

# Ag-Info

June - July 2008

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

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## *Calendar of Events*

June 27	<b>Weed and Pest Management Field Day,</b> Columbia
July 11	<b>Ralls County Cattlemen Meeting,</b> Center
Jul 14 - 18	<b>Ralls County Jr. Fair,</b> Center
July 18 - 24	<b>Monroe County Fair,</b> Paris
July 20 - 27	<b>Pike County Fair,</b> Bowling Green
July 24 - August 2	<b>Marion County Jr. Fair,</b> Palmyra
August 7 - 17	<b>Missouri State Fair,</b> Sedalia
August 22 - 23	<b>Management Intensive Grazing School,</b> Novelty
August 27	<b>Lewis/Marion Cattlemen's Bus Tour</b>
September 18	<b>Beef Field Day,</b> University of Missouri, Columbia
December 13	<b>Show-Me-Select Heifer Sale,</b> Palmyra

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# AGRONOMY NOTES

Alix Carpenter

## Bean Leaf Beetles

Bean leaf beetles have been feeding on the few soybean plants in the area. Damage caused by adult beetles appears as small, round holes between major veins on the leaflets (feeding by caterpillars and grasshoppers results in larger, irregular holes, or feeding damage along the edges of leaves). Bean leaf beetles may be a variety of colors and may have spots or stripes; all have a characteristic black triangle on the forewings, and are  $\frac{1}{4}$  inch long.

During the seedling stage, the treatment threshold is 5 beetles per row foot, or one damaged plant per row foot. Past the seedling stage through bloom, ten or more beetles per row foot, or more than 30% defoliation, is the treatment threshold.

## Black Cutworm

Due to late planting, corn is at particular risk of damage from black cutworm feeding this year. MU Pest Monitoring Network data indicate that the first day of cutting in Marion County would occur June 4.

Scouting for black cutworm should begin at crop emergence, and continue through the 5-leaf stage. Minor damage (feeding on the edges of leaves) is caused by 1<sup>st</sup> and 3<sup>rd</sup> instar larvae. Severe damage is caused by 4<sup>th</sup> instar and more mature larvae, which cut plants at or below ground level. Treatment is warranted when one to two percent of seedling corn plants have been cut.

## Other Insects

*Japanese beetles*: adults are striking in appearance, with shiny metallic greenish bronze with reddish wing covers, and nearly  $\frac{1}{2}$  inch long. Adults typically emerge from the soil, where they have passed most of the year in the grub stage, in late June. Adults feed on soybean and corn leaves (as well as a large number of other plant species) through the remainder of the summer. Adults tend to aggregate together, resulting in leaf damage in small areas of a field. Later in the season, there is particular concern about this insect's ability to clip corn silks.

*Stink bugs*: both green and brown stink bugs feed on soybeans in Missouri. They are shield-shaped, and  $\frac{1}{2}$  inch long. Both nymphs and adults feed on soybeans. The primary concern with stink bugs is their feeding on seeds and pods, which reduces seed quality. Both nymphs and adults will feed on soybean stems, leaves, and flowers.

*Corn earworm*: three generations of this pest damage a variety of crops in Missouri. The small larvae are cream colored; larger larvae have variable coloration (pale green to rose to brown) and pale lateral stripes. In corn, first-generation larvae feed within the leaves of whorl-stage corn, resulting in ragged holes visible when the leaves unfurl. Damage from second-generation larvae is more economically important as the larvae feed on corn kernels around the tip of the ear. Third-generation corn earworms may attack late-planted corn. Corn earworm also feeds on soybeans, but this damage is limited to southern Missouri.

## Agriculture and Carbon Credits

In the last couple of weeks, I have had some questions regarding carbon credits. What are they? How do I sell them? Could this be an opportunity for me? So I decided to share some highlights from an article written by Dr. Ray Massey. Dr. Massey is an Associate Professor at the University of Missouri, and Extension crops economist with the Commercial Agriculture Program and team leader of the Crops Focus Team.

Whether or not global warming is resulting from human activity, increasing attention is being given to greenhouse gases (GHGs) released by humans. Agriculture is in the middle of the discussion. According to the U.S. Environmental Protection Agency's (EPA) Inventory of Greenhouse Gas Emissions and Sinks, in 2006 the US released into the atmosphere 7,054 million metric tons of carbon dioxide equivalents (note: a carbon dioxide equivalent is a measure of all greenhouse gas emissions reported in terms of the global warming potential of carbon dioxide). Emissions from crop and soil management come predominately from nitrous oxide releases due to fertilization. Both dry and liquid manure management contributes to GHG emissions but liquid manure storage systems contribute the most GHGs and have the greatest potential to benefit from carbon reduction credits. Land use changes occur primarily from farming changes such as conservation tillage but also when land is taken out of crop production and put into grassland. Several opportunities currently exist for being paid to reduce GHG emissions. Sequestering activities such as land use changes and forestry are obvious areas where getting paid to reduce GHG emissions would be welcome. With little or no change in management, land managers could receive payments for sequestering carbon. Currently, farmers adopting conservation tillage can receive a credit of 0.2 tons/acre in the Ozark region and 0.6 tons/acre in the rest of the state. For cropland in CRP or that is put into grassland, they can receive a credit of

1 ton/acre. Though manure management is considered an emission of GHG by the EPA, livestock producers who lower their emissions can also receive credits. If livestock producers implement activities such as capturing and flaring off methane from their lagoons and pits they can receive a credit for the resultant reduction in GHG. But what do you do with GHG credits? You sell them.

In the US, the Chicago Climate Exchange is where carbon credits are traded. Entities that have agreed to reduce their emissions, but been unable to, buy credits from entities that have sequestered carbon or reduced their emissions below the level they agreed to attain. Because the quantities being traded are large (one contract = 100 metric tons of carbon dioxide equivalent), most farmers will use an aggregator to market their carbon credits. An aggregator is a business that gathers lots of small credits, bundles them together and sells them on the exchange. The two most familiar aggregators in agriculture are AgraGate (<http://www.agragate.com/>) and the North Dakota Farmers Union (<http://carboncredits.ndfu.org/>). Aggregators offer five year contracts to sequester carbon in soil at a price determined on the Chicago Climate Exchange. They retain about 10 percent for their service. In addition, they may retain some of the price until the contract is completely satisfied at the end of the five years. When a farmer enters into a carbon sequestration contract, he is agreeing to certain land practices for the duration of the contract. For example, land under a carbon contract cannot be tilled even if compaction is a problem.

Currently, carbon contracts are selling for about \$6/ton. Last year at this time the price was less than \$4/ton. At \$6/ton and receiving .6 tons/acre credit for no-tillage production, the price a farmer could receive is \$3.60/acre/year, minus the fees charged by the aggregator. The farmer would need to weigh the value of the credit against the limitations on production practices. Should GHG

emissions become regulated in the U.S., the price of a carbon credit is likely to rise. In Europe, where GHG emissions are limited, carbon sells for over \$30/ton. But Europe does not allow farmers to sell carbon credits.

You need to be aware of what is happening in the debate over GHG emissions. Compensation for sequestering carbon offers an opportunity for farmers to benefit from their stewardship of resources. However, it also presents a potential opportunity for the government to limit farmers' production activities to reduce GHG emissions. If you would like more information about carbon credits, feel free to contact me.

### **Upcoming Program: Management Intensive Grazing School**

A Management Intensive Grazing School is scheduled for August 22-23, 2008 at the Greenley Research Farm in Novelty, MO. The two-day workshop will provide opportunities for in-depth discussions and field exercises covering both agronomic and livestock topics related to grazing and livestock production on pastures. Topics include pasture species selection and management, fencing and watering systems, animal health on pasture, animal nutrition, pasture improvement techniques and economics of pasturing systems. Producers will have the opportunity to network with producers already using MIG as well as University of Missouri and USDA-NRCS experts in grazing. Cost for the grazing school is \$80 for the first person, and \$40 for the second person per farming operation (one set of materials). The fee includes reference materials and meals during the school. Contact me for more information.

## Shrinking Cow Herd

Talking to many livestock auction owners and representatives, I have heard one resounding statement, “There are a lot of cows going to town right now”. The latest release from the USDA Slaughter report might put it into perspective.

### *Cows Slaughtered under Federal inspection\**

year	Jan. - Dec. total (1,000 hd)	Jan. - Apr. total (1,000 hd)
2005	2,523	806
2006	2,983	877
2007	3,178	1,021
2008	?	1,100

\* *Livestock Slaughter Summaries, May 2008. National Agricultural Statistics Service, USDA*

January through April totals have historically been 29-33% of the yearly cow slaughter total. If that trend continues, we will slaughter roughly 3 to 3.5 million cows during 2008. If that holds true, the last two years will both be higher than the previous major peak in cow slaughter we experienced back in 2003, which the subsequent year was dubbed the beginning of the expansion phase of the cattle cycle.

So what does this all mean? The one thing you can say with any certainty from this point forward is that the 10 year cattle cycle is a trend of the past. Large area droughts, low feed availability, high input prices, land competition from high grain prices, and the increasing average age of the “cowboy” are all contributing factors for the increase in the number of cows going to town. Everyone in the industry has their own speculations about what will happen in the coming years, but in reality nobody knows for sure. Eventually, cows will come back to the farm as they always have. The economy will just have to provide the incentive, which will either be in

the form of higher beef prices or lower input prices. Which do you think will happen first?

One more observation, the highest average for Show-Me-Select heifers for the state of Missouri just happened to be 2004 and the second highest year 2005. I wouldn't go as far as to say this is a trend, but I think there's real potential for selling replacement heifers in the near future.

## Kansas Trip

In late April, MU State Specialists Dave Patterson and Joe Parcell organized a tour to Lane County Feeders, Inc. at Dighton, KS. Lane County Feeders has approximately a 44,000 head feedlot capacity. The following comments were written by my counterpart in Southwest Missouri, Eldon Cole. Eldon did a great job of summing up our trip to Kansas and I'd like to share with you some of the things we heard and saw on that journey. It's, as they say, food-for-thought.

The group met in Kansas City where we visited with Bill Haw of Haw Ranches, LLC. He owns two or three feedyards and a considerable acreage of Flint Hills pasture land as well as the old Kansas City Livestock Exchange building. His lead-in statement was, “I own cattle to make money.” Yes, as I recount some of his other cattle/grazing philosophies you'll maybe question his thinking, but he is a businessman and appears to have made some money.

Haw said \$6 corn didn't worry him as it will weed out his competition. His preference in cattle type for “making money” is lower quality Mexican cattle that have some age on them. He admitted he wasn't a buyer of Missouri cattle, mainly because of numbers. He prefers large lots out of the Oklahoma City market and feels there are less health problems with those cattle. He referred several times to the term “critical mass.”

Haw questioned the merit of management intensive grazing for stocker operations such as

his in the Flint Hills where a 90-day early intensive stocking program is used. On several occasions he told us his was a low-labor, low-input operation.

He stressed that he didn't want to own a cow, but of course was glad that some people like cows and are willing to run them, "for the love of it, not the money they make."

Jim Meetz and Dereck Martin (of Lane County Feeders) hosted us at the lot. This is a high-tech lot that uses Electronic Cattle Management (ECM) or ultrasound to sort cattle into commingled outcome groups midway through the feeding period. The sort is based on weight, height, intramuscular fat, ribeye area and rib fat cover. The cattle are measured upon arrival at the lot and the rate of change is used to predict their harvest date.

In 2006 they said their rib fat target was 0.5 inch, this year it was 0.6 inch. In 2006 they told us they ran 45 to 50 percent low Choice or better while this year they've averaged right at 60 percent Choice. Apparently, all across the country the percent Choice is up. The Lane County folks didn't feel they had done much to change the percent Choice, but that USDA assigned a new grading supervisor to the plant they contract with. The percent of cattle grading Choice went up after that change.

As you'd expect, all the feedlot folks we encountered disliked the ethanol mandate and \$6 corn but they like to feed the distillers by-products. We asked them about all-natural programs and they said they do not have a market for all-natural. Even if they did, they stressed that \$5 and \$6 corn makes the all-natural program hard to pencil out in their system. They foresee closure of some feedlots and a movement of the feeding industry northward.

Finally, Dereck presented data from their system on backfat thickness of cattle at arrival. They prefer cattle that run in the 0.11 to 0.15 inch of fat range when they come in. Those with more flesh on entry have greater cost-of-gain, thus they will discount the purchase price. He said, "The best genetics (feed conversion) is compensatory gain at this time."

In the final few minutes at the lot, Jim asked what price would 550 lb. feeder calves have to reach before cow-calf producers in Missouri increase their herd size. No one had a definite answer, but I said it would be around \$1.30. After getting home I reviewed the last 5 or so years of market averages for 550 lb. steers and we've run close to the \$1.30 mark with only slight herd buildup. So with the increase in "fertilizer, feed and fuel" prices I don't think \$1.30 will stimulate you to build your herd. What do you think?

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## LIVESTOCK NOTES

AI Kennett

### **SMS Heifer Sales – Daylight & Dark!**

There were only two Show-Me-Select heifer sales held this spring and there was as much difference in them as daylight and dark!!

The first one was held in SE and only averaged \$1138. The high selling lot was \$1400. Then you go to SW Missouri two weeks later and they average \$1521 with the top selling lots being \$2300.

Why the difference?? Nobody knows that for sure but SE Missouri was extremely dry last summer and had an ice storm back in Feb., while SW Missouri had lots of rain and hay in 2007.

### **AI Breeding Boxes**

There has been a big demand this spring for the two AI breeding boxes that are available in our area. As you would expect everybody wants them

in late April through early June, the normal AI breeding season.

The use of fixed timed AI has increased as result of a successful fixed time program developed and promoted by Dr. David Patterson, beef specialist at University of Missouri. The system developed by Dr. Patterson along with use of the AI breeding boxes has resulted in AI being easier, less time consuming, and more successful.

There are presently two AI breeding boxes available in our area. One is a single box (holds one cow at a time) and is owned by the Northeast Missouri Beef Cattle Improvement Association. Call me to schedule use of it.

The second one is a double box (2 cows) and is controlled by Humphrey Feed and Seed, Monticello, Mo. Call Vancil Scifres at Humphrey Feed and Seed for its use.

Good News – We are getting a new double AI breeding box this summer. It will be a double box with a work area on both sides. It will be owned and controlled by NEMO BCIA just like the single box is now. This is the results of the efforts of Dr. Patterson and funds from a grant he got.

If you have never used one of these boxes you should see one being used or try one yourself. Once you do, you will want one for yourself!!

### **UMKC research may help farmers control deadly livestock disease**

KANSAS CITY, MO. – Within a few short years, livestock farmers might have at their disposal a valuable tool in helping to control the spread of Johne's Disease, thanks to research being conducted at the University of Missouri-Kansas City (UMKC) School of Biological Sciences.

Johne's Disease, also known as paratuberculosis, is a highly contagious mycobacterial disease most commonly found in the small intestine of ruminant livestock. A distant cousin to the bacteria that causes tuberculosis in humans, Johne's is most prevalent among beef and dairy

cattle, although goats and sheep are also susceptible to the disease.

“Johne's is environmentally transmitted from one animal to another, most commonly when large numbers of animals are kept in close proximity. The challenge in preventing transmission is that infected animals can spread the disease long before they start to show any symptoms,” said lead researcher Brian Geisbrecht, Ph.D., UMKC assistant professor of Cell Biology and Biophysics. “In the lab, it can take up to two months to diagnose the disease. What we are looking for is a way to develop a quick and reliable field diagnostic test for farmers to use, so that infected livestock can be separated from the herd before they have a chance to transmit the disease.”

Geisbrecht and his fellow researchers are working in close collaboration with the United States Department of Agriculture (USDA) National Animal Disease Center (NADC) in Ames, Iowa, where most of the testing will be conducted once the initial phases of basic research are complete.

Funding for the study comes from the Missouri Life Sciences Research Board, which is administered by the Missouri Department of Economic Development. Geisbrecht said he has received funding to cover three years and hopes to have a prototype field diagnostic test by then.

*Finally:* Two elderly gentlemen were visiting at a retirement center. Joe says to Slim, “I'm 83 and I'm just full of aches and pains. How do you feel?” Slim replies, “I feel just like a baby, no hair, no teeth, and I think I just wet my pants!”