

# OFF THE HOOF

*Kentucky Beef Newsletter – November 2009*

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

## Contents

This month's newsletter includes:

Timely Tips – Burris

The Delayed Effects of Poor Nutrition? – Burris

Adding Fat to the Diet Can Improve Reproduction – Anderson

Field Conditions for Corn Raise Questions - Lehmkuhler

*Agsight*: Healthcare's Public Option, Backdoor for More Agricultural Regulation – Nevil Speer

Kentucky Beef Cattle Market Update – Burdine

Roberts Agricultural Commodity Market Report – Roberts

## Timely Tips

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

### General Management for November

- Have your hay supply analyzed for nutritive quality and estimate the amount of supplementation needed. Consider purchasing feed now.
- Evaluate body condition of cows after weaning their calves. Sort thin (less than CS5) cows away from the cow herd and feed to improve their condition. Two and three-year olds may need extra attention now.
- Culling decisions should be made prior to winter feeding for best use of feed resources. Consider open, poor-producing and aged cows as candidates for culling.
- Dry cows in good condition can utilize crop residues and lower quality hay now (but don't let them lose any more body condition). Save higher quality feed until calving time. Keep a good mineral supplement with vitamin A available.
- Don't waste your feed resources. Avoid excessive mud in the feeding area. Hay feeding areas can be constructed by putting rock on geotextile fabric. Feed those large round bales in hay "rings" to avoid waste.

### Spring-calving cow herd

- A postweaning feeding period will allow you to put rapid, economical gains on weaned calves, keep them through the fall "runs" and allow you to participate in Kentucky CPH-45 sales. Consider this health and marketing program which is designed for producers which are doing a good job of producing high quality feeder calves.

- Replacement heifers require attention during the winter, too. Weaned heifer calves should gain at an adequate rate to attain their “target” breeding weight (2/3 of their mature weight) by May 1.
- If you need to replace cows, consider buying bred heifers in some of the Kentucky Certified Replacement Heifer sales which are being held across the state this month.

### **Fall-calving herd**

- Continue to watch fall-calving cows this month. Catch up on processing of calves including identification, castration and vaccinations.
- Vaccinate the cows while they are open and prior to the breeding season. Move cows to accumulated pasture or increase feed now.
- Start the breeding season about November 25 for calving to begin in September of 2010. If you are using AI and/or estrous synchronization, get your supplies together now. Don’t forget Breeding Soundness Evaluations (BSE) on your bulls. Make final selection of replacement heifers now.

### **Reminders**

- This is a good time to take soil tests and make fertility adjustments (phosphate, potash and lime) to your pastures.
- Graze alfalfa this month after a “freeze-down” (24 degrees for a few hours).
- This is a good time to freeze-brand bred yearling heifers and additions to the breeding herd.
- Don’t forget ... ask you County Extension Agent for a 2010 Beef Integrated Resource Management (IRM) Calendar.

## **The Delayed Effects of Poor Nutrition?**

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

This has been a great year for forage production in our part of the country. We’ve had plenty of grass for the grazing season with lots to spare for hay-making. We still have accumulated fescue pasture which can be grazed this winter.

So what’s the problem? It’s the delayed effects of poor nutrition. Last winter we were suffering from a feed shortage caused by two consecutive years of drought conditions which caused most of us to maintain our cows in less than optimum conditions. Cows that come out of the winter in less than desired body condition had decreased pregnancy rates. Pregnancy rates for spring calving cows are lower than usual this year.

What should we do? First pregnancy check the cow herd to identify open cows. Then plan ahead for your winter feeding program to avoid a repeat of this year. Plan to give cows some supplemental feed from calving time until grass is adequate to maintain good body condition going into the next breeding season.

Calculate your hay needs and be sure your supply is adequate. It should be. Hay is cheaper this year if you need to purchase some. You still have time to construct a feeding pad with geotextile fabric and gravel to minimize waste. Estimate your supplemental feed needs now and make purchases prior to winter.

What can you do with open cows after weaning? The obvious answer is to sell them. However, you might feed them long enough to put some weight on them before hauling them to market. But open cows still need a good dose of “trailermycin”.

Thin, bred, cows, especially young ones, need to regain body condition prior to the winter period. This can be done by sorting them off and putting them on some good accumulated fescue pasture. We must have these cows in good body condition by the 2010 spring breeding season (early May).

You could also keep a few more heifers to replace some of the cows that were liquidated in the previous two years. Also, consider a short, postweaning feeding (preconditioning) period for your feeder calves instead of taking them from the cow to market. You can still consign to CPH-45 sales, if you hurry.

I think that we should routinely “carry over” some hay which has been stored inside. Remember to feed your outside hay first and, hopefully, you will have some hay left over which is inside and could be used in case a pasture/hay shortage next year. You don’t have to “zero-out” your hay supply this winter, if some of it is stored inside.

The low pregnancy rates of this year might be a surprise to you but I have observed over several years that “wet years will disappoint you and dry (not drought) years will surprise you”. We must also realize that cows which are moderate in size and milking ability have a better chance of rebreeding after times of limited feed than their larger, heavy milking counterparts do.

Finally, everyone needs something to think about or reflect upon. I recently heard someone say that “people don’t care what you know until they know that you care”. If you are in a position to offer advice, you should keep that in mind.

## **Adding Fat to the Diet Can Improve Reproductive Performance**

*Dr. Les Anderson, Beef Extension Specialist, University of Kentucky*

Over the past 15 years, 30 different research trials have been conducted that examine the impact of supplemental fat on reproductive performance of beef and dairy cattle. Fats (or lipids) have been fed before and after calving and during the breeding season. Research on feeding supplemental fat has resulted in varied and inconsistent results as it relates to reproductive efficiency including positive, negative, and no apparent effect.

Several different fat sources have been studied. Plant oils have thus far shown to have the greatest impact on reproduction. Some of the more common sources of plant oils include: sunflower, safflower, whole cottonseed, rice hulls and soybeans. In addition, animal tallow, calcium salts, and fishmeal have also been evaluated.

Dr. Rick Funston, University of Nebraska beef specialist, reviewed the research pertaining to this topic. His conclusions about added fat in cow and heifer diets suggested that some of the improvements reported may be due to the added energy from the fat source. He suggests that until these relationships are better understood, producers are advised to strive for low cost and balanced rations. IF a source of supplemental fat can be added with little or no change in the ration cost, it would be advisable to add it to the ration. Adding fat would be most likely to have a benefit on reproduction with young, marginally thin, growing cows in a year where limited nutrients are available. In other words, two and three year old cows (in a

body condition score of 4 or 5) with low quality and/or quantity of roughage available, are most likely to get a boost from adding whole soybeans, whole cottonseeds, safflower, or sunflowers to their diet.

To examine the potential impact of feeding fat on reproductive performance, Dr. Jeff Lehmkuhler and I conducted a trial this spring on 160 extremely thin cows. Approximately 30 days before breeding, this herd of cows averaged a body condition score of only 3.5 (1-9 scale) and weighed less than 1000 pounds. About 125 of the cows were fed 25 pounds of wet distillers grain (about 12-13 pounds of WDG on a dry matter basis) while on pasture. The analysis of the WDG indicated a TDN of 89%, CP of 34%, and 10% fat. The remaining cows were not supplemented. Estrus was synchronized in all the cows by inserting a CIDR device for 7 days prior to turning the bulls in. Bulls remained with the cows for 70 days. Pregnancy rate was determined about 110 days after the beginning of the breeding season.

All the cows gained weight throughout the experiment. The cows fed the WDG gained over 100 pounds and more than one body condition score (went from a BCS of 3.5 to a 5). The cows that were not fed WDG also gained weight. Feeding WDG improved pregnancy rate as 85% of cows fed WDG became pregnant while only (60%) of the cows that were not fed WDG. This trial is further evidence of the positive impact of supplementation on rebreeding potential in beef cows. Although we cannot determine in this trial if the fat contained in the WDG was the key component impacting fertility, it seems apparent that feeding WDG for 30 days prior to breeding has the potential to improve the reproductive rate of cows in poor body condition.

## Field Conditions for Corn Raise Questions

*Dr. Jeff Lehmkuhler, University of Kentucky Extension Beef Cattle Specialist*

Wet field conditions this fall are raising concerns over mycotoxins as *Fusarium*, *Gibberella* and *Diplodia* ear rot is being observed in several areas. This is not limited to Kentucky as other states throughout the cornbelt and Northern Plains are experiencing similar wet conditions this fall making dry down a challenge and providing conditions for molds to flourish. *Fusarium* fungi, *Penicillium sp.* and *Aspergillus flavis* can produce mycotoxins which are of concern to livestock producers as they can be detrimental to livestock performance.

Beef cattle are less susceptible to these mycotoxins than are monogastric species such as poultry and swine. However, this should not be interpreted such that beef cattle are not affected by mycotoxins. Dairy cattle with high dry matter intakes of corn-based diets are at higher risk. Younger cattle such as weaned calves are more susceptible to mycotoxicosis than older cattle.

Table 1. Action levels for total aflatoxins in the diets or feed offered to cattle.

Class of Animals	Feed	Aflatoxin
<b>Finishing beef cattle</b>	Corn and peanut products	300 ppb
<b>Beef cattle</b>	Cottonseed meal	300 ppb
<b>Breeding cattle</b>	Corn and peanut products	100 ppb
<b>Immature animals</b>	Animal feeds and ingredients, excluding cottonseed meal	20 ppb
<b>Dairy animals</b>	Animal feeds and ingredients	20 ppb

Adapted from Henry, FDA 2006. ppb = parts per billion.

The Food and Drug Administration (FDA) provides levels for mycotoxins in the diets of livestock. These levels are provided in Tables 1, 2 and 3 for various mycotoxins found in grains/feeds. Producers are encouraged to obtain a representative sample and test suspect corn prior to feeding to determine if any mycotoxins are present and if so at what levels.

Table 2. Guidance levels for total fumonisins in animal feeds offered to ruminants.

Class of Animals	Feed Ingredients & Portion of Total Diet	Levels in Corn & Corn By-products	Levels in Finished Feeds
<b>Breeding Ruminants</b>	Corn and corn by-products not to exceed 50% of the diet**	30 ppm	15 ppm
<b>Ruminants <math>\geq</math> 3 months old being raised for slaughter</b>	Corn and corn by-products not to exceed 50% of the diet**	60 ppm	30 ppm
<b>All other classes</b>	Corn and corn by-products not to exceed 50% of the diet**	10 ppm	5 ppm

\*\* Dry weight basis. ppm = parts per million.

For additional information on mycotoxins, readers are encouraged to contact their County Extension Office and ask to obtain publications ID-121, ID-59, and PPFS-MISC-01.

Table 3. Advisory levels for vomitoxin (DON) in livestock feed offered to beef cattle.

Class of animals	Feed Ingredient & Portion of Total Diet	DON Levels in Grains & Grain by-products and (Finished Feed)
<b>Ruminating beef and feedlot cattle older than 4 months</b>	Grain and grain by-products not to exceed 50% of the diet	10 ppm (5 ppm)

### ***Agsight: Healthcare's Public Option, Backdoor for More Agricultural Regulation*** **Dr. Nevil Speer, Department of Animal Science, Western Kentucky University**

Drip . . . drip . . . drip: the fall of dropping water wears away the stone. So it goes with shaping public attitude and policy. If you repeat something often enough it must be true (not!), thus politicians are always coached to stay "on message". The constant drumbeat creates foundation for impact. It often appears that some significant precipitous event or incident leads to change. In reality, transformation is more the result of doggedly sustaining a message over time and wearing down your opponent.

That's exactly where agriculture finds itself - under siege from an unrelenting campaign bent on denigrating our mission to feed the world. The battlefield is seemingly mounting across a growing range of issues (more later). And the ranks of insurgency are expanding; some knowledgeable, most emotive - some genuine, many misguided. Worse yet, vilifying food production has become popular sport these days among the main-stream media of late. Dealing with each respective issue is impossible given space limitations here.

What's most important is the over-arching perspective and attitude towards food production among activists. Those enlightened about the ills of agriculture now have traction in agriculture. They're emboldened because of it. That's not surprising. There were some important indicators along the way. For example, Mr. Obama's Time magazine interview (Oct 23, 2008) in which he was quoted as saying:

*I was just reading an article in the New York Times by Michael Pollen about food and the fact that our entire agricultural system is built on cheap oil. As a consequence, our agriculture sector actually is contributing more greenhouse gases than our transportation sector. And in the mean time, it's creating monocultures that are vulnerable to national security threats, are now vulnerable to sky-high food prices or crashes in food prices, huge swings in commodity prices, and are partly responsible for the explosion in our healthcare costs because they're contributing to type 2 diabetes, stroke and heart disease, obesity, all the things that are driving our huge explosion in healthcare costs.*

That perspective gained significant direction when Kathleen Merrigan was named as Deputy Ag Secretary, USDA's second-in-command.

Dr. Merrigan most recently served as Director of the Agriculture, Food and Environment program at Tufts University. The program's mission is as follows:

*To educate future leaders at the nexus of agriculture, food, and environmental science and policy, and empower them by providing rigorous training, an ethic of social change, and an intellectual community generating visions and models of alternative systems.*

The ideology of "social change" and "alternative systems" plays out with endorsements from groups such as Food Democracy Now which included the Deputy Secretary in the "Sustainable Dozen": "A list of progressive, reform-minded candidates . . ." (The ObamaFoodOrama blog, Feb. 23).

This all really matters when you begin to connect the dots. Food Democracy Now is sponsored by Free Range Studios. Free Range Studios was responsible for producing and promoting a very popular internet movie, The Meatrix, on behalf of Sustainable Table. The latter celebrates itself as one which ". . . educates consumers on food-related issues and works to build community through food . . ." Sustainable Table's organizational perspective would have everyone believe that the food industry is defined by draconian "factory farming" such that: "Small family farms have been replaced by huge livestock facilities, where animals suffer horribly, workers are mistreated, the environment is being destroyed, and where rural communities are falling apart." Bottom-line, either you sanction that ideology or you question its validity.

From all appearances the new administration, by naming Merrigan as its Deputy Ag Secretary, identifies with that type of agenda. That's not really anything new; unfortunately, we've accustomed ourselves to that particular genre of opposition.

Now let's go one step further and consider further President Obama's most renowned and avid campaign supporters: Oprah Winfrey. She actively advocates her participation in a 21-day Vegan fast initiated by her association with Kathy Freston (Quantum Wellness). Ms. Winfrey noted, "The goal is to allow the body to rid itself of toxins, but Kathy's thoughts on the 'health, environmental, and spiritual implications of the foods we choose to eat' got my attention too." Get the inference? New enlightenment leads to ability to discern all kinds of personal and global connotations (or lack thereof) for all types of food (e.g. McDonald's hamburgers and bean sprouts) and/or production systems.

Now the final and most important step; this is where it all comes together. Consider USDA's recent announcement that that 2010's annual Outlook Forum theme will be: "Sustainable Agriculture: The Key to Health & Prosperity." What the heck does that mean anyway? I don't think anybody really knows. However, there is one HUGE inference here that makes this alarming. Go back to Mr. Obama's ideology cited from last October's interview in Time: agriculture is " . . . partly responsible for the explosion in our healthcare costs." Let's bring this all full circle. It's one thing to fend off the activists. But it's an entirely different matter when we're staring down the barrel of healthcare regulation. The battlefield has been extended; in fact, now we've got an entirely new theater of operations to fight. Anti-agriculture activists and food police potentially have a new-found venue to unite. That convergence enables them to leverage their ideology and impose new regulation. Agriculture and the entire food industry has as much, if not more, stake in this debate than any other industry!!!

We better get with it.

## **Kentucky Beef Cattle Market Update**

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

Kentucky feeder cattle markets continued their fall decline in October. 5wt steers reached the low \$90 range per hundredweight and heavier feeder steers reached the low-mid \$80's on a state average basis. Rising corn prices and a shaky economy continued to pull the feeder market down. However, there were some positive signs at auction barns in the final week of the month suggesting that we may have made our bottom a little earlier this year.

Another positive note was that the third round of CWT dairy herd retirements only appears to have removed about 26,000 dairy cows. This was less than I expected, so it should make the negative price impact on cull cows smaller. However, as we discussed last month, fall is typically the seasonal low for cull cow prices and that is unlikely to be any different this year.

I want to shift gears a bit and talk about price seasonality in calf markets. Over the last five years, our typical seasonal patterns have remained, but the price swings from month-to-month have been considerably wider. From 2004 to 2008, the price difference in the fall and spring markets has been nearly double the long term average. Our chart this month compares prices for Medium and Large Frame #1 steers from 1995 to 2008 and from 2004 to 2008. Notice how much steeper the fall price decline has been in the last five years.

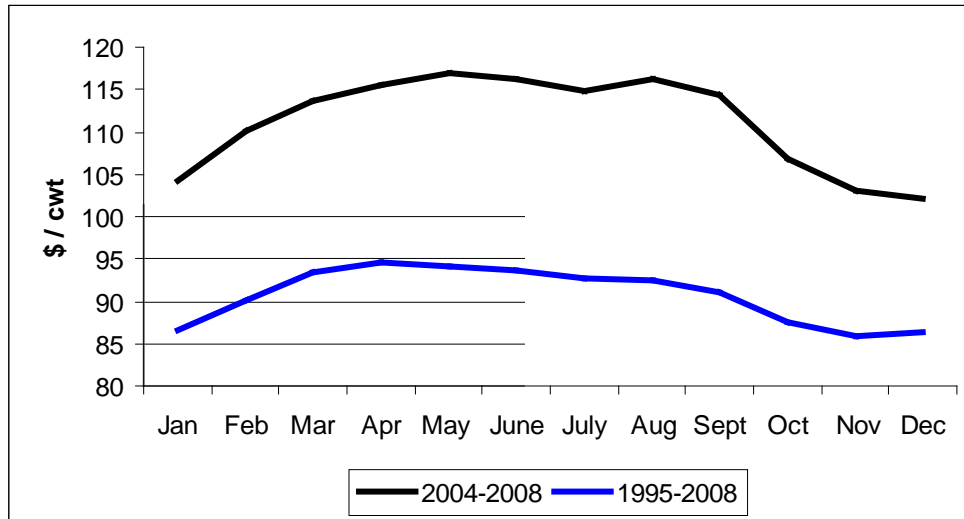
This amplified seasonal pattern has created many challenges for Kentucky's beef producers. Spring calvers have faced a much softer fall market for weaned calves and have dealt with declining prices as they have implemented post weaning programs. The difference has been so large, that many spring calvers have started looking at fall calving with new interest. It has also created challenges for summer grazers who purchase calves in the spring and sell them in the fall, as their buy / sell margins have also suffered.

For spring calvers who precondition calves, hanging on to those calves a bit longer may be worth consideration. From 2004-2008, the calf market made its low in December, but rallied pretty strong in the first quarter. In years when hay is plentiful and feedstuffs are reasonably cheap, putting additional weight on calves and keeping them through the first of the year may prove to be more profitable.

At the same time, backgrounders should be looking at deep seasonal lows as buying opportunities. As of early November, many producers had considerable fescue left to graze and had the option to purchase hay

and commodity feeds at more attractive prices than last year. I would encourage backgrounders to work through a breakeven and determine if it would make sense to purchase light stockers this fall and sell heavier feeders come late spring or early summer. As producers, we can't change price patterns, but we can look for ways to capitalize on them.

Kentucky Auction Prices  
Medium / Large Frame #1 Steers



Source: KY Livestock and Grain Market news

**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. DEC'09LC futures closed at \$86.225/cwt; up \$0.550/cwt but down \$0.925/cwt from last report. The APR'10LC contract finished at \$89.350/cwt; up \$0.70/cwt. Short covering, a weaker U.S. dollar, higher cash cattle, and gains in the Dow-Jones and other outside markets were supportive. The USDA 5-area average price was placed at \$86.86/cwt; \$2.27/cwt over last Monday's price. Several floor sources said today they expected short-term cash prices to peak mid-week. There were no takers today on cash tenders for \$90.00/cwt. USDA on Friday put the choice beef cutout at \$140.83/cwt; down \$0.33/cwt but \$0.90/cwt higher than a week ago. According to HedgersEdge.com, average packer margins were lowered \$14.60 from a week ago to a negative \$17.85/head based on the average buy of \$86.08/cwt vs. the average breakeven of \$84.71/cwt.

FEEDER CATTLE at the CME finished strong on Monday. NOV'09FC futures closed at \$95.125/cwt; up \$0.325/cwt but \$0.750/cwt lower than last Monday. MAR'10FC futures finished at \$96.475/cwt; \$0.875/cwt over last Friday's close but \$0.200/cwt lower than this time last week. Feeders continued to get support from pricing levels that fuel hedging against deferred live cattle futures. Higher corn prices can be expected to put a lid on feeder prices later in the week. Cash feeders in Oklahoma City were steady last week. The latest CME feeder cattle index was placed at \$93.25/cwt; up \$0.320/cwt from Friday but \$0.02/cwt under last report. If you have some hay or grass in this mild weather it may pay to hold feeders to heavier weights before moving them to feedlots.