Great Lakes Grazing Newsletter

MICHIGAN STATE UNIVERSITY | Extension

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Dear Great Lakes Grazier,

Our grazing season is winding down and for most it has been a good one. Some areas of the State were too wet and some were too dry but a fabulous September provided a great end of the season for most. With annual pasture trials that I run every year at our MSU Lake City Station, dry matter yields were up 10 - 16% this year compared to the last three years. Part of this is a result of the good growing season we had and part is because the past three years, especially 2012, were not the best.

Hopefully your grazing season is not done. Many farms will have enough grass to graze into November and some into December. Those that planted an annual multi specie cover crop mix may be able to graze into the New Year. Meat prices are softening and controlling cost of production may be the best way to remain profitable. With feed costs making up over half of the cost of production for beef and sheep, reducing your costs by grazing longer in the fall can go a long ways toward maintaining profitability.

Even if your grass is running out, all hope of low feed cost is not lost. With a little bit of savvy shopping low quality baled hay can be found in Michigan for as low as $20 per ton! This may be rained on hay but it usually will have some feed value still in it that it may be adequate for the dry ewe or beef cow in this fall season. At these rock bottom hay prices feeding hay may be economical alternative this fall.

Whenever you do start feeding baled hay this winter, a form of grazing can still be conducted and can provide benefit. Check out the enclosed article on setting up your fields for bale grazing. It is a great way to make winter feeding easier and to improve your soil at the same time.

MSU Extension still has some educational events to be held yet this fall. Check out the details in this newsletter.

Jerry Lindquist

MSU Extension Grazing Educator

Inside this issue:

Grazing of Fall Cover Crop Mixes Pasture Walk

Where: Salinas Beef Farm, Marion, MI.
Walk will start in field at the corner of 15 Mile Rd. & 50th Ave.
which is 2 miles west of the intersection of M-115 & M- 66.

When: Tuesday, October 27, 5:30 – 7:30 P.M.

Evening Itinerary

Gathering and introductions	5:30 P.M.
View & learn about cover crop grazing	5:45 P.M.
Enjoy refreshments & socializing	7:00 P.M.

A walk hosted by the Salinas Family and cooperating agencies to showcase the potential to lower livestock feed cost by grazing multi species cover crop mixes. Hosts for the pasture walk will be Doris, Andres, Lynn, Andy II & Andy III Salinas.

Five comparison mixes of forage oats, dwarf essex rape, cereal grain rye, turnips, hybrid rape, forage radishes, and collards were no tilled into a wheat stubble field in August. The cow herd will begin grazing the mixes in October typically reducing feed costs in late fall/ early winter by 40% or more while also improving the soil.

The event is sponsored by the MAEAP, MSU Extension and NRCS Offices of Osceola County with financial support from the Michigan Farm Bureau.

For more information contact Jerry Lindquist at 231-832-6139 or Greg White at 231-832-5341. USDA programs are open to all people.

Fall is the Time to Prepare for a Winter of Bale Grazing

Jerry Lindquist, MSU Extension Grazing & Crop Management Educator

A growing trend in the beef cow-calf industry is to continue the benefits of grazing all winter long by using the concept of bale grazing. Bale grazing is the practice of spacing out individual round bales of hay across a hay or pasture field in strategic lines looking much like a checkerboard from the sky. The entire supply of hay to be fed through the winter is set out at one time in the fall. Then once hay feeding begins a single strand of electric poly wire fence is strategically set across the field giving the cows access to only a small portion of the bales at one time. After so many days of feeding by the cows, once the hay is cleaned up, the electric wire is re-set to feed off another portion of the bales. Once the bales are initially set in place in the fall, a tractor may not be needed to feed the cow herd for the rest of the winter. The hot wire and portable posts can be moved by hand thus avoiding hard to start tractors, snow plowing and cold weather engine wear and tear.

Bale grazing of winter hay has many benefits. As long as wind breaks are accessible, the cows prefer being outside. Even in stormy weather, when they have access to the shelter of a barn, they will tend to stay near wind breaks in the open air environment. Environmentally, when managed properly on frozen ground, bale grazing is better than feeding in a confined dirt lot area, as the manure and urine are uniformly dropped across the field as the cows follow the rows of hay bales. Once dropped these nutrients are absorbed by the root system of the sod that is still active under the snow. These sod fields are a much better location for the nutrients to be deposited rather than in a barn yard that has few growing plants. These concentrated barnyards, with only a soil base, quickly turn to mud and become a nutrient sinkhole. The nutrients leach to the subsoil before mechanical scraping can capture them in the spring.

Labor requirements for pasture bale grazing are less during the cold winter period, as all that is required is the fence and possible feeder ring movement. Contrary to popular belief, a pasture or hayfield on which bale grazing is practiced is not destroyed by the hoof action. When bales are set out properly across the field and feed locations are constantly moved, there is little permanent sod damage. The resulting manure nutrient application along with the wasted hay adds forage seeds and organic matter back to the field rejuvenating old, low yielding fields into productive stands after just a few years of bale grazing.

All that is needed for bale grazing is a sod field with water drainage and wind protection. Temporary fencing can be installed if necessary. Drinking water sources can be developed if travel back to a frost proof water source is too far for the cows to walk. Electricity for pumping water and charging the fence can be improvised with solar collector panels and battery storage so few fields are off limits to bale grazing. Even grain stubble fields can be utilized as long as thawing soil conditions are closely monitored to avoid soil compaction.

Think your winters are too severe for bale grazing? Bale grazing is often used in most of the Canadian Providences with cow herds ranging up to 800 cows or more where winters are longer and more severe than most of the lower 48 United States.

Bales set in rows of three for winter grazing.

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Fall is the Time to Prepare for a Winter of Bale Grazing

The fall season is a good time to set out all the round bales of hay in the field. If the bales are stored under a roof or tarp, the longer you can delay setting them out the less spoilage you will experience. Some farms like to haul bales out each feeding over the winter season, but most find it is much more labor and machinery efficient to set them all out at one time. Select fields that need manure nutrients and try to avoid areas of the field that will experience standing water, or significant water runoff when there is a snow melt.

Note the uniform manure distribution after bale grazing.

Locate the fenced area at least 150 feet from potential spring surface water as this is a form of manure application and you want to keep the nutrients in your field for next year's forage growth. For beef cows the bales are typically spaced 25 – 35 feet apart on center in lines across the field. This spacing will provide for more uniform manure distribution by the cows.

Lightweight ring bale feeders are used by some to reduce feed wastage. Others do not want the hassle of moving feeders and just accept the 20 – 30% wastage as a cost for bedding and as an organic matter addition to the soil.

Soil testing of bale grazing sites is advised before grazing and again after a couple years of grazing at the same location. Soil fertility will improve including organic matter which helps to hold more moisture and plants nutrients. The important macro nutrients like phosphorus and potassium will also increase improving future plant growth. But the phosphorus level can rise to the point of being above the allowable level of the Michigan Right to Farm Guidelines. Soil testing will help to monitor these soil fertility improvements and will also tell you when you need to rotate to new locations.

Bale grazing allows for more flexible feeding schedules as several days of feed can be provided at one time. Part-time farmers can manage their feed timing so that one of the feedings each week can be conducted in daylight periods.

Plastic wrap or sleeves can be left on the bales as they are set in the field to protect them from weathering. The plastic can be removed at the time of feeding.

Keeping the animals on the right side of the fence is not a major issue. Single strands of poly wire electric fence will work as long as a proper sized fence energizer is used and the fence is kept charged. Even snow drifting on lower sections of the multi wire perimeter fence does not cause a problem with a good energizer that is properly grounded.

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Fall is the Time to Prepare for a Winter of Bale Grazing

The posts supporting the polywire can be 3/8" sun guarded polyglass posts that are lightweight to carry, and are fairly easy to move, even in frozen ground. Simply use a same sized diameter metal re-rod post to drive a pilot hole through frozen ground first and then insert the poly post. And if all else fails just stick the post into the side of the round bales that are the next in-line to be fed.

Over consumption of the hay can become an issue if cows are given free access to hay for several days at a time. For example if you give the cows a row of bales that will give them free choice access for two days, they will have a tendency to over-consume and put on excess body condition (fat cover). This can increase feed cost and also lead to more feed wastage. To regulate this feed intake issue you have to first match the hay quality to your system of feeding. Feed too good of a quality alfalfa hay and they will definitely eat more than they need. However if you can feed a more grassy mixed alfalfa hay that they will fill up on and digest slower, they will move closer to self-regulating their consumption. The other method used to regulate consumption is to let them completely run out of hay for a day. In the example above they will feed for two days, clean up much of the hay dropped on the ground on the third day, and then be hungry for new bales on the fourth day. You can allocate new bales to them every fourth day which can off-set the over consumption. Health wise the cows deal with the lack of feed for a day very well.

By monitoring the herd's body condition over the course of the winter, bale grazing season adjustments can be made to the feeding program as necessary. Also the system can be flexible enough that if a major snow storm is forecast on the fourth day, feeding can be moved up to the third day to prepare the cows for the nasty weather that is coming.

Soil fertility test results on a loamy-sand hay field bale grazed for four years

	2010	2014	% Increase
phosphorus	40 ppm	94 ppm	135%
potassium	88 ppm	170 ppm	93%
organic matter	2.8 %	5.1%	82%

The 1st cutting of hay was removed from this field each year and the field was pasture grazed twice over the rest of the summer. No additional fertilizer was applied during this period

Since you have to feed the cows anyway, why not feed them in a system that keeps them clean and healthy while letting them self-feed, haul and spread their own manure, and improve soil quality all at the same time! Bale grazing does work.

Michigan State University Seeks Public Input to Sharpen Research and Outreach Focus

Michigan residents can help determine where Extension faculty and staff members should place their emphasis.

Beth Stuever, Michigan State University Extension

EAST LANSING, Mich. – Michigan State University Extension has long been a source of information and education for Michigan residents. Along with MSU AgBioResearch scientists, Extension professionals throughout the state are asking Michigan residents to help them determine where they should place their emphasis in the future.

"This organization belongs to the people we serve," said Ray Hammerschmidt, MSU Extension interim director. "We want to make sure that we are meeting their needs throughout the state by sharing research and education that will make a difference to them, their communities, their families, their business and their farms."

To that end, MSU Extension has launched an online survey asking all Michigan residents about their needs and priorities. The MSU Extension and AgBioResearch Survey to Sharpen Our Focus online survey that will supplement 14 upcoming face-to-face meetings throughout the state that will engage nearly 500 residents.

"We have designed a series of meetings that will bring together people from all over," said Maggie Bethel, the former MSU Extension director who is charged with overseeing the process. "But it is important that we don't limit ourselves to the people we see in person. The online survey gives everyone a chance to participate in the process."

As an added bonus, respondents who complete the survey will have the option of entering a drawing that includes two MSU men's basketball game tickets (date and time to be determined), a basket of Michigan-made agricultural products and a $75 gift certificate to shop.msu.edu.

To participate, access the survey from the front page of msue.msu.edu by visiting msue.msu.edu/focus. All information collected is anonymous. Once completed, a separate link will be provided to those who wish to enter the drawing.

"We don't want people to feel any hesitation about providing information," Bethel said. "Therefore, we will not retain names or contact information except for the purposes of the drawing. That database will be not be kept once the winners have claimed their prizes."

To learn more about MSU Extension, visit msue.msu.edu.

This article was published by Michigan State University Extension.

For more information, visit http://www.msue.msu.edu. To have a digest of information delivered straight to your email inbox, visit http://bit.ly/MSUENews. To contact an expert in your area, visit http://expert.msue.msu.edu, or call 888-MSUE4MI (888-678-3464).

Planning to Frost Seed Pasture in 2016? Start the Prep Work Now

Jerry Lindquist, MSU Extension Grazing & Crop Management Educator

Frost seeding of clovers, birdsfoot trefoils, and some grasses such as annual and perennial ryegrass can be a very economical way to improve pasture forage growth and nutritional quality. Frost seeding is usually performed in late winter typically 40 – 50 days before grass growth begins in the spring. Frost seeding works best on clay and loam soils that experience soil movement with the freezing and thawing action that takes place that time of year. Part of the popularity of frost seeding is its ease of implementation and low cost. Producers have to simply buy the seed, broadcast the seed and watch it grow. There is no spraying, tillage, stone picking, nor loss of grazing for a summer that comes with re-seeding a new pasture. And in many cases the end result can be almost as good as a new seeding.

The common practice is to add a red or white clover seeding to a pasture when the legume percentage in the pasture is less than 40%. The existing grass pasture is not tilled or sprayed, just the clover seed is broadcast over top with the hope that the clover seedlings will compete and grow with the grass in the summer. But even thin stands of grass can be very competitive in the spring of the year. These existing grasses can out-compete the new seedlings for moisture, especially during a dry period in the spring, and the frost seeding may fail.

To give the frost seeded plants a better chance in the spring, over-grazing the grass stand in the fall is advised. When frost seedings are planned, it is the one time that Michigan State University Extension forage educators will advise you to weaken, or hurt the pasture stand in the fall before seeding.

Over-grazing does two things to help the success of the frost seeding. First it reduces the root food reserves of the pasture stand that will cause the grasses to be less aggressive in the spring. Secondly, by taking the grasses right down to two inches of stubble in late fall it removes the thatch layer on the soil surface, exposing more soil, which will lead to better soil-to-seed contact in the spring. Erosion is a slight risk as a result of this practice but the live roots and stubble remain in place preventing the risk of serious erosion. The set back of the stand is only temporary in the spring and the grasses will recover as the frost seeded plants start filling in by June. The benefit of letting the grazing animal be the plant retardant versus tillage and/or herbicide is quickly realized as pasture grazing does not skip a beat in the spring. The additional stand diversity that the new plants provide will benefit the grazing herd, beneficial insects and soil microorganisms in the pasture environment as well.

Frost seedings are beneficial when they work. To shift the odds of success more in your favor, weaken the pasture stands this fall that you are planning to frost seed. For more information contact MSU Extension Grazing Educator Jerry Lindquist at lindquis@msu.edu or at 231-832-6139.

Bloat Happens, but Not as Often on a Full Rumen

Jerry Lindquist, MSU Extension Grazing & Crop Management Educator

The fall season is a transitionary time for pasture grazing. Many cool season perennial grasses decrease their growth and start going dormant causing farmers to turn the herd or flock into other feed sources. Frost starts to become a common occurrence each morning killing plant leaves and breaking down there fibrous cell structure. The resulting morning dews from the cool nights leaves moisture on the pasture plants longer into the day. Grain fields start to be harvested and the resulting corn stalks make economical feed for a dry cow to graze for many months into the early winter. All of these events can lead to complications in ruminant grazing animals called bloat or other similar ailments if proper precautions are not taken.

The ruminant grazing animals is at risk to bloat any time during the grazing season but fall is one of the more risky times. For cattle, sheep, goats and other ruminant animals, bloat can either be persistent, but nonlethal, or it can appear suddenly, leading to death with little warning.

Pasture bloat, commonly called frothy bloat, is caused when slimy foam builds up in the rumen preventing normal gases from being released by the animal via belching. This captured gas enlarges the rumen like a big balloon applying pressure on the diaphragm lining that separates the digestive tract from the heart and lungs. The bulging diaphragm, in severe cases, can pressure the lungs and heart restricting breathing and blood circulation leading to death.

In the fall frothy bloat can occur when ruminants and especially cattle;

- graze pastures that have a high concentration (over 50%) of legumes like clover or alfalfa that are in the lush, vegetative stage of growth.
- graze forages that are significantly different than what they have been grazing like going from a dormant brown pasture low in protein and high in fiber to a lush, newly planted pasture mix that is high in protein and low in fiber
- are turned into the above pastures in the morning when they are wet
- are turned into large pastures that they can roam for days and top graze the most lush legume leaves and stems without having to graze the lower more fibrous stems

Another somewhat similar grazing ailment to bloat is called acute rumen acidosis. It can occur when cattle consume too much grain and not enough fibrous plants like grass, hay, silage, or corn stalks. In the fall this typically occurs when cattle are first turned into a harvested corn field to graze the remaining stalks and husks. If the combine operator missed the grain cart with the auger too often and left piles of shelled corn on the ground, the cattle may eat just from the shelled corn piles and over-load on grain. This leads to acidosis which is a drop in the rumen fluid pH to a level where certain rumen bacteria die off and acid producing bacteria thrive dropping the pH even further. Rumen digestive function stops, the animal stops eating and drinking, lower pH levels enter the bloodstream of the animals and if not corrected, death can follow.

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Bloat Happens, but Not as Often on a Full Rumen

There are a number of management practices to prevent bloat and acidosis from occurring. Some of them are simple to accomplish like turning the animals into a new pasture or paddocks only in the afternoon when the plants are dry, or scouting the corn stalk field and removing the piles of shelled corn before turning the cows in. Others are a little more complex or costly like sub dividing pastures into smaller paddocks and using controlled grazing, or feeding bloat guard products that chemically prevent frothy bloat.

But probably one of the simpler and arguably most effective methods is to simply feed long stemmed grassy hay to the animals before they are turned into a potentially risky grazing crop and make sure they are full of feed going in. Hay feeding before turn-in, and sometimes for the first week or so, does a number of things that can help to prevent bloat and acidosis.

Dry hay when it enters the rumen floats on top of the 40 gallons of fluid in a cow's rumen. It creates a floating mat of particles that gradually soak up the rumen fluids, dissolve, and sink down into the lower rumen to be moved to the rest of the digestive tract. This floating mat catches other food products, like more rapidly digestible grains or wet pasture plants, and slows down their digestion and negative impact on rumen pH.

This floating mat of forage and other particles is the product that the cow regurgitates and chews as her cud. This cud chewing serves the primary purpose of breaking the forage particles down into smaller sizes and it also produces saliva that contains a buffering chemical for the rumen to keep the pH at a higher level avoiding bloat and acidosis. Because the dry hay is not as digestible it requires more cud chewing to break it down and digest which stimulates even more cud chewing and saliva production.

Grass hays also being lower in crude protein and higher in fiber than many grazable stands of legumes or grazing mixes of fall annuals, will buffer the introduction of those forages into the rumen and let the micro biology in the rumen gradually adjust to the change in nutrient content.

So even though the idea is to avoid the high cost of feeding hay as late as possible in the fall by continuing to graze, the switch-over to some of these fall grazing crops can be risky. Dead animals cost a lot more than feeding hay for a week in the fall. Hay feeding before turn in and guaranteeing the animals are full is one of the better management techniques that can let the ruminant animal adjust to new forage types and stay alive and healthy this fall.

FALL CATTLE SALE SCHEDULE

DATE	TIME	SALE NAME	PHONE	LOCATION
October 29	3:00 pm	Lake Odessa Livestock Brood Cows & Breeding Heifers	(616) 374-8213	Lake Odessa
October 31	1:00 pm	Michigan Simmental and Angus Fall Production Sale	(406) 581-7940	St. Louis
November 7	2:00 pm	Farmers Livestock Preconditioned Feeder Sale	(269) 962-7591	Battle Creek
November 1	1:00 pm	Great Lakes Hereford Roundup	(517) 256-3427	Williamston
November 27	3:00 pm	Lake Odessa Livestock Brood Cows & Breeding Heifers	(616) 374-8213	Lake Odessa
December 5	2:00 pm	Farmers Livestock Special Brood Cow & Feeder Calf Sale	(269) 962-7591	Battle Creek
December 10	3:00 pm	Lake Odessa Livestock Brood Cows & Breeding Heifers	(616) 374-8213	Lake Odessa
February 6	2:00 pm	Farmers Livestock Bred Heifer, Bulls and Feeder Calf Sale	(269) 962-7591	Battle Creek

FEEDER CATTLE SALES

DATE	TIME	SALE NAME	PHONE	LOCATION
October 20	Noon	West Branch Feeder Calf Sale	(989) 370-6200	West Branch
October 23	1:00 pm	Northern Michigan Livestock	(989) 732-5732	Gaylord
October 29	5:00 pm	Lake Odessa Livestock Feeder Sale	(616) 374-8213	Lake Odessa
November 5	1:00 pm	Clare County Livestock Feeder Calf Sale	(810) 441-6191	Clare
November 6	1:00 pm	Northern Michigan Livestock	(989) 732-5732	Gaylord
November 6	1:00 pm	United Producers Feeder Cattle Sale	(989) 681-2191	St. Louis
November 7	2:00 pm	Farmers Livestock Preconditioned Feeder Calf Sale	(269) 962-7591	Battle Creek
November 9	6:00 pm	Ravenna Auction	(231) 853-5738	Ravenna
November 27	5:00 pm	Lake Odessa Livestock Feeder Sale	(616) 374-8213	Lake Odessa
November 30	6:00 pm	Ravenna Auction	(231) 853-5738	Ravenna
December 3	1:00 pm	Clare County Livestock Feeder Calf Sale	(810) 441-6191	Clare
December 4	1:00 pm	United Producers Feeder Cattle Sale	(989) 681-2191	St. Louis
December 5	2:00 pm	Farmers Livestock Feeder Calf Sale	(269) 962-7591	Battle Creek
December 7	6:00 pm	Ravenna Auction	(231) 853-5738	Ravenna
December 10	5:00 pm	Lake Odessa Livestock Feeder Sale	(616) 374-8213	Lake Odessa
December 11	1:00 pm	Northern Michigan Livestock	(989) 732-5732	Gaylord
February 6	2:00 pm	Farmers Livestock Feeder Calf Sale	(269) 962-7591	Battle Creek

For a list of cattle and feeder calf sales in Michigan go to the Michigan Cattlemen's Association website at http://www.micattlemen.org/CMDocs/MichiganCA/Fall%20Cattle%20Sale%20Schedule%20Final.pdf

GRASS-FED GRASS-BRED

For the past 5 years, we have worked to employ Pasture-Based Management Systems to identify the cattle that can DO IT ON GRASS. Here's the outcome from a local distributor:

"I don't know if you hear it enough, but the end result, the beef, is some of the BEST I've had in close to 30 years in this business and I hear the same from some very talented and experienced chefs…the taste, texture and flavor of your work is something that I hope continues on for many years to come."

MSU LAKE CITY RED ANGUS PRODUCTION SALE

Selling: Bred Cows • 2 Yr. Old Bulls • Select Set of Bred Heifers

November 20th, 2015

Online Auction Only

7 p.m. Horse Race Finish

SUPERIOR Livestock Auction

To register for Online Auction only, buyers can call 1-800-422-2117 or go online to superiorlivestock.com

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