

# Keeping Forage- Livestock Producers in Kentucky Informed Dr. Ray Smith and Echo Gotsick, MS editors

November 2025

### 2025 KY Grazing Conference with Jim Gerrish

Listen to the recording of the KY Fall Grazing Conference that was held the last week of October with the theme "Grazing for Profit: Optimizing Returns in Grass Based Operations". Simply google "KYForages YouTube" and look for the last presentations. Below is the direct link or simple scan the QR code below. https://youtube.com/playlist?list=PLrq6psn95pUzj-eWj2W4kFHPUKyMoEQuB&si=ye4sCkzzPoYuKR3d

Our special invited speaker was Jim Gerrish. All the speakers and their topics are listed below.

- · Seven Things That I Have Learned About Profitable Ranching in the Last 45 Years, -Jim Gerrish, American GrazingLands Services
- · Nutrient Cycling in Grassland Ecosystems—Dr. Ricardo Riberio, University of Kentucky
- · Forage Management and Shifting Weather Patterns— Dr. Chris Teutsch, University of Kentucky
- · Breeding a Functional Cow that Works in Your Environment—Cody Rakes, Manager, Loretto Motherhouse Farm
- · Forage Spokesperson Contest
- · What We Have Learned About Bale Grazing—Dr. Greg Halich, University of Kentucky
- Managing Feed Costs in Ruminant Livestock
   Production Systems—Jim Gerrish, American
   GrazingLands Service



## **Forage Timely Tips: November**

- ✓ Apply 30-40 lb N/A to strengthen cool-season grass sods.
- If not already done, inventory hay and assess hay quality.
- Using a plate meter or grazing stick, estimate stockpile available for winter grazing.
- ✓ Adjust animal numbers or purchase additional hay to balance forage-feed supply to livestock needs.
- ✓ Graze crop residues and cover crops that will not overwinter. Be careful to avoid fields that contain johnsongrass.
- ✓ Graze winter annuals that will not overwinter such as brassicas and oats.
- ✓ Graze other winter annuals once they are 6-8 inches tall and are well anchored. Do NOT graze closer than 4 inches.
- ✓ Sugar content will rise in tall fescue with the cool temperatures and short days of fall. Alkaloid content of tall fescue can also be high in some years, but will begin decline after a couple of hard freezes.

#### **Profitability Workshop with Jim Gerrish**

Wednesday Oct 29 KFGC and UK hosted a specialized workshop called "Profitability in Ruminant Livestock Operations: A Deep Dive with Jim Gerrish." Jim examined factors impacting profitability and outlined cost-effective solutions for increasing net return in ruminant livestock operations. Topics included: ranching as a land management business, feed costs and profitability, individual animal performance and whole-ranch profitability, cow size and profitability, finding balance between cow-calf production and custom feeding, stock water development, reseeding pastures and conducting financial analysis.

Due to the discussion and question format of this workshop no recording was made, but Jim reminded us that he has an excellent collection of recorded presentations on his website at the following direct link: "https://www.americangrazinglands.com/pages/jims-voutube-videos

#### Join/Renew KFGC Membership

We encourage you to show your support for Forage/ Livestock agriculture in Kentucky and join the Kentucky Forage and Grassland Council. A bonus to joining KFGC is an automatic membership to the American Forage and Grassland Council. A great two for one value for only \$25. If you are already a KFGC member, then I encourage you to renew your membership today. The easiest way is to go to AFGC.org, then click on Membership and Join/Renew Now. Make sure you join as an Affiliate Member of Kentucky Forage and Grassland Council. If you want to mail in your membership then write a check payable to KFGC for \$25 and mail to our KFGC Treasurer: Caroline Roper, UKREC, PO Box 469, Princeton, KY 42445. Make sure to include your name, address, phone, and email with your check.

#### Fescue Toxicity in the Fall: Is this an issue?

The last four late summers and falls have had extended dry periods, followed by late-fall rains. This has made fall forage establishment and fall stockpiling difficult since dependable rains have come very late. These long dry periods have also caused considerable stress on cool-season forages. In many parts of the region, Kentucky bluegrass was completely dormant, and many orchardgrass stands have thinned. On the other hand, KY-31 tall fescue plants have only shown reduced growth with leaf curling (a drought survival response), but the endophyte has allowed good survival of these plants. When the fall rains finally came, fescue-predominant pastures were the first ones to green up.

Unfortunately, the new growth after these periods of drought stress has shown abnormally high levels of ergovaline, the toxic alkaloid in KY-31 tall fescue. Normally, the highest levels of ergovaline are in May and June when seedheads are present and lower in the fall when the plants are in a vegetative stage, but it seems that these higher ergovaline levels are some type of drought response in the plant. The high fall ergovaline levels have also extended into early winter since hard freezes (<25 degrees) seem to be coming later the last few

You might ask, "Why should I care?" We normally aren't concerned about toxicity in tall fescue during the fall, and this is part of the reason that fall calving has been encouraged in the region. The lower ergovaline in the fall allows good milk production for fall calves and fewer rebreeding issues than with spring calving herds. These herds are being bred during the very toxic late spring period. Although we have not conducted systematic research, below are anecdotal reports from ΚY farms from of 2024. the fall

The following observations are from UK's Dr. Les Anderson. Last fall, I had several questions regarding fescue toxicosis from grazing fescue regrowth after Hurricane Helene. One producer was breeding late October/early November and had zero conception rate on cows with a long history of great conception. He also had 30% of his herd get tender feet during this period, and he treated for foot rot, even though it did not appear to be foot rot. Another producer SEE

called and had a few abortions during this period on his January calving cows. His cow's feet were also tender.

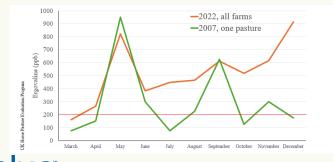
Dr. Chris Teutsch shared the following observations from when he worked in Virginia. We had a major drought one year, 18" behind at one point in time. About mid-August, it started to rain, and we got the most beautiful stockpiled tall fescue that I can remember. Later that fall, we had a laundry list of fescue-related issues, including little or no milk and thickened placentas. The issues were the worst on farms that were practicing good grazing management and had good soil fertility. They were creating an environment in which fescue thrived.

Below are some observations from a retired county agent in KY concerning breeding success last fall. One farm had less than 15% success with embryo transfer on a herd of over 20 cows. Bulls did get a better conception of the next cycle, but there were still some that were late. Another local producer had a herd of 35 cows, which were A.I.ed with timed insemination. He had 8 out of the 35 conceive. The clean-up bull did get pregnancies, but still disappointing results. Two other herds that do a lot of embryo work reported very poor results. On the other hand, a herd on Novel endophyte fescue had 3 out of 3 embryo recipients conceive and carry the pregnancy, and 8 out of 11 conceive on a timed A.I.

What can you do? If you are seeing issues or have in the past few years, you can take cows off predominant tall fescue pastures in the fall (wait until a couple of hard freeze periods before putting them back on these pastures). Legumes, especially red clover, help alleviate fescue toxicity. Therefore, feed hay containing red clover. An alternative is feeding soybeans (2 lbs per day) or soyhulls (5 lbs per day). You can completely renovate your most toxic fields with novel endophyte tall fescue and have your cows on these fields before, during, and just after the breeding season. You can also test for ergovaline levels by submitting fall fescue samples from your pasture to the UK Vet Diagnostic lab. Then you can better determine which fields are the safest for grazing during the fall. Here's the link for the sampling guidelines and how to submit samples to UK VDL. <a href="https://">https://</a> forages.mgcafe.uky.edu/files/

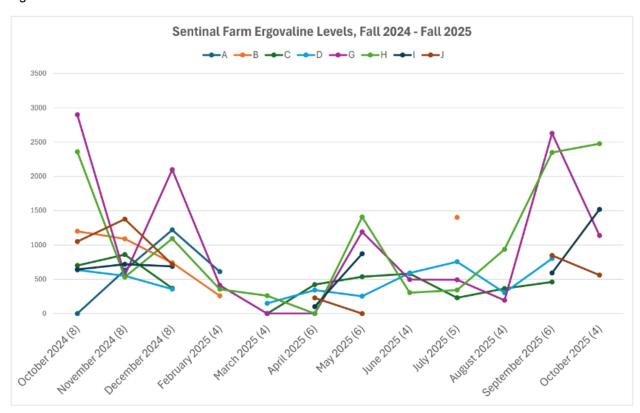
tall\_fescue\_sampling\_guidelines\_for\_ergovaline\_analyse s.pdf

**Figure 1**. The bottom line shows the normal ergovaline levels during a one year period and the upper line shows what happened in 2022. We saw similar results in 2023 and 2024. With cattle it's best if they are not consuming more than 500ppb ergovaline in their total diet. Note: in



mixed pastures make sure to take into account the dilution factor. If fescue is 1000ppb but they it's only half of their diet, then they are only consuming 500ppm.

**Figure 2.** The UK forage group has been monitoring tall fescue ergovaline levels on four different farms in Central KY and two pastures on each farm. Here are the results over the last year. One farm had extremely high ergovaline levels, but other farms still had concerning levels. Again, remember that it's not the ergovaline that matters but what percentage of high ergovaline fescue is in their total diet.



**Figure 3.** The level of ergovaline in the total diet indicates the potential risk for livestock. We assume that most animals readily consume tall fescue and other forages like bluegrass, orchardgrass and clover, but are less likely to consume weeds. For example, late term pregnant mares should not have over 200ppb ergovaline in their total diet. For cattle, the numbers are less precise, but generally fescue toxicity issues may be observed when ergovaline levels in the diet are consistently over 500ppb. See below for examples of ergovaline in the total diet based on the amount of tall fescue, other forages, and undesired plants/bare soil.

Fld	Tall Fescue (%)	Other Forages (%)	Undesired plants/bare soil (%)	Endophyte (%)	Ergovaline (ppb)	Ergovaline in Total Diet (ppb)
1	23	45	30	97	2000	676 💥
2	35	25	40	94	226	132
3	40	37	23	23	175	91
4	9	13	78	81	600	245
5	9	13	78	81	1800	735 💥

Figure 4. Simple formula to calculate ergovaline in total diet.

$$\left(\begin{array}{c}
\% \text{ Tall Fescue} \\
\% \text{ Tall Fescue} + \% \\
\text{Other Forages}
\end{array}\right) x \qquad \begin{array}{c}
\text{Ergovaline} \\
\text{(ppb)}
\end{array} = \begin{array}{c}
\textbf{Ergovaline in} \\
\textbf{total Diet} \\
\textbf{(ppb)}
\end{array}$$

#### Fall Overgrazing is a Scary Proposition

Overgrazed pastures continue to haunt the livestock industry. In case you didn't notice, that was a purposeful and obligatory Halloween reference, but one loaded with truth. Overgrazing occurs for a variety of reasons. Rarely does it occur in the spring unless cows are put out on a limited pasture base too early. Summer is a different story, as pasture growth is often slowed by inherent dormancy or drought. If time-on-pasture adjustments aren't made to compensate, forage overutilization occurs.

When you treat cattle with the opportunity to overgraze, the tricks cometh in the form of:

- Delayed plant regrowth and recovery, setting the pasture up for another round of overgrazing
- Slowed development of new tillers
- Removed plant carbohydrate storage structures at the base of the plant
- Enhanced weed encroachment
- Severely impacted root mass and growth
- · Pasture vulnerability to soil erosion
- Reduced livestock performance

So, what about overgrazing in the fall? Typically, a single event when a pasture is grazed shorter than 3 to 4 inches can be rectified with a longer recovery period. In the fall, that may not be possible. Although it's true that coolseason grass growth benefits from the cooler temperatures and moisture that fall usually brings, plants are also preparing to overwinter. This means that carbohydrates are being stored in lower stems and, in some cases, roots. These storage structures need to be protected for overwintering capacity and early spring regrowth. For this reason, many experts recommend that 4 to 5 inches of residual growth be left going into winter.

Overgrazing during the fall also inhibits the regeneration of new roots and tillers that will be critical for the next spring's growth. In fact, fall is a great time to apply fertilizer nutrients that will enhance additional root and shoot growth. However, fertilizer needs to be applied before plant growth shuts down for the winter.

There are two situations when overgrazing a fall pasture might be done to enhance forage utilization and/or quality. Employ these strategies cautiously and only on a limited number of pastures or paddocks. First, overgrazing is an effective strategy to stagger spring regrowth. Grazing certain pastures shorter in the fall will delay green up in the spring, and these paddocks can be set aside for the back end of the grazing rotation next year. It offers one means of controlling what is commonly referred to as "the spring flush."

Another case where overgrazing in the fall might be beneficial is for paddocks that will be frost seeded before next spring. Overgrazing, or at least getting growth down to a 3-inch stubble, will expose more bare soil for improved seed-to-soil contact, and this will also reduce early competition from existing plants with the new seedlings. <a href="https://hayandforage.com/article-5502-Fall-overgrazing-is-a-scary-proposition.html">https://hayandforage.com/article-5502-Fall-overgrazing-is-a-scary-proposition.html</a>

~article in Hay and Forage Grower by Mike Rankin.

**Figure 1.** Sod taken from two pastures and put in the greenhouse in late March in Kentucky. The one on the left went into the winter with about 3" of growth and was not grazed during the winter. The one on the right was grazed into the ground all winter long. Spring regrowth was much faster on the rested pasture and there were less weeds. The three photos show day 0, day 6 and day 12 of regrowth.



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