COOPERATIVE EXTENSION SERVICE
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OFF THE HOOF

Kentucky Beef Newsletter October 2016

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

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

Spring-calving herds

- If you have already done a preweaning working, revaccinate (booster) calves as needed. Treat calves for internal and external parasites. If you vaccinate calves yourself, be sure to store, handle and administer vaccines properly.
- Schedule a pregnancy examination of cows if not done previously. Winter feeding costs can be minimized by eliminating open cows prior to winterfeeding.
- Wean calves before cows lose body condition.
- Obtain weaning weights of your calves and remember weaning is the time to do your first round of culling and selecting breeding stock. You can eliminate obviously inferior calves, especially those with wild or nervous dispositions. Consider the number of heifers that you will need to save for your cow herd. Bulls which are old, unsound, roguish, etc. can be culled now. It is not too early to begin thinking about replacements now.
- Evaluate the body condition of your cows and improve their condition prior to winter.

Fall-calving herds

- Obtain yearling measurements (weight, hip height, scrotal circumference, etc.) on replacement animals—especially for registered ones, check pelvic areas, too.
- The calving season should be in full swing for fall calvers. Check cows frequently. Identify calves and commercial males should be castrated and implanted.
- It is time to get everything ready for the fall-breeding season, too. Line-up semen, supplies, etc. now and get your bulls ready to go (don't forget their breeding soundness evaluation).
- Put fall-calving cows on accumulated pasture before the breeding season. This has generally been a good year for moisture. Be sure to save some grass in the breeding pastures.

Stockers

- Manage to keep newly weaned and/or purchased calves healthy. Calves should be penned in a small lot with adequate feed, water and shade to reduce stress. Careful handling and comfortable, uncrowded conditions can decrease stress.
- If you are purchasing weaned/stressed calves, have your receiving/feeding program in place. Feed a stress ration which contains at least 13% protein and is fairly energy dense.
- When newly-weaned calves are purchased in the fall, sickness and death loss can be a big problem. Work with your veterinarian on a health and receiving program. Consider purchasing CPH-45 feeder calves which are preweaned, vaccinated, bunk-adjusted and treated for parasites.
- Watch calves closely for a few weeks after their arrival. Have a treatment program ready for any health problems. Early recognition of sick cattle improves their chance of recovery. Watch for drooped ears, hollow appearance, reluctance to rise, stiff gait, coughing and dull or sunken eyes. A good "receiving" program is essential to profitability.

General Reminders

- Test hay quality and make inventory of hay supplies and needs. Make adjustments now - buy feed before you run out in the winter.
- Take soil samples for soil analysis to determine pasture fertility needs. Apply phosphate, potash and lime accordingly.
- Remove fly-control eartags from all animals, dispose of according to instructions on package. Treat for grubs/lice.
- Avoid prussic acid poisoning which can happen when frosts rupture the plant cells in sorghums, sorghum-sudan hybrids, sudangrass and johnsongrass releasing prussic (hydrocyanic) acid. Fields can be grazed after the plants have dried up after a frost. New growth that occurs in stalk fields is potentially dangerous whether frosted or not.
- Do not harvest or graze alfalfa now in order for it to replenish root reserves.

When Tobacco Was King

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

Things were different when I was a little kid in the 50's and a teenager in the 60's. I grew up on a farm when things were getting mechanized but manual labor was still the order of the day.

Hogs were referred to as the mortgage lifters. Cattle consisted of both the beef and "milk-type" but were generally mixed because every family had a milk cow or two. Hay was put up loose or baled with old plunger-type balers that had to be "fed" and tied with wire. Corn was still cultivated, since 2,4-D hadn't been introduced, and it was generally picked by hand. But tobacco was king! Since I didn't live in Kentucky, no one talked about basketball. It was just "How's your 'bakker' looking this year?"

Raising tobacco was a year-round job. It usually started with preparing (burning) the plant beds. That was a lot of fun for a kid. I got to help pile brush on the plant bed and have a huge fire usually on a cool day. Burning was to sterilize the soil – since it was a little before we gassed beds with methyl bromide.

About that time of year, we also had to clean out the barns – with pitch forks – and spread the manure on the tobacco "patch" which generally was covered with vetch or another cover crop. That whole mess was turned under as soon as the soil was dry enough. We probably tied up more nitrogen trying to decompose that stuff than it provided the crop – at least in that particular year.

Once the field was prepared for planting (before mechanical tobacco setters), you waited for a rain and then

you would “set” it with a wooden peg. Unless it failed to rain then it would be watered as it was set. That was tough but the work and hot weather was just beginning.

Since tobacco allotments were on an acreage basis, production on a limited area was pretty intense. Topping (breaking off the blooms) was done by hand and commenced when about two-thirds of the field was in bloom. Since there was no MH-30 at the time, breaking off suckers was next and continued until cutting time. Cutting and housing hasn’t changed all that much. It is still very labor intense on most farms. We cut and “spiked” the plants onto a tobacco stick (4 or 5 to a stick), let the tobacco wilt and put it in the barn early the next morning. My job was usually to climb to the top set of “tier poles” and hang the sticks that went to the top of the barn. Not a bad place to be if you could avoid wasps and yellow jackets and stand the heat.

It seemed like you had just finished cutting when it was time to start stripping - pulling the leaves off the stalk. Before tobacco was baled it was tied into “hands”. Some morning when the leaves were “in order”; they were carefully graded off the stalk and tied into a hand about the size of a silver dollar – as I recall. You picked a good leaf and wrapped it around the stems of the leaves, pulled it tight, put the end through the middle of the hand, held it up and admired it – then went on to the next. My job was usually “pulling tips”.

It was quite a day when your tobacco crop sold at the big warehouse and you were paid for your year of hard work – by the entire family!

The big game changer came when tobacco allotments shifted from acreage to poundage. All of a sudden things weren’t quite as intense. It wasn’t the end of the world if you cut a plant down when a sharp hoe glanced off a rock.

I spent one summer, when the acreage allotments still existed, working as a compliance reporter – mostly measuring small tobacco “patches” in middle Tennessee. I enjoyed meeting the people, many of whom were my neighbors, but you were eyed cautiously as you measured their prized crop. Standard procedure was to measure the tobacco field, take the measurements to the office where the acreage was calculated and, if it was over by a certain amount, I was to be sent back to cut down the excess. That seemed like a bit of inefficiency to me. You didn’t have to be a rocket scientist to calculate the acreage so I would tell the producer what they had to do to stay within the guidelines (usually cut a few plants) and adjust the measurements on the spot. I had a pretty good compliance rate and a “kinship” with my fellow farmers was born.

Things were changing in the cattle business, too. Dairy cattle were looking more like Holsteins and beef cattle were beginning to look more like – well, beef cattle. Dr. Wes Garrigus had just published his “Kentucky Cow-Calf Plan” which involved “breeding up” nondescript cows to beef-type bulls to improve the Kentucky cow herd. Change was in the air!

Deciding Who to Cull

Michelle Arnold, DVM (Ruminant Extension Veterinarian, UKVDL)

Which cows in your herd are making you money and who is losing you money? Every year, the cow-calf producer needs to critically evaluate each animal in the herd and decide if she is paying her upkeep. Open cows (those that are not pregnant) at the end of breeding season obviously are the top of the cull list. With variable costs running $400-$500 per year per head and an additional $100-$300 in fixed costs, keeping open cows is a financial black hole. Beyond pregnancy status, what other variables are important to evaluate? Structural soundness, body condition score, age, performance, and disposition are vital components in developing a culling order specifically for your farm. This culling order is exceptionally important during times of drought or a year with marginal hay production as you may have to cull deeper to manage through a difficult season. To begin, it is best to think about who in the herd has the least chance of being productive in the long term or is farthest away from being productive. Equally important are factors such as disposition and phenotype that affect the marketability of offspring. The following is a list of factors to consider when deciding who to cull this year.

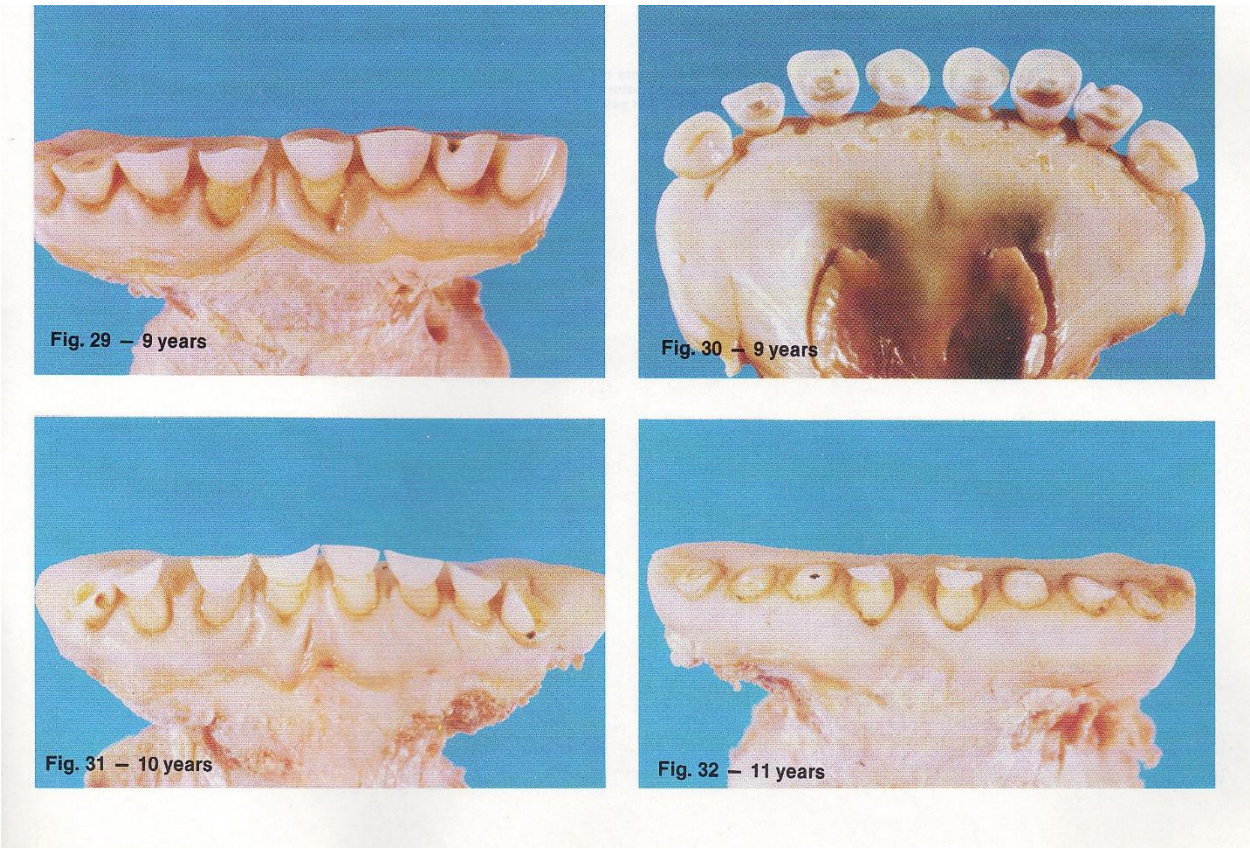
Example of a Culling Order

1. Mean Disposition
2. Open Females
3. Structurally Unsound/Chronic Condition
4. Age
5. Poor Performance-Records
6. Phenotype-color, stature
7. Replacement Heifers
8. Bred cows over 9 years of age
9. Bred Cows 3-9 years of age

- Disposition - A cow's attitude is an important consideration in any cattle operation. Bad behavior has both a genetic component and is also learned by calves at an early age. Mean cattle are dangerous to people, damage facilities, tear up fences and make gathering and working cattle a nightmare. Remember a good cow can be protective without being dangerous and destructive.
- Pregnancy Status - A cow should produce a calf at least once a year and the sale of that calf needs to pay her way. Diagnosing a cow as "open" (not pregnant) is as simple as veterinarian palpating for pregnancy at least 40 days after breeding or removing the bull. A simple, inexpensive blood test can also be used 28 days post-breeding to determine pregnancy status. If many cows are found open at pregnancy check, work with your veterinarian to determine if reproductive disease, poor nutrition, bull infertility or inability was the cause. Remember that cows that calve late in the season have less opportunity to breed back in a controlled (for example, 90 day) breeding season. Summer heat and fescue toxicosis can be important contributors to low conception rates.
- Structural Soundness - Bad hooves or claws, lameness due to hip/knee injury, eye problems, and poor udder conformation are all examples of structural problems that adversely affect performance. Good

feet and legs are essential for weight maintenance, breeding, calving, self-defense, and raising a calf. The udder should be firmly attached with a level floor and high enough that newborn calves can easily find and latch onto teats. Cows with blind or light quarters, funnel or balloon shaped teats, or any history of mastitis are strong candidates for culling.

- Cows with chronic conditions that will not improve such as progressive weight loss, early cases of cancer eye, repeated episodes of vaginal prolapse during pregnancy, and extreme sensitivity to the effects of fescue toxicosis should be removed from the herd as soon as the calf is weaned. Cows with confirmed disease conditions such as Johnes disease, bovine lymphoma, or advanced cancer eye should not be returned to a commercial market. The most common reasons for carcass condemnation at slaughter include emaciation, lymphoma, peritonitis, cancer eye, blood poisoning, bruising, and other cancers.
- Age - Cows are considered most productive between 4-9 years of age. Look at the teeth to assess the age but evaluate them in light of diet-cows that eat gritty or sandy feeds and forages have increased tooth wear beyond their years. Cows with badly worn or missing teeth will have a hard time maintaining body condition. Older cattle die of natural causes, too.



- Poor Performance - Record keeping is an invaluable tool for evaluating performance. Readable visual tags on both the cow and calf allow you to match calf sale weights to the dams and identification of cows that did not produce a calf. Inferior genetics and poor milk production produce lightweight calves that do no grow well. An overweight cow or large framed cow with a small calf that doesn't

gain weight usually means the cow is not producing much milk. Sick baby calves may be an indication of poor quality colostrum and poor mothering ability.

- Phenotype - These are cows that do not "fit" the herd because of external features such as unusual breed, size, muscling and color. These challenges may be overcome to some degree by choice of sire to balance out the unwanted traits. Remember that buyers of commercial calves look for uniformity in color, weight, and frame in a set of calves.
- The last ones to go - Hopefully culling will never have to go this deep in your herd. Bred cows over 9 years old, replacement heifers (especially those that did not breed in the first 30 days), and bred cows 3-9 years old should be the last sold. Thin cows that conceive late in the breeding season should go first.

Since 20% of gross receipts in a typical cow-calf operation come from the sale of cull animals, pay attention to price seasonality and body condition score before sending these animals to market. Prices are highest in spring and lowest in late fall/early winter when spring born calves are weaned & culls sent to market. Adding weight and body condition to culls is an opportunity to increase profitability but can be expensive. Work with a nutritionist to come up with realistic cost projections before feeding cull cattle for a long period of time.

Cull Cow Language
Breakers (75-80% lean)- Highest conditioned cull cows (BCS ≥ 7), excellent dressing percentages
Boners or "boning utility" (80-85% lean)- Moderately conditioned (BCS 5-7), well-nourished commercial beef cows (usually highest price cull)
Leans (85-90%)- Lower BCS (1-4), lower dressing percentages, susceptible to bruising during transport and expect more trim loss. Moving cows from lean to boner status can usually be done efficiently

When it comes to making decisions on who to cull, remember to consider functionality in your environment. Is she an "easy keeper"? Does she keep flesh and condition and raise a good calf, even when feed and forage is limited? On the opposite side, does she give too much milk or is her frame size so large that you can't keep weight on her, even when pasture is plentiful? Is her pelvis so small and tight that calving is a problem and will be a problem in her offspring?

Functionality leads to longevity and improved efficiency. By retaining more young cows in the herd, you can decrease the number of replacement heifers needed and cull cows that are only marginally profitable. Young cows also increase in value as they mature because the body weight of the cow and her calf's weaning weight will continue to increase from 2-5 years of age. Longevity may also be improved through crossbreeding because hybrid vigor adds essentially 1.3 years of productivity or one more calf per cow.

In summary, a herd of easy-keeping, efficient cows is possible through rigorous culling and careful selection of replacements. Match your genetics to your management and environment for maximum efficiency, longevity, and ultimately, maximum enjoyment of cattle production.

Love Your Wife and Kids, Not Your Cows!

John F. Grimes, OSU Extension Beef Coordinator (This article first appeared in the Early Fall 2016 issue of the Ohio Cattleman magazine)

The title of this article is a phrase I have used over the years in my Extension programming. Part of the title seems fairly obvious; Of course we love our wives and children! The second part of the title may seem a bit questionable to some of you. Most cattlemen would not raise beef cattle if they didn't genuinely have the animal's best interests in mind in terms of daily management that contributes to animal welfare. However, the second part of the title serves as an opening to a seasonal topic that is very appropriate to discuss at this time of the year which is culling beef females from the herd.

Research studies from across the country indicate that the typical culling rate of the nation's beef cow herd falls between 15 – 20%. Beef cow income usually makes up 10 – 25% of the gross income generated by a cow herd. In many herds, cull cow income will be the difference between an annual profit or loss. We are rapidly approaching the time when cow-calf producers will be weaning their spring-born calves. Weaning is an excellent time to evaluate your cow herd and decide which cows get to remain your "employees" and which ones need to find a new career. Notice that I referred to the cow as an employee. After all, they work for you. Yes, you have to provide them with the infrastructure to do their job including proper nutrition, health care, facilities, etc. However, if they are not being productive for you, they need to be replaced.

Cows and heifers leave operations for a variety of reasons. Ask a room full of cow-calf producers from anywhere in the country for the key reasons to cull a female from the herd. I would feel confident that the reasons would include any or all of the following factors: 1. Age or bad teeth; 2. Pregnancy status (open or aborted); 3. Temperament; 4. Other reproductive problems; 5. Economics (drought, herd reduction, market conditions); 6. Producing poor calves; 7. Physical unsoundness; 8. Udder problem; and 8. Bad eyes. While all of these factors are valid reasons for culling, I suspect that the first three factors listed who be the top reasons for culling in any given year.

Let's discuss those first three factors in a bit more detail. There is no "magic" age when a cow should be culled. Most beef cows are at the peak of their productive life from 4 – 8 years of age. Most start to "show their age" as they approach 10 years of age but there are exceptions. A sound management practice would be to examine the teeth of older cows after fall palpation to determine if they have adequate teeth to digest harvested forages during the winter and graze pasture grasses adequately to maintain body condition and support a calf.

The older I become, the less tolerant I am of any temperament issues. I suppose this is a direct result of the fact that I don't run as fast or heal as quickly as I used to! Animals with poor disposition or aggressive nature are obviously difficult to deal with on an individual basis and can corrupt a larger group of animals. Disposition has become an increasingly important factor as the average age of farmers and cattlemen increases as time moves along. Don't tolerate the bad actors!

Ultimately, the factor that should ultimately sort a female to the keep or cull pen is pregnancy status. While variable costs such as feed have moderated somewhat lately, it is still fairly expensive to maintain a cow on an annual basis. Producers often fail to consider fixed costs such as machinery, buildings, management, and replacement animal expense. We do not have enough space in this article to debate a sample budget, but it is fair to say the annual carrying costs for a beef female can run from $700 to over $1,000 depending on the situation. An open female is not going to generate any income to help pay the bills.

Carrying an open female over to the next year or the next breeding season only compounds the accumulation of expenses. In nearly every case, the producer would be better off selling the open female and replacing her with a bred female. This is particularly true of yearling females. If you can't get a properly developed, healthy yearling heifer bred in a 60 -90 day breeding season, sell her as a heavy feeder calf or finish her out to harvest weight. If she is sub-fertile as a yearling, she will likely have fertility problems as a mature female.

I can assure you that the implementation of proper culling practices can be challenging to accomplish. It requires an established breeding and calving season, realistic production goals, and the discipline to carry out your plan. I would be less than honest with you if I said that I have always been completely disciplined with my culling program. It has been my experience that when you start making excuses for a beef female's poor reproductive performance, it seldom works out well for the owner!

Pregnancy Diagnosis Classes to be Offered At Edenshale Farms

Dr. Les Anderson, Extension Professor, University of Kentucky

UK Beef Extension and KBN are hosting a pregnancy diagnosis class at Edenshale Farms on October 29, 2016. This class will demonstrate all methods currently available to producers for pregnancy diagnosis in their cow herd. These methods include manual palpation, ultrasonography, and blood sampling including a demonstration of the new chute-side blood sample analysis protocol. Two classes will be offered; the first from 9 am-noon and the second from 1-4 pm. The cost for the instruction is $100 per participant and a maximum of 10 students will be allowed per session. Participation will be determined on a first-come-first served basis.

For more information or to enroll, please contact either Ben Crites (Benjamin.crites@uky.edu; 859-257-7512) or Dan Miller (dmiller@kycattle.org; 859-278-0899).

September Cattle on Feed Report Recap

Brian R. Williams, Assistant Extension Professor, Department of Agricultural Economics, Mississippi State University

The United States Department of Agriculture's National Agricultural Statistics Service (USDA, NASS) released their monthly *Cattle on Feed* report Friday afternoon (September 23, 2016). Placements totaled 1.879 million head, an increase of 15.13% from August 2015 and a 0.14% increase from the five-year average from 2011 to 2015. Market analyst expected placements to be up 13.10%, so the reported value came in slightly above expectations. This month's numbers continue the trend of increasing heavy placements, with cattle larger than 800 pounds seeing a 21.2% year-over-year increase while cattle less than 600 pounds saw an 8.9% year-over-year decrease in placements. All other weight classes saw an increase in placements.

Cattle marketed in August totaled 1.868 million head, up 17.63% versus last year and up 1.98% compared to the average from 2011 to 2015. Pre-report expectations called for marketings to be 17.5% higher than the same period last year, so they came in right where analysts anticipated they would be.
The total number of cattle in feedlots with 1,000 head or larger capacity totaled 10.135 million head, up 1.49% versus September 1, 2015 and 0.50% lower than the five-year average. Market analysts expected a 1.2% year-over-year increase in cattle inventories, so the reported value came in slightly above expected but still well within the range of analysts' expectations.

Overall, the report could be considered neutral to slightly bearish. August of this year had two more business days than a year ago, so it was not at all unexpected to see large year-over-year increases in both placements and marketings. The two extra days were reflected in the pre-report estimates, and the official numbers came in relatively close to what most were expecting. While there were no major surprises, the markets have had a slightly bearish response to the reports, driven primarily by the higher total on-feed numbers and placements.