



Great Lakes Grazing Newsletter

MICHIGAN STATE UNIVERSITY Extension

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Dear Great Lakes Grazier,

As the longest day of the year and the 1st day of summer, June 21 arrives hopefully your grazing production is going well. All pastures were too cold and too wet early in the spring which led to delayed growth. Then the common growth explosion hit after the warm temperatures of Memorial Day weekend arrived. And fortunately in the last week most of the State received good rainfall to return some drying pastures back to active growth.

We can only hope that the rest of the summer continues to give us a mixture of sunshine and rain. With those key ingredients to make green grass the next most important factor is your management. Below are some key points to make sure your pasture management is not the weakest link in the chain this summer:

Proper forage rest is critical – grazing down the top pasture growth reduces the plant’s root mass and depth, soil moisture will be located deeper in the soil profile in dry weather so resting the pasture 20 – 30 days in May & June and 30 – 55 days in July – Oct allows the roots to regrow and go deeper to find moisture and nutrients in the soil.

Do not graze shorter than 5 inches – animals should be removed from paddocks when the theoretical average forage height is still 5-6 inches; this is the height at which research says the remaining leaves and stems will still intercept 95% of the sun’s solar energy with only 5% reaching the soil surface (the sun’s solar energy warms the soil evaporating soil moisture excessively in mid-summer and decreasing biological activity). Grazing shorter than this height also removes the growing center of the cool season grass plants that store most of their energy in the crown or the stem of the plant. Grazing too low also leads to plant moisture stress and potentially to plant die off which allows weeds opportunities to creep in. Kentucky bluegrass and tall fescue are the grass exceptions to this height rule as they do tolerate and recover better from lower grazing.

Do not graze a stand longer than 3 to 5 days – it is best to size paddocks small enough that the herd has to be moved every 3 days in the spring, every 4 days in mid-summer and at least every 5 days in late summer. Plants after being eaten will start to re-grow a new leaf in as short as 3 days in the spring when growth is rapid and as early as 5 days in August and September if there is adequate soil moisture. Once grazed this re-growth should be rested for the periods mentioned in item #1 above or plant stunting will result.

Re-graze once forage reaches 10 to 12 inches of height – an average height of 10 -12 inches will assure that the plant’s roots have re-grown to optimum levels in their reach into the soil to obtain moisture and find nutrients. It also assures that the plants have stored an optimum amount of energy in their vascular storage system.

Graze before the average height is over 16 inches tall – for optimum forage quality, solar efficiency and animal gain/acre try to graze before the height reaches 16”. Plants above this height turn reproductive, reduce their ability to take in solar energy as their cell structure changes, lower their feed quality, and shade out shorter plants especially legumes. Pasture growth above this height either needs to be mowed for hay or grazed using high density stocking rates in paddocks with very small area to trample down the remaining stems into the soil surface building soil organic matter.

Graze half leave half – this crude rule of thumb simply means if the average pasture height is 12 inches tall at turn-in, the animals should be removed from the stand when the average height is 6 inches tall. Many producers realize that they will have less grazing days by pulling the herd out at 6” rather than maybe 3” and are reluctant to pull them when there is still good grass there, but what they never get to experience is that on average they will be able to return to that paddock much quicker because at 6” the forage plants were never set back that much.

Soil test and follow the recommendations whenever financially possible – don’t let fertility be your weak link. Enough said.

There are many circumstances that occur over the course of the summer that may not allow you to follow all of these guidelines, but the more often you can stick to the them the more productive your pasture will be!

Jerry Lindquist,

MSU Extension Educator

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The Reality of Theoretical Average Forage Height

Jerry Lindquist, Michigan State University Extension

The reality is that residual grazing height is not uniform. Cattle are very selective in what and where they graze. They will leave un-touched tall orchard grass clumps that have went to seed standing 14 inches while going back to eat again and again bluegrass and white clover patches two feet away leaving only an inch of growth. Also the growth around manure piles will be left un-grazed even if it is green and vegetative in its growth. We only have so much control when we implement “controlled” grazing. So when experts advise that you do not graze a stand shorter than five inches what does that mean and how do you really control it?

We call it “theoretical average height” because in reality it is determined as much in theory as it is in scientific accuracy. We can take a pasture measuring stick into the field and measure the forage height at 30 locations and be very analytical in our approach, but still there are dilemmas. Do you measure the brown, headed out orchard grass clumps that animals will not eat anyway (unless you starve the animals)? Do you measure the nubbed bluegrass that is nothing but roots that may not re-grow? What about the good looking grass around that manure pile – if we measure it are we not, by entering it in the equation, forcing the animals to eat more of the outer ring of grass which may lead to increased parasite loads?

The reality is measuring pasture height is as much an art as a science. Using tools like sticks or rising plate meters to measure can help you to fine tune your mind and your eye. Start with these tools and soon you will be able to leave them behind and just eyeball the pasture growth. Still when the pasture height is highly variable it is challenging to calculate an average height. Electronic rising plate meters with calculating software can make the chore an easier one if a person is going to get serious about taking pasture measurements. But you must be serious about it as these meters price tags start at \$600.

One of the first steps to take if you are going get serious about measuring pasture growth and estimating residual height is to follow all the grazing guidelines in the first article. One of the more important ones is to not allow the animals too large of an area to graze. Grazing height is more uniform when we provide a small area and only allow cattle to graze a paddock for one day. Allowing them to graze it for two days makes it a little less uniform and three days a little less than two, but still three days will be more uniform than if it is grazed for 7 days or more. With today’s electric fencing these smaller paddocks are easy to create with a couple of reels of polywire and some step-in posts.

So if you want to improve your grazing efficiency and forage utilization follow all the guidelines listed in the opening article and more of the pieces of the puzzle will start falling into place. Pasture residual height is highly variable but don’t let variability be the reason why you are not measuring and managing the pasture.

Gabe Brown Presentation Recordings are On-line

North Dakota rancher Gabe Brown spoke at the 2014 Great Lakes Forage and Grazing Conference and did an excellent job of explaining how he utilizes multi species cover crops with the grazing animal to improve soil quality, productivity and profitability. Fortunately with funding from North Central SARE we were able to record both of Gabe’s presentations at MSU and those recordings are now available free of charge on-line courtesy of the MSU Extension Grazing, Forage Team and the Michigan Forage Council, NC SARE and Gabe Brown. The recordings are very good quality and each are approximately 60 minutes long. The links to go to then on-line are below:

Holistic Regeneration of Our Farms <http://vimeo.com/user5471678/review/90246652/a53afb7032>

Grazing Cover Crops <https://vimeo.com/user5471678/review/90662936/e94b316ad8>

KBS Pasture Dairy Center to Host Open Houses

Hickory Corners, Mich.—Grassland birds, pasture-based cheese and pasture management will be topics in focus during three summer open house events at the W.K. Kellogg Biological Station (KBS) Pasture Dairy Center.

All open houses are free to the public and family-friendly. The schedule is as follows:

Grassland Birds & Pastures - Tuesday, June 10

Enjoy a wagon ride into the pasture and bird with a naturalist to learn how birds utilize pasture lands in Michigan. MSU Dairy Store ice cream will be available and attendees can enter to win a year's membership to the Kellogg Bird Sanctuary.

Pasture-based Cheese - Tuesday, July 8

Sample cheeses made from pasture-based cow's milk produced at KBS and talk with farm and dairy staff about the cheese-making process. Visitors can purchase cheese and enter to win a year's membership to the W.K. Kellogg Manor House.

Pasture Management & Plant Identification - Tuesday, August 12

Learn to identify pasture plants during a wagon tour of the KBS pastures. Tours depart at 5 and 6:30 p.m. (There is a limit of 30 people per wagon tour; first-come, first-seated!) MSU Dairy Store ice cream will be available and visitors can enter to win a KBS t-shirt and a free lunch for two at the KBS Conference Center's McCrary Hall.

Open house events take place at the KBS Pasture Dairy Center, 10461 N. 40th St. in Hickory Corners. Entrance is on N. 39 St., one block west of the intersection at N. 40th St and East B Ave. All events are from 4-8 p.m. Farm and dairy staff will be on hand to answer questions.

The Pasture Dairy Center uses robotic milking technology, a system allowing cows to set their own milking schedule, and features 220 acres of pasture devoted to grazing research with a focus on sustainable agriculture and ecosystem services. The barn at the Pasture Dairy Center was the first livestock building in the U.S. to receive a silver level certification for Leadership in Environmental and Energy Design (LEED).

The W.K. Kellogg Biological Station is Michigan State University's largest off-campus education complex and one of North America's premier inland field stations. KBS's mission is focused on ecological and environmental research, education and community outreach.

FOR MORE INFORMATION CONTACT:

Misty Klotz, Agriculture & Climate Change Outreach Coordinator, W.K. Kellogg Biological Station

Website: pasturedairy.kbs.msu.edu/

Email: pasture.dairy@kbs.msu.edu

Phone: (269) 671-2402

2014 Michigan Cattlemen's Association Summer Round-Up Coming to Cadillac June 27-28, 2014

Headquarters Hotel: McGuires Resort, 7880 Mackinaw Trail, Cadillac, MI 49601, (231) 775-9947

"A time for all interested in the cattle industry to come together to learn, share, and improve the industry" Members and non-members alike are welcome!

Friday - June 27

1:00 - 4:00 p.m. Round-Up Field Day at the MSU Lake City Research Center, 5401 Jennings Rd. , Lake City, MI 48651
MSU's Lake City Research Center supports research on forage and beef production to bring about knowledge-based problem solving and practical, common sense solutions.

- Grazing Management: Discuss how different grazing systems impact forage production and organic matter.
- Rainfall Simulation: Witness how water moves off or infiltrates soils during a rainfall event and what this means for grazing and cropping strategies.
- Cattle Performance: Review the latest research on cow-calf performance, wintering costs and stocker costs of gain for grass fed beef.
- Farm Safety : Discover common farm safety issues and considerations for preventing farm accidents.

5:00 –9:30 p.m. Round-Up Awards Banquet, 5:00-9:30 p.m. Fox Hill Event Center, 7650 Mackinaw Trail, Cadillac, MI

5:00-5:45 p.m. Social Hour - Cash Bar

6:00-6:45 p.m. Dinner- Prime Rib and Brisket Buffet

6:45-9:30 p.m. Program Speaker - Bob McCan, NCBA President

Saturday - June 28

Agribusiness Tours

8:00 a.m. Depart from McGuires Resort

Visit three historic businesses, operated by successive generations. The two farms are the larger cow/calf operations in Michigan.

- Harwood Cattle Company - Celebrating 100 Years in the Cattle Business
- Kitty Kurtis Farms - Diversified Commercial Cattle Operation
- Ebel's General Store - Beef Processing and Direct Marketing Opportunities

Lunch - Steak Cookout

Use your credit card to Register Online at the Michigan Cattlemen's Association <http://micattlemen.org/summerround-upregistration.aspx>

OR

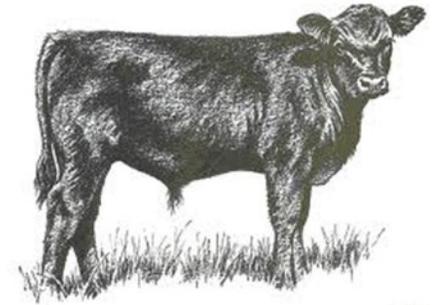
Print the on-line form and mail it back to:

Michigan Cattlemen's Association
2145 University Park Dr. Suite 300
Okemos, MI 48864
call for more info 517-347-8117

MSU Extension Pasture Walk

Where: Steve Gardner Farm, 3490 Gardner Rd.
Roscommon, Michigan 48653

When: Thursday, July 24, 2014, 6:30 – 8:30 P.M.



Steve has been intensively grazing 50 cow/calf pairs on the north side of Houghton Lake for the last 10 years. Those attending will have the opportunity to learn about the following:

- Irrigated grass/clover & trefoil paddocks
- Grass fed yearling cattle
- Pasture clipping system to improve forage utilization & control of weeds
- New livestock scales to measure cattle performance
- Calving barn video system to remotely monitor birthing progress

Directions: From I-75 take the Prudenville exit into Prudenville on M-55. Turn north on M-18 to County Rd. 100 and turn left and follow along the shoreline of Houghton Lake (also called E. Houghton Lake Dr.) Follow north out of town and turn left on W. Lansing Rd. Travel to road T and turn right onto Flint Rd. Travel north to Lakewood Dr. and turn left and travel west to Gardner Rd. and turn south on Gardner and travel to Steve's house at the end of road.

From US 27 take the Higgins Lake exit and go east on M 104 to Flint Rd. Turn south on Flint Rd. Travel to Lakewood Dr. and turn right and travel to Gardner Rd. and turn south on Gardner and travel to Steve's house at the end of road. If lost call Steve's cell at 989-302-0935 or Jerry's at 231-912-0103. For more information contact Jerry Lindquist, MSU Extension Grazing Educator at 231-832-6139.

Osceola County 2014 Soil Health Summer Series



Come take a look at how cover crops are being used to improve farm soils & productivity!

July 1—B&B Farms (Dan & Bonnie Blackledge), 9775 Haskell Lake Road, Marion—utilizing fall cover crops after canola harvest, soil health measurements, canola oil processing demo, ice cream sundaes, 7-9 p.m.

July 14—Veddler Dairy Farm - North Farm, 7217 County Line Road, Marion—rain fall simulator showing how tillage & plant cover impacts soil erosion & water infiltration, cover crop seed availability, minimum tillage farming practices, overseeding into corn, EQIP, ice cream sundaes, 7-9 p.m.

August 22—Jernstadt Dairy, 20310 Coolidge Road, Big Rapids—hands on look at the effects of 4 different types of tillage on cover crop plantings, lunch provided, 9 a.m. to 3 p.m.

September 23—Thornton's, 11315 E. 64th, Reed City—ACEP-WRE (WRP), cover crop interseeding in grain crops, ice cream sundaes, 1:30-3:30 p.m.

October 9—Michele & Chad Nicklas, 16134 Schofield Rd., Hersey—cover crops mixes for extending the fall grazing season of beef cattle, aerial seeding of cover crops into standing grain crops, cider & doughnuts, 6-8 p.m.

October 21—Norman's Vegetable Farms, 22735 20 Mile Road, Tustin—utilizing cover crops as a living mulch in mixed vegetable production, cider & doughnuts, 4:30-6:30 p.m.

At each farm we will be going into the field to see cover crops close up. Cover crops improve overall soil health by acting as a living mulch and reducing weeds, disease, and inputs. MSU Extension, NRCS and MAEAP will be on hand for discussions about the benefits of cover crops and programs available. These tours are financed in part by the Michigan Farm Bureau. All meetings are MAEAP Phase 1 qualified.

If you have any questions, please call us! At the Osceola-Lake Conservation District—231-832-2950

Or MSU Extension—231-832-6139



If you need an accommodation to participate, please contact Greg White at 231-832-5341 or at: greg.white@nrcs.usda.gov at least 2 weeks ahead of any meeting that you wish to attend. NRCS is an Equal Opportunity Provider and Employer.

Our Sponsors:

This pasture walk and management seminar is sponsored by the following groups:

Michigan State University Extension

Lapeer Conservation District

USDA NRCS

Lapeer County Farm Bureau

GLCI

Greenstone Farm Credit

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Who should come to this pasture walk?

All livestock graziers

Large & small sheep producers

Alfalfa producers

IMPORTANT!
Pre-registration is required for the meal count. There is no charge for this event. In case of rain, the rain date will be Wednesday, June 18,

To register call or email:
810-667-0341
houset@msu.edu

MICHIGAN STATE UNIVERSITY | Extension



Sheep Pasture Walk and Management Seminar

**Tuesday, June 17, 2014
5:00 pm — 8:00 pm**

**Glenwillow Farm
8386 Mowatt Rd.
Silverwood, MI 48760**

Call MSU Extension and pre-register

MICHIGAN STATE UNIVERSITY | Extension

**For more information contact:
Lapeer County MSU Extension**

810-667-0341

Special Speaker:

**Dr. Richard Ehrhardt
MSU Small Ruminant Specialist**

Dr. Ehrhardt is part of Michigan State University Animal Science Department and works with both large and small producers on current issues such as:

- ♦ efficient use of forage resources
- ♦ extending the grazing season
- ♦ the interaction between nutrition and aseasonal reproductive success
- ♦ preventative health management and strategic nutritional management.



Agenda:
5:00 pm **Start**
5:15 pm **Dinner - provided by our sponsors**
6:00 pm **Dr. Ehrhardt**
6:30 pm **Pasture tour**
8:00? pm **End**

- Specific topics:**
- ♦ Pasture/grazing management
 - ♦ How annual forages can compliment the perennial base
 - ♦ Health issues on pasture
 - ♦ Managing alfalfa winter injury

Our Hosts:

Ron & Sue Osborne

Glenwillow Farm is located in northern Lapeer County. The Osborne's have Black Face and Katadhin sheep on their pasture-based forage system. Pastures are a combination of orchard-grass, alfalfa, and mammoth red clover.

DIRECTIONS:

1 1/2 miles east of M-24 on Barnes Rd & 3/4 mile N on Mowatt Rd.

IMPORTANT!

In case of rain, the pasture walk will be rescheduled for Wednesday, June 18 at 5:00 pm, so registration is important.

Upper Peninsula Events

FARM NAME & CONTACT INFO	FIELD DAY DATE	FOCUS OF FIELD DAY	MSU STAFF INVOLVED * lead
MSU U.P. Research and Extension Center E3774 University Drive Chatham, MI 49816 <i>Ashley McFarland</i> Phone: 906-439-5176 ashleymc@anr.msu.edu	Sat 7/26/14 afternoon	Field crop and forage trials New integrated livestock cropping system Soil health research	Isleib* McFarland Kapp Cassida
Love Farms 12361 W. Turner Rd. Rudyard, MI 49780 <i>Bob and Tina Love</i> Phone: 906-478-5201 or 906-478-2050 Cell: 906-748-3963 Lovefarms@lighthouse.net	Sat 8/2/14 time TBA	Current farm practices, including Mastergraze BMR corn, oat/barley /vetch mixture, for- age sorghum/sudangrass Demo cover crop strips	Isleib* Wardynski
Brule River Farm <i>Jon & Donna Ahlberg</i> 1272 M-73 Iron River, MI 49935 Phone: 906-265-9333	Mon 7/28/14 5pm	Grazing practices Pasture walk	Isleib Wardynski* Cassida
Brock Farms Rt. Box 96 W5186 Co Rd 360 Daggett, MI 49821 <i>Steve Brock</i> Phone: 906-753-6439 Cell: 906-290-1917	Tues 7/29/14 11am	Increasing fiber in dairy diet with fescue or annual ryegrass Using sorghum to improve increase fiber Lowering corn production costs by shortening alfalfa rotation, efficient input use	Isleib* Wardynski Cassida
Barron Farms <i>Bob Barron</i> 4216 21 st Road Gladstone, MI 49837 Phone: 906-786-7027	Fri 9/12/14 time TBA	Grazing brassicas to extend grazing season	Isleib Wardynski*
<i>Frank Wardynski</i> 713 River St. Ontonagon, MI 49953 Office: 906-884-4386 Home: 906-884-4160 Cell: 906-281-0918	Sat 9/13/14 time TBA	Winter wheat as forage Peas & oats followed by oil seed radish or bras- sica mix in early august Multi-species cover crop/annual forage	Isleib Wardynski*

Upcoming Meetings & Events

July 1, 14, August 22, September 23, October 9, and October 21— Osceola County 2014 Soil Health Summer Series

- ⇒ July 1, 7:00-9:00 P.M.—B&B Farms, 9775 Haskel Lake Road, Marion. Utilizing fall cover crops after canola harvest, soil health measurements, canola oil processing demo, ice cream sundaes.
- ⇒ July 14, 7:00-9:00 P.M.—Veddler Dairy Farm, North Farm, 7217 County Line Road, Marion. Rain fall simulator showing how tillage & plant cover impacts soil erosion & water infiltration, cover crop seed availability, minimum tillage farming practices, overseeding into corn, EQIP, ice cream sundaes.
- ⇒ August 22, 9:00-3:00 P.M.—Jernstadt Dairy, 20310 Coolidge Road, Big Rapids. Hands on look at the effects of 4 different types of tillage on cover crop plantings, lunch provided.
- ⇒ September 23, 1:30-3:30 P.M. —Thornton's, 11315 E 64th St, Reed City. ACEP-WRE (WRP), cover crop interseeding in grain crops, ice cream sundaes.
- ⇒ October 9, 6:00-8:00 P.M. —Michele & Chad Nicklas, 16134 Schofield Rd., Hersey. Cover crops mixes for extending the fall grazing season of beef cattle, aerial seeding of cover crops into standing grain crops, cider & doughnuts.
- ⇒ October 21, 4:30-6:30 P.M. —Norman's Vegetable Farms, 22735 20 Mile Road, Tustin. Utilizing cover crops as a living mulch in mixed vegetable production, cider & doughnuts.

July 8, Pasture-based Cheese Open House at KBS Pasture Dairy Center

Sample cheeses made from pasture-based cow's milk produced at KBS and talk with farm and dairy staff about cheese-making process. Visitors can purchase cheese and enter to win a year's membership to the W.K. Kellogg Manor House.

July 24, MSU Extension Pasture Walk at Steve Gardner Farm

Time: 6:30 – 8:30 P.M. Location: 3490 Gardner Rd., Roscommon, Michigan 48653

Learn about irrigated grass/clover & trefoil paddocks, grass fed yearling cattle, pasture clipping system to improve forage utilization & control of weeds, new livestock scales to measure cattle performance, and calving barn video system to remotely monitor birthing progress.

July 26, 28, 29, August 2, September 12, and 13 — UP MSUE Forage Field Day Program

- ⇒ July 26, afternoon—MSU U.P. Research & Extension Center, E3774 University Drive, Chatham. Field crop and forage trials, new integrated livestock cropping system, soil health research.
- ⇒ July 28, 5:00 PM—Brule River Farm, 1272 M-73, Iron River. Grazing practices, pasture walk.
- ⇒ July 29, 11:00 A.M.—Brock Farms, W5186 Co Rd 360, Daggett. Increasing fiber in dairy diet with fescue or annual ryegrass, using sorghum to improve increase fiber, lowering corn production costs by shortening alfalfa rotation, efficient input use.
- ⇒ August 2, Time TBA—Love Farms, 12361 W. Turner Rd, Rudyard. Current farm practices, including Mastergraze BMR corn, oat/barley/vetch mixture, forage sorghum/sudangrass, demo cover crop strips.
- ⇒ September 12, Time TBA—Barron Farms, 4216 21st Rd, Gladstone. Grazing brassicas to extend grazing season
- ⇒ September 13, Time TBA—Frank Wardynski, 713 River St, Ontonagon. Winter wheat as forage, peas & oats followed by oil seed radish or brassica mix in early August, multi-species cover crop/annual forage.

August 9, MSU Lake City Ag Bio Research Field Day (watch for future details)

August 12, Pasture Management & Plant Identification Open House at KBS Pasture Dairy Center

Learn to identify pasture plants during a wagon tour of the KBS pastures. Tours depart at 5 and 6:30 p.m. (There is a limit of 30 people per wagon tour, first-come, first-seated!) MSU Dairy Store ice cream will be available and visitors can enter to win a KBS t-shirt and a free lunch for two at the KBS Conference Center's McCrary Hall.

September 9 & 10—Grazing School

Kellogg Biological Station 10461 N. 40th St. Hickory Corners MI 49060. Grazing principals for ruminant animals.

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Accommodations for persons with disabilities may be requested by contacting Jerry Lindquist at 231-832-6139 to make arrangements. (Please allow no less than one week for short programs and no less than one month for overnight programs.)