Dear Michigan Grazier,

Another year has arrived full of promise, full of optimism, and at least with our toes off of the edge of the fiscal cliff. Will it bring those higher meat, milk and fiber prices with adequate rainfall and lowering input costs that we all dream about? Well we hope not, at least not all of these at the same time, as that would be near perfection and how could we hope 2014 could be any better!

Profitability is out there in the cropping sector, in the livestock sector and maybe in the dairy sector if you can control your feed costs. Beef and sheep farms could be in for some very good years, especially if they have good management in place and they make changes in their feeding systems to contain costs. Be prepared to take advantage of these good times as they do not last forever.

Upcoming programs by MSU Extension will address some of these opportunities and management changes that are helping profitability return to the rural sector. This first newsletter of the year highlights some programs coming out early in 2013. Check out the programs highlighted in this edition and watch for another newsletter to come out shortly with more programs offered this winter. Also do not look for the Great Lakes Forage & Grazing Conference to return this year. This highly successful event held last year in March at MSU, will be now held every other year. The Michigan Forage Council and MSU Extension Forage and Grazing teams have decided to protect the quality of this program, and to allow research enough time to develop new and cutting edge information, that the conference should only be held every two years. It shall return in March of 2014.

Wishing you a safe and prosperous 2013!

Jerry Lindquist,
MSU Extension Grazing & Crop Management Educator
Beginning Farmer Series, five nights Jan. – March, from livestock, to crops, to veggies, details on page 3

Alternative Feeds for the Beef Herd, 2 nights in mid Feb. available State-wide; details in next newsletter

Forage Technology Conference, March 7, MSU, forage and grazing topics, details in next newsletter

And many more MSU Extension educational programs are being planned and offered this winter. To learn of more events go to http://msue.anr.msu.edu/events/advanced_search.

Beginning Farmer Series

Michigan State University Extension is offering a series of 5 on-line webinars for beginning farmers. Each 2-hour, evening webinar will cover a different small farm enterprise. The webinars focus on northern Michigan, but are relevant state-wide. Webinars include:

- Getting Started with Grazing, January 9, 2013
- Getting Started with Grass-finished Beef, January 23, 2013
- Getting Started with Field Crops and Hay, February 6, 2013
- Getting Started with Field-grown Vegetables, February 27, 2013
- Getting Started with Hoophouses, March 20, 2013

Each of the sessions will run from 7:00 to 9:00 p.m. EST. You can view the sessions on-line or at one of the group viewing sites in Marquette, MI and Sault Ste. Marie, MI, or at a “live” site where a presenter will be on-site (grazing at the Lake City Experiment Station).

Cost is $15 per session. Register on-line at http://events.anr.msu.edu/upbegfarmer2013 or contact Alger County MSU Extension, 906-387-2530 or msue.alger@county.msu.edu, for more information. A registration form follows.

MSU programs are open to all people.

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.
U.P. 2013 BEGINNING FARMERS WEBINAR SERIES
INTERNET-BASED LEARNING OPPORTUNITIES ON SPECIFIC FARMING TOPICS

Join us for up to 5 evening webinars. $15 per session. Participate from your home computer (hi-speed internet recommended) or at a group viewing site.

Name: ____________________________
Company/Organization: ______________
Address: ___________________________
Phone: ____________________________
Email: _____________________________

I would like to register for:
☐ January 9—Grazing
☐ January 23—Grass-finished beef
☐ February 6—Field Crops and Hay
☐ February 27—Field-grown Vegetables
☐ March 20—Hoophouses

Register and pay ON-LINE at http://events.anr.msu.edu/upbegfarmer2013
OR complete and return this form with payment in the form of check or money order, made payable to MSU Extension to:
2013 Beginning Farmer Webinar
Alger Co MSU Extension
E9526 Prospect St., Suite 1
Munising, MI 49862

$15 per session

If you are joining us at a group viewing site, a printed copy of the handout material is available for an additional $5 per session.

☐ I want printed handouts for $5 extra per session

Please specify which location you plan to view each session.

Wednesday, January 9, 2013 - Getting Started with Grazing
Presenters: Frank Wardynski, Jerry Lindquist, and Warren Schauer, MSU Extension Educators

☐ Own computer ☐ S.S. Marie ☐ Marquette ☐ Lake City

Wednesday, January 23, 2013 - Getting Started with Grass-finished Beef
Presenters: Frank Wardynski, Kable Thurlow, MSUE Educators and Jason Rowntree, MSU Professor

☐ Own computer ☐ S.S. Marie ☐ Marquette ☐ Hancock ☐ Gladwin

Wednesday, February 6, 2013 - Getting Started with Field Crops and Hay
Presenters: Dan Rossman, Jim Isleib and W. Schauer, MSUE Educators and Doo-Hong Min, Extension Specialist

☐ Own computer ☐ S.S. Marie ☐ Marquette

Wednesday, February 27, 2013 - Getting Started with Field-grown Vegetables
Presenters: Hal Hudson, Jim Isleib and Warren Schauer, MSUE Educators

☐ Own computer ☐ S.S. Marie ☐ Marquette

Wednesday, March 20, 2013 - Getting Started with Hoophouses
Presenters: Adam Montri, MSU Hoophouse Outreach Specialist, Rowan Bunce, Alger County Farmer, Jim Isleib, MSUE Educator

☐ Own computer ☐ S.S. Marie ☐ Marquette

Each session will run from 7:00—9:00 pm eastern time, log-on at 6:30 pm to test connection. Details will be forwarded to you by email. Test your software and connection: http://connect.msu.edu/common/help/en/support/meeting_test.htm
This year the hay market is a seller's market regardless of feed quality.

Jerry Lindquist, Michigan State University Extension

It is shaping up to be a very dull winter hay marketing season. And it is not because of the prices, which are at historical highs, but because there is so little hay left to sell.

There is still some hay available from time to time on the Michigan Hay Sellers List but in my 21 years of operating the list this is the smallest amount of hay that we have ever offered. The culprit is the 2012 drought, which reduced hay supplies by 15-30 percent across the Midwest. Compound that with less hay acres available overall and it is easy to understand that there is very little hay still left for sale in Michigan.

A few cash crop farms wanted to get done harvesting corn before they offered their hay crop for sale and there are always a few farms that like to wait until the new tax year to sell. As a veteran hay marketing educator, with this strong demand I would estimate that 85 percent of the 2012 hay crop to be sold is already gone.

There does seem to be more hay offered for sale in Wisconsin, and farms looking for a quantity of hay might want to look at the Wisconsin hay listing service.

Though it seems like the sky is the limit for hay prices there are some market averages that seem to be taking shape in Michigan. The price ranges are large only because some sellers are reluctant to charge regular customers extremely high prices. Higher feed-quality hays always sell for a premium and that norm is holding true in this year’s market. However, because of the very short supply the low-quality first-cutting grass hays are not being discounted much below the higher-quality hays. If it is free of dust and mold it has been selling for prices that indicate little concern for its feed quality. It is believed that these prices will remain high until at least the next growing season because the supply is so low.

Michigan State University Extension advises that all hay transactions be conducted on a weight basis, for example, by weighing the hay and selling on a per-ton basis, as bale weights can vary widely and can be misleading when selling on a per-bale basis.

For more information on hay marketing and hay supplies, contact Jerry Lundquist at 231-832-6139 or lindquis@anr.msu.edu.

This article was published by Michigan State University Extension.

For more information, visit http://www.msue.msu.edu. To contact an expert in your area, visit http://expert.msue.msu.edu, or call 888-MSUE4MI (888-678-3464).

<table>
<thead>
<tr>
<th>Bale type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small square bales (45 lbs. avg.)</td>
<td>$265/ton ($6/bale) - $535/ton ($12/bale)</td>
</tr>
<tr>
<td>Large round bales (875 lbs. avg.)</td>
<td>$140/ton ($60/bale) - $300/ton ($130/bale)</td>
</tr>
<tr>
<td>Large square bales (725 lbs. avg.)</td>
<td>$180/ton ($65/bale) - $400/ton ($140/bale)</td>
</tr>
</tbody>
</table>
Will Hay Prices Fall in 2013?

Fewer acres and an excessive drought drove hay prices up in 2012. Will they come back down in 2013?

Jerry Lindquist,  
Michigan State University Extension

Everyone who buys or sells hay knows that hay prices dramatically changed in 2012. Most reports say hay is selling for two to five times more than it did in 2011. The question often asked of Michigan State University Extension educators is, “if normal weather patterns return in 2013, will the price of hay fall?” The drought of 2012 was the big factor creating a shortage of hay and getting most of the blame for current prices. However, declining hay acres are another reason there is less hay for sale.

As we plan for 2013, hay buyers and sellers are wondering whether hay prices will decrease, or if the current price stay will where it is and become the new normal. Hay prices are influenced by three supply factors: yield, acreage, and unsold hay stockpiles.

According to the U.S. Department of Agriculture, the drought of 2012 reduced alfalfa, alfalfa-grass mixture, and other hay yields by 3 percent to 28 percent across the Midwest. These yield losses varied widely according to soil types, age of the hay stand, soil fertility and rainfall. If we look back over the last two years, the total hay acres decreased nationally by 3.8 percent or 2.3 million acres. Much of this land was converted to corn and soybean acres because these crops were more profitable than hay. In Michigan, hay acres decreased 3.6 percent over the same period, dropping the acreage down to 1.1 million in 2012. And 68 percent of Michigan's hay acres are alfalfa or alfalfa-grass mix. With considerably more acreage and higher yield potential per acre than other hay types, the alfalfa acres are critical for maintaining future hay supplies in Michigan, but alfalfa acres have been declining faster than other hay types, falling at a rate of 5.7 percent over the last two years.

Stockpiles of unsold hay from the previous season vary from year to year. When available, stockpiles can provide some carryover to help reduce large price swings in a poor crop year. Unfortunately, the reduction in national hay acres and a series of regional droughts has reduced this stockpile in the country, contributing to greater volatility of hay prices.

Hay supply and prices for 2013 will be highly dependent on next year's weather conditions. The loss of hay fields to grain crops will also have an impact on hay supply across the country in 2013. We can only anticipate that the loss of hay acres will be from 2 to 3 percent – similar to the past few years. The greater unknown is how many new acres of alfalfa or other hay crops were seeded at the end of the 2012 growing season or will be seeded in 2013. These higher hay prices are starting to attract some acres back into hay production.

As a 30-year veteran of hay marketing in Michigan, I estimate that if normal weather returns in 2013, and average yields are achieved across Michigan, the state's hay supply will still be 7 to 10 percent short at the end of the summer compared to the supply of hay there was in Michigan two years ago. It will take yields that are close to 0.4 ton/acre better than the state average of 3.2 ton/acre to get levels back to 2010 hay supply numbers. It will be difficult to increase hay supplies and see significant reductions in hay prices in normal growing years if we continue to lose total hay acres.

The greater possibility of hay prices falling could be brought about by decreasing demand. If hay prices remain high, buyers may search out alternative feeds or liquidate more of their hay-consuming animals in 2013 and this could lead to hay price reductions.

For more information on hay markets contact MSU Extension forage team members Kim Cassida at 517-355-0271 or at cassida@msu.edu; Phil Kaatz at 810-667-0341 or at kaatz@anr.msu.edu; or Jerry Lindquist at 231-832-6139 or at lindquis@anr.msu.edu.
Single Species Versus Multiple Species Cover Crops

Michigan’s Upper Peninsula trial explores option of multi-species cover crops for soil-building and livestock grazing.

Jim Isleib, State University Extension

A replicated trial on a small farm in the north-central Upper Peninsula compared three cover crop selections and a fallow treatment. The project was funded by a Michigan State University Extension regional Project GREEEN grant. The cover crops included Marathon red clover, a hybrid sorghum sudangrass and a multi-species cover crop mixture from North Dakota containing soybeans, lentils, forage peas, sweet clovers, turnips, oil-seed radishes, pearl millets, forage oats and sunflowers.

The cover crops were planted on June 29, 2011, and allowed to grow through the year with livestock grazing simulated by mowing off about half of the sorghum sudangrass and multi-species mixture in late September and leaving the mown material on the plots. This grazing was included to reproduce the way similar multi-species cover crops are currently managed on North Dakota farms.

After rototilling the cover crops in the spring of 2012, oats were planted. Oat yields were compared in August 2012 to determine the impact of the different soil-building cover crops after one year. Soil samples were also collected from each treatment before the trial, following the cover crop and following the oat crop. Soil test results were used to monitor soil fertility indicators, but were not meant to be conclusive and were not subjected to statistical analysis. No fertilizers were used in the trial.

Oat yield following the cover crop treatments in this trial gives a single indication of the impact of a single year cover crop treatment. Other factors, including weed suppression, were not included in this trial. This two-year trial was not expected to result in dramatic changes in crop yield or soil conditions. Cover crops are understood to be a long-term investment in soil health and crop performance with benefits becoming more apparent over several seasons.

Continued on page 7…

<table>
<thead>
<tr>
<th>Cover crop treatment, 2011</th>
<th>Oat yield, 2012 bu/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fallow</td>
<td>92</td>
</tr>
<tr>
<td>Red clover</td>
<td>92</td>
</tr>
<tr>
<td>Sorghum sudangrass</td>
<td>102</td>
</tr>
<tr>
<td>Multi-species</td>
<td>109</td>
</tr>
<tr>
<td>Level of significance</td>
<td>20 percent</td>
</tr>
<tr>
<td>Least significant difference</td>
<td>12 bushels</td>
</tr>
</tbody>
</table>
Single Species Versus Multiple Species Cover Crops

...Continued from page 6

The sorghum sudangrass and multi-species cover crop treatments resulted in better oat yields the following year, compared to red clover and fallow treatments. Soil testing before the trial showed a fertile soil high in organic matter. The organic matter dropped during and after the trial, probably due to thorough tillage of the pre-existing old sod prior to seeding cover crops and resulting oxidation and decomposition of raw organic matter. The inclusion of a cover crop can be expected to help maintain soil organic matter following the initial plow down of an old, dense sod and in following cropping years.

Table 2. Comparison of cover crop seed costs versus value of resulting oat yield

<table>
<thead>
<tr>
<th>Cover Crop Treatment</th>
<th>Cost of cover crop seed per acre (A)</th>
<th>Oat yield above fallow treatment</th>
<th>Value of oat yield at $3.85/bu above fallow treatment (B)</th>
<th>B - A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fallow</td>
<td>$0</td>
<td>0 bu/acre</td>
<td>$0.00/acre</td>
<td>$0.00</td>
</tr>
<tr>
<td>Red clover</td>
<td>$33.12</td>
<td>0 bu/acre</td>
<td>$0.00/acre</td>
<td>-$33.12</td>
</tr>
<tr>
<td>Sorghum sudangrass</td>
<td>$15.00</td>
<td>10 bu/acre</td>
<td>$38.50/acre</td>
<td>$23.50</td>
</tr>
<tr>
<td>Nitrogen Builder</td>
<td>$24.00</td>
<td>17 bu/acre</td>
<td>$65.45/acre</td>
<td>$41.45</td>
</tr>
</tbody>
</table>

Cover crop seed cost and the impact of cover crop treatment on oat yield during the following year were used to create a simple economic comparison.

Conclusions of the trial:
- Oat yield was better following Nitrogen Builder cover crop treatment than following fallow or red clover cover crop treatments in 2012 on this trial site.
- There was not a statistically significant difference between oat yield following sorghum sudangrass and Nitrogen Builder cover crop treatments.
- Soil tests following the cover crop showed a modest increase in P, K, Mg, Ca and CEC under the Nitrogen Builder cover crop treatment. Soil organic matter, pH and lime index content were reduced.
- The Nitrogen Builder multi-species cover crop treatment compared favorably to the fallow and mono-culture cover crop treatments included in the trial.

The complete report of this project can be viewed at Comparing multi-species and mono-culture cover crop systems to improve soil fertility and crop performance in Michigan’s Upper Peninsula. You may also visit the MSU Cover Crop website for detailed cover crop information.

Please contact Extension educator Jim Isleib at 906-387-2530 for further information.
Check Out the 2012 MSU Forage Varietal Trials for the Latest Alfalfa, Clover & Grass Varieties Yield Data

Now that the value of hay crops has regained its competitive edge against other agricultural crops, farms are actually thinking of seeding more forage crops in 2013. “If we value alfalfa hay at a conservative $160 per ton in 2013” offers Jerry Lindquist of Michigan State University Extension,” the crop has the potential of profiting over $200 per acre which brings it in line with the grain crops for profit potentials”. “However that profitability can be enhanced even more when the right varieties are planted” he adds.

For perennial crops like alfalfa that can produce in a field for four years or longer, proper variety selection becomes much more important than for annual crops. For an annual like corn, if you plant a poor performing variety one year, you simply will not purchase it the following year. With alfalfa, with the planting costs running above $400 per acre, you want the stand to stay in production as long as it is generates more profit than other crops. And in reality how do we really know if an alfalfa stand is yielding above or below other varieties we could have planted? Unless there was another variety planted at the same time on a similar soil type on the farm, we will never know whether we could have done better.

That is where un-biased university varietal trials come into play to help farmers see what the potential differences are and then to help them select varieties with better yield potential. Granted yield is not everything as other factors like disease and insect resistance, feed quality, longevity and many more also factor in to picking the optimum forage variety, but in reality, yield over a set number of years is the best measure we currently have to estimate profitability.

And the differences are significant when we put economic values to the yield results. Looking at the most recent Michigan State University Forage Varietal Trials for 2012 we can see that in the one trial which was seeded in East Lansing in 2008, the yield difference from the top yielding alfalfa variety and the lowest yielding variety was 7.89 ton of dry matter per acre over a three year harvest period. This equates out to a 9.4 ton difference when we adjust the hay to typical 16% moisture hay. If we assume a hay value of $160/ton over the three years this is a difference of $1,504 per acre, or $501 per acre per year. Now assuming that we may achieve this same annual difference over five years (the average life of an alfalfa stand in Michigan – dairy and livestock farms included) that equates out to $2,505 per acre over the five years. Taking it one assumption farther, if the average alfalfa field in Michigan is 30 acres in size, over the five year life of the stand the difference between selecting the best variety and the lowest yielding variety, which in this trial example was the public variety of Vernal, the value would be a whopping $75,150! The only difference in this example is the selection of the variety that was planted.

Granted there will be some additional costs associated with the higher yielding varieties such as cost of the seed, more fertilizer used because the yield is greater, more harvesting, hauling and labor expenses, but still these extra costs may only diminish the gross value by 10 – 20%. We are still looking at over $60,000 more by picking out the best alfalfa variety! Even if in the past you were fairly good at selecting some of the better alfalfa varieties, the difference between some of the good and the best varieties could mean $5,000 to $10,000 more on a thirty acre field over five years.

So how do you select the best varieties? The MSU Forage Varietal Trials web site http://fis.msue.edu/extension/ has information on variety selection along with the un-biased trial data of over 70 alfalfa varieties from 37 different seed marketers across the Mid-West. Start there and then talk to seed dealers determining your need for disease and insect resistance, and paying particular attention to longevity if your system requires it. Dairy farms typically want alfalfa stands to last for 3 – 5 years where as livestock and hay cash crop farms want the stand to last as long as it is profitable, usually 7 – 10 years or longer. Then finally, and most importantly, look at the yield date of un-biased trials over time to see how they performed. Granted the newest varieties will not have yield data available for at least three years, but unless you like to invest in commodity trading or at a casino, do not invest your entire forage seeding dollar in new varieties. Use some of the highest yielding tried and true varieties that meet your farm goals, along with maybe a small portion being a sampling of a new, un-tested variety.

There is no fool proof system to select alfalfa or other forage legume or grass varieties. However if you do your homework and consider analytical trial data in your selection process the financial returns can be substantial for perennial forage crops.

For more information contact MSU Extension forage team members:
Dr. Kim Cassida at 517-355-0271 or at cassida@msu.edu;
Phil Kaatz at 810-667-0341 or at kaatz@anr.msu.edu; or
Jerry Lindquist at 231-832-6139 or at lindquis@anr.msu.edu.
MSU Grassfed Steers Make the Grade at Lake City!

The preliminary news out of the MSU Lake City AgBioResearch Station is the Grassfed Steer research trial that was started with calves born in the spring of 2011 shows indications of being a success. 54 steers were harvested in November and December of 2012 and though the final data is still being compiled, the preliminary indicators look good. The steers were sold on the rail and had an average carcass weight of 675 lbs. Quality grades were taken and looked promising. Again these steers were fed no grain products at any point. They grazed irrigated pastures their two summers at Lake City, and were fed quality alfalfa hay the first winter and the second fall before they were harvested. Complete performance, carcass and economic data will be reported this winter by Dr. Jason Rowntree once the data is compiled and reviewed.

Jerry Lindquist, MSU Extension
Grazing Educator

Calves with the cows in the summer of 2011.

Grassfed steers in the fall of 2012.

Grassfed steers on alfalfa hay in November of 2012.

Lake City Research Center Manager Doug Carmichael & Grassfed Research Project coordinator Dr. Jason Rowntree inspecting grassfed steer carcasses.