

PLOWING AHEAD

MAY 2025

AGRICULTURE & NATURAL RESOURCES

 **Martin-Gatton**
 College of Agriculture,
 Food and Environment

Cooperative Extension Service
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Madison County Beef Cattle Association Field Day-May 1st 5:30pm

Make plans to attend this farm field day for information, food and fellowship!

A drone pasture spraying and grass seeding demonstration will take place with a local provider. We will also discuss overall considerations for using drones for forage and row crop production.

Remember, hats and t-shirts with the MCBCA logo will be available for purchase or order! If you haven't renewed your membership for 2025, you can do that as well. **Don't forget to bring your lawn chairs!**

Location: Arbuckle Farm located at 321 Kirksville Road, Richmond KY 40475. Signs will be posted.
 This meeting is CAIP education eligible.

***A hamburger meal provided by the Madison County Beef Cattle Association will be served. Current members eat free or \$10 for non-members.**

Call the Madison County Extension Office at 859-623-4072 for your meal reservation or for information.

Farm Tour to South Carolina and Georgia

This year's bus tour will be headed to South Carolina and Georgia. Dates are July 7th, through July 12th, 2025.

Tentative Tour stops include: Yon Angus Farm, Tours of Charleston and Fort Sumter, a crop and beef farm tour in Benton, and tour of Beaufort, all of these stops in South Carolina. In Georgia, the group will tour Savannah, visit Boyd Farms grain, cotton, peanuts and cattle production. In Atlanta, they will tour the World of Coca Cola facility, Georgia Aquarium and the Jimmy Carter Library. Cost is \$2,250.00 per couple. Tour sign ups and deposit payment will be in late-May. Date to be determined. More info to come.

If you have any questions, please call tour leader Glenn Hill at 859-369-5815 or 859-398-0267.

Brandon Sears

Cooperative Extension Service

Agriculture and Natural Resources
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MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

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 University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.
 Lexington, KY 40506



Disabilities accommodated with prior notice

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BETTER PASTURES EQUALS HEALTHIER HERDS

Source: Christopher Teutsch, UK extension associate professor and forage specialist

Rotational stocking, often referred to as rotational grazing, is a powerful technique that can bring a range of benefits to all types of livestock as well as the land. By dividing large pastures into smaller paddocks and moving animals through them on a planned schedule, farmers can give each grazed area a rest period, allowing for regrowth of leaf area lost to grazing and replenishment of stored carbohydrates that were utilized to fuel regrowth. When producers shift from continuous grazing to a rotational system, they often see dramatic improvements in pasture productivity, soil health and even animal behavior.

One of the primary advantages of rotational grazing is enhanced pasture productivity. When animals graze one paddock at a time and then move on, the plants in the grazed paddock have a chance to rebound. During this rest period, forage plants can restore their carbohydrate reserves and recover more completely from being grazed. This not only boosts the quantity of forage available over time but also maintains better and more consistent nutritional quality. In contrast, continuous grazing—where livestock stay in the same pasture all season—often leads to overgrazing, weaker plants that are more susceptible to stresses and progressively lower yields.

Improved nutrient distribution is another significant plus. Rotating animals means they spread manure evenly around the paddocks rather than depositing it heavily in just a few favorite areas (like watering or resting spots). Because manure is a natural fertilizer, more uniform distribution helps replenish the soil and encourages consistent plant growth. A continuous grazing system, on the other hand, may result in “hot spots” of manure accumulation. This concentrated nutrient load can negatively impact both plant growth and the environment around those areas.

A well-managed rotational grazing system also offers increased drought tolerance. With planned rest periods, plants develop deeper, stronger root systems. These robust roots allow the plants to access water further below the surface, which can be crucial during dry spells. In a continuously grazed pasture, plants rarely get the downtime they need to fully recover, leaving them more vulnerable to stress when rainfall is scarce. As a result, fields under rotational management often grow longer into drought periods and recover faster when conditions improve.



Another practical benefit of rotational stocking is easier animal handling. When paddocks are set up with well-designed lanes and strategically placed water sources, moving livestock becomes more straightforward. In addition, more frequent contact with animals allows livestock to associate human interaction with something positive... fresh grass. This greatly reduces the stress and chaos commonly associated with animal handling in open pastures. Properly placed lanes can also help control erosion, ensuring that foot traffic and machinery movement do not damage sensitive areas of the pasture.

Rotational stocking can be a game-changer for anyone looking to optimize pasture health and livestock performance. By giving plants time to recover, distributing nutrients more evenly, building drought resilience and streamlining animal handling, rotational grazing can deliver long-lasting improvements to farm operations. Whether you're raising cattle, sheep, goats or other grazing animals, this strategy can help you optimize productivity and at the same time protect land and water resources for future generations.

WHEN YOU'RE HOT, YOU'RE HOT!

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

Last summer was a challenge for livestock. Kentucky recorded over 35 days with temperatures that exceeded 90°F and our temperature-humidity index was in the dangerous category for livestock for most of June and July. The impact of heat stress on livestock has been extensively studied over the last several decades. Heat stress reduces growth rate, can shorten gestation, increase lameness, disease, and death rates. Perhaps the most dramatic impact of heat stress is the marked reduction in reproductive efficiency.

Now is the perfect time to start planning to overcome heat stress. When I first got to UK, our Angus cows were involved in a variety of trials examining the impact of consuming endophyte-infected fescue on reproductive rate. For several years, these cows were synchronized for AI around June 10 and then exposed to a bull for 70 days. Cows consuming only endophyte-infected fescue had 55-62% pregnancy rates at the end of the breeding season. Similarly, Dr. Burriss at Princeton demonstrated that the conception rate of cows decreased from 70% in early spring (April 1 – June 1) to 35% in the summer (June 20 – August 1) resulting in a pregnancy rate decrease from 90% to 58%. Heat stress reduces pregnancy rate by increasing the abortion rate of young, developing embryos and fetuses. Extreme heat stress results in embryonic/fetal loss for at least the first 45 days of pregnancy. If you are a spring calver and your cattle are consuming endophyte-infected fescue, your cows may have struggled to get pregnant this spring/summer. Plan now to determine pregnancy and hope for the best. Fall-calving cows are not immune to issues with heat stress. Heat stress and consumption of endophyte-infected fescue can induce early parturition (30-40 days premature labor), increase the thickness of the placenta, and increases calf death loss.

How can we manage heat stress? Are there management protocols that can help? Understanding solutions begins with understanding the problem. Cattle have difficulty dissipating heat effectively because they don't sweat as well as other animals. Since they don't sweat well, cattle dissipate heat by increasing their respiration rate, decreasing their activity, dilating their blood vessels near their skin so they can more effectively radiate the heat from their body, and eating less. Eating and digestion generates heat so they intake less feed to reduce the internal blood temperature. In Kentucky, and the rest of the "fescue belt," heat stress is heightened by consuming endophyte-infected fescue. Endophyte is a fungus that grows in fescue plants and this fungus produces chemicals, generically called alkaloids, that have a variety of negative impacts on animals. One of the main impacts of consumption of endophyte-infected fescue is the alkaloids constrict blood vessels of the animal which reduces the ability of the animal to dissipate heat via radiation. So, if we want to alleviate issues with heat stress, we need to find management protocols to help cattle dissipate heat.

Fortunately, we have options! Logically, the first place to start is simply do not graze endophyte-infected fescue during the summer but this is often not a viable option for many cattle producers. The breeding season can be shifted to earlier in the spring (April – June vs May – August) but this will lead to cows calving earlier in the winter, which may not be an acceptable option either. Cows supplemented with high fat supplements (ex. whole soybeans, liquid fats supplements, distiller's products) during heat stress can increase pregnancy rates in beef cows. Providing a complete mineral mix containing a blend of sodium selenite and selenium yeast, like the UK Beef IRM mineral has been shown to increase hormone concentrations necessary to support early gestation. Also, the USDA-ARS research group in Lexington has demonstrated that consumption of red clover can aid cattle during heat stress. Red clover leaves contain chemicals called isoflavones that dilate peripheral blood vessels, reduce heat stress, and can increase pregnancy rates. Most legumes have these isoflavones but the chemicals vary in the bioavailability and concentrations of the isoflavones. Whole soybeans and soyhulls also contain isoflavones and can be used to help reduce the impact of fescue toxicosis.

We cannot control the temperature, but we can plan to help our cattle withstand heat stress. Develop a heat mitigation plan by limiting cattle access to endophyte-infected fescue and/or providing access of cattle to supplements or pastures that contain fat or isoflavones. Contact your veterinarian and set dates to determine pregnancy in our herd. If you have several open cows, adding a short fall-calving season is an option. We can also use this experience to help develop a plan for heat stress in the future. This cattle market is hot, and producers need to maximize their pregnancy rates and heat stress is the main factor that reduces pregnancy especially in the summer. A little planning, a little tweak to your management plan will pay huge dividends.



6TH ANNUAL MADISON COUNTY BEEF DAY-MAY 14TH



Celebrate National Beef Month with FREE burgers and recognizing Madison County as the 2nd largest beef cattle producing county in Kentucky!

Join us for our Drive-Thru event on Wednesday May 14th from 11am to 1pm at Central KY Ag Credit located at 1000 Ival James Blvd Richmond KY 40475. FREE hamburgers for everyone!

Special thanks to the sponsoring organizations: Central Kentucky Ag Credit, Madison County Farm Bureau, Madison County Beef Cattle Association, Bluegrass Stockyards-Richmond, Madison County Cooperative Extension, Kentucky Beef Council, Madison County Conservation District, Southern States Cooperative-Richmond and Tri-County Fertilizer and Propane.






University of Kentucky
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This institution is an equal opportunity provider. This material was partially funded by USDA's Supplemental Nutrition Assistance Program - SNAP.



USDA Supplemental Nutrition Assistance Program
Putting Healthy Food Within Reach

This work is supported by the Expanded Food and Nutrition Education Program from the USDA National Institute of Food and Agriculture.



Wild Turkey & Broccoli Casserole

- 2 packages (10 ounces each) frozen broccoli, or 2 bunches fresh broccoli, washed and cut into pieces
- 4 cups cubed, cooked wild turkey meat
- 1 cup light mayonnaise
- 2 cans (10.5 ounces each) low-sodium cream of chicken soup
- 1 teaspoon curry powder or 1 tablespoon prepared mustard
- 1 teaspoon lemon juice
- 1/2 cup grated cheddar cheese
- 1/2 cup panko breadcrumbs
- 1 tablespoon melted butter

To cook turkey breast, preheat oven to 325 degrees F. Add vegetable oil to a roasting pan. Place turkey breast in roasting pan. Season meat lightly with garlic powder and black pepper. Cover with lid or aluminum

foil. Cook at 325 degrees F until internal temperature is 165 degrees, about 1 1/2 to 3 1/2 hours for 4 to 8 pounds of meat. Let meat cool in pan for 15 minutes before cutting into cubes. Steam broccoli until tender. Drain. Grease a 2-quart casserole dish or 9-by-13-inch pan. Place turkey on the bottom, and arrange the broccoli over the turkey. Combine mayonnaise, cream of chicken soup, curry powder or mustard, and lemon juice. Pour over broccoli. Combine cheese, breadcrumbs, and butter. Sprinkle over casserole. Bake at 350 degrees F for 30 minutes.

Yield: 8 servings

Adapted from: "Fish & Game Cookbook," Bonnie Scott, 2013.

Nutrition Facts

| 8 servings per recipe | |
|-------------------------------|----------------|
| Serving size (243g) | |
| Amount per serving | % Daily Value* |
| Calories 270 | |
| Total Fat 12g | 15% |
| Saturated Fat 3g | 15% |
| Trans Fat 0g | |
| Cholesterol 65mg | 22% |
| Sodium 660mg | 29% |
| Total Carbohydrate 17g | 6% |
| Dietary Fiber 0g | 0% |
| Total Sugars 2g | |
| Includes 0g Added Sugars | 0% |
| Protein 23g | |
| Vitamin D 0mcg | 0% |
| Calcium 66mg | 6% |
| Iron 1mg | 6% |
| Potassium 355mg | 8% |

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

MADISON COUNTY BEEKEEPERS ASSOCIATION

Madison County Beekeepers Association will not be meeting for the month of May. For info, call Kent, 859-623-3576 or Paul, 859-582-6172.



PLATE IT UP! KENTUCKY PROUD!

Whatever the season, Plate It Up with delicious Kentucky Proud foods. Visit <http://fcs-hes.ca.uky.edu/piukp-recipes> to find all the Plate It Up recipes using Kentucky Proud products.

A Two-Day Program Focused on Post-Weaning Management of Feeder Cattle

Backgrounding Shortcourse

May 13 & 14, 2025

Registration
limited to 30
attendees!

University of Kentucky C. Oran Little Research Center

4410 Frankfort Rd, Versailles, KY 40383

Program will begin with registration at 7:30 am ET

Program Topics

- **Bunk Management**
- **Health Risk Management**
- **Vaccination Protocols**
- **Cattle Processing**
- **Confinement Considerations**
- **Feeds and Feeding**
- **Develop a Feeding Program**
- **Ruminant Digestion**
- **Health Diagnostic Tools**
- **Best Management Practices**
- **Feed Mixing & Management**
- **Cattle Handling Equipment**
- **Haylage Fermentation**
- **Disposition & Performance**
- **Technology Tools**
- **Enterprise Budgets**

Registration

Cost to attend: \$30/individual (includes lunches/dinner)

Pre-registration is required and is limited to the first 30 individuals

Registration Deadline: **May 6th**

Online Registration Link

<https://www.eventbrite.com/e/uky-backgrounding-shortcourse-tickets-1321765178229?aff=oddtcreator>

Or to register, please send email: jeff.lehmkuhler@uky.edu

For more information call

Dr. Jeff Lehmkuher:

859-257-2853

Recommended Hotel Accommodations: Holiday Inn Express & Suites, Versailles, KY 40383

