Martin-Gatton College of Agriculture, Food and Environment

OFF THE HOOF

Kentucky Beef Cattle Newsletter December 2025
Beef IRM Team

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Each article is peer-reviewed by UK Beef IRM Team and edited by Dr. Les Anderson, Beef Extension Specialist, Department of Animal & Food Science, University of Kentucky

Timely Tips

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

Spring Calving Herd

- Be sure that weaned heifer calves are on a feeding program that will enable them to reach about 65% of their mature weight before the start of the breeding season. Rations should be balanced to achieve gains sufficient to get heifers from their current weight to that "target" weight. Heifers should reach their target weight approximately 30 days before the start of the breeding season.
- Body condition is important, plan an adequate winter program for cows to be at least body condition score 5 (carrying enough flesh to cover the ribs) before the calving and breeding season. This will help them to breed early in the spring. Thin cows should be fed to regain body condition prior to winter. Don't let cows lose weight/condition. Supplementation will most likely be needed. Find low-cost supplemental feeds to meet the nutrient needs of cattle.
- Divide the herd into groups for winter feeding:
  - weaned heifer calves
  - first-calf heifers, second-calvers and thin mature cows
  - the remainder of the dry cows which are in good body condition
  - herd sires
- Begin feeding the lowest quality forage to dry cows which are in good condition during early winter and save the best hay for calving time or for weaned calves.
- Order and number ear tags for next year's calf crop this winter. It is also a good time to catch up on freeze branding and replacing lost ear tags.

Fall Calving Herd

- The fall breeding season has started. Breeding can best be accomplished on stockpiled fescue pasture; otherwise, cows with calves should be fed 25-30 pounds of good quality hay or its equivalent. Supplement with grain, if needed, and minimize hay waste. DON'T ALLOW THESE COWS TO LOSE BODY CONDITION PRIOR TO OR DURING THE BREEDING SEASON. It is easy to wait too long to start winter feeding.
- If you haven't turned bulls out yet, have a Breeding Soundness Evaluation (BSE) performed on them (even if you used them this spring). A BSE is a risk management tool as BSE's accurately identify infertile bulls.
- Observe performance of bulls during breeding season. Watch cows for return to estrus, if you see several in heat, try to determine the cause and consider changing bulls.

General

- Complete soil testing pastures to check for fertility and pH.
- Consider putting down geotextile fabric and covering with gravel in feeding areas before you begin hay feeding to minimize waste of expensive hay. Or, perhaps, construct concrete feeding pads for winter feeding areas.
- Another option to consider for winter feeding is bale grazing. Bale grazing helps spread nutrients across the pasture and can have regenerative effects on your pastures.
- Monitor body condition and increase feed, if needed, for all classes of cattle. It often gets cold in December and the nutrients needs of cattle increase as temperatures fall below their comfort level. Be especially mindful of cold, wet conditions and increase energy availability. Consult your nutritionist to ensure that your rations are meeting the nutrient requirements during stressful weather.

Beef Systems Analyzer Certification Qualifies for CAIP Education Credit

Dr. Darrh Bullock, Beef Extension Professor, University of Kentucky

The Beef Systems Analyzer (beefsystemsanalyzer.com) is an online program to assist beef producers in identifying practices that could help them improve their operation. This software was developed by the University of Kentucky MG-CAFE through funding from the KY Agriculture Development Fund. The analyzers are designed to take you through a series of questions to assess what practices you are currently conducting and then make recommendations on practices that may benefit your beef farm. Along with the recommendation, you will be provided with resources to assist you in implementing the practices. The system is designed so that you will not be overwhelmed with a long list of tasks to complete, but rather provides you with a few things to consider at a time. Once you have completed a set of tasks you can resume the analyzer to get additional recommendations.

Starting in 2026, the Kentucky Office of Agriculture Policy will allow producers to gain one-hour of CAIP educational credit for completing two of the analyzers. This can be accomplished by going to the website and registering, once completed, we request that you watch the video explaining how to utilize the analyzers. To get the educational credit, complete the Best Management Practices analyzer and one other of your choice. Once you have completed an analyzer you will be awarded a certificate that you can print, download, or email. Your county ANR Extension agent will also have access to the completed certificates. Your local ANR agent must approve the certificates for them to be accepted as educational

credit, so communicate with them if you have any questions about CAIP education credit. For assistance with the software you can contact Darrh Bullock at dbullock@uky.edu.

Weak Calf Syndrome-Not Just a Cold-Weather Concern

Written by Dr. Ray Smith and Dr. Michelle Arnold, with contributions from Beef and Forage Extension faculty (Teutsch, Lehmkuhler, Anderson, and VanValin.)

The difficulties associated with feeding and calving in cold, rainy and muddy conditions in the spring have caused many producers to shift their calving season to the fall of the year when temperatures are generally more comfortable, good forage is available to graze and dry conditions predominate. However, the last several fall seasons have proven to be difficult for many fall calving herds throughout KY with reports of small, weak calves and stillbirths born to dams with little to no milk despite overall body condition of the dams as good to excellent. The UKVDL received fall calves that died within the first weeks after birth due to scours or navel infections resulting from poor quality colostrum and/or inability to nurse leading to failure of passive transfer. The major reproductive issues observed were not limited to fall calving herds; conception rates in spring-calving herds have also been dramatically affected with some herds experiencing up to 40-50% of females open at fall pregnancy check with no signs of estrus noted and no evidence of infectious disease. These findings have resulted in lengthy discussions among UKVDL faculty and Extension specialists to expand the list of potential problems causing the effects observed this year and what measures may help prevent recurrence. Although summer heat and fescue toxicosis are expected in Kentucky, the unusually long drought and exceptional heat very likely affected both the forage and the cattle; but the question is, how?

"Weak Calf Syndrome" is a term applied to any calf born alive but is slow to stand and may or may not attempt to nurse. Previous studies have found that environmental, genetic, infectious and nutritional causes can lead to calves being born weak and contribute to the risk of perinatal mortality (death within the first 3 weeks of life). Most cases have several contributing factors that have come together to create the perfect storm. For example, weak calves may result from a combination of poor nutrition during pregnancy, difficulty calving, and hypothermia when born in cold and wet weather. Unfortunately, by the time a reproductive problem is recognized as a herd problem, it is usually too late to change the trajectory for those left to calve. Similarly, infectious agents associated with weak calves such as bovine viral diarrhea virus (BVDv) may inflict damage early in gestation, making it difficult to diagnose let alone prevent. Although investigations into the cause of reproductive failure are rarely easy, beginning with an appraisal of differences from "normal" over the last several years is a reasonable starting point.

The November 2025 edition of UK Forage News sheds new light on a potential contributor to the problem. Dr. Ray Smith wrote: "The last four late summers and falls have had extended dry periods, followed by late-fall rains. This has made fall forage establishment and fall stockpiling difficult since dependable rains have come very late. These long dry periods have also caused considerable stress on cool-season forages. In many parts of the region, Kentucky bluegrass was completely dormant, and many orchardgrass stands have thinned. On the other hand, KY-31 tall fescue plants have only shown reduced growth with leaf curling (a drought survival response), but the endophyte has allowed good survival of these plants. When the fall rains finally came, fescue-predominant pastures were the first ones to green up. Unfortunately, the new growth after these periods of drought stress has shown abnormally high levels of ergovaline, the toxic alkaloid in KY-31 tall fescue. Normally, the highest levels of ergovaline are in May and June when seedheads are present and lower in the fall when the

plants are in a vegetative stage, but it seems that these higher ergovaline levels are some type of drought response in the plant. The high fall ergovaline levels have also extended into early winter since hard freezes (<25 degrees) seem to be coming later the last few years. You might ask, "Why should I care?" We normally aren't concerned about toxicity in tall fescue during the fall, and this is part of the reason that fall calving has been encouraged in the region. The lower ergovaline in the fall allows good milk production for fall calves and fewer rebreeding issues than with spring calving herds". To read the entire article entitled "Fescue Toxicity in the Fall: Is this an issue?", go to https://forages.mgcafe.uky.edu/sites/forages.ca.uky.edu/files/2025%20November%20Final.pdf In summary, the farms that manage grazing best usually have the most fescue, the best growing fescue, and the most vigorous fescue with the energy to produce more ergovaline. Good managers with thick fescue stands may also have less of other types of grasses and legumes that could dilute some of the fescue's toxicity. Ergovaline is known to negatively impact conception rates, disrupt normal hormone function, and reduce birth weights in cattle from decreased nutrient supply to the fetus. Cattle grazing toxic fescue experience suppression of prolactin hormone that is associated with a decline in milk production, and lower levels of progesterone necessary for establishment and maintenance of pregnancy.

If fescue is determined to be a contributing problem, there are options available. Cows can be moved from predominantly tall fescue pastures in the fall and wait until a couple of hard freeze periods before putting them back on these pastures. Testing for ergovaline levels in tall fescue samples from your pasture will help determine which fields are the safest for grazing during the fall, especially during breeding or during lactation. Legumes, particularly red clover, help alleviate fescue toxicity so offering hay containing red clover or, alternatively, feeding soybeans (2 lbs per head per day) or soyhulls (5 lbs per day) should be beneficial. The best long-term solution is to renovate the most toxic fields with novel endophyte tall fescue and have your cows on these fields before, during, and just after the breeding season. Check out the UK Forage Extension website for more information: https://forages.mgcafe.uky.edu/

In addition to the risk of increased ergovaline in fescue pastures, the lack of Vitamin A due to drought and excessive heat may also be a significant contributing factor. The consequences of Vitamin A deficiency during pregnancy to the fetus and its ability to survive the neonatal period have been documented in grazing beef cattle. Vitamin A is a fat-soluble molecule that plays an essential role in growth, development, reproduction, nervous system function and vision. The major source of vitamin A for cattle is beta-carotene, a precursor of vitamin A. Generally, fresh, immature green grass is abundant in beta-carotene although environmental conditions, season, stage of growth and nitrogen fertilization cause levels to vary in the plant. For example, heat and sunlight promote oxidation of carotenoids, greatly reducing beta-carotene concentrations in sun-dried pastures. After its ingestion, beta-carotene is converted to vitamin A in the small intestine, then absorbed and stored in the liver in the form of retinol. Blood vitamin A concentrations are maintained by utilizing the liver stores. Once liver stores are depleted, blood concentration rapidly decreases. In addition, a protein produced and released by the liver known as retinol binding protein (RBP), is required to transport Vitamin A to and from the liver and for its uptake by various cells. A diet deficient in protein affects the storage, transport and utilization of vitamin A. In summary, whether the cow is grazing dry grass or consuming hay made from drought stressed forages, her vitamin A intake will likely be low. Even when hay is made from good green forages, the carotene is not very stable and will decrease over time, even when the hay is stored inside. Although vitamins are in most trace mineral mixtures and feeds, Vitamin A can be degraded by exposure to light, heat, moisture, oxygen, and other compounds through oxidation.

In adult cattle, hypovitaminosis A is associated with low conception rates, abortion, stillbirths and the birth of weak calves. These weak newborns may show neurologic signs including mild to severe ataxia (wobbly gait), difficulty finding a teat and sucking, blindness (partial or complete), head tremors and depression. In some cases, neurologic damage is present at birth, preventing the normal intake of colostrum that results in failure of passive transfer. These calves will typically die within 1-2 weeks from navel infections, scours, and/or septicemia. In other cases where calves receive adequate colostrum from the dam, low Vitamin A may still be a concern if it was inadequate in colostrum. In several cases submitted to the UKVDL, analysis of serum and liver samples from calves did demonstrate deficient levels of vitamin A. However, assessment of liver or serum from the dams, especially while pregnant, is a much better way to detect deficiency. In the face of prolonged drought, prevention of vitamin A deficiency can be addressed with additional supplementation in the diet or injectable vitamin preparations, assuming there is adequate protein provided in the diet.

Infectious causes must always be considered when investigating reproductive loss. Both the BVD virus and the spirochete *Leptospira interrogans* serovar *Hardjo* infections have been implicated in weak calves. To test for BVD virus, an ear notch of skin should be collected from all calves born (whether born alive or dead) and submitted to a veterinary diagnostic lab for a BVD ELISA. Leptospirosis is much more difficult to diagnose; serum and urine samples from the dams are required for testing. Fortunately, a good annual vaccination program can significantly reduce the risk from these pathogens.

If calves are born weak, institute special care; normal calves should stand within 30 minutes of delivery and nurse within 30 minutes of standing. If the calf is slow to stand and nurse, dry the calf off, dip or spray the navel with disinfectant, and feed colostrum within 2 hours of birth. Fly control is important to keep blow flies away from the navel and other moist areas of skin. Have a good quality commercial colostrum replacement (NOT supplement) on hand and ready to mix and feed if you cannot milk the dam. Do not delay because the longer the interval from birth to feeding, the fewer antibodies absorbed by the calf. Predation from buzzards and other wildlife is likely if weak calves are left outside. Discuss these problems with your veterinarian and come up with an action plan before the next round of heat, dry weather and fescue toxicosis arrives.

Markets Will Always be Reactive, but Price Risk Management Strategies Must be Forward Looking

Dr. Kenneth H. Burdine, Extension Professor, University of Kentucky

The last month has been a wild one for the cattle markets. In mid-October, markets seemed to be setting new records each week and shrugging off any bearish news that came along. Things changed quickly in mid-October and much has been written about this in recent weeks. It seemed to begin with a statement by the president about wanting to lower beef prices. Following that statement, markets appeared to latch on to any potentially bearish news, including the potential for increased beef imports and the possibility of resuming live cattle imports from Mexico.

As of the close on Friday November 14th, the November CME© feeder cattle futures contract was down more than $42 per cwt from October 16th. CME© live cattle futures have also fallen sharply, with the December contract down almost $30 per cwt over the same time. In truth, the fundamentals of the cattle market have not really changed. Cattle supplies remain very tight, and beef demand still seems to be strong. Markets discount prices due to uncertainty and that is exactly what they have done over the last few weeks. I think one must also consider that the markets may have gotten a bit too hot and that made

them especially vulnerable this fall. For example, by mid-October that November CME© feeder cattle futures price had risen over 43% from where it started 2025 and is still up nearly 28% for the year. Regardless of how we got to this point, the impact on the value of fed and feeder cattle being sold is substantial. I always get more price risk management questions on the heels of major downward price movements than after major upward price movements. While it's good to evaluate risk management strategies during times like this, it is not a good time to develop one. Forward contracts, futures, options, and LRP insurance will not allow one to resurrect prices from mid-October unless a specific strategy was in place at that time.

The last few weeks have been another illustration of the importance of planning for downside price risk. We can talk all we want about how justified or irrational a market response may be, but markets are always going to react to new information. On the contrary, risk management plans are meant to be forward-looking. Producers should run budget scenarios for a wide range of sale prices, including major price swings that seem highly unlikely. By doing this, a farmer can make an informed decision about how much risk they are willing to accept and how much potential return they are willing to trade to limit some of that downside risk. This should be done on a regular basis for cow-calf operations, and at placement and on a regular basis for margin operations. Every operation is different and what makes sense for one operation may not make sense for another. But every producer should evaluate the impact of major price swings and consider strategies to manage that risk. Markets will always be reactive, but risk management strategies can't be.

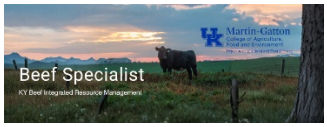
**** Other Ways to Connect ****

Kentucky Beef Extension specialist Jeff Lehmkuhler and his guests share general information on beef cattle production, research and other related information.
https://afs.mgcafe.uky.edu/extension/beef/beef-bits-podcast

Scan the QR code or use this link:

IRM Team Facebook Page:

University of Kentucky Beef Extension: https://www.facebook.com/KyBeefIRM



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