

OFF THE HOOF



University of Kentucky
College of Agriculture,
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Beef IRM Team

KENTUCKY BEEF CATTLE NEWSLETTER, SEPTEMBER 9, 2020

Published Monthly by UK Beef IRM Team and edited by Dr. Les Anderson, Beef Extension Specialist, Department of Animal & Food Science, University of Kentucky

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Timely Tips

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

Spring-Calving Cows

- 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 or sell them when they wean this year's calf. If you don't have a bull pen and want to tighten up the calving season, remove the bull and sell him. Plan on purchasing a new bull next spring.
- 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.
- Limited creep feeding can prepare calves for the weaning process since they can become accustomed to eating dry feed. This will especially benefit those calves which you are going to keep for a short postweaning period – like the CPH-45 program. It's time to start planning the marketing of this year's calf crop.
- Begin evaluating heifer calves for herd replacements – or culling. Each time you put them through the chute you can evaluate them for several traits, especially disposition. Consider keeping the older, heavier heifers will reach puberty before the onset of the breeding season and have higher conception rates.
- This has generally been a reasonably good year for pastures but many parts of the state have been a bit

dry. Evaluate moisture condition and consider stockpiling some fescue pastures. It's not too late to apply nitrogen for stockpiling fescue if moisture conditions have improved.

- Stresses associated with weaning can be minimized by spreading-out other activities commonly associated with weaning – like vaccinations, deworming and, perhaps, castration and dehorning (which should have already been done!). Therefore, this month is a good time to do a “preweaning” working of cows and calves.
- When planning the preweaning working, consult with your veterinarian for advice on animal health products and procedures. One procedure that can be done now are pregnancy checking cows. Early pregnancy diagnosis will allow time to make culling decisions prior to weaning time. The remainder of the work, like booster shots, can be done at weaning time.

Fall-Calving Cows

- Fall-calving should start this month. Get your eartags ready. Cows should be moved to a clean, accessible pasture and be watched closely. Tag calves soon after they are born and record dam ID and calf birthdate, etc. Castration is less stressful when performed on young animals and calves which are intended for feeders can be implanted now, too.
- If you haven't started calving quite yet, then it's time to get ready. Be sure you have the following:
 - record book
 - eartags for identification
 - iodine solution for newborn calf's navel
 - calf puller
 - castration equipment
- Watch for those calves which may come early and be prepared to care for them.
- Be on guard for predators – especially black vultures.
- Move cows to best quality fall pasture after calving. Stockpiled fescue should be available to these cows in November-December to meet their nutritional needs for milking and rebreeding.
- Start planning now for the breeding season. If using AI, order supplies, plan matings and order semen now.

Stockers

- Calves to be backgrounded through the winter can be purchased soon. A good source is Kentucky preconditioned (CPH-45) calves which are immunized and have been preweaned and “boostered”.
- Plan your receiving program. Weanling calves undergo a great deal of stress associated with weaning, hauling, marketing, and wide fluctuations in environmental temperature at this time of year. Plan a program which avoids stale cattle, get calves consuming water and high quality feed rapidly. Guard against respiratory diseases and other health problems.

General

- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- 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.
- 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.
- 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.
- Plan the winter feeding program. Take forage samples of hay you will feed this winter. Request protein

and TDN analysis so that supplemental feed needs may be estimated. Don't wait until you run out of feed in February to purchase extra feed. Plan to minimize hay storage and feeding losses because feed is too expensive to waste.

- If you have adequate moisture, stockpiling fescue might be a viable option. Nitrogen application to fescue pastures can be made now and allow them to grow and accumulate until November, or when other sources of grazing have been used up. To make best use of this pasture, put fall-calvers, thin spring-calvers, or stockers on this pasture and strip graze.
- Don't graze sorghum or sudan pastures between the first frost and a definite killing frost because of the danger of prussic acid poisoning. Johnsongrass in stalk fields can also be a problem after a light frost. Grazing can resume after the sorghum-type grasses have undergone a killing frost and dried up.

Beef Minutes

Katie VanValin, Assistant Extension Professor, Beef Specialist, University of Kentucky

Several episodes of Beef Minutes are available on our social media sites.

July 30th – Heat stress, VanValin

August 6th- Genomic testing for bulls, Bullock

August 13th- Beef Recap, Lehmkuhler

August 20th – Preparing for the calving season, Anderson

August 27th – Stockpiling tall fescue, VanValin

September 3rd- Choosing an economical supplement for hay, VanValin

Beef Minutes will be published on our Facebook Page ([facebook.com/KyBeefIRM](https://www.facebook.com/KyBeefIRM)) and on the Department of Animal & Food Science YouTube page (https://www.youtube.com/channel/UCu4t18Zo2E_4_DBBELPjPMg).

WEANING 101 WORKSHOP

VIRTUAL WEANING PROGRAM

NEW VIDEO SERIES

– Covering aspects of weaning calves on-farm!

**VIDEOS LAUNCHED EACH WEEK FROM
SEPTEMBER 9 TO OCTOBER 21**

VIDEOS POSTED EACH WEEK TO THE UK BEEF IRLM AND ICFM FACEBOOK PAGES
AND YOUTUBE CHANNELS

SCHEDULE

Week 1: Preparing for Vaccination, *Mr. Dan Miller*

Week 2: Preconditioning Calves, *Dr. Michelle Arnold*

Week 3: Weaning Options & Feeding Considerations, *Dr. Jeff Lehmkuhler*

Week 4: Feeder Cattle Grading, *Mr. Kevin Laurent*

Week 5: Economic Considerations for Preconditioning, *Dr. Kenny Burdine*

Week 6: Infrastructure Overview for Weaning Calves, *Dr. Steve Higgins*

Week 7: Traceability and Value Added Marketing, *Mrs. Becky Thompson*

Week 8: Incorporating Technology, *Dr. Katie VanValin*

This program has been approved by GOAP to fulfill the educational requirements for CAIP. However, contact your county Extension office to ensure your local county CAIP committee will accept the program.



Weaning 101 Workshop – a Virtual Weaning Program

Jeff Lehmkuhler, Associate Extension Professor, Beef Specialist, University of Kentucky

Check out our new virtual Weaning 101 Workshop! This video series will launch tomorrow, September 9th and a new video will be uploaded each week. See the schedule for more details!

BeefBits - New Beef Podcast!

Jeff Lehmkuhler, Associate Extension Professor, Beef Specialist, University of Kentucky

UK Beef Extension is publishing a new podcast on the beef industry called BeefBits. BeefBits will be a 45- minute long podcast on hot topics in the beef industry. The first episode, “An Eclectic Group” featured the entire UK Beef Extension Group. In the second episode, Dr. Lehmkuhler and Kevin Laurent discuss acronyms for calf value.

Links can be found on the UK Beef IRM Facebook page (facebook.com/KyBeefIRM) and on the podcast website (https://www.podbean.com/media/share/pb-megic-e6f8f1?utm_campaign=u_share_ep&utm_medium=dlink&utm_source=u_share).

Register Now for Beef Bash 2020!

Dr. Darrh Bullock, Extension Professor, Dr. Katie VanValin, Assistant Extension Professor, and Ben Crites, IRM Coordinator, University of Kentucky

Beef Bash is an event that we always look forward to hosting. It is a chance to learn, network, and socialize with likeminded individuals from across the state. Although we will not be able to host the field day in-person, we are excited to deliver the program virtually and we will be broadcasting live from Princeton.

In this virtual field day of Beef Bash, Beef Extension Specialists and researchers from the University of Kentucky will share their current research projects and “how-to” demonstrations from the field. We will also take a virtual tour of the new University of Kentucky Research and Education Center in Princeton, KY. After each virtual session, each speaker will be available for a Q/A discussion.

The program schedule for the Virtual Field Day is being finalized and we have a great set of speakers joining us. The program will take place virtually through the Zoom meeting platform and as always, there is no cost to attend. However, preregistration will be required. To register for the virtual field day and view the program schedule and sponsors, please visit <http://afs.ca.uky.edu/beef/irm> or scan the QR code below. We hope you make plans to join us (from the comfort of your homes) for the first ever Beef Bash as a Virtual Field Day, on October 1st, 2020 at 9 AM EST.



For registration and program information, please visit the UK Beef IRM website at the link below or by scanning the QR Code.

UK Beef IRM: <http://afs.ca.uky.edu/beef/irm>

QR Code:

For questions, please contact any of the 2020 Beef Bash committee members; Dr. Darrh Bullock (dbullock@uky.edu), Dr. Katie VanValin (katie.vanvalin@uky.edu) or Ben Crites (benjamin.crites@uky.edu).

Knowing What You Are Feeding: HAY SAMPLING 101

Chris Teutsch, Associate Extension Professor, Forage Specialist, University of Kentucky

Knowing the nutritional quality of forage and hay is an integral part of a profitable and efficient livestock operation. Accurate estimation of forage quality starts with obtaining a representative sample of the forage to be fed. Proper sampling technique is critical.



Figure 1. Always sample hay in lots. A lot is hay that comes from the same cutting and same field.

Hay is preserved in a number of different packages ranging from the small square bale weighing 40-50 lb to the large square bale weighing more than 1500 lb. In Kentucky, most hay is packaged in large round bales weighing between 500 and 1500 lb. Wrapped bale silage is also gaining popularity and should be sampled in a similar manner to large round hay bales with the exceptions listed below.

Obtaining a Representative Sample

Hay should ALWAYS be sampled in lots (Figure 1). A lot consists of hay made from the same field and cutting. A lot should not represent more than 200 tons of dry matter. In the event that a lot exceeds 200 tons of

dry matter, multiple samples should be taken and forage quality results should be averaged to represent the overall lot.

Delay sampling until three to four weeks after baling for hay stored out of the weather. During this period bales undergo the heating or sweating process and forage quality can decline. For hay stored outside, it is best to delay sampling until three to four weeks *prior to feeding* to account for weathering that occurs after harvest. Remember to allow time for sample shipping and analysis and for making the feeding adjustments needed.

A representative sample will consist of at least 20 cores from 20 bales (one core per bale) resulting in a sample size of approximately one-half pound of hay from each lot. Sample bales at random and not on some predetermined characteristic such as leafiness, color, or weed content.

Use a sampling strategy such as dividing the total number of bales by 20 (number of desired cores) can help to get a representative sample of the hay lot. For example, if a lot consists of 240 large round bales and 20 cores are desired, then every 12th bale should be sampled ($240 \text{ total bales} \div 20 \text{ samples} = 12$). If the lot contains less than 20 bales, sample every bale. For stacked hay or truckloads count the number of exposed bale ends (square bales) or sides (round bales), divide by 20, then sample every *n*th bale end or side. Using the above numbers if there are 240 bale ends on an exposed side, sample every 12th bale. Equally sample each exposed side of the stack.



Figure 3. Round bales should be cored from the side to a depth of 15 to 18 inches.

Core rectangular bales by centering the probe in the end and inserting the probe horizontally into the bale (Figure 2). Sample round bales by drilling or pushing the probe horizontally into center of the rounded side of the bale (Figure 3).

For round bales, remove weathered material from the area to be probed prior to sampling. Weathered material represents refusal and should not be included in the sample. The probe should penetrate the bale at least 15-18 inches for rectangular or round bales.



Figure 4. Always submit the entire sample. Subdividing the sample can result in altered lab results since the fine material segregates from the larger particles. Make sure the bag is clearly labeled with all required information.

should be placed into labeled plastic bags as previously described. Submit the samples immediately or refrigerate until shipped. Remember to immediately repair holes caused by coring using a UV-resistant tape designed for silage film.

After the lot has been sampled, the entire sample should be placed into a labeled plastic bag and sealed (Figure 4). Make sure that the bag is clearly labeled with your farm's name, a description of the hay lot sampled that will allow you to reference the results back to the hay lot, the type of hay, cutting, and year, and the date it was sampled. The sample should be sent immediately to the lab for analysis. In cases where the sample is not immediately submitted, store the sample in a cool, dry place that is not in direct sunlight. Make sure and complete the sample submission form for the lab that you are using. Do NOT subdivide the sample.

Sampling Baled Silage

Sample baled silage in the same manner as hay. Delay sampling until at least four weeks after harvest to allow complete ensiling. Samples

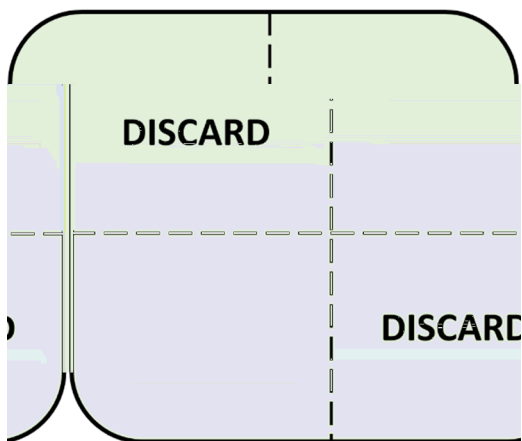


Figure 5. If excessively large samples must be subdivided, always use the quartering technique. Quartering a sample is accomplished by thoroughly mixing the collected cores, pouring the sample onto a clean flat surface, discarding opposite quarters, and recombining the remaining quarters. This is repeated until the desired sample size is obtained.

Subdividing Excessively Large Samples

Using a larger diameter or longer probe or collecting more than 20 cores result in a sample greater than ½ lb. This is not problem in itself and may even be more representative of the hay lot. However, most labs are not set up to handle and grind large sample sizes and will only grind a portion of the sample. The portion of the sample ground may not be representative of the lot. Therefore, AVOID SUBMITTING EXCESSIVELY LARGE SAMPLES FOR ANALYSIS. If a sample must be subdivided, it should be done using a technique called “quartering” (Figure 5). Thoroughly mix the sample and then pour it onto a clean and flat sheet of butcher paper or similar material. Then divide the sample into four equal parts. Discard two opposite quarters. Recombine the two remaining quarters. If the sample size is still too large, then repeat the procedure until the desired sample size is obtained.

Hay Sampling at a Glance

- Always collect hay samples by coring hay bales with a sampling probe designed for hay.
- Always sample hay in lots. A lot consists of a harvest-field combination.
- Delay sampling for dry hay stored inside for 3-4 weeks after harvest.
- Sample hay stored outside 3-4 weeks prior to feeding.
- Collect 20 cores per hay lot.
- Use a sampling strategy to obtain a representative sample of the hay lot. For example, if a hay lot has 200 bales, core ever 200 bales ÷ 20 cores or 10th bale.
- Core square bales from the end.
- Core round bales from the side.
- Do NOT subdivide samples.
- Place entire sample into labeled plastic bag and ship to lab.
- Delay sampling baleage for 4-6 weeks after baling to allow fermentation to finish.
- Refrigerate baleage samples prior to shipping.
- Repair holes in silage film with UV stabilized tape designed for silage wrap.
- Work with your extension agent or livestock nutrionsist to interpret test results and design an appropriate supplementation program.

Weaning - Improving Outcomes Through Decreasing Stress

Katie VanValin, Assistant Extension Professor, University of Kentucky

The classic definition of stress according to Hans Selye is, “the non-specific response of the body to any demand for change”. Dr. Selye was an endocrinologist by training and is largely regarded as the grandfather of the study of stress. By any definition though, I think it’s probably safe to say that 2020 has been a stressful year.

We saw cattle markets take a wild ride and grocery store shelves empty out of meat and toilet paper in response to COVID-19. That initial response to COVID-19 that saw bare shelves and low cattle prices is a great example of a stress response. Now here we are months later, and we’ve adapted to some of that initial stress. While things are certainly not normal, we know now that we will be able to go to the store and get the things we need, when we need them.

This scenario is not that different then how cattle respond and adapt to stress events. I would argue that the single most stressful period in a beef animals’ life is weaning. Up to this point that calf has relied on its dam for almost everything. Now its weaning time, and no matter what we do this is going to be a stressful period, we can’t control that. However, we can control how stressful this period will be.

It is important to get in the mindset that weaning is a period of time, rather than a single day. We could get the herd up, sort off the calves, load them onto the trailer and take them to the sale barn, and called them weaned. In this scenario calves arrive at the sale barn balling, and they may be co-mingled with calves from other farms. They eventually work their way through the auction system and arrive at a feedlot somewhere west of here, in a process that can take several days. Along the way they may come into contact with novel pathogens, that can cause illness. Then once they get to the feedlot they may have to learn to drink out of a waterer and how to eat out of a feed bunk. They are also expected to eat a diet that is likely new to them and may contain ingredients they’ve never seen before. That was stressful writing all of that out, now imagine how it would be for a calf that experiences all of that over a 3-4 day period. We call this process abrupt weaning. As all the stressors compound, they can cause the calves immune system to weaken, increasing the risk for the development of respiratory disease.

What if instead the calves are weaned on the farm? No, this won’t be a totally stress-free process, but it will be less stressful than the scenario I described above. An alternative method to abrupt weaning is fenceline weaning. This method allows cows and calves to have visual and nose to nose contact. This can mean housing cows and calves in adjacent pastures or having calves in a dry-lot pen, that cows can access via a drovers alley. Allowing calves to be weaned on the farm, can get them through that initial stress of separation from the dam, without the added stress of comingling, and transit.

When weaning calves on the farm, it is important to consider the nutrition that is being offered to calves. The number one goal during this time is to encourage calves to eat, we also want to make sure that they are getting the most out of each mouth full that they do consume during this time. Offering calves, a high-quality grass or legume-grass mixture hay is important for calves in dry-lots. Offering a grain supplement can also increase the nutrient density of each mouth full during this time. Feeding this supplement daily by hand can allow you to visually assess the calves and take note of which ones are or are not coming up to the bunk.

By weaning calves on the farm, it is also possible to take advantage of new marketing opportunities such the CPH-45 program. These opportunities can allow you to capture additional value on the calves that you wean on farm, and pre-condition. Pre-conditioning allows us to separate out the stressors commonly associated

with the auction system from those associated with weaning. With some planning it is possible to offer a low-cost feed supplement and efficiently add an additional 125-150 lbs of body weight to calves during this period.

I encourage you to assess your weaning program, is weaning a one-day event for your operation, or is it a period of time? Are you leaving money on the table, by rushing calves to market? By decreasing stress on our calves during the weaning period, we may in turn offer a better calf on sale day. This process may seem daunting, but with some planning it is not only easier on the calves but can be profitable too.

Thinking About Weaning and Preconditioning Calves to Add Value? Know the “Lingo”

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

Traditionally, many KY beef producers with winter/spring born feeder calves market through Special Graded Feeder Calf Sales held in the fall. At these sales, feeder cattle are graded according to the USDA Feeder Cattle Grading Standards, are weighed and sorted into groups (load lots of 48,000-50,000 lbs) and are then sold. Buyers take advantage of these sales to buy larger groups of feeder cattle with similar traits. Most of these calves are weaned “on the truck” on the way to the sale, unvaccinated, and the bull calves are still bulls. With this marketing strategy, producers who work to improve genetics or have an effective herd health program do not earn premiums for their extra effort because calves are sold based on the average weight and grade of the group.

Preconditioning of feeder cattle has been recognized by industry experts as a way for cow-calf operators to add value to their annual calf crops. Most preconditioning programs specify two rounds of viral and Clostridial vaccinations, a *Mannheimia haemolytica* toxoid, deworming, castration of bull calves and healed, heifers guaranteed not pregnant, and a minimum of 45 days weaned. Some require producers to use one pharmaceutical company’s products. In addition, weaned calves are usually expected to know how to eat from a feed bunk and drink from a fountain or tank. Buyers prefer weaned calves that have been properly fed and vaccinated compared to similar non-vaccinated and non-weaned calves, which can translate to price premiums of \$10 to \$15 per cwt depending on the market that day. However, to capture this added value, this information must be communicated to the potential buyers prior to the sale.

When reading through the list of requirements for a preconditioning program, it is obvious that few of those words are used by the auctioneer to describe the health program. Instead, the industry has developed its own vocabulary to describe calves very quickly prior to the sale. The following list is meant to bridge the communication gap between industry and health program requirements. The examples listed are in no order and are not to be considered as endorsements by the University of Kentucky. (“BI” stands for Boehringer Ingelheim Animal Health)

1. “Two Rounds Viral Vaccines”
 - a. “First round while on the cow or at weaning, can be killed or live (if live used while on the cows, the cows must have been on a live virus vaccination program to avoid risk of abortion)”

Explanation: The first round of a “viral vaccine” contains the respiratory viruses (IBR, BVD, PI₃, BRSV) in either a killed or modified live (MLV) preparation and may be given 2-3 weeks prior to weaning (best) or after the stress of weaning is over. Only use modified live vaccines ***in calves nursing pregnant cows*** if the cows were vaccinated with MLV within the last 12 months because of the risk of abortion (check vaccine label for specific requirements). If this requirement is not met, a killed vaccine must be used until the calf is weaned. *Examples:* Killed-Triangle 5 (BI), CattleMaster

Gold FP 5 (Zoetis), Virashield 6 (Elanco) MLV-Vista 5 (Merck), Bovi-shield Gold 5 (Zoetis), Pyramid 5 (BI)

b. “Second Round must be a live product”

Explanation: The second virus vaccine again contains the respiratory viruses (IBR, BVD, PI₃, BRSV) and is almost always required to be a modified live vaccine (although it is referred to as “live”). Modified Live Vaccines (MLV) provide fast, broad immunity, are excellent stimulators of cell-mediated immunity, and have a long duration of action.

2. “Two Rounds of Blackleg”

Explanation: These are the 7 or 8-way Clostridial vaccine products. Most require a two-shot series, administered 2-3 weeks apart for protection. *Examples:* Vision 7 (Merck), Ultrabac (Zoetis), Bar-Vac 7 (BI)

3. “A ‘Pasteurella’ shot - calves must get at least one round”

Explanation: This is a *Mannheimia haemolytica* toxoid. This vaccine, commonly known as a “Pasteurella shot” or “Pneumonia shot”, is given to stimulate immunity against the leukotoxin (a white blood cell killer) produced by the bacteria to protect itself from the immune response. Some of these products also contain a *Pasteurella multocida* bacterial extract. *Examples:* One Shot (Zoetis), PresponseHM (BI), OncePMH (Merck)

Another option is to use a “Live Product with Pasteurella” as either the first or second round of viral vaccine.

Explanation: A *Mannheimia haemolytica* toxoid and MLV Respiratory Virus Vaccine Combination product such as Pyramid 5 + Presponse (BI), Vista Once (Merck), or Bovi-Shield Gold One Shot (Zoetis) can be given to meet the “Pasteurella” requirement and one viral vaccine dose with one injection.

4. “Deworming-must include product and date”

Explanation: Deworming with an endectocide (examples: Ivomec (BI), Dectomax (Zoetis), Eprinex (BI), Cydectin (Bayer), LongRange (BI)) will control internal and external parasites, usually 30 days or longer (LongRange is an extended duration product of 120+ days). A drench anthelmintic or ‘white dewormer’ is given by mouth and has a short duration but very effective clean-out of internal parasites. Examples include Safeguard (Merck), Synanthic (BI) or Valbazen (Zoetis). A second product is often required for external parasite (lice/flyes/ticks) control.

5. “Steers-Knife cut, banded (at birth or at weaning) or Clamped”

Explanation: Castration method may be either surgical (knife-cut) where the scrotum is opened and the testicles removed; non-surgical banding with an elastrator rubber band placed around the scrotum and above the testicles; or clamped with a Burdizzo Clamp to crush the testicular cords. No matter which method is used, the steer should be completely healed by sale day.

6. “Heifers Guaranteed Open”

Explanation: If heifers have been allowed to stay with the herd bull until weaning, most likely some are pregnant. A prostaglandin injection (for example: Lutalyse®) can be given to the heifers once they have been away from the bull a minimum of 10 days. These injections work best in early pregnancy so do not delay administration if needed. Often “guaranteed open” means pregnancy checked by a veterinarian by rectal palpation or “sleeved by a vet”.

7. “Weaned”

Explanation: For home-raised calves, this usually means at least 45 days prior to delivery.

In addition to preconditioning programs, calves can also be pooled in “value-added” programs according to further criteria for a marketing advantage. Most programs issue a visual ear tag for buyers to recognize participating calves. Some producers may choose to market their cattle in programs requiring source and age verification such as CPH45. To be eligible for the program, producers must be Beef Quality Assurance (BQA) certified, have a registered premise identification, and must be able to provide birth dates for source and process verification. Calves must be managed under BQA protocol, be tagged with official EID tags, and follow a prescribed health and preconditioning program. Other available programs often include restrictions on use of growth promoting implants, treatment with antibiotics (feed grade or injectable), and have not been fed any animal derived protein. These more restrictive programs such as GAP, NHTC, Verified Grass-Fed, Organic Certified and BeefCare, require a third-party onsite audit and the seller must be approved prior to offering the cattle for sale. For example, producers marketing “All Natural” cattle as Global Animal Partnership (GAP) certified must have specific documentation to verify the “All Natural” claim. “NHTC” cattle are non-hormone treated cattle (no implants) and are eligible to be exported to the European Union. The NHTC program is a USDA approved, third-party audit that verifies the source, age and non-hormone treated status of calves prior to the cattle being sold. NHTC cattle must be sold to an approved NHTC location and the buyer must also be NHTC approved to retain their NHTC approval status. Alternatively, there is Performance Advantage Certification, or PA, for producers with an emphasis on genetics. This certification is reserved for cattle A) sired by bulls that have successfully completed a recognized Performance Test Program or B) that have Yearling Weight (YW) and Weaning Weight (WW) EPDs ranking in the upper 50 percentile as published by the breed association for sire’s birth year.

In summary, adding value through preconditioning and other practices can only recapture the extra investment in time and money if the buyers know what was done to the calves prior to arrival at the sale. Health programs are desired because they substantially reduce the risk of disease and death at the next production level but they are not a guarantee of perfect health. In addition, very restrictive value-added programs have difficulty enrolling enough calves similar in frame and weight to create uniform loads. However, knowing the language used by the industry will help producers understand what practices are considered most important for buyers at the yards.

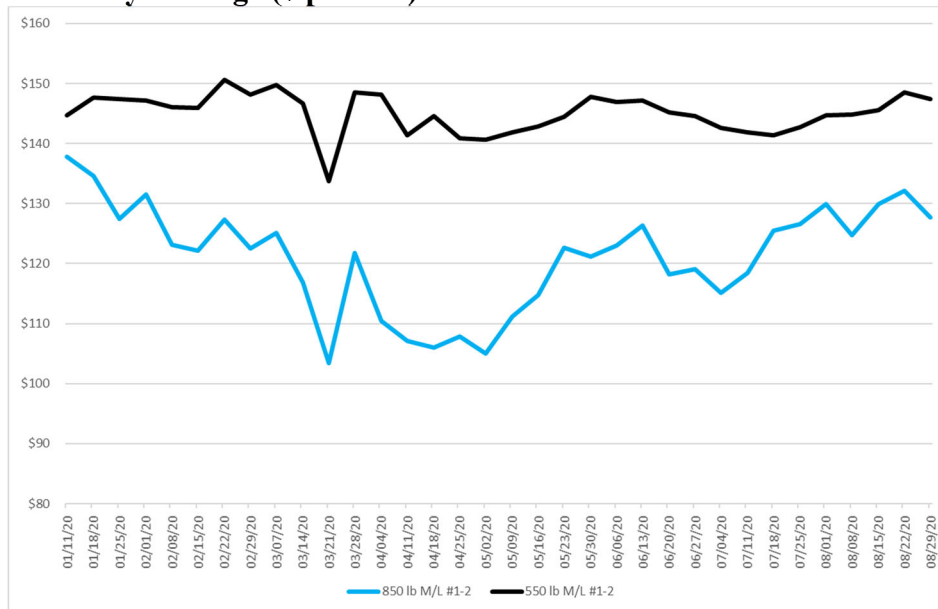
Kentucky Beef Cattle Market Update

Dr. Kenny Burdine, Livestock Marketing Specialist, University of Kentucky

As I write this at the end of August, the general tone of the cattle market remains relatively upbeat. It looks like the 5 area weekly fed cattle price will be north of \$105 per cwt this week and has continued to steadily rise since July. Last Friday's cattle-on-feed report did show an increase in placements and a decrease in the number of cattle that had been on feed over 90 and 120 days, both of which point to feedlot inventories getting more current. While slaughter weights continue to rise, they are moving closer to where they were last year. And, it's important to remember that feed prices also impact weights and are likely at play this year as well.

Spring CME© Live Cattle futures have pulled back a little bit since mid-August, but remain in the mid-\$110's as I write this. We have seen similar downward movements in CME© Feeder Cattle futures, but these movements have actually been larger in magnitude. Still, cattle prices across the Commonwealth have steadily improved, with some expected variation from week-to-week. Figure 1 below shows a drop in the price of 850 lb M/L #1-2 steers for the current week, that is consistent with the decreases in futures prices. But last week's prices were surprisingly high (especially for lighter steers in that weight range), so I am not reading much into that at this point. For the month of August, this weight of steers is going to average in the mid-upper \$120's, but groups have been well into the \$130's. While calf prices also show a slight decrease for the current week, they continued their general upward trend through August and will average in the mid-upper \$140's for the month, which is about a \$4 per cwt improvement over July.

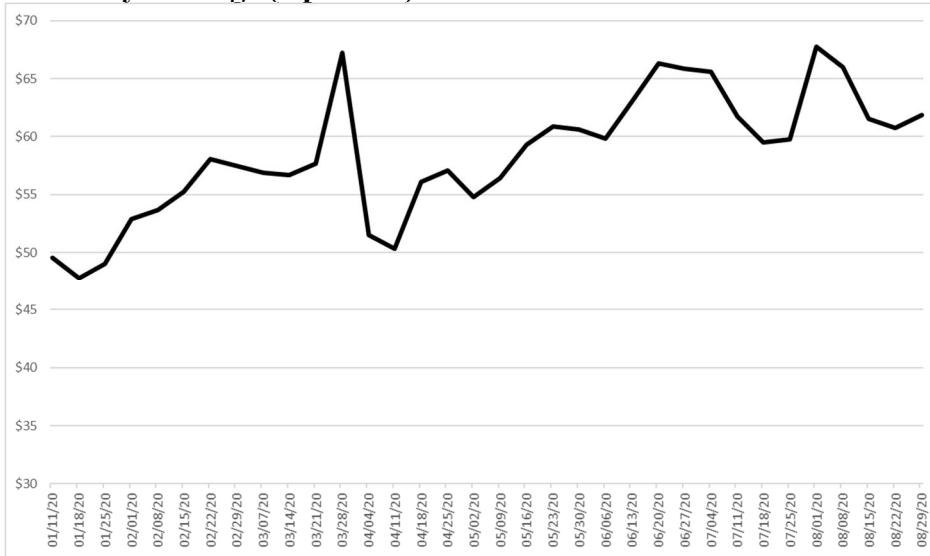
**Figure 1: Feeder Steer Prices since the First Week of January
Kentucky Average (\$ per cwt)**



Source: USDA-AMS, Livestock Marketing Information Center, and Author Calculations

When I wrote this same report two weeks ago, I mentioned that I thought we were seeing the start of a seasonal decline in cull cow prices. That is the normal seasonal pattern and prices have dropped from early August, but cull cow prices have stayed strong. 80-85% average dressing boning cows remain above \$60 per cwt (see figure 2) and a lot of quality cull cows remain in \$70's. Cull cow prices for 2020 have been above 2019 for every single month of the year, thus far.

Figure 2: 80-85% Boning Cow Prices since the First Week of January Kentucky Average (\$ per cwt)



Source: USDA-AMS, Livestock Marketing Information Center, and Author Calculations

I have talked before about the market for heavy feeders and what that likely means for stocker operators that are grazing calves for sale this fall. But we are quickly approaching the fall market when most of our spring born calves will be sold. Unlike spring, when many calves are placed on grass, a lot of light KY calves are placed directly into feedlots in the fall. Others may go into a winter backgrounding / growing program and be sold as heavy feeders in late winter or early spring. Finally, late fall / early winter is when wheat grazers place calves and this can have a significant impact on our calf markets as well. The value of calves in the fall is largely determined by their expected profitability when placed in these programs.

On a state average basis, a 550 lb steer averaged in the mid-\$130's last fall. Back in January, I would have predicted that same steer in the mid-\$140's by fall 2020. When COVID wrecked the cattle market this spring, I naturally walked that forecast back. But, as I look at spring 2021 CME© Feeder Cattle futures trading in the upper \$130's, it's not at all inconceivable that we could see that steer trade in the \$140's in October and November on a state average basis. Certainly, this is not a price level that anyone is going to be excited about long-term but, given what this market looked like back in the spring, it feels like quite an improvement. And, if wheat pasture demand is strong for winter, I think we could see prices even better than that.