

OFF THE HOOF

Kentucky Beef Newsletter – July 2011

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 Cow Herd

- Continue to watch for pinkeye and treat if necessary. Minimize problems by clipping pastures, controlling face flies and providing shade. Monitor the bulls' activity and physical condition as the breeding season winds down.
- Fescue pastures tend to go dormant in July and August, so look for alternatives like warm season grasses during this period of time. Try to keep the young calves gaining weight. Go to pastures which have been cut for hay to have higher quality re-growth when it is available.
- Remove bulls from the cow herd by the end of the month and keep them away from the cows. A short calving season can concentrate labor during the calving season; group calves by age so that it is easier to find a convenient time to vaccinate, castrate, dehorn, etc.; and provide a more uniform group of calves at market time.
- Mid-July (when the bulls are being removed) is a good time to deworm cattle, use a product that is effective against inhibited ostertagia. Reimplant calves which were implanted at birth if the type of implant and amount of time indicate. Calves which haven't been vaccinated for blackleg should be. Spraying or using a pour-on for flies while cattle are gathered can supplement other fly control methods. Remember to work cattle early in the morning when it is cool and handle them gently to minimize stress.

Fall-Calving Cow Herd

- De-worm cows in mid-July with a product that is effective against inhibited ostertagia.
- Fall-calving cows should be dry and pregnant now. Their nutrient needs are minimal and they can be maintained on poor pasture to avoid over fattening. Keep a good free-choice mineral mix

available at all times. You can use a lower phosphorus mineral supplement now, if you want to save a little money. These cows are regaining body condition after a long winter feeding period.

- Get ready for fall calving and plan to have good pasture available at calving and through the breeding season.

Stockers

- Sell heavier grazing cattle before rate of gain decreases or they get into a heavyweight category. This will also relieve grazing pressure as pasture growth diminishes. They can be replaced with lightweight calves after pastures recover.
- Lighter cattle which are kept on pasture need to be rotated to grass-legume or warm-season grass pastures to maintain a desirable level of performance. Reimplant these calves and deworm with a product that is effective against inhibited ostertagia.

General

- Be sure that clean water is always available, especially in hot weather. Make routine checks of the water supply. Cattle need 13 to 20 gallons of clean water in hot weather.
- Maintain a weed control program in permanent pastures and continue to “spot-spray” thistle.
- Check pastures for downed wild cherry trees after storms (wilted wild cherry leaves are toxic to cattle).
- Have forage analyses conducted on spring-cut hay and have large, round bales covered. Begin planning the winter feeding program now. Most of the hay was cut late due to a wet spring but a dry period permitted it to be put up without getting it rained on – so overall not a bad haying season.
- Start soil testing pastures to determine fertilization needs for this fall.

“Fence row to fence row” redux

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

In 1972, after a massive grain sale to the Soviet Union which exhausted grain stores and drove prices up, Secretary of Agriculture Earl Butz exhorted grain farmers to “plant fence row to fence row”. Now as Yogi Berra would say “it’s *deja vu* all over again”.

Cattle numbers are now being pushed downward by several factors – aging producers, high input costs, urban sprawl and competition with grain crops for marginal land as grain farmers go “fence row to fence row”. High cash rent from grain farmers, as a consequence of high corn price, is taking a lot of marginal land out of beef production again. If it was actually “fence row to fence row” that might not be too bad but fences are usually the first thing to go. Those acres won’t likely go back into grassland any time soon.

I can understand why folks are taking a couple hundred dollars per acre or more for cash rent with no risk. We don’t always do that well with our cow-calf operations but a lot of this land belongs in grassland agriculture. I would hate to see our topsoil be washed down the Mississippi River. “Sodbuster” regulations protect highly erodible land but it may eventually be left to our environmental consciousness to protect a lot of marginal land.

Okay, enough of that. What effect will these high grain prices and high cash rent have on the cattle business? Holding the beef cow inventory down should help keep cattle prices up. That's the good news but what about those high input costs?

If grain prices continue upward, we could see a time when cattle can't compete for grain on the world market. It will be, so to speak, "off the table". Beef cows would likely be relegated to consuming forage, grain by-products and alternative feeds – like out-date produce from the human market – things that humans don't consume.

What does that mean? Cows must become more efficient on forage and by-products. We may not have corn to cover up our deficiencies. That is doable. We should "keep the rumen in the ruminant" anyway. Cow-calf producers must focus on efficiency – not maximum cow size or calf weight.

But what about the feedlots? They have to have corn don't they? The prevailing wisdom says yes – for performance, marbling, fat color, etc. I think that mentality may actually hold us back.

We are entering into Aldous Huxley's "brave new world" and a truly global economy but we can survive – maybe even thrive. How would we improve traits such as marbling without corn? I know that you are thinking "identify those animals which possess those favorable genes and select for them." Maybe. Although, I think that we will soon be able to identify materials (feedstuffs) which will "turn on" (upregulate) or "turn-off" (down regulate) existing genes which control traits of which we are concerned. What if you could even "turn-off" the cancer gene in humans? You see, selection isn't an option in that case. It is mind boggling but possible.

The only thing that keeps us from accomplishing these possibilities – is lack of support for agricultural research. We have to keep positioning ourselves for the future. As any good "wing shooter" (hunter) will tell you – you don't aim where the bird is, you aim where it's going to be.

A lot of factors impact grain prices, though. What happens if subsidies for ethanol production disappear? Grain prices could fall substantially and delay a change from heavy grain feeding, but pressure from a growing world will eventually be a "game-changer". At any rate, beef producers should be concerned about economic efficiency in our cow herds and position our operations for the future – aim where we are going to be, not where we are now.

Applied Master Cattleman Program Open for 2011 Enrollment

Land Dale, Extension Associate, University of Kentucky

UK's Applied Master Cattleman Program is open for 2011 enrollment.

Session topics for the Applied Master Cattleman Program include: Genetics, Forages, Economics, Nutrition and End Product.

If you are interested in participating in the Applied Master Cattleman Program, contact your local county extension agent to see if this program is offered in your area. Participants must be graduates of UK's Master Cattleman Program.

For any additional information regarding this program, or other beef cattle programs, go to www.uky.edu/Projects/BeefIRM/ or contact Land Dale at (859) 278-0899 Land.Dale@uky.edu

Why is Early Castration of Bull Calves Important?

Dr. Michelle Arnold, Large Ruminant Extension Veterinarian, University of Kentucky

In the United States, more than 17 million bulls are castrated yearly that range in age from 1 day to 1 year old. It is well known that this procedure is painful and causes a period of slowed growth rate and poorer feed efficiency, especially if the procedure is delayed until the calves get older and heavier. If castration is performed at the feedlot or backgrounding operation, these calves have a marked reduction in weight gain and are twice as likely to get sick as steers (one study found 28% sickness in steers vs 60% sickness in bulls castrated on arrival). The benefits of castration for feedlot owners and those who retain ownership through the feeding phase far outweigh the negative effects and include:

1. Reduced aggressiveness and sexual activity by lowering testosterone levels
2. Decreased number of “dark cutters” due to high muscle pH
3. Higher quality grade-more consistent, marbled, and tender beef
4. Steer carcasses command higher prices at market

Although these advantages are clearly proven, many cow-calf producers do not castrate because they are afraid steers will not wean off as heavy as bull calves despite the fact that research has proven this to be untrue. Even though steers command a higher price at the market, the difference in price has not been enough to overcome the reluctance of many to adopt this as a routine practice. However, the rapidly changing situation of the welfare implications of cattle castration may ultimately move the industry to demand early castration or adopt some method of pain control if castration is delayed.

Several methods of castration are commonly used. The three most common castration procedures for cow-calf producers are surgical removal of the testes, banding of the scrotum with rubber bands, or crushing of the testicular chords with a burdizzo clamp. The method chosen often depends on multiple factors including the potential risk of injury to the operator, the size of the calf, the handling facilities, and experience with a certain technique. Possible health complications include hemorrhage (bleeding), excessive swelling, infection, and poor wound healing. Poor technique, especially common with the burdizzo clamp, may result in castration failure. Failure may also occur during banding if only one testicle is in the scrotal sac when a band is placed. The calf will become a “stag” with the characteristics and actions of a bull due to the retained testicle. There is virtually no difference in performance of the calf if knife cut, banded, or clamped at a young age. In a study at Oklahoma State reported in 2001, it was found there was absolutely NO advantage in the growth rate of bulls before weaning compared with bulls that were castrated (by any method) at 2-3 months of age and given an implant. In a similar study conducted in 1989, bulls castrated at birth performed similarly to those castrated at 4 months of age, indicating that leaving a bull intact for a “period of time” did not increase gains either. It is important to note that these studies did utilize an implant (such as Ralgro®) in the steers to replace the hormone influence lost by removing the testicles.

The animal welfare implications of late castration are beginning to be a force in the beef industry. As guidelines are being established for pain prevention and control, castration is recognized as one of the most stressful and painful experiences for livestock by measuring blood cortisol concentrations and the levels of specific brain neurotransmitters which are associated with pain in food-producing animals. Visible pain responses to castration include struggling, kicking, tail swishing, and restlessness during the procedure followed by swelling, stiffness, and increased recumbency (lying down) whether surgical or nonsurgical techniques are used. Blood cortisol levels, used as an indication of pain, spike almost immediately from

surgical castration and clamping while banding causes a slower yet longer period of cortisol elevation. Banded calves have actually shown signs of pain in response to scrotal palpation a month or more longer than calves that were clamped. Perhaps the most important fact gleaned from the many studies conducted on castration is: the earlier the better. Calves castrated from 1-7 days old showed very few behaviors associated with pain and their plasma cortisol levels were essentially the same as the calves left intact. The risk of hemorrhage and infection is much lower, the risk of injury to the person performing the castration is lower, and the procedure is relatively quick and easy.

The issue of pain control during and after castration is one of growing importance in the United States. Application of local anesthesia prior to castration is mandated in some countries because it significantly reduces the cortisol response to castration. This effect only lasts as long as the anesthetic but, when combined with a non-steroidal anti-inflammatory drug (NSAID) such as ketoprofen or flunixin meglumine (Banamine®), the cortisol response can be virtually eliminated in young calves, regardless of the castration method used. These calves also show increased feeding activity and fewer pain associated behaviors. The major obstacle in the US to pain relief for castration is no approved drug exists that is actually labeled for this use. Any NSAID used for pain would be considered extra-label use and must be administered only under the direction of a veterinarian with a valid veterinary/client/patient relationship. However, as research continues to validate methods of measuring pain, then drugs will begin to be approved for pain relief because their effect will be measureable.

Castration is considered to be a necessary management practice for cattle. Work with your local veterinarian to establish the optimal herd health program for your farm and institute an early castration program to minimize the pain, stress and complications that go along with this procedure. As we move toward more validated tests to determine pain and stress response, the fewer excuses we have not to do what is within our abilities to minimize it. A proactive approach diminishes the likelihood that the government will dictate what we have to do at the farm level. The corporate world and consumers are watching for our response. What will you decide?

Kentucky Beef Cattle Market Update

Kenny Burdine, Livestock Marketing Specialist, University of Kentucky

To say that the 2011 cattle market has been volatile would be a huge understatement. Since the first of April, the August feeder cattle futures' contract has been up above \$140, down in the low \$120's, and as of the first week in July, back above \$140. This type of volatility creates serious challenges, but also provides pricing opportunities that need to be explored by producers.

There are multiple factors that were behind these major price swings, but the two primary factors were the usual suspects – slaughter cattle and corn. Let's start with the slaughter cattle affect. From early April to early June, slaughter cattle prices fell by more than \$15 per hundredweight. Some of this was seasonal, but the decline was more than expected. This, of course, led to decreasing deferred live cattle futures prices, which put pressure on feeder cattle. As for corn, we also saw a general increase from about mid-March to early-June which also had a negative effect on the feeder cattle market.

The month of June was been the complete opposite. Slaughter cattle prices seemed to find their seasonal lows and move upward from there. At the same time, corn prices have moderated and took some of that pressure off. During June, feeder cattle futures gained more than \$10 per hundredweight, a much needed boost coming out of spring.

Another factor that has added to some of the uncertainty in feeder cattle markets has been unexpectedly high cattle-on-feed numbers. It's been very much accepted that the US cowherd has been shrinking over the last several years. So, cattle-on-feed numbers above 2010 levels were pulling down markets this spring. However, the most recent estimates showed a decrease in total cattle on feed numbers, as well as a pretty sizeable drop in feedlot placements. In my opinion, it is very likely that the unusually high cattle on feed numbers this spring and summer are the result of increased placements due to severe drought in the southern United States, which should be a temporary phenomenon.

The biggest wildcard remains the 2011 corn crop. The June Acreage report estimates corn planting at 93.2 million acres, which was a 5% increase from 2010. Of course weather challenges will determine the size of the crop at harvest time and will drive corn prices this summer. Due to the very low carryover from the 2010 crop, the corn market will be very susceptible to changes in supplies. While corn raises questions, cattle numbers should provide some solid underpinning. With placements starting to decline, and generally low cattle numbers across the country, cattle and beef supplies should be very tight this fall. This should make for a very strong fall feeder cattle market if there are no other major surprises from the corn crop.

**Medium / Large Frame #1 Steers
700 to 800 lbs**

