

The FARMACY

Cooperative Extension Service Intern this Fall



Campbell County High School Senior, Lacee at the Cooperative Extension booth at the Fort Thomas Farmers Market.

Lacee Trapp is a native to Campbell County, she is a senior at Campbell County High School and has been involved in 4-H for the last eight years. She is active in FFA. She enjoys and has been showing various livestock since she was 7 years old. She is interning at the Campbell County Cooperative Extension Service this fall and is working with Michelle Simon, Agent for Agriculture and Natural Resource Education. She is learning more about Agriculture and the many opportunities that are available in this field. She plans to attend Oklahoma State University next year.

Upcoming Dates:

October 17, 2022 - 5:30 p.m.
Kentucky Beef Conference
See flyer on page 3

October 31, 2022
Happy Halloween!



November 5, 2022
New Landowner Conference

November 12, 2022
"Let's Go Show!"
*Demonstration Day
Horse & Horsemanship*

November 15, 2022
Campbell County Cattleman's Association Annual Meeting
*Campbell County Extension
Environmental Education Center*

December 13, 2022 - 6:00 p.m.
Beef Efficiency Strategies
*Dr. Les Anderson,
UK Beef Extension Specialist*

Visit Cooperative Extension's New Website



<https://campbell.ca.uky.edu>

Michelle Simon

Michelle Simon
Campbell County Extension Agent
for Agriculture and
Natural Resources



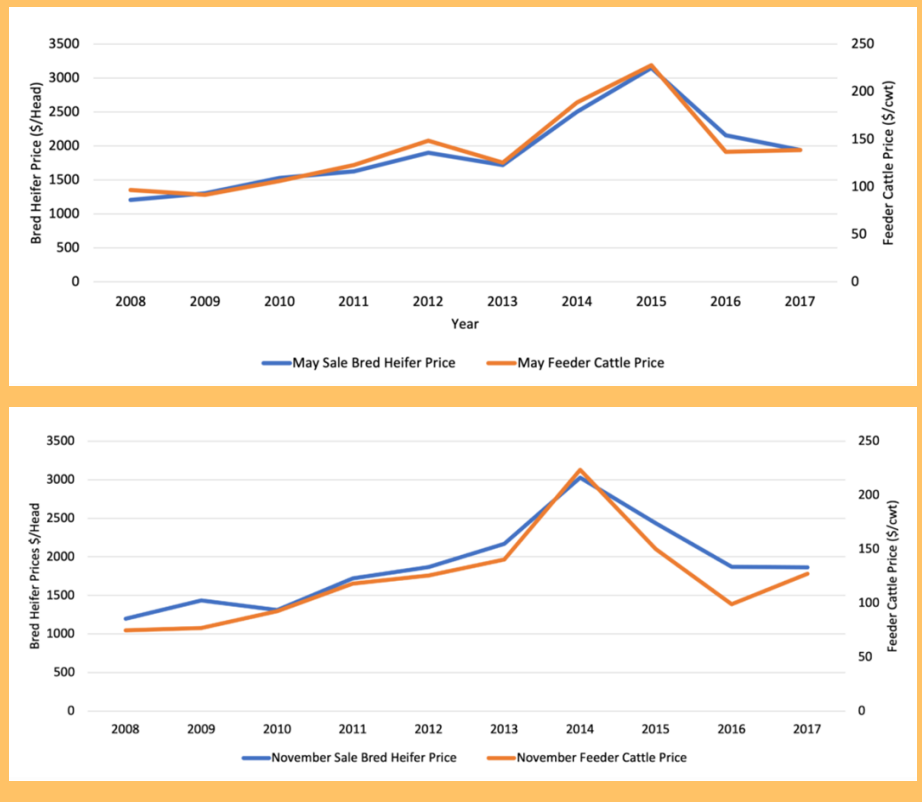
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Value of Bred Heifers in 2023

Most livestock marketing and management discussions over the past six to nine months have focused on the drought, high feed prices, and increased cow and heifer slaughter. These discussions generally pertain to what cattle producers need to do in the immediate future. However, these same discussion points have longer term implications that should be discussed. Given that heifer slaughter year-to-date is nearly 5 percent higher than 2021 and that beef cow slaughter is more than 13 percent higher than 2021, there will certainly be opportunities in the bred heifer market as soon as drought subsides and cattle producers move into herd expansion mode.

The million-dollar question is when should a person take the risk to try to meet this expected future demand for breeding females? There is no way to know, but one can have an idea of what bred heifers should be worth in the future. Based on research in Tennessee, bred heifer and weanling heifer (550 lb) values are highly correlated. Historically speaking, bred heifers sold in May to calve in the fall have been worth 2.5 times the value of a 550 pound heifer while bred heifers sold in November to calve in the spring have been worth 2.8 times the value of a 550 pound heifer sold at the same time. Thus, if feeder cattle futures are any indication of what can be expected for bred heifers in 2023, bred heifer values may be worth \$2,400 to \$2,600 per head. Producers should be asking themselves if there is an opportunity to breed and market bred heifers in 2023. It is certainly a big risk, but there is still money to be made if

Figure 1. Bred heifer price (\$/head) and feeder cattle price (\$/cwt) for 500- to 600- pound heifers at the time of the May and November bred heifer sale from



bred heifer values do not reach \$2,400.

Boyer, C.N., A.P. Griffith, J. Thompson, J. Rhinehart, K.H. Burdine, and K. Laurent. 2020. Bred Heifer Price Determinants in the Southeast. *Journal of Applied Farm Economics* 3(2): Article 2. doi:10.7771/2331-9151.1042.

Griffith, Andrew. "Value of Bred Heifers in 2023". *Southern Ag Today* 2(41.2).

Forage Timely Tips

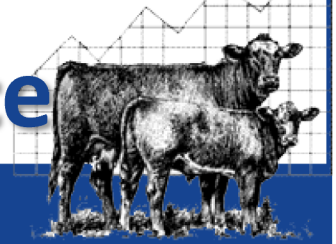
- Feed hay to allow cool-season pastures to accumulate forage growth for winter grazing.
- Do NOT harvest or graze alfalfa fields until after killing frost (<26 degrees).
- Inventory and test each hay lot for nutritive value and consult a nutritionist to design a supplementation program as needed.
- Remove ruminants from pastures that contain sorghum species when frost is expected to avoid prussic acid poisoning (forage sorghums, sorghum-sudangrass hybrids, sudangrass, and johnsongrass). Even small patches of johnsongrass that have been frosted can be toxic. Leave off until plants have dried down.
- Begin strip grazing early planted small grain and brassica (turnips and rape) mixes late this month.



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

"Today's Challenges, Tomorrow's Opportunities"

Kentucky Beef Conference



October 17, 2022

In person

Fayette County Extension Office
1140 Harry Sykes Way
Lexington, Kentucky 40504

5:30-6:30

Registration, visit
sponsors, meal

\$10 registration fee

**RSVP by October 10th
to Fayette County
Extension Office
859.257.5582**

Zoom Webinar –FREE **Registration Link:**

[https://forms.gle/
JfvpRkiQ1Hx9ocnh9](https://forms.gle/JfvpRkiQ1Hx9ocnh9)

Once registration is
complete, you will be
emailed the zoom link.

6:30—Welcome & Sponsor Recognition

Beau Neal, Fayette County Agriculture &
Natural Resources Extension Agent

Extension Remarks

Dr. Laura Stephenson, UK Extension
Director

Beef Outlook & Marketing Strategies

Patrick Linnell, Cattle-FAX Analyst

7:15—Asian Longhorned Tick Concerns

Dr. Michelle Arnold, UK Ruminant
Extension Veterinarian

7:45-Feeding Drought Stressed Forages

Dr. Jeff Lehmkuhler, UK Beef Nutrition
Extension Specialist

8:05—Breeding Stock Investment in Expanding Beef Market

Dr. Kenny Burdine, UK Beef Economic
Extension Specialist

8:30—Adjourn

Cooperative Extension Service
Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
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LEXINGTON, KY 40546



Disabilities
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with prior notification.

Tips for reducing stress when weaning calves

Author: Dr. Shelby Roberts

No matter the segment of the beef system, stress is a natural and unavoidable hurdle that the beef industry must learn to manage. Ironically, it is often the segmentation of the beef system that results in periods of stress. These stressful times often fall around transition intervals, when cattle move from one phase of production to the next. Weaning and feedlot receiving are two transition periods during which calves will experience multiple stressors. Prolonged exposure to stress has negative impacts on calf performance, and these negative effects can result in long-term issues.

When you consider the long history of the beef sector, stress is a relatively new issue being examined and discussed by those in the industry. In recent years, scientists and producers have begun to realize the impact that stress can have on calf performance. Fortunately, however, there are solutions for mitigating stress for your cattle during transitions. First, it is important to understand what can cause stress, as well as the consequences of that stress.

Stressors that can occur during weaning and receiving include:

Separation from the dam

The social stress of being removed from the mother can be significant. One management practice that gradually weans calves is fence-line weaning. This technique involves placing weaned calves and dams in adjacent pastures that allow calves to be able see their mothers while being physically separated. Make sure you have sturdy fences with no gaps to prevent calves from crawling through to the other side.



Transportation

It's inevitable: At some point, cattle will need to be moved. There are many ways that producers can work to reduce stress during transportation — but similarly to humans travelling to new locations or making a big move, this major transition will likely lead to schedule changes and disruptions, changes in eating patterns, etc.

Commingling

When groups of cattle are mingled together, they can expose each other to new pathogens. Even if the animals are on the same ranch but are from different pastures, producers need to consider a commingling strategy.

Unfamiliar diets

Going from their mothers' milk to feed might feel like a stark transition to some calves. The tips later in this article explain how to get calves to the bunk and help them transition to a new, healthy, nutrient-dense diet.

Stress can have consequences on production, including:

- Impaired growth. Stress causes muscle breakdown and can slow the growth of your cattle.
- Suppression of immune functions, which can lead to a decreased ability to resist infection and an increased susceptibility to getting sick.
- Altered behavior, like reduced feed intake.

A holistic view of beef production is necessary to identify where leverage points exist within the production system. Recognizing leverage points allows for a more effective application of management practices to minimize stress and improve performance. In beef production, the most effective approach to minimizing stress is a preventative one. Implement practices that will help you foster and maintain a resilient herd. Resilient calves are going to be able to handle the periods of stress that

are inherent within the beef system. The key to building resilient calves is implementing proactive management practices.

Outlined below are five easy and practical management tips that will help you produce resilient cattle.

1. Vaccinate prior to shipping.

Work with your veterinarian to establish a vaccination program prior to your animals being commingled and shipped. A vaccination program is essential to building a healthy immune system prior to animals being exposed to novel pathogens in a new place and when surrounded by other animals.

2. Castrate animals as early as possible.

Castration is a stressful but generally necessary management practice. Research has shown that animals experience less stress when they are castrated at a younger age. Some producers will castrate at birth, when they tag or maybe when they take cattle out to grass. Whatever fits into your management schedule, getting your animals castrated early will

allow them to recoup before other stressors manifest throughout the following transition stages.

3. Minimize commingling.

Just like with humans, anytime you bring animals from different sources together, you run the risk of exposing them to pathogens. You can reduce this risk of exposure for calves by being strategic about minimizing mixing between sources of cattle. There is also an element of social stress as the newly commingled animals work to establish a pecking order.

4. Expose calves to feed bunks and water troughs.

Familiarize your animals with feed bunks and water troughs prior to shipping. This can help reduce stress during feedlot arrival, as getting calves to feed bunks prior to shipping will help them get onto feed quicker. The sooner they get on feed and start consuming water, the better they will bounce back from transportation stress.

5. Proper nutrition is essential.

When transitioning cattle, it is important to make sure that their

nutritional requirements are being met. Meeting the cattle's protein, energy and trace mineral requirements is essential for their immune function and growth. During periods of stress, it is common for animals to reduce their feed intake. In these cases, providing diets that are more nutrient-dense to compensate for reduced intake is recommended.

It is unrealistic to think that we can eliminate all stress from the production system, but we can minimize the duration and severity of the stress that animals experience. When utilizing these management techniques, consider a schedule that exposes calves to stressors gradually, rather than all at once. When calves feel high levels of stress and no mitigation strategies are used, they can experience critical setbacks. The most important reason to help calves through periods of stress is to set them up for success for the rest of their life — ultimately leaving you with healthy animals, a healthy reputation and a healthy bottom line.



- Now Available -
Soil, Hay and Cattle Pregnancy Testing supplies available for pick up and drop off at

The Campbell County Extension Environmental Education Center

1261 Racetrack Road
Alexandria, KY 41001
M-F - 8:00a.m. - 4:30p.m.
859-694-1666

Pest-Proofing Your Home

By Zachary DeVries, Entomology Extension Specialist

Many pests seek refuge in homes and buildings in response to changes in weather, such as extended periods of rain or drought, or the onset of cool autumn temperatures. In response to these pest invasions, homeowners often apply liberal amounts of insecticides indoors. Although indoor insecticide



application often provides quick results for the pests you see, this strategy is generally ineffective at providing a long-term solution because most of the pests being treated are coming in from outside the home. Therefore, to ensure a pest-free home, it is important that residents focus their attention towards denying pest entry before they make their way indoors, a process better known as “pest-proofing”.

Outlined below are six tips for pest-proofing one’s home or business. Steps 1 to 3 will also conserve energy and increase the comfort level during winter and summer. Equipment and materials can be purchased at most hardware or home improvement stores.

1. Install door sweeps or thresholds at the base of all exterior entry doors. Lie on the floor and check for light visible under doors. Gaps of 1/16 inch

or less will permit entry of insects and spiders; 1/4-inch-wide gaps (about the diameter of a pencil) are large enough for entry of mice; 1/2-inch gaps are adequate for rats. Pay particular attention to the bottom corners as this is often where rodents and insects enter. Garage doors should be fitted with a bottom seal constructed of rubber (vinyl seals poorly in cold weather). Gaps under sliding glass doors can be sealed by lining the bottom track with 1/2- to 3/4-inch-wide foam weather stripping. Apply sealant (see #3 below) along bottom outside edge and sides of door thresholds to exclude ants and other small insects.

2. Seal utility openings where pipes and wires enter the foundation and siding, such as around outdoor faucets, receptacles, gas meters, clothes dryer vents, and telephone/cable TV wires. These are common

entry points for ants, spiders, wasps, rodents, and other pests. Holes can be plugged with mortar, caulk, urethane expandable foam, copper mesh (like the material in pot scrubbers), or other suitable sealant.

3. Seal cracks around windows, doors, fascia boards, etc. Use a good quality silicone or

acrylic latex caulk/sealant. Although somewhat less flexible than pure silicone, latex-type caulks clean up easily with water and can be painted. Caulks that dry clear are often easier to use than pigmented caulks since they don’t show mistakes. Buy a good caulking gun; features to look for include a back-off trigger to halt the flow of caulk when desired, a built-in ‘slicer’ for cutting the tip off of new caulking tubes, and a nail for puncturing the seal within. Prior to sealing, cracks should be cleaned and any peeling caulk removed to aid adhesion. For a professional look, smooth the bead of caulk with a damp rag or a moistened finger after application. A key area to caulk on the inside of basements is along the top of the foundation wall where the wooden sill plate is attached to the concrete foundation. Ants, spiders, and

other pests often enter through the resulting crack.

4. **Repair gaps and tears in window and door screens.**

Doing so will help reduce entry of flies, gnats, mosquitoes, and midges during summer, and cluster flies, lady beetles, and other overwintering pests in autumn. Certain insects are small enough to fit through standard mesh window screen. The only way to deny entry of these tiny insects is to keep windows closed during periods of adult fall emergence.

5. **Install 1/4-inch wire mesh (hardware cloth) over attic, roof, and crawl space vents**

in order to prevent entry of birds, bats, squirrels, rodents, and other wildlife. Be sure to wear gloves when cutting and installing hardware cloth as the wire edges are razor-sharp. Backing the wire mesh from the inside with screening will further help to prevent insects such as ladybugs, paper wasps and yellowjackets. If not already present, invest in a chimney cap to exclude birds, squirrels, raccoons, and other nuisance wildlife. Raccoons, in particular, are a serious problem throughout Kentucky. Many chimneys become home to a family of raccoons which, in turn, are often infested with fleas.

6. **Consider applying an exterior (barrier) insecticide treatment.**

While sealing is the more permanent way to exclude pests originating from outdoors, comprehensive pest-proofing is laborious and sometimes impractical. For clients needing an alternative, pest-proofing can be supplemented by an exterior

treatment with an insecticide. Homeowners will get the most for their efforts by applying longer-lasting liquid formulations containing pyrethroids (e.g., cypermethrin, bifenthrin, cyfluthrin, Gamma-Cyhalothrin, etc.). Such products are sold at hardware and lawn and garden shops. For better coverage, it's often best to purchase these products as concentrates so that they can be diluted and applied with a pump up sprayer, hose end sprayer, etc.

Treat at the base of all exterior doors, garage and crawl space entrances, around foundation vents and utility openings, and up underneath siding. It also may be useful to treat around the outside perimeter of the foundation. Be sure to follow all label instructions, and use this information only as general guidance. Clients who choose not to tackle these activities may want to hire a professional pest control firm, many of which offer pest-proofing services.



2022 KY ANNUAL SHEEP & GOAT PRODUCER CONFERENCE 10-22-2022



\$30 per person; \$50 per couple
Kids 12 & under Free
ONLINE CONFERENCE - \$15

KSU Research Farm
1525 Mills Lane
Frankfort, KY 40601

REGISTRATION SIGN-UPS END OCTOBER 17th, 2022
• *Renew Association Membership with Registration* •



Keynote Speaker
Greg Brann,
GRAZING
SPECIALIST

CONFERENCE HIGHLIGHTS

- Market Update
- Best Management Practices for Co-Grazing – Greg Brann, Keynote Speaker
- Forage Options for Rotational Grazing – Greg Brann, Keynote Speaker
- How to Use a Diagnostic Lab
- Minerals for Small Ruminants
- KGPA and KSWPA Association Annual Meetings

Registration 8:00 a.m. (EST) • Program starts at 9:00a.m.

FOR MORE INFORMATION & REGISTRATION VISIT
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DOOR PRIZES & NETWORKING OPPORTUNITIES

Economic vs. Tax Depreciation: Understanding Which to Use for Determining Farm Profitability

Economic depreciation is often overlooked when it comes to the profitability of a farming operation since it is a non-cash expense. One reason is when farmers hear depreciation, they think of tax depreciation. Tax depreciation is an essential tool to lower before-tax income (Tax depreciation and guidelines can be found through the IRS, and application of tax depreciation methods should be discussed with a tax professional). However, the tax depreciation value does not accurately reflect the “real” annual value loss of an asset. For this reason, using tax depreciation to assess profitability will lead to inaccurate calculations. Instead, economic depreciation should be used for farm financial statements.

Economic depreciation differs from tax depreciation by estimating the actual reduction in the value of an asset over time. The value lost depends on use, wear and tear, age, and technical obsolescence. Annual economic depreciation will also vary based on purchase price, the estimated value when sold, and the length of ownership for each asset.

An example of the difference between tax and economic depreciation is when looking at an operation’s purchase of a new grain truck. For tax purposes, the farmer can use Additional First-Year Depreciation (Section 179), which will allow them to deduct the entire cost of the truck within the year of



purchase. However, if the farmer wanted to sell that truck after one year, it would still have considerable value. The difference between the purchase and resale prices is the value lost for that one year of use. This difference is the economic depreciation and should be used in farm financial statements to more accurately determine profitability. Figure 1 illustrates how economic depreciation on farm

machinery has increased over time for grain farms in Kentucky. On average, machinery depreciation represents eight percent of the total cost of production (variable and fixed costs) for Kentucky grain farms.

A more in-depth discussion of tax depreciation vs. economic depreciation, and comparing depreciation for new or used machinery with guided examples can be found here.

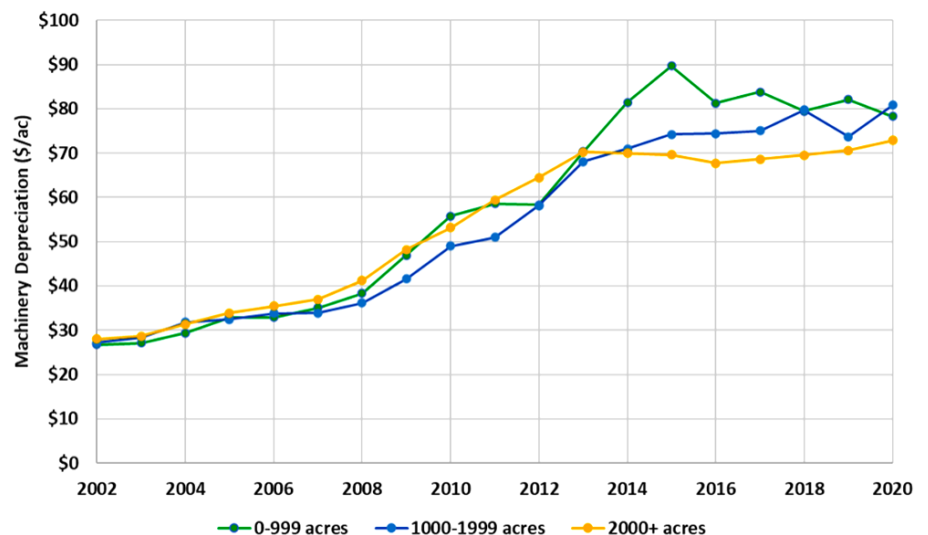


Figure 1. Average annual machinery depreciation for Kentucky grain farms by size (\$/ac)

Farmland Leasing for Young and Beginning Operators

Farmers and ranchers have been leasing land as a strategy to expand their operations for generations. Today, approximately 39% of farmland operated in the United States is leased, with most farmers operating a mixture of leased and owned land (Bigelow 2016). Leasing farmland is also an affordable way for young and beginning farmers to get started and gain economies of scale in a capital-intensive business where they may not have enough money to buy farmland early in their careers (Katchova and Ahearn, 2016).

While advantageous from a financial standpoint, the actual process of getting in touch with landowners and developing relationships with them can be a daunting task. Many young farmers develop a relationship with a landowner through parents and grandparents, who facilitate “handing down the farm” from one generation to another within the leasing relationship. Other young and beginning farmers contact potential landowners directly and propose to build a business relationship that starts from scratch.

The most common claim that young and beginning farmers make about entering the land leasing market is that it is all about being price competitive. In other words, you have to have the highest bid to win over a landowner. But that turns out to be only part of the picture. Information gathered from talking to landowners in focus groups about their preferences for leasing their land suggests that many are interested in helping the next generation of farmers and are just looking for the right fit.

As a complementary strategy to being competitive with their lease bids, farmers must consider marketing themselves as a quality tenant to landowners. One way to do that is by building a resume with your farming credentials presented in a professional way (see example). Resumes should include personal and business references, farming experience, and your farming

philosophy (e.g., conservation practices you want to employ, and improvements you could contribute to the land). Presenting a resume to the landowner as part of your negotiation strategy could be the effort that makes the leasing relationship happen.



FARMING PHILOSOPHY

This section is a chance for you to convey your preferences on philosophy in your farming or ranching operation. Be specific to your preferences on conservation practices, methods, and farming techniques. Also include your current short and long term goals for your operation.

REFERENCES

1. REFERENCE NAME
RELATIONSHIP
PHONE NUMBER
EMAIL
2. REFERENCE NAME
RELATIONSHIP
PHONE NUMBER
EMAIL
3. REFERENCE NAME
RELATIONSHIP
PHONE NUMBER
EMAIL

CONTACT

(910) 555-8640
HI@JEREMYMARSH.COM
WWW.JEREMYMARSH.COM

PROFILE

Provide a short, but concise statement about yourself here. Include things such as:

- Background
- Current Operation Size (If applicable)
- Current Objectives of your agricultural production

SKILLS & EQUIPMENT

List all farming/ranching skills you may have here. Be sure to be specific. You should also include any machinery experience that you may have.

- Farming & Machinery Skills
- Machinery & Equipment Owned
- Certifications (if any)

EXPERIENCE

POSITION TITLE, COMPANY NAME
DATE STARTED- CURRENT

- List related and relative experience
- Be sure to be detailed in your role
- List at least your last three work experiences if applicable

Be sure and list ALL relevant experience, including personal experience. Be specific and detailed.

RESUME EXAMPLE

Five Things to Do to Improve the Efficiency of Winter Feeding This Year

Dr. Katie VanValin, Assistant Professor Beef Nutrition, University of Kentucky

Undoubtedly, 2022 has had its fair share of challenges thus far. High input prices likely led to fewer hay acres being fertilized, which with the added pressure of drought, can lead to lower quality and quantity of stored forages moving into this winter. You might be in for sticker shock if you haven't purchased feed recently. It can be easy to get caught up in things we have little to no control over, so here are five things we can do to improve this year's winter-feeding program.

1. **Body condition score the herd:**

Calves should be weaned from the spring calving cows (or will be very soon). It's easy to get caught up focusing on the weaning weight of the calves or managing a pre-conditioning program but don't forget about the cows. Now is the time to assess the body condition score of the herd. Spring calving cows will have their lowest nutrient requirements of the entire year shortly after weaning the calf. Now is the time to efficiently add condition to thin cows to set them up for success during the 2023 breeding season. Sorting cows by body condition score can allow for more efficient herd management and for those thin cows to receive the extra nutrition they require without overfeeding them in adequate condition. It is much more challenging to add condition to cows as they approach calving or have a calf at side. The ideal body condition score for mature cows is 5, while targeting younger females to a BCS 6 can ensure they have the extra condition required to meet their additional

nutrient requirements for supporting growth.

2. Test your hay: This is something we always recommend, but in years like 2022, this becomes even more important. Hay tests provide valuable information about the energy and protein concentrations in the sample. All lots of hay should be tested, and a lot is defined as hay harvested from the same field on the same day and stored under the same conditions. Testing all lots of hay allows producers to match lots of hay to the herd so that the lowest quality hay is being fed when the cows' nutrient requirements are the lowest while saving the best quality hay for when nutrient requirements are their highest. Feeding the right hay to the right cow at the right time can drastically decrease the amount of supplement required to maintain body condition.

3. Evaluate supplement costs: At some point throughout the year, some supplementation is likely required to meet the energy and protein requirements of the herd. Using hay test results can help determine the most efficient supplement to match the energy and protein deficits in the hay. The University of Kentucky Forage Supplement tool is a simple-to-use online tool that provides recommendations for supplementation based on hay test results. Also, reach out to your local county extension agent or nutritionist to assist in interpreting hay test results. Now is the time to sharpen the pencil and determine



which supplement options will be the most economical to pair with available forage. Remember, the feed that was the most economical last year may not be the most economical choice this year. Just because one feed costs more on a \$/Ton basis does not mean it is the most expensive supplement to feed. The amount of a particular supplement required must also be considered.

4. Feed hay efficiently: Regardless of quality, when the quantity of hay is tight, available hay stores must be fed efficiently. Research has shown that feeding hay in a hay ring prevents feeding waste, especially rings that contain a solid skirted bottom. Hay feeding pads and fence line feeders can also reduce hay feeding losses. While these measures will not completely reduce hay feeding losses, these losses can be reduced from 45% to as little as 6% by using hay rings. Moving hay rings or utilizing bale grazing can help to limit



trampling damage around these hay feeding sites and help to distribute manure evenly across the feeding area.

5. Stockpiling forages: Although nitrogen application can increase the amount of stockpiled forage available to graze during the winter, tall fescue can still stockpile even without a nitrogen application. Closing off certain fields during the fall growing season can allow the forages in these fields to stockpile, which can then be grazed during the late fall and early winter. While the nutrient quality of stockpiled fescue declines over time, nutrient content can remain adequate for supporting dry cows. Consider setting up a simple strip grazing system using temporary electric fencing to prevent trampling losses when turning cattle out on stockpiled forages.

Replacing Import Documents after Natural Disasters

Source: Nichole Huff, Assistant Extension Professor of Family Finance and Resource Management

Recent natural disasters have left many Kentuckians wondering how to replace important documents lost after tornadoes and flash floods. Ideally, you have an emergency, grab-and-go folder that you can easily grab in emergencies. But sometimes, the events happen so fast, there's only time to worry about personal safety.

Documents such as birth certificates, driver's licenses, mortgage papers and insurance policies provide identity and a sense of security. Fortunately, you can replace those documents if you know who to contact. Some documents may be easier to replace than others, but with persistence, you can obtain new copies.

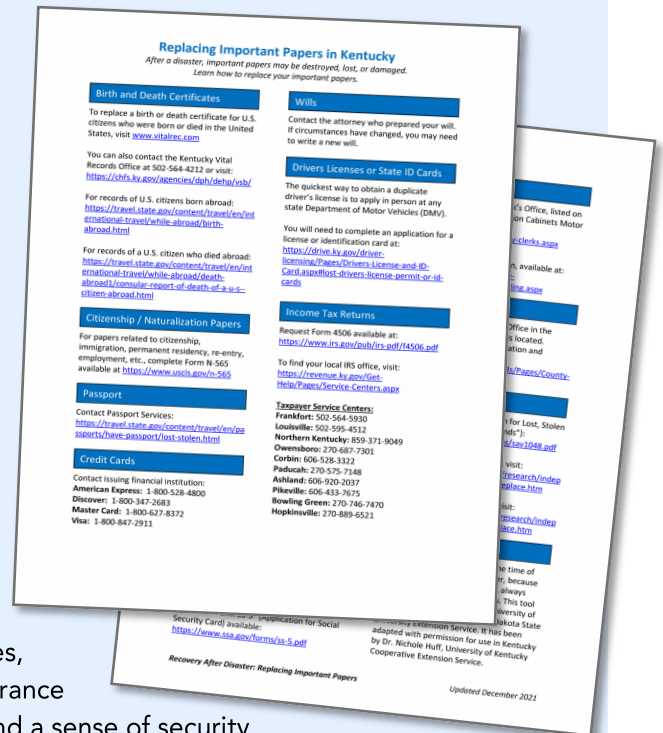
You may need to replace your birth certificate first, since many other agencies require it to get other documents.

To replace a Kentucky driver's license, it's best to schedule an appointment with a regional licensing office. You may find the office nearest you and make appointments online at <https://drive.ky.gov/driver-licensing/Pages/Regional-Offices.aspx>.

Contact your insurance carriers to request new copies of your policies. You may be able to access your account online and download copies to a secure online storage location.

It's also important to contact your credit card companies to let them know you've lost your cards. They can cancel your current accounts and issue new cards, sometimes overnight.

The University of Kentucky College of Agriculture, Food and Environment put together a comprehensive list of links at https://www.ca.uky.edu/sites/www.ca.uky.edu/files/disaster_recovery_replacing_important_papers.pdf After you've replaced everything, take a moment to photograph the documents with a mobile device and save them in a secure online storage area or in a location away from your home, such as a safety deposit box or with a family member in another town or state.



What is this new tick disease?

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

Office of the State Veterinarian is warning beef producers to look for signs of Theileria infection ("theileriosis") in cattle, with two confirmed cases in beef cattle recently reported in Kentucky. Theileria orientalis Ikeda is a microscopic protozoan parasite that infects the red blood cells of cattle, causing anemia. The disease is primarily transmitted by the bite of an infected Asian Longhorned Tick (Haemaphysalis longicornis) or by blood transfer through the use of contaminated needles and equipment. The tick can feed on many animal species, including humans, but the blood parasite only affects cattle. Once a cow is infected, it may take 1-8 weeks before she shows symptoms of disease.

There is a spring peak in disease incidence in March-April and a fall peak in September-October. There is no effective treatment for sick cattle or vaccine to prevent infections. However, once infected, cattle become carriers and are protected from new infections. There are no recognized long-term health or production effects from persistent infection. Theileria is not a public health concern and contact with affected cattle doesn't pose a human health risk or food safety risk.

What to look for

- The majority of infected cattle have limited or mild clinical signs. The symptoms are very similar to anaplasmosis, another tick-borne cattle disease that causes anemia.
- Affected cattle show signs of anemia including lethargy, pale or

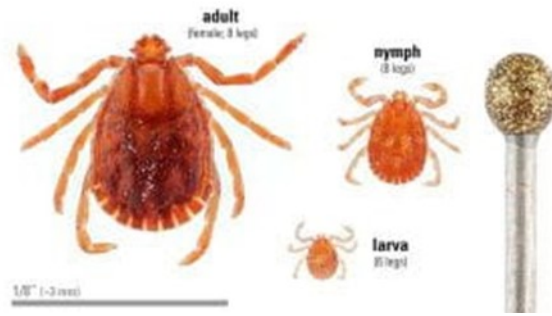


Figure 1: Three life stages of the Asian Longhorned tick sized relative to the head of an insect pin. Nymphs and adults can transmit Theileria to cattle. Photo used with permission from Dr. Matt Bartone, NC State

jaundiced (yellow) mucous membranes, and increased respiratory and heart rates. Labored breathing may be mistaken for pneumonia, especially in young stock.

- Affected cattle may be exercise intolerant and lag behind the rest of the herd or be off by themselves.
- Affected cows may be off feed, have a fever, and sudden weight loss.
- May see sudden death, especially in late pregnant and early lactation cows.
- Late term abortions may occur due to lack of oxygen to the fetus with subsequent death of the calf. Metritis in the cow can follow. Breeding bulls may have decreased libido for 1-1.5 months.
- Calves, especially 6-8 weeks of age but up to 6 months of age, may show symptoms.

What to do if cows show signs of anemia

- Contact your vet. Theileriosis and anaplasmosis look almost identical so treatment with an approved

antibiotic (LA-300 or Baytril 100-CA1) for treatment of anaplasmosis is recommended. However, if Theileria is the cause, there will be no response to the antibiotic therapy.

- Stress and movement of affected animals should be minimized, as their reduced number of red blood cells lowers their ability to transport oxygen around the body. This can lead to collapse and death. Affected animals should be rested, given high quality feed and water, and handled only when necessary.
- There is no treatment available for Theileria infection other than supportive care. Blood transfusions may be used for valuable animals. Recovery may take 1-2 months depending on the severity of the anemia.

Prevention and control of Theileria infection

- Inspect cattle for presence of ticks: Routinely inspect livestock, pets, and humans for the Asian Longhorned tick (ALT). Parthenogenetic strains exist in the USA, meaning male ticks are not required to produce eggs and viable larvae. A female can produce 1,000-2,000 offspring without mating. A single cow can quickly become host to thousands of tick offspring that may cause death due to blood loss without a blood-borne parasite infection. The ticks are light brown and often smaller than a sesame seed. The adult female is about the size of a pea when full of blood (see Figure 1 above). All 3 life stages (larva, nymph and adult) may be present at the same time (see Figure 2). In

cattle, check the head, neck, ears, flanks, armpit, groin, udder and under the tail (areas where the skin is thinner). Cattle that seem lethargic or unthrifty should be closely inspected for ticks.

- *Manage the tick population on Cattle:* The eradication or removal of ticks from a farm is virtually impossible. Ticks spend most of the time, nearly 90%, in the environment. Even though only a small proportion of the tick population is on livestock at any one time, treating cattle with a tick repellent will reduce the numbers that feed and develop into the next stage of the tick lifecycle. This will have an impact on the numbers of eggs that eventually get deposited in the pasture and helps manage the disease spread. Currently there are no acaricides labeled for use against the ALT. The use of pesticide impregnated ear tags, pour-ons, sprays, and back rubs that control the American dog tick and the LoneStar tick should provide beneficial tick control. There are field reports of success with macrocyclic lactone dewormers such as Cydectin® Pour-on and Dectomax® Injectable products.
- *Environmental Control to Reduce Contact with Ticks:* This involves mowing pastures, especially shaded areas, and fencing cattle from wooded areas. Perimeter fencing of a minimum of 20 feet from wooded areas will reduce the number of ticks on the grazing area. All stages of the tick like warm, damp conditions and long grass. Avoiding long rank pasture that has not been grazed such as



Fig. 2: Asian longhorned ticks on the ear of a cow that died due to anemia from the massive tick infestation (Photo courtesy of the UKVDL).

around the edge of crops and brushy areas will reduce the likelihood of animals picking up ticks. Keep in mind that wildlife can serve as tick hosts and move the ticks to new areas. Virginia Cooperative Extension has produced a fact sheet entitled "Managing the Asian Longhorned Tick: Checklist for Best Management Practices for Cattle Producers" that covers animal

inspection, chemical control, and herd management options. It may be downloaded at https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/ENTO/ento-382/ENTO-382.pdf

- Ease any underlying disease or stress: Cows in late pregnancy, early lactation and young calves (2-3 months old) are more susceptible to severe disease. Pay close attention to cows around calving, avoid trace mineral deficiencies, and vaccinate cattle against the immunosuppressive BVD virus.
- Treat "new" animals: Treat cattle for ticks as they arrive to the farm and before moving cattle from one property to another to avoid movement of infected ticks.
- Young stock: Calves should be closely inspected for ticks and signs of anemia, too.

If you suspect a case of Theileria infection, contact your veterinarian for advice. A blood test is available to test for this disease.

Help and Hope Are Right Here

Debt, extreme weather, unstable prices, and isolation have created a storm of stress for the people who feed the rest of us. We see you, we appreciate you, and we are here to help. **If you or someone you know is feeling depressed or overwhelmed or is struggling with their mental well-being, please don't hesitate to reach out.**

**Call 988 or text "KY" to 988
or chat at [988lifeline.org](https://www.988lifeline.org)**

Know to Tow

Steve Boyles, OSU Extension Beef Specialist



Always inspect the trailer floor to make sure it is sturdy and clean.

Some trailers are attached to a tow vehicle's receiver hitch or via a bumper hitch. A gooseneck is different from traditional enclosed trailers both in its namesake shape and because of the gooseneck hitch attachment within the vehicle's bed. This allows a gooseneck trailer to be attached to the tow vehicle over the rear axle which is different from a hitch receiver, located at the rear of the vehicle. Also, because of the closer proximity of the trailer to the tow vehicle, a gooseneck trailer will typically have a tighter turn radius over other enclosed trailers.

Know Your Numbers

Your tow vehicle needs to have the capability to tow the combined weight of the vehicle and the trailer. Manufacturers will specify the exact numbers for each of the four weight limits.

1. Gross Vehicle Weight Rating

(GVWR): The max weight of your vehicle's empty weight and all of the passengers, cargo, fuel, etc. that the vehicle can safely carry

2. Gross Combined Weight Rating

(GCWR): The maximum weight that the fully-loaded tow vehicle and trailer can be. It can also just be referred to as GVW and refers to the weight of the empty trailer plus the cargo inside. For example, a trailer that is 36' has an empty weight of 6,000 pounds and a max cargo weight of 8,000 pounds for a total GVW of 14,000 pounds.

3. Payload/Cargo Capacity:

The maximum weight of cargo that your enclosed cargo trailer can carry.

4. Towing Capacity:

The maximum weight that your tow vehicle can safely tow.

The Tow Vehicle

Have a full tank of gas.

The Trailer

Inspect the trailer floor to make sure it is sturdy and clean. If more traction is needed, install rubber matting. Consider replacing floor boards that are showing signs of wear or rot. Wood floors will rot out sooner if not regularly cleaned/remove moisture. Inspect the trailer for

broken or sharp objects protruding into the trailer.

Tires

Improperly inflated tires can cause uneven tread wear, affect gas mileage, engine wear, and can result in a blowout. If you happen to jackknife your trailer, such as when reversing, you can put a lot of pressure on the sides of the tire which can also add to premature wear.

Examine the tires for signs of dry rot, wear, or damage, and make sure that all tires, including the spare and inside dual tires, have the correct air pressure. Consider replacing tires at least every five years, regardless of use. There is a four digit code on most tires. For example as code of 1121 would mean the tire was produced on the eleventh week of 2021.

Bearings will also require grease from time to time.

Lug Nuts

Inspect the lug nuts regularly to ensure they are properly tightened. Use a torque wrench to make sure lugs meet the



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

Mason Bee Masonry

Learn about mason bees and
build a mason bee house!

February 14 at 10:00am –OR– March 9 at 1:00pm

Only register for ONE event

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Registration Required: visit <https://campbell.ca.uky.edu> or
call 859-572-2600

Only ONE bee house per family



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LEXINGTON, KY 40546



manufacturer's recommendations for tension.

The Hitch

Have the correct ball size and the connection is secure before departure.

The safety chains should be criss-crossed and connected with enough slack to make turns.

Electric Wiring and Connection

Trailer connectors should match the truck connectors. Check your connectors for wear and tear and test out the connection.

Lights

Check all the lights (brake light, turn signals, and tail lights) on both the truck and the trailer are working.

If you use battery-powered accessories, ensure that your emergency battery is charged and ready for use.

Brakes

Inspect the breakaway cable or brake system. Manufacturers recommend that any trailer exceeding 1,000 lb. have its own brake system, but you should also check state regulations regarding brake system requirements.

Test your brake controllers and make adjustments as needed depending on the weight of your trailer. The controller has an adjustment button (+ or -) and sliding lever. You may need to use the controller to increase braking power (+) for heavier loads or decrease braking power (-) for lighter loads.

Slowly move forward on a level surface and shift the tow vehicle transmission to neutral. Use the slide lever on the brake controller to bring

the load to a stop using the trailer brakes.

If the trailer brakes cause the truck to jerk, your trailer brakes are adjusted too high. Lower the braking power until the trailer comes to a smooth stop. Remember an empty trailer will have a different gain than a full trailer.

Non Livestock Cargo

If using the trailer for other than livestock, secure cargo Inside the trailer: any kind of big and/or heavy cargo should be tied and secured in place before towing.

The Load

Do your best to balance the load over the axles. The majority of the weight (85% to 90%) should be carried over the axles so that only 10% to 15% of the weight is carried on the tongue. When using a bumper pull trailer, place the heaviest animals are in the front of the axles. Load older and larger animals first, followed by younger and smaller animals.

When tying animals in the trailer, use slip knots and tie securely at head height in the trailer.

Anaplasmosis in Beef Cattle-Frequently Asked Questions

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

What is Anaplasmosis?

Anaplasmosis is a disease caused by *Anaplasma marginale*, a bacterial organism that invades cattle red blood cells (Figure 1) and causes severe anemia, often resulting in death. In Kentucky, the disease affects adult cattle, typically in the fall of the year with most cases occurring from late September through the first 1-2 weeks of November.

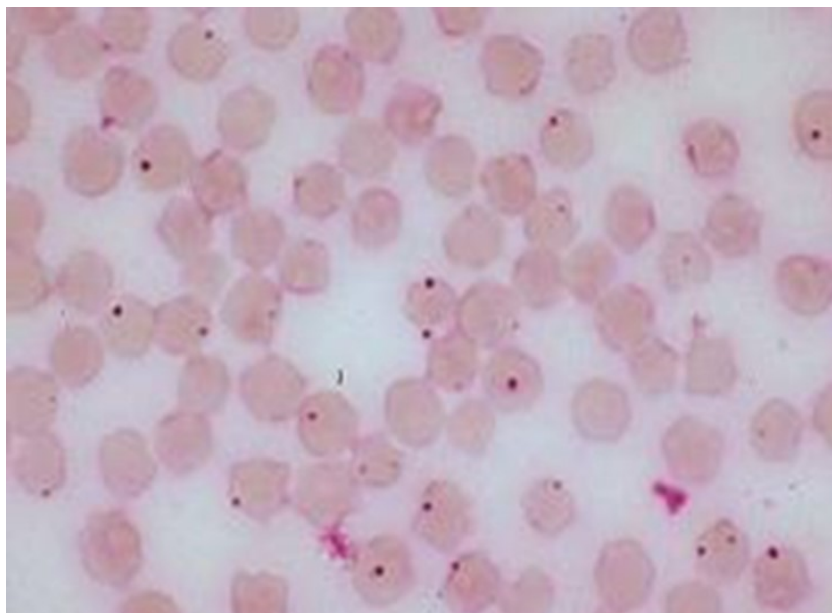


Figure 1: *Anaplasma marginale* organisms (small purple dots) in the red blood cells (larger pink circles)

What are the

symptoms of anaplasmosis? This organism causes anemia in adult cattle which means there is an abnormally low number of red blood cells circulating in the bloodstream. Lack of red blood cells results in oxygen deprivation to the vital organs, but symptoms are not noticed until 40-50% of red blood cells are destroyed. Infected cattle will show signs of weakness, lagging behind the herd, staggering, rapid breathing and sometimes foaming from the mouth. Affected cattle quit eating, have a fever and may appear to rapidly lose weight. Most become very aggressive due to lack of oxygen to the brain. Mucous membranes will appear pale early in the course of disease and progressively turn yellow in color due to jaundice. Death can be sudden, especially with exercise, or cattle may be found dead with no prior symptoms. Typically, several adult animals in a herd will die within a short (1-2 week) span of time.

Pregnant cows that survive will often abort their calves.

Do all cattle with anaplasmosis show these same symptoms of disease? No. Younger cattle, especially less than 6 months old, rarely exhibit signs of disease due to rapid and active production of new red blood cells (RBCs) in growing calves. Symptoms of anaplasmosis in animals from 6 months to 2 years of age are usually mild and may be misdiagnosed as pneumonia because both conditions include fever and increased respiratory rate but most will recover. Older animals (> 2 years old and up) are at elevated risk for disease and death, especially if under stress such as calving or in early lactation. Others can mount an effective immune response without obvious signs of sickness.

How do you treat an animal showing signs of Anaplasmosis?

Treatment with antibiotics is essential for survival if showing signs of disease. A single subcutaneous

injection of long-acting oxytetracycline at 22 mg/kg of body weight (BW) or 10 mg/lb BW will often stop the progression of anemia by slowing replication of the *Anaplasma* organism, allowing the immune system to take over and save the animal. Another option is Baytril® 100-CA1, the first fluoroquinolone antibiotic conditionally approved by the FDA for the treatment of clinical anaplasmosis

associated with *Anaplasma marginale* in all classes of beef cattle except beef calves less than 2 months of age and beef bulls intended for breeding (any age). However, be aware that severely affected cattle may die due to stress when walked to the barn or going through the working chute. In an out-break situation, it is recommended to treat all adult cattle in the herd with injectable oxytetracycline (for example, LA-200®, LA-300®), then begin feeding chlortetracycline (CTC) at the control dose (0.5-2 mg CTC/lb BW/head/day) in medicated mineral or feed throughout the rest of the vector (fly) season which ends around November 1st. Many medicated free-choice mineral mixes are now available for anaplasmosis control. Alternatively, hand feeding Aureomycin® daily in feed to deliver 0.5 mg/lb BW/head/day will also control active infection.

If an animal survives the initial infection, then what? Will they get it again? If an animal (regardless of

age) becomes infected with *Anaplasma marginale* and survives, that animal will become a “carrier” of the organism for life. As carriers, they are never sick again due to Anaplasmosis but serve as reservoirs or a source of infection for other uninfected animals. Infected bulls that survive may be infertile for up to a year while pregnant cows that survive almost always abort during recovery from infection. Recovery takes at least 2-3 months to rebuild red blood cells and regain lost weight.

How is Anaplasmosis spread?

Anaplasmosis is considered a “tick-borne” disease because they can spread the organism through feeding on cattle. Although ticks are important for this organism to survive and spread, transmission can be by any method that moves affected red blood cells from infected to susceptible cattle. In addition to ticks, the *Anaplasma* organism may be spread by biting insects (mosquitoes, horse flies, stable flies) and/or using blood-contaminated tools such as dehorning tools, ear taggers, castration tools, and implant guns without disinfection between animals. Probably the most common way it is transmitted is using the same hypodermic needle on multiple animals when administering vaccines to the herd. Once infected, there is a 3-10 weeklong incubation period before the animal develops signs of a problem. Transmission may also be from cow to calf while pregnant although little is known about when this takes place in gestation.

How is Anaplasmosis diagnosed?

If an animal is found dead and no more than 24 hours has passed since

the time of death, the animal can be submitted to a veterinary diagnostic laboratory for necropsy or a veterinarian may perform a field necropsy to determine the cause of death. If an animal is alive and showing signs consistent with anaplasmosis, the UKVDL recommends a blood sample (both a red top and a purple top tube) be submitted for an accurate diagnosis. Whole blood (purple top tube) is needed for a complete blood count (CBC) to assess the degree of anemia, to potentially identify the organism in a blood smear and for a new PCR test now available to identify the *Anaplasma* DNA. The red top tube of blood is needed for a serum test (the Anaplasmosis cELISA) to detect antibodies indicating infection and/or carrier status. However, the serum test may be negative early in the disease process. Blood should be collected and transported to the lab as soon as possible (overnight ship with cold packs). Please visit the UKVDL web site for additional information at <http://www.vdl.uky.edu>

Is an effective vaccine available?

Kentucky is among the list of states approved by the USDA for sale of the anaplasmosis vaccine marketed by University Products LLC of Baton Rouge, LA. Vaccination should keep animals from experiencing sickness and death but does not prevent infection and still allows development of the carrier state. The vaccine can be used during an outbreak and has been used in cows in all stages of pregnancy with no problems being reported. The recommendation is a two-dose regimen given 4 weeks apart with annual re-vaccination required.

Immunity should develop within 7-10 days of the 2nd dose according to the manufacturer. Vaccination should ideally begin with yearlings. The downside to vaccination is that vaccinated animals will test positive for anaplasmosis which is unacceptable for most seedstock operations. More information may be found at: <http://www.anaplasmosis.com/home.html>

What is the best way to prevent problems due to Anaplasmosis?

Preventing infection with *Anaplasma marginale* is difficult due to the large number of infected herds throughout the state, the frequent movement of cattle and the ease with which the organism is transmitted. In addition, antibiotic treatment and vaccinations do not prevent animals from becoming carriers. For these reasons, the goal is often to prevent disease and death loss when the herd is first exposed to the *Anaplasma* organism and as it spreads within the herd. One control option is to offer chlortetracycline (CTC) at the control dose of 0.5 mg-2mg/lb BW per head per day throughout the vector (fly) season to the herd (May-Nov). This is easily accomplished by purchasing a free-choice mineral with CTC added for anaplasmosis control. However, CTC intake varies greatly from cow-to-cow, so some eat too much and others not enough. Research has found it is equally effective to pulse feed CTC (offer CTC for 30 days, take a 30-day break then offer CTC for the next 30 days and so on) as to offer CTC continuously for control of the disease. To obtain CTC, a producer must have a written VFD

(continued on next page)

Anaplasmosis in Beef Cattle-Frequently Asked Questions

(continued from page 17)

from a licensed veterinarian to present to the feed store before purchase of the product. FDA states that “once a veterinarian has determined that anaplasmosis infection exists within a herd, whether or not clinical signs are apparent yet, he/she may write a VFD to direct the use of CTC for controlling the progression of the disease in that herd.” FDA leaves how to make this determination to the discretion of the veterinarian. How long to use the product is also left to the veterinarian’s discretion, based on his or her assessment of the disease risk. A VFD order can be issued for a maximum of 180-day duration of feeding; if needed for a longer period of time, a new VFD order must be written. On the actual VFD form for CTC, the veterinarian can only choose the #5 option (see example in Figure 2) for a free choice product. Remember, **feeding CTC will not prevent disease if the animals are not consuming sufficient amounts** so intake should be monitored. Even when feeding CTC throughout the vector season, some individual animals may still become infected and die if they do not eat enough. Using CTC or any feed additive in a manner not stated on the label is illegal and strictly prohibited for producers, veterinarians, and nutritionists.

If unable to obtain a VFD or feeding CTC is not an option, vaccination is another possible control measure available that can work but is a bit pricey at \$8-10 per dose. To reduce the cost, if willing to draw blood and submit for anaplasmosis testing, the vaccine can then be targeted for use in only the individuals who test

negative for antibodies. Animals that test positive will not need vaccination nor CTC therapy. This Anaplasmosis cELISA blood test (currently \$9 per test) can be run on the same blood sample used for pregnancy testing, too.

Will Anaplasmosis always be a problem for KY cattle herds?

Maybe. The disease should reach a point of “endemic stability”, meaning nearly all the animals in herds have been exposed to the disease and are immune to its effects. However, studies have found that herds in traditionally endemic areas such as Florida are not necessarily full of positive animals. In other words, there is no way to know the status of your own herd (how many cows are carriers and how many are uninfected) unless you blood test. Any new additions to the herd purchased from areas of the US without anaplasmosis and brought to KY will be at higher risk of disease and should be tested to determine their status. Similarly, new purchased additions may be Anaplasmosis carriers and can infect cows in your herd if there are many negative cows. Bottom line is to test new purchases and work with your vet to determine next steps.

Will carrier cows and bulls always have Anaplasmosis?

Should they be culled? Carriers in the herd are not necessarily bad even though they carry the organism in their blood cells. Once an animal is a carrier, it is protected from disease and will not develop anemia and die. However, carriers that consume a consistent, high dose of tetracycline over a prolonged period (called

“chemosterilization”) may inadvertently clear the organism and are susceptible to re-infection and sickness/death in subsequent seasons. Attempting to clear the organism or eradicate the disease is usually limited to high value seedstock and those that require international movement. Consult your veterinarian for further information about testing and disease control recommendations for your area.

Example VFD Form for Free Choice CTC

Beef and Non-lactating Dairy Cattle:
As an aid in control of active infection of anaplasmosis caused by *Anaplasma marginale* susceptible to chlortetracycline when delivered in a free-choice feed.

Drug Concentration:

1. 8000 g/ton (to provide 0.5 to 2.0 mg/lb body weight/day)
[Must use a FDA-approved proprietary formulation.]
2. 6000 g/ton (to provide 0.5 to 2.0 mg/lb body weight/day)
[Must use a FDA-approved proprietary formulation or formulation in 21 CFR 558.128 (e)(6).]
3. 5000 g/ton (to provide 0.5 to 2.0 mg/lb body weight/day)
[Must use a FDA-approved proprietary formulation.]
4. 700 g/ton (to provide 0.5 to 2.0 mg/lb body weight/day)
[Must use a FDA-approved proprietary formulation.]

2022 Kentucky Grazing Conference

Profitable Grazing Systems from the Soil Up

Western Kentucky - October 26th

Grayson County Extension Office, Leitchfield

Eastern Kentucky - October 27th

Clark County Extension Office, Winchester

- 7:30 Registration
- 8:30 My soil is alive! **Ray Archuleta**
- 9:30 Right-sizing your cows for profit **Les Anderson**
- 10:30 Don't let grazing myths impact your profitability **Greg Halich**
- 11:15 Hay Feeding Strategies to Build Fertility in Grazing Systems
Nick Roy & Fred Thomas
- 12:00 Lunch
- 1:15 Producer Speaker / Forage Spokesperson Contest
- 2:15 The role of extended grazing in profitable ruminant livestock
operations **Jim Gerrish**
- 3:15 Closing



Tickets: \$35 Advance / \$50 Onsite / \$15 Students
Leitchfield: <https://2022GrazingLeitchfield.eventbrite.com>
Winchester: <https://2022GrazingWinchester.eventbrite.com>

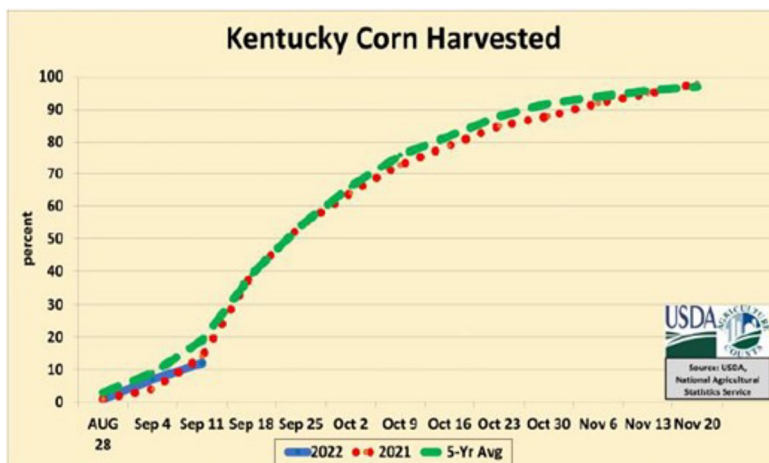
Decision Tool Predicts Local Field Drying Trends for Corn

Dr. Sam McNeill Extension Agriculture Engineer

Pre-harvest USDA estimates pegged Kentucky's corn crop at 200 million bushels this year (28% below 2021) and it's off to a similar, slow start. This week's USDA report showed the progress of corn harvest at 10% complete statewide, which is about the same as this time last year, but about half the 5-year average (~20%). On a positive note, field drying should have good potential across most of the state next week, so many farm-ers will likely ramp up harvest, quickly catch up to the 5-year average, and benefit from lower drying costs.

A web-based tool has been developed at Clemson University to calculate the equilibrium moisture content of grains at predicted temperature and relative humidity conditions with imbedded equations. The Clemson EMC Calculator pulls data from the National Weather Service that is available for each zip code and is reported at 3-hour intervals. Once logged in, the user enters the zip code and selects the type of grain and an equation to calculate corresponding grain moisture values at 3-hour intervals. Graphs are then shown for each variable during the period along with a table.

The EMC calculator was used to predict moisture changes of mature corn at four locations across Kentucky's production area for the next five days. Data from the output table was imported into an Excel spreadsheet to generate a trendline at each location and is shown in Figure 1. Since grain moisture doesn't change instantaneously, but lags in response



points for Mayfield, Madisonville, Elizabethtown and Lexington, KY, owing largely to the mild temperatures

and below average relative humidity levels (Table 1). Bear in mind that this model provides an indication of either drying or re-wetting in the vicinity and does not

account for cloud cover, wind speed, or rain showers.

Still it can be a useful tool to predict changes in grain moisture for your area and can be accessed at Clemson. EMC Calculator: https://precisionag.sites.clemson.edu/Calculators/Grain_Storage/EMC_Calc/

to ambient conditions, this approach provides an indicator to illustrate whether conditions will favor drying or re-wetting during the period. Similarly, it can be used to guide harvest decisions for mature crops.

From September 13 to 18, the Clemson EMC Calculator predicts a grain moisture loss of about 2 to 3 percentage

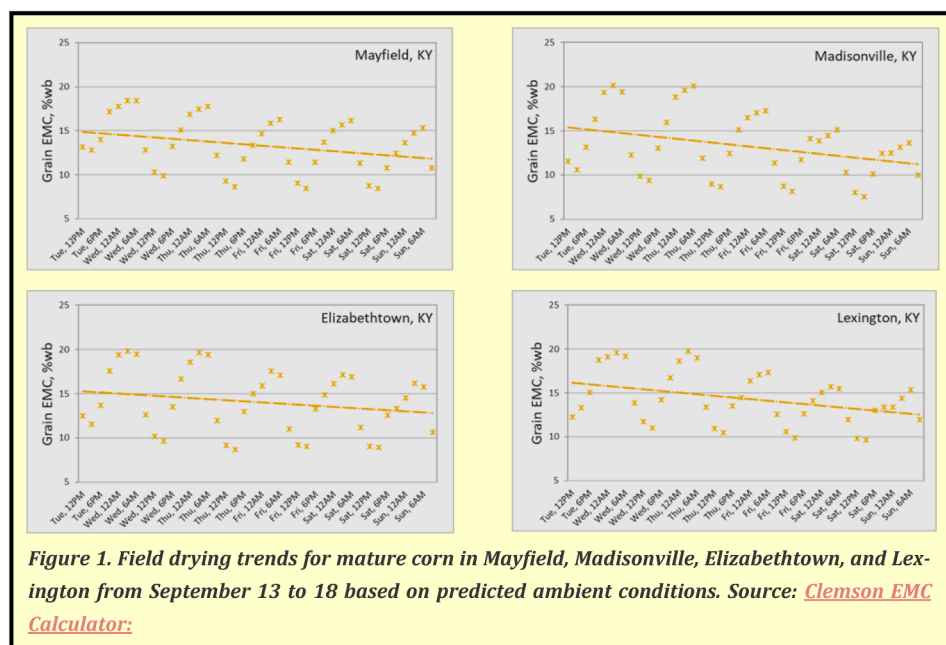


Figure 1. Field drying trends for mature corn in Mayfield, Madisonville, Elizabethtown, and Lexington from September 13 to 18 based on predicted ambient conditions. Source: [Clemson EMC Calculator](https://precisionag.sites.clemson.edu/Calculators/Grain_Storage/EMC_Calc/).

Location	Average Temp. F	Average RH, %
Mayfield	72	62
Madisonville	73	61
Elizabethtown	71	65
Lexington	69	67

Table 1. Average ambient conditions in Mayfield, Madisonville, Elizabethtown, & Lexington from September 13 to 18, 2022.

Equine Tips & Tidbits

Author: Dr. Shelby Roberts

Body Condition Scores (BCS)

- Get to know your horse by assessing its body condition score, or the amount of fat it is carrying.
- Understand your horse's fat cover and adjust management practices according to your horse's needs.
- Assess fat both visually and by palpation in the six areas where horses accumulate fat: loin, ribs, tail head, withers, neck, and shoulders.
- Know what the BCS means. For example, a horse below a 5 BCS may have fat stores too low to maintain health if stressed. A horse that is lactating, exposed to extreme cold, or under other severe stress will benefit from a condition score of 6 or 7.
- Remember that horses with high condition scores are predisposed to problems, but the problems are less immediate than those of a horse in poor body condition.
- For most horse owners a good goal for BCS on their horses is a 5 that is where they should start.

See *UK College of Agriculture, Food and Environment publications Help! My Horse is Too Fat (ASC-187) and Help! My Horse is Too Thin (ASC-188)* for more information.

Breeding Horses

- If you have not already done so, send your breed registrations and stallion breeding reports to the proper associations.

Showing Horses

- If you have not checked send in registrations for any year end awards programs you may be eligible for.



Weed Control

- Identify weeds and select the appropriate herbicide for the desired control.
- For optimum weed control, adequate moisture along with temperatures at 60°F will be needed for several consecutive days for a fall herbicide application.



High Traffic Pads

- Make plans for a winter-feeding area.

- High traffic pads are an excellent choice to reduce muddy conditions in feeding areas.
- Excessively muddy conditions impact the health and well-being of horses by making walking and standing difficult.
- Construction of a high traffic pad in areas where horses congregate to provide a sturdy surface and significantly reduce mud.
- Determine your area for installing a high traffic pad, such as around gates.
- Excavate the area through the topsoil layer until stiff, stable soils are encountered, usually the top 9 inches.
- Separate the soil from the rock layers with Geotextile placed according to the manufacturer's recommendations.
- Place a base layer of No. 2 or No. 4 crushed stone on top of the Geotextile, typically 6 inches deep but can be deeper.
- Lay a layer of densely graded aggregate as the final surface material on the pad with a depth of 2 to 3 inches, graded with a slight slope, and packed with a smooth drum roller.

Relating Farm Financial Terms to Real Life

Author: Kayla Brashears - Published: August 30th, 2022

A producer that works with any type of lending institution may hear their lender use words like liquidity, solvency, and profitability. Their banker may tell them their Term Debt Coverage Ratio is less than 1:1, so the new farm purchase is off the table. A producer may know that their Debt-to-



Worth is good or their Current Ratio is bad. However, oftentimes there is a disconnect between paper ratios and the daily farm operation. Outlined below are five pillars of financial health and their effect on daily operations.

Liquidity

Liquidity is the ability to get your hands on cash quickly. It is your ability to meet financial obligations as they come due by generating enough cash for family living expenses, taxes, and making debt payments on time. Ratios that are used to measure liquidity include working capital and current ratio, which both measure the ability to meet short-term obligations without disruption to the business.

A farm that does not have strong enough liquidity feels the effects of timing more than a farm that is better situated. A farm with limited liquidity may need a short-term operating line increase at year-end to bridge the gap until January grain sales. Outstanding accounts at suppliers can mark more moderate liquidity problems because there isn't cash on hand to satisfy the balance. Late or non-existent

equipment payments, bouncing payroll checks, and cash infusions from unlikely sources like family or retirement accounts are other markers of severe liquidity problems.

A farm with strong liquidity will have cash available for expansion, such as new land or equipment. The farm may not need to utilize an operating loan and may opt to use cash for large purchases. Another indicator of a strong liquidity position is freedom within grain marketing decisions – the farm is not beholden to cash flow stressors.

Solvency

Solvency is the overall health of the business. If everything was sold tomorrow – could all debts be paid? Two measures used to calculate solvency are Net Worth (assets minus liabilities) and Debt/Equity which compares the bank's ownership to your ownership. A ratio of over 100% means the bank has more invested in the business than the operation does. This is common in beginning farmers that have not had the opportunity to grow their Net Worth. A farm with solvency problems may have issues borrowing money or refinancing. A farm with a strong

solvent position will have more flexibility to handle profitability or liquidity problems.

Profitability

Profitability is the difference between the value of produced goods and the expenses used to produce them. Net Farm Income is the hallmark measure of profitability; it is what the owner's time, energy, and money generates. An operation with probability problems may have wasteful spending either on the farm or on family living. They may have old, unreliable equipment, or poor family labor efficiency. The farm may be cropping ground that is poor performance or in general have subpar production practices.

Repayment Capacity

Repayment capacity is your ability to pay your debts on time. A very common measure used to calculate this is Term Debt Coverage Ratio, which divides term payments against business income. If the term debt coverage ratio is less than 1, it means the farm did not generate enough income to service its debt. A farm experiencing repayment capacity problems may sell grain at a less optimal time to make the annual

farm real estate payment. They may borrow money, sell equipment, or leave a supplier bill outstanding in order to make scheduled payments.

Financial Efficiency

Financial efficiency is the measure of how effectively your business uses assets to generate income. It is less likely to show an exact manifestation, but farms with poor financial efficiency will experience liquidity, repayment capacity, and solvency problems. One of the more common measures of financial efficiency is Interest Expense/Gross Farm Returns. If this number is 7-10% or higher, many operations will experience difficulty meeting cash flow needs. A ratio this high indicates the farm has a lot of outstanding debt, and in some instances, may be experiencing very high operating interest rates.

Every farming operation, every year, is unique. A farm with strong liquidity this year may not be as well off the following year, as 2022 has taught us with skyrocketing input prices. Conversely, farms experiencing repayment capacity problems or solvency concerns one year may course-correct and improve their financial position the next year. If you are a producer, working with a trusted source like your lender or KFBM specialist, can help you understand financial measures and their unique relation to the farm.

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<https://www.planeatmove.com/recipes/Cook Wild Kentucky>



UK College of Agriculture, Food and Environment

Deer Camp Breakfast Sausage

Servings: 16

Serving Size: 1 patty



Ingredients:

- 2 pounds ground venison
- 1 pound ground pork
- 1 teaspoon dried marjoram or oregano
- 1 tablespoon dried sage
- 1 tablespoon dried basil
- 1 teaspoon dry mustard
- 1 teaspoon salt
- ½ teaspoon pepper
- 1 egg, beaten
- ¼ cup bread crumbs
- ¼ cup cooking oil

Directions:

Combine meat and seasonings. Add egg and bread crumbs. Stir well. Shape into 16 patties. Fry in oil until golden brown on each side and internal temperature reaches 165 degrees Fahrenheit. Cover and simmer for 40 minutes. Serve hot.

Nutrition facts per serving:

190 calories; 12g total fat; 4.5g saturated fat; 0g trans fat; 75mg cholesterol; 220mg sodium; 1g carbohydrate; 0g fiber; 0g total sugars; 0g added sugars; 18g protein; 0% Daily Value of vitamin D; 2% Daily Value of calcium; 10% Daily Value of iron; 6% Daily Value of potassium

Source: Adapted from "Wild Game: From Field to Table," Sandra Bastin, PhD, RD, Extension Food and Nutrition Specialist. Revised July 2007

Horse & Horsemanship



Demonstration *Let's Go Show!* Day

Do not bring your horse. Participants are encouraged to bring their bridles and equipment.

Saturday, November 12, 2022 Cowtown Arena

210 Wainscott Road, Williamstown, KY 41097

Registration 8:30 a.m.

Morning Session 9:00 a.m.

- How to be Show Ring ready
- Legal Bits, Bridles, Tack and Show Attire
- Behavior and Safety
- Halters and Ground Manners

Break for Lunch (food available for purchase on site)

Afternoon Demonstrations 1:00 p.m.

- Western and English Riding
- Saddle Seat and Dressage Riding
- Carriage Driving

Guest Speakers: Dr. Bob Coleman, UK Equine Extension Specialist, Dr. Fernanda Camargo, DVM, and Richard Lockhart.

NKHN Presenters: Jackie Holland, Susan Dickinson, and Charlie Poppe.

For more information:

Northern Kentucky Horse Network: www.nkhn.info
Campbell County Extension Office (859) 572-2600
Kenton County Extension Office (859) 356-3155