Ag & Natural Resources Of Cows and Plows FRANKLIN COUNTY COOPERATIVE EXTENSION



Franklin County 101 Lakeview Court Frankfort, KY 40601-8750 (502) 695-9035 Fax: (502) 695-9309 franklin.ca.uky.edu



10	ECAP
11	JR. CATTLEMAN
12	SEVERE WEATHER
13	BACKYARD CONSERVATION
14	SHEEP & GOAT
15	THIRD THURSDAY THING
15	SPRING CLEAN
15	MOBILE PROCESSING UNIT
16FE	EDER CALF GRADING SCHOOL
16	RECIPE
17-19	MANAGING BLOAT
20	SAVE THE DATES

2-4ALPHA	GAL
4 PESTICIDE APPLICA	ATOR
4BQCA CERTIFICA	ΓΙΟΝ
4TWILIGHT	TOUR
5FARM CITY FIELD	DAY
5BEEF MANAGEMENT WEE	BINAR
6EASTERN TENT CATERF	PILLER
7PLANT M	ARKET
7ESSENTIAL FIRST AID & FIR	E KITS
7REFOREST FRANK	FORT
7CUT FLOWERS FROM	SEED
810 FREE SOIL SAM	1PLES
9 SPRING F	LUSH

IN THIS ISSUE



Department of Entomology

S-225 Agri. Sci. Ctr. – North Lexington, KY 40546-0091 (859) 257-7450 entomology.ca.uky.edu

Life with Alpha-Gal Red Meat Allergy

Heather Norman-Burgdolf, Extension Specialist for Food and Nutrition and Jonathan L. Larson, Extension Specialist for Entomology

Entfact-656

Fast Facts

- Alpha-gal syndrome or red meat allergy is an allergic condition. Those with the condition must forgo eating beef, lamb, pork, and wild game. Sufferers can still eat poultry, seafood, eggs, and plant-based sources of protein.
- Symptoms can include gastrointestinal issue such as nausea, indigestion, and diarrhea and other allergic symptoms such as cough, hives, shortness of breath, difficulty breathing, and swelling of the eyes/tongue/lips/throat, amongst others.
- Alpha-gal is currently only known to be spread by the lone star tick, which is also the most commonly encountered species of tick in Kentucky.
- Not every lone star tick bite will result in the red meat allergy. Allergic symptoms can appear 3-6 hours after eating red meat and sufferers will need to consult with a physician or allergist for diagnosis and management.

How do you get red meat allergy?

Current data suggests that alpha-gal syndrome is spread by bites from lone star ticks. No other tick has been associated with this issue in the state. Lone star ticks feed on other animals, possibly ending up with the alpha-gal sugar molecule in their mouth/saliva. When they feed on a human, they may accidentally "inject" the molecule into the bloodstream.

Humans do not have alpha-gal in our blood. Therefore, when a tick passes it to a person, the body may mount an immune response to this "foreign invader". Unfortunately, alpha-gal is present in the red meat humans eat (even after cooking) and if the body encounters alpha-gal in the stomach after development of alpha-gal syndrome, it may engage the same immune response.

Not every bite from a lone star tick will result in alpha-gal syndrome. This could be due to the tick or to the immune response of the person who was bitten. It is more likely that red meat allergy is associated with adult and nymphal ticks than with larval ticks (aka seed ticks).



Figure 1: Adult female lone star ticks have a white dot on their back. Immatures lack the dot but are "rounder" than other tick species. Photos by Jim Kalisch, UNL Entomology



What symptoms might you notice?

As with other allergic reactions, alpha-gal syndrome can cause symptoms such as skin irritations, hives, gut issues, and breathing problems. The severity of the condition is different for everyone. Unlike the typical food allergy, a person with alpha-gal syndrome may have a delayed allergic reaction anywhere between three and six hours after ingesting meat or other products that come from mammals. This may make it difficult to diagnose.

What lifestyle changes will be made?

There is no known treatment for alpha-gal syndrome. Instead, lifestyle changes can be made that help manage and reduce the symptoms. People who have alpha gal must remove beef, pork, and lamb from their diets to avoid allergic reactions. Certain cuts and types of meat have higher amounts of alpha-gal and cause worse reactions. For example, organ meats such as liver, heart, and tripe have higher amounts of alpha-gal.

Other foods often made with ingredients from mammals that may cause reactions include broths, bouillon, stocks, gravy, and other items made with lard or tallow. For those who hunt, be mindful that wild game is also a source of alpha-gal. This includes everything from venison to squirrel.

Several food additives that utilize ingredients from animals may also cause a reaction. These include gelatin, glycerin, magnesium stearate, and bovine extract. As a result, those with alpha-gal syndrome should consider checking the ingredient labels when purchasing products like these.

Some prescribed medications and medical treatments may also cause a reaction. These may include heparin, antivenoms, certain chemotherapy drugs, and even heart valves derived from pigs or cows. Always ask if the prescribed medication or suggested treatment causes a reaction for those living with alpha-gal.

Depending on the severity of the condition, some people may still be able to have dairy. Those with a more serious form of alpha-gal may not be able to tolerate dairy at all.

The symptoms of alpha-gal may decrease over time, particularly if further bites from lone star ticks are prevented. In some cases this has taken 1-2 years. More bites from ticks carrying alpha-gal though could extend the window of symptoms. What sources of protein are left?

Those living with alpha-gal may have concerns about getting enough protein in their diet. Luckily, there are high-protein foods that do not contain alpha-gal. These foods include:

- Poultry (chicken, turkey, duck, or quail)
- Seafood (fish, shellfish)
- Eggs
- Beans
- Nuts and seeds

Other foods like grains, vegetables, and fruits should still be consumed. As individuals with alphagal tend to have different tolerance levels to meat products, dairy, and other animal byproducts, individuals should work with a health care provider, such as a registered dietitian, to find a diet that works for them and meets their personal nutrition needs.



Figure 3: The darker blue areas have higher numbers of alpha-gal cases.

Kentucky and Alpha-gal and Prevention

While still considered "rare" relative to other medical issues in the state, Kentucky is one of the states with the most cases of alpha-gal in the US, according to the CDC.

Wearing repellents while outdoors, such as DEET, picaridin, and oil of lemon eucalyptus can help prevent tick bites. So too can permethrin applied to clothing. Lone star ticks are active as adults and nymphs from March-August and can be found nearly anywhere that is overgrown and weedy as well as along paths.

To learn more about lone star ticks, please read: <u>https://entomology.ca.uky.edu/ef648</u>

05/24 (Issued)

Webinar Event Living with Alpha-gal Syndrome

Learn more about AGS (red meat allergy) and how to reduce your risk with University of Kentucky Cooperative Extension

Topics Covered

✓ AGS basics

- 🧭 Tick bite prevention
- 🧭 Diet & lifestyle management
- ✓ Q/A session



Thursday, May 29th 6-7:30pm CDT 7-8:30pm EDT

Register Now! ukfcs.net/AgS

Save the Date Twilight Tour

- Horticulture Research Farm









Cooperative Extension Service

Details and registration info to come.



Cooperative Extension Service

It's time to renew your BQCA certification

University of Kentucky and Kentucky Beef Network are offering FREE BQCA Certifications in April!

> April 10 - 6:00pm or April 24 - 6:00pm

Franklin County Extension Office

RSVP by April 8 502-695-9035

Unable to join us? Renew Online! kybeefnetwork.com



Cooperative **Extension Service**

MARTIN-GATTON COLLEGE OF AGRICULTURE. FOOD AND ENVIRONMENT

For more details visit our website https://franklin.ca.uky.edu/field-day



College of Agriculture, Food and Environment

UK Beef Management Webinar Series

Registration is necessary, however, if you received this email directly from Darrh Bullock then you are already registered. If you received this from another source, or have not registered previously, then please send an email to dbullock@uky.edu with Beef Webinar in the subject line and your name and county in the message. You will receive the direct link with a password the morning of each meeting. This invitation will directly link you to the site and you will be asked for the password which can be found just below the link. Each session will be recorded and posted for later viewing. All meeting times are 8:00pm ET/7:00pm CT.

April 8, 2025

Health Update and Internal Parasite Field Study Results – Michelle Arnold, Extension Veterinarian, and Jeff Lehmkuhler, Extension Professor, University of Kentucky

EASTERN TENT CATERPILLAR UPDATE: PROTECTING HORSES AND TREES AMID LATE WINTER CONDITIONS

By Jordan Strickler

LEXINGTON, Ky. (March 20, 2025) — The Eastern tent caterpillar (ETC) gained notoriety during the early 2000s when its accidental ingestion by pregnant mares was linked to Mare Reproductive Loss Syndrome (MRLS). From 1999 to 2001, MRLS caused an estimated 3,500 foal losses, including abortions, stillbirths and neonatal deaths. Central Kentucky alone lost around 30% of its 2001-02 Thoroughbred foal crop, resulting in an estimated state economic impact of \$336 million across all horse breeds — making tracking and managing the pests significant for horse owners, even to this day.

Due to a colder winter and slower accumulation of growing-degree days (GDD) this year, experts at the University of Kentucky Martin-Gatton College of Agriculture, Food and Environment (CAFE) anticipate a delayed hatch for ETCs.



including abortions, stillbirths and neonatal deaths between 1999-2001. Photo by Matt Barton.

"ETCs begin to hatch after enough warm days accumulate," said Jonathan Larson, assistant extension entomology professor in the Department of Entomology. "We've seen a slower approach to that number this winter, which gives horse owners more time to monitor and prepare."

These native insects typically begin hatching at 90-100 GDD. As of March 17, representative counties such as McCracken (99 GDD), Barren (116 GDD), Fayette (82 GDD) are approaching or ticking over that threshold, while others, such as Harlan (28 GDD) remain well below that threshold. Horse owners and farm managers should begin vigilance for small caterpillars, as ETC infestations pose a serious risk to pregnant mares. Locally, managers can look for forsythia shrubs that have started to bloom as an indicator of ETC



hatch.

Identifying and managing eastern tent caterpillars

Eastern tent caterpillars are commonly observed on wild cherry, apple and crabapple trees, although they may also infest hawthorn, maple, peach, pear and plum. True to their name, these caterpillars construct compact silk "tents" in the forks of branches. The tightly woven nests serve as shelters, helping to protect the growing larvae from predators and harsh environmental conditions.

Over the winter, ETCs remain dormant as egg masses wrapped around pencil-thin twigs, waiting for the warmer days of early spring to hatch. Once they emerge, the larvae feed primarily at dawn, dusk or overnight and can grow to a length of 2 to 2.5 inches. As resources become scarce — or when it is time to pupate — these caterpillars often leave their host trees, wandering along fence lines and into pastures in search of new food sources or protected pupation sites.

In pregnant mares, ETC hair cuticles can lodge in the lining of the digestive tract, creating an entry point for bacteria. The resulting infection may harm both the fetus and placenta, posing a significant threat to equine health and foal development.

"If farm managers notice high numbers of nests, they should relocate pregnant mares from areas near wild cherry trees to reduce the risk of exposure," Larson said. "The greatest danger occurs when mature caterpillars leave the trees to pupate and transform into moths."

Preventive strategies for horse owners and farm managers

Horse owners and farm managers can employ several preventive strategies to mitigate risks. First, monitoring wild cherry and other host trees is important, as it requires carefully inspecting them for egg masses and developing tents. Early detection allows for timely intervention before the caterpillars spread.

When infestations are discovered, removing affected branches may be necessary. Smaller tents can be wound onto a stick, while larger ones should be pruned. Burning tents with an open flame is not advisable, as this can easily damage the tree.

With insecticide use, early intervention with the organic pesticide Bacillus thuringiensis (Bt) can help target young caterpillars. For taller trees or extensive infestations, professional arborists may recommend trunk injections with labeled products such as Tree-äge (emamectin benzoate), Inject-A-Cide B (Bidrin), Abacide 2 (abamectin) or Lepitect (acephate).

Finally, it is essential to stay informed by tracking the local growing-degree days and consulting extension resources. By doing so, horse owners and farm managers can anticipate when hatching and peak caterpillar activity will likely occur, thereby reducing potential risks.

"ETC activity can vary annually due to climatic conditions, predators and disease," Larson said. "However, understanding their life cycle and habitat preferences allows us to address potential risks preemptively. Awareness is our best defense. By tracking the hatching and development of these caterpillars, we can implement targeted interventions to protect our trees and, crucially, our horses."

For more detailed guidance on identifying and removing egg masses, download the UK entomology publication "Checking Eastern Tent Caterpillar Egg Masses" at <u>https://entomology.ca.uky.edu/ef449</u>.





SATURDAY, APRIL 12 | 9 AM - 1 PM RIVERVIEW PARK 404 WILKINSON BLVD

Join us for tree planting, free food & music, urban forestry and eco art along the banks of our Kentucky River!



Easy Cut Flowers From Seed



Wednesday, April 16 6 PM

This class will cover the basics for easy-to-grow flowers, perfect for creating stunning bouquets from your garden.

RSVP: 502-695-9035 or franklin.ext@uky.edu

101 Lakeview Court Frankfort, KY

10 FREE SOIL SAMPLES

Sponsored By: Franklin County Conservation District

January 1- April 30, 2025

For Franklin County or Frankfort Residents or Farms located in Franklin County.



Franklin County Conservation District 103 Lakeview Court Frankfort, KY 40601 Phone: (502) 352-2701

Cooperative Extension Service

Franklin County 101 Lakeview Court Frankfort, KY 40601-8750 502-695-9035 franklin.ca.uky.edu

FREE SOIL SAMPLE COUPON Sponsored By: Franklin County Conservation District

January 1- April 30, 2025, the Franklin County Conservation District is sponsoring 10 FREE soil tests.

Bring this coupon in with your soil sample(s) and receive FREE BASIC SOIL TESTING.

Redeemable only at the FRANKLIN COUNTY COOPERATIVE EXTENSION SERVICE located at 101 Lakeview Court, Frankfort KY. (502) 695-9035 <u>https://franklin.ca.uky.edu</u>

For information on how to take a soil sample: <u>www.ca.uky.edu/agc/pubs/agr/agr16/agr16.pdf</u>

LIMIT 10 (ten) FREE SAMPLES per PERSON Coupon available for Franklin County or Frankfort Residents or Farms located in Franklin County. NO COMMERCIAL SAMPLES WITH THIS OFFER

STRATEGIES FOR MANAGING THE SPRING FLUSH

Chris D. Teutsch, University of Kentucky Research and Education Center at Princeton

In March and April grass growth in the Commonwealth's pastures goes from 0 to 60 mph in just a few short weeks. We often find ourselves impatiently waiting for grass to start growing and then just a few short weeks later wondering what we are going to do with it all! The following suggestions can help you to optimize spring grass growth and utilization.

- *Implement rotational grazing*. To fully utilize the spring flush of pasture growth <u>YOU</u> must be in control of grazing. In a continuous grazing system, the cows are in charge. By utilizing rotational stocking, you start to make the decisions. Implementing a rotational stocking system may be as simple as closing some gates or stringing up some polywire.
- Feed a little hay in late winter and early spring. It is tempting to just let cattle roam and pick pastures for early grass growth, but this can set pastures back and reduce overall dry matter production. It is important to restrict cattle to one area, feed a little hay, and allow pastures to accumulate 4 to 5" of growth before starting to graze.
- Start grazing at 4 to 5" of growth. Another common mistake that graziers make is waiting too long to start grazing. If you wait until the first paddock is ready to graze, 8-10" of growth, by the time you reach the last paddock it will be out of control. Starting a little bit early allows you to establish a "grazing wedge" (Figure 1).
- **Rotate animals rapidly.** It is important to realize that grazing pastures closely and repeatedly as they initiate growth in early spring can reduce production for the entire season. Therefore, it is important to keep animals moving rapidly through the system. The general rule is that if grass is growing rapidly then your rotation should be rapid. This will allow you to stay ahead of the grass by topping it off and keeping it in a vegetative state.
- Do not apply spring nitrogen. Applying nitrogen in the spring will make the problem of too much grass at once even worse. In many cases you are better off applying nitrogen in late summer or early fall to stimulate growth for winter stockpiling.
- Remove most productive paddocks from rotation and harvest for hay. Graze all paddocks until the pasture growth is just about to get away from you and then remove those productive paddocks from your rotation and allow them to accumulate growth for hay or baleage harvest.
- Increase stocking rate in the spring. An alternative to harvesting excess forage as hay or baleage is to increase your stocking rate by adding more animal units in the spring and then decreasing animal numbers as plant growth slows due to higher temperature during the summer months. While this is a viable approach, it is not practical on smaller or part-time operations.
- Even out seasonal distribution of forage by adding warm-season grasses. Adding a well-adapted warm -season grass that produces most of its growth in July and August would allow you to concentrate grazing on your cool-season paddocks during periods of rapid growth (spring flush). After coolseason grass growth slows in late spring and early summer, animals can be shifted in the warm-season paddocks for summer grazing.
- Bush-hog out of control pastures. The benefits of clipping include maintaining pastures in a vegetative Figure 1. The "grazing wedge" simply refers to having pasture state, encouraging regrowth, and controlling weeds. Clipping pastures costs money, so make sure that the primary reason for bush-hogging is pasture management, not aesthetics.



subdivisions or paddocks at varying stages of regrowth from just grazed to ready to graze.

Stockpile out of control pastures for summer grazing. Although forage quality decreases as the plant matures, the quality of spring stockpiled pasture is sufficient for dry cows and in some cases can result in reasonable gains on growing animals during the summer months. This is especially true if using novel endophyte tall fescue and the pastures were clipped at the early boot stage to promote vegetive regrowth. This could be a cost-effective and simple way to provide additional grazing during the summer months.

Managing spring grass can be challenging. It is important to find that "sweet spot" for starting to graze, not too early and not too late! Hopefully one or more of the above tips will help you optimize your spring grass!

EMERGENCY COMMODITY ASSISTANCE PROGRAM (ECAP)



USDA's Farm Service Agency is issuing up to \$10 billion in direct payments to eligible agricultural producers of eligible commodities for the 2024 crop year through the Emergency Commodity Assistance Program (ECAP). These one-time economic assistance payments will help commodity producers mitigate the impacts of increased input costs and falling commodity prices. **Who Is Eligible**

To be eligible, producers must meet the following requirements:

- Be actively engaged in farming.
- Have an interest in input expenses for a covered commodity.

Have reported acreage of eligible commodities to FSA for the 2024 crop year planted and prevent plant acres to FSA on an <u>FSA-578</u>, *Report of Acreage* form.

Have reported acres that were prevented from being planted to FSA for the 2024 crop year on an <u>FSA-576</u> Notice of Loss form (if applicable).

Note: Producers who have not previously reported 2024 crop year acreage or filed a notice of loss for prevent plant crops, must submit an acreage report by the August 15, 2025 deadline.

Eligible acreage, commodities, and ECAP payment rates (per acre):

• Acreage that has been reported with both an initial commodity and a double crop commodity will be eligible for payment on both plantings if in an approved double cropping combination.

• Acreage that has multiple intended uses will only be eligible for payment on one intended use. If multiple producers have interest, the payment is limited to the applicant that has the interest in input expenses.

• Producers will be eligible for payment on both plantings in situations where producers graze small grain acreage and then still could timely plant a spring commodity with a reasonable expectation to produce a normal yield, therefore making use of both commodities if there is an RMA short rate policy in effect for 2024.

• In cases where an initial eligible commodity failed or was prevented from being planted and the producer planted a subsequent eligible commodity for the 2024 crop year, eligible acreage will be limited to the initial crop if not in an approved double crop combination.

Volunteer acreage, experimental acreage, and acreage with an intended use of green manure or left standing are not eligible for payment under ECAP.

Important Dates — March 19 and runs through August 15, 2025 How To Apply

• Pre-filled ECAP applications will be mailed to all producers with a reported eligible commodity as of March 10, 2025.

• After verifying and completing Form FSA-63 ECAP producers should submit their application to their local FSA county office. Options to submit ECAP applications include:

O In-person; Electronically using Box and One-span; Fax; The online application (available on March 19, 2025) using a secure login.gov account

One application will cover a producer's entire operation nationwide Applications must be submitted by August 15, 2025

Producers do not have to wait for their pre-filled ECAP application to apply. They can apply using a login.gov account or contact their local FSA office to request an application once the signup period opens.

Producers must have the following forms on file with FSA for the 2024 crop year:

Form AD-2047, Customer Data Worksheet.

Form <u>CCC-901</u>, Member Information for Legal Entities (if applicable).

Form <u>CCC-902</u>, Farm Operating Plan for an individual or legal entity.

Form CCC-943, 75 percent of Average Gross Income from Farming, Ranching, or Forestry Certification (if applicable).

AD-1026, Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification.

Form <u>SF-3881</u>, Direct Deposit.

Except for the new form CCC-943, most producers, especially those who have previously participated in FSA programs, will likely have these forms on file. However, those who are uncertain and want to confirm the status of their forms or need to submit the new Form CCC-943, can contact their <u>local FSA county office</u>.

Producers who did not receive a pre-filled ECAP application and planted or were prevented from planting ECAP eligible commodities in 2024, should contact their local FSA office.

Online Application (available March 19, 2025)



Franklin County Junior Cattlemen's Association

Our juniors competed in the KY Junior Cattlemen's Cattle Working Contest qualifiers in Elizabethtown, showcasing their hard work and skills on March 21, 2025.

Each team started by developing a processing plan, analyzing vaccine labels to determine proper dosages and administration sites. Then they put their plan into action at the chute- moving cattle in and out while deworming, vaccinating, and ear tagging. Teams were scored on both their processing plan and chute-side execution while being timed.

Both teams did an outstanding job, and we couldn't be prouder!

This year's competition was tough, and we are incredibly proud of both of our teams for their hard work and dedication over the past several months. Our B Team put in countless hours of practice, showed great teamwork, and gave a strong performance we know they'll come back even stronger next year!

We are excited to announce that our A Team Christian Roberts, Brayden Roberts, and Jacob Moore will be advancing to the state competition on May 2, 2025 at the Hardin County Extension Office

We can't wait to see them represent Franklin County at the next level.

Great job to all of our competitors, and thank you to everyone who has supported them along the way!

A huge thank you to everyone who welcomed us onto their farms to practice, to the parents, grandparents, and families for their endless support, and to Crystal Michelle Harrod, Ally Harrod, Jonathan Moore, and Keenan for making this opportunity possible for these kids. We're so grateful for each and every one of you!



Preparing for Severe Weather: What You Need to Know

By Tony Edwards – National Weather Service Charleston, WV

In parts of the Deep South, the risk of severe thunderstorms persists throughout the winter months. For us here in the Bluegrass State, however, we're quickly approaching a time when thunderstorms become both more frequent and more intense. As winter storms make way for spring, severe weather—including damaging winds, hail, and even tornadoes becomes the primary concern.

As I write this article in mid-March, much of the Bluegrass State is already facing the threat of severe weather, a common occurrence for this time of year. Data from the National Weather Service's Storm



Prediction Center reveals that the likelihood of severe weather increases as March progresses, peaking in mid-June at around 4%. This means, based on historical data alone, residents of Kentucky have a 4% chance of experiencing damaging winds, hail larger than quarters, or a tornado within 25 miles of their home in the middle of June! The risk then significantly decreases by mid-September.

Given this, now is the time to start preparing for the upcoming severe weather season. The first step is simple: **be aware** that severe weather is a real possibility. Make checking your local forecast part of your daily routine to stay informed and prepared.

• Did You Know? The National Weather Service (NWS) offices that serve Kentucky offer a 24-hour recorded weather forecast, and in many cases, you can even speak to a live person if you have questions about the forecast. Contact your local NWS office to learn more!

Preparing for Severe Weather

When severe weather is in the forecast, it's essential to take action ahead of time. Start by ensuring you have access to **emergency supplies**. This is particularly important if you live in an area prone to flooding and might need to evacuate on short notice.

Make sure you know where your **safe spaces** are. In most cases, this is the lowest floor of your house—preferably a basement. If you don't have a basement, an interior room with no windows and doors will suffice. If you own livestock, consider moving them to a protected area, especially if hail is in the forecast.

Stay Informed on Severe Weather Days

When severe weather is expected, it's crucial to stay vigilant. Be prepared to adjust outdoor plans if necessary and remain alert to weather updates.

• Did You Know? NOAA Weather Radios are specialized devices designed to broadcast weather information and activate alarms when severe weather alerts are issued. Many models run on battery or solar power and do not include an AM/FM radio. You're likely near a transmitter, making this a reliable option to stay updated. Check out these handy radios at your local store to keep your home prepared.

Understanding Watches and Warnings

- Severe Thunderstorm and Tornado Watches: Issued when conditions are favorable for severe weather or tornadoes in the near future.
- Severe Thunderstorm and Tornado Warnings: Issued when severe weather or tornadoes are occurring or imminent. This is when you need to act fast!

When a warning is issued, take shelter immediately. You may only have seconds to respond, so knowing what to do and where to go is essential.

Franklin County Conservation District

BACKYARD CONSERVATION PROGRAM Urban Cost Share Program

January 1, 2025 to June 1, 2025

<u>Raised Garden Beds, Rain Barrels, Compost Bins,</u> <u>Pollinator Gardens and Beehives</u>

- First come, first serve.
- Franklin County Residents only
- One application per household
- 50% cost share up to \$250 maximum

Must have approval before you begin project

Franklin County Conservation District 103 Lakeview Court Frankfort, KY 40601 502-352-2701

fccd103@gmail.com



Calendars are HERE! Stop by the Franklin County Extension Office Lobby To pick one up today!







The US Beekeeping Survey: a 'newish' effort to track colony health

SHEEP & GOAT Educational Meeting & Lamb Dinner

Monday, April 7

Registration begins at 5:30pm

Who: The County Extension Offices of Mercer, Boyle, Lincoln, Garrard, Jessamine, Woodford, Franklin, and Anderson Counties; the Southeast Kentucky Sheep Producers Association (SEKSPA); Kentucky Sheep and Wool Producers Association (KSWPA) and the University of Kentucky's Martin-Gatton College of Agriculture, Food & Environment.

Registration is from 5:30-6:00 pm EST. Lamb Dinner starts at 6:00 with the educational program to follow.

How: Round-Table discussion led by: Patrick Angel, SEKSPA; Harry Frederick, KSWPA and Winding Creek Farms; Dr. Jessie Lay DVM, UK Extension Animal Health Veterinarian.

This meeting qualifies for CAIP Educational requirement.

Mercer County Extension Office 1007 Lexington Road—Harrodsburg, KY

KENTUCKY K

Registration Required.

Please register by calling the Mercer County Extension Office at 859-734-4378.

\$10.00 per family (collected at the door)

Your registration fee will include a delicious lamb dinner with sides and a One-Year Membership to SEKSPA.

Cooperative Extension Service

Agriculture and Natural Resources Family and Consumer Sciences 4-H Youth Development Community and Economic Development Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior civil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating. Lexington, KY 40506

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT



JOIN US ALL YEAR FOR THIRD THURSDAY THING

werv

March 20th: 1

April 17th: Grow, Buy, Eat Local



CAIF APPROVED

June 19th: Juneteenth/ Business Planning

July 17th: Cattle & Poultry

May 15th: Aquaculture

August 21st: Agri-technology & Vertical Farming

September 18th: Horticulture & Urban Agriculture

October 16th: Small Ruminants

November 20th: Small, Limited-Resource, Minority Farmers Conference

Important Numbers

Raising Hope (Suicide & Crisis Life	ine) 988
Franklin Co Extension Office	695-9035
Conservation District	352-2701
Farm Service Agency (FSA)	859-873-3411
NRCS	695-5023
Dead Animal Removal	875-8760
Unwanted Pesticide Removal	1-800-205-6543
Fish and Wildlife	1-800-585-1549
Franklin County Wildlife Biologist	859-879-8411
(All numbers 502 area code unless	otherwise noted)



DUMPSTER DAY Saturday, April 19 from 730 AM - 230 PM At the following

locations

Accepted Items include:

Old Peaks Mill School Evergreen Road Fire Station Bald Knob Fire Station Owenton Road Fire Station Lakeview Park

Anyone found dumping outside these hours may be held liable for illegal dumping

HOUSEHOLD HAZARDOUS 🌴 🛛 WASTE COLLECTION

from 8 AM to 12 PM At 309 Rouse Avenue

Saturday, April 19

propane/helium canisters, oil-based paint, solvents/gasoline/thinners, antifreeze, fluorescent bes, fire extinguishers, addecivers of tubes, fire extinguishers, adhesives, asbestos, corrosive acids/bases/cleaners, dioxins, fertilizers, organic

peroxides, reactive solids, oxidizers, flammable solids, mercury, freon/acetylene, electronics (including TVs!)



8 AM to 12 PM at the Road Dept: 100 Lewis Ferry Rd

FOR MORE INFORMATION, CHECK OUT OUR WEBSITE: WWW.FRANKLINCOUNTY.KY.GOV/SOLID-WASTE-MANAGEMENT



MOBILE PROCESSING UNIT TRAINING

This training is required to use the KSU Mobile Processing Unit. The MPU can be used to process chickens, rabbits, some aquaculture species and other nonamenable species. Space is limited to 20 people for each training, but another training will be scheduled if needed.

May 7th or May 16th

9 a.m. - 5 p.m. Harold R. Benson Research and Demonstration Farm 1525 Mills Lane Frankfort, KY 40601

Cost: \$75



TO REGISTER CONTACT: MEGAN GOINS (<u>MEGAN.GOINS@KYSU.EDU</u> 502-597.6528)

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Feeder Calf Grading School - April 29th

Ever wonder why your neighbor's calves sold for more than yours? Want to make more profit? Curious about what the big buyers are really looking for?

Join us on April 29th at United Producers Inc. Livestock Market (86 Bramblett Ln, Owenton, KY

40359) for an informative session!

Meal at 6pm (Sponsored by Axiota Animal Health & United Producers Inc.) Program starts at 7pm

We're bringing in new presenters this year, with John Chism from the Kentucky Department of Agriculture and Neal Branscum from Axiota Animal Health. They'll be sharing fresh insights on marketing and animal health that you won't want to miss!

It's FREE and open to everyone! But please call 502-484-5703 to sign up or PM us to help us plan for food and materials.

Live animal demonstration included!

Don't miss this opportunity to learn and make better-informed decisions that could boost your bottom line! See you there!





Lean Green Lettuce Tacos

8 large lettuce leaves
1½ cup cooked brown rice
34 cup fresh corn kernels
1 cup canned black beans, drained and rinsed

1 tablespoon olive oil

¾ pound extra lean ground beef
1 small zucchini, chopped
1 ounce packet lowsodium taco seasoning
4 ounces low sodium tomato sauce tablespoon finely chopped cilantro
 teaspoon lime juice
 tomato, chopped
 small red onion, chopped

Wash and dry lettuce leaves. Prepare rice according package directions. Cut corn off cob. Drain and rinse black beans. In a skillet, heat the oil to medium; add ground beef and begin to cook. When beef begins to brown, add zucchini, corn and black beans to skillet. Continue to cook until vegetables are tender and beef is done. Do not overcook. Add in taco seasoning and tomato sauce and heat through. Add cilantro and lime juice to the cooked rice. **Place** equal amounts of rice mixture and taco mixture into lettuce leaves. **Top** each taco with chopped tomato and onion.

Yield: 8 servings

Nutritional Analysis: 180 calories, 4.5 g fat, 1 g saturated fat, 20 mg cholesterol, 350 mg sodium, 23 g carbohydrate, 4 g fiber, 5 g sugars, 12 g protein.

MANAGING LEGUME-INDUCED BLOAT IN CATTLE

Jeff Lehmkuhler and Roy Burris, Department of Animal and Food Sciences; Michelle Arnold, Veterinary Diagnostic Laboratory; Ray Smith and Garry Lacefield, Department of Plant and Soil Sciences ID-186

In the Southeast, incorporating legumes into pastures to reduce the impact of fescue toxicosis, provide nitrogen for forages, and improve pasture quality leading to increased animal performance is still sound management even though legume bloat is a risk to livestock.

Individual animal performance is greater on grass/legume pastures compared to performance on similar monoculture grass stands.

Daily gains for steers grazing clover-fescue swards is improved compared to straight tall fescue pastures (Figure 1). Improved performance is partially due to greater forage intakes. Dairy cows grazing ryegrass with access to white clover had 15% higher forage intake than those grazing ryegrass alone.

When clovers have been interseeded into pastures containing endophyte infected fescue, reproduction has been shown to be improved as well.

If one considers the number of cattle grazing pastures containing legumes worldwide, the fear of bloat leading to low incorporation of legumes into grazed swards will give rise to greater economic losses compared to establishing a mixed sward of grasses and legumes.
Figure 1. Daily gain of steers grazing high-endophyte-infected tall fescue vs.

What is Bloat?

Ruminal tympany, or bloat, can result in lost animal performance and in severe cases, death. It occurs as a result of a buildup of fermentation gases in the rumen. Bloat may be categorized as frothy bloat, which is caused by the formation of a stable foam in the rumen, or free gas bloat, which is due to excessive production of gaseous compounds from fermentation or as a result of an obstruction preventing the escape of gas compounds. Legume bloat is a frothy bloat condition.



In normal situations, these gases are eructated (belched) out of the animal. When this gas is prevented from escaping the rumen, it builds up, and the rumen becomes distended or stretched. As the pressure in the rumen

increases, breathing is affected, because the diaphragm cannot expand

and create the negative air pressure in the lungs necessary to inhale. In severe cases, this inability to inhale may cause death from suffocation.

Bloat potential is greatest during rapid growth periods in spring and declines during summer. Most incidences in Kentucky are usually from mid-March through May.

Cause

Legumes and succulent cereal grain forages such as rye and wheat, which are high in soluble protein, low in lignin, and have a highly digestible cell wall are considered high risk for promoting frothy bloat. Digestion of legumes high in soluble protein can cause the formation of a slime that traps the fermentation gasses and rumen contents, resulting in the frothy appearance and preventing the gas from being expelled.

Saliva contains mucin, which functions as an antifoaming agent, and has been shown to suppress the formation of rumen foam in laboratory benchwork or when using an in vitro system. It would be plausible that saliva production may be lower in bloating animals, perhaps as a result of selective grazing of higher quality forages followed by less rumination and/or a genetic difference in saliva and mucin production among animals.

Symptoms

Frothy bloat can cause death in as little as one hour after grazing begins on a bloat-producing pasture. It may occur on the first day of turnout but is more commonly seen on the second or third day. The main symptom is a swelling of the left region of the abdomen (Figure 1). Other early symptoms include repetitive standing up and lying down, kicking at the belly, frequent defecation and urination, grunting, and extension of the neck and head. The animal will have difficulty breathing because of the extreme pressure exerted on the diaphragm by the gas-filled rumen. If the bloat worsens, rumen contractions will stop completely and a distinct drumlike sound will be heard when the rumen is tapped or flicked. This sound is why bloat is sometimes referred to as "ruminal tympany." Without treatment, the animal will collapse and die, generally three to four hours after clinical signs begin. The death rate in a herd may be as high as 20%.

Continued from Page 16 Management for Prevention

A sward's legume proportion is a key factor in assessing the risk of legume bloat. As this proportion exceeds 50% of the stand, the risk greatly increases. With proper management, however, stands with more than 50% legumes can be grazed with little to no bloat. No single factor, however, will eliminate the risk.

Moisture plays a role in a forage's bloat potential. Hungry cattle graze more aggressively when moved to a new pasture, so they should not be moved to new pastures with high legume content until midday—after the dew has dried and after they have grazed in the morning.

The use of feed additives, primarily surfactants and antibiotics, has been shown to be effective at reducing bloat in high-risk situations. The most common antifoaming surfactant and the only one currently approved for use in the United States is poloxalene, which is incorporated into a small block (i.e., 33.3 lb) form. Most blocks are labeled to be fed at a rate of one block to every five head of grazing cattle. To encourage intake of bloat blocks, other sources of salt and salt containing mineral supplements should be removed from pastures when using them.

Poloxalene also comes in a loose granular form that can be mixed in with salt, mineral supplement, or some other feedstuff. When bloat risk is high, the recommended intake level is 2 grams per 100 lb of body weight. When the risk is low, the feeding rate can be lowered to 1 gram per 100 lb of body weight. Daily hand feeding a supplement such as ground corn containing granular poloxalene is preferred over using a free-choice mineral, as more consistent intake is expected. A concentrated form of poloxalene in liquid form is also available and is used as a drench to treat frothy bloat rapidly.

Antibiotics have also been investigated for bloat reduction, including, in the 1960s, a thorough investigation of use of penicillin and other antibiotics as a prevention strategy. Later, the use of ionophores, a class of feed additives that inhibit growth of certain microbial species in the rumen, was proven effective. Ionophores include monensin, lasalocid, and laidlomycin propionate. Monensin is more effective than lasalocid in preventing legume bloat and often is the recommended ionophore for bloat control, but poloxalene has been reported to be more effective than either of those ionophores.

As with all feed additives, management is necessary to promote intake near the targeted level for maximum efficacy. If using blocks containing bloat-control feed additives, provide them at or above the manufacturers recommended rate. If a free-choice mineral is to be used, ensure the mineral remains fresh and dry, and encourage intake by placing multiple feeders in the pasture. Placing products containing feed additives near watering and loafing areas will also encourage intake.

A liquid product containing both pluronic detergents and ethoxylate alcohol has been marketed in New Zealand for several years. Pluronic detergents act as a surfactant and reduce the stability of foam produced in the rumen, allowing the gas to escape. Interestingly, ethoxylate alcohol is a primary ingredient in laundry detergents for high-efficiency washing machines to reduce the foaming of the soap. The use of such a laundry product is not approved for use in the United States. Even if it were, the level of detergent that would be needed in cattle drinking water and current retail prices eliminate this product as a cost-effective strategy for reducing bloat.

Hay feeding can also help reduce bloat. Research published in 1958 demonstrated that feeding 12 lb of oat hay to dry dairy cows overnight reduced the incidence and severity of acute legume bloat. Recently, controlled research has shown that feeding orchard grass hay prior to feeding green, chopped alfalfa reduced the frequency of bloat by more than 90% in confinement-fed animals. High-quality grass hays that are palatable should be provided to entice hay intake.

Forage Management for Prevention

Pasture bloat is usually associated with cattle grazing white (ladino) clover or alfalfa, although other plants such as small grains and ryegrass also can cause bloat. Cases have been reported from grazing of red clover, but its risk of causing bloat is much lower than that of white clover. Other legumes, including lespedeza, crown vetch, and birdsfoot trefoil, rarely cause bloat, in part due to a tannin content that lowers the digestion rate and yield of the soluble protein fraction. When cattle graze lush plants capable of causing legume bloat, no management practices will ensure bloat doesn't occur. The following management strategies can, however, reduce its incidence:

- Grow grass-legume mixtures instead of pure legumes.
- Avoid grazing very immature white clover or alfalfa. Research shows alfalfa grazed less than 10 inches tall had two times more bloat than when it is grazed at 19 inches.
- Put animals on lush legume pastures only when plants are free of surface moisture (dew or rain).
- Provide a full feeding of hay before turning animals into lush legume stands for the first time.
- Although bloat is associated with certain plants, some animals have a genetic predisposition to bloat, so you should cull chronic bloaters.
- Do not remove animals from pasture during first signs of bloat. Continuous grazing results in less incidence of bloat than removal and return. Provide access to water and minerals.
- Observe animals closely following any abrupt change in the weather.
- Feed bloat-reducing compounds.

AG & NATURAL RESOURCES

Continued from Page 16

Mowing and wilting legumes prior to grazing has shown some potential to reduce the incidence of bloat in alfalfa, based on research in the upper Midwest. Currently, the potential of this practice to reduce bloat when grazing white clover is uncertain.

During years of high incidence of bloat, some producers have resorted to "spraying out" clovers from their pastures to reduce clover proportions and eliminate risk. With the effective herbicides that are on the market today, this practice will certainly work, but it will also eliminate the improvement in forage quality and nitrogen benefits that clovers provide. Some have even suggested using low rates of herbicides to reduce white clover percentage, but it is very difficult to find a product and rate that dependably reduces clover. More often, the effect is temporary or kills the clover.

The best recommendation is to survey pastures that have major weed problems and spray those fields only, using recommended herbicides at the recommended rate. Weeds will be controlled and clovers will be killed as well. However, grazing can continue on these fields during periods when bloat is a concern, and the fields can be reseeded with clovers the following late winter. Using nitrogen to stimulate grass growth has sometimes been recommended to allow pasture grasses to out-compete clover. While this practice has merit, it can be difficult to determine the N rate and best application timing, so sometimes the clover may be stimulated as much as the grass.

Treatment

To properly treat animals, the severity of the condition has to be accurately assessed. If the animal's life is not immediately in danger, passing a stomach tube with the largest diameter possible is recommended. This practice alone usually does not decrease the pressure in a case of frothy bloat, but an antifoaming agent can be given while the tube is in place.

Antifoaming agents include vegetable oils (peanut, corn, soybean), mineral oil, and "nonionic surfactants" that will break up the stable foam and allow the gas to escape. Vegetable and mineral oils work equally well in the rumen. The most common non-ionic surfactant treatment is the poloxalene drench concentrate (Therabloat[®]). Figure 2. Animal displaying severe ruminal tympany or bloat with distension noted in the upper right region of the abdomen.

Dosages vary, depending on the product. The recommended dosage of Therabloat® is 1 to 2 fluid ounces, depending on the animal's weight. The recommended dosage for oils and fats is between 80 and 250 ml/head.

The animal must be observed carefully for an hour after treatment to determine if the treatment was successful or if an alternate remedy is needed. A second, alternative treatment would be puncturing the rumen with a trocar and cannula, which can purchased from a local veterinarian or farm supply store. Ideally, this procedure

should be performed after acquiring proper training from a qualified individual, such as a veterinarian. To use a trocar to relief bloat pressure, a small (1 centimeter) incision is made in the middle of the animal's left flank. The trocar, which fits inside the cannula, can then be inserted through the abdominal wall and into the rumen. Once the upper right region of the abdomen. inside the rumen, the trocar is removed, leaving the cannula behind. Gas and foam

Figure 2. Animal displaying severe ruminal tympany or bloat with distension noted in

can then escape through the cannula opening. If necessary, the cannula can be left in place until the condition has subsided. An antifoaming agent can be poured directly into the rumen via the cannula as well. If the condition is severe, pressure inside the rumen must be alleviated immediately. In life-threatening cases, an emergency rumenotomy can be performed, in which a large hole is cut through the skin into the rumen, resulting in an explosion of the rumen contents to the outside and sudden release of pressure. Relief is immediate, and cows typically recover.

Conclusion

For livestock managers, legume-induced bloat should be a concern, but it should not feared, because it can be managed to minimize losses while at the same time improving animal performance. The key is monitoring pastures and assessing the amount of legumes in the sward to determine risk level. To reduce the incidence of bloat with grazing cattle, preventive management should be used when legume concentrations are high.





SAVE THE DATES:

April 7	Sheep & Goat Management Meeting, Mercer Co	
April 10	BQCA Certification Renewal	
April 12	Reforest at Riverview Park	
April 24	BQCA Certification Renewal	
April 25	Private Applicator Training	
April 26	MG Plant Sale, Lakeview Park	
April 29	Feeder Calf Grading School	

2025 Livestock Events at Lakeview Park

April 26– Master Gardeners Plant Sale May 4– Derby Showcase– Dairy Sale May 10– Capital City– Rabbit Show June 7– Bluegrass Invitational—Kiko Goat Sale June 14– Franklin County Dair Show Inc. September 27– Rabbit Show

Keener Rissy

Keenan Bishop, County Extension Agent for Agriculture and Natural Resources Education



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