

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

Agricultural News from MSU Extension and AgBioResearch

Volume 24 Issue 1

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January 2020

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Michigan State University



## HAPPY NEW YEAR!

#### By Frank Wardynski, MSUE Educator

It's that time of year many of us make new year resolutions. I thought I would offer a few suggestions that may fit into your current situation.

- \* Balance Sheet How frequently do you fill out your balance sheet? Some people seem to only fill out a balance sheet if somebody says they must. For example, any time you go get a loan, the lender is likely to ask for a current balance sheet. If you don't complete a balance sheet at the end of each year, you may want to make that one of your first economic related resolutions. The balance sheet evaluates the net worth of the farming operation. It also shows how heavy the operation is in debt by comparing assets to debt. Completing the balance sheet at the end of each year allows for year-end financial analysis.
- \* Conduct a farm financial analysis Each year farmers should end the year conducting a financial analysis of their farming operation. To conduct financial analysis there are two key components, the beginning and ending balance sheet and an accounting system that records money coming in and going out. These are the records we use to fill out our taxes. Comparing the cash-in vs cash-out and comparing the change of net worth from the beginning and ending balance sheets is how we conduct the analysis of financial performance over the past year.
- \* Analyze personal well-being The past several years have been pretty rough financially for most farmers. Year-end financial analysis is not fun when you are going backwards. It makes life so stressful. Many farmers have spent their entire lives building a farming operation to only watch it shrink. Farming is one of the most hazardous and stressful professions. If you are emotionally depressed, find help. That help can come from family members, friends, or maybe professional help. Too often people keep the stress bottled up inside rather than being willing to share those feeling with someone else. If you are in that situation, find help. If you know that person that needs help, help them find help.
  - Farm future- Is there a plan to what will happen to the farm after you are done. Will it pass on to children? Or maybe an employee? Will the assets be liquidated for retirement? Regardless of the plan, do you have a real plan? It's very common to have the idea of what will happen to the farm without a true plan to move there. Farm transition usually works best over time. Developing the plan could start this year.
- Find operational inefficiencies No farm is perfect. Unless identifying parts of the farm that could be better is a constant occurrence, finding better, more efficient ways to do things can save money. Commodity prices are usually out of our control, one area we can make improvement is on the cost side.
- Find time for you It might mean you or it may mean your family. I don't hardly know anyone that has lots of time lying around. So, we spend much of our time working trying to get the next project done that we never make time for ourselves or for our family. It kind of ties in with the farm stress. Making time can help with our own personal wellbeing, with our families own well-being. Take some time to enjoy some of our non-farm life as well.

Michigan State University Extension has people and resources available to help with any one of those resolutions. If you need help accomplishing any of those resolutions, give one of your MSUE educators a call.

## Potatoes

2019 UPPER PENINSULA VARIETY TRIAL

Michigan State University Extension conducts multi-location field trials every year to evaluate new potato varieties. These trials are funded by the Michigan Potato Industry Commission and facilitated by the MSU Potato Outreach Program, MSU Extension and AgBioResearch. For 2019, the Upper Peninsula trial was located at Verbrigghe TJJ Farms in Cornell, Michigan. Forty-seven different russet, tablestock and chip varieties were planted and compared to industry standards. In addition to the variety trial, two U.P. potato growers planted larger observation blocks of up-and-coming varieties in 2019, including Red Prairie and Vanguard russet.

The U.P. potato variety trial was planted June 6, vine killed Sept. 7 and harvested Oct. 9. Planting and harvest were delayed somewhat due to poor field conditions. Weather data received from Michigan State University's Escanaba Enviroweather station recorded a growing season (planting to harvest) rainfall total of 15.57 inches, approximately 3 inches above the five-year average rainfall of 12.71 inches. Growing degree-day (GDD) accumulation at base 40 was 2,814 (planting to vine kill). For the trial, every variety was rated for vine vigor and maturity, evaluated for yield and quality, and graded according to tuber type (Table 1 on next page).

On August 28, 2019 sixty-five potato growers, agribusiness representatives and others attended a field day at the U.P. trial location to view the plots and receive updates on topics important to the Michigan potato industry (Figure 1). 100% of those responding to an evaluation survey following the event indicated gaining new knowledge about potato production as a result of their participation. 60% of respondents reported intent to change some aspect of potato management on their farm as a result of the program, which they projected would impact approximately 2,690 acres with an average economic value of \$50 per acre.



Figure 1. Participants at the 2019 U.P. Potato Field Day

## PURPOSE:

Evaluate new potato varieties for yield and quality under U.P. commercial production conditions.

## TRIAL LOCATION:

Verbrigghe Farms in Cornell, Michigan, with assistance from Tony Vandamme

#### SOIL TYPE:

Onaway-Ossineke fine sandy loam

#### **EXPERIMENTAL DESIGN:**

Un-replicated single row strip plots

## TRIAL PROTOCOL:

- Previous crop was alfalfa rye cover crop
- 47 russet, tablestock and chipping potato varieties
- Planted June 6, 2019
- Plot size 34 in. wide by 100 ft. long with 12.5 in. in-row spacing
- Grower's standard fertility and pest control program
- Irrigated as needed
- Harvested 23 ft. of row on Oct. 9, 2019

## **RESULTS:**

 The highest yielding varieties were Fioretta (yellow), Dark Red Norland (red), AAC Kamer (white), Reveille (Russet), and Niagara NY152 (Chip)

## Table 1. 2019 Upper Peninsula Potato Varity Trial

		CM.	r/A	PERCENT OF TOTAL <sup>1</sup>						RAW TUBER QUALITY <sup>3</sup> (%)				YELLO	YELLO¥ FLESH		RE				
	LINE	US≢1	TOT AL	US≢1	Bs	As	ov	РО	SP GR²	нн	VD	IBS	BC	COMMON SCAB RATING <sup>4</sup>	₩AXINE SS <sup>5</sup>	FLESH COLOR <sup>4</sup>	WAXINE SS <sup>5</sup>	SKIN COLOR'	UNIFORMIT	SILVER SCURF*	COMMENTS
	Fioretta	541	619	87	3	77	10	10	1.070	0	0	0	0	1.0	3.0	4.0					Nice type, high yielding
	Arizona	566	586	97	3	58	39	0	1.064	0	0	0	0	2.0	2.0	1.0					
	Obama	349	418	94	6	80	14	0	1.070	0	0	0	0	0.0	4.0	4.0					Oblong type, nice flesh color
YELLOW	Electra	556	592	87	2	64	23	11	1.069	0	0	0	0	1.0	3.0	2.0					
SKIN	Actrice	720	823	97	3	85	12	0	1.064	0	0	1	0	0.0	4.0	2.0					
TYPE	MSV093-1Y	496	512	96	2	46	50	2	1.079	0	0	10	0	1.0	2.0	1.0					
	Queen Anne	299	333	83	13	83	0	4	1.061	0	0	0	0	0.0	5.0	3.0					Smooth skin
	NY149	395	408	90	3	62	28	7	1.084	Ő	Ő	Ō	0	1.0	4.0	2.0					
	Yukon Gold	252	296	85	4	43	42	11	1.074	ŏ	Ő	Ő	Ő	1.0	2.0	3.0					
	MEAN	464	510	91	4	66	24	5	1.071	ŏ	Ő	1	ŏ	0.8	3.2	2.4					
	Ded Ded Nederal	FFO	607		1	71	10	10	1.000	0	0	4		10			2.0	4.0	4.0	0.0	
	Dark Red Norland	556	627	89	1	71	18	10	1.066	0	0	4	0	1.0			3.0	4.0	4.0	0.0	Coord altin ant
	Red Prairie	507	542	93		74	19	6	1.065	0	0	2		0.0			4.0	4.0	3.0	0.0	Good skin set
	NDAF113484B-1	478	505	94	3	57	37	3	1.061	0	0	40	0	0.0			5.0	3.0	5.0	0.0	Skinning
RED SKIN TYPE	W8893-1R	460	495	93	4	81	12	3	1.067	0	0	0	0	0.0			5.0	3.0	4.0	1.0	Skinning
TYPE	Autumn Rose	357	511	70	1	66	4	29	1.077	0	0	0	0	3.0			1.0	2.0	3.0	2.0	Non uniform type-very knobby
	NY164	343	372	92	8	92	0	0	1.067	0	10	0	0	0.0			5.0	2.0	5.0	0.0	Skinning
	Roko	334	397	84	4	84	0	12	1.072	0	0	0	0	0.0			3.0	4.0	4.0	1.0	Nice dark color
	Red Sunset	286	306	91	7	76	15	2	1.065	0	1	1	0	0.0			4.0	1.0	5.0	0.0	Skinning
	MEAN	415	470	88	4	75	13	8	1.068	0	1	6	0	0.5			3.8	2.9	4.1	0.5	
	AACKamer	525	539	97	3	78	20	0	1.081	0	0	2	0	0.0							
	msv179-1	521	534	98	2	37	60	1	1.074	0	0	0	0	1.0							
	Harmony	506	572	89	4	69	19	7	1.063	0	0	0	0	0.0							
	Bridget	477	548	87	3	70	17	10	1.081	0	0	0	0	1.0							Skinning
ROUND	AF5280-5	401	429	94	1	47	47	6	1.072	0	0	0	0	0.0							Nice skin and flesh
VHITE	White Beauty	365	407	90	5	71	19	5	1.074	0	0	0	0	0.0							
TYPE	Reba	360	390	92	2	53	39	6	1.079	0	0	0	0	0.0							Very uniform type
	NDAF102629C	347	383	91	3	66	25	7	1.078	0	0	0	0	0.0							Skinning, nice type
	MSX194-3	317	342	93	7	84	9	0	1.079	0	0	0	0	1.0							
	Libertie	316	343	92	4	73	19	4	1.069	0	0	0	0	1.0							Skinning
	Nadine	248	294	84	9	75	9	7	1.060	0	0	0	0	0.0							Some netting
	MEAN	399	435	91	4	66	26	5	1.074	0	0	0	0	0.4							
	Reveille Russet	579	657	89	5	43	46	6	1.073	0	0	0	0	3.0							Non uniform type
	AO7061-6RUS	511	659	78	21	69	9	1	1.085	0	0	1	0	1.0							Nice russet type
	Russet Norkotah	469	565	83	10	52	31		1.083	5	0	0	0	3.0							Nice russet type
	A08433-4sto River Russet	445 421	568 451	78 93	5	45 33	33 60	15 2	1.075	0	0	0	0	0.0							Share and excertains
	A071012-4BFRUS	404	506	80	11	52	28	- 2	1.090	0	1	0	0	0.0							Stem end greening
RUSSET	Pacific Russet	344	401	85	15	60	25	0	1.070	0	1	0	0	0.0							Nice russet type, deep eyes Uniform type
TYPE	AD02183-2	322	401	72	18	72	25	10	1.086	0	0	0	0	0.0							Nice russet type
	Vanguard	307	382	80	11	45	35	9	1.068	0	0	0	0	0.0							Uniform type
	Silverton Russet	304	353	86	9	50	36	5	1.069	0	0	0	0	0.0							Nice russet type
	AOR07781-5	286	416	70	13	34	36	17	1.085	0	0	0	0	0.0							nicerossectype
	Castle Russet	279	335	83	9	68	15	8	1.080	0	0	0	0	0.0							Nice russet type
	CO10091-1RUS	244	378	65	35	61	4	ň	1.076	ŏ	ň	ő	0	0.0							ince in sector
	MEAN	378	471	80	13	53	28	7	1.078	Ő	Ő	Ő	Ő	0.5							
	NY 152	486	495	99	1	91	8	0	1.089	2	0	0	0	1.0							
CHIP	Snowden	440	449	98	2	63	35	ŏ	1.099	0	1	0	0	0.0							High gravity
AND	ND7519-1	376	431	87	13	73	14	ŏ	1.100	0	1	0	0	1.0							High gravity
	MSV030-4	285	307	93	7	88	5	ŏ	1.099	0	0	0	0	0.0							High gravity
NOVELTY	Mackinaw	269	335	80	20	62	18	ŏ	1.094	ů	Ŭ,	0	ů	0.0							
	Michigan Purple	416	426	97	3	77	20	ŏ	1.073	ů.	0	0	ů	3.0							Skinning
	MEAN	379	407	92	8	76	17	Ŏ	1.092	Ŏ	Ŏ	Ŏ	Ŏ	0.8							

SIZE																					
Russets	Non-russet tablestock	Chip		<sup>2</sup> SPEC	IFIC G	BAVITY	BAV	TUBER	L		1COMM	ION SC	AB RATI	16		<sup>3</sup> VAXINES	S RATING	FLESH	SKIN COLOR	UNIFOR	MITY OF SKIN COLOB
Bs: < 4 oz	Bs: < 17/8"	Bs: < 17/8"		Data not	replicat	ed	(percei	nt of tu	bers o	ι	0.0: Com	plete abs	ence of surf	ace or pitted le	sions	1: Heavy netti	ng, buff	1: White	1: Light pink	1: Highly vari	able, non-uniform
As: 4 - 10 oz	As: 17/8" - 3 1/4"	As:17/8" -	3 1/4"				HH: Hol	low Hear	t		1.0: Prese	ence of su	urface lesion	IS		5: Waxy, smo	oth	5: Dark yelle	o 5: Dark red	5: Highly uni	orm, color throughout
OV:>10 oz	OV:> 31/4"	OV:> 31/4*	•				VD: Vas	cular Dis	colorati	on	2.0: Pitte	d lesions	on tubers, ti	ough coverage	ge is low						
PO: Pickouts	PO: Pickouts	PO: Picko	uts				IBS: Inte	rnal Bro	wn Spot		3.0: Pitte	d lesions	common o	tubers						SILVER S	SCURE
							BC: Bro	wn Cent	er		4.0: Pitte	d lesions	severe on t	ubers						0: No incide	nce of silver sourf
											5.0: Over	50% of tu	iber surface	area covered	in pitted lesio	ns				5: High incid	ene of silver scurf

## Field Crops Webinar Series 2020 - Weed Management Challenges That Lurk for 2020

Growers, consultants and agribusiness professionals are invited to participate in a series of eight online programs addressing field crop production and pest management on Monday evenings Feb. 10 through March 30, 2020. 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 agricultural experts. The live webinar presentations will run 7 - 8 p.m. EST each Monday evening. One MDARD Pesticide Recertification Credit will be available through each <u>live</u> webinar for application to one of the following categories: Private Core, Commercial Core or Field Crops. Participants can view the programs independently online. Registration is \$20.00 for the full series of eight webinars or \$5.00 per individual webinar session.

For more information contact Eric Anderson, MSUE, (269)467-5511 or eander32@msu.edu.

## SAVE THE DATE -- AG for Tomorrow Conference

Michigan State University Extension is hosting the 14<sup>th</sup> annual Agriculture for Tomorrow conference on Wednesday, March 11, 2020 to help U.P. farmers stay informed and up-to-date. **SPECIAL NOTE: the conference is on Wednesday this year; it has always been on Tuesday in previous years!** 

Topics under development include: Mobile slaughter unit trial for the U.P., Livestock risk protection under the USDA farm bill, bale processing equipment, U.P. crop trial results, selecting hay and pasture seed, and several more. We are planning for a combination of industry reps, MSU staff and others to present break-out sessions. Participants can gain information on farming and management practices they are currently using, or explore new possibilities.

The day will have four themed tracks with concurrent sessions running throughout the day. This year the themed tracks will include Livestock, Crops, Diversified Farms, and a brand new 'Farm homestead' track focusing on traditional and non-commercial agricultural activities on the farm.

Agriculture for Tomorrow will be held at Bay College, Heirman University Center, 2001 N. Lincoln Road, Escanaba. The early registration cost is \$25 before March 1, 2020, or \$35 after that date, and includes lunch and materials. On-line registration will be available soon at msue.anr.msu.edu/events. A paper program flyer and registration form will be included in the February issue of the U.P. Ag Connections newsletter.

Contact Jim Isleib at 906-387-2530 or isleibj@msu.edu with any questions.



Bay College and Michigan State University's Institute of Agricultural Technology are happy to announce the new Agricultural Operations program now being offered at Bay! The two-year program provides a firm grounding in fundamental agricultural topics, suitable not only to those interested in farming themselves but also to those interested in working in the agricultural industry. All courses are offered either online or at Bay College's campus, and students in the program are simultaneously enrolled at both Bay and MSU. In addition to general education requirements, the program covers topics including soil health, crop entomology, plant pathology, crop science, agribusiness, water management, farm operations management, and more!

Those interested in learning more can contact program coordinator Jesse Traub at jesse.traub@baycollege.edu or (906) 217-4196, or can visit iat.msu.edu.

## Advanced Grazing School Coming this Spring

## By Frank Wardynski and Kable Thurlow

Michigan State University Extension will be conducting a grazing school for experienced grazers April 9 and 10. This session is designed towards graziers that have been implementing rotational systems of varying intensity balancing time and trying to improve cattle performance, forage quality and quantity, improve soil health, etc. The key trait we are looking for in the participants is they are constantly looking to improve their grazing knowledge and system.

<u>Dr. Ben Bartlett</u> will be the lead instructor, assisted by Michigan State University Extension Educators Frank Wardynski and Kable Thurlow. General session topics will include; farm and grazing goals, plants and plant growth, soil health, animal performance, financial consideration (partial budgeting), fence and water, planning your grazing, prioritizing and developing a grazing plan. One of the best aspects of a class such as this, it will be highly interactive and the graziers themselves become the teachers. Farmers learning from farmers, led by an instructor with international experience.

As part of the two-day session, we will be identifying graziers that are willing to demonstrate grazing techniques and host onfarm pasture walks through the summer and fall. Our hope is to have about 10-15 farms represented with about 20-30 participants. The two-day session will be conducted at Bay Mills Community College. Bay Mills is in Brimley, MI in the eastern Upper Peninsula. This location is within about five hours of driving time from any place in the state. Registration will soon be available on MSU events management website. Stay tuned. For more information, contact Frank Wardynski at 906-884-4386, wardynsk@msu.edu or Kable Thurlow at 989-426-7741, thurlowk@msu.edu.

# New beginning farmers series offered on-line by MSU Extension

People who are exploring new farm businesses will benefit from participating in the MSU Extension 2020 Beginning Farmer Webinar Series. From January – April 2020, MSU Extension will offer 13 on-line, Wednesday evening programs that provide valuable start-up information on general and more specific farming topics, including:

"Getting started with .... "

- ... Jan 15, New Farm Start-up
- ... Jan 22, Wash-pack Facilities
- ... Jan 29, Michigan Cottage Food
- ... Feb 5, Growing Hemp in Michigan
- ... Feb 12, CSA's in Michigan
- ... Feb 19, Safe Use of Animal-based Soil Amendments
- ... Feb 26, Agroforestry: Silvo-pasture Options
- ... March 4, Selling to Food Hubs
- ... March 11, Farm Labor
- ... March 18, No-till Vegetable Production on Small Scale
- ... March 25, Pricing Products for Different Markets
- ... April 1, Hosting On-farm Educational Events
- ... April 8, Measuring Soil Health

A fee of \$5 per webinar is required, or you can register for the entire series for \$32.50. Webinar recordings will be provided to all registered participants. Participate from the comfort and convenience of your own home or office. Registration, a brochure containing details on each individual program, and on-line or mailed payment options can be found at <u>https://events.anr.msu.edu/</u> <u>begfrmr2020/</u>. If you experience any problems with registration, please contact us (information below). You may register for all or some of the courses at any time, even if the session has already taken place. In that case, you will

get a link to the recorded program. Each one-hour, Wednesday night webinar begins at 7pm

eastern time. A high-speed internet connection is required. You will receive webinar connection information after you register.

Several archived recordings of MSU Extension Beginning Farmer Webinars on a variety of topics from previous years are available for viewing at <u>http://msue.anr.msu.edu/</u> program/info/beginning farmer webinar series.

Contact the Alger County MSU Extension office at (906) 387-2530 or <u>isleibj@msu.edu</u> for more information.

## Classifieds

**FOR SALE: Mixed hay,** large round bales, 4'x4', \$25/bale. Call Al (906)647-6697.

**FOR SALE: Hay,** Sorghum-sudan grass round silage bales, dairy quality alfalfa round silage bales, grass alfalfa mix round dry bales. Johnson's Bros. Livestock. Call Bill (906)630-4945.

**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.

**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://shadyInfarms.wixsite.com/shadyInfarms Henry DeGroot (906) 238-4251 hjdegroot@alphacomm.net

**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.

#### **Energy-Efficient Deerton Home For Sale**

Purchase this net zero 2 bedroom/2 bath home and be toasty warm this winter! Bask by the Tulikivi masonry heater and feel the comfort of in-floor radiant heat. This 1700 sq ft home is tucked in 15 wooded acres on Onota Hill. Enjoy views of Lake Superior when the leaves fall. The home is 100% wind powered but still conveniently connected to the electric utility. For serious inquiries, please call (906) 892-8504.

For details, see <u>https://up.craigslist.org/reo/d/au-train-net-zero</u> -wind-powered-home/6983991936.html.

## Market Report

	IVIAING	et neport								
Choice Stee	ers :	\$100—\$126 per 100 lbs.								
Holstein Ste	eers :	\$60—\$94 per 100 lbs.								
Hogs		\$42—\$49 per 100 lbs.								
Lambs		\$130—\$160 per 100 lbs.								
Cull cows		\$50—\$60 per 100 lbs.								
Calves	:	\$30—\$60 per 100 lbs.								
Goats	:	\$150—\$250 per 100 lbs.								
Breeding and Feeder Animals										
Grade Holstein cows \$1600—\$1850/head										
Grade Holstein bred heifers \$1500-\$1800/head										
Feed Prices across the U.P.										
	Avg. \$/cwt	Avg. \$/ton	Price Range							
Corn	\$11.69	\$236.25	\$195-320							
Soymeal	\$19.53	\$390.50	\$350-450							
Oats	\$13.49	\$265.00	\$239-340							

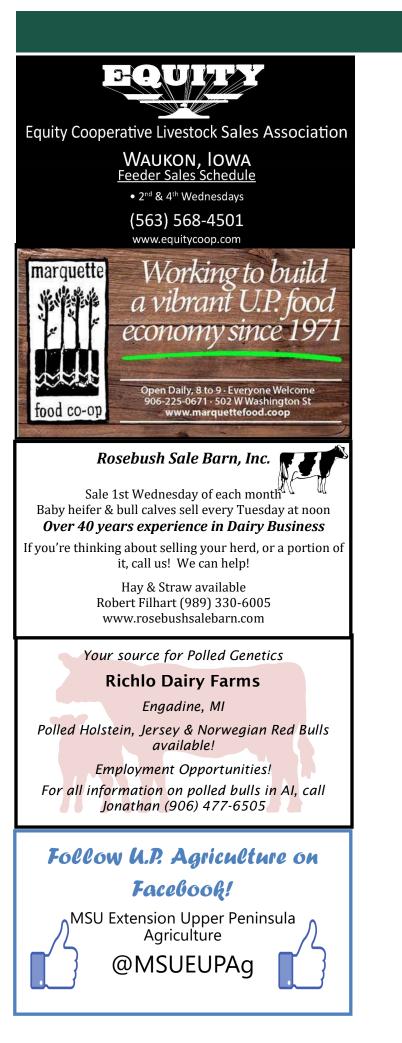
Oats	\$13.49	\$265.00	\$239-340					
Barley	\$11.75	\$237.50	\$190-310					
Average price/100 wt. for 1 ton lots								





Secretary: Mary Robertson

(906) 635-7250



**REGISTERED MAINE ANJOU AND ANGUS** 

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OPEN & BRED HEIFERS AND BREEDING AGE BULLS AVAILABLE

BREEDING CATTLE TO IMPACT THE PRESENT AND INFLUENCE THE FUTURE.



**Johnson Brothers Livestock** 

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Call Gary Johnson Office (906) 786-4878 Gary Cell (906) 235-0099 Steve Cell (906) 399-2858



Service age bulls, open females and show prospects for sale private treaty. Bulls are fertility tested and bred for calving ease and performance.

**This ad could be yours!** Paid advertising delivers this newsletter to your mailbox each month!

Contact Michelle @ 439-5114 to place an ad (\$30/month) Michigan State University Upper Peninsula Research and Extension Center P.O. Box 168, E3774 University Drive Chatham, MI 49816 NON-PROFIT ORG U.S. POSTAGE PAID PERMIT #77 SAULT STE MARIE, MI 49783

## Michigan State University AgBio**Research** MICHIGAN STATE UNIVERSITY Extension

## **RETURN SERVICE REQUESTED**

## Serving the Upper Peninsula Agricultural Industry

Michigan State University Extension is an affirmative-action, equal-opportunity employer. Michigan State University programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status.

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# Calendar of Events

Pesticide applicator review session—State Office Building, Escanaba, January 7, 9am-1pm Midwest iHemp Expo—Lansing, January 10-11 MSUE Beginning Farmer Webinar Series—online Wednesday evenings, January 15-April 8 Fly & Pest Control in Livestock—Bruce Twp Hall, Dafter, January 15, 6-8 pm Fly & Pest Control in Livestock—Garfield Twp Hall, Engadine, January 16, 6-8 pm Northern Michigan Small Farm Conference—Traverse City, January 24-25 MSUE Master Gardener Classes—Peter White Library, Marquette, January 25-May 9, 10am-5pm Pesticide applicator review session—MSUE Office, Hancock, January 27, 9am-1pm Great Lakes Crop Summit—Mt. Pleasant, January 29-30 MSUE Field Crops Webinar Series—online Monday evenings, February 10-March 30 Pesticide applicator review session—Marquette Co. Negaunee Service Center, Negaunee, February 11, 9am-1pm Michigan Potato Industry Commission Winter Conference—Mt. Pleasant, February 12-14 Great Lakes Hop & Barley Conference—Ann Arbor, March 5-7 UP Agriculture for Tomorrow Conference—Escanaba, March 11