

