



U.P. Ag Connections Newsletter

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Agricultural News from MSU Extension and AgBioResearch

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Farewell...

For the last three years, I have been serving the southern central Upper Peninsula region pertaining to field crops education and research. I want to express my sincerest appreciation for the warm welcome I received. This was my first job out of graduate school, leaving a lot of room for growth and failure! It has been a very fulfilling job, many of you taking the time to teach me. I am confident my future is bright because of the opportunities I received in the U.P.

I want to thank all of the farmers I have had an opportunity to work with, but especially my cooperating farms because they allowed me to take up their fields and time with research projects. I would also like to thank the wonderful partnerships with local, county and state agencies. Organizations such as U.P. Research and Extension Center, Forestry Biomass Innovation Center, Growing U.P. Agricultural Association, and local Farm Bureau chapters have provided me with opportunities to educate our local stakeholders and develop robust working relationships.

I will be stationed in the Escanaba office until October 1st, at that point I will be transitioning to my new position in Gratiot and Clinton counties. This change of position will allow me to pursue my PhD and be closer to family in Mt. Pleasant, MI. I will still be conducting soil health research on two farms in the Upper Peninsula for the next two years, so I hope to see many of you still!

Thank you again,

Monica Jean

Michigan State University Field Crops Educator

Michigan State University

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UP Clay soil moisture monitoring project continues

Jim Isleib, MSU Extension Educator

In spring of 2019, MSU Extension educators Jim Isleib and Frank Wardynski received grant funds to conduct a project to monitor clay soil moisture conditions on selected farms in the western and eastern Upper Peninsula. These farms were selected based on techniques currently being used by the farmers to improve clay soil drainage in wet periods, soil moisture retention in dry periods, and soil moisture conditions in general.

Soil tensiometers were installed on each farm in mid-May. These water-filled tools were buried to 8" depth and include a ceramic tip and vacuum gauge. As the soil dries, water is drawn out of the tool through the ceramic tip, creating a vacuum inside the tool. This vacuum is measured in 'centibars' on the gauge. Soil tensiometers are most commonly used in crop irrigation systems to monitor soil moisture and indicate when irrigation is needed. For this project, 8" depth was selected. For irrigation monitoring, tensiometers are usually set deeper based on crop type. A general guideline (from Irrrometer.com) to interpret the tensiometer readings is:

0-10 Centibars = Saturated soil

10-30 Centibars = Soil is adequately wet (except coarse sands, which are beginning to lose water)

30-60 Centibars = Usual range for irrigation (most soils)

60-100 Centibars = Usual range for irrigation in heavy clay

100-200 Centibars = Soil is becoming dangerously dry for maximum production

In the eastern Upper Peninsula, 3 farms participated in this project, including:

Rudyard Farm A (deep tillage to improve soil moisture conditions):

Tensiometer #1: Hay field, deep tilled at establishment in 2015

Tensiometer #2: Nearby hayfield, not deep tilled, established 2007

Rudyard Farm B (typical surface drains):

Tensiometer #1: Hay field, typical surface drainage, tool at 6" depth

Tensiometer #2: Hay field same location, tool set at 8" depth

Tensiometer #3: Hay field same location, tool set at 18" depth

Dafter Farm (new drain tile installation):

Tensiometer #1: Drain tile installed 2018, winter wheat

Tensiometer #2: Unfarmed ground near barns

Tensiometer ID	5/23/19 set-up	6/17/19	7/3/19	7/22/19	7/31/19	8/19/19
Rudyard A, #1	0	8	14	55	37	41
Rudyard A, #2	0	11	31	46	46	41
Rudyard B, #1	0	40	100+	80	79	76
Rudyard B, #2	-	Set up	84	69	64	73
Rudyard B, #3	-	Set-up	10	39	54	53
Dafter #1	0	8	70	59	52	46
Dafter #2	0	24	32	98	79	74

Ideally, the tensiometer gauges would be read daily, or every few days. Time and budget constraints allow for much less frequent readings. However, the numbers as recorded provide a series of 'snapshots' to compare soil moisture conditions where the techniques (deep tillage at hayfield replanting, drain tile, surface drainage) are in use.

The project will continue into October, providing a full season of soil moisture comparisons.

A field day highlighting this project is planned for Wednesday, September 25, 2019, 5 – 6:30 pm at the Gary Smith farm, first farm on west side of M129, south of M129/10 Mile Rd intersection, Dafter, MI. Meal provided by Chippewa County Farm Bureau. Host farmers will describe their methods to manage water in local clay soils and results of the clay soil moisture monitoring project will be discussed.

Getting the most from your single-cut hay system

For a variety of reasons, many hay acres across Michigan are harvested only once per year. Here are some tips for good results in this situation.

Jim Isleib, Extension Educator

Why a 'one-cut' system? Multiple hay harvests during the growing season are the commonly accepted management practice in Michigan. However, there are local circumstances that make a single-cut system a reasonable choice. For example, many thousands of farm acres in areas of Michigan's eastern and western Upper Peninsula support predominantly timothy/trefoil hay stands on poorly drained, clay soils. These areas have a very short growing season and untilled clay soils which are often soft and unstable during wet periods, especially in spring and fall. Many of these farmers harvest dry hay using a late July/early August single-cut system. The resulting hay is used primarily to feed beef cattle and horses, or trucked for sale out of the region. The quality is usually acceptable for this purpose. In recent years, hay markets have remained fairly strong, compared to weak prices for other Michigan cash crops.

In addition to challenging soil conditions and the constraints of a short growing season, low land costs help to make a one-cut hay system viable in these areas. The chance for success with cash crops such as corn and soybeans is quite low, making hay and small grains the most attractive cropping options. This results in low land rent and land purchase prices. Hay is the best, maybe the only, economic option.

The U.P. isn't the only place where hay is only cut once in mid-summer. On farms in more moderate climates where time and labor are in short supply, maximum yield is not essential, and top hay quality is not required, a single cut system may be adequate.

Maximizing the value of a single-cut hay system involves some basic, time-proven practices, similar to multi-cut systems:

Plant maturity at time of harvest is still important, even though most single-cut hay farms harvest late, compared to the first cut on a multi-cut farm. Most single-cut hay, harvested only once in midsummer, will have lower protein, digestibility and general nutritional value than hay harvested at an earlier plant maturity, but will (hopefully) be acceptable for its intended use if fed to animals with low to moderate nutrient demand. Waiting too long can result in even coarser, stemmier, lower-protein and lower-value hay. The goal is to maximize yield without giving up too much quality.

Forage species selection for the single-cut hay system involves using later maturing grasses. Timothy is a late-flowering grass, which makes it a good candidate for a single-cut system. Birdsfoot trefoil is a good companion with timothy. Birdsfoot trefoil does not tolerate a lot of competition in the seeding year, which matches well with timothy or forage-type Kentucky bluegrass. If orchardgrass or other perennial forage grass is used, later-maturing varieties should be selected. Alfalfa, red clover and ladino clover are also good hay components, but will lose quality after flowering more quickly than trefoil.

Soil fertility should be considered carefully with a single-cut system. If too much hay growth is encouraged, the resulting crop could be hard to dry thoroughly before baling. High yield swaths and windrows take more time to dry, increasing the possibility of rain damage. Extra tedding and raking to assist with drying can result in excessive leaf shatter and loss of quality. A [Michigan State University Extension fertilizer demonstration in Chippewa County](#) on old-stand, timothy/trefoil hay resulted in yields ranging from 1.5 dry tons/acre (no fertilizer) to 3.1 dry tons/acre (full fertilizer rate recommended by MSU soil testing lab). Economic analysis indicated that a single 'crop removal rate' fertilizer application over the 3-year period was most advantageous in terms of cost per ton of dry matter produced. However, the host farmer indicated that he would never want 3 tons dry matter in one cutting because it would be too hard to dry and bale. He said the normal 1.0-1.5 tons dry matter he gets without fertilizer is 'about right'. It's a different way of looking at hay production. Basically, the single-cut hay crop can't be too much to handle for your equipment and expected drying conditions. Soil testing will provide important information about the pH, potassium and phosphorus status of any hay field and should be included in the management of single-cut hay fields.

The importance of rain during curing, moisture at baling, and good bale storage are not different from a multi-cut system.

On most farms, single-cut hay systems are not usually recommended by Michigan State University Extension. However, there are cases where this practice makes sense. Having a good understanding of the forage species in your field, soil fertility and forage grass and legume characteristics can help you manage the single-cut hay system to your best advantage.

Beef Cattle Processing – On-farm Demonstrations

Michigan State University will be conducting on farm demonstrations of cow and calf processing at three locations across the Upper Peninsula. Frank Wardynski with host farmers will be discussing and demonstrating. Each demonstration will be conducted from 10:00-12:00 EDT.

<u>Date</u>	<u>Host</u>	<u>Location</u>
October 5	Sweeten Farms	12248 S Bound Rd, Dafter, MI
October 12	Beef Facility, Paul Naasz	UP Research & Extension Center, Chatham, MI
October 19	Wardynski Livestock	18360 Firesteel Rd, Ontonagon, MI

Various techniques will be demonstrated on beef cow-calf pairs. Hands-on experience will be offered as possible. Techniques to be demonstrated. Cows – Injections including intramuscular, subcutaneous, intravenous, Blood collection from the tail for pregnancy testing. Calves – Castration, Dehorning, Pain Mitigation, Esophageal Tube Feeder, Intravenous administration of dehydrated calves.

Grass Finished Beef – On-farm Twilight Meeting

Michigan State University will be conducting an on-farm grass beef finishing meeting on October 2, 2019 starting at 6:00 EDT. The meeting will be hosted by Duane Kolpack at 12874 Highway M-38, Ontonagon. Duane will have a pen of cattle he has been feeding corn while on pasture and another pen that have been fed just pasture. Discussion will include managing grass quality for finishing beef, differences of grass finished beef vs supplementing with corn, and end-product quality goals.



Saturday September 14, 2019 9:30 am - 2:00 pm South Maple Farm 3748 West 8 Mile Rd. Dafter



Small Farm and Gardening Track
Fall Planting
Canning
Bee Keeping

Registration at 9:30 am
MAEAP Phase 1 Event
Youth Education Event for Kids
ages 5 and above
Parents must be in attendance

Large Farm Track
Management of South Maple Farm
Grass Finished Beef-
Research Update
Managing your pastures to
grow more grass
Protecting your well from
backflow
Drain Tile use in Dafter

NORTHERN MICHIGAN LIVESTOCK

Gaylord, MI - 1-76 (exit 282), 2 miles West on M-32 to N. Town line Road: Go 2 miles north to sale yard

2019 FALL FEEDER SALES

Note: All Sales on Friday at 12:00

Sept. 27th Oct 11th Oct. 25th* Nov. 8th Dec. 13th*
Pre-conditioned Cattle Sold First on Oct. 25th & Dec. 13th

Sale Barn TELEPHONE# 989-732-5732

FRANK or JAN LEIST - TELEPHONE# 231-347-1179

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The Next Step to FSMA Compliance

Many growers of fresh produce want to know how ready they are with regards to being FSMA compliant. In an effort to get people ready for a full implementation of FSMA, Cooperative Extension has developed an On-Farm Readiness Review program. This article helps growers walk through the next steps. Many fresh produce growers have heard of the new Food Safety Modernization Act Produce Safety Rule, but they may be unsure how it applies to them. Growers who have already attended a Produce Safety Training now have an overview of what the Produce Safety Rule is about, but many are wondering how to apply what they learned to their specific farming operation. In attempting to get people ready for a full implementation of FSMA, Cooperative Extension and State Departments of Agriculture have teamed up with Produce Safety Technicians from the local Conservation Districts to develop an On-Farm Readiness Review program (OFRR). An OFRR will allow a fresh produce grower and a team of trained professionals the opportunity to walk through their operation, step by step, to see what things they're doing right, and what they need to improve, and problem solve. This walk-through will help a grower gauge how ready they are for an inspection and give them ideas about how to make inexpensive changes (if necessary) to meet the new food safety requirements. This is a voluntary and confidential service, so what happens on the farm, stays on the farm. Best of all, it is at no cost to growers! A key starting point to doing the On-Farm Readiness Review is attending the Produce Safety Alliance Grower Training. This is a one-day course offered by MSU Extension in the fall, winter and early spring around the state. The grower training course introduces the key concepts about food safety that the FSMA Produce Safety Rule regulates. After attending this course, a grower will receive a certificate from the Association of Food and Drug Officials. To register for an upcoming grower training, please visit the following web address: <https://events.anr.msu.edu/20192020PSACourses/> Once the Training is complete, a grower should contact Heather Borden, the Produce Safety Logistics Coordinator at bordenhe@msu.edu.

Landen Tetil, Produce Safety Technician
Marquette County Conservation District
Call: (906) 226-8871 x 105 or Email:
Landen.mqtcondist@gmail.com

Classifieds

FOR SALE: Hay, large square bales 3x3x7.75 Timothy grass, 4,000 to sell. Former dairy farm doing all big square bales hay. Call Dave Bell in the EUP 906-440-6455 or email Bellsdairy@yahoo.com. Also a realtor in the UP so contact me for real estate here. Dave@smith-company.com

FOR SALE: Yearling heifer; Hereford/Angus cross (she is a red baldy) bred back AI to Black Angus bull Grass Master and due March 24, 2020. Also Yearling registered polled Hereford bull. Easy to handle. (906)238-4237.

HERD REDUCTION: Red Angus heifers and bulls. Top bloodlines. Gentle and easy to handle. (906) 238-4236.

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. [Visit FB Link](#) - Brimley Sales for pics/details. Contact Melvin Schwiderson @ (906) 248-6633 or northwind906@icloud.com

Beautiful property in the Upper Michigan, 130 acres In Perkins for sale or pasture for rent for livestock for the 2019 season. Beautiful river running through it. Great for hunting, building or developing, or simple grazing livestock. Land is divided into 9 paddocks with high tensile electric fence and 5 stock watering ponds. Call (906) 359-4825.

FARM FOR SALE: Upper Peninsula Farm with over 1,100 acres, water access, maple syrup production, and much more! [Shady Lane Farms](#)
<http://shadylnfarms.wixsite.com/shadylnfarms>
Henry DeGroot (906) 238-4251
hjdegroot@alphacomm.net

WANTED TO BUY: Feed barley or yellow peas in large totes or semi loads. Also, 2019 hay bales off of field. Prefer 4x6 bales in Delta, Schoolcraft or Alger County. Call Dan Dalgord (906)644-2276.

FOR SALE: John Deere B. Clean, less than 50 hrs on rebuild. **Allis-Chalmers C.** New paint, runs good. **Hay Hauler.** Hauls up to 10—4x6 round bales, use spear on back, don't have to unhook. Call Terry (906)644-2777.

FOR SALE: 9680 Lilliston No-Till Grain Drill. The Chippewa Luce Mackinac Conservation District is accepting closed bids until May 15th, 2019. Drill has been rented and maintained by Conservation District for over 20 years. Drill/planting width is 10.5ft. Transport width is 14.5ft. Weight is 5500 empty. Will require some work. Comes with owners manual. Please contact Mike at (906) 635-1278 for additional information. Bids can be sent to CLMCD 2847 Ashmun St. Sault Ste Marie, MI 49783.

Market Report

Choice Steers	\$85—\$105 per 100 lbs.
Holstein Steers	\$70—\$95 per 100 lbs.
Hogs	\$60—\$65 per 100 lbs.
Lambs	\$130—\$160 per 100 lbs.
Cull cows	\$50—\$60 per 100 lbs.
Calves	\$30—\$60 per 100 lbs.
Goats	\$180—\$250 per 100 lbs.

Breeding and Feeder Animals

Grade Holstein cows \$1250—\$1450/head

Grade Holstein bred heifers \$1250—\$1450/head

Feed Prices across the U.P.

	Avg. \$/cwt	Avg. \$/ton	Price Range
Corn	\$10.63	\$212.50	\$175-280
Soymeal	\$19.40	\$388.00	\$360-450
Oats	\$12.25	\$245.00	\$200-300
Barley	\$10.50	\$210.00	\$160-260

Average price/100 wt. for 1 ton lots



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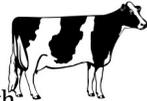
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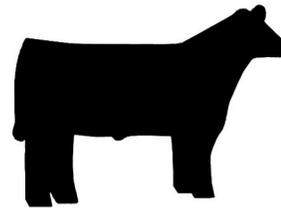
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Calendar of Events

Soybean Field Day—FBIC, Escanaba, September 4, 11am-1pm
Clare County Livestock Auction, Feeder Cattle—11228 S. Grant Ave., Clare, September 5, 1 pm
Marquette County Conservation District Urban Agriculture Workshop: Native and Invasive Plants & Pollinators —Trestle Park, Downtown Marquette, September 14, 10am-noon
Education on the Farm—South Maple Farm, Dafter, September 14, 9:30am-2pm
Clay Soil Drainage Field Day—Gary Smith Farm, Dafter, September 25, 5pm-6:30pm, meal provided by Chippewa Co. FB
Grass Finished Beef On-Farm Twilight Meeting—Kolpack Farm, Ontonagon, October 2, 6:00pm
Clare County Livestock Auction, Bred Females and Cow/Calf Pairs—11228 S. Grant Ave., Clare, October 3, noon
Clare County Livestock Auction, Feeder Cattle—11228 S. Grant Ave., Clare, October 3, 1 pm
Beef Cattle Processing On-Farm Demonstration—Sweeten Farms, Dafter, October 5, 10am-2pm
Beef Cattle Processing On-Farm Demonstration—UPREC, Chatham, October 12, 10am-2pm
Beef Cattle Processing On-Farm Demonstration—Wardynski Livestock, Ontonagon, October 19, 10am-2pm
Clare County Livestock Auction, Feeder Cattle—11228 S. Grant Ave., Clare, November 7, 1 pm

UP Fairs

Chippewa County Stalwart Agricultural Fair—September 5-7—Stalwart

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