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Beef IRM Team

OFF THE HOOF

KENTUCKY BEEF CATTLE NEWSLETTER. FEBRUARY 6, 2023

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Contents

This month's newsletter includes:

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

Spring-Calving Herd

Get ready for calving season this month!

- Have calving equipment, supplies and labor ready for the spring calving season. Some supplies that 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. Keep your veterinarians phone number handy!
- 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 an ear tag 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. Hay analysis will greatly aid any decisions regarding type and amount of supplementation. Supplementation may have a beneficial effect on date and rate of conception. It's an 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 quickly 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 April 1st. 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.
- 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 degrees drop below 15 degrees, add three pounds of hay, two pounds of corn, or six pounds of silage to their rations.
- Always provide water. 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.
- Control lice. Watch for signs such as rubbing.
- Begin pasture renovation. You can overseed clover on frozen or snow-covered pastures. For more information on frost seeding clover, look at the January issue of Off the Hoof or go to the UK Forages website. (www.forages.ca.uky.edu).

2023 Mid-South Stocker Conference Back in Person

Dr. Jeff Lehmkuhler, Extension Professor, University of Kentucky

The Mid-South Stocker conference planning committee is hosting this year's conference in person at Western Kentucky University. The event will be held at the WKU L.D. Brown Ag Expo Center, Bowling Green, KY. The program will start on the evening of February 21 at 5:30 with registration followed a meal and vendor product reviews. Dr. Michelle Arnold, UK Extension Veterinarian, will wrap up the evening with a review of necropsy findings.

The program resumes the next day on February 22nd with registration at 8:30 and tradeshow. Given high feed costs, everyone is asking how to get more from their forage program. Dr. Kim Mullenix, Auburn University, will share forage-livestock considerations under changing environmental conditions. Following her presentation, Dr. Brittany Harlow, USDA Food Animal Production Research Unit, will discuss recent findings on the benefits of red clover to cattle on tall fescue.

Market outlook and economic risk management should be top of mind as well moving through 2023. Dr. James Mitchell, University of Arkansas, will provide a market outlook for the southeast for 2023. Our own, Dr. Kenny Burdine will then share considerations for using the Livestock Risk Protection program. Given the importance of keeping stocker cattle healthy to be profitable, Dr. Arnold will join us again to give a health update. Finally, the virtual tours of stocker operations in the region will once again be a part of the program.

To register, use the Eventbrite link https://www.eventbrite.com/e/483761211807 or use the qr code below. The cost is $70 for both days or $50 for a single day. College and high school student registration is $15.

We look forward to hosting you this year in person for the Mid-South Stocker Conference on February 21-22, 2023. Be sure to register and mark your calendars.

Changes to CAIP EPD Guidelines for Beef Bulls

Dr. Darrh Bullock, Extension Professor, University of Kentucky

Every year we re-evaluate the EPD requirements for the CAIP bull cost-share program and make changes as needed. This year's EPD values can be found at:

https://www.kyagr.com/agpolicy/documents/2023-Program-Guidelines-Applications/ADF_APP_caip-epd-standards.pdf. For information and requirements for the entire Beef Genetics Improvement Program go to: https://www.kyagr.com/agpolicy/documents/2023-Program-Guidelines-Applications/ADF_APP_animal-large.pdf. These changes are usually when a breed changes their method of computing EPDs, but also for various other reasons. This year we saw more than usual changes to the guidelines; most were subtle, but others were significant. Additionally, bulls must have genomically enhanced EPDs to qualify, so make sure that the EPDs you are using to determine if the bull qualifies have been genomically enhanced or have a Calving Ease EPD of .25 or greater.
We have developed an online tool to assist the process of checking if your bull is eligible https://afs.ca.uky.edu/beef/KBAT. This tool can help those that are looking to buy a bull, by simply entering the appropriate EPDs. The tool can also assist seedstock producers who can enter a bull's values and it will reveal all the categories that the bull qualifies for.

The most recent values are dated January 30,2023. If any changes occur we will report in Off the Hoof, but to make sure that you have the most current values check the KOAP website above before purchasing your bull. For more information on Beef Cattle Genetics please visit: https://bce.ca.uky.edu/index.php/production/genetic-management.

Antibiotic Stewardship-What to do Now to Prepare for Changes Ahead

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

On June 11th, 2021, The Food and Drug Administration (FDA) finalized a Guidance for Industry (GFI) #263, which outlines the process for animal drug manufacturers to change all remaining antibiotic formulations used in animal health care from over-the-counter (OTC) to prescription status. Products commonly used by beef producers such as injectable penicillin and oxytetracycline (for example, LA-300) will no longer be available without a prescription from a veterinarian as of June 2023. Specifically, all dosage forms of medically important antimicrobials approved for use in animals will only be available from, or under the supervision of, a licensed veterinarian, and only when necessary for the treatment, control, or prevention of specific diseases. Producers will need to consult a veterinarian to obtain all antibiotics in any form (injectable, bolus, topical, intramammary) or to request a prescription to purchase them from a distributor.

FDA's goal through GFI #263 is to curb the development of antibiotic-resistant bacteria and, in turn, reduce the risk of human infections that are difficult to treat due to ineffective antibiotics. To accomplish the goal, FDA is promoting the implementation of "responsible antibiotic stewardship practices in veterinary medicine" which are defined as "actions that preserve the effectiveness of antibiotics while maintaining animal health". Examples of responsible practices include 1) only using antibiotics when necessary to treat a sick animal; 2) establishing vaccination protocols and other disease prevention plans to reduce the need for antibiotics; and 3) livestock owners and veterinarians working together to make decisions to improve the overall animal health and welfare of the herd over the long term.

Given that this change is less than 6 months away, what can a livestock producer do now to prepare for it? For a veterinarian to legally sell or prescribe prescription products, FDA states, "A licensed veterinarian may legally use or dispense a prescription animal drug only within the course of her/his professional practice where a valid veterinarian-client-patient relationship exists. Veterinarians employed by drug manufacturers or distributors may not legally dispense prescription drugs to

Box 1
KRS Sec 321.185 Veterinarian-client-patient relationship (VCPR)
(1) In order for a veterinarian to practice veterinary medicine, a relationship among the veterinarian, the client, and the patient shall be established and maintained.
"Veterinarian-client-patient relationship" means that:
(a) The veterinarian has assumed the responsibility for making judgments regarding the health of the animal and the need for veterinary treatment, and the client, whether owner or other caretaker, has agreed to follow the instructions of the veterinarian;
(b) There is sufficient knowledge of the animal by the veterinarian to initiate at least a general or preliminary diagnosis of the medical condition of the animal. This means that the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal by virtue of an examination of the animal or by medically appropriate and timely visits to the premises where the animal is kept; and
(c) The practicing veterinarian is readily available or shall provide medical service for follow-up in case of adverse reactions or failure of the regimen of therapy. A new regimen of therapy shall be contingent only upon cooperation of the client and availability of the subject animal.
(2) The veterinarian shall maintain records which document patient visits, diagnosis, treatment, and other relevant information.

laypersons unless they meet the above criteria. Similarly, practicing veterinarians or their employees may not legally sell prescription animal drugs to walk-in customers unless the same criteria are met." Therefore, the first step to do now is establish a valid veterinary-client-patient relationship (VCPR). Kentucky has its own definition of a VCPR (see Box 1). Although the rules are straightforward, how to build a VCPR first requires communication with a veterinarian and asking the question "What do I need to do to establish and maintain a VCPR with you?" The law requires the veterinarian to be familiar with the client, the livestock, and the management of the animals on the farm through "medically appropriate and timely visits" to the place the animals are kept. Scheduling routine veterinary visits to the farm at intervals *established by the veterinarian* is a perfect way to meet this requirement. At a minimum, the veterinarian needs to know the livestock business you are in (commercial cow/calf; stocker/backgrounder; seedstock operation), what vaccines are routinely given and when, what diseases are recurring problems at the farm and how you typically treat them (for example, pinkeye, foot rot, bronchopneumonia, calf scours, etc.) and any health concerns that may be on the horizon. Some veterinarians will execute a written VCPR agreement although it is not required.

Once the VCPR is established and recognized by both the client and the veterinarian, then the discussions can begin regarding how to obtain prescription antibiotics after June 2023. Working with the veterinarian to establish when antibiotics are necessary before illness occurs is crucial to having the drugs on hand when needed. Setting up treatment protocols in advance with the veterinarian for common problems on your farm, including a written plan of when to treat an animal (also known as a "case definition"), what drug to use (dose, route of administration, how often to give it), what treatment records should be kept, and how withdrawal times will be recorded and observed will reduce the need for emergency veterinary visits and expedite treatment. An important piece of the protocol is to establish when an antibiotic treatment should be considered a failure and what the next step should be when failure is recognized. The treatment protocol needs to be discussed with every person on the farm who may be involved in identifying, pulling and treating an animal in the herd.

Figure 1: Excerpted from FDA "Antibiotic Stewardship in Veterinary Medicine" brochure; accessed 1/10/2023

Although producers express frustration if a veterinarian does not honor a request for a prescription medication or veterinary feed directive (VFD), it is important to understand that any violative antibiotic residue detected at slaughter will result in an investigation *of the veterinarian who prescribed the drug*, even if the drug was administered improperly by the producer and/or instructions were not followed. In addition, if a drug is used in any manner differently from what is written on the label (known as Extra label drug use or ELDU), the meat withdrawal time usually must be extended. For example, if a higher than label dose is used, it changes when the residue concentrations will fall below the drug testing tolerance. Bear in mind that any drug delivered with a dart is considered extra label use and may require an extended withdrawal period, even when all other label directions are met. The only way a drug can legally be used extra label is when it is prescribed by a veterinarian, who must also issue an extended withdrawal interval. Veterinarians can contact the Food Animal Residue Avoidance Databank (FARAD) for guidance in establishing the required withdrawal time.

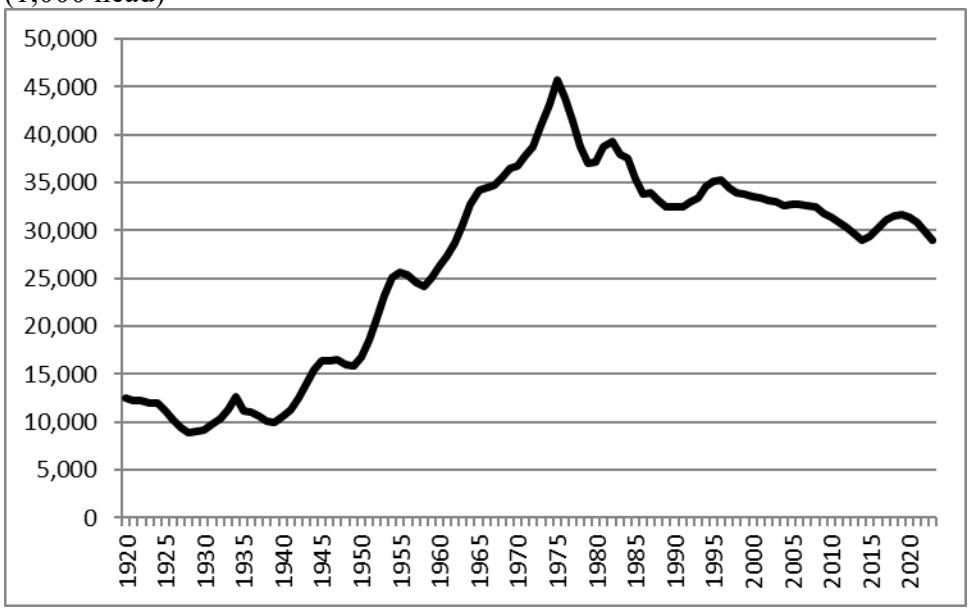
Bottom Line: *Talk to your veterinarian*, sooner rather than later!

US Beef Cow Herd at Lowest Level Since 1962

Dr. Kenny Burdine, Extension Professor, Livestock Marketing, University of Kentucky

USDA-NASS released their January 1, 2023, cattle inventory estimates on the afternoon of January 31st. There was really no question that the beef cattle herd had gotten smaller; it was really just a question of how much smaller it had gotten. A combination of dry weather, higher input costs, and strong cull cow prices resulted in an 11% increase in beef cow slaughter during 2022. This was combined with a decrease in heifer retention as more heifers entered the beef supply chain. USDA estimated the number of beef cows in the US to be down by more than 1 million year-over year. This was decrease of 3.5% and that was after a downward revision of about 0.5% to the January 1, 2022 estimate. For perspective, this puts the size of the US cowherd below 2014 levels and the smallest since 1962.

January 1 US Beef Cow Inventory (1920 to 2023)
(1,000 head)



Source: USDA-NASS and Livestock Marketing Information Center

While I always tend to focus on beef cow inventory, several other numbers are of particular interest. Heifers being held for beef cow replacement was down 6%, which is a larger decrease than was seen in either the January or July report from last year. This suggests continued reductions in the size of the beef cow herd for the current year. While weather will certainly play a factor here, both cow numbers and heifer retention estimates suggest that calf crops are going to keep getting smaller in the near term.

I would also point to cattle-on-feed numbers. As more females entered the beef supply chain, on-feed inventory ran above year-ago levels for much of 2022. That trend finally changed last fall and note the 4% reduction seen in the following table. This speaks to beef production in 2023, which will be down considerably. In fact, 2023 will be the first year-over-year decrease in beef production that has been seen since 2015.
The Kentucky estimates were also very much worth discussion. A large number of cull cows had moved through Kentucky markets, so a significant decrease in cow numbers was expected. USDA estimated the size of the KY beef cow herd at 895 thousand. This was a 7% decrease from 2022 and the smallest beef cow herd the state has seen since 1967. Beef heifer retention was also estimated to be down by 8% in the Commonwealth.

While the table below speaks to flat dairy cow numbers and a decrease in the number of heifers being held for dairy cow replacement at the national level, the Kentucky estimates did not follow this trend. After a long period of decreasing dairy cow numbers, USDA estimated that Kentucky dairy cow inventory increased by one thousand cows. This 2% increase is significant in that it may suggest a reversal of this trend that has been in place for a very long time.

The USDA report is summarized in the table below and the full report can be accessed at: https://downloads.usda.library.cornell.edu/usda-esmis/files/h702q636h/ms35vn48m/fj237f291/catl0123.pdf

USDA January 1, 2023 Cattle Inventory Estimates

	2022 (1,000 head)	**2023 (1,000 head)**	**2023 as % of 2022**
All Cattle and Calves	92,076.6	89,274.1	97
Cows and Heifers That Have Calved	39,360.1	38,320.4	97
Beef Cows	29,983.1	28,917.9	96
Milk Cows	9,377.0	9,402.5	100
Heifers 500 Pounds and Over	19,916.0	19,172.5	96
For Beef Cow Replacement	5,481.5	5,163.7	94
For Milk Cow Replacement	4,440.6	4,337.2	98
Other Heifers	9,993.9	9,671.6	97
Steers 500 Pounds and Over	16,704.7	16,131.6	97
Bulls 500 Pounds and Over	2,109.6	2,029.0	96
Calves Under 500 Pounds	13,986.2	13,620.6	97
Cattle on Feed	14,694.6	14,157.3	96
	2021 (1,000 head)	**2022 (1,000 head)**	**2022 as % of 2021**
Calf Crop	35,165.9	34,464.5	98

Source: NASS, USDA