

# **U.P. Ag Connections Newsletter**

Agricultural News from MSU Extension and AgBioResearch

Volume 22 Issue 2

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Michigan State University AgBio**Research** 

MICHIGAN STATE

### Applications welcomed for the North Farm Apprentice Farmer Program

The Apprentice Farmer Program (AFP) at Michigan State University's North Farm is entering its fourth season in 2018. This farm incubator program is designed to reduce the barriers to entry for beginning growers by providing access to land, equipment, infrastructure, and technical assistance.

Aimed at small-scale specialty crop producers, the AFP provides access to up to one acre of organically managed land for up to five years. During this time, growers work to fine tune their production skills, develop a business plan, secure markets, and build capital. By utilizing available resources, program participants have the opportunity to establish their business without making large capital investments, allowing beginning growers to identify and develop markets before taking on a large debt load.

In 2018, we welcome back Landen Tetil, owner of Bean Pole Farm for her fourth season as part of the incubator. Landen will dedicate her acre of production space to vegetable and flower production for sale at the Marquette Farmers Market and through a weekly vegetable subscription program, also known as a Community Supported Agriculture (CSA) program. During the winter of 2017, Landen and her partner, Kyle, purchased a farm in Skandia. She will continue to participate in the AFP while she works to prepare her new farm for future production. Landen will begin working and cover cropping existing hay fields at her new farm, preparing them for vegetables and flowers. Learn more about Landen and Bean Pole Farm at www.beanpolefarm.com.

We also will be welcoming Joe and Kate of Mighty Soil Farm to the program in 2018. Kate and Joe have spent the last several years learning the ins and outs of farming in Michigan, New York, and Vermont. They will be managing 1 acre of mixed vegetables in their first year, working to develop their production systems and markets. They come with a wide breadth of experience and we look forward to helping them get started.

The program is currently accepting applications for two more farms – complete details about the program can be found at <u>www.msunorthfarm.org/apprentice-farmer-program.html</u>.

The North Farm is part of MSU's Upper Peninsula Research and Extension Center, located in Chatham. For more information about the Apprentice Farmer Program and other farm happenings, visit www.msunorthfarm.org or call 906-439-5058.

Collin Thompson

MSU Educator, North Farm Manager

# Producer Safety Alliance Grower Training

The PSA Grower Training Course is one way to satisfy the Food Safety Modernization Act (FSMA) Produce Safety Rule requirement outlined in §112.22(c) that requires, 'At least one supervisor or responsible party for your farm must have successfully completed food safety training at least equivalent to that received under standardized curriculum recognized as adequate by the Food and Drug Administration.' The course will provide a foundation of Good Agricultural Practices (GAPs) and FSMA Produce Safety Rule requirements, and details on how to develop a farm food safety plan. After attending the entire course, participants will be eligible to receive a certificate from the Association of Food and Drug Officials (AFDO) that verifies they have completed the training course. To receive an AFDO certificate, a participant must be present for the entire training and submit the appropriate paperwork to their trainer at the end of the course.

> March 21st – Sault Ste Marie There is no cost to attend but registration is required!



# Field Crops Webinar Series Monday Evenings, February 19th - March 26th, 2018 Live Online

Growers, consultants and agribusiness professionals are invited to participate in a series of six online programs addressing field crop production and pest management in 2018. Participants will learn how to enhance their corn, soybean, small grain and forage production systems in the coming season, and have an opportunity to ask questions of MSU agriculture experts. These live webinar programs can be viewed independently online. Registration is \$20.00 for the full series of six webinars or \$5.00 per individual webinar session. One MDARD Pesticide Recertification Credit will be available through each event for application to one of the following categories: Private Core, Commercial Core, or Field Crops.

## All programs will be held Monday evenings 7pm-8pm ET

### February 19<sup>th</sup>

Conservation Drainage Dr. Ehsan Ghane, MSU

### February 26<sup>th</sup>

Managing Nematodes in Corn and Soy o Dr. Marisol Quintanilla, MSU

### March 5<sup>th</sup>

Interseeding Alfalfa Into Silage Corn Drs. Erin Burns & Kim Cassida, MSU

### March 12<sup>th</sup>

 Controlling Troublesome Weeds Dr. Christy Sprague, MSU

### March 19<sup>th</sup>

Mitigating Control Failures in Bt Corn Dr. Chris DiFonzo, MSU

### March 26<sup>th</sup>

 Corn Hybrid & Soy Variety Selection Dr. Manni Singh, MSU

# Visit events.anr.msu.edu/FieldCropsWebinarSeries2018

to register and access connection information.

Contact James DeDecker at (989) 734-2168 or dedecke5@msu.edu for more information, or by February 5th, 2018 to request accommodations for persons with disabilities.

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United States Department of Agriculture National Agricultural Statistics Service **Beef Production Meeting** 

The MSU beef team will present the 2018 Cow-Calf Management Seminar on March 5, at Bay College in Escanaba from 7:00-9:00 pm EST. George Quackenbush, Executive Vice President, Michigan Cattlemen's Association and Kevin Gould, MSU Extension Educator **Bovine Tb, Current Efforts and Vision for the Future**. The session will provide an update of the current status of Tb in Michigan and current movements at the state level.

Daniel Buskirk, MSU Assoc. Professor/Beef Extension Specialist will discuss **Selection Madness: Let's take a time-out and set up a play.** Like a pendulum, beef cattle selection has seen big swings from one extreme to another. Current buzz is that cows are too big and small cows should be the rage. Commercial producers often seem overwhelmed by the sea of EPDs, yet repeatedly maintain laser focus on selecting for lighter and lighter birth weights. This presentation will discuss selection strategies that focus on "optimal" and avoiding the temptation of chasing extremes.

Frank Wardynski and Phil Durst, MSU Extension Educators will present **Cow-calf Health Risk Assessment.** Beef cow-calf herd health is usually easy and straight forward. Pay special attention at calving and weaning, then after that the health of animals on the farm is generally good. At least until problems occur. Then producers are looking backwards at what they should have done. This presentation will cover strategies to develop a herd health management calendar: by utilizing own farm risk assessment, implementing management practices to ensure good health while minimizing production cost, and by using judicious of antibiotics and chemical products to minimize organism resistance.

Cost of the program is \$10 and registration can be sent to MSU Extension Ionia County, 50 E. Sprague Rd, Ionia, MI 48846. Or register on-line at <u>events.anr.msu.edu/2018CowCalfMgmt/</u>

# Scholarships available for Tribal farmers/ growers

### **MSU Extension Beginning Farmer Webinar Series**

Registration covers all 15 webinars. 20 scholarships available. January 17 – April 25 Wednesdays from 7-8pm <u>https://events.anr.msu.edu/event.cfm?</u> eventID=27AF88DA5951327E

### To access these scholarships please contact Kat Jacques at odonne94@msu.edu or (906) 280-1786.

www.agcensus.usda.gov

# 2017 Upper Peninsula Pearl Millet Trial

*Investigating best management practices for optimizing pearl millet growth in the Upper Peninsula* 

By Monica Jean, MSU Extension Field Crop Educator

Michigan State University Extension for the past two seasons have coordinated a grass cover crop demonstration trial at a seed potato farm in Hardwood, MI. In addition, the seed potato farm has been planting various millet species on a larger scale in the year before potatoes. Though pleased with the millet biomass production overall it is unclear how planting time and mowing impacts biomass production at this northern latitude. The 2017 research trial was designed to look at the effect of planting rates and mowing frequency on biomass production. An abnormally rainy season complicated the trial (Table 1), however the results still provided input for making recommendation and direction for future research.

The Canadian Forage Pearl Millet 101 cultivar was planted June 13th at a rate of 15 and 22 lbs/ac. Cover crop emergence was recorded one month after planting by counting number of plants with in a quadrant (Figure 1). On August 22nd, half the plots had above ground biomass recorded and were mowed. Prior to termination and frost (September 11), above and belowground biomass were estimated.

Results showed no difference in emergence between the two planting rates one month after planting. It is suspected that the lack of difference in emergence was related to heavy rains following planting causing detrimental seed movement (Figure 1) and/or soil crusting. At the time of termination average pearl millet heights in the unmown plots ranged from 20-52", while the mown plots ranged from 12-20" (Figure 2). With a mowing height of approximately 5", this equates to 7-15" of regrowth during the final 3 weeks of the season. Differences in belowground biomass were observed between the mown (300 lbs/A) and unmown plots (626 lbs/A). These differences could be due to underground resources being utilized for regrowth and/or root degradation of plants killed by mowing. Mowing the warm-season grass late in the season was not found to benefit total biomass production, due to advanced growth stage and low growing degree day accumulations. Continued research is planned for 2018, looking at other species of warmseason grasses and earlier mowing dates. For more information on cover crops visit the Michigan State University Cover Crops web page http://www.covercrops.msu.edu or the Midwest Cover Crop Council website at http:// www.mccc.msu.edu.

For further questions and inquires, emails can be sent to: Erin Hill- Cover Crop Specialist & Weed Diagnostician Hiller12@msu.edu Monica Jean- Field Crop Educator atkinmon@anr.msu.edu **Table 1.** Monthly precipitation totals for 2017 and 24-yearaverage precipitation totals in Escanaba, MI.

Month	Precipitation total (inches)	24-yr <sup>*</sup> precipitation average (inches)
May	4.11	2.75
June	7.06	2.79
July	2.38	3.27
August	3.99	3.67
September	2.83	3.30

\*1971-1994; available at MI State Climatologist's Office website, Escanaba station (<u>https://climate.geo.msu.edu/</u> <u>climate\_mi/stations/2626/</u>)



**Figure 1.** (Above) Quadrate used to take biomass samples and estimate plant population. Erosion from excessive rain is also captured, possibly complicating establishment. Taken by Monica Jean, MSU



**Figure 2.** Mowed treatment regrowth (left side) vs growth of unmown pearl millet plot. Taken by Erin Hill, MSUE

# Trialing DeerPro Spring & Summer repellent to control white-tailed deer depredation of soybeans

By James DeDecker and Christian Tollini, MSU Extension, Presque Isle County

Chemical repellents are one tool available to growers for controlling wildlife crop damage. Putrescent egg solids have been used successfully as a deer repellent and included as an active ingredient in several commercial repellent products. Decomposing eggs emit a sulfurous odor that is thought to mimic the smell of predator urine and thus discourage deer from browsing on treated foliage. DeerPro Spring & Summer manufactured by Great Oak Inc. of Redding, CT is another commercial repellent product containing 2.6 percent putrescent egg solids.

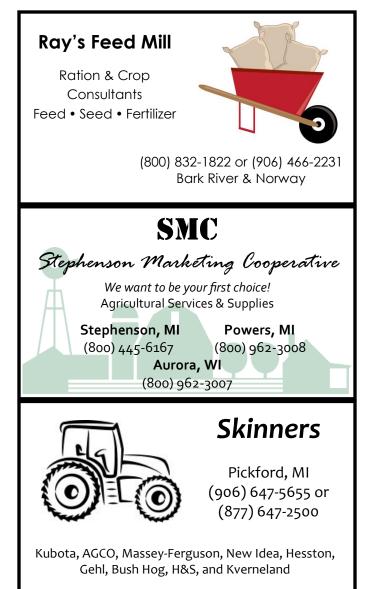
In a 2016 study by Clemson University, DeerPro significantly reduced deer damage to soybeans relative to an untreated control and other repellent products. In 2017, Presque Isle County MSU Extension trialed a new formulation of DeerPro Spring & Summer with capsaicin added as a means of reducing deer depredation of soybean. Two separate commercial soybean fields in Presque Isle County were selected for the trial based on landscape factors known to increase the likelihood of deer damage (forested field edges), and a history of significant deer damage as reported by cooperating growers.

At site one, MG 1.7 soybeans were drilled in 7.5-inch rows at 250,000 seeds per acre on May 21, 2017. DeerPro Spring & Summer was applied at a rate of 1.25 gal per acre carried in 8.75 gal of water (10 gallon per acre total rate) using the grower's self-propelled sprayer on May 24 at emergence (VE), and again on June 24 at the third trifoliate (V3) stage. Both repellent applications were made immediately following, but separate from, glyphosate applications for weed control. One 5-foot by 5-foot exclusion cage constructed of steel fence posts and Tenax C flex plastic mesh fencing was randomly placed in each plot to measure soybean development and yield potential with zero deer pressure.

Deer damage was monitored from emergence until the V6/R1 growth stage, after which damage is thought to be less detrimental to yield. Damage was measured using a few different methods in an effort to compare their power as predictors of yield loss. Our primary method was hand counting the number of plants damaged and percent defoliation relative to undamaged plants in 15-inch by 15-inch quadrats at four locations per plot every 10 or so days.

On Oct. 15 Beans were hand-harvested from the cages, threshed using a stationary plot thresher and weighed. After the exclusion samples were harvested and cages removed, a strip was harvested from each plot using the cooperating grower's combine (60-feet by 200-feet at site one, 80-feet by 300-feet at site two) and weighed using a weigh wagon to determine average plot yield. All yield data was adjusted for grain moisture at harvest.

Article continued on page 7



### **Market Report**

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Choice Steers	\$110—\$125 per 100 lbs.	
Holstein Steers	\$72—\$98 per 100 lbs.	
Hogs	\$66—\$71 per 100 lbs.	
Lambs	\$130—\$147 per 100 lbs.	
Cull cows	\$45—\$50 per 100 lbs.	
Calves	\$50—\$110 per 100 lbs.	
Goats	\$200—\$300 per 100 lbs.	
Breeding and Feeder Animals		

Grade Holstein cows \$1500—\$2000/head Grade Holstein bred heifers \$1100—\$1400/head

### Feed Prices across the U.P.

	Avg. \$/cwt	Avg. \$/ton	Price Range
Corn	\$10.36	\$207.25	\$160-244
Soymeal	\$19.75	\$395.00	\$375-552
Oats	\$11.61	\$232.25	\$190-450
Barley	\$9.63	\$192.50	\$160-240
Average price/100 wt. for 1 ton lots			

# Schedule changes for Life of Lake Superior Youth Program

The Life of Lake Superior Youth Program is an Alger County MSU Extension outdoor education program. This free program offers local youth and families opportunities to experience different ways Lake Superior impacts their lives. The program brings children (aged 9 to 14) and adults together to explore their community and appreciate



the opportunities that exist nearby in the arts, natural resources, history, culture, recreation and careers, which have relevance for children living along the Lake Superior shoreline. The option to have a parent or grandparent participate with their children in every activity is one of the distinctive features of the program.

This year, the program's schedule will altered slightly and will run on the following dates. Youth are encouraged to attend each session!

July 10, 8 am-4:30 pm—Wilderness: canoeing on a wilderness lake, Leave No Trace, beaver ecology

July 12, 8 am-4:30 pm—Wetlands: bog investigation, stream sampling, water quality, wise-use of water

July 17, 8 am-4:30 pm—Grand Island Adventure: historic cemetery, landuse changes, native plant restoration

July 19, 1-7 pm—Healthy Living: exploring the relationship between nature and physical/mental health; kayaking

Parents are welcome each day, and encouraged to attend the family fish boil on July 19th. Transportation is provided for free to and from home each day. Meals and snacks provided free each day as well.

Contact Rob Wiener for program questions (906) 387-2530



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# White-tailed deer control article continued from page 5

At site one, the DeerPro Spring & Summer treatment significantly reduced defoliation at 27, 43 and 49 days after emergence and also significantly reduced yield loss due to deer feeding by 10.42 bushels per acre (30 percent) relative to the untreated control. However, the DeerPro treatment had no significant effect on canopy cover as measured by Canopeo, or on green plant fraction as measured by the UAV at the V5 growth stage (Tables 1 and 2). To read this article in its entirety please go to <a href="http://msue.anr.msu.edu/news/trialing\_deerpro\_spring\_summer\_repellent\_to\_control\_white\_tailed\_deer">http://msue.anr.msu.edu/news/trialing\_deerpro\_spring\_summer\_repellent\_to\_control\_white\_tailed\_deer</a>

Table 1. Depredation differences in/out of exclosures 40-43 days after emergence by treatment at site one, mean separation at the 0.10 level.

Treatment	Defoliation (%)	Canopy cover (%)	Plant fraction (%)
DeerPro	11.43 b	-1.90 a	-22.07 a
Control	27.60 a	-16.17 a	-23.10 a

Table 2. Yield differences in/out of exclosures by treatment at site one, mean separation at the 0.10 level.			
Treatment	Yield (bu/a)	Yield (%)	
DeerPro	-2.84 b	-11.87 a	
Control	-13.14 a	-41.83 a	



# Classifieds

**REGISTERED BLACK ANGUS BULL.** 1 ½ years old. Very gentle. Been to the UP State Fair. (906)644-2107

**FARM FOR SALE by owner.** 278A / 200 tillable, 160A adjacent to farm buildings, some woods for harvest/hunting. Includes 96' barn, 6 buildings, 2 wells. All structures have metal roofing. \$382,000. <u>Visit FB Link</u> - Brimley Sales for pics/details. Contact Melvin Schwiderson @ (906) 248-6633 or northwind906@icloud.com

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# **Calendar of Events**

**Ag for Tomorrow Conference** March 13 – Bay College, Escanaba

**Pesticide applicator core manual training** 9 am – 1 pm followed by state exams Feb 6 – Escanaba (State Office Building)

**Produce Safety Alliance Grower Training** (FSMA Certification included) March 21 – Sault Ste. Marie

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