Dear Michigan Grazier,

Sometimes the stars align and things just go right. Hopefully that is the case for your farming operation in 2014. Rainfall has been abundant in many locations in Michigan this summer and pasture crop growth has responded favorably. With good management it is fun to see how productive pastures can be once they get adequate rainfall. And there is a growing supply of low quality 1st cutting hay available and hay prices, at least of that quality, are starting to soften – hay reports from Wisconsin are stating average prices for low quality 105 – 120 RFV/RFQ hays (beef quality) to be running around $60/ton while the 150 and above RFV/RFQ alfalfa hays are still above $180/ton. This is a sure sign of an over-supply of low quality hays. If you are purchasing grain to feed to animals the impressive Mid-West corn crop is dropping the cash grain price of corn to closer to $3/bu.!

If this isn’t enough to make you feel optimistic the even better news is the price of commodities that you may be selling. The beef supply is at historical lows and the price of beef cattle is at record highs. Feeder calves this fall are being priced at $2.40 - $2.60/lb. out West and even here in Michigan some fall contracts are approaching that $2.40 price for 600 wt. steer calves. That is $1,440 per calf! Profitability has returned to the cow/calf sector. These prices spill over into the dairy industry as well as cull cow prices have been very strong and this beef price is causing some dairies to breed their first calf heifers to Angus bulls and sell all of those off-spring for crossbred beef calves for enhanced revenues. And of course the other meats of grazing animals are also strong such as lamb and goat. Finally the price of milk climbed this winter and has brought good profitability back to the dairy farms this summer so all told grazing agriculture is having a very good year thus far. Let’s hope it continues!

Jerry Lindquist,
MSU Extension Educator

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July 2014

Great Lakes Grazing Newsletter

OSCEOLA COUNTY MSU EXTENSION
301 W. UPTON AVE
REED CITY, MI 49677

PHONE: 231-832-6139
TOLL FREE: 888-678-3464
EMAIL: lindquis@anr.msu.edu

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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 Purdenville 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.
• Impact of Grazing Management on Water Infiltration
• Grass Finishing Production, Carcass and Economics
• Annual Forage Crops for Fall Grazing
• Cost of Pasture Renovation-Improved Pasture vs Native Ground
• Nitrogen Use Efficiency of Grasses and Legumes

MICHIGAN STATE UNIVERSITY

LAKE CITY RESEARCH CENTER FIELD DAY

Doug Carmichael, Manager
Jason Rowntree, Faculty Coordinator
5401 W. Jennings Road
Lake City, MI 49651
Phone: 231-839-4608
RSVP to: carmic16@anr.msu.edu

AUGUST 9TH, 2014
8:30 a.m. Sign in, 9:00 a.m. to 3 p.m.
$10.00 Charge for Lunch | Kids Under 12 Free
Lake City Beef Report will be provided.

MSU is an affirmative action/equal opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status.
MSU Grazing School  
W.K. Kellogg Biological Station, Kellogg Farm, 10461 N. 40th St.,  
Hickory Corners, MI 49060  
September 9th and 10th, 2014

Michigan State University Extension specialists will blend classroom-style instruction, hands-on education and the latest animal/forage research to give participants an in-depth introduction to grazing management.

This grazing school is for farmers and consultants just starting to graze animals and for experienced grazers with a desire to brush up on the principles of grazing.

Agenda:

Day 1 (9 a.m. to 8:30 p.m.)
- Matching livestock to forage resources
- Economic factors affecting grazing decisions
- Nutritional and welfare needs of livestock on pasture
- Forage quality, species management
- Extending the grazing season

Day 2 (8 a.m. to 4 p.m.)
- Soil health and fertility management
- Fencing and watering systems
- Rainfall simulator demonstration
- Forage plant ID
- Paddock layout and design

Please Note: This grazing school is applicable to all types of livestock. In addition you can earn MAEAP Phase I education credit.

Registration information: Maximum enrollment is 35 people. Registration is $125 per person and $85 for a second participant from the same farm. Farm staff share one set of printed materials. The fee includes workshop notes, a forage handbook and all meals and refreshments.
Register at: events.anr.msu.edu/Grazing14/
Early Registration ends September 3, 2014
Late Registration: is $150 per person, September 3 - 7, 2014

Contact Misty Klotz at: klotzmi@msu.edu or (269) 671-2402
Learn about the KBS Pasture Dairy: http://pasturedairy.kbs.msu.edu/

Partners and Sponsors:
MSU Extension U.P. Forage Field Days Coming Soon

Three forage-based on-farm field days are scheduled for July and early August. These free, informal programs are designed to address local issues in forage and grazing management and are supported by a grant from Project GREEEN. Host farmers and MSU personnel will lead discussion, present research-based forage information and respond to questions. Come and learn from fellow farmers about their successful forage systems. The August 2 forage program is part of the larger "Education on the Farm" event sponsored by Chippewa Co Farm Bureau, Mackinac-Luce-Schoolcraft Farm Bureau, Chippewa-Luce-Mackinac Conservation District, MAEAP, and NRCS. Refreshments on July 28 sponsored by the Iron Range Farm Bureau, and on July 29th by the Menominee County Farm Bureau.

Please call Jim Isleib, MSU Extension, at 906-387-2530 to register. Leave a message if calling after office hours. Make sure to mention which field day you will attend. This is needed to arrange for on-farm transportation and refreshments.

Monday, July 28, 2014 - 5pm central time
Brule River Farm, Jon and Donna Ahlberg, 1272 M-73, Iron River, MI 49935
Topics: Low input pasture renovation, Efficient watering systems, Rotational grazing, Fence line weaning, Pasture fencing, Use of industrial ash as soil amendment, Additional topics will be determined by participant interest

Agenda
5pm – Meet at Ahlberg farmstead
   Brule River Farm description and forage/grazing practices – Jon Ahlberg
5:30 – Board haywagon for farm tour
5:30 - 6:45pm – Farm tour
6:45 – Return to farmstead
6:45 – 7:00 – Comments from Dr. Kim Cassida
7:00 – 7:30 – Refreshments sponsored by Iron Range Farm Bureau, discussion, wrap-up

Tuesday, July 29, 2014 - 11am – 1pm central time
Brock Farms, Steve Brock, W5186 Co Rd 360, Daggett, MI 49821
Topics: Increasing fiber content in dairy rations using grasses, Impact of cover crops on Brock Farms, Mixed alfalfa-grass seedings – which grass species to include?, Ways to reduce cost of production for corn, Additional topics will be determined by participant interest

Agenda
11am – Meet at Brock Farm
   Farm description and forage production practices and challenges – Steve Brock
11:30 – 12:00 – Getting fiber into the dairy diet: Dr. Kim Cassida
12:00 – Lunch sponsored by Menominee Co Farm Bureau
12:30 – Ideas for reducing corn cost of production – Jim Isleib, MSU Extension
12:45 – Cover crops in forage systems – Frank Wardynski, MSU Extension and Dr. Kim Cassida
1pm – Wrap up

'Education on the Farm' program
Saturday, August 2, 2014 – 9am – 5pm eastern time
9-10am: Hunter’s Ridge Belted Galloways, Jodi Hunter, 4171 W. 10 Mile Rd, Dafter, MI
11am - 5pm: Love Farms, Bob and Tina Love, 12361 W. Turner Rd, Rudyard, MI
Organized by the Chippewa Luce Mackinac Conservation District in conjunction with the Chippewa County Farm Bureau, Mac Luce Schoolcraft Farm Bureau and the Natural Resources Conservation Service. Full program information available from Mike McCarthy, Chippewa/Mackinac/Luce Water Stewardship Technician at 906-632-9611. The forage, cover crop and animal handling components are presented by MSU Extension staff.

Topics:
9-10am: Small farm MAEAP verification tour
11am – 5pm: Natural Resources Conservation Service / MAEAP farm tour, Slaughter facility tour, Free Lunch featuring local meats, Generally Accepted Agricultural Management Practices (GAAMP’s) and Right-to-Farm law discussion, Grazing management in the Upper Peninsula – Jerry Lindquist, MSU Extension, Animal handling practices / demonstration – Kevin Gould, MSU Extension, Cover crop demonstration plot – Jim Isleib and Frank Wardynski, MSU Extension
Michigan Pasture Rental Rates For 2014

Jerry Lindquist, MSU Extension Grazing Educator

The renting of pasture land for grazing animals is coming under increased demand across the country and in the State of Michigan. The reasons for this increased demand include the rising price of all meat animals, and the increasing price of common alternative feed sources for these grazing animals including hay and corn. In the beef industry for example, cattle herds are starting to expand as profitability has returned to the beef sector. In an attempt to control their cost of production, cattle producers are seeking feed sources other than corn to get cattle closer to their final market weight. Pasture forages are one of those feed sources seeing more use.

The value of pasture to livestock producers is strongly influenced by not only the prices mentioned above, but also by local land prices, the types of pasture forage present, the soil type, the fence quality, water access, water quality, and the location of the land in relation to the cattle industry. Also the value of the land will be higher if animal handling and load out facilities are available, and if the landlord can provide additional services. These services may include: checking the health and number of cattle, checking water supply, feeding mineral if necessary, maintaining fences, etc.

Landlords must realize that just as rental prices may rise with increasing commodity prices, they also should be decreased if corn or cattle prices fall significantly. Pasture renters must realize that in order to keep land in pasture they must stay competitive with the market trends and demands for land from other crop commodities.

There are many different methods to calculate pastures rental rates. The prices below are a market analysis utilizing many of these methods to determine value. Ranges are provided based on the numerous variables mentioned above such as forage quality, fence condition, etc. These prices assume payment based on the number of animals grazed per month.

**Michigan Grazing Pasture Rates 2014**

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>$ Per Head per Month</th>
<th>Typical Stocking Rates*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef Cow (1,300 lbs.) with calf</td>
<td>$19.55 - $28.20</td>
<td>2.5 - 4.5 acres for a cow &amp; calf</td>
</tr>
<tr>
<td>Beef Yearling Cattle (600 – 800 lbs.)</td>
<td>$11.20 - $15.80</td>
<td>1.4 - 2.6 acres per head</td>
</tr>
<tr>
<td>Goat: doe with kids</td>
<td>$2.00 - $3.45</td>
<td>0.15 - 0.7 acres per doe &amp; kids</td>
</tr>
<tr>
<td>Horse (2 years of age &amp; above)</td>
<td>$19.55 - $30.00</td>
<td>2.7 - 4.8 acres per head</td>
</tr>
<tr>
<td>Horse (yearling)</td>
<td>$16.00 - $20.10</td>
<td>1.9 - 3.5 acres per head</td>
</tr>
<tr>
<td>Sheep: ewe with lambs</td>
<td>$2.30 - $4.00</td>
<td>0.2 - 0.8 acres per ewe &amp; lambs</td>
</tr>
</tbody>
</table>

* Stocking rates are averages for the entire grazing season May – September and are variable

The process of setting a fair rental rate is always a negotiation between the animal owner and the landlord. Developing a written lease agreement is highly advised to avoid misunderstandings and conflict down the road. A downloadable Pasture Lease form is available from the North Central Region Cooperative Extension Service located at [https://dev-mwps.sws.iastate.edu/sites/default/files/imported/free/NCFMEC03A_D9E5FDD476870.pdf](https://dev-mwps.sws.iastate.edu/sites/default/files/imported/free/NCFMEC03A_D9E5FDD476870.pdf) or by contacting the author.

Special thanks to the reviewers of this document including Michigan State University’s Livestock Group.

For more information or for other methods of calculating pasture rental rates contact Michigan State University Extension Grazing Educator Jerry Lindquist at lindquis@msu.edu or by calling 231-832-6139.
Buying Standing Hay Crops in 2014

Considerations for establishing a fair price between buyers and sellers.

Jerry Lindquist, and Phil Kaatz, Michigan State University Extension

Hay crops remain a hot commodity across the Midwest. Each year some landowners are approached by local farmers wanting to buy and harvest a standing crop of hay. The challenge then becomes how to price the standing hay crop with annual fluctuations of hay markets and changing input costs such as fuel, labor, the value of equipment and repairs to name a few. As land and crop prices have increased in value over the last five years, hay prices have also increased and thus the value of a standing crop of hay may be significantly higher than what was paid in the past.

Below are examples from Michigan State University Extension for both alfalfa (dairy quality hay) and alfalfa/grass (livestock quality hay) using a formula that considers the buyers harvesting costs and the landowners costs to grow the crop, and then negotiating a final price for the crop between these two. This is done by estimating the yield and value of the expected hay crop less the growing costs of the landowner which provides a minimum asking price compared to the maximum pay price of the buyer which also projects the total hay value less the buyer’s harvesting costs and a cost for assuming the risk of weather damaged caused by rainfall on the mowed crop.

Alfalfa field (dairy quality hay)

Equation: estimated 4 tons per acre yield of 16 percent moisture hay at $200 per ton = $800 per acre value for all three cuttings; minus buyer’s cost of harvest and weather risk at $324 per acre assuming three cuttings (table 1); equals the buyer’s maximum pay price: $476 per acre for three cuttings ($800 - $324 = $476).

<table>
<thead>
<tr>
<th>Mowing 3 cuttings, raking 1 cutting</th>
<th>$54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baling 8.9 bales per acre</td>
<td>$106</td>
</tr>
<tr>
<td>Bale hauling</td>
<td>$24</td>
</tr>
<tr>
<td>Weather risk (15% of hay value)</td>
<td>$120</td>
</tr>
<tr>
<td>Dry matter handling loss (2% of crop value)</td>
<td>$16</td>
</tr>
<tr>
<td>Other costs</td>
<td>$4</td>
</tr>
<tr>
<td><strong>Total Harvest Costs</strong></td>
<td><strong>$324</strong></td>
</tr>
</tbody>
</table>

Table 1. Buyer costs/acre for three cuttings of alfalfa hay

The landowner’s acceptable minimum price incorporates all land and production costs and does vary geographically across the state of Michigan. Land values and rental rates are approximately double in southern Michigan compared to northern Michigan. To learn what the land values and leasing rates are for your region you can go to: 2013 Michigan Land Values and Leasing Rates. In southern Michigan, the landowner costs might be $375 per acre for all three cuttings (Table 2). In northern Michigan, the landowner costs will be lower around $304 per acre. In addition to land cost, this minimum price will also cover the landowner’s annual cost of fertilizer, property taxes and the cost of the hay stand establishment prorated over the life of the stand (Table 2).

<table>
<thead>
<tr>
<th>Fertilizer topdress</th>
<th>Alfalfa</th>
<th>Alfalfa/grass</th>
</tr>
</thead>
<tbody>
<tr>
<td>$120</td>
<td></td>
<td>$90</td>
</tr>
<tr>
<td>Seeding costs ($330 per acre)</td>
<td>$83 (4 yrs)</td>
<td>$33 (10 yrs)</td>
</tr>
<tr>
<td>Taxes and insurance</td>
<td>$30</td>
<td>$20</td>
</tr>
<tr>
<td>Land costs</td>
<td>$142</td>
<td>$71*</td>
</tr>
<tr>
<td><strong>Total Landowner costs</strong></td>
<td><strong>$375</strong></td>
<td><strong>($304)</strong></td>
</tr>
</tbody>
</table>

Table 2. Landowner costs/acre for the season

(minimum price) * Northern MI land cost
Great Lakes Grazing Newsletter

Buying Standing Hay Crops in 2014 continued...

A number somewhere between the buyer’s maximum price of $476 and the landowner’s minimum price of $375 in Southern Michigan (Table 2) may provide a fair price for both parties. This negotiated price between the max and min may be the median average of $426 per acre. If so, it can be broken down per cutting to: $191 per acre for the first cutting; $150 per acre for the second cutting; and $85 per acre for the third cutting using average cutting yield percentages of 45:35:20 respectively.

Now let’s look at an alfalfa/grass mixed hay field that has less yield and value but also fewer input costs.

**Alfalfa/grass mixed field (livestock quality hay)**

Equation: 3.0 tons per acre at $130 per ton = $390 per acre of hay value for two cuttings; minus buyer’s cost of harvest and risk $184 per acre for two cuttings (table 3); equals buyer’s maximum pay price of $206 per acre for two cuttings ($390 - $184 = $206)

The landowner’s minimum price to accept may be $214 per acre for the two cuttings for Northern Michigan (Table 2 alfalfa/grass). This minimum price will cover the landowner’s annual cost of fertilizer, property taxes, and pro-rated annual cost of hay establishment assuming a ten year life for these stands with more grass. If the buyer pays the landowner’s minimum price of $214 per acre, they must hope the yield will be larger than the estimated 3.0 ton per acre as the price is more than their suggested maximum price to pay of $206. If they come to an agreement and the negotiated price is $210 per acre, the per cutting price for first cutting would be $140 per acre and for second cutting would be $70 per acre, using average cutting yield percentages of 66:34 respectively. This example points out that with today’s higher costs of production, hay yields of 3 tons or less per acre may not always be a profitable venture for either party. Proper rotation and establishment of new hay stands is advised for low yielding stands.

| Mowing 2 cuttings, raking 1 cutting | $36 |
| Baling 6.7 bales per acre | $80 |
| Bale hauling | $18 |
| Weather risk (10 percent of hay value) | $39 |
| Dry matter handling loss (2 percent of crop value) | $8 |
| Other costs | $3 |
| Total Harvest Costs | $184 |

Table 3. Buyer costs/acre for two cuttings of alfalfa/grass hay

Rather than estimating the yield of hay at the beginning of the season, it can be more accurate to agree on a percentage split and the pay price of the forage at the beginning of the season. Following harvest, the forage yield is counted, calculated and payment is made accordingly at the end.

As an example for alfalfa hay using the first example above on a bale or ton basis, if the buyer provides all the harvesting cost and assumes the risks of harvest, then a split of the harvested crop would be approximately 53 percent of the crop, or its value, going to the landowner and 47 percent going to the buyer (negotiated fair price to charge of $426 per acre divided by the total estimated value of $800 = 0.53). If the buyer makes a round bale weighing 900 pounds and the two parties agree to price all hay at $200 per ton, then each bale should be worth $90 per bale (900/2000=0.45; then 0.45 X $200=$90) and the 53/47 split would then pay the landowner $48 for each bale produced ($90 X 0.53=$48). This example is assuming the landowner is paying the cost of soil nutrient replacement with fertilizer or other soil amendments. In today’s market this 53/47 split can apply to alfalfa/grass hay agreements as well but, of course using different hay values and costs of production.

These are only hypothetical examples of yields, market values and production cost estimates. All parties are encouraged to calculate their own costs and then to agree upon a local market value and the eventual pay price. To assist in more accurately estimating a pricing agreement, go to Pricing Standing Forage Worksheet by the University of Wisconsin-Extension Forage Team.

In today’s high value hay markets the fair purchase price of a standing hay crop has increased. Some old agreements of pricing the crop on values that were set in the past may not be accurate. For more information contact MSU Extension Forage Team members Kim Cassida at 517-355-0271 or cassida@msu.edu; Phil Kaatz at 810-667-0341 or kaatz@anr.msu.edu; or me at 231-832-6139 or lindquis@anr.msu.edu.
Multi Specie Cover Crops Can Reduce the Need for Hay

Jerry Lindquist, MSU Extension Grazing Educator

We have talked in past articles how cover crop mixes can extend grazing seasons into late fall/early winter and start the grazing season again in April the next spring, decreasing the need for more expensive feed sources like hay. Mid-summer is the time to insert a cover crop planting into your cropping/grazing system to benefit from the fall growth of cool season mixes while improving soil health and quality at the same time. Harvested oat, wheat, barley, or canola stubble fields are great candidates to have a cover crop mix no tilled in. Also run out pastures, hayfields, etc. that need renovation can also be killed with herbicides and no tilled in August with a mix. August 1 is the latest for planting in the U.P. and Northern MI. August 20 should be the approximate seeding deadline for Southern Michigan.

To help grazing farms to better understand the calendar of how grazable cover crops can be used to fill holes in the fall and spring grazing periods and to get an estimate of how much needs to be planted to support a cow herd the author complied the accompanying pie chart.

Dairy heifers grazing cover crop mix at MSU Kellogg Biological Station in October 2014.
Beef Cow Herd Annual Feed Supply
Utilizing Multi Specie Cover Crop Mixes

For more info go to: http://msue.anr.msu.edu/county/Info/osceola under “Grazing”

Note that the cool season mix acreage for Nov-Dec and for April-June will be the same crop.
Acreage requirements per cow do not include feed requirements for replacement heifers.

Warm Season Mix Example  lbs/a
Sorghum/Sudan grass hybrid  6
Hybrid millet  6
Forage soybean  6
Italian ryegrass  6
Mammoth red clover  2
Sunflower  1
Radish  1
Turnip  1

All blended in large seed box of grain drill and seeded after risk of spring frost is gone.

Jerry Lindquist, MSU Extension
Grazing & Crop Management Educator

Cool Season Mix Example  lbs/a
Oats  6
Italian ryegrass  6
Winter triticale  6
Mammoth red clover  2
Hairy vetch  1
Radish  2
Turnip  2

All blended and seeded in grain drill large seed box in July – mid August after a hay, oat or wheat harvest.