

# COW/CALF CORNER

The Newsletter

From the Oklahoma Cooperative Extension Service

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## **Feeder Markets Continue Adjusting to Big Corn Crop**

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

Cash corn prices in the Texas Panhandle have decreased \$2.00/bushel since July. While there is still some uncertainty about how big the new corn crop will be and just how low corn prices might go, there is no doubt that significantly lower corn prices will have a big impact on feeder price levels and feeder price relationships. Overall feeder cattle price levels have risen sharply with prices for most weights of feeder cattle up about \$25/cwt., a bit more for the lightweight calves.

From a stocker perspective, the potential value of gain depends on the overall feeder price level as well as the price spread or rollback between the purchase price of the stockers and the selling price of the feeders. The impact of feeder price level is well illustrated by comparing value of gain now with the feeder lows in May. Using combined auction data for the week of May 24, 2013, the price of 524 pound steers was \$150.97/cwt. and the price of 823 pounds steers was \$127.21/cwt. This represents a \$23.76/cwt rollback between the beginning and ending price and results in a value of gain of \$0.85/pound for 299 pounds of gain. Last week, the Oklahoma combined auction price for a 522 pound steer was \$173.52/cwt. and the price of an 818 pound steer was \$151.76/cwt. This is a \$21.76/cwt. price rollback and results in a value of gain of \$1.14/pound for 296 pounds of gain. Thus, roughly the same price rollback results in a significantly higher value of gain because of the higher selling price.

Anticipation of significantly cheaper corn, and the lower feedlot cost of gain that it implies, is well reflected in the current prices of heavy feeder cattle. While feedlot competition for tight feeder supplies may drive feeder prices higher, it will be to the detriment of feedlot margins unless fed cattle prices move higher than currently reflected in Live Cattle futures. However, the adjustments for lighter weight feeder cattle may not yet be fully reflected in feeder

markets. Lower feedlot cost of gain is reflected in feeder markets in two ways: higher overall feeder prices and larger premiums on light weight feeders over heavy feeder prices.

Current corn price expectations suggest a market average price in the range of \$4.50-\$5.00/bushel for the next crop year. This translates into a feedlot cost of gain of \$0.80 - \$0.90/pound as feedlots are able to use more and more new crop corn in the coming weeks. The value of stocker gain at current markets prices is in the range of \$1.10-\$1.15/pound. The stocker value of gain is a reflection of the feedlot cost of gain which means that the value of gain will likely decrease some in the coming weeks. This will be accomplished in the market with higher prices for light weight stockers relative to heavy weight feeders. Of course, it depends on exactly what the corn price is and also on winter grazing conditions and the ability of stocker producers to respond to these market signals. There is, for example, potential for 550-600 pound steer prices to increase roughly another \$5/cwt., relative to the current price level for 800 pound steers, before the expected corn price is fully reflected in stocker prices.

## **Fall Beef Cattle Disease Screening**

Grant B. Rezabek MPH, DVM; Pathologist, Oklahoma Animal Disease Diagnostic Laboratory

The Oklahoma Animal Disease Diagnostic Laboratory (OADDL) remains actively involved in disease surveillance for the cattle businesses of Oklahoma. OADDL is the only veterinary laboratory in the state accredited by American Assoc. Veterinary Laboratory Diagnosticians and routinely proficiency tested by USDA/National Veterinary Services Laboratory for most cattle diseases in the World Organization for Animal Health (OIE) classification. As the time for fall herd checks, pregnancy testing, and production sales approaches, we wish to offer owners and practitioners reduced rates for “herd survey” of some important bovine diseases.

The summer of 2013 has provided an escape from previous years of severe drought and many producers may contemplate retaining heifers or expanding herd size. This is an opportune time to screen incoming replacement animals or survey existing herds for Bovine Virus Diarrhea Virus, Bovine Leukemia Virus and Johne’s Disease. These “chronic” or debilitating diseases can affect over-all herd health, production and annual profits.

### **OADDL Fall 2013 Screening Initiative:**

OADDL is offering this screening panel at a 40% discount!  
**ELISA Panel for BVDV + BLV + Johne’s = \$10/animal.**

#### **Program Requirements:**

**SAMPLE: 2.0 ml clear serum or 6.0 ml clot tube (RTT).**

**QUANTITY: 11 animals or more on a single accession.**

Screening fewer than 10 animals will be charged at normal rates.

The testing will be performed daily (Mon-Fri) in order received. Typical turn-around time for results will be 2-3 working days. Prior notification of the lab for large volume may improve efficient turn-around.

#### Bovine Virus Diarrhea (BVD) Virus:

Bovine Virus Diarrhea Virus (BVDV) generally produces either respiratory or reproductive diseases in cattle, however there are a variety of detrimental clinical outcomes when this virus is present in cattle herds. The main issue with BVDV infection is a general compromise of the animal's immune system that makes them more susceptible to other diseases. BVDV is also unique in the "persistently infected" or "PI" animal. These animals result from being infected with BVDV during early gestation. Therefore, the PI calf is born immunotolerant and produces/transmits abundant BVDV virus to other animals in the herd. Economic estimates for loss during acute BVDV infection in a herd vary from \$50 to \$100 per cow, and screening for BVDV has already become routine for many seed stock and commercial operations. Removing both PI and acutely infected animals prior to introduction to a herd is critical for positive economic and herd health impact.

#### Bovine Leukemia Virus (Bovine Leukosis):

Bovine Leukemia Virus (BLV) screening tests indicate high levels of exposure to BLV worldwide, although eradication efforts have been successful in cattle herds in Western Europe. USDA surveys report 13-51% prevalence in BLV antibodies in beef cattle operations in the United States. BLV is best known for causing malignant lymphoma in cattle; however only 5 to 10% of BLV-infected animals develop this condition. More importantly, the virus is associated with increased susceptibility to other infectious agents that results in decreased survival and production. This affects upwards of 30% of infected cattle and results in estimated losses of \$59 per head in endemic areas. In 2013, BLV antibody screening at OADDL identified 44% positive in individual animal screening and 73% positive in herd screening performed on larger groups. BLV remains an initiative for the National Cattlemen's Association for development of control measures (CH 8.14 vaccine development). Both screening (cELISA) and confirmatory (AGID) testing are available through OADDL.

#### Johne's Disease:

Johne's Disease, caused by *Mycobacterium avium ssp paratuberculosis* (MAP), is an infectious bacterial disease of livestock that primarily affects the intestinal tract. Cattle, sheep, and goats are most commonly affected. This chronic, generally debilitating to fatal disease is most common in Dairy cattle, but USDA prevalence data from 1997 identified 7.9% of 380 beef herds tested positive for antibody. Screening at OADDL in 2013 identified 16% positive for antibody and 24% positive by PCR on feces. Submissions to OADDL probably reflect samples submitted by practitioners on cases for purposes of disease confirmation. The cooperative National Johne's Education Initiative (NAIA, USDA, APHIS, USAHA) is endorsed by the National Cattlemen's Association and both screening (cELISA) and confirmatory (PCR) testing is available at OADDL.

Oklahoma Animal Disease Diagnostic Laboratory  
1812 Farm Road; OSU Campus  
Stillwater, OK 74078  
405/744-6623

#### **The "Positive Associative Effect" of High Protein Supplements**

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

For the first time in a couple of years, the eastern two-thirds of Oklahoma has substantial standing forage in many pastures as we go into fall. In addition as you drive across much of Oklahoma this fall you see many big round bales of hay stored for winter feed. The quality of this hay will vary a great deal. Frankly some of the hay that is being stored will also be less than ideal in protein content. The standing forage will be decreasing in protein content as it matures and is frosted later in the fall.

The micro-organisms in the rumen of beef cows and replacement heifers require readily available protein to multiply and exist in large enough quantities to digest the cellulose in low quality roughages. Protein supplementation of low-quality, low protein forages results in a “**positive associative effect**”. This “positive associative effect” occurs as supplemental protein available to the “bugs” in the rumen allows them to grow, multiply, and digest the forage more completely and more rapidly. Therefore the cow gets more out of the hay she consumes, she digests it more quickly and is ready to eat more hay in a shorter period of time. Data from Oklahoma State University illustrates this (Table 1). The prairie hay used in this study was less than 5% crude protein. When the ration was supplemented with 1.75 lbs of cottonseed meal, retention time of the forage was reduced 32% which resulted in an increase in feed intake of 27%. Because hay intake was increased, the animal has a better chance of meeting both the protein and energy requirement without supplementing other feeds. Because retention time was decreased, one could postulate the protein supplementation in this situation also increased digestibility of the hay.

**Table 1. Effect of Cottonseed Meal Supplementation on Ruminal Retention Time and Intake of Low-Quality Prairie Hay  
Daily Supplement of Cottonseed Meal**

	<b>None</b>	<b>1.75 lb</b>	<b>Change</b>
Rumen Retention Time, Hr	74.9	56.5	-32%
Voluntary Daily Hay Intake, % of body wt.	1.69	2.15	+27%

As producers prepare their winter supplement strategies, they can see the importance of providing enough protein in the diet of the cows to feed the “bugs” in the rumen. If the hay is low in protein (less than 8 % crude protein), a small amount of supplemental protein such as cottonseed meal, soybean meal, or one of the higher protein by-product feeds, could increase the amount and digestibility of the hay being fed. This strategy requires that ample forage is available to take advantage of the “positive associative effect”. As the table above illustrates, properly supplemented cows or replacement heifers will voluntarily consume about 27% more hay if they were provided adequate protein. As long as enough forage is available, this is a positive effect of a small amount of protein supplement.

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