

Off the Hoof

Kentucky Beef Newsletter – June 2007

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

Timely Tips

Dr. Roy Burris, UK Beef Specialist

Spring-Calving Cow Herd

- X This is a critical time for getting cows bred. They should be on good pasture with clover and preferably low endophyte levels for the spring breeding season. Keep pastures vegetative by clipping or making hay. Cows should have abundant shade and water; heat stress can ruin the breeding season.
- X Observe the cows and bulls! Watch bulls for injury or lameness and change bulls if a high percentage of cows are returning to heat. Record cow breeding dates to determine next year's calving dates and keep records of cows and bulls in each breeding group. Use your IRM Beef Calendar to record breeding dates.
- X Keep a good pasture mineral mix, which contains adequate levels of phosphorus, vitamin A, selenium and copper, available at all times. Consider a special area for creep grazing calves, or practice "forward grazing", allowing calves to graze fresh pasture ahead of the cows. This can be accomplished by raising an electric wire or building a creep gate.

Fall-Calving Herd

- X Wean calves as soon as pasture quality deteriorates, if not already done.
- X Pregnancy test cows if not done previously.
- X Cull cows at weaning time
 - Smooth-mouthed cows
 - Cows weaning light weight and/or poor-quality calves
 - Open cows
- X Select replacement heifers on the basis of:
 - conformation
 - weaning weight
 - temperament
 - dam and sire records
 - select more than needed to allow for culling after a short breeding season
 - select heifers that will reach their target weight by the beginning of their breeding season

General

- X Finish harvesting excess pasture as hay soon! It should be cut before it becomes too mature.
- X Pasture should supply adequate energy, protein and vitamins at this time. However, be prepared for drought situations. Don't overgraze pastures so that recovery time will be faster. Overgrazed

- pastures will recover very slowly during July/August.
- X Keep pastures small for rotational grazing so that nutritive quality can be maintained. They should be small enough so cattle do not graze longer than a week. As the season progresses, you need several paddocks to give each properly stocked pasture about 4 weeks' rest.
 - X Clip grazed-over pastures for weed control and so that seed heads do not irritate eyes. Pastures should be kept in a vegetative state for best quality.
 - X Control flies. Consider changing insecticides and/or methods of control this year, because insecticide resistant flies may have developed if you have used the same chemical year after year.
 - X Prevent/Control pinkeye
 - consider vaccinating,
 - control flies,
 - clip tall, mature grass,
 - treat problems quickly, inject antibiotics and steroids in infected animal's eyelid or intramuscularly according to product used. Glue patch over eye.
 - X Maintain a clean water supply and check it routinely. Water is extremely important in hot weather.

Minimize Risk.....With Good Fences.

Dr. Roy Burris, UK Beef Specialist

Picture this. You're traveling down a gravel road and you stop and wait for your neighbor to move his cows across the road. It's probably time to move them to a new pasture or milk the family milk cow. It's okay, you're not in a hurry.

Now, wake up! It was a pleasant thought, but those days are gone. That gravel road is replaced with a 2 or 4 lane highway and the driver of the car is doing seventy with a cell phone in his ear. Better keep your cows off the road.

Cows do get on the roads, and accidents and law suits do follow. So, how do you minimize your risk? One large law suit could wipe you out. Consider (1) "bull-proof" fences, (2) latched/locked gates, (3) frequently checking fences and cattle, and (4) liability insurance. These are all part of your risk management plan.

What is a satisfactory boundary fence? One that cows and calves can't go through or over would be my definition. Don't worry about the legal definition, try to stay out of "court". Normally, woven wire or board fences are used for the farm boundaries. However, hi-tensile smooth wire and electrified fences have complicated things. My best suggestion is that these fences should be readily visible to animals and that animals should be acclimated to electric fences before they are turned out to large pastures. Roaming dogs will sometimes run cattle – especially newly-weaned calves – through fences. Anyone who relies on one strand of electrified fence next to a highway is accepting too much risk. That might not satisfy the definition of "reasonable care". Good boundary fences are a necessary farm investment.

Pasture gates should be locked. Especially those near highways. Sounds like a lot of trouble, but hooking a chain on a nail will not prevent children or irresponsible people from entering and/or leaving the gate open. If the cows get out, it is your problem.

In the old Western movies, the cowboy might saddle up and go "ride the fences". It is still a good idea to check fences frequently. Maybe a fallen tree or a washed-out water gap has breached your fences.

Finally, check with your insurance agent to determine if you are insured against an accident of this sort. It is unwise, in my opinion, not to protect your assets against unfortunate accidents. Do everything that you can to keep these accidents from happening and you'll sleep better.

Use Pregnancy Diagnosis to Cull Replacement Heifers Early

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

Many ranchers choose to breed the replacement heifers about a month ahead of the mature cows in the herd. In addition, they like to use a shortened 45 to 60-day breeding season for the replacement heifers. The next logical step is to determine which of these heifers failed to conceive in their first breeding season. This is more important today than ever before.

As the bulls are being removed from the replacement heifers, this would be an ideal time to call and make arrangements with your local veterinarian to have those heifers evaluated for pregnancy in about 60 days. In two months, experienced technicians should have no difficulty identifying which heifers are pregnant and which heifers are not pregnant (open). Those heifers that are determined to be "open" after this breeding season should be strong candidates for culling. Culling these heifers immediately after pregnancy checking serves three very economically valuable purposes.

- 1) Identifying and culling open heifers early will **remove sub-fertile females from the herd**. Lifetime cow studies from Montana indicated that properly developed heifers that were exposed to fertile bulls, but DID NOT become pregnant were often sub-fertile compared to the heifers that did conceive. In fact, when the heifers that failed to breed in the first breeding season were followed throughout their lifetimes, they averaged a 55% yearly calf crop. Despite the fact that reproduction is not a highly heritable trait, it also makes sense to remove this genetic material from the herd so as to not proliferate females that are difficult to get bred.
- 2) Culling open heifers early **will reduce summer forage and winter costs**. If the rancher waits until next spring to find out which heifers do not calve, the pasture use and winter feed expense will still be lost and there will be no calf to help eventually help pay the bills. This is money that can better be spent in properly feeding cows that are pregnant and will be producing a salable product the following fall.
- 3) Identifying the open heifers shortly after (60 days) the breeding season is over will **allow for marketing the heifers while still young** enough to go to a feedlot and be fed for the choice beef market. The grading change of several years ago has a great impact on the merchandising of culled replacement heifers. "B" maturity carcasses (those estimated to be 30 months of age or older) are very unlikely to be graded Choice and cannot be graded Select. As a result, the heifers that are close to two years of age will suffer a price discount. Currently non-pregnant, yearling 875 pound heifers (shortly after a breeding season) are selling for about \$94 per cwt. Therefore an 875 pound, culled replacement heifer is worth about \$822. Non-pregnant two-year old cows are selling for about \$65 to \$70 per cwt. Open two-year old cows (those that could have been identified shortly after the breeding season) that weigh 1000 pounds would only sell for about \$700 next spring.

The average expense for owning the cow is about \$1 per day. So the total loss of keeping the open heifer would be about \$200 in feed and forage and another \$122 in lost value. **The grand total expense for not culling open replacement heifers in today's market is about \$322 per head**. Therefore, it is imperative to send heifers to the feedlot while they are young enough to be fed for 4 to 5 months and not be near the "B" maturity age group.

Certainly the percentage of open heifers will vary from ranch to ranch. Do not be concerned, if after a good heifer development program and adequate breeding season, that you find that 10% of the heifers still are not bred. These are the very heifers that you want to identify early and remove from the herd. It just makes good economic business sense to identify and cull non-pregnant replacement heifers as soon as possible.

Is It Time To Consider Early Weaning?

Dr. Tom Turner, Dept of Animal Science, The Ohio State University

For most beef producers with spring calving cow herds, summer is a time to focus on other things. It seems like the one season of the year when we can reduce the hours per week spent with the beef enterprise. Things appear to be okay and they probably are "okay" but are there potential profits being lost? Consider the following:

- Beef cow lactation peaks at about six weeks post calving and continues to decline.
- July and August pasture growth and moisture are generally limited.
- The number of cows most beef producers keep is a function of how many can be carried in July and August.
- Dry cows consume significantly less feed than lactating cows. Some studies would suggest as much as fifty percent less, or the difference between 4% of their body weight on a dry matter basis during lactation versus only 2% when dry.
- The combination of reduced milk production, decreased pasture and increased calf size may (and probably does) result in calves not receiving adequate energy to maximize growth during this most efficient growth period of their life.
- Calves nursing cows are not efficient in converting creep feed to gain. Most studies would show that it takes 8-10 pounds of creep feed to make one pound of gain.
- Early weaned calves will convert feed to gain at about a 3.5 to 1 ratio.
- Early weaned calves will weigh about 100 pounds more at normal weaning time than calves left on the cow.
- Calves can be successfully and relatively easily weaned from 70 to 120 days of age and started on a grain diet.
- Calves averaging 100 days of age and 300 pounds take up very little barn or shed space.
- If retaining ownership, calves will reach harvest weight earlier and have a higher quality grade.
- Dry cows that have had their calves weaned early will enter the winter in better body condition.
- Calves born in February, March and early April can be weaned on or about July 1 - the typical start of dry, hot weather in most parts of the country.

In summary, early weaning can increase calf weight significantly and decrease cow input. Therefore one could carry more cows on the same land and wean heavier calves with a smaller amount of feed to the calves.

Eastern Cattle Price Trends

Dr. Brian Roe, Dept. AED Economic, The Ohio State University

This month I am releasing an updated set of basis figures for Eastern Corn Belt cattle producers. Basis is the difference between the price that is meaningful to the producer, such as a local cash price, and the price that is used to determine the payout of a risk management tool, such as the futures price. Because risk management tools have expanded to include things such as USDA's Livestock Revenue Protection

insurance policies, I include the difference between local cash prices and those prices used by USDA to determine if the payout for these revenue insurance policies.

For fed cattle the relevant price used by USDA is the 5-area cash price, which is a price for a typical load of 65% choice and 35% select cattle sold in 5 key western markets. I compare this price to eastern Pennsylvania fed cattle auction results for both Choice 2-3 steers and Select and Low Choice steers. For feeder cattle the relative price is the Chicago Mercantile Exchange's feeder cattle index price, which is a composite of prices for feeder steers weighing 700 to 850 pounds sold at sales and auctions throughout the country, though the majority of these are also from Missouri and further west. The local price I use is the Kentucky weekly auction and sales averages for 700 to 800 pound feeder steers.

By calculating these basis figures, which are available for half-month periods averaged over the 2002 - 2006 time period at <http://aede.osu.edu/people/roe.30/livehome.htm>, one can also look for trends in basis over time. Given the basis figures for USDA index numbers are against western-leaning prices, this analysis provides a view of regional price trends over time.

For example, in 2002 and 2003, a load of 65% Choice and 35% Select steers sold for \$0.40 more, on average, in eastern Pennsylvania than it did out west. By 2005 and 2006, the average price out west was now about \$1.50/cwt. more than that reported in eastern Pennsylvania. In other words, a 1200-pound steer sold in eastern Pennsylvania went from nearly a \$5/head advantage to an \$18/head disadvantage - more than a \$20 swing in revenue per head. Note that these prices reflect auction prices in eastern Pennsylvania, which are not necessarily identical to the prices paid by key Pennsylvania packers, though these packers will sometimes bid at these auctions to fill needs.

While this seems like bad news to Eastern Corn Belt finishers who ship cattle east for sales and slaughter, one must look at the whole picture, which includes an analysis of price trends for feeder cattle. In 2002 and 2003, 700 to 800-pound feeder steers sourced from Kentucky auctions average about \$4.50/cwt. less than the western-heavy CME feeder cattle index price. In 2005 and 2006 the average discount for feeders steers from Kentucky swelled to about \$8.00/cwt. So, for a feedlot purchasing 750-pound feeder steers, this results in about a \$3.50/cwt. relative improvement in the cost of sourcing feeder steers compared to the western average, which equals about \$26/head. If the relative quality of reported Kentucky feeder steers has not changed over this time period, it suggests that Eastern Corn Belt feeders have been able to procure feeders relatively cheaper than their western counterparts over the past 6 years. In fact, the \$18/head relative loss to the West lost on finished cattle may be more than offset by the \$26/head relative reduction in costs of procuring feeder cattle.

This fact that there is a difference in relative prices between Kentucky feeder steer auction prices and western average prices is not too surprising given that the 5-state region (Indiana, Michigan, Ohio, Pennsylvania, and Kentucky) holds more than 5% of the country's beef cows but only 4% of the cattle on feed - higher prices will be paid for feeder cattle nearer to the main feedlot action out west. The increase in this eastern discount over the past 6 year can partially be explained by the fact that these 5 states have added more beef cows (about 70,000) while the cattle on feed numbers in these states have remain static, though I'm not convinced this modest increase in beef cow numbers justifies the full decline in the eastern discount observed.

The other possible explanation for this larger eastern discount over the past 6 years is that the reported Kentucky prices may reflect a greater segmentation of the feeder cattle markets. In other words, higher quality feeder cattle may be not be sold through the marketing channels that show up in the typical

Kentucky auction reports. Indeed, if the prices for local sales of feeder cattle are sliding compared to western markets, it means that cow calf producers must continue to document feeder cattle quality and delivery pens of cattle with desirable traits to the market place to offset the regional price decline. Iowa State researchers have documented that large premiums can be obtained through management steps such as pooling cattle into larger lot sizes and shipping cattle to sales with larger sales volumes (http://www.econ.iastate.edu/research/webpapers/paper_12683_06031.pdf). For example, delivering a pen of 75 cattle rather than 20 resulted in an average price increase of about \$7/cwt at Iowa sales during the winter of 2005-06, while selling as sales with total sales of 3,000 head rather than 1,000 head would result in an average price increase of \$5/cwt.