

OFF THE HOOF

Kentucky Beef Newsletter – August 2012

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

- Drought-stressed fescue pastures are not likely to produce much of anything this month. Provide emergency feed such as a neighbor's idle pasture, summer annuals or hay. We may have to consider trying some winter annuals this year, if we have enough moisture to seed them.
- Early weaning can be beneficial, especially to young cows, this year.
- Repair and improve corrals for fall working and weaning. Consider having an area to wean calves and retain ownership for postweaning feeding rather than selling "green", lightweight calves. Plan to participate in CPH-45 feeder calf sales in your area.
- Weaned calves should be fed a good diet with adequate protein, energy and minerals.
- Bulls should have been removed from the cow herd by now! They should be pastured away from the cow herd with a good fence and allowed to regain lost weight and condition. It is a good time to evaluate physical condition, especially feet and legs. Bulls can be given medical attention and still have plenty of time to recover, e.g., corns, abscesses, split hooves, etc. Don't keep trying to get open spring cows bred – move them to fall calving.

Fall-Calving Cow Herd

- It will soon be time for fall calves. Get ready, be sure you have the following:
 - record book
 - eartags for identification
 - iodine solution for newborn calf's navel
 - calf puller
 - castration equipment

- Dry cows should be moved to better pastures as calving time approaches. Cows should start calving next month. Yearling heifers may begin “headstart” calving later this month. Plan to move cows to stockpiled fescue for the breeding season, so it will soon be time to apply nitrogen fertilizer.

General

- Provide shade and water! Cattle will need shade during the hot part of the day. Check water supply frequently – as much as 20 gallons may be required by high producing cows in very hot weather.
- Cattle may also be more prone to eat poisonous plants during periods of extreme temperature stress. They will stay in “wooded” areas and browse on plants that they would not normally consume. Consider putting a roll of hay in these areas and/or spraying plants like purple (perilla) mint which can be toxic.
- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- Avoid working cattle when temperatures are extremely high – especially those grazing high-endophyte fescue. If cattle must be handled, do so in the early morning.
- Do not give up on fly control in late summer, especially if fly numbers are greater than about 50 flies per animal. You can use a different “type” of spray or pour-on to kill any resistant flies at the end of fly season.
- Select pastures for stockpiling. Remove cattle and apply nitrogen when moisture conditions are favorable. Stockpiled fescues can be especially beneficial for fall-calving cows after calving. You might consider overseeding some of the drought-stressed areas with ryegrass for some winter grazing – since hay will likely be in short supply.
- Take soil samples to determine pasture fertility needs. Fertilize as needed, this fall.

The Drought and Beef Bash

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

We’re busy planning the third Beef Bash! I’m really looking forward to it but I’m kind of “bummed out” because this makes the Third Bash and each year (2008, 2010 and 2012) has been a drought year. That’s three of the last 5 years. So this month I have two things on my mind – the long-term effects of the drought and this year’s Beef Bash.

There has already been a lot of emphasis placed on having enough good and safe feed to get through this summer, fall and winter. I am especially concerned about the long-term effect on our cattle and cattle producers. There is (I think) a psychological impact on being continually frustrated by things that you cannot control – like the weather. That will possibly cause some of our producers just to sell out.

Here’s what I am afraid is going to happen. Based on our research here, I would guess that pregnancy rates for spring-calving cows will be lower than normal this year. Cows may be bred early or be open. Will these open cows go to market? A lot of them will.

Here’s what I think that we should consider for the long-term – fall calving and more use of warm season grasses. We have compared fall calving to spring calving for several years at Princeton with favorable results. Doesn’t it make some sense to have cows “dry” during the summer (when fescue is essentially dormant) and to breed cows in December on stockpiled fescue (instead of during periods of extreme heat)?

Calving is also easier in September/October than in February/March. You might consider moving young, productive cows that come up “open” this summer, to fall-calving. Pregnancy check the spring-calving herd and make a sound long-term decision. Don’t throw the towel in just yet.

Our research has also shown that rotational grazing – with about one-sixth of the acreage in warm season grasses, instead of fescue, provides some insurance against drought. Warm season grasses can be used to make hay in the summer time, too. We may have to make some adjustments so that cow-calf production is less risky in the future. This is the time to think about it.

Now for “Beef Bash”. We are busy putting together a lot of interesting activities for the third Beef Bash which will be held at the U.K. Research and Education Center on September 27. This special event, sponsored by UK and KCA, will feature live cattle demonstrations and exhibits, educational presentations, commercial and educational exhibits, along with an opportunity to visit with industry leaders and progressive cattle producers from across the state.

Beef Bash 2008 was attended by 480 people, Beef Bash 2010 had 495 people and we would be pleased to go over the 500 head mark this year. But, regardless of the number attending, we will consider it a success if YOU are there.

We will have a tentative program for you next month. We continue to deal with the challenges of the drought but you can see us, and everything else, in our “working clothes” on September 27. Please mark your calendar.

Kentucky Beef Bash 2012

Lori Porter, IRM Coordinator, University of Kentucky

Beef Bash 2012 Field Day will be held Thursday, September 27, 2012 at 9:00 am the University of Kentucky Research and Education Center in Princeton. This field day features hands-on demonstrations, stand alone exhibits, and seminars and allows producers to visit with one another under the large tent which serves as the staging area for all activities. The tent will also be the location for the noon program which includes Kentucky Commissioner of Agriculture James Comer and Dr. Scott Smith, Dean of the College of Agriculture along with other industry leaders.

Commercial Exhibitors to date include (*in alphabetical order*): ABS, H&R Agri-Power, Inc., Boehringer Ingelheim, Callicrate Banders, Caudill Seed Co., Christian Co. Livestock Market, Farmer's Pride Gold Standard Labs, H&R Agri-Power, Inc., Kentucky Cattleman's Association, Kentucky Forage and Grassland Council, Kentucky Farm Bureau Federation, Kentucky Livestock Coalition, Kentucky Tennessee Livestock Market, Kentucky Beef Council, Mix 30 Liquid Feed - Mid South Ag, LLC, Pfizer Animal Health, Smoky Mtn Cattle, Southern States, and UK Beef IRM.

Please make plans now to be part of this event and visit the web site at <http://ces.ca.uky.edu/beefIRM/bash/> to stay up to date about demonstrations and exhibitors.

Straightbreed or Crossbreed? Decision Can Impact a Producers' Bottom Line.

Dr. Darrah Bullock, Beef Genetics Specialist, University of Kentucky

I am getting increasingly weary of seeing articles in popular press that are minimizing the advantages of crossbreeding and extolling the benefits of straightbreeding to commercial cattlemen. The argument goes

like this “Straightbreeding is easier, gives a more uniform calf crop and allows better control of the genetics going into the breeding program”. Yes, I will concede that straightbreeding is the easiest breeding program to maintain, but straightbred calves are not necessarily more uniform and with a simple crossbreeding program you can have complete control of your genetics, through the use of EPDs, and take advantage of HYBRID VIGOR (heterosis).

Much of this discussion has stemmed from a whitepaper sanctioned by Certified Angus Beef (CAB). Naturally, CAB is end-product oriented and the whitepaper has this eventual goal in mind. Therefore, for beef producers that are maintaining ownership through the entire production chain this whitepaper has more relevance than to the majority of producers that are marketing weaned or backgrounded calves. It is true that heterosis (the benefit we see from crossbreeding) has very little effect on carcass traits, but it has a huge effect on reproduction and longevity and a moderate effect on growth and milking ability; these are the profit centers for most commercial cattlemen. When you consider that heterosis is enhanced in compromising environments (fescue, drought, heat, etc.) the potential impact on profitability is increased for many producers.

Producers that want to keep it simple, but also want to take advantage of heterosis can choose two similar breeds that fit their production goals and alternate bulls of those breeds every four years. With this system there will potentially be more variability in the calves, compared to straightbreeding, depending on how divergent the breeds are. However, what slight marketing advantage you give up in less uniformity you gain in increased production. Even though hybrid vigor is not maximized you should see an increase in salable product of over 10% due to increases in reproduction and growth; and cows stay in the herd longer resulting in a more mature, productive herd.

Here is the bottom line; when you sit down and write out the goals and priorities of your operation and Simplicity is listed above Profitability then straightbreeding may be the direction you should take. However, if profitability is the driving force of your operation then most producers will find a hard time making up the 10 to 20% reduction in production that straightbreeding offers through any potential improvements in marketability. For more information on crossbreeding and the benefits of heterosis please consult the following sources:

<http://www.uky.edu/Ag/AnimalSciences/pubs/asc168.pdf>

http://www.nbcec.org/producers/sire_selection/chapter5.pdf

http://www.nbcec.org/producers/sire_selection/chapter6.pdf

Salvaging Standing Corn as Baleage

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

This summer’s high temperatures and lack of precipitation has played havoc on grain fields. In some cases the standing corn looks fair while other fields it is completely burned up. In many fields in which the standing corn looks decent, upon further inspection it is seen that the ears are poorly pollinated or completely barren. Some producers are looking into options for salvaging this corn crop as silage for feeding to their cows and feeder calves by baling the crop into round bales and wrapping it in plastic.

When considering ensiling of standing corn that is barren or has little grain, it is important that the corn be at the proper moisture content. Moisture levels of 60%-65% should be the target for the whole plant when baling. It may be wetter than this at cutting if it is allowed to wilt. Because much of the moisture is in the stalk, it is difficult to dry this portion of the plant without using a mower conditioner or other method, such as a rotary mower (i.e. brush hog), that allows the moisture from the inner stalk to escape. Waiting until

the whole plant reaches the moisture level rather than cutting and wilting provides flexibility to use a disc mower or other hay cutting equipment. Either method is acceptable, just be sure to monitor the whole plant moisture to ensure the proper moisture level at baling.

Once cut, depending on the method of cutting, it may need to be raked. Rotary mowers will spread the material over a large area. The material will dry quickly if conditions are right and moisture level should be monitored to ensure the target is hit at baling. When raking, the tines will need to be set low as the material can be difficult to windrow. When using a mower conditioner, the corn may not need to be raked depending on the width of the throat on the baler. One side may need to be windrowed in some cases as the mower conditioner or disc mower may have left the fallen corn in a wider swath than the baler can pick up.

Upon baling, the use of a net wrap baler will reduce the chance of stalks puncturing the plastic at wrapping. If using a twine baler, consider adding a few more wraps of twine to minimize corn stalks protruding from the bales. Bales should be wrapped tightly to exclude as much air as possible so a good fermentation will occur. Proper fermentation will only occur if oxygen is kept away from the material. Some balers can process or cut the material as it enters the baling chamber. This will reduce the size of the stalk which may reduce waste later on at feeding. The use of an inoculant may aid in getting a good fermentation and if the baler is equipped with this option, it should be considered.

Once bales are made, they should be wrapped with stretch plastic as quickly as possible. In-line tube wrappers or individual bale wrapping machines can be used. In-line wrapping is less expensive, but less portable than individual bales. Individually wrapped bales can be stacked as well. In-line wrapped bales take less time to remove the plastic at feeding. There are pros and cons of both types, you will need to decide which is best for your operation. Ensure that you apply the appropriate thickness of plastic. In general, it is suggested that 2-3 more wraps be added than what is normally used for grass or alfalfa because of the greater chance of the stalk puncturing the plastic. Any punctures should be quickly fixed by taping the punctures.

Once wrapped, the bales should be allowed to ferment for 4-6 weeks. After this period, one should take a sample from several bales and have them analyzed for nitrates and quality. Corn that was marginally high in nitrates at cutting will generally have a reduction in nitrate levels by 30-60%. Because of the variability, it is important that a nitrate test be conducted prior to feeding. Be sure to obtain a representative sample from multiple bales, at least 10. A sample should be submitted for a fermentation profile and nutritional quality. The fermentation profile will provide useful information on how well the corn preserved. This will include a pH and volatile fatty acid profile. This information can be used to determine if the forage can be stored and whether there may be a risk of listeria or other pathogens. The nutritional information will allow for the proper supplementation strategy to meet the animals' needs. Often the protein level in drought stressed corn is higher than normal corn silage, but the energy value is often 60-80% due to the lack of grain. With high feed prices, it is best to ensure that one feeds to meet the needs of the livestock and spend limited dollars wisely.

Baling corn for silage can be a viable way to salvage a failed corn crop. There is a risk of a failed fermentation with the resulting feed being unacceptable for livestock. By baling at the proper moisture, tightly wrapping the bales and ensuring adequate plastic covers the bales, there is a low risk for a failed fermentation. For more information on baling corn, contact your county Agricultural Extension Agent.

Developing Your Own Heifers vs. Purchasing Bred Heifers

Dr. Kenny Burdine and Dr. Michael Forsythe, University of Kentucky

In June, the Economic and Policy Update included an article by Michael Forsythe discussing the tax implications of raised breeding stock versus purchased breeding stock. We felt it would be worthwhile to follow on that article with a discussion of some of the other considerations of that decision. Ultimately, the practice that makes the most sense will vary from operation to operation, but I do think that framing the decision from an economic perspective can be useful as cow-calf operators decide how best to replace their cows.

Many producers look at the prices of bred heifers in replacement sales and immediately decide that they can do it cheaper themselves. In many cases, this may be true, but producers really should sit down, push the pencil, and make certain that this is the case. Further, there are many non-economic considerations that affect this decision including bio-security, known quality and temperament, resource base, etc. However, it is likely that many producers underestimate the cost of developing their own heifers.

When cow-calf operators develop their own heifers, the first cost of doing so is the value of the heifer had she been sold at weaning. This fall, 5wt heifer calves are likely to be bringing more than \$650. By choosing to keep her, this income is given up, which could have been put towards a bred heifer.

From there, she must be kept for 12 months to be comparable to a bred heifer the following fall. This will likely require some combination of purchased feed and hay during that winter, pasture in the summer, mineral, vet and medical expenses, breeding costs (either A.I. or bull maintenance), overhead, and interest. These costs can easily total between \$500 and \$600 over that 12 month period. But, there are others costs that are more difficult to quantify that should be considered.

First, cow-calf operators typically hold more heifers than they actually intend to keep so they can choose from them. Sometimes this happens because they fail to breed, sometimes they just don't grow out as expected, and there are likely many other reasons. Regardless of the whys, a great deal of time and resources are tied up in heifers that never enter the herd and end up being sold through other markets. These costs drive up the true costs of the heifers that are actually retained.

Second, it is important to understand the timing of the two alternatives. If I wean a heifer in the fall of 2012, she should wean her first calf in the fall of 2014. However, if I purchase a bred heifer, I should wean a calf from her the follow year (fall 2013). So, any profit that I could make on that calf in 2013 should really be treated as an additional expense to developing my own heifers as I have to go a full 2 years before weaning a calf from her.

The third tough-to-quantify expense that I will mention is probably the most difficult. Developing my own heifers likely affects the overall genetics of my herd; this is especially true for small cow-calf operations that are not able to run separate bulls for their first time calvers. By selecting low birth weight bulls for heifers, I may be giving up some weaning weight on calves from my mature cows. Further, I have to select bulls for maternal characteristics in addition to other factors, which results in some trade-off traits, or more expensive genetics.

Again, the intention of this article was not to push the envelope either way in terms of attaining replacement breeding stock. It was simply intended to outline some of the costs associated with developing heifers.

Kentucky Beef Cattle Market Update

Dr. Kenny Burdine, Extension Specialists in Ag Economics, University of Kentucky

Last week, USDA released their mid-year cattle inventory estimates and this month's article will be dedicated to discussing that report. The report was largely as expected, confirming large decreases in cattle numbers since July of 2011. The only year-over-year increases in the report were in cattle on feed, which was up by 1% from a year ago.

Total cattle and calves were down by about 2%, while beef cow numbers were down by about 3%. Much of this is due to severe drought in major cattle producing areas in 2011 and continuing into 2012. While state-by-state numbers are not available in the mid-year report, drought and competition for pasture and hay ground would suggest that Kentucky beef cow numbers would be following a similar trend.

Heifer development got some attention following the January 2012 Cattle report as it showed a small increase from January of 2011. However, that increase in beef heifer development was really pretty small when compared to the decrease in beef cow numbers. The recent report, which is summarized in the table below, shows heifers held for beef cow replacement steady from a year ago. Of course steady heifer development numbers, coming off a year when beef cow inventory fell by 3%, suggests a continued decrease in cow numbers.

Higher cattle-on-feed numbers and considerably lower beef cow numbers tend to suggest tighter feeder cattle supplies down the road. This should be a positive factor for a feeder cattle market that is still trying to gain some traction in what has been a brutal summer. The picture will become clearer as we gain a better understanding of the size of the 2012 corn crop in the coming months and get a feel for the strength of beef demand this fall.

USDA July 1, 2012 Cattle Inventory

| | 2011 (1,000 hd) | 2012 (1,000 hd) | 2012 as % of 2011 |
|--|----------------------------|----------------------------|------------------------------|
| Total Cattle and Calves | 100,000 | 97,800 | 98 |
| Cows and Heifers That Have Calved | 40,600 | 39,700 | 98 |
| Beef Cows | 31,400 | 30,500 | 97 |
| Milk Cows | 9,200 | 9,200 | 100 |
| Heifers 500 Pounds and Over | 16,000 | 15,700 | 98 |
| For Beef Cow Replacement | 4,200 | 4,200 | 100 |
| For Milk Cow Replacement | 4,200 | 4,100 | 98 |
| Other Heifers | 7,600 | 7,400 | 97 |
| Steers 500 Pounds and Over | 14,200 | 14,000 | 99 |
| Bulls 500 Pounds and Over | 2,000 | 1,900 | 95 |
| Calves Under 500 Pounds | 27,200 | 26,500 | 97 |
| Cattle on Feed | 12,200 | 12,300 | 101 |
| Calf Crop | 35,313.2 | 34,500 | 98 |

Source: NASS, USDA