

Ag-Info

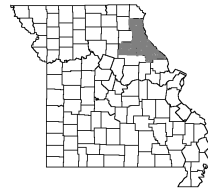
August - September 2006

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

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Calendar of Events

August 25 - 26	Management Intensive Grazing School , Canton
August 31	Grazing & Forage Field Day , Bowling Green
October 7	Beef Cattle Field Days , University of Missouri, Columbia
December 8	Show-Me-Select Bred Heifer Sale , Palmyra

University of Missouri,
Lincoln University,
U.S. Department of Agriculture
& Local Extension
Councils Cooperating

equal opportunity/ADA institutions

Understanding Basis

Basis has been a topic of marketing conversations over the last few months. For most of 2006, the basis has been wide (or weak). Several factors combined are producing the current weak basis for corn and soybeans. These factors include:

- 1) The U.S. corn and soybean ending stocks for the 2005-2006 marketing year are large. Large available supplies usually mean buyers have no trouble meeting their needs and do not need to bid up cash prices to attract deliveries of grain. So to avoid having grain delivered, buyers may lower cash bids (widen or weaken basis) to discourage deliveries.
- 2) High fuel prices are a major factor for increasing the costs of transporting grain.
- 3) Most commercial storage facilities remain at or near capacity.
- 4) As interest rates rise, this adds to the cost of owning grain and is reflected in buyers' cash bids to buy and hold grain.

Understanding crop basis can help producers to improve their ability to better time both future price decisions with basis considerations. The definition of basis is the difference between the local cash price and nearby futures price. It is an important consideration for cash marketing of both corn and soybeans. Strong basis is a market signal that end users need grain and are willing to bid up cash prices to obtain it. This represents a market signal to make cash sales or deliver grain to those buyers in order to capture the strong basis (high cash bids in relation to futures prices). In contrast, a weak basis suggests users have more than adequate supplies for now and they have lowered cash bids to discourage deliveries. A weak basis is a market signal to avoid cash sales or store the grain until basis improves.

Basis movement in the local cash market is much more predictable than that of the nearby futures price. A local basis should reflect supply and demand for corn and soybeans in that particular market. It does vary geographically as well as the time of the year. To better understand basis, consider collecting weekly basis information from your local market place. This data should be collected for at least the three most recent years with a specific futures contract month and local cash price recorded for the same day of the week. One way to track basis is to use Kansas State's Interactive Crop Basis Tool. This interactive tool can be used to examine historical weekly nearby basis for corn, sorghum (milo), soybeans, and wheat for various locations in Kansas, Nebraska, Missouri, Oklahoma, and parts of Colorado and Texas. To access the tool visit this website: <http://www.agmanager.info/marketing/basis/tools/>

Basis also can help determine which sales method is the best way to take advantage of pricing opportunities. A strong basis coupled with favorable futures prices is the "best of both worlds" and suggests making cash sales. This can be done with immediate delivery through spot sales or forward contracts for later delivery. The objective is to capture both favorable futures prices and strong basis whenever they are offered. If futures prices appear to be offering opportunities but basis is weak, this is a market signal to avoid cash sales methods. In this situation, using the futures markets to hedge or buying put options to protect prices allows capturing the futures price opportunity. Retaining ownership of the cash grain enables waiting until basis strengthens to capture basis gains. There are other possible selling strategies and different combinations of higher/lower futures prices and strong/weak basis may require using different combinations of futures/cash marketing tools.

LIVESTOCK NOTES

Al Kennett

Heifer Sale

Our first ever fall calving Show-Me-Select heifer sale was held back in mid-June. We ended up with only 77 head in the sale. However, they sold very well if you use the average price which was \$1356 per head. The range was the interesting part. It was from \$1100 to \$2100. The purebred Angus heifers were in the greatest demand as they averaged \$1560 per head on 30 head. Plans are to hold another spring sale in 2007.

Our fall sale is set for Dec. 8, 6:00 p.m. at F & T Livestock Market. I look for us to have 250-300 head at it.

Green Chop & Corn Silage

I have been asked several times in the past week if I expect our corn that will be put up for corn silage or fed as green chop to have high nitrate levels in it. This is something we never know for sure unless we go check it. However, I don't expect to find the high nitrate levels that we saw in many fields last year.

Why?? The main reason is that most of our corn was planted early this year and had put some fairly good ears on before the dry weather of July came along. Yes, we were dry in June also, but some timely rains had the corn crop looking pretty good prior to the dry, hot weather we have seen since mid-July. Remember last year most of the corn had very small ears if any.

However, precautions should still be taken due to the extreme heat of the past 3 weeks and how quickly the corn crop has matured. It might still pay to have it checked and Alix Carpenter or I can do that for you.

If corn contains high levels of nitrate, then producers should take precautions when feeding green chop. First, cut the corn as high as possible when it is green chopped. Next, feed smaller amounts at first and work the daily amount up over a period of 5 to 10 days. Feed only what they will eat in a single feeding. Watch cattle closely.

The most important precaution when feeding green chop is to only chop what you will feed that day. DO NOT leave green chop with medium to high levels of nitrate in a feed wagon over night. In fact, it is best to feed it within 2-3 hours after it is chopped.

Silage is less of a problem since 40-60 percent of the nitrate levels dissipate during the fermentation process. Allow 3-4 weeks for the ensiling process to be completed and generally silage will be okay. One precaution is to not allow cattle to drink the seepage from the silo when nitrate has been a problem. After fermentation is complete, quantitative tests can be run to determine potential nitrate levels. Feeds with less than 2000 ppm nitrate are considered safe for most livestock.

Missouri Steer Feedout 2005-06

What a difference a year makes! One year ago the 2004-05 feedout was fun because the average profit per head during the feeding phase was \$171.41. That was the greatest average profit we'd had since the program started in 1981.

This year we've had a complete reversal with an average per head loss of \$98.74, the largest loss since the beginning. If you're an eternal optimist, and really you probably need to be if you're in the cattle business, on average these two groups of steers made \$72.67 per head. Last year every group of steers showed a profit during the six months they were on feed. This year, every one of the 30 groups of steers showed a loss. Several individual steers did make money.

The steer feedout was never designed as a breed test, but over time the data clearly backs up the germ plasm data from Clay Center, NE regarding carcass merit. In this group of 30 different sets of cattle, the higher quality grades came from cattle that were purebred Angus or maybe $\frac{3}{4}$'s or $\frac{7}{8}$'s Angus. The 80 to 100% Yield Grades 1 & 2 generally contain something other than British genetics. It all comes back to the crystal ball for the ideal feedlot animal of the future. At the current time, besides the 70-70-0

target we're being told that a 50-50 mix of British and European breeds is a reasonable target to aim for.

Now, back to the feedout numbers. Even though there was lots of red ink on this set of cattle, 42 head of the 254 did actually show a profit. The average profit was \$47.92 with a range from \$1.83 to \$190.45. The high profit steer was the only one in the bunch to grade Prime (lots of marbling) and the premium for that

this time was \$25.60 per hundred in the carcass. Other stats on the profitable steers were 3.57 lbs. daily again, all but one graded low Choice or better, they averaged a very respectable 2.68 on Yield Grade and their harvest weight was 1296 pounds. The average price for these steers on the rail was \$135.98 per cwt.

Finally: Our last fight was my fault.
My wife asked "what's on the TV tonight?"
I said "dust"!!

**Management Intensive Grazing School
to be held in Canton, Missouri
August 25 and 26, 2006**

A grazing school, targeted at producers wanting to maximize the efficiency and profitability of their pastures, will be held on Friday afternoon/evening and all day Saturday, August 25-26. Topics covered will include an introduction to management intensive grazing, livestock nutrition, parasite control, economics, evaluation of farm resources, forage growth, grazing calculations, system layout and design, and elements of grazing systems, including watering systems and fencing. The seminar will end with a farm tour and field exercises.

For more information or to register, contact Alix Carpenter at the Marion County Extension Office, (573) 769-2177 or CarpenterAC@missouri.edu. Cost of the school is \$75 for the first person and \$45 for a second person from the same farm/firm. A \$30 advance deposit is required by August 15, 2006 to reserve a spot. The fee includes the cost of the meal Friday night, as well as lunch and refreshments on Saturday. The course also provides materials on grazing management specific to the Midwest. Registration is open to the first 50 individuals.

A registration brochure is also available online at http://extension.missouri.edu/marion/ag_docs/MIG2006brochure.pdf.

Aflatoxin in Corn

Last year, there was a great amount of concern about aflatoxin in corn. When tested, aflatoxin was not as widespread as had been suspected. The potential for aflatoxin in this year's corn crop does exist however.

Aflatoxin is produced by the fungi *Aspergillus flavus* and *Aspergillus parasiticus*, when either feeds on several plant species, including corn. *Aspergillus flavus* is more common in Missouri. Drought, high temperatures, and insect damage to ears all place stress on corn and create a favorable environment for mold development and aflatoxin production. These fungi can survive on many different organic materials, including forages, food and feed products, cereal grains, and decaying organic matter in the soil.

Aspergillus flavus growth, and aflatoxin production, peak at temperatures of 80-100°F and relative humidity of 85%. The fungus' development is favored by drought and heat stress, especially when these stresses occur during pollination and kernel maturation. Infection in the field is sometimes evident as a yellow-brown to green-yellow, felty or powdery growth on or between the kernels.

The fungus can also develop (or continue to develop following an in-field infection) in storage. The extent of growth and aflatoxin production is influenced by the moisture and temperature of the stored grain, the grain's condition at the time of entering storage, and the length of time in storage.

Aspergillus flavus will grow best on corn at 18.0 - 18.5% moisture; the fungus will not infect corn at a moisture level below 13%. At 20% and higher moisture content, other fungi grow better and competitively outgrow *A. flavus*. As the fungus grows on corn in storage, it respire, releasing heat and moisture. This increases the temperature and moisture of surrounding areas, creating a hot spot within the bin. At temperatures of 80-90°F, the fungus will rapidly

grow in stored grain, and will continue to grow (though more slowly) in temperatures of 40 - 50°F.

When corn is contaminated with the fungus prior to entering storage, it will deteriorate at lower temperatures, lower moisture levels, and in less time than corn with little or no *Aspergillus flavus* contamination at the time of entering storage. Corn which is damaged (cracks in seed coat or pericarp, broken kernels, other physical damage) prior to storage is more likely to be invaded by the fungus.

In general, conditions which favor growth of the fungus also favor production of the mycotoxin aflatoxin. However, *Aspergillus flavus* may grow on corn without producing the aflatoxin.

Several methods exist for testing for the presence of aflatoxin. Black light tests can indicate potential problems, but will not give quantitative results. Various test kits can be used in the field, on the farm, or at the elevator to determine the presence of aflatoxin. Some qualitative tests are available as well. If you would like a list of sources of these test kits, please contact me.

If aflatoxin is detected in corn, there are still uses for the corn, based upon the level of aflatoxin in the sample. USDA guidelines for the use of aflatoxin-contaminated corn are as follows:

20 ppb & above - cannot be used for human food use, dairy, or immature animals and poultry.

100 ppb & above - should not be used for breeding beef cattle or swine or mature poultry.

200 ppb & above - should not be fed to swine (any age).

300 ppb & above - should not be fed to any beef animal or any other livestock.