



U.P. Ag Connections Newsletter

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Agricultural News from MSU Extension and AgBioResearch

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2019 MCA SUMMER ROUND-UP & EDUCATION SERIES

Michigan cattlemen and women won't want to miss the Michigan Cattlemen's Summer Round-Up and Education Series, to be held June 20-22 in Clare, MI. The event, which is sponsored in part by The National Corn Growers Association, will feature speakers and demonstrations encompassing a variety of topics important to farm and ranch owners and managers.

"The Michigan Cattlemen's Summer Round-Up and Education Series promises to be an excellent opportunity for Michigan cattlemen and women to learn more about current management practices, technologies and techniques that can make a difference in the bottom line of their operations," says Brian Plank, Michigan Cattlemen's Association President. "We know our producers must be specialists in many different fields in order to be successful, and that's why we strive to provide the most relevant topics and foremost speakers at the Summer Round-Up."

The Round-Up begins Thursday, June 20th with a program for Young Cattlemen, followed by a meeting and reception at the historic Doherty Hotel. Education Series I will include a field day where participants will learn from the experts about proper fence construction, watering system design, rotational grazing strategies, cattle handling equipment and see a post peeling demonstration. The afternoon program will include lunch and will focus on dealing with predators that threaten cattle and the Michigan cattle industry. Barb Wilkinson, Sr. Executive Director of Governance & Leadership Development, National Cattlemen's Beef Association and Blaine Bailer, an expert on predator control from Jay's Sporting Goods will lead these sessions.

"In addition to wildlife, predators might include things like regulations or lost markets. This session is an opportunity for every cattle producer in Michigan to influence the direction of our association and the future of our industry," Plank says. "We want a two-way discussion where participants are encouraged to share their thoughts."

A social hour and the MCA awards banquet will be held at the Doherty Hotel that evening. The evening program will include a performance by professional comedian, Dwayne Gill, a Lansing police officer and former United States Marine. Participants can also win prizes and support the MCA Political Activity Fund through an auction and raffle following the banquet.

Education Series II begins Saturday, June 22 with a tour of Gloryland Ranch and presentations about the economics of grazing irrigated pastures, cow size economic implications and profitable forage management. Series II also includes a tour of Wernette Cattle Company, where cattle backgrounding and soil health management for optimum sustainability will be demonstrated. Leading the discussions will be Dr. Jason Rowntree, Associate Professor of Animal Science at Michigan State University. Series II concludes with lunch at Wernette Cattle Company.

"The Michigan Cattlemen's Summer Round-Up and Education Series not only provides producers with an opportunity to learn more about the most efficient and practical ways to run their businesses, it also is an excellent networking opportunity," Plank says. "Attendees have the chance to speak with fellow producers and speakers about management practices that can benefit their own operations."

Plank says producers interested in attending the event should register on the Michigan Cattlemen's Association website, www.micattlemen.org or contact the MCA office at 517-347-8117.

Tips on quality hay and pasture for beginning farmers: Part 1 - Quality

Just about anybody can make hay and put animals out on pasture...but achieving quality goals for that forage takes knowledge, planning and effort.

Jim Isleib, Extension Educator

Forage production is all about two things...quality and tonnage. There are a lot of details involved, but basically farmers need acceptable quantity of forage at the quality required by their livestock. Here's a great and very relevant quote from Michigan State University Extension's forage specialist Dr. Kim Cassida: "You can harvest high or low quality forage from any hayfield or pasture depending on harvest management." That idea gets to the heart of harvesting quality forage. The maturity stage of the plants to be harvested has a very important impact on the resulting hay or pasture quality. Earlier harvest or grazing results in higher protein and digestibility. Later harvest or grazing results in lower nutrition content of the feed but greater yield. So, yield per acre (tonnage) is also affected by harvest management, and there are trade-offs between quality and yield.

The type and quality of forage needed on any farm depends on the type of livestock being fed, or the demands of the market for forages harvested for sale. Dairy farms need higher quality forages than most other livestock farms and within each farm various groups of cattle will require different quality of forage. High-producing lactating cattle require very high quality forage. Forage production on most Michigan dairy farms focuses on corn silage and alfalfa to meet that need. Dairy heifers and dry cows require less nutritious feed as compared to lactating cows. Dry and 'steam-up' cows are often fed low-potassium forage to avoid metabolic problems. Most beginners are not managing dairy herds, and are more interested in hay and pasture suitable for beef cattle, horses, sheep and goats, and even swine and poultry. Producing high quality dairy forage may present serious difficulties for an inexperienced farmer.

Stored forage may consist of 'dry hay' in the form of small, square bales or large round or square bales at 14-18% moisture, lower for larger bales. Forage may also be ensiled as haylage at around 60-65% moisture by piling in a bunker and compacting to remove as much oxygen as possible, then covering with an airtight liner. Haylage may also be stored in 'ag bags', a more flexible system for smaller farms requiring specialized equipment. Baleage is made with large bales, usually drier than haylage at around 40-55% moisture. The hay is formed into large round or square bales after partial wilting in the field, then wrapped either individually or in rows with airtight plastic. The hay is preserved very well, as long as the plastic wrap remains intact. Baleage also requires some special equipment, and works very well on small farms where higher quality hay is desired, fields are small and adequate drying time in the field for 'dry hay' is a problem.

For beef cattle, horses and other species a mixture of grass and legume is often the desired crop. If the percent of legumes, such as clovers, alfalfa or birdsfoot trefoil, is around 35-40%, enough nitrogen should be captured by the legumes and cycled through the soil to provide for the grasses which cannot produce their own nitrogen. Including legumes in grassy hay and pasture will also increase the protein content of the resulting forage. However, annual removal of forages without replacing potassium, phosphorus and other nutrients will result in depleted soils, incapable of maintaining acceptable forage stands and yields. In these instances, weeds tend to take over and crowd out the desirable grasses and legumes.

Forage testing is available through various dependable private companies to provide information on the protein, energy and other nutrient content of stored forage and other feeds. Check the [MSU Extension animal agriculture webpage](#) for details on the quality of hay needed for various species, including horses, beef cattle, sheep and other species. The [MSU Forage Connection](#) website is also an excellent resource for information on forage production in Michigan.

The [MSU Extension 2019 Beginning Farmer Webinar Series](#) included a 1-hour presentation on 'Quality Hay and Forage' on February 6, 2019. A recording of the session will be included on the [MSU Extension Beginning Farmer Webinar Series webpage](#) by June 2019. Check series webpage for free recorded presentations by Michigan State University experts on hay production and grazing.



President: Jon Haindl
Secretary: Beverly Lippold
(906)789-9373

Tips on quality hay and pasture for beginning farmers: Part 2 – Legume species for hay and pasture

Whether planting new, or working with what you already have, understanding the legume species that make up your forage can help you succeed.

Jim Isleib, Extension Educator

Common perennial hay and grazing legume species on Michigan farms include alfalfa, red clover (weak perennial – 2 years), birdsfoot trefoil, white clover, ladino clover and alsike clover. These legumes can be seeded by themselves but many times are seeded with other forage species for hay or pasture. Several perennial grasses may also be present in a mixture, including orchardgrass, timothy, smooth brome, tall fescue, meadow fescue, meadow brome, alsike clover, reed canarygrass, perennial ryegrass and others. Beginners are well-advised to stick with the forage species that have worked well in their geographic area.

Alfalfa is a good choice when very high quality hay is needed. When made and stored well, alfalfa hay or haylage is dairy-quality feed of higher quality than normally required for beef, sheep, poultry, dry dairy animals or other species. Alfalfa requires well-drained, fertile soils with pH near neutral (pH 6.8 recommended) to thrive. Alfalfa doesn't like "wet feet" and will not thrive in poorly drained soils. In a well-established stand, it can last up to 4-5 years before the alfalfa thins out very much. At this point, the spaces left by dying alfalfa plants are usually filled in with grasses or weeds. Alfalfa is a legume and fixes its own nitrogen from the air, so doesn't require nitrogen fertilizer. However, it needs good levels of potassium, phosphorus, sulfur and other nutrients to reach its full potential. Alfalfa is also good component in mixed species hay, even if soil and fertility conditions are not optimum. Some seed is likely to establish and contribute yield, quality and nitrogen fixation to the mix. Bloat in ruminant animals grazing alfalfa and other legumes is a concern, but measures can be taken to reduce bloat risk, including seed mixing with forage grass. Dr. Kim Cassida, Michigan State University Extension forage specialist offers these suggestions for preventing pasture bloat:

- Limit legumes to 50% or less of pasture
- Feed bloat preventatives (poloxalene, monensin)
- Feed dry hay on pasture or before turn-out
- Avoid grazing wet pastures
- Avoid letting animals get too hungry
- Avoid grazing legumes altogether
- Cull bloat-prone animals
- Graze birdsfoot trefoil

Red clover is another dependable forage. Its soil requirements are somewhat lower than for alfalfa. Stand longevity, yield and quality are also typically lower than alfalfa. Red clover usually grows vigorously during the year of planting, survives the first winter after planting and regrows the second year. It frequently dies out after two years. There are improved '3-year' red clover varieties available. Red clover is rarely seeded alone, but rather incorporated into a mixture with other legumes and grasses. It can provide a good legume component in new seedings, with other slower-starting legumes such as alfalfa, birdsfoot trefoil or ladino clovers coming into full production as the red clover fades out. Red clover is also a great choice for incorporation into older, grassy hay and pastures to improve quality and yield through frost seeding or no-till drilling.

White and ladino clovers can contribute diversity, longevity and nitrogen fixation to hay and pastures as well. These species are not high yielding, but very persistent and tough. They are common in productive pastures. Bloat can also be a concern with these species.

Alsike clover is another perennial legume option, well-adapted to heavier-textured soils. Be aware that alsike clover has the potential to cause photosensitization and other problems in horses, and occasionally in cattle.

Birdsfoot trefoil (BFT) is a unique and useful forage legume. Its high-tannin content eliminates bloat risk. BFT can do well on more acidic and less well-drained soils than either alfalfa or clovers, making it a good option for areas with clay soils. Trefoil is persistent through re-seeding. Some lower growing branches avoid grazing or mowing and produce viable seed, continuing the stand. Individual BFT plants don't live much longer than alfalfa or red clover, but they are more capable of reseeding themselves. Although lower yielding than alfalfa, BFT has characteristics that make it a good fit on certain soils.

Your local [Michigan State University Extension field crops educator](#) can assist with suggestions on hay and pasture establishment and management. Details including seeding rates, variety performance and other details on perennial forage legumes can be found on the [MSU Forage Connections](#) website.

Understanding base saturation ratios on your MSU soil test report

The “[% of Exchangeable Bases](#)” on your MSU soil test report gives insight in to nutrient balances in your soil.

Jim Isleib, Extension Educator

The percent base saturation for potassium (K), magnesium (Mg) and calcium (Ca) are reported on every MSU soil test report. According to the [MSU soil and plant nutrient laboratory website](#): “The percentages reported assume K, Ca and Mg comprise 100 percent of the exchangeable bases, and are used to determine potential magnesium deficient situations. Mg should be above 3 percent and greater than the percentage of K. For example, 6.8 percent K and 4.2 percent Mg indicates a Mg-deficient soil.”

According to [Lichtfield Analytical Services](#), a reputable and widely-used commercial soil testing lab in Lichtfield, MI: “The percentages of saturation for each of the cations will usually be within the following ranges: Calcium – 40-80%, Magnesium – 10-40%, Potassium – 1-5%”. Lichtfield also suggests that the potassium:magnesium ratio can be important for certain crops: “On some crops, high magnesium levels may reduce potassium uptake by the plant. The ratio of potassium to magnesium should be between 0.2 and 0.3 for best uptake. Ratios below 0.2 could cause reduced potassium uptake.”

In the [University of Wisconsin Extension](#) publication “[Soil calcium to magnesium ratios – should you be concerned?](#)”, authors E.E. Shulte and K.A. Kelling state that the Ca:Mg ratio seldom limits plant growth if soil pH is maintained in the good growing range, based on Wisconsin research. They do not recommend applying calcium materials to soils simply to increase the Ca:Mg ratios.

Based on these sources, a set of ‘take-home’ points from recent [Michigan State University Extension](#) crop nutrient management across Michigan’s Upper Peninsula was distributed:

Take-home info on soil nutrient balances:

1. Exchangeable magnesium (Mg) should be above 3%
2. Exchangeable Mg should be greater than exchangeable potassium (K)
3. Normal ranges for exchangeable bases:
 - Calcium 40 to 80 percent
 - Magnesium 10 to 40 percent
 - Potassium 1 to 5 percent
4. The ratio of K to Mg should be between 0.2 to 0.3 for best uptake. Ratios below 0.2 could cause reduced K uptake.
5. Ca/Mg ratio rarely an issue. Ratio between 2 and 8 not shown to impact alfalfa yield in WI

For assistance with interpreting your soil test report, contact your local MSU Extension field crops, vegetable, fruit educator or consumer horticulture educator.

UP SUMMER FIELD DAY SCHEDULE

Topic	Location	Date/time	Contact:
Alfalfa establishment in Corn	Menominee-Twin Island Farms	7/2, 11:30 central	Monica Jean
Ag Innovation Day	East Lansing-Campus	7/26, all day	Monica Jean
Wildlife Repellents and Dry Bean Variety Demo.	Delta- Cooks and Garden	8/6, lunch	Monica Jean
UPREC Open House	Alger-UPREC, Chatham	8/10, all day	UPREC
Potato Field Day	Delta- VanDamme Farm	8/28, evening	Monica Jean
Corn Field Day	Menominee- Pleasant View Dairy Farm	8/27, lunch	Monica Jean
Silvopasture demo. and drainage	Pelkie	Late August/sept	Jim Isleib or Frank Wardynski
Silvopasture Demo	Delta	Late August/Sept.	Monica Jean
Drainage	Dafter/Rudyard	Late August/Sept.	Jim Isleib or Frank Wardynski
Soybean Field day	Delta- Forestry Biomass Innovation Center	9/4, afternoon	Monica Jean
Cover Crops and Alfalfa in corn silage	Menominee-Twin Island Farms	9/18, Lunch	Monica Jean
Renovating your forage fields	Chippewa- Sweeten Farm LLC	9/30, 5:00 p.m.	Monica Jean

The Dirt on Soil Amendments

We all recognize the symptoms: straight rows, strict planting schedules, hardening off transplants, drip tape, sprinklers, row cover, succession seeding, sunburns. Produce farms across northern Michigan have officially entered the thick of planting season, the long awaited and painstakingly planned for time of year directly following (and sometimes coinciding with) the U.P. mud season.

Of course, it's no secret that those seeds and transplants need a bit of water, sunlight, and nutrients to mature into healthy, nourishing produce. Amending the soil prior to planting ensures those plants receive access to the nutrients they require to thrive. Soil amendments can include any biological, chemical, or physical materials that are intended to improve soil and plant health, and all amendments could pose potential food safety risks if not handled properly. Manure is a terrific soil amendment and is readily available to most produce farms, but raw manure poses significant food safety risks when applied to fresh produce fields. Farmers can adhere to the standard time interval of waiting 120 days after manure application and produce harvest to minimize the risk of spreading pathogens often present in manure, or they can avoid the time interval altogether by applying composted manure.

So, what's the difference between manure and composted manure? Although the terms 'manure' and 'compost' are often used interchangeably on the farm, it is important to understand that they are two very different products. To turn manure into compost, it's all about treating the manure with a scientifically validated process. Treatment will kill any pathogens present in the pile, effectively creating a safe soil amendment that may be applied to a produce crop up to the day of harvest for that crop. One example of a scientifically validated process to treat manure is aerobic composting, in which the manure pile is heated to 131 degrees Fahrenheit over 15 days, turning the pile at least 5 times. Other methods may be used, if they are scientifically validated. Manure that is not subjected to a treatment process, but simply left to age, does not qualify as compost and should be handled as raw manure.

To learn more about assessing produce safety risks on your farm and to earn a produce safety certificate from the state of Michigan, contact your local Produce Safety Technician.

Landen Tetil, Produce Safety Technician
Marquette County Conservation District, 780 Commerce Drive
Suite C, Marquette, MI 49855
Call: (906) 226-8871 x 105 or Email:
Landen.mqtcondist@gmail.com

Classifieds

FOR SALE: 20 HEAD— 10 Angus April 2019 Calves; 10 Angus Crossbred cows due late August-September 2019, bred November 5, 2018. Call Dale Carlson in Stalwart (906)647-8246.

FOR SALE: NH 1003 AUTO BALE WAGON . Holds 84 small square bales. Excellent for one person hay operation. \$3900. Good condition. Rock (906)356-6505.

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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**
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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	\$100—\$119 per 100 lbs.
Holstein Steers	\$80—\$95 per 100 lbs.
Hogs	\$78—\$83 per 100 lbs.
Lambs	\$160—\$180 per 100 lbs.
Cull cows	\$45—\$60 per 100 lbs.
Calves	\$50—\$140 per 100 lbs.
Goats	\$200—\$300 per 100 lbs.

Breeding and Feeder Animals

Grade Holstein cows \$850—\$1375/head

Grade Holstein bred heifers \$1000—\$1300/head

Feed Prices across the U.P.

	Avg. \$/cwt	Avg. \$/ton	Price Range
Corn	\$10.03	\$200.50	\$155-262
Soymeal	\$19.34	\$386.75	\$360-450
Oats	\$12.00	\$240.00	\$200-300
Barley	\$9.78	\$210.00	\$160-260

Average price/100 wt. for 1 ton lots



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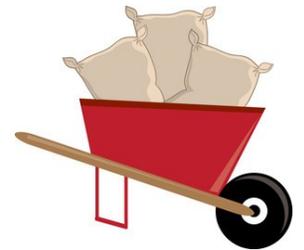
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Calendar of Events

MCA Summer Round-Up & Education Series —June 20-22, Clare, MI

Menominee Field Day—July 2—Twin Island Farms—alfalfa establishment in corn, Menominee, 11:30 CT

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