

Ag-Info

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

Upcoming Events

*Animal Agriculture Planning and Response Meeting for Farmers
and Ranchers*

April 21, 2009

Kirksville Days Inn, Kirksville

meal served at 6:00 p.m., free to anyone

RSVP by April 19

contact Zac for more information or to RSVP

Greenley Center Research and Field Day

August 13, 2009

Novelty

(660) 739-4410

Soybean Planting Date

The March-April 2009 issue of *Agronomy Journal* contained a combined analysis of soybean planting date studies. Data from the Midwest (representing Iowa, Illinois, Indiana, North Dakota, Nebraska, and Ohio) covered studies with planting dates ranging from April 19 to July 6. All studies were non-irrigated, using maturity groups 00 - IV, and row spacings of seven to 32 inches. Of all regions in the analysis (Midwest, Upper South, Deep South), the Midwest had the highest average yield of 43.7 bu/acre (range was 32.5 to 53.1 bu/acre).

This data summary showed a rapid decline in yield in the Midwest began at planting dates of May 30 and later. This rate of decline was 0.7 percentage points per day. In aggregate, there was little evidence that April or early-May plantings resulted in consistently higher yields. While the results of this analysis show no consistent yield advantage for planting early, there was also no consistent yield loss (except for ultra early plantings in the Deep South) associated with early plantings. According to the study's authors, if conditions are good for planting in April, producers should plant, but shouldn't expect higher yield. Planting into cold, wet soils can reduce seedling emergence and stand, which may require replanting to avoid yield loss.

Nitrogen

Natural gas prices seem to continually increase. As natural gas is used to create ammonia from atmospheric nitrogen (N), natural gas prices affect N fertilizer costs. All other N fertilizers (urea, urea-ammonium nitrate solutions, and ammonium nitrate) are produced from ammonia, and are similarly affected by rising prices.

A recent study of soil test levels indicated endemic low levels of phosphorous (P) and potassium (K). Without adequate P and K levels, N utilization is harmed. Nitrogen and P boost each other's uptake, particularly in starter fertilizer programs. Phosphorous is critical to energy transfer processes which assimilate N into various compounds critical for plant growth, such as amino acids, proteins, and enzymes. Potassium regulated enzymes which assimilate N into biochemical compounds within the plant, and K is responsible for reducing the impact of drought on the plant.

When P and K are not at sufficient levels to balance N, photosynthesis and N assimilation are reduced, maturity is delayed, and yield is reduced. Regardless of the level of N, yield potential will not be realized where P and K are not present in adequate amounts. Maintaining P and K fertility is crucial to maximizing the plant's response to N.

To ensure the most efficient use of N applied, consider the following:

- *Allocate fertilizer across all corn acres:* As yield response to applied N is greatest for the first units of N applied, allocate the available supply across all fields as a percentage of the amount of N available.
- *Take credit for homegrown N:* Corn yield is almost always better for corn following another crop, especially a legume, and the N requirement is less for corn following a legume than for corn following corn or another grass crops. The N application rate for corn following soybean should be reduced by 50 pounds per acre.
- *Use alternative N sources:* Utilize livestock manure, whether your own or from a neighbor, as a N source.
- *Use proven crop production practices:* N use efficiency is optimized when soil pH is maintained above 6.0, and soil P and K tests are maintained at the optimum level for your soil type. Use proven practices to control weeds, insects and diseases. Plant adapted, high yielding varieties for your area.
- *When injecting anhydrous ammonia,* make sure soil conditions will allow for good sealing to prevent volatilization.
- *If at all possible, inject urea or UAN into the soil:* For surface application, incorporate within two to 3 days with a field cultivator or disc. A rotary hoe will not do as good a job, but is better than not incorporating.
 - If incorporation is not possible, apply urea or UAN within one to two days of anticipated rain or irrigation.
 - If surface applying, avoid applying urea or UAN when temperatures are high and/or soils are moist and the surface is drying rapidly. Significant N volatilization takes place during these conditions. Utilize a urease inhibitor if applying in conditions that favor volatilization.

Average Crop Revenue Election (ACRE) Program ACRE, added under the Food, Conservation, and Energy Act of 2008 (Farm Bill), is an alternative revenue-based safety net to the price based safety net provided by the counter-cyclical payment for crop years 2009-2012. There is a potential for huge payments or zero payments under ACRE, so it is important to take the time to see if it would be a beneficial option for your farm.

Signing up for ACRE is completely optional, producers will choose between the current price-based counter cyclical payment (DCP) program and ACRE. Producers may elect the ACRE alternative on a farm-by-farm basis. A decision to enroll in ACRE may be made in any of the crop years 2009-2012. If you choose not to enroll in 2009, you can still enroll in 2010-2012. However, once you enroll in ACRE you are in it until the end of this Farm Bill. A farm enrolled in ACRE will remain in it even if the farm is sold or rented by someone else. All individuals (owner, tenant, etc.) on the farm, must agree in writing to participate in the ACRE program. While there is a potential for big payments, producers who elect and enroll a farm in ACRE must agree to: (1) forgo counter-cyclical payments, (2) a 20% reduction in direct payments, and (3) a 30% reduction in the marketing assistance loan rates for all commodities produced on the farm.

ACRE uses a combination of state average yields, farm level yields, and the national marketing year price to determine levels of revenue guarantees and payments for each covered commodity. There are two revenue triggers that must be met to receive an ACRE payment, one at the state level and one at the farm level. For the state revenue guarantee, an "Olympic" average of the state average yields for the past five years is used. The highest and lowest values during this period are thrown out, and the values for the three remaining years are averaged. Average yields are adjusted to bushels per planted acre rather than per harvested acre. The state revenue guarantee is 90 percent of the average state yield multiplied by the two-year average marketing price. For the farm level revenue guarantee, the same two-year average price is used, multiplied by the Olympic average of the last five years of yields for the farm. The value of the farmer paid crop insurance premiums also is added to the farm level guarantee. Both the state and farm guarantees will be recalculated

each year using prices from the past two years and yields from the past five years.

To trigger a payment under ACRE the "actual" revenue for both the state and the farm must be less than their corresponding guarantees. The actual revenues are the current marketing year price multiplied by the state average yield and the actual farm level yield, respectively. If both triggers are reached, the payment to the farm will be the difference between the state guarantee and the state actual revenue. The payment level cannot exceed 25 percent of the state guarantee, however. It also will be adjusted up or down by the ratio of the farm Olympic average yield to the state Olympic average yield. For example, if the farm average yield is 10 percent above the state average yield, the ACRE payment will be increased by 10 percent for that farm.

The payment will be made on 83.3 percent of the farm acres planted to the crop (85 percent in 2012). However, the planted acres that receive a payment cannot exceed the total base acres established for the counter-cyclical payments in the signup for the 2002 farm bill program. Also remember that ACRE payments are tied to current plantings on the farm as opposed to counter-cyclical payments, which are tied to the farm's base acres. For the 2009 crop year, ACRE payments will be made in October 2010. There are no provisions in this farm bill for advance payments. Producers who sign up for ACRE will continue to receive 80 percent of the direct payments that have been paid, regardless of actual prices or yields each year.

Last week, Secretary of Agriculture Tom Vilsack announced that USDA has extended the sign-up deadline from June 1, to Aug. 14, 2009, for both the Direct and Counter-cyclical Program (DCP) and the Average Crop Revenue Election (ACRE) Program. This action extends the sign-up deadline by 10 weeks to give producers ample time to decide whether to participate in ACRE or remain in DCP.

To give producers a tool to determine if ACRE is beneficial to their bottom line, the University of Missouri Food and Agricultural Policy Research Institute (FAPRI), has released an Excel spreadsheet designed to help producers analyze the ACRE program and make this important decision. The decision tool is

available for download on the FAPRI website at www.fapri.missouri.edu. When the producer's individual information is entered, the spreadsheet will show what potential payments could be if they elect to

participate in ACRE or stay with the DCP program. If you have questions or need assistance with the tool, feel free to call me at 660-397-2179.

LIVESTOCK NOTES

Zac Erwin

Are Eyes the Window to a Cow's Disposition?

Some very interesting research has been published from our "Neighbors to the North". The University of Guelph in Ontario, Canada recently published a study relating the percentage of white in a cow's eye(s) to their temperament.

Their study, published in the recent online issue of the *Journal of Animal Science*, found that the higher the proportion of visible white in a cow's eye, the more anxious the animal. The study included 140 beef cattle. Researchers had the cattle enter a chute where their head was restrained. They then collected video images of each cow's response and compared it with the amount of white visible in their eyes.

"Cows whose eyes were about 50% white were very anxious," says Sarah Core, a master's student who worked on the study with Guelph animal and poultry science professors Steve Miller, Tina Widowski and Georgia Mason. "The more passive cows had about 20% visible white in their eyes."

"With growing consumer demands for higher-quality products and animal welfare, selection for docility in cattle and other behavioral traits is beginning to play a key role in increasing profits throughout the beef industry," she says.

With the same group of cattle, the researchers also studied how the animals responded to being segregated from the herd. Those that were more anxious would panic and immediately try to rejoin the herd, whereas the more passive ones would remain still. The findings of this second study also showed a correlation between the proportion of white in the animals' eyes and anxious behavior.

The next step in this research is to determine the heritability of eye white among cattle, Core says. "More research needs to be done on how this trait is transferred down the lines. For example, if you have two parents with a small amount of white in their eyes, what are the chances that will be passed on to their progeny?"

This is an interesting approach in research focused towards predicting cattle behavioral traits. I look forward to additional research and will keep you posted in future newsletters.

Choice Carcasses are up big time....But Why?

There's an abundance of Choice beef as the U.S. enters the summer grilling season. In fact, USDA reports that for the week ending Feb. 28, 63.24% of steers and heifers slaughtered graded Choice. That's the highest level since records began back in 1997, reports the CME Group in its *Daily Livestock Report*.

Just why is likely a combination of at least four factors, the report says.

- First, packers and feedlot operators indicated this winter's climate was generally quite favorable to feeding cattle.
- Related to that factor, carcass weights have moved higher and steer weights are currently up as much as 25 lbs., or 3% over year-ago levels. In fact, a Kansas State University feedlot survey reports steers and heifers on feed have been gaining weight at a much faster pace than a year ago, with steers gaining an average 3.62 lbs./day in January, a 5% improvement from a year ago and 15% improvement from January 2007.
- Third, more cattle are grading Choice as more packers use mechanical or objective grading systems, rather than just human inspectors. Livestock Marketing Information Center (www.lmic.info) analysts this week noted that over the last few years, due to objective grading systems, some packers have moved away from reporting Yield Grade (YG) data and to focus solely on reporting USDA Quality Grades. Thus, in early 2008 the percentage of packers reporting YG data dropped to about 75%, and, as of February 2009, only half of packers were providing YG data.
- The last factor is genetics. More Choice-grading cattle breeds have been added to the nation's herds over time boosting the supply of Choice beef in the marketplace.

LIVESTOCK NOTES

Al Kennett

Performance Tested Bull Sale

The 37th annual performance tested bull sale is history and it was a great sale. In fact we had the second highest average we have had in the 37 years we have held the sale. Forty-nine bulls averaged \$2473. The only time we've had a higher average was in 2005 when we averaged \$2563 also on 49 head.

Angus led the way as far as breed average with 33 head averaging \$2580. Six Simmental averaged \$2475; 7 Polled Hereford, \$2079; 2 Charolais, \$2075; and one Maine Anjou sold for \$2500. The 49 head included 15 head of yearlings and they averaged \$2197 while the 34 older bulls averaged \$2596.

Two Angus bulls topped the sale at \$3500. They were consigned by Shannon Farms, Bowling Green and Jim & Sharon Schlager, Canton. High selling Simmental sold for \$3000 and was consigned by Prairie View Farms, Monroe City. Topping the other breeds were MBS Charolais, Bowling Green at \$2100, Keithley/Jackson Farms, Frankford at \$2700 with the Polled Hereford and Wagner Livestock, Philadelphia had the \$2500 Maine Anjou.

The NE Missouri Beef Improvement Association held their annual meeting April 2 as a follow up to the bull sale. Several awards were given. They included high indexing bull for each breed which was Angus – Hudson Angus, Jefferson City; Simmental – Prairie View Farms, Monroe City; Polled Hereford – Falling Timber Farms, Marthasville and Charolais – MBS Charolais, Bowling Green.

Outstanding Seedstock Producer award went to Larrick Farms, Shelbina; Outstanding Commercial Producer to Steve & Kathy Rueter, Palmyra and the Outstanding Service award went to Patti Kendrick, Monroe City.

Mike Schumacher, Bowling Green was elected president of the association for the coming year with John Ridder, vice-president; Al Kennett, secretary; and Patti Kendrick, treasurer. The NEMO BCIA conducts both the bull sale and the annual Show-Me-Select heifer sale. They also conduct educational meetings and tours throughout the year and make available the AI Breeding boxes for producers to use.

Grass Tetany Season

A long time friend use to tell me that he knew spring was getting close when he heard me talking about grass tetany on the radio. Well, I don't do the radio program

any more so maybe if I wrote about grass tetany spring will soon be here.

Grass tetany most frequently occurs in April and May when grass is growing fast but then we have cloudy, damp, cool weather with 40 to 60 degree days. However, it can also occur in the fall. It most often affects older cows that are in the first couple months of lactation.

Tetany generally occurs when cows are on spring grass pastures that are lush and high in potassium and low in calcium and sodium. It results in a magnesium deficiency caused by the above conditions. It seldom occurs when legumes or legume grass mixtures are a major portion of the cow's diet.

Early signs of grass tetany include walking stiff, uncoordinated, staggering, excitable and frequent urination. Advanced signs are trembling muscles, grinding teeth, violent convulsions and sudden death. Early treatment by a Veterinarian may save an animal if found soon enough.

Prevention is possible by including at least 30-40 percent legumes in pastures, having magnesium minerals available, or feeding grain mixtures that contain magnesium oxide. Unfortunately MgO is very unpalatable. So making it available by itself isn't going to work. A mineral mix that contains 30% salt, 30% dicalcium phosphate, 30% MgO, and 10% dried molasses seems to work well. A grain mixture that contains equal parts of MgO, salt, and ground corn will also work. Commercial minerals and protein supplements that contain MgO are also available from most feed companies.

Scholarship Banquet Breaks Record

The scholarship banquet and auction that the Lewis/Marion Cattleman's held in Feb. was very successful. When all bills were paid they had over \$18,000 they had raised to be used for scholarship and youth activities in the 2009/2010 year. At the banquet it was announced that 14 youth from Lewis and Marion Counties had gotten \$1000 scholarships in 2008/2009 school year.

Finally: A woman looking in the bedroom mirror says "I feel horrible and look old, fat, & ugly"! Her husband replies, "But your eye sight is darn near perfect"! That is the last he remembers!!