



U.P. Ag Connections Newsletter

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Agricultural News from MSU Extension and AgBioResearch

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News and Views

By Frank Wardynski

I was looking through some of the old pieces I wrote for “News and Views” looking for inspiration for this month’s edition. Back in 2014, I was writing about challenges farmers were facing with regards to paying too much income taxes. Farm Management Educators across the state were advising farmers of options using Section 169 direct expense on purchased assets with warnings that added debt and direct expensing could cause problems later with debt load and reduced depreciation expenses in future years.

Oh my, how times have changed. Commodity prices were setting record highs back in 2014 and now most are incredibly low across the board. Beef prices seem to be one of the few commodities selling at profitable levels. Grain farmers and dairy farmers are getting hit the hardest. Grain prices a few years back were outstanding, while in recent years have dipped below break evens for many farmers. And this summer trade talk conflicts smashed corn and especially soybean prices even lower. Dairy farmers were selling milk, cull cows and bull calves for staggeringly high prices, while now we can’t process all the milk we are producing and cow prices are the weakest sector of the beef industry.

It’s not just in Michigan. The entire nation is struggling in the agriculture sector. Twenty-eight percent of the “Value of Farm Production” is being used for Debt Servicing (Interest and Principal Payments). Roger Betz, MSU Senior Farm Management Educator, considers anything over 15% of gross farm income on an individual farm as a cautionary value and 28% of VFP as an average is surprising to me and signals serious trouble. This means many farmers are over 28% and leaving little income remaining to pay operating costs and family living expenses. These farm operations that are still surviving are having difficulties with cash flow. Those making cash flow work are often doing so at the expense of their equity and net worth.

Obviously these situations have led to farms going out of business. Others still struggling are feeling the stress. I still remember my days as a full-time farmer and there just wasn’t enough cash to pay bills. You’re exhausted, yet you can’t sleep. Stress leads to depression and a sense there is no way out. The mental aspect of dealing with that can be harder than developing to plan to lead to profitability. MSU is conducting a program on November 6 and 7, **Communicating With Farmers Under Stress U.P.** in Escanaba and Sault Ste. Marie, details inside.

For farmers feeling these hardships, please call. I have resources to deal with each aspect of farm financial troubles. That’s not a promise to solve problems. I have never solved anyone’s problems. I like to think I have helped a few solve their own. I can find people to help develop financial plans to work towards paying debt, improving cash flow and/or working towards profitability. I have a pretty good listening ear. I have dealt with these problems personally and can relate to the mental anguish. It’s never too late to make that call.

Alfalfa nurse crop yields compared

Yields of various nurse crops and seeding rates show significant yield differences. Impact on alfalfa stand remains to be measured.

By Jim Isleib, MSU Extension Educator

Small grain and small grain/forage pea nurse crops were removed from the alfalfa nurse crop trial at the MSU Upper Peninsula Research and Extension Center in Chatham on July 10th. The oat nurse crop was in early milk stage. Ideally, the nurse crops would have been removed in the boot stage. The harvest date was later than ideal with regard to alfalfa establishment by a week or more, but resulted in high forage yield. This Michigan State University Extension trial, funded by Project GREEN, is intended to evaluate the impact of various alfalfa nurse crops at different seeding rates on the resulting alfalfa establishment. Alfalfa stand counts will be taken this fall, and again in spring, along with alfalfa yield checks. The nurse crop forage yield is an important part of the project, but secondary to the nurse crop impact on alfalfa stand establishment.

Nineteen different nurse crop treatments are begin tested, including 'no nurse crop':

Nurse crop	Low seeding rate (lbs/a)	Medium seeding rate (lbs/a)	High seeding rate (lbs/a)
Control – no nurse crop	0	0	0
Goliath oats	16	32	48
Goliath oats + 4010 peas (50% by weight)	50	75	100
Kewaunee barley	24	48	72
Silobuster Plus barley + peas	50	75	100
Spring triticale	25	50	75
Silobuster Plus triticale + peas	50	75	100

Table 1: Alfalfa nurse crop seeding rates

The nurse crops were drilled into disked ground with a JD 1590 No Till planter on May 14 and 15. Eighteen pounds per acre of Alforex 469 alfalfa was planted over top with a Brillion seeder on May 15. Urea was applied at 150 lbs per acre on May 19.

Nurse crop	Seeding rate	Yield (tons dry matter per acre)
None	-	0.63
Kewaunee barley	Low	1.53
Kewaunee barley	Medium	2.00
Kewaunee barley	High	2.00
Goliath oat	Low	1.47
Goliath oat	Medium	2.02
Goliath oat	High	1.93
Triticale	Low	1.26
Triticale	Medium	1.42
Triticale	High	1.72
Goliath oat plus 4010 peas	Low	2.09
Goliath oat plus 4010 peas	Medium	2.20
Goliath oat plus 4010 peas	High	2.36
Silobuster barley plus 4010 peas	Low	1.74
Silobuster barley plus 4010 peas	Medium	1.97
Silobuster barley plus 4010 peas	High	2.02
Silobuster triticale plus 4010 peas	Low	1.49
Silobuster triticale plus 4010 peas	Medium	1.48
Silobuster triticale plus 4010 peas	High	1.73

Table 2: Average nurse crop yields

It should be noted that plot yield where no nurse crop was seeded consisted mostly of weed growth.

The average yields of each nurse crop including all seeding rates suggest a forage yield advantage with oats or barley over triticale when seeded without peas. When peas are included, oats + peas had the best yield, followed by barley + peas and triticale + peas:

Triticale: 1.47 tons dm/a	Triticale + peas: 1.57 tons dm/a
Oats: 1.81 tons dm/a	Oats + peas: 2.21 tons dm/a
Barley: 1.82 tons dm/a	Barley + peas: 1.91 tons dm/a

When average yields of small grains at all seeding rates are compared with small grain/pea combinations at all seeding rates, the results suggest little yield difference when peas are included:

With peas: 1.90 tons dm/a
Without peas: 1.70 tons dm/a

Results of other university trials supports the idea that although addition of forage peas may not improve yield significantly, it can improve forage protein content. "[Pea and small grain mixtures](#)" from University of Wisconsin Extension provides more detail.

Alfalfa stand results from this project will be published on the [MSU Extension News for Forages website](#) in spring 2019. Please contact Jim Isleib, Extension Educator, at isleibj@anr.msu.edu with any questions.



Triticale + peas seeded at 75 pounds per acre.

Photos taken July 10, 2018



Triticale seeded at 50 pounds per acre.

MSU Extension is offering pre-exam study sessions for those seeking state pesticide applicator certification.

Locations/Dates:

MSU Upper Peninsula Research and Extension Center, E3774 University Drive, Chatham, MI 49816

Friday, December 7, 2018, 9am – 1pm ET State exam offered at 1:15pm ET

Marquette County Negaunee Service Center (downstairs meeting room), 184 US 41 East, Negaunee, MI 49866

Wednesday, January 17, 2019, 9am-1pm CT State exam offered at 1:15pm ET

State Office Building, 305 Ludington St, 2nd Floor Conference Room, Escanaba, MI 49829

Tuesday, February 6, 2019, 9am-1pm ET State exam offered at 1:15 ET

These 4-hour reviews are intended to help prepare for the State of Michigan commercial and private pesticide applicator certification exams. Four re-certification credits toward renewal of current State of Michigan Pesticide Applicator Certification are available for private applicators and commercial applicator 'core'. Additional category credits, including 1A, 1B, 1C, 2, 3A, 3B and 6 are being applied for. The program will consist of chapter reviews of the National Pesticide Applicator Certification Core Manual and an example exam. It is strongly suggested that participants acquire copies of the manual and study it thoroughly before taking the state exam. If seeking commercial certification or re-certification, the study manual for the category(s) desired should also be acquired and studied. This program will cover only 'core' manual material, no commercial categories. Please note that several other state pesticide applicator exam opportunities are offered in the U.P. without pre-exam study sessions. Check exam dates by entering as a 'guest' at <https://secure1.state.mi.us/opes/Welcome.aspx>.

A State of Michigan official will offer state exams after the review is completed. If you plan to take an exam, register at www.michigan.gov/pestexam and be prepared to pay \$50 for the private exam and \$75 for the commercial exam (including any number of categories) by check payable to "State of Michigan". A waiver from the State of Michigan is offered to honorably discharged veterans seeking private pesticide applicator certification. You must provide a copy of your veteran's federal form DD-214 that indicates honorable discharge status along with your application.

Lunch will not be provided. A 1/2 hour break is scheduled between the review and the exams for participants to have lunch. If taking an exam, bring your own lunch, or plan for a very quick lunch break.

A \$20 fee, payable at the door, is required for the pre-exam review offered by MSU Extension. If paying by check, make check out to "Michigan State University Extension". This fee covers program costs and refreshments. (Note: This is a separate fee from the State of Michigan exam fee).

Paper mill residuals are a soil amendment available to farmers in the Upper Peninsula of Michigan

By Monica Jean, MSU Extension Educator

Paper mill residuals, commonly referred to as mill sludge, are a product of the wastewater treatment process of wastepaper recycling, wood pulping and papermaking. The residuals available to Michigan's Upper Peninsula farmers are produced at three different mills: Resolute Forest Products in Menominee County, and Verso in Delta and Dickinson counties.

The purpose of this demonstration trial was to investigate the feasibility of composting paper mill residuals with manure. Resolute Forest Products donated the paper mill residual and provided funding for this composting trial. Resolute Forest Products recycles waste paper to produce pulp that is sold to other mills to manufacture paper products. Michigan State University Extension Educators coordinated and carried out the research trial on a cooperating farm in Pelkie, MI.

Two equal volume piles were created with the residual and manure provided by the cooperating farm. The three treatments were:

1. one part residual and 2 parts manure (1R2M),
2. one part manure and 2 parts residual (2R1M)
3. manure

The composted residual piles and manure pile were applied in replicated strips to a hay field in early-May at a rate of 6 tons/acre. The hay was then mowed and dried on July 2nd with sample collected on the 5th. Yield was reported on a dry matter per acre basis (Table 1) and showed no statistical difference between the composted manure and two residual blends. The average yield of the field in the non-treated areas was 1.78 dry matter tons/acre. The cooperating farm owner noted a visual improvement of the fields with all applied treatments.

In conclusion, the addition of the residual did contribute lime, but all of the treatments contributed organic matter. A change in the soil health that would improve growing conditions can take many years to achieve. Additional research of quality analysis and multi-year approach may show some significant difference between treatments.

A big thank you to the cooperating farm, Ken Janson, for allowing us to conduct this research and for the time and effort he spent on this project! For questions and inquires, call or email Monica Jean at (906) 786-3032 ext. 106 or atkinmon@anr.msu.edu.

Table 1. Summary of average dry matter yield per acre for the composted manure, composted one part residual and 2 parts manure (1R2M) and composted one part manure and 2 parts residual (2R1M).

Manure	1.95
1R2M	2.07
2R1M	1.82

*no statistical difference between the treatment means



Communicating with Farmers under Stress November 6 & 7

This workshop is specifically designed for people who work with agricultural producers and farm families who want to know more about managing farm related stress and learn ways to approach and communicate with those in need.

This workshop will include:

- Poala Bacigalupo Sanguesa, DVM, MS discussing the present agricultural market situation with an overview of how this has affected a farm's financial situation and cash flow. Also, her experiences working with farm families that are under financial distress.
- Suzanne Pish will be highlighting the detrimental impact of stress on our body and state of mind, providing information on how to recognize some of the warning signs of depression, self-harm and mental illness.
- Register: <https://events.anr.msu.edu>

Calf Care Educational Program

Members of the Michigan State University Beef and Dairy teams will be present to demonstrate baby calf care. In particular live calves will be present to demonstrate various dehorning and castration practices. Topics to be covered will include, castration, dehorning, pain mitigation, safety procedures, esophageal tubing, IV, euthanasia, Beef Quality Assurance, herd health management, calf dehydration, and vaccination protocol. Practices will be hands-on, so dress accordingly. We may also have a veterinarian present to discuss pain mitigation options.

The date is set for November 10, 2018 at 10:00 until 2:00 ET at the MSU Research and Extension Center in Chatham, MI. We'll probably have pizza brought in, so please bring some money to chip in if you want some. Or feel free to bring a bag lunch. If interested in attending the program, please contact Frank Wardynski at 906-884-4386.

Produce Safety Begins with Worker Health and Hygiene

The health and hygiene of farm workers are integral with produce safety. Humans can carry many pathogens, including Shigella, Hepatitis A, Norovirus, and more. Since many farm workers harvest, wash, and pack produce using their hands, these potential pathogens can spread quickly if present. Most commonly, these pathogens are spread via a fecal-oral route. This is combated through avid and thorough handwashing. Handwashing must occur before starting or returning to work, after using the toilet, before and after eating or smoking, before putting on gloves, after touching animals or animal waste, and any other time hands become contaminated. Proper handwashing technique includes five steps:

1. Wet hands with water
2. Apply soap and lather. Scrub thoroughly for at least 20 seconds
3. Rinse hands with clean water
4. Dry with a disposable paper towel and turn off faucet with used towel
5. Throw used towel in a trash can.

The most important thing to remember about handwashing is that antibacterial hand sanitizers CANNOT replace handwashing. A dirty surface cannot be sanitized; therefore, hands must be already washed and clean for an antibacterial hand sanitizer to be effective.

There are many other factors to consider when thinking about worker health and hygiene. Clean, functioning toilet facilities must be provided to all farm workers, for example. Farm owners must also be on the lookout for worker illness. Workers who are sick or show symptoms of illness can contaminate fresh produce. Send sick workers home or give them a non-produce related farm task until they are healthy and at least 24 hours have passed since their last occurrence of nausea, vomiting, diarrhea, or fever. Worker injuries may also contaminate produce via blood or other bodily fluids. All produce that may be contaminated with blood or bodily fluids must be disposed of and all food contact surfaces, such as harvest knives, must be cleaned and sanitized before resuming work. All farm visitors should be made aware of your farm's policies on health and hygiene and be instructed to follow these same rules.

Each of these worker health and hygiene policies may be adequately implemented through a worker training program. Keeping records of who has been trained will help hold farmers and workers accountable for health and safety to ensure noncontaminated produce. Records of bathroom maintenance and cleaning, worker illnesses and injuries, restocking of first aid kits, and visitor logs will help keep everyone on the right track for reducing the likelihood of spreading human pathogens in fresh produce.

By Landen Tetil, Produce Safety Technician, Marquette Conservation District
(906) 226-8871 x 105 Landen.mqtcondist@gmail.com

Market Report

Choice Steers	\$95—\$110 per 100 lbs.
Holstein Steers	\$70—\$100 per 100 lbs.
Hogs	\$52—\$58 per 100 lbs.
Lambs	\$120—\$135 per 100 lbs.
Cull cows	\$38—\$50 per 100 lbs.
Calves	\$50—\$115 per 100 lbs.
Goats	\$150—\$240 per 100 lbs.

Breeding and Feeder Animals

Grade Holstein cows \$850—\$1350/head

Grade Holstein bred heifers \$850—\$1200/head

Feed Prices across the U.P.

	Avg. \$/cwt	Avg. \$/ton	Price Range
Corn	\$10.40	\$207.95	\$180-256
Soymeal	\$20.28	\$405.50	\$372-450
Oats	\$11.99	\$239.75	\$199-300
Barley	\$9.78	\$195.50	\$160-240
Average price/100 wt. for 1 ton lots			

Classifieds

REGISTERED RED ANGUS BULLS Gentle, growth and fertility tested. Sire is a son of Card Shark. Dennis Van Elsacker, Cripple Creek Ranch, (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

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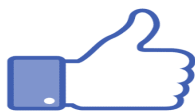
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Calendar of Events

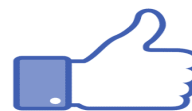
- Calf Care Educational Program** — November 10 — MSU UP Research and Extension Center, Chatham, 10 am-2 pm
- Communicating With Farmers Under Stress U.P.** — November 6 — Bay College, Escanaba, 10 am-2 pm
- Communicating With Farmers Under Stress Eastern U.P.** -November 7-Eastern UP ISD, Sault Ste. Marie, 9 am-3 pm
- Pesticide Applicator Study Session**—December 7 —MSU UP Research and Extension Center, Chatham, 9 am-1 pm

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