

Ag-Info

December 2008 - January 2009

**Northeast Missouri Agriculture Newsletter
 serving Clark, Knox, Lewis, Marion, Monroe,
 Pike, Ralls, and Shelby Counties**

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Calendar of Events

December 13	Show-Me-Select Heifer Sale , Palmyra
December 17	Farm Income Tax School , Kirksville
December 18	The Ins and Outs of Farm Leases (ITV) , Palmyra
December 29	Ralls County Cattlemen/Extension , Center
January 13, 20, 27, and February 3, 2009	Women Marketing Grain & Livestock , locations TBA
January 20-22	Beef Cattle Artificial Insemination Clinic Greenley Research Center , Novelty
January 27	Lewis County Extension Night , Ewing
February 2	Shelby County Extension Night , Shelbina
February 5	No-Till and Crop Management Seminar , Quincy, IL
February 10, 17, 24	Estate Planning , Kirksville
February 18	Memphis Dairy Day , Memphis
February 19	Missouri's Complicated Fence Law (ITV) , Palmyra
March 28	Performance Tested Bull Sale , Palmyra

AGRONOMY NOTES

Phosphorous Fertilization

(this article was written by John Lory and Peter Scharf, University of Missouri Division of Plant Sciences)

The remarkable, unprecedented rise in fertilizer phosphorus prices has farmers searching for ways to reduce phosphorus applications. How you proceed will depend on how you anticipate phosphorus prices will change over the next few years.

High prices currently are driven by higher worldwide demand for phosphorus than supply. Industry projections imply demand will continue to exceed supply for at least the next couple of years. This implies phosphorus prices will remain high. However the recent turmoil in the world economy may reduce global demand making the current estimate for demand over-stated.

Many farmers have used soil testing in a phosphorus soil fertility program to bring their soil test levels to an optimum level approximately 45 pound/acre Bray-I P). Phosphorus application on these farms maintains optimum soil test levels by replacing phosphorus removed by the crop either annually or every other year. Taking one or even two years off from maintenance phosphorus applications on high yielding fields is unlikely to reduce yields. If you do not apply phosphorus fertilizer for too many years, soil test levels will drop to a point that will reduce yield.

Postponing phosphorus applications on optimum testing fields may make sense if you expect phosphorus prices to fall significantly in the next year or two. By not applying now you avoid current high prices but will need to invest in extra phosphorus in the future to compensate for the missed applications. Using this approach you would save money if phosphorus prices fall because you would spend less for fertilizer bought at the lower price in the future.

If you predict phosphorus prices will stay the same or increase over the next few years, there is no benefit to delaying phosphorus applications on fields with optimum soil test phosphorus levels. In this scenario, waiting to apply provides no opportunity of savings and may cost extra money if prices rise. Delaying applications under these conditions only

Alix Carpenter

makes sense if it helps you address short-term financial management goals for your farm.

Farmers who have low phosphorus testing soils that are trying to maximize yield will need to apply phosphorus fertilizer despite high prices. Low testing fields need annual applications to provide enough phosphorus in the soil to maintain high yields. Most fertilizer recommendations on low testing fields include phosphorus to raise soil test towards optimum (buildup phosphorus) plus fertilizer to replace phosphorus removed by the crop (maintenance phosphorus). Farmers with low testing fields may chose to reduce or eliminate buildup phosphorus to save money. For example, high fertilizer prices may favor an eight-year buildup strategy instead of a four-year buildup strategy. This will slow the pace of raising soil test phosphorus to optimum but is unlikely to negatively affect yields. On low testing soils maintenance phosphorus applications are needed if the objective is to maximize yield.

Pesticide Applicator Training

Pesticide applicator training meetings for private applicators will soon be scheduled throughout the area. These sessions will cover topics including basics of pest biology, IPM (integrated pest management), pesticide formulations, pesticide safety, pesticide labels, laws and regulations, and calibration.

Private pesticide applicator certification is intended for those who will be purchasing and/or applying restricted-use pesticides in the production of their agricultural commodities. This certification is valid for 5 years. Re-certification can be done at each meeting. Program cost is \$12, the cost of the training manual required for all participants. To obtain a list of upcoming program sites, contact the Marion County University of Missouri Extension office at (573) 769-2177 or marionco@missouri.edu.

AG BUSINESS NOTES

Karisha Devlin

Issues to Plan for in 2009

This time of year, people start thinking about resolutions and planning for next year. Here is a list of farm management issues to plan for in 2009.

(1) *Planning for 2009* – I know that several of you have already planned for 2009 as far as crop acres, livestock numbers, etc. If you haven't, you need to think about it now. Look at the whole picture and not just 1 or 2. Fertilizer prices are expected to be higher in 2009 than 2008. So be prepared to deal with higher input prices. Land values have been increasing, but don't expect them to continue to go up. Be sure to exercise caution as you plan for the new year.

(2) *Think about your marketing plan* – Marketing is a critical part of making a profit in farming, and it is extremely important to your operation. Past history shows that from now until June is the best time to forward price a portion of your crop. Keeping track of the markets can put several dollars in your pocket that you won't have to find later. Extension (and others) has many marketing resources to assist you in this regard. We have a guide on developing a crop marketing plan (guide 600). Get a plan together and use it!

(3) *Deciding on insurance coverage* – this may seem rather simple. You can decide between hail versus multi-peril or even decide to have no coverage at all. Crop insurance has several options to look at (crop revenue coverage, etc.) if you go that route. This year livestock producers have insurance coverage that they may want to consider as well. You must determine if it will work economically in your situation. Another issue with insurance to think about is if you lease out your land for hunting (for a fee). Your normal farm insurance may not cover that so additional coverage may be necessary. The same could be true for value-added enterprises such as selling meat products or food products off of your farm.

(4) *Reviewing leases & contracts* – It's a good idea to review any farm leases and other legal contracts on an annual basis. It is a good business practice to have something in writing. A written lease is better than an oral agreement in so many different aspects.

Remember that the Extension office has legal lease forms that can be purchased at a small fee, and a 2008 Cash Rental Rates Guidesheet is available.

(5) *Analyzing major purchases beforehand* – Major purchases are a part of the capital intensive business of Agriculture. It is always a good idea to analyze purchases of equipment, breeding livestock and land as far ahead of when they occur as you possibly can. There are a number of considerations to think about such as:

- can I repay a loan to purchase this?
- will it make my operation more efficient?
- will it still look like a good investment if prices fall substantially?
- what are the income tax implications?

(6) *Staying straight on "legal" concerns* – farmers and landlords face many issues today with potential legal consequences. It is critical that you know what those laws are and how they affect you and your farm. These can range from a boundary fence concern (in our counties, remember that both landowners are responsible regardless of livestock ownership) to oral land leases (require a 60 day written notice to terminate if to the same tenant for more than 1 year). Studying this beforehand could save you afterward.

(7) *Review your financial progress* – this may not be the time of year to do this but it is something that you should do. A yearly review of your balance sheet and how you've progressed can tell you a lot. The same is true for your profit and loss (tax returns at the least) statement. Trends over a 3 or 5 year period (looked at the same relative timeframe each year) can show you if you're moving in the right direction or if modifications might be needed.

These are all areas that your Agricultural Business Specialist, lender or other consultants can assist you with if you're uncertain about them. They are things that you shouldn't ignore, however. There are many guides and resources available off of the Internet too at <http://muextension.missouri.edu/explore/agguides/agecon>. Contact me at (660) 397-2179 or devlink@missouri.edu.

Upcoming Programs

Farm leases are a very hot topic right now with cash rents increasing and landlords wanting to make certain they're getting what they believe they should be getting. A *Farm Lease Program* to be held on Thursday evening, December 18th will discuss this and many other lease concerns. The program will run from 6 to 9 p.m. and be held via ITV (interactive television) at the Palmyra State Bank in Palmyra. There is a \$15 per person charge which includes one set of materials and refreshments and **pre-registration** is **required** by December 16th. Topics presented at this meeting will include how can a current lease be terminated, how much rent should I receive for my farm, which items to agree on in a lease, livestock and crop share arrangements – keeping them fair for both sides, and recreational (hunting) leases – what you should be aware of. If you would like more information, contact me at (660) 397-2179.

LIVESTOCK NOTES

Zac Erwin

Arthrogryposis Multiplex

This is the official title of the genetic condition many cattle breeders have been hearing and reading about. Formally referred to as Curly Calf Syndrome; the problem goes back to some popular and productive lines of Angus cattle. It results in a calf born dead with a spine that is bent or twisted. They also are small and appear thin because of limited muscle development. Their legs are often rigid and may be hyper-extended.

Angus breeders were first alerted to this condition back in September by the American Angus Association. The Curly Calf problem was first seen by a University of Nebraska veterinarian in 2002. When, where or how this condition really started is unknown, but the best guess is that a gene mutation occurred at some point in time, possibly several hundred years ago, and has been carried and passed on as a simple recessive. Having a simple recessive mode of inheritance is important to understand because to have an affected calf born, both the sire and dam would have to be carriers of the gene and they both would have to pass the gene to the calf. This mode of inheritance is the same as red coat color in the Angus breed. Mating two carriers of the gene will produce an affected calf 25% of the time, a normal looking calf, but a carrier of the gene 50% of the time, and a normal looking calf that is not a carrier of the gene 25% of the time. With this mode of inheritance you can begin to understand why it has taken many years of line breeding animals for affected calves to surface.

The Angus Association and its members have been diligently working with Dr. Jon Beever from the University of Illinois to provide tissue samples and pedigrees of affected calves. Dr. Beever has used this information to develop a DNA diagnostic test to identify carriers of this detrimental gene. A list of 62 carrier bulls was originally identified from a total of 736 bulls tested that are used artificially. The list can be found on the Angus website at www.angus.org or by contacting your University of Missouri Extension livestock specialist.

Seedstock producers of Angus and the Angus composites are most concerned, but even commercial producers should keep an eye on how often they might be breeding to known carrier bulls.

Needless to say this genetic condition has caused concern on how to approach any breeding stock sale. Our Show-Me-Select Heifer sale is upon us and we do have a statement developed by our state specialists in Columbia and SMS participants that will be applicable for the sale. The statement reads:

“Calves of Show-Me-Select Heifers are warranted to be free of genetic defects for a period of six (6) months from date of purchase. Heifers that give birth to an affected calf (exhibits the genetic defect), which is subsequently proven by diagnostic lab or DNA testing to be a genetic defect will have the full purchase price of the heifer plus the DNA testing charge refunded to the buyer by the seller. Please refer to the Show-Me-Select Replacement Heifer Programs terms and conditions for complete guarantee details.”

Many other breeds other than Angus have known genetic defects that are identifiable and can be selected against. Historically, the last big genetic defect in the Angus breed was dwarfism in the 1940's and 50's. Because we didn't have the scientific capabilities to determine what gene(s) were responsible; several very productive lines of cattle were completely abandoned. We now have the capabilities to identify certain detrimental genes and provide breeders with good information for selection. Being aware and using this information is the key to managing a sound breeding program.

Artificial Insemination Clinic

A beef cattle artificial insemination clinic is scheduled for January 20-22 at the Greenley Research Center, Novelty, MO. The clinic will run each evening from 5:00 p.m. to 10:00 p.m. Participants will learn about the estrous cycle, semen handling, heat detection, and reproductive diseases. Participants will also have hands-on practice in palpation, ID of the reproductive tract, and insemination techniques. Fees for the class are \$200 with a \$50 deposit due by January 9th. Class size is limited. For more information or a brochure mailing, please contact your area livestock specialist.

LIVESTOCK NOTES

Al Kennett

Show-Me-Select Bred Heifers To Be Featured

One hundred sixty Show-Me-Select bred heifers will be featured in the 12th annual Show-Me-Select heifer sale to be held Dec. 13, 12:30 p.m. at F & T Livestock Market, Palmyra, Mo. It should be noted that the date and time of the sale has been changed from past years.

The sale is being held this year on Saturday at 12:30 p.m. instead of Friday night like it has been in the past. This change was made to avoid Friday night high school basketball games. Also it is hoped that being on Saturday will be more convenient for people who work away from the farm.

The 160 head of heifers this year will be mostly Angus and Angus cross heifers. There will be a number of black white face heifers along with a few Simmental, Charolais, and Gelbvieh heifers. A high percentage of the heifers have been synchronized and bred AI so the projected calving dates will be very close. A very high percentage of the heifers are bred to known easy calving Angus bulls.

The heifers will have met all the requirements of the well known Show-Me-Select heifer program. These include a strict vaccination program, minimum pelvic measurement, sound reproductive tract, and have no defects such as bad eyes or frozen ears. In addition they must be bred to calving ease bulls. For example if they are bred to an Angus bull, he must have had a 7 calving ease EPD or better.

If the heifers have met all the requirements of the program they will carry the well known yellow and black Show-Me-Select ear tag.

The program has been expanded this year and there is now a second level to the program. Some heifers will be recognized as "Tier Two" level heifers. In order to do this the heifers must be out of sires that meet the "Tier Two" requirements. By doing this, the program is putting more emphasis on genetics of the heifer herself.

Heifers will be sold in small groups of 2-7 head that will be uniform in size and quality and will calve within a couple of weeks of each other. Some groups of AI bred heifers will be due to calve on the same date.

Anyone wanting more information on the sale or a catalog may contact me at (573) 985-3911 or e-mail Kennetta@missouri.edu.

Mineral Needs of Beef Cows

I was recently asked if we need to feed beef cattle mineral to beef cows in our area. So, I'm going to address that subject in this article.

I guess the first thing you would expect me to say would be "depends on what you're feeding" and that would be very true. Some feeds and their average level of calcium and phosphorus follow:

	<u>Ca</u>	<u>P</u>
Orchardgrass hay	.24%	.27%
Fescue hay	.27%	.24%
Alfalfa hay	1.27%	.22%
Corn grain	.02%	.30%
DDGS	.11%	.70%
Soyhulls	.60%	.21%

Answering the question also depends on what size our cows are, if they are dry or lactating, and how much milk they give. Examples follow:

	<u>Ca</u>	<u>P</u>
1000# dry	.15	.11
1000# with 2 mo. calf, ave milk	.25	.17
1200# with 2 mo. calf, 25# milk	.33	.22

Just looking at these figures it would appear that if our forages are average quality or better, they meet the needs of many of our beef cows except for maybe those larger, higher producing ones.

So, I asked Dr. Justin Sexton, our MU Extension Beef Nutrition Specialist this question. He was quick to remind me that Ca and P levels in forages are only 50 to 60 percent available to beef cattle.

Let me say that another way. If your fescue hay tested .27% Ca and .24% P, no more than 50% of that is available to your beef cow. So you really have about .13% Ca and .12% P available. Now compare that to those beef cow needs above and we have a completely different picture.

The Ca/P ratio is also important in beef cattle rations. You like to have about 1.3 to 1.4 parts Ca to 1.0 part P in a beef ration. So some of the feeds we commonly use for beef cows also can cause us some Ca/P ratio problems. Examples are corn and alfalfa hay.

So answering the question I was asked isn't as simple as it sounds. If your hay is a mixture of about 25% alfalfa and 75% fescue and you feed a couple pounds of DDGS per head per day you probably don't need a beef cattle mineral.

However if you are feeding average to low quality fescue hay and 2-3 pounds of corn, then you sure need some mineral.

Trace Minerals?? That is a much easier question. **Yes**, beef cows need a source of trace minerals, year round. Dr. Sexton agrees with me and most beef cattle nutritionist will also.

Finally: Remember old folks (like me) are worth a fortune with silver in our hair, gold in our teeth, stones in our kidneys, lead in our feet, and gas on our stomachs!!