OFF THE HOOF

Cooperative Extension Service
University of Kentucky
Beef IRM Team

KENTUCKY BEEF CATTLE NEWSLETTER AUGUST 1, 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:

Timely Tips

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

Spring-Calving Cow Herd

- Fescue pastures don't generally produce much this month. Rain has been spotty but the heat persisted throughout July and may become an issue in August. Most of you may have some forage going into the usually dry months. Keep rotating pastures to permit calves to continue gaining weight. Always keep minerals available.
- Bulls should have been removed from the cow herd by the end of the month. 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. If removing the bull is not practical for you then call your herd veterinarian and schedule a pregnancy diagnosis. Market your "late-bred" cows and keep those that conceived early in the breeding season. If you market feeder calves, establishing and maintaining a controlled calving season is paramount to profitability. The University of Kentucky has several publications to help establish and maintain a controlled calving season.
- 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.

Fall-Calving Cow Herd

- Dry cows should be moved to better pastures as calving time approaches. Cows should start calving next month. Yearling heifers may begin "headstart" calving later this month. Plan to move cows to stockpiled fescue for the breeding season, so it will soon be time to apply nitrogen fertilizer. If hot, dry weather persists through August and grass gets short, consider feeding good quality hay to take some pressure off pastures.
- Prepare for the fall-calving season (usually September). Get ready, be sure you have the following:

    - record book
    - ear tags for identification
    - calf puller
    - castration equipment
- Communicate with your herd veterinarian as calving season approaches. Maintaining a great relationship with your herd veterinarian is crucial for optimal production.

General

- Perhaps the most tedious aspect of agriculture is keeping records, generating reports, and using data to make management decisions. Consider using one of the many electronic data collection and management systems available on the market. We recommend Stocket.us for a simple, inexpensive web/app platform.
- 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.
- Select pastures for stockpiling. Remove cattle and apply nitrogen when moisture conditions are favorable. Stockpiled fescue can be especially beneficial for fall-calving cows after calving. Reproductive rates are highest in fall-calving cows grazing stockpiled fescue.
- 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.
- 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.
- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- Cattle may also be more prone to eat poisonous plants during periods of extreme temperature stress. They will stay in "wooded" areas and browse on plants that they would not normally consume. Consider putting a roll of hay in these areas and/or spraying plants like purple (perilla) mint that can be toxic.
- Take soil samples to determine pasture fertility needs. Fertilize as needed, this fall.

Beef Bash 2025

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

The UK Beef IRM team and the Kentucky Cattlemen's Association are proud to host Beef Bash again at the University of Kentucky C. Oran Little Research Center (LRC) in Woodford County on September 20, 2025. This event combines social, educational and industry interaction and should have something for everyone who is interested in beef and the Kentucky beef industry. We moved Beef Bash to a Saturday so we could include youth and have several sessions designed for hands-on experiences for kids interested in learning more about beef cattle.

The staging area will be under the big tent near the Intensive Research Building this year. We will have live cattle demonstrations, research presentations, commercial and educational exhibits. You will have opportunities to take various tours that will be available, or you can simply sit on a bale of straw and visit with university or industry leaders, commercial representatives, or your fellow cattle producers.

Most of the UK beef specialists, forage specialists and researchers, along with specialists from other disciplines, will be there to participate in the program and to visit with you. We will be updating information from time to time but here is a general description of what you can see and do:

Cattle. We manage approximately 150 cows and will be calving by mid-September. Most of the cows are commercial Angus cows with some Hereford and Simmental influence. All females are subjected to two rounds of fixed-timed AI and are raised on the farm under a strict herd health program. We'll have several cattle exhibits to illustrate various management practices. Mr. Kirk Vanzant (UK Beef Farm Manager), Dr. Darrh Bullock, and I are happy to discuss the breeding and management programs with you.

Commercial exhibits. A large tent in the staging area will house about 30-40 commercial exhibits and serve as the focal point of all activities. You can visit with various company representatives as you please and make plans for purchasing products for weaning calves or wintering the cow herd. Information on many new products will be available. Take your time and visit a while.

Educational opportunities. Most of the faculty involved with the beef industry will be available and sharing some insights with attendees. Youth that attend will get several hand-on opportunities to learn about various aspects of beef production. The educational topics include cooking demonstrations and the value of beef in the diet, advances in beef cattle nutrition, forage management tips, managing fescue toxicosis, incorporating precision ag in beef cattle systems, and chute-side pregnancy diagnosis and techniques to synchronize estrus for AI. As you can tell, the topics cover a wide variety of topics which might relate to you and your cattle operation.

Social: Our main goal with Beef Bash is fellowship. Visit with the leadership of the Kentucky Cattlemen's Association and the University of Kentucky. Bring any prospective agriculture students, especially those interested in Animal and Food Sciences with you. The beef Extension specialists and researchers will, of course, be available to visit and answer questions. Dave Maples and the KCA staff will be represented with leaders from across the state. Come and visit with other cattlemen from across the state and be a part of making KCA the voice for all Kentucky cattle producers.

Research Results. One key to Beef Bash is that our clientele gets to learn about the research conducted at the LRC to improve the beef herds of Kentucky and beyond. This is a key opportunity to interact with our researchers and ask questions pertaining to their research. Our beef nutrition researchers are the best in the world and Beef Bash is an excellent opportunity to get a taste of the work that is being done here in Kentucky. Cutting-edge research abounds at the LRC, and we are excited to share these findings and the direction of this work with you.

USDA-ARS. Faculty working with the USDA-ARS will also attend to discuss their research and its application to the Kentucky beef industry. This group is expanding its impact in Kentucky and has considerably exciting news to share with those attending.

We hope to see you at the LRC in Woodford County. You can register on-site but we prefer you to preregister so we can more efficiently organize lunch. To preregister, you can follow this link (https://www.eventbrite.com/e/beef-bash-2025-registration-tickets-1478821267219?utm-campaign=social&utm-content=attendeeshare&utm-medium=discovery&utm-term=listing&utm-source=cp&aff=ebdsshcopyurl) or contact your local Extension Office, the Kentucky Cattlemen's Association, or email Maggie.ginn@uky.edu.

You are important to us and the beef industry. Make plans now to spend some time with folks who are interested in the same things that you are – improving our position in the beef industry. Mark September 20th on your calendar and bring a neighbor. Consider this my personal invitation to help make this the biggest "bash" ever!

Cowherd Expansion is Not the Only Way to Capitalize on a Strong Calf Market

Dr. Kenny Burdine, University of Kentucky

Much has been written recently about the strength of the current cattle market. With beef cow inventory at a 60+ year low and demand being very strong, cow-calf operations are clearly in the driver's seat. Calf values are more than double what they were three years ago, which speaks to considerable opportunity for cow-calf operators to invest in their cowherds. Expansion is often the first opportunity that comes to mind in a strong calf market and there is likely merit in expansion, if doing so is consistent with the goals of the operation. However, some producers may not be interested in growing the size of their cowherds due to land and / or management constraints or other reasons. This article will briefly walk through other opportunities that are worth consideration.

Genetics – Some producers may choose to use the current increase in cow-calf revenues to improve the genetics of their herds. Investment in genetics often has long-run implications, resulting in more valuable calves to sell over multiple years. Sires certainly come to mind, but the current calf market

combined with the strong cull cow prices may provide an opportunity to cull a bit harder and also purchase some higher quality females.

Facilities – Working facilities are crucial resources for cow-calf operations for numerous reasons. Value-added opportunities such as health protocols, post-weaning programs, castration, implants, etc. are made much easier with quality working facilities. The same is true for receiving, sorting and loading of cattle. If facilities have historically been a constraint, the current market may be providing an opportunity to make improvements and position the operation to sell higher value calves in the future.

Grazing systems – Winter feeding days are typically the most expensive days for cow-calf operations as stored feed (hay) is being fed. Improved grazing systems (interior fencing, additional water sources, portable mineral feeders, etc.) allow for more efficient use of existing forage during the grazing season. This has the potential to increase the number of grazing days and reduce the number of hay feeding days. In most cases, this results in lower costs per cow per year and puts an operation in a better position when calf prices fall.

Debt service / financial management – Strong markets also provide an opportunity to make financial moves that set an operation up for the long run. Increased revenues may allow an operation to pay down some debt and thereby lower their cost structure going forward. Similarly, it may provide an opportunity to build some working capital and lower dependence on operating loans. In both cases, future interest expenses are reduced, which has implications for profitability.

To be clear, the purpose of this article was not to discourage expansion. There are likely operations that need to do just that. But I also live in an area where land constraints are real and know that expansion is not always feasible. Plus, I have seen situations where operations expanded during strong markets and wished they had not done so a few years later. The main point is that the current calf market provides a significant opportunity for a cow-calf operation to position itself for the long-run, and that will look different for each one of them.

Open Cows and Mid-term Abortions – Could it be Neospora caninum?

Dr.Michelle Arnold, DVM, MPH UK Ruminant Extension Veterinarian

Neospora caninum is a protozoan parasite that has become the most detected cause of bovine abortion in the United States in recent years. A majority of abortions occur from 5-7 months' gestation (ranging from 3-8 months) and the dam often retains her fetal membranes after delivery. The fetus that dies *in utero* may become dehydrated and shrunken (mummified) but usually the time delay between fetal death and expulsion results in delivery of a slightly rotten, soft fetus. Rarely, a *Neospora*-infected calf is born alive but with neurologic problems ranging from poor balance in mildly affected calves to those born weak and unable to stand. Economic losses experienced by beef operations beyond the reproductive failures include increased calving intervals, increased culling, and potentially reduced value of breeding stock. The disease is challenging to control because the protozoan organism can be transmitted internally from an infected cow to her unborn calf or can be transmitted externally to cattle through contaminated feed or water. No vaccine is currently available and long-term infections in the breeding females cannot be cleared by antimicrobials. The parasite naturally cycles within wildlife (deer and coyotes) so even closed herds are at risk if infected wild animals are nearby.

Neospora caninum derives its name from the fact that canines (dogs and coyotes) are the only known "definitive hosts" of the parasite. A protozoan parasite must first infect a definitive host to reach sexual maturity and produce the oocysts (eggs) that cause disease. If a dog or coyote ingests *Neospora*-infected tissue, the parasite will multiply within the canine's intestinal cells and then shed environmentally hardy oocysts in feces a few days later. Shedding is generally seen in younger dogs and coyotes after their first exposure to the parasite and lasts roughly 2 weeks. After the feces decomposes, the oocysts remain in the dust and can then be spread into feed, mineral feeders, water sources, and on pasture. This infective or "sporulated" oocyst, if consumed by an "intermediate host" such as a cow, will hatch and the "sporozoites" will rapidly divide and infect host cells. If the cow is open and she mounts a strong immune response, the organism will convert itself into dormant "tissue cysts" that survive in the muscles for the life of the cow. Unfortunately, that is not the end of the story. If a cow with tissue cysts later becomes pregnant, the organism can reactivate and cross the placenta from the dam to the developing fetus. This is called "endogenous" transmission and may occur in multiple pregnancies of the same dam, resulting in a random and scattered pattern of abortion. Alternatively, if a heifer or cow first ingests the oocysts from the environment when she is pregnant, the organism can immediately cross the placenta and be transmitted to the fetus. This is called horizontal or "exogenous" transmission, and many cattle may become infected at the same time from one common source, causing serious reproductive losses in a short time frame. Generally speaking, females that acquire the organism from the environment only abort once and do not experience repeated episodes. However, heifer calves infected from their dams during gestation are at much higher risk for repeated abortion.

There are 3 possible pregnancy outcomes from a *Neospora* infection depending on the cow's stage of gestation (Figure 1). The highest risk for abortion is when the dam experiences a *Neospora* infection during her second trimester, also called the 'gestational window of susceptibility', at 5-7 months of gestation. The affected fetus will either be aborted, born prematurely or neurologically impaired. Infection in the first trimester of gestation often does not reach the fetus due to maternal protection, resulting in birth of a healthy, uninfected calf. If infection occurs during the last trimester, the organism does reach the fetus although the developing fetal immune system is often sufficiently mature to defend itself from harm. This calf is born normal and healthy BUT persistently infected (also called a "congenital infection") with the *Neospora* organism. This spread from dam to calf during pregnancy may pass unnoticed over several generations, but congenitally infected heifers are at high risk for abortion during their first pregnancy. If she aborts her first calf, her risk of abortion remains high for subsequent pregnancies. If she calves successfully, her abortion risk drops substantially.

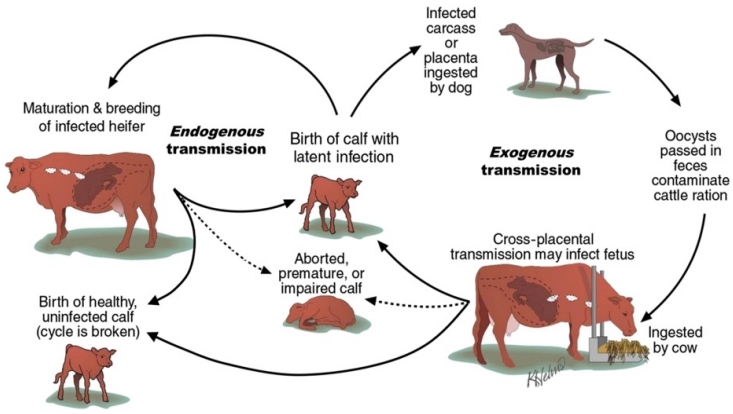

Figure 1: *Neospora caninum* Life Cycle in Cattle. From: "Diagnosis and Control of Neosporosis" by. M. McAllister. Vet Clin North Am Food Anim Pract. 2016 Jul;32(2):443-63.

Diagnosis of *Neospora* abortion is most successful through examination of the fetus and placenta by a pathologist at a veterinary diagnostic laboratory. Fetal brain, heart and muscle are the most consistently affected tissues and have a very characteristic cellular pattern visible under the microscope. A PCR test

is often used to confirm the presence of the organism. A serological (blood) test is available that measures antibodies against *Neospora* but interpretation of those results can be tricky, especially in an individual abortion case versus herd-level testing.

Control of *Neospora* is complicated at best. To begin, cull all females that experience repeat abortions or repeatedly fail to calve. Herd level blood testing is most effective when used in heifers over 6 months of age and keeping only those with negative test results as replacements. Conversely, be careful when making culling decisions on blood test positive adult cattle. Seropositive adult females with no history of reproductive failure are likely being protected from any new infection by those antibodies. Embryo transfer from positive females to negative recipients is an option to preserve valuable genetics safely. Testing of all purchased breeding stock should be considered to prevent entry of positive animals into the herd.

To reduce the chance of horizontal transmission, it is important to prevent exposure of the breeding females to feed and water contaminated with feces from dogs or coyotes which may contain oocysts. Key Control Points:

- Keep only the dogs on property you want. Guard dogs are beneficial by reducing visits by wild canids and strays;
- The greatest risk is from puppies who may shed oocysts for 1-2 weeks;
- Keep all animals and feces out of feed and water sources;
- Prevent dog access to infected tissues by prompt removal of carcasses and placental tissues. Dogs and coyotes should not be allowed to eat aborted fetuses, fetal membranes, or dead cattle.

Neospora caninum is a protozoan that is widely recognized as an infectious cause of reproductive problems in cattle and will not be going away anytime soon. There is no vaccine available, it causes life-long infection that cannot be cleared, it can be transmitted externally in contaminated feed and water or transmitted internally from dam to fetus, and it naturally cycles in wildlife. Diagnosis of abortion is through detection of the *Neospora caninum* organism and lesions in fetal tissues, usually the fetal brain or heart. There is no known drug to clear a cow of infection. Control is based on culling positive heifers, preventing entry of infected replacements into the herd, and preventing exposure of the breeding herd to feed and water contaminated with feces from dogs or coyotes. Contact your local veterinarian for more information.

Managing the Details – Getting the Little Things Right

Kevin Laurent, Extension Specialist, Department of Animal and Food Sciences, University of Kentucky

Back in the 1980's one of the stockyards in Baton Rouge where we sold our hogs had a statement on their check stubs that read *"A man with a paid off cow herd is never really broke."* That simple statement always intrigued me. Given the current market, it seems like a huge understatement, but I think the wisdom of that simple statement can be applied no matter what stage of the cattle cycle we are in. These historical prices provide an incredible opportunity to pay down debt, improve infrastructure or maybe even expand. Regardless of how we choose to use this added revenue we need to be cautious about becoming complacent in our day-to-day management. Good managers pay attention to detail, and an excellent example can be found in data gathered from the Advanced Post Weaning Value-Added Program (PVAP).

Summary Data - Advanced Post Weaning Value Added Program (PVAP) July 2023 - June 2025

Closeout Summary

No. Close-outs	Total Head	Avg Head/ Close-out	Wean Wt (lbs)	Wean Value ($/cwt)	Sale Wt (lbs)	Sale Value ($/cwt)	Gain (lbs)	Days on Feed	Avg Daily Gain (lbs)
52	1,645	32	524	262.67	706	252.01	182	79	2.33

Feed & Cost Breakdown

Feed (lbs)	Protein (%)	Feed Cost ($/ton)	Feed Cost ($/head)	Forage (lbs)	Forage Cost ($/head)	Mineral Cost ($/head)	Total Feed Cost ($/head)	Health Cost ($/head)	Interest Cost ($/head, 6%)
11.1	14.4	253	111.62	8	27.39	4.33	143.34	14.85	17.06

Financial Summary

Total Cost ($/head)	Total Cost ($/cwt)	Price vs State Avg ($/cwt)	Net Added Value ($/head)
175.25	0.96	**$7.91**	**$221.10**

The Advanced PVAP program targets producers who have routinely weaned and preconditioned their calves prior to marketing with the objective of not only evaluating the economics of preconditioning but also identifying the best management practices of these experienced producers. The chart provided is a summary of 52 closeouts from 42 producers that have participated in the Advanced PVAP program to date. As you can see the 1645 calves in this summary were fed an average of 79 days postweaning, gained an additional 182 pounds, sold for $7.91 per cwt. over the state average, and netted $221.10 per head over selling at weaning. This type of on farm data is invaluable not only for producers but also aids extension educators for more effective program planning and recommendations.

To gain even more insight into actual management practices, a survey of the PVAP participants was conducted. Of the 42 producers represented in this database, 41 responded to the survey. Some of the interesting highlights of this survey are as follows:

- 61% used fence line weaning
- 73% introduced concentrate feed prior to weaning either by creep feeding or limited hand feeding
- 78% castrated calves prior to 3 months of age
- 71% implanted their steers
- 78% sold their calves in some type of special preconditioned sale
- 53% fed an ionophore such as Rumensin or Bovatec in either the mineral or feed
- 49% plan to review their management practices based on closeout results

A deeper dive into the database yielded more information on two of the practices highlighted. The first of these showed that how producers marketed their calves affected price received relative to the state average price. Calves selling in special preconditioned sales averaged $9.46 per cwt over the state average. Calves selling in non-preconditioned sales and/or private treaty averaged $3.25 per cwt over the state average. A difference of $6.21 per cwt.

Another interesting find was the effect that time of castration had on steer average daily gain during the postweaning period. Steers castrated at or near weaning had average daily gains of only .08 pounds more than their heifer mates (2.23 vs. 2.15), whereas steers castrated prior to 3 months of age gained .39 pounds more than their heifer mates (2.49 vs. 2.10). Although not a controlled study, I think we can safely say that the early castrated calves had a weight gain advantage due to less stress at weaning. A conservative assumption of an added .30 pound per day in this example could possibly result in an extra 20-25 pounds per head which in today's market could be an additional $70-90 per head.

An additional indicator of the level of management by the 41 producers in the survey was the morbidity and mortality rate among the 1645 calves. Sickness was reported in only 32 calves (1.95% morbidity). Of these 32 calves, 28 were on the same farm that must comingle calves into one central weaning facility from several different herds. Death loss for the 1645 calves totaled 4 head for a mortality rate of 0.24%. It should be noted that 2 of these calves were from operations that castrate at weaning. The extremely low rate of mortality and morbidity among these 52 different groups of calves further reinforces the argument that the best place for a calf to be castrated and weaned is on the farm where it was born.

Although all the practices highlighted by the survey cannot be necessarily quantified in dollars and cents given the lack of controlled comparisons in this dataset, most of these areas of management have sound economic justification. Most participants in the Advanced PVAP program are embracing these practices to ensure that the calves are ready to transition and thrive at weaning thereby minimizing production risks. But what about market risk? Maybe the next detail our PVAP producers should consider is purchasing Livestock Risk Protection (LRP), especially as we go forward in this extremely high and volatile market.

This is just one example of how managing the details can pay dividends when preconditioning and marketing our calves. I think we would all agree that paying attention to detail and getting the little things right can apply to all areas of management and position our operations for the future. Maybe we can edit that old stockyard check stub to read *"A person who manages the details and has a paid off cow herd will be ready to ride the next turn of the cattle cycle."*