

# OFF THE HOOF

*Kentucky Beef Newsletter – March 2008*

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*Published Monthly by Dr. Les Anderson, Beef Extension Specialist, Department of Animal & Food Science, University of Kentucky*

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## Timely Tips

*Dr. Roy Burris, University of Kentucky Beef Specialist*

### Spring-Calving Cows

- Continue grass tetany prevention. Be sure that the mineral mix contains magnesium and that cows consume adequate amounts. You can feed the UK Beef IRM High Magnesium mineral.
- Calving areas should be as clean and as free of mud as possible. Pastures which have good sod and are close to facilities work best.
- Check cows at least twice daily and first-calf heifers more frequently than that. Be ready to assist those not making progress after 1 to 2 hours of hard labor. Chilled calves should be dried and warmed as soon as possible.
- See that each calf gets colostrum within an hour of birth, or administer colostrum (or a commercial colostrum replacement) with an esophageal feeder.
- Identify calves with eartags and/or tattoos while calves are young and easy to handle and record birthdate and Dam ID. Commercial male calves should be castrated and implanted as soon as possible. Registered calves should be weighed in the first 24 hours.
- Separate cows that have calved and increase their feed. Energy supplementation to cows receiving hay is necessary to prepare them for rebreeding. For example, a 1250 lb cow giving 25 lb/day of milk would need about 25 lb of fescue hay and 5 lb of concentrate daily or 12 hay and 14 lb of concentrate (if you are limiting hay) to maintain condition. If you need to go from a condition score of 4 to 5, you will need to add about 2 more lb of concentrate. Cows must be in good condition to conceive early in the upcoming breeding season.
- Watch for calf scours! If scours become a problem, move cows which have not calved to a clean pasture. Be prepared to give fluids to scouring calves that become dehydrated. Consult your

veterinarian for advice and send fecal samples to diagnostic lab to determine which drug therapy will be most effective. Try to avoid feeding hay in excessively muddy areas to avoid contamination of the dams' udders.

- Vaccinate calves for clostridial diseases (Blackleg, Malignant Edema) as soon as possible. You might choose to do this at the prebreeding working in late April or early May.
- Finalize plans for your breeding program. Purchase new bulls at least 30 days before the breeding season – demand performance records and check health history including immunizations. Use visual evaluation and expected progeny differences (EPD's) to select a bull that fits your program. Order semen now, if using artificial insemination.
- Prepare bulls for the breeding season. Increase feed if necessary to have bulls in adequate condition for breeding.
- Obtain yearling measurements on bulls and heifers this month (weight, height, pelvic area, scrotal circumference, ultrasound data, etc.) if needed for special sales. Heifers should reach their target weight (65% of mature weight) by the breeding season.

### **Fall-Calving Cows**

- Bull should be away from the cows now!
- Creep feed calves with grain, by-products or high quality forage. Calves will not make satisfactory gains on the dam's milk alone after about 4 mos. of age – since there isn't much pasture in March, fall calves need supplemental nutrition. Consider creep grazing on wheat pasture, if available. Calves can also be early-weaned.
- Calves intended for feeders should be implanted.
- Pregnancy check cows.

### **General**

- Plan for a feeding area with filter fabric and crushed rocks, if mud is a problem this year. You can check on cost-share availability.
- Watch for lice and treat if needed.
- If you have a dry, sunny day, use chain-link harrow to spread manure in areas where cattle have overwintered. This may be done in conjunction with renovation.
- Renovation and fertilization of pastures should be completed.
- Repair fences, equipment and handling facilities.
- Start thistle control. They can be a severe problem in Kentucky pastures. Chemical control must be done early to be effective.

### **“Cattle on a Thousand Hills.....”**

*Dr. Roy Burris, Beef Extension Specialist, University of Kentucky*

Dr. Curtis Absher and I were visiting at the KCA Annual Convention and were talking about Kentucky's position in the beef industry. We both agreed that this state's natural resources are a tremendous advantage for grazing cattle. Dr. Absher said “there is nothing more natural than grazing cattle”. Indeed, this does conjure up pastoral images and reminds me of Psalm 50:10 which refers to “cattle on a thousand hills”. Cattle on our hillsides can convert forages into meat and milk in an environmentally friendly way. This pastoral image benefits our beef industry.

Jesse Stuart's writings made the ordinary life of rural Kentucky seem very special. I believe that it is. We should continue to market this "picture" through programs like "Kentucky Proud" which is sponsored by the Kentucky Department of Agriculture. We have to be concerned about our public image because it can affect demand for our product.

We don't always appreciate the country that surrounds us. I was driving in a brief snow storm this past week and I was reminded of a poem by Robert Frost that I had to memorize in high school. It is, I think, an American classic.

### **Stopping By Woods On A Snowy Evening**

Whose woods these are I think I know.  
His house is in the village though;  
He will not see me stopping here  
To watch his woods fill up with snow.  
My little horse must think it queer  
To stop without a farmhouse near  
Between the woods and frozen lake  
The darkest evening of the year.  
He gives his harness bells a shake  
To ask if there is some mistake.  
The only other sound's the sweep  
Of easy wind and downy flake.  
The woods are lovely, dark and deep.  
But I have promises to keep,  
And miles to go before I sleep,  
And miles to go before I sleep.

Most people would identify with the last two lines of the poem which deal with how much they have to get done before the day is over. But I think it is important to remember that no matter how busy or how pressured he was, the driver stopped to enjoy the natural beauty of the moment. Perhaps, he also took a little time to "re-focus" or plan for the next day.

We get so caught up in our everyday routines that we sometime forget to stop and "smell the roses" or to make plans for the future. We can find ourselves performing "minimum wage" jobs while letting important management decisions slide. Tax preparation time is a good opportunity to evaluate your financial business and even your personal affairs. Review them every year at this time. We need to stay focused on our individual goals and business affairs to be truly successful.

The cattle business can be very demanding at times, but don't forget to enjoy the pastoral beauty associated with it. Calving season is starting and pretty soon our pastures will be full of baby calves. Cattle will again be grazing on the green hills and meadows of Kentucky. That's a picture worth painting. Forty thousand beef producers can't be wrong.

## **Understanding the Recent Beef Recalls**

*Dr. Gregg Rentfrow, Meat Extension Specialist, University of Kentucky*

The United States Department of Agriculture (USDA) recently announced the recall of over 143 million pounds of beef in response to violations of animal handling by Hallmark/Westland Meat Packing Company in California. This was the largest beef recall in history, though the recall was strictly due to administrative issues. None of the recalled beef has any increased risk of pathogenic bacterial contamination.

The USDA - Food Safety and Inspection Service (FSIS) inspects all animals prior to slaughter. During this pre-mortem inspection general observations about the animals' health and mobility are made. At this time, animals are cleared for slaughter, identified as suspect animals, or not cleared to enter the food chain. Animals that are classified as "suspect" require closer inspection during and after slaughter, which may include testing of certain tissues, before the carcass is allowed to enter the food supply.

Though rare, it is possible for an animal to become non-ambulatory after the pre-mortem inspection before the animal is slaughtered. This can happen for several reasons, including injury or fatigue. These "downer" cattle can be re-inspected by the USDA-FSIS inspector and re-classified as "suspect," allowing the animal to still be slaughtered but under closer scrutiny, or can declare the animal not suitable to enter the food chain.

The regulations pertaining to downer cattle were put in place as a safe-guard against any animals that might be at increased risk of carrying BSE (Bovine Spongiform Encephalopathy or "Mad Cow Disease") from entering the food supply. This does not mean that all non-ambulatory cattle have BSE. In fact, there have been only two cattle in the United States to ever test positive for BSE.

The recent beef recall was a Class II recall resulting in Hallmark/Westland's non-compliance with the regulations regarding downer cattle. Class II recalls are precautionary recalls, made when there is no evidence the product poses a direct threat to human health. In contrast, Class I recalls are issued when a product has the strong likelihood of being harmful to human health and a Class III recall is used when products are mislabeled.

The Hallmark/Westland recall includes beef processed as long ago as February 1, 2006. The USDA felt there was evidence of mishandling downer cattle back to that date. As a result of this recall, concerns have been raised about the safety of our meat supply. This recall was issued due to non-compliance with animal handling regulations; eating any of the recalled meat does not put a person at an increased risk of illness. All meat included in this recall was inspected and monitored post-mortem as required by law.

Though the images shown by the Humane Society of the United States of cattle at the Hallmark/Westland facility are disturbing, they are not a representation of the meats industry. The livestock and meats industries support and practice animal welfare and humane animal handling practices. In recent years, most animal facilities have been completely redesigned to promote and facilitate humane handling of animals. Additionally, employees who work with livestock on a daily basis are trained and required to practice proper humane handling techniques. Rest assured Americans enjoy the safest food supply in the world.

## Cow Calf: The Importance Of Colostrum For Calves - FAQs

*Dr. Patty Scharko, Extension Ruminant Veterinarian, University of Kentucky*

Colostrum intake is critical for a newborn calf, as its immune system is not fully developed when born. The calf must rely on colostrum from its mother until its own immune system is developed at 1 to 2 months of age. Colostrum contains antibodies or immunoglobulins (essential proteins) necessary to provide the calf with protection from disease. This immunity that the calf receives is known as passive immunity.

**How much colostrum does a calf need?** Generally a calf should receive 5 to 6 % of its body weight as colostrum within the first six hours of life, and another 5 to 6 % of its body weight when the calf is 12 hours old. Colostrum weighs about 8 lbs per (US) gallon or 10 pounds (Imperial gallon), therefore an 80 lb calf would require 4 lbs of colostrums per feeding.

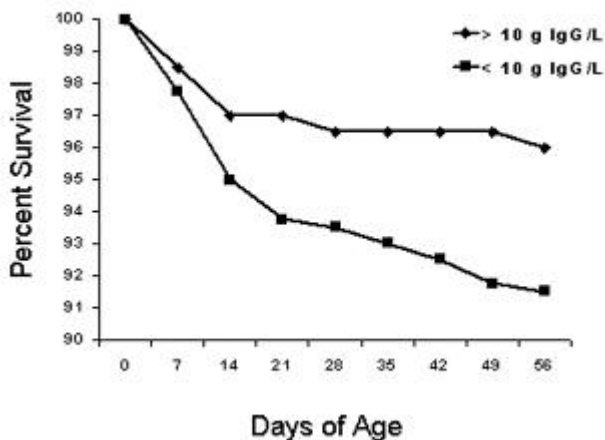


Figure 1. Effect of passive immune status (blood immunoglobulin concentrations) on newborn Holstein heifer survival - National Dairy Heifer Evaluation Project. USDA:APHIS:VS. Survey represents 1,811 farms in 28 states with 2,177 heifers sampled between 24 and 48 h after birth.

Why is the time in which a newborn receives colostrum so important?

By the 24-hour mark the gut begins to close and it becomes extremely difficult for the calf to absorb the antibodies in the colostrum. The calf's intestine becomes impermeable to large proteins. Studies have shown, that at six hours after birth, calves absorbed 66 % of the immunoglobulins in colostrum, but at 36 hours after birth calves were able to absorb only 7 % of immunoglobulins. Colostrum contains approximately 22 % solids, compared to 12 % solids in normal whole cow's milk. Much of the extra solid material in colostrum is immunoglobulin, but colostrum is also an important source of protein, sugar, fat, and vitamins A and E.

Figure 2. Effect of Ig source on apparent absorption of Ig at 24-h in colostrum-deprived calves. Colostrum treatment delivered 50 g Ig/L. Supplements consisted of a commercial milk-derived supplement (Supplement 1; First Milk Formula, Procor Technologies Inc., Arden Hills, MN), a commercial milk-derived supplement from another company (Supplement 2; Colostrx, Protein Technology Inc., Santa Rosa, CA), and a bovine-serum-based supplement (Bovine Serum; LifeLine, American Protein Corp., Ames, IA).

**Can I give newborns commercial colostrum supplements?** Calves that have experienced prolonged

calving, tend to take longer to stand and nurse, may need to be tube fed colostrum or colostrum supplements. These supplements are typically less efficient (the calf will not receive the same amount of protein) but are effective enough when colostrum is not available. Typically the commercial supplements are derived from a processed bovine serum, and have been shown to absorb much more efficiently.

**Can I store colostrum?** Colostrum can be collected, froze, and used at a later date. Colostrum should be collected from cows within 24 hours of calving. For easier handling and storage, use Ziploc® bags or Serving Savers®. The bags or containers will store flat in the freezer and you can use a size, which makes thawing individual "servings" of colostrum easier (1 or 2 quarts). Colostrum should not be thawed and refrozen. Colostrum can be stored frozen for up to a year with no loss of quality. Also storing at a moderate temperature (~ 20° C) for 2 days or refrigeration for 1 week should not result in a decrease in quality.

**What is the proper way to thaw colostrum?** Correct thawing is important to prevent the colostrum from being damaged. Colostrum should be thawed slowly in warm water. A good practice to follow is to submerge the sealed, frozen container in a bath of warm (not hot) tap-water until it thaws completely, stirring occasionally. Thawing time will vary depending on container size. The colostrum should be warmed to 40°C to 43°C. Colostrum can be thawed in a microwave oven, at a low setting, and should be stirred frequently, as many microwaves do not heat evenly. Thawing in warm water is recommended over using the microwave.

**Should I get colostrum from a dairy or other neighboring herds?** It is best to have colostrum on hand from your own herd if possible, as using colostrum from dairy's or other herds raises biosecurity issues and differences in immunoglobulin concentration. It is important to know the operation and their practices well before using their colostrum.

**How much colostrum will a cow produce?** Cows begin to produce colostrum five weeks prepartum and ends at calving. The antibodies are transferred from the bloodstream. Typically, mature beef cows in good condition will produce an antibody mass in approximately ½ gallon of colostrum. It is important to ensure during the week prior to calving that the cow is not "leaking" milk or being nursed by other calves, otherwise colostrum will be deficient when the cow calves.

**What factors affect colostrum quality and quantity?** Age of the Dam – The amount of colostrum and the amount of antibody concentration are lower in first and second calvers than in older cows. There is continued antigenic stimulation with age. Older cows also have larger udders, better milk secretion capability and a more efficient antibody transport mechanism. Maintaining heifers in separately from older cow is prudent for both nutritional needs and colostrum management.

Breed and Milking Volume - Large colostrum volumes tend to have lower antibody concentrations. Dairy cattle tend to have lower antibody concentrations than beef cattle.

Nutrition – Protein levels are important for volume, quality and maintaining antibody content. A good nutrition program will increase the immunoglobulin concentration in the colostrum. Discuss with your nutritionist to ensure your cows are receiving appropriate vitamins and minerals.

Source:

[http://www.cattlenetwork.com/bobcat\\_Content.asp?contentid=200702](http://www.cattlenetwork.com/bobcat_Content.asp?contentid=200702)  
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## **LDDC Update**

*Dr. Patty Scharko, Extension Ruminant Veterinarian, Livestock Disease Diagnostic Center*

The UK Diagnostic lab is seeing more diagnoses of Johne's disease in the past week through submissions of clinical case blood samples and some necropsies. It is appearing in younger cattle, age 2 to 3 years that have recently calved, begin to lose weight and have diarrhea. Remember, cattle should be examined by a veterinarian for a specific diagnosis on that farm. Johne's information and FAQ's can be found at <http://www.johnes.org/> or <http://www.johnesdisease.org/about/AboutJohnes.htm>  
New interactive map: <http://www.lddc.uky.edu/interactivemap.aspx>

County extension agents, producers and veterinarians can now access the necropsies associated within their county during the past 30 days from the LDDC. These are the final diagnosis by the pathologists as reported to the veterinarian on the accession. Put your mouse icon over your county to get a 30 day animal health outlook for your county.

## **Kentucky Beef Cattle Market Update**

*Kenny Burdine, Livestock Marketing Specialist, University of Kentucky*

Kentucky feeder cattle prices have steadily improved since their sharp drop in mid-January. Most of this improvement has been in the price of smaller stocker-type cattle. Prices on larger feeder cattle have increased, but not by as much. The table below compares Kentucky state average steer prices last week to the prices for the week of January 17<sup>th</sup>. It is interesting to see how prices have changed over the last six weeks.

As I write this article on the last day of February, summer and fall feeder cattle futures prices are trading above \$110 per cwt. Strong summer futures are supporting prices of stocker cattle now, for placement into backgrounding programs through the spring and summer. Although fertilizer prices continue to rise, cost of gain on grazing programs will be lower than cost of gain on full feed, which is making summer grazing look attractive.

The primary price risk for summer backgrounders this year is the potential impact of grains on feeder cattle price. Cash grain prices are above \$5 per bushel with new crop at a slight premium to that. Feedlots have been piling up losses as feed costs continue to rise. Cattle markets will be watching the 2008 grain crops very closely, from planting intentions at the end of March all the way to the final estimates in January. Grain prices will move based on every unanticipated change, and cattle prices will follow suit.

In volatile markets, good producers work to manage risk. Spend a little money on health programs to minimize your production risk and take advantage of pricing opportunities when they come along. Forward contracting a portion of cattle will protect against falling prices. Put options and the new Livestock Risk Protection Insurance are also available to producers who want to manage downside risk. While I think this can be a profitable year for backgrounders, it's not a year to be taking shots at the end zone from mid-field.

### KY Feeder Steer Prices: Medium and Large Frame #1's

|                | Week of Jan 17 <sup>th</sup> | Week of Feb 28 <sup>th</sup> |
|----------------|------------------------------|------------------------------|
| 400 to 500 lbs | \$102.27                     | \$119.47                     |
| 500 to 600 lbs | \$90.06                      | \$111.88                     |
| 600 to 700 lbs | \$87.99                      | \$103.52                     |
| 700 to 800 lbs | \$86.21                      | \$96.29                      |
| 800 to 900 lbs | \$83.89                      | \$91.09                      |

Kentucky Livestock and Grain Report (1-17-08 and 2-28-08)

## **Roberts Agricultural Commodity Market Report**

*Mike Roberts, Commodity Marketing Agent, Virginia Tech University*

LIVE CATTLE futures on the Chicago Mercantile Exchange (CME) were up on Monday. FEB'07LC futures finished up \$0.600/cwt at \$92.600/cwt; \$0.430/cwt higher than two weeks ago. The APR'08LC contract closed at \$94.825/cwt, up \$0.850/cwt and \$0.725/cwt higher than Monday before last.

JUNE'08LC futures were up \$0.625/cwt at \$95.025/cwt. Good demand for cash cattle and a good report last Friday drove the market. Technical buying fueled gains amid local selling half way through the trading day. Friday's Cattle on Feed report is seen as bullish for later months because January placements were up about 6% instead of the expected 9.5%. USDA put the February 1 Feedlot supply at 11.966 mi head, up 2% from a year ago and the second largest February supply since 1996. The market had expected as much and was able to move higher amid stronger cash cattle. USDA's 5-area price was up \$0.50/cwt to \$91.57 on Monday. As long as margins are in the black, packers can pay more for cash cattle. USDA on Monday put the choice boxed beef cutout at \$148.60/cwt, up \$0.39/cwt. According to HedgersEdge.com, packers netted an estimated \$7.40/head on Monday with the estimated breakeven set at \$91.56/cwt. Cash sellers should hold cattle and sell only when cattle are ready. It might be a good idea to hold off pricing corn inputs at this time unless you want to do some hedging with the nerve for margin calls ... or ... you might sell some put options.

FEEDER CATTLE at the CME were up on Monday with the exception of the May '08 and the January '09 contracts. MAR'08FC futures closed at \$104.200/cwt, up \$0.275/cwt but \$1.700/cwt lower than two weeks ago. MAY'08FC futures were down \$0.150/cwt \$110.500/cwt; \$2.550/cwt lower than Monday before last. Feeders were mostly firm at the end due to short covering, a rise in cash live cattle prices, and March/April bull spreads. Feeder supplies are still pretty tight even though there were a fair number of feeders at the closely watched Oklahoma City feeder auction,. The latest CME feeder cattle index for February 22 was placed at \$103.86/cwt, up \$0.12/cwt. It might be a good idea to hedge corn inputs at this time or sell a put option or two.

CORN on the Chicago Board of Trade (CBOT) soared on Monday. The MAR'08 contract finished up 11.0¢/bu at \$5.332/bu; 29.8¢/bu (5.9%) higher than two weeks ago. The DEC'08 contract closed up 7.0¢/bu at \$5.572/bu; 32.0¢/bu (6.1%) more than Monday before last. Corn is at record levels trying to hold on to acres for spring planting. One floor source said, "As long as big fund money keeps pouring in buying commodities we're going higher and food prices are going to get really expensive." Volume was huge at 373,805 futures and 73,709 options. Even though funds bought an estimated 12,000 contracts most of that were spreads as Index funds rolled March positions before the first notice of the ending February contract. Exports did well as 46.63 mi bu of corn was inspected for export vs. expectations for between 40.0-45.0 mi bu. In weather news, heavy snows in the U.S. Midwest have contributed good soil moisture for spring plantings as Argentina's weather continues to be spotty at best. Argentina is the No. 2 corn

exporter behind the U.S. Friday's CFTC Commitment of Traders report showed large speculators in very bullish positions at 328,541 contracts, up 11,783 lots. Bearish positions for some large speculators were placed at 73,403 contracts, down 6,938 lots. It probably is a good thing not to price any more corn for the time being. Corn is looking more golden now than ever before. If you're worried about a falling market for December '07 corn anytime soon you could spend 65.0¢/bu for an at-the-money put ... however, that is really expensive and corn would have to lose as much as 12% of its value to warrant that. The market is saying it just doesn't think that is going to happen.

SOYBEAN futures on the Chicago Board of Trade (CBOT) were up on Monday. The \$64.00 question from the last report seems to have been answered ... this market has more room for upward movement. The MAR'08 contract finished at \$14.520/bu up 32.0¢/bu and up \$1.26/bu (9.5%) from two weeks ago. The NOV'08 soybean contract ended at \$14.170/bu, up 26.4¢/bu and \$1.35/bu (10.5%) over Monday before last. China's population is demanding greater volumes of soyoil amid shortages of palm oil and edible oils in other countries. In addition, the Olympics are seen as one of the drivers behind the increased Chinese demand for food in that country. USDA placed soybeans inspected for export at 23.858 mi bu, below expectations for between 27.33 mi bu. Some weather concerns were noted in Brazil's soybean growing regions. In one place it was too dry, in another, too wet. Speculative money flooded into commodities amid outlook for greater food demand. As with corn futures, soybean futures volume was also large. Estimated trading was noted at 195,571 futures and 67,308 options. Index funds bought about 7,000 soybeans contracts. The CFTC Commitment of Traders report showed large speculators expanding net bull positions in soybeans. Index funds were noted as holding a record net long position in CBOT soybeans of 198,707 lots. It still might be a good idea to consider holding off pricing any more of the '08 crop if you are at 30%-40% priced. As noted earlier in this report, \$15.00/bu beans are most likely not out of the question.

WHEAT futures in Chicago (CBOT) were limit up on Monday. Will CBOT wheat futures go to the 90.0¢/bu limit on Tuesday? Mar'08 futures closed at \$11.094/bu, up 60.0¢/bu; 61.4¢/bu (5.7%) higher than two weeks ago. The JULY'08 contract closed at \$10.464/bu, up 60.0¢/bu and 67.4¢/bu (6.9%) higher than Monday before last. U.S. spring wheat at the Minneapolis Grain Exchange went over the \$20.00/bu level to a record \$25.00/bu on Monday. Limits were set when Kazakhstan imposed export tariffs amid worries over shrinking world stocks. That country's Agriculture Ministry stated Sunday it has sold about 75% of its wheat and will protect the remaining 25% (~110 mi bu) with customs duties. Traders also took into account historic levels of bad weather as country after country reported wheat growing problems. In light of growing shortages, Canada announced it expects its 2008 all-wheat crop to increase by 25% or 5.109 mi tonnes (188 mi bu) from the 2007 20.054 mi tonne (737 mi bu) level. Surging demand for food products in quick-growing countries, including China and India, has magnified the short supply situation for world wheat. Wheat has more than doubled in price over the last year. The latest buzz is that U.S. consumers won't feel the crunch too quickly as big U.S. food companies normally lock up long-term supplies. However, if this keeps up, higher prices are to be expected. USDA put wheat inspected for export at 17.253 mi bu vs. expectations for between 18-22 mi bu. The CFTC Commitment of Traders report as of last Friday had large speculators decreasing net short positions in CBOT wheat by 1,500 contracts to 252 lots. It is still not advised to have more than 40% of the '08 crop priced. It also wouldn't hurt to see if 10% of the 2009 crop and 10% of the 2010 crop could be priced at this time.