

# OFF THE HOOF

Cooperative Extension Service  
University of Kentucky  
*Beef IRM Team*

**KENTUCKY BEEF CATTLE NEWSLETTER FEBRUARY 6, 2025**

*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*

This month's newsletter includes:

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## **Timely Tips**

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

### **Spring-Calving Cow Herd**

***Get ready for calving season this month!***

- Have calving equipment, supplies and labor ready for the spring calving season. Some supplies which may be needed are: eartags and applicator (put numbers on eartags now), tattoo pliers and ink, record book, scales for calf weights, iodine for calves' navels and colostrum supplement. Calving equipment (puller and chains, etc.) and facilities should be ready and clean.
- Overall condition of the cow herd should be evaluated. Cows losing weight now are more likely to have weak or dead calves. These cows will likely be a poor source of colostrum milk for the newborn calf. Feed cows, if necessary to keep them in good body condition. Cows need to calve in a BCS of 5, minimum, to expect them to rebreed in a timely fashion. Calve you heifers a little heavier, BCS of 6.
- Heifers may begin head-start calving in early February. Move them to a clean, accessible pasture, away from cow herd and near facilities so that calving assistance can be given. Cows may start calving later this month. Signs of calving are relaxation of pelvic ligaments, enlargement and swelling of the vulva, and enlargement of the udder. Expect calving difficulty if (1) calf's head and two feet are not visible, (2) only the calf's tail is visible, and (3) the cow has been in labor for 1½ hours. Be sure calf is being presented normally before using calf puller. Recognize situations that are beyond your capability and seek professional help as early as possible. Calves that aren't breathing should receive assistance. Try sticking a straw in nostril to stimulate a reflex or try alternate pressure and release on rib cage. Commercial respirators are also available. Calves should consume colostrum within 30 minutes of birth to achieve good immunity.
- Record birthdate, cow I.D., and birthweight immediately (use your Beef IRM calendar). Identify calf with eartag and/or tattoo. Registered calves should be weighed in the first 24 hours. Male calves in commercial herds should be castrated and implanted as soon as possible.
- Separate cows that calve away from dry cows and increase their feed. Increase feed after calving to 25-27 pounds of high-quality hay. Concentrate (3-4 lb. for mature cows and about 8 lb. for first-calf heifers) may be needed if you are feeding lower quality hay. Supplementation may have a beneficial effect on date and rate of conception. It's important time to feed a beef cow after calving. Thin cows

don't come into heat very soon after calving. We must have cows in good condition, if we plan to breed them early in the season for best pregnancy rates, especially on high-endophyte fescue pastures.

- Sub-zero weather can mean death for newborn calves. During extremely cold spells, bring the cow(s) into a sheltered area as calving approaches to protect the calf. Be prepared to warm-up and feed newborn, chilled calves. Calving in mud can also cause problems.
- Watch for scours in newborn calves. Consult your veterinarian for diagnosis, cause, and treatment. Avoid muddy feeding areas so that cows' udders won't become contaminated and spread scours. Don't confine cows to muddy lots.
- Replacement heifers should be gaining adequately to reach target breeding weights by May 1. Be sure that their feeding program is adequate for early breeding.
- Start looking for herd sire replacements, if needed.

### **Fall-Calving Herd**

- Breeding season should end this month – maybe Valentine's Day. Remove bulls and confine them so that they regain condition. Be careful not to over feed. Bulls need to be kept at a BCS of 5-6.
- Consider creep feed or creep grazing (wheat, etc.) to supply extra nutrition to fall-born calves which may have to depend solely on their dam's milk supply for growth. They are not getting much except their dam's milk now (i.e. there is nothing to graze). February/March is the worst time of the year for fall-born calves.
- Provide windbreaks or clean shelter for calves.

### **General**

- Increase feed as temperature drops. When temperature falls below 15 degrees, cattle need access to windbreaks. For each 10 degree drop below 15 degrees, add three pounds of hay, two pounds of corn, or six pounds of silage to their rations.
- Provide water at all times. Watch for frozen pond hazards. If cattle are watering in a pond, be sure to keep ice "chopped" to keep cattle from walking on the ice and, possibly, breaking through. Keep automatic waterers working.
- You should be feeding a mineral supplement with adequate magnesium to prevent grass tetany (~ 15% Mg) now. The Hi-mag UK Beef IRM mineral can be used now.
- Control lice. Watch for signs such as rubbing.
- Begin pasture renovation. You can overseed clover on frozen or snow-covered pastures.

### **Frost Seeding Tips**

***Dr. Chris Teutsch, Dr. S. Ray Smith, Dr. Jimmy Henning, Forage Extension***

Legumes are an essential part of a strong and healthy grassland ecosystems (Figure 1). They form a symbiotic relationship with *Rhizobium* bacteria in which the bacteria fix nitrogen from the air into a plant available form and share it with the legume. Clover also increases forage quality and quantity and helps to manage tall fescue toxicosis. In the past, the positive impact of clover on tall fescue toxicosis has always been thought to simply be a dilution effect, but new research from the USDA's Forage Animal Production Unit in Lexington shows that compounds found in red clover can reverse

vasoconstriction that is caused by the ergot alkaloids in toxic tall fescue. The primary compound found in red clover is a vasodilator called Biochanin A.

Clover stands in pastures thin overtime due to various factors and require reseeding every three to four years. There are several techniques for reintroducing clover into pastures including no-till seeding, minimum tillage, and frost seeding. Of these techniques, frost seeding requires the least amount of equipment and is the simplest to implement. Frost seeding is accomplished by broadcasting clover seed onto existing pastures or hayfields in late winter and allowing the freezing and thawing cycles to incorporate the seed into the soil (Figure 2 and 3). This method works best with red and white clover and annual lespedeza. It is NOT recommended for seeding grasses or alfalfa. This article covers the important factors for successful frost seeding.

### Frost Seeding Tips

- *Control broadleaf weeds.* Ideally, broadleaf weeds should be controlled prior to seeding legumes since most herbicides will damage clover seedlings. This is best accomplished by controlling weeds the season prior to renovation. More information on controlling weeds in pastures and hayfields can be obtained contacting your local extension office or consulting AGR-207 Broadleaf Weeds of Kentucky Pastures.
- *Soil test and adjust fertility.* For clover and other improved legumes to persist and thrive in pastures, an environment conducive for their growth must be created. This starts with proper soil fertility. Prior to frost seeding clover, soil test pastures and hayfields then lime and fertilize pastures according to the soil test recommendations.
- *Suppress sod and decrease residue.* The existing sod must be suppressed and plant residue reduced prior to seeding. The reduction in plant residue allows seed to reach the soil surface where it can be incorporated by freezing and thawing events. Sod suppression and residue reduction is best accomplished by hard grazing in late fall and early winter.
- *Ensure good soil-seed contact.* Good soil-seed contact is required for seed germination and emergence. In frost seedings, this occurs when freeze and thaw cycles form cracks in the soil surface, often referred to as a honeycomb (Figure 3).
- *Seed on proper date.* Frost seeding is best accomplished in late winter or very early spring (February and early March). Frost



Figure 1. Clover and other legumes are an important part of sustainable grassland ecosystems. They form a symbiotic relationship with Rhizobium bacteria in which nitrogen from the air into a plant available form, improve nutritive value, and help to alleviate tall fescue toxicosis. (Photo by Chris Teutsch)



Figure 2. Frost seeding is accomplished by broadcasting clover seed onto closely grazed pastures in late winter or early spring. Using GPS guidance helps operators maintain equal spacing between passes and consistent speed. (Photos by Chris Teutsch)



Figure 3. Freeze and thaw cycles during late winter result in the formation of cracks in the soil surface often referred to as a "honeycomb". This heaving incorporates clover seeds into the soil and is commonly referred to as "frost seeding". (Photo by Jimmy Henning)

seeding is accomplished by simply broadcasting the seed on the soil surface and allowing the freeze and thaw cycles to incorporate the seed into the soil. Success with frost seeding can be enhanced by dragging the pasture as the seed is being broadcast or immediately after. Rolling the field with a corrugated roller after seeding will also improve success.

- *Use high-quality seed and adapted varieties.* Choose clover varieties that have been tested in Kentucky. The most current variety testing results can be found on the [UK Forage Extension](#) website or by visiting your local [county extension office](#). Using the [Long-Term Summary of Kentucky Forage Variety Trials](#), choose varieties that have performed above average (>100%) for multiple site-years. This indicates that they are well adapted to conditions found in Kentucky. Use either a certified or proprietary seed to ensure high germination, good seed genetics, and low noxious weed content. Do NOT use common or VNS (Variety Not Stated) seed since there is no way to tell how it will perform in Kentucky.
- *Legume mixture for Kentucky.* In Kentucky, a good mixture for renovating pastures with is 6-8 lb/A of red clover, 1-2 lb/A of ladino or intermediate white clover. On rented farms or where soil fertility is marginal, adding 10-15 lb/A of annual lespedeza can be beneficial. Annual lespedeza is a warm-season annual legume that was used extensively in the past before producers had ready access to lime and fertilizer. In general, cool-season legumes (red and white clover) will be more productive under good growing conditions.
- *Use correct seeding rate.* Make sure to maintain and calibrate broadcast seeding equipment prior to planting (see video on [KYForages YouTube Channel on seeder calibration](#)). Seeding at too high of a rate needlessly results in higher seed costs. On the other hand, seeding at too low a rate results in weak stands and lower productivity.
- *Inoculate legume seed.* Most improved clover seed comes with a lime-based seed coating that contains inoculant. Make sure that the seed is fresh and has not been stored under adverse conditions. If the seed is not pre-inoculated, inoculate it with the proper strain of nitrogen-fixing bacteria prior to seeding. This is relatively inexpensive insurance that optimum nitrogen fixation will take place.
- *Check seed distribution pattern.* When using a spinner type spreader/seeder make sure and check your spreading pattern. In many cases small, seeded forages are not thrown as far as you think. This can result in strips of clover in your pastures rather than a uniform stand. Also check your seed distribution pattern. Single disk spinners often throw more seed to one side if not correctly adjusted.
- *Use GPS guidance to maintain a consistent distance between passes and speed.* It is often difficult to see where seed has already been broadcast and many ATV/UTVs do not have a functioning speedometer. Using a portable GPS unit can reduce misses and overlaps and help the operator maintain a consistent speed (Figure 2).
- *Control post-seeding competition.* Not controlling post-seeding competition is one of the most common causes of stand failures. One of the best management practices is to leave cattle on pastures that have been overseeded with clover until the clover seedlings have germinated and are tall enough that the cattle start to graze them. Then remove animals from the pasture and allow the clover to

reach a height of 6-8 inches. At that time the paddock can be placed back into the rotation. If the existing vegetation is not controlled, the new clover seedlings will be shaded out.

*For more information on frost seeding contact your local extension agent or visit the [UK Forage Extension Website](#).*

## **Placements Below Expectations in January Cattle-on-Feed Report**

***Dr. Kenny Burdine, University of Kentucky***

The January Cattle on Feed report was released on Friday afternoon. Total on-feed inventory to start the year was estimated at a little over 11.8 million head, which is down by just under 1% from January of 2024. Despite the fact that feeder cattle supplies have been lower, feedlot inventories ran above year-ago levels for eight of twelve months in 2024 as lower feed prices encouraged longer feeding times. While I don't want to read too much into it, this was the largest year-over-year decline since May.

Placements were once again the headliner of the report as they came in below, and outside the range of pre-report estimates. December 2024 placements were estimated at 1.64 million, which was 3.3% below December 2023. On the surface, this seemed logical as December represented a full month of not receiving live cattle imports from Mexico. This also marked the second month in a row with placement levels being more than 3% below year-ago.

Friday's report was also a quarterly cattle-on-feed report, which means it included an estimate of the steer / heifer breakdown. In the absence of a July cattle inventory report, this has been one of the main indicators economists have been tracking for evidence of heifer retention. Heifers accounted for 38.7% of total on-feed inventory on January 1, 2025. While this doesn't speak to retention, it is worth noting that this is about 1% lower than last January and 1% lower than October 2024. So, it does bear watching as we move further into 2025. Again, I think imports from Mexico had some impact here as heifers had represented a higher than usual share of imports prior to the ban in late November.

Last week's cattle on feed report will be overshadowed later this week as USDA-NASS will release their annual inventory estimates on the afternoon of January 31st. While beef cow slaughter was down sharply for 2024, most are still expecting continued decreases in beef cattle numbers at the national level. It will be interesting to see the state-by-state numbers and specifically to look at areas where heifer retention may have already begun. Given the favorable price outlook for calves, I think heifer retention is very possible in 2025 if weather is cooperative. But I also think this will be a relatively slow cow-herd expansion once retention does begin.

Feeder cattle and calf prices were generally higher last week, as were fed cattle prices. Boxed prices were down slightly, but all prices were sharply above year ago levels. Live and feeder cattle futures were up sharply on the week.

## The Top Ten New Years' Resolutions for Cow/Calf Producers

*Dr. Michelle Arnold, DVM – Ruminant Extension Veterinarian (UKVDL)*

The Top Ten New Years' Resolutions, first published in January 2022, serves as a good reminder of the management practices that almost always need fine-tuning in cow/calf operations. As winter gives way to spring, try to incorporate one or more of the following resolutions, updated for 2025.

In 2025, I resolve to...

1. Improve the water the cattle drink: Water is exceptionally important, relatively inexpensive, and readily available but it is often the most ignored nutrient. Water consumption varies depending on age, breed, stage of pregnancy or lactation, and outdoor temperature and humidity, but it can reach as high as 25-30 gallons per day during hot weather. Water-related health problems are seldom due to what is in the water but rather the decrease in water intake because of the poor quality, bad taste and offensive odor. Decreased consumption is just as harmful as not having enough water available. When cattle do not drink enough, feed intake and milk production drop, heat stress worsens, and overall immunity suffers. If cattle are allowed to stand in their water sources such as in ponds, fecal and urine contamination will decrease water quality and certain diseases (for example, leptospirosis) can easily spread through contaminated water. If the water quality is good but the tanks are dirty, the message is the same-clean the tanks to improve water intake.
2. Know how much mineral my cattle consume: Having good quality trace mineral out for cattle is only half the battle; knowing it is being consumed at the expected rate is equally important. Check the mineral feeders regularly and always keep trace mineral in front of the cattle but also keep track of the number of bags you feed over a 1–2-week period of time. Check the mineral label for expected consumption, typically 3-4 ounces per head per day. Next question-how many head of cattle have access to the mineral? If the cows have calves that also eat minerals, they must be included because calves consume roughly half the amount allotted to an adult cow. Then do the math! If I have 20 cows that should be consuming 4 oz per head per day (80 oz daily) and a 50-pound bag is equal to 800 ounces, then a bag of mineral should last roughly 10 days. If cattle are consuming too much mineral, try moving the feeder farther from the water source or mixing in loose salt to slow the consumption rate. However, mineral feeders should not be allowed to stand empty, or cattle will overeat salt or mineral when it is offered again, which can be deadly. If cattle are not consuming enough mineral, make sure to provide adequate access for cows and calves, for example 1 mineral feeder per 15 cow/calf pairs. Do not offer additional loose salt, salt blocks, or alternate sources of salt because it will reduce trace mineral intake. Trace minerals, especially copper and selenium, are often found to be far below acceptable levels in KY cattle without daily supplementation. The absence of these vital nutrients is a major factor in

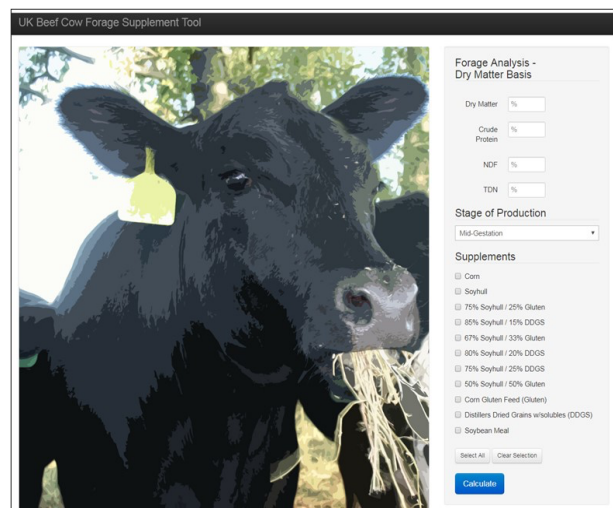


Figure 1: The UK Beef Cow Forage Supplement Tool can be found at <http://forage-supplement-tool.ca.uky.edu/>

disease development. The keys to using a free-choice trace mineral product are to ensure cattle have access to mineral 100% of the time, use a palatable, quality product and make sure they are consuming it at the expected level.

3. Know my hay quality and feed it out according to my animals' need: Forage testing takes the guesswork out of meeting the nutrient requirements in cattle. Once the forage quality is known, a supplemental feed can be chosen to meet deficiencies if needed, especially for cows in early lactation and for young, growing cattle with high energy needs (see Figure 1). Nutritional requirements are influenced by body size, production/pregnancy status, level of milk production, growth rate, as well as the environmental conditions.

If hay quality is poor, for example if cut very ripe (late stage of maturity), rained on while curing, and/or baled with enough moisture to support mold growth, supplementing cattle with adequate energy and protein sources will likely be required to meet their basic metabolic needs until grass is available again. Many cows and calves presented for necropsy (an animal "autopsy") in late winter reveal a complete absence of fat and death is due to starvation. It is often difficult for producers to realize that cattle can starve while consuming all the hay they can eat – especially if the forage has crude protein levels in the 3-4% range, and TDN (energy) is <40% – as is common in some late-cut, overmature, rained-on hay. Many producers purchase "protein tubs" varying from 16-30% protein to make up for any potential protein deficiencies but fail to address the severe lack of energy in the diet. Both are critical components.

Keep cows from losing weight, especially in late pregnancy and early lactation. Learn to body condition score cows so you will know where on the cow to look for signs of early weight loss. Inadequate nutrition severely affects the developing immune system of the fetus in a pregnant cow. A weak cow may experience dystocia (a slow, difficult birth) resulting in lack of oxygen to the calf during delivery, leading to a dead or weak calf. Calves born to deficient dams have less "brown fat", so they are less able to generate body heat and are slower to stand and nurse. Poor colostrum quality and quantity from protein and energy-deficient dams will not support calf vitality, survival and performance. Thin cows will be the last ones to rebreed.

4. Have a daylight relationship with my veterinarian: Work with a veterinarian during regular business hours to establish a valid veterinary-client-patient relationship (VCPR). Cattle herds are unique entities with different risks for disease on every farm so working routinely with a veterinarian is your best bet to improve herd health. Examples include asking your vet to pregnancy check the cows, to vaccinate and deworm the cattle, to perform breeding soundness exams on the bulls, or to design a vaccination program for your cattle and then purchase the vaccines from the vet. Large animal veterinarians can make a lot more money in much more comfortable places doing small animal practice (dogs and cats) so appreciate these individuals for the services they provide. Don't wait until "the sky is falling" to give them a call.
5. Think twice before delivering an antibiotic to an animal that appears to be sick: Antibiotics are effective against bacterial infections, period. Disease may be due to viruses, parasites, metabolic disorders, cancer, and many other causes, none of which respond to antibiotic treatment. Giving an antibiotic when it is not needed only leads to antibiotic resistance and treatment failure when you need it the most. See point #4-a good physical exam by a veterinarian goes a long way when it comes to selection of the right treatment regimen. At minimum, check the sick animal's temperature before initiating antibiotic therapy; if the animal does not have a fever of 104°F or above, put the antibiotics away.



6. Improve my understanding of biosecurity and figure out where I am failing: Purchasing bulls, cows, or calves, and bringing them home to the farm is likely the single most dangerous time for introduction of new diseases into a herd. Even show animals returning to the farm from events should be isolated to prevent introduction of disease when they re-enter the herd. Any newly purchased animals should be isolated either off the farm or in a well-segregated area for at least 2 weeks (3-4 weeks is better) and observed for any signs of illness. During the period of isolation, a veterinarian should be consulted to appropriately test and vaccinate new arrivals. The best practice is to purchase animals from herds of known health status that will provide a vaccination and health history. The introduction of an animal with an untreatable disease such as Johne's or a BVD persistently infected (PI) animal could have devastating, expensive, long-term effects on the health of the cow/calf herd. Understand the risks and make decisions accordingly.
7. Be better prepared to handle labor and delivery problems: Checking on cows and, more importantly, on heifers close to calving allows early detection of difficulty and intervention if needed during calving. If a cow or heifer is in active labor for an hour and making no progress, calving intervention is indicated. Assist or call for assistance with calving as early as possible, especially with heifers. Make sure calves start nursing after calving, keeping in mind that calves should stand within 30 minutes of delivery and nurse within 30 minutes of standing. If in doubt that the calf will be able to stand and nurse within an hour, make sure the calf is warm and then feed a good quality colostrum (from the dam or replacer), at least 1-2 quarts, within an hour of birth and again before 6 hours old. Familiarize yourself with how to use an esophageal feeder; an excellent video "How to Feed Newborn Calves (esophageal feeding)" is available on the Beef Cattle Research Council website at <https://www.beefresearch.ca/blog/image-video-library/#calving> along with many other educational videos.
8. Improve my forage base: If you graze cattle, think of yourself as a grass farmer because you sell pounds of calf produced by a cow that eats grass and makes milk. The UK Forages website: <http://forages.ca.uky.edu/> is full of easy-to-find, useful information to make pastures more productive. On the website, sign up for the monthly UK forage newsletter that is full of timely tips to improve pastures and forages. Check out their instructional videos at <https://www.youtube.com/c/KYForages>
9. Keep better records in a standardized fashion: It is hard to make well-informed decisions without information. At the very least, every animal should have a readable ID tag and calving dates should be recorded. Other parameters such as calf birth and weaning weights, sex, and dam information help differentiate the poor performing cows from the great ones. Vaccination records should include date administered, vaccine name, lot and serial numbers and expiration dates at a minimum. Computerized records are preferred but one of the pitfalls to any computerized record keeping system is what is known as a "free text field" where the producer types in a piece of information in a provided space. For example, a producer may want to track the calves that developed diarrhea so in the disease column, the producer types "scours" in the free text field. However, "scours" has multiple names and someone else may type in "diarrhea", "loose stool", or "enteric disease" in the free text field. Later, when it is time to search the records for how many calves developed scours, those calves with diarrhea but with disease names other than "scours" will be missed. Other problems such as misspelled words, too many pieces of information in the same field, and vague information make analysis of free text nearly impossible.
10. Find a trusted source for information and stop believing everything on Dr. Google or see posted on social media: This is true in much more than beef cattle production. There is plenty of



misinformation available and discernment is becoming a lost art. Veterinarians, Extension agents, and University Extension specialists, among others, can help answer or point you in the right direction when it comes to questions about the health and care of cattle. Just ask!

Remember the old phrase, often attributed to Albert Einstein, “insanity is doing the same thing over and over and expecting different results.” Adopt a few new practices or improve some old ones this year and see what happens in your cattle herd. Hope you have a prosperous 2025.