



Forage News

Keeping Forage-Livestock Producers in Kentucky Informed

Dr. Ray Smith and Krista Lea, editors

September 2023

KFGC Field Day in Eastern KY—October 3

Join us at the KFGC field day and meal Tuesday Oct. 3 from 4:30 to 7:30. Old Homeplace Farm is a pasture-based farm in Clay County managed by Ronnie and Will Bowling. Cattle, sheep, and goats are the Bowling's main focus on their 90 acres of steep hillside and floodplain pastures.

On the tour you will see how the Bowling's strive to increase production per acre rather than production per animal. They use multispecies grazing to better utilize their existing forage base and for weed control; rotational grazing to increase forage production and utilization; moderate frame livestock to reduce maintenance costs; extended season grazing to minimize hay feeding; and improve soil fertility through legumes and livestock distribution rather than fertilizer. Overall, Old Homeplace Farm strives to be a low-input operation that minimizes ongoing production costs.

Old Homeplace Farm markets their livestock through both standard commodity channels (sale barns) as well as direct to consumer. They have been direct-marketing USDA-inspected meat by the cut since 2010, and currently make weekly deliveries to customers in 5 counties across southeastern Kentucky.

Tour stops at the field day will include:

- Novel tall fescue to reduce toxicity
- Native grasses for summer production
- Mineland reclamation using bale grazing
- Annual lespedeza, crabgrass and clover seeding
- Using multiflora rose and blackberry as high quality pasture for goats and sheep
- Composting bedding and on-farm mortalities
- And much, much more...

Register for the field day at <https://forages.ca.uky.edu/> under events and bring \$10 to pay at the door. Address is 9876 North Hwy 11, Manchester, KY.

2023 Fall KY Beginning Grazing School

There are still a few spaces available for the 2023 Fall Kentucky Beginning Grazing School. The Sept. 27-28 event occurs at the [Woodford County Extension office](#) and the [UK C. Oran Little Research Farm](#) in Versailles.

This year, the program aims to enhance profitability through a blend of hands-on activities and classroom instruction. "While this school is geared toward those just starting out, the topics covered and discussions held will benefit producers at all stages," said Chris Teutsch, forage specialist.

Forage Timely Tips: September

- ✓ If not already done, soil sample and apply fertilizer as needed.
- ✓ Plant perennial grasses and legumes. Consider using a novel endophyte tall fescue.
- ✓ Harvest hay as needed. Do NOT harvest alfalfa after mid-September.
- ✓ Scout pastures, identify perennial weeds and woody brush. Consult an agricultural professional to determine the control strategy.
- ✓ Closely monitor livestock and do NOT overgraze. Pasture plants accumulate energy reserves in the fall that help them overwinter and regrow in the spring.
- ✓ Feed hay to allow pastures to stockpile for winter grazing.
- ✓ Rest native warm-season grass fields until after frost for better winter survival.

All aspects of forage and grazing management will be highlighted. The most popular aspect of the grazing school are the hands-on activities in the field including how to set up a multi-paddock grazing system.

Registration costs \$60 per participant and ends Sept. 22. For more detailed information on the grazing school visit the [UK Forage Website](#) and navigate to the events section, or visit <https://bit.ly/3qDPmFB>.

More Forage Related Events this Fall

In addition to the KFGC field day and the grazing school, there are many more forage related events this fall. The UK Equine Field Day is first on Sept. 12 in Mercer County. Next up is Beef Bash Sept. 21 in Versailles, KY followed by the National Hay Association tour at Clayton Gerald's farm Sept. 22 in Munfordville, KY. Our KY Grazing Conference will be held at two locations this year on Oct. 31 in Elizabethtown and Nov. 1 in Lexington. The theme is Low Stress Livestock Handling for Serious Graziers with national experts as speakers. Make sure you have this nationally recognized event on your calendar and register early. We still have room for industry sponsors too. The last of our fall forage events are Dr. Teutsch's Fencing Schools on Nov. 7 in Scott County and Nov. 9 in Caldwell County. We look forward to seeing you in attendance at these meetings. For more information and to register for these events go to UK Forage Website <https://forages.ca.uky.edu/> under events.

Kentucky livestock farms rely on Oregon

Kentucky livestock farms rely on Oregon's Willamette Valley for seed. The region is the largest producer of cool-season forage and turfgrass seed in the world. With ongoing drought conditions straining supply, University of Kentucky forage specialists encourage cattle, sheep and goat producers to secure their seed now.

"There are a growing number of local farm stores that have limited in-stock inventories of higher end and higher quality seed varieties," said Krista Lea, Pasture Evaluation Program coordinator for the UK Martin-Gatton College of Agriculture, Food and Environment. "The key is to ask now, so that seed can be shipped from regional seed distribution hubs."

Whatever forage species you seed or overseed, early Sept. is the ideal establishment time in KY. "If you miss the seeding window, most people end up planting less desirable species or varieties and limp through it," she said. "Then, they've spent all this time, money and effort to renovate a pasture, yet they weren't able to put in the product they wanted."

Lea also related that "last fall was a difficult time for forage establishment, but the most farms with successful stands were those that seeded early." "Regardless of weather though, if the seed is still in the bag, it's obviously not going to help your pasture or hayfield. And, if the seed is still sitting in Oregon, it's really not going to help your pasture."

To learn more about pasture renovation, visit <https://grazer.ca.uky.edu/content/overseeding-pastures-kentucky>. ~ excerpted from article by Aimee Nielson, UK

Strategies to Deal with Toxic Fescue

If you have pastures containing toxic fescue, consider implementing one or more of the laundry list of mitigation strategies that will reduce, but not eliminate, the effects of toxic Kentucky-31. As I travel to farms throughout the Fescue Belt, these are the most common approaches encountered.

Late-fall/winter calving: This helps avoid putting the breeding season square in the middle of the time when heat and toxicity both reach a crescendo. It also often means that purchased supplements and hay will be needed to carry lactating cows over until green grass appears again. These systems run counter to the natural animal-forage interface.

Legume interseeding: This falls under the larger heading of dilution being the solution, although legumes can be beneficial in any forage stand. Red clover is an especially effective legume to help offset the impacts of fescue toxicosis, but any clovers are better than no clovers. Be vigilant about routinely seeding legumes into toxic fescue pastures so there's never a gap.

Supplementation: Research has verified that feed supplementation is an effective means of mitigating fescue toxicosis, and I have been on several beef operations where this strategy appears to be working to the extent that it can.

Supplements such as distillers grains, corn gluten feed, or soy hulls are commonly used. Further improvements in performance can be realized when they're coupled with the use of an ear implant containing a growth-promoting steroid hormone.

Research at KY USDA-ARS measured a 70% improvement in average daily gains with the

combination of soy hulls and steroid implants compared to pasture-only cattle. Of course, these supplements likely wouldn't be needed if cattle were off toxic fescue.

Minerals: Free-choice mineral available to cattle is always important, but especially for animals on toxic fescue pastures during the hot days of summer. Compounds that contribute to fescue toxicosis bind to micro minerals such as zinc and copper, reducing the toxic effects to the animal. Avoid feeding trace mineralized salt in place of free-choice minerals or try to cut consumption of the mineral mix by adding salt.

Seedhead suppression/removal: Given the relatively high toxicity of fescue seedheads, it makes sense to keep cattle from consuming them. This can effectively be done with chemical suppression, but it comes with chemical and yield costs. Mechanical removal of seedheads with a mower is also an option, but this isn't easily accomplished. Timed rotational grazing to let the cows remove grass growing points before they emerge is another option, but this is difficult to do across a large number of acres.

Stockpile forage: Stockpiling forage, in general, is an effective means of lengthening the grazing season. Stockpiled tall fescue is especially effective because of its ability to grow in the fall, and toxicity levels decline from late fall into the next spring. However, don't graze stockpiled tall fescue too short, as stem bases can have a high concentration of toxic endophytes during the fall.

Seed something else: This is perhaps the most effective approach to avoiding the evils of toxic fescue when it's at its worst. With growing frequency, farmers are seeding either summer annual or warm-season grasses to have a place to go with the cow herd during the scorching days of summer. Both options offer a nontoxic alternative with high forage yields. This strategy even makes good sense for those farms with a novel endophyte tall fescue base.

A better approach

All of the above mitigation strategies don't eliminate the impacts of toxic tall fescue, they merely reduce them to various degrees. Conversion to novel tall fescue varieties is the only way to put the problem in the rearview mirror. I've heard all of the reasons why this can't be done, but they don't change the fact that profits will continue to suffer if toxic fescue continues to anchor the forage base. ~ excerpted from article by Mike Rankin for Hay and Forage Grower. Sign up for your free copy of Hay and Forage Grower magazine at <https://hayandforage.com/>

Upcoming Events (see Forage website for details and to register, click on EVENTS)

- Sept. 12 - Equine Farm Facilities Expo, Harrodsburg, KY
- Sept. 21 - Beef Bash, Versailles, KY
- Sept. 22 - National Hay Assoc. Tour, Munfordville, KY
- Sept. 27,28 - Fall Grazing School, Versailles KY
- Oct. 3 - KFGC Field Day, Clay County, KY
- Oct. 31 - Western KY Grazing Conf., Elizabethtown, KY
- Nov. 1 - Eastern KY Grazing Conf., Lexington, KY
- Nov. 7 or 9 - Fall Fencing School, Scott and Caldwell Co.
- Jan. 7-10 - AFGC Annual Conf., Mobile, AL
- Feb. 8 - KY Alfalfa Stored Forage Conf., Bowling Green
- Feb. 19-20 - Heart of America Grazing Conf., Cincinnati, OH

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Rendering of new FAPRU building used with permission by Perkins and Will

Food-Animal Production Research Unit

Leveraging science, technology and partnerships to support forage-based farms

The mission of the Forage-Animal Production Research Unit (FAPRU) in Lexington, Kentucky (UK), is to improve the productivity, sustainability, and competitiveness of forage-based enterprises that raise beef cattle, horses, sheep and goats—particularly operators of small- to medium-sized farms in the Transition Zone growing region.

This mission is achieved by a multidisciplinary team of Agricultural Research Service (ARS) and University of Kentucky-College of Agriculture, Food and Environment (UK-CAFE) scientists. They specialize in the identification, evaluation, and control of microbial and physiological factors affecting the health and performance of ruminant animals and horses. This includes the nutritional quality and persistence of the grasses and other forage plants the animals eat. FAPRU research highlights include:

- Determining that ergovaline in tall fescue causes fescue toxicosis. In beef cattle, this affliction costs \$1 billion annually in production losses
- Identifying isoflavones in red clover that reverse fescue toxicosis, improving animal production, health, and animal welfare
- Demonstrating spent brewer's yeast's potential as a feed additive that can reduce cow emissions of methane and ammonia
- Determining how drought and other stresses impact forage grasses and their symbionts
- Helping link Eastern tent caterpillars to "mare reproductive loss syndrome," which killed nearly 15,000 foals in Kentucky and other states in 2001
- Developing a better understanding of the carbohydrates in forage plants and how they are used by animals
- Providing key insights into beneficial bacteria's colonization of the digestive tract of calves during the first 30 days of life.

The planned 2026 completion of a new FAPRU building in Lexington will usher in important design upgrades and functionality, more opportunities for collaboration, and an expanded research capacity to support forage-based farm enterprises in Kentucky and other Transition Zone states.



Project Fast Facts

- Operated by USDA-ARS
- Co-located on UK campus in Lexington, KY
- Staffed by 6 ARS and 7 UK scientists
- Falls under 2 ARS National Programs: "Food Animal Production" and "Grass Forages and Rangelands Agroecosystems"
- New, FAPRU building will encompass approx. 52,600 total sq. ft.
- Led by Dr. [Michael Flythe](#), ARS.

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