

U.P. Ag Connections Newsletter

October 2015 | *Agricultural News from MSU Extension and AgBioResearch* | Volume 19 Issue 8

In this issue:

Cover Crop Field Day in Menominee County

Cover crop use in the Upper Peninsula is gaining momentum as farmers try to capitalize on the multiple benefits they can provide; preventing soil erosion, enhancing soil health, reduce needs for other inputs, conserve soil moisture, and protect water quality. One benefit not fully understood for this region, however, is the positive economic impact cover crops can have on yields.

This question prompted a research trial that is being hosted by the Steve Brock Dairy Farm, near Daggett, Michigan. Fall cover crop use is assessed through success of establishment of the crop and soil fertility and microbiology The real test will be the following 2016 corn silage crop to determine if there are any yield differences between areas with and without cover crops, and amongst various cover crop treatments.

You are invited to see these various cover crops Thursday, October 15th from 9:30—11:30 am CST. The event will be hosted in-field, just three miles east of Daggett on the 358 Road. Light refreshments will be provided. Gerry Davis and Daniel Olson from Byron Seeds will also be on hand to discuss use of cover crops in the Upper Peninsula. The event is co-sponsored by the Steve Brock Dairy Farm, MSU AgBioResearch—Upper Peninsula Research and Extension Center, MSU Extension, Byron Seeds, LLC, and Menominee County Farm Bureau.

We hope to see you out in the field!

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MICHIGAN STATE UNIVERSITY | Extension

Michigan State University AgBioResearch

Master Composter Immersion Workshop and Train the Trainer

7 weeks of training rolled into two days!

When: Monday, October 26th & Tuesday, October 27th

9 am—5 pm

Where: Eastern U.P. ISD
(315 Armory Place, Sault St. Marie, MI)

Cost: *Entire workshop $125* (includes lunches both days plus entire curriculum and more!)

Master Composting Only $75 (starts 1 pm on Monday, includes Tuesday lunch and manual.

Register now at:

http://events.anr.msu.edu/mctrainthetrainer/

Introductory training session offer of $125/person (a $225 value) includes lunch, complete curriculum, Facilitator's Guide , educator support, and resources CD for coordinating and presenting the Master Composter program in your own community.

This program is for community garden leaders, school garden leaders, recycling coordinators, educators, Master Gardeners , compost operators, small farmers, government officials, private organizations, or anyone else who wants to coordinate backyard composting in their community.

Annie's Project in Michigan

Michigan women play a significant role in the successful operation of many of Michigan's farms. Regardless of whether a woman is employed in an off-farm job her role in the family farm is essential to the operation. In understanding that, Annie's Project is conducted to provide women with the knowledge and tools to help them be more confident and effective in their farm roles.

Empowering women in agriculture is the mission of Annie's Project, a program born in Illinois and currently taught in 33 states, including Michigan. Annie's Project is a six-week educational program supported and conducted by Michigan State University Extension that is committed to strengthening women's roles in the modern farm enterprise. Annie's Project teaches all five areas of agricultural risk management that include financial, human resources, legal, marketing, and production. It is in the core values of Annie's Project to provide a safe harbor learning environment, connection with other women and professionals, shared intelligence with each other and instructors and discover new understandings. The program is a great opportunity for women to come away with not only useful new skills and tools but also beneficial relationship networks that foster shared learning.

Annie's Project provides a positive and engaging learning environment for participants to make most of the program and leave with implementable information for their farm. Women's role in agriculture is on a growing trend statewide and nationally. According to U.S. Department of Agriculture there are 24, 000 women farmers in Michigan with 7,409 of those women being the principal operators of farms. Women are an essential part of agriculture and Annie's Project aims to ensure that women are provided the tools and information needed to mitigate risk on their farms.

Annie's Project is held in various locations around the state based on interest in the program. If you are interested in learning more about Annie's Project or to see how you can get an Annie's Project in your area contact Michigan Annie's Project Statewide Coordinator, Katelyn Thompson at thomp737@anr.msu.edu.

MSU Extension Welcomes New FoodCorps Service Member

MSU Extension is pleased to announce that Jeannette Cushway, FoodCorps service member, began her term of service on September 1, 2015. She will be serving with MSU Extension in partnership with the U.P. Food Exchange, EUP Food Hub, and EUP ISD on programming in the EUP to support school gardens and hoop houses and farm to school efforts.

Michelle Walk, MSU Extension Educator and U.P. Food Exchange co-lead, states that she "is thrilled to continue to be able to be a service site for FoodCorps and to have Jeannette serving in the role. This will just complement the work we are already doing in the region around local food initiatives and allow us to continue to engage with the schools in the region." Jeannette takes over for Kathryn O'Donnell who completed her two year term of service on July 31, 2015.

Jeannette comes to FoodCorps with a great background in food and nutrition and gardening experience. Most recently Jeannette worked as a Senior Student Cook Supervisor with Michigan State University Culinary Services at The Vista. She also served as a Garden Club Leader with the Northwest Initiative in Lansing. She has a B.S. in Dietetics from Michigan State University.

FoodCorps, part of the AmeriCorps national service network, is a nationwide team of leaders that connects kids to real food and helps them grow up healthy. Service

members are placed in communities under the direction of local partner organizations, for a year of public service. There are three pillars of FoodCorps service:

- Teach kids about what healthy food is and where it comes from (Knowledge)
- Build and tend school gardens (Engagement)
- Bring high-quality local food into public school cafeterias (Access)

Nationwide, FoodCorps offers service positions in 18 states. Jeannette can be reached at the MSU Extension office in Chippewa County at 906-635-6368.

New format for Together at the Table U.P. Regional Food Summits

November 3-5, 2015

For the last several years, the U.P. Food Exchange has been hosting well-attended and highly successful regional food summits each November. We are always striving to better meet the needs of those who attend, so we have decided to switch things up a bit this year. Instead of 3 day-long, regional summits this November, we are planning a larger U.P.-wide event for 2016. This larger event will offer more hands-on learning and networking opportunities. This means that this year's "regional summits" will be shorter and designed to help us learn what people would like to see for the 2016 larger event.

Come join us for an interactive two-hour session about what is needed to take local food and agriculture to the next level in your community!

www.upfoodexchange.com

Tuesday, November 3rd - Western U.P.
Calumet, CLK Elementary School Common Room
6—8 pm

Wednesday, November 4th – Eastern U.P.
Sault Ste. Marie, LSSU Cisler Center
9—11 am

Thursday, November 5th – Central U.P.
Marquette, Peter White Public Library Comm. Rm.
3—5 pm

Snacks and refreshments provided. Invite your friends, family, neighbors, and colleagues. All eaters, growers/raisers/farmers and supporters of local food are welcome!

U.P. FOOD EXCHANGE
growing local food systems

Understanding MSU soil test report basics *Part 1 of 2*

Get the most out of your MSU soil test report with these tips on collecting a good soil sample for testing.

By Jim Isleib, Michigan State University Extension

Michigan State University Extension promotes regular soil testing for all commercial crop production. Many farmers soil test regularly or occasionally. MSU's Soil and Plant Nutrient Laboratory is an excellent place to have soil samples analyzed. There are other good options for soil testing, including several public and private laboratories.

After 26 years of reviewing MSU soil test reports and making fertilizer recommendations for farmers, gardeners and others from across the Upper Peninsula, I have the following pointers regarding the MSU soil test report.

Want a useful report? Collect a good sample!

- Collect a good, representative sample. If you don't know how, review the process in "Sampling Soils for Fertilizer and Lime Recommendations," MSU Extension publication E0498.
- Make sure you sample as deeply as you intend to till the ground. If you are not tilling the ground, such as in pasture, hay, lawns or other perennial crop situations, then sample 3 inches deep. In long-term, no-till systems, a 2-inch deep sample should be collected to test pH, and a separate sample 6-7 inches deep collected for other nutrient information.
- Be sure to include the depth of tillage on the MSU Soil Test Information Sheet. The depth you indicate has a direct relationship to the amount of lime recommended, if any is needed. For example, twice as much lime will be recommended for 8-inch tillage compared to 4-inch tillage. If you don't specify a tillage depth, the laboratory will automatically enter a 9-inch depth.
- Select the crop to be grown carefully from the list on the soil test information sheet. If an exact fit isn't listed, pick the closest thing and include a note on the information sheet. This will help your local Extension educator or farm supply dealer understand what is planned. If you list multiple crops as "1st year crop" and "2nd year crop," but you intend to plant them together, include a note on the information sheet to make this clear. A "2nd year crop" will take into consideration any nitrogen credits estimated from the "1st year crop" listed, if it is a legume.
- Include a realistic yield goal for the crop or crops you plan to grow. If records are available, this could be the average yield of five previous normal years. Feel free to be optimistic, but understand the higher the yield goal, the more nutrients will be recommended. If you don't indicate your desired yield, the laboratory will include a "default" yield which could be too high, resulting in an excessive nutrient recommendation, or too low, resulting in an inadequate nutrient recommendation. This is a common problem on soil test reports, especially those from farmers unfamiliar with the system.
- Include your email on the information sheet if you regularly check it for messages. The laboratory will be able to email you and your local Extension educator an electronic copy of your report as soon as it is completed. This will be quicker than U.S. mail. If you have questions regarding the report or need specific fertilizer recommendations, please contact your local Extension educator.

Part 2 of this article will include tips for interpreting your MSU soil test.

Questions? Contact your local MSU Extension field crop, vegetable or fruit educator about commercial soil test reports. For home gardening and landscape soil test reports, contact the MSU Extension toll-free hotline at 888-678-3464.

Animal Manure Compost, Agriculture Implications

By Frank Wardynski
Ruminant Extension Educator

Composting animal manure has long been used as a soil amendment to improve soil health. Composting has increased use as a tool to manage animal manure in recent years for livestock producers. In addition to the soil health benefits associated with applying animal manure compost, other advantages include improved storage options, reduced volume of material to be transported and spread on fields, and it is more suitable to be spread on hay and pastures during the growing season than raw manure.

Composting is a biological process in which aerobic microorganisms decay organic materials such as manure and bedding into a soil like substance. Good composting requires a mix of ingredients that allow the microbial population to consume carbon and nitrogen. A carbon to nitrogen ratio of 25-30:1 is ideal while a ratio of 20-40:1 is acceptable. Moisture content also must fall into a certain range. The ideal range falls between 50-60% with 40-65% being reasonable. Most well bedded manure pack falls into an acceptable range for both carbon to nitrogen ratio and moisture content. Michigan State University Extension Educators recommend *On-Farm Composting Handbook, NRAES-54 Natural Resource, Agriculture and Engineering Service,. 1992.* as a reference for composting management practices.

Pure manure is frequently too high in nitrogen and moisture content to be properly composted. However, manure can be mixed with other carbon sources such as straw, corn stover, wood residue, or leaves to balance the carbon to nitrogen ratio and moisture content. Piles of compost are formed and allowed to begin the composting process. During the process aerobic organisms consume the nitrogenous and carbon compounds with oxygen and generate organic matter, carbon dioxide and heat. As heat builds up within the pile and oxygen is depleted a mixing or stirring process is required to release heat and replenish oxygen within the pile. The stirring process can be conducted by special windrow turners or by tractor or end loader with a bucket. Microbe populations within unturned piles will quickly die from the excessive heat of from oxygen starvation.

The composting process of well managed piles can be mostly completed within 4-8 months. High quality compost requires additional time for curing of 2-4 months. High quality compost will be thoroughly decomposed, be more soil like and contain more humus. Unfortunately that time frame may not allow for the composting process to be completed and then spread before winter. Unfinished compost can be spread during the fall months but will be limited in its benefits of fully composted material. The compost material will reduce in volume through the process by about 30%. Compost material will be more thoroughly reduced if the process is completed and require less time for spreading.

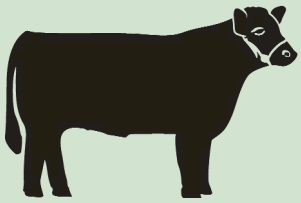
Compost can be spread on hay fields and pastures without the disadvantages of spreading manure directly. The soil like structure of compost frequently falls to the ground and allows grass to more easily grow through the material than manure pack. Animals are more likely to efficiently graze after compost spreading as opposed to spreading raw manure.

Don't forget to "Fall Back" on November 1st!

Attention Youth Showmen:

Club Calf Sale

hosted by the Bay de Noc Cattle Association



October 24, 2015
Noon
Rapid River Sale Yard

Prospect steers
Spring heifers

Questions - John @ (906) 399-5510

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BREEDING CATTLE TO IMPACT THE PRESENT AND INFLUENCE THE FUTURE.

BREEDING STOCK–BULLS
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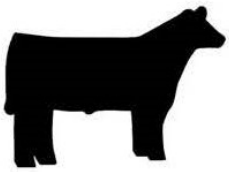

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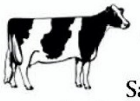
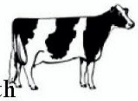
U.P. Ag Classifieds

Personal ads will be removed monthly. We reserve the right to edit your ad. Free ads must be no more than 110 characters. Please respect the space requirements. You can always purchase an ad if more space is required. Please call or email your ad no later than the 15th of each month. Call or email Michelle at (906) 439-5114 or colema98@msu.edu.



Rosebush Sale Barn, Inc.



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Baby heifer & bull calves sell every Tuesday at 1 pm

Over 40 years experience in Dairy Business

Hay & Straw available
Self-propelled Ag Bagger for rent, makes 12' x 250' bags
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Market Report

Choice Steers	$118-$136 per 100 lbs.
Holstein Steers	$110-$124 per 100 lbs.
Hogs	$6-$70 per 100 lbs.
Lambs	$150-$165 per 100 lbs.
Cull cows	$10-$88 per 100 lbs.
Calves	$125-$320 per 100 lbs.
Goats	$125-$150 per 100 lbs.

Breeding and Feeder Animals
Grade Holstein cows $1800 - $2650/head
Grade Holstein bred heifers $1800 - $2100/head

Feed Prices across the U.P.

	Avg. $/cwt	Avg. $/ton	Price Range
Corn	$10.06	$201.20	$170-250
Soymeal	$24.30	$486.00	$430-622
Oats	$13.03	$260.60	$170-300
Barley	$12.10	$242.00	$170-328

Average price/100 wt. for 1 ton lots

Skinners

Pickford, MI
(906) 647-5655 or
(877) 647-2500

Kubota, AGCO, Massey-Ferguson, New Idea, Hesston, Gehl, Bush Hog, H&S, and Kyerneland

Upper Peninsula Research and Extension Center

Calling all Farmers!

The Apprentice Farmer program is now accepting applications for their Farm Incubator

Have you ever wanted to start farming independently, but don't feel like you're quite ready to start out on your own? Then the North Farm's Apprentice Farmer program may be for you!

The Apprentice Farmer Program is a farm incubator program that aims to serve as the launching point for individuals interested in starting their own farming enterprise. This two-year, residential program provides farming entrepreneurs with the necessary tools and assistance needed to ensure a solid start to their farming career.

Land, equipment, tools, and mentorship are provided to qualified applicants so they can develop a business plan, establish accounts, build capital, and fine-tune skills. The apprentice farmers will grow alongside the talented North Farm staff and other apprentice farmers, sharing ideas, techniques, and labor.

Housing is provided for a small fee to all participants that desire to live on-site. It is strongly encouraged that participants take this opportunity to fully immerse in farm life!

More information about the program, including application, program fees, and the program handbook can be found at the North Farm Website.

http://www.msunorthfarm.org/apprentice-farmer-program.html

Extension Workshop Series

All workshops are held on-site at the North Farm and start at 2 pm EST. Contact Collin Thompson at (906)439-5059 or thom1264@anr.msu.edu with questions.
Registration can be accessed at:
www.events.anr.msu.edu/NorthFarmWorkshops15/

Soil Health and Cover Crop Rotations – October 17

Soil health is the backbone of any farm and integrating cover cropping systems aids in the development of healthy soil systems. Join The North Farm staff for a discussion regarding planning cover crop schedules, analyzing soil health, and management strategies for organic systems. (2 hours)

Scheduling and Production Planning – November 7
One of the most exciting and challenging parts of farming is production planning. This workshop will focus on planning your crop schedule to provide consistent supply to meet your market or family's demands. We will discuss variety selection, succession planting, crop rotations, and cover cropping. (3 hours)

www.msunorthfarm.org

MSU Upper Peninsula Research and Extension Center
http://agbioresearch.msu.edu/centers/uprc

Please follow us on Facebook to receive daily updates of Farm activity – www.facebook.com/MSU.UPREC

Dairy Steer Calf Feeding for Profitable Weight Gain

Frank Wardynski, Ruminant Educator,
Michigan State University Extension

Conventional feeding of bull calves typically involves mixing 0.5-1.0lb of a 20:20 milk replacer powder with two quarts of water and fed twice daily until weaned at eight weeks of age. Producers should understand that this provides significantly less nutrition than the calf would consume in nature being able to nurse ad libitum. Sucking calves will consume 16-24% of their body weight on a liquid basis of milk that is 27% protein and 30% fat. Feeding a conventional regime provides 10% of the body weight for an 80 lb calf, but only 8% for a 100 lb calf. Under ideal conditions, calves can grow at acceptable rates at a feeding rate of 10% but with little margin for unfavorable conditions associated with cold, stress or sickness. Most of the nutrients under this feeding method is used for maintenance with little energy and protein available for growth. Consequently, conventional feeding offers a slower rate of growth.

Many heifer growers have implemented accelerated feeding to achieve higher growth rates while improving calf health. There are many versions of the accelerated program that include increasing consumption by 2-2.5 fold, using higher protein milk replacers (22-26 %) and feeding lower fat milk replacers (less than 15%). Feeding regimes using higher volume consumption of milk replacer with higher protein concentrations can lower fat content of the powder without sacrificing lean tissue gain or hindering consumption of starter grain mix.

Accelerated feeding programs increase calf growth, improve feed efficiency and usually improve health status of the calf. Accelerated feeding programs will increase feed costs, but those costs should be offset with improved performance, especially given the current value of weaned calves.

Another feeding regime includes milk replacer feeding with strong encouragement of starter grain mix consumption within a few days. The key aspect to developing an early weaning program revolves around rumen development through the consumption of grain. Early consumption of grain allows for rumen development so that calves can be weaned onto a grain starter mix at four weeks of age. Weaning can occur once calves are consistently consuming 1.5-2lb of grain mix per day usually between four to six weeks of age.

Research data compiled by Howard Tyler from Iowa State University shows a comparison of calf performance under three different feeding regimes. This article assumes that most of the national data falls under a conventional feeding system. The data indicates that the cost of gain is lower using an early weaning system at $0.63 per pound of gain. The accelerated feeding system has much higher feed costs associated than the other two systems; however, the improved performance offers an advantage over the national average. Performance data indicates that the accelerated feeding programs are more profitable than the other two systems, followed by the early weaning program.

Management of calves is critical regardless of feeding regime. Calves should have access to water within a couple days of age. Calves need four pounds of water per pound of dry feed consumed. Limiting water will reduce starter feed consumption. Starter grain mix must be accurately formulated at 18-22% protein and be in a highly palatable form. The mix should be in pellet form or coarsely ground with few fines.

Once calves are weaned the ration should be similar to the starter grain mix. Calves should be fed a high grain ration up to three months of age to continue rumen development. After three months of age, steers calves should be transitioned towards the type of diet they are likely to encounter at later stages of life. Steers destined for a corn pellet ration to finish should continue on a high concentrate ration. Steers that will be transitioned to a higher fiber diet such as a grazing system or corn silage ration can begin inclusion of fiber up to about 50% of the ration. Steers need to continue receiving grain in the ration up to six months of age to fully develop the rumen for efficient fiber digestion.

Are you interested in growing malting barley or hops for craft beer?

If so, you won't want to miss the
2nd Annual
Great Lakes Hop and Barley Conference

March 16-17, 2015
Grand Traverse Resort, Acme, MI

Details and registration coming soon!

Michigan State University
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Calendar of Events

October 15	Menominee County Cover Crop Demonstration Trial
October 17	North Farm Extension Workshop Series—Soil Health and Cover Crop Rotations, hosted by the North Farm at the Upper Peninsula Research and Extension Center, Chatham (2-4 pm)
October 23	Michigan Apple Crunch Day
October 24	National Food Day
November 3	Western U.P. Food Summit, Calumet, CLK Elementary School Common Room, 6—8 pm
November 4	Eastern U.P. Food Summit, Sault Ste. Marie, LSSU Cisler Center, 9—11 am
November 5	Central U.P. Food Summit, Marquette, Peter White Public Library Comm. Rm., 3—5 pm
November 7	North Farm Extension Workshop Series—Scheduling and Production Planning, hosted by the North Farm at the Upper Peninsula Research and Extension Center, Chatham (2-5 pm)