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Forage News

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## Forage News [2021-07]

Department of Plant and Soil Sciences, University of Kentucky

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# Forage News

## Keeping Forage-Livestock Producers in Kentucky Informed Dr. Ray Smith and Krista Lea, editors

July 2021

This issue of Forage News is sponsored by Growmark/FS Forage Seeds, now available at Southern States.



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### Regional Grazing Event in Mt. Vernon, IL, August 2021

Make plans today to attend the 2021 Heart of America Grazing Conference. Join us Tuesday, August 10th for an informative pasture walk with dinner to follow on site. Then on Wednesday, August 11th we have a full day conference at the Mt. Vernon, Double Tree Hotel. Big names, popular speakers, and hot topics will be plentiful at the annual event that gathers livestock graziers from Illinois, Indiana, Ohio, Missouri, and Kentucky. "Don't miss your chance to hear from—and learn from—people who know how to make it work." Greg Judy, our featured speaker, will be discussing his current grazing operation and management along with his numerous years of experience. Register here: <https://magic.collectorsolutions.com/magic-ui/Login/jefferson-county-soil-and-water>.

### KFGC Annual Field Day August 17th

Lincoln county producer Bill Holtzclaw will be hosting the KFGC Annual Field day. Program includes Grazing Summer Annuals, Chris Teutsch, Alfalfa Weed Control, JD Green, Establishing Alfalfa, Ray Smith, and Making High Quality Baleage: Summary of Statewide Farm Sampling, Jimmy Henning. Register by calling 606-365-2447, this event will be a CAIP qualified educational meeting. Find more details at <https://forages.ca.uky.edu/> and click upcoming events.

### Summer Annual Forage Pasture Walk

University of Kentucky forage specialists will showcase their research and discuss considerations for livestock producers wishing to incorporate summer annuals in their operations during a free Summer Annual Forage Field Walk. The walk will take place July 15 at the UK Research and Education Center in Princeton.

Summer annual forages include sorghum, sudangrass, sorghum-sudangrass hybrids, crabgrass, teff and millets. They grow best when temperatures are between 80 and 90 degrees F. They can provide producers with high quality grazing when cool-season forages struggle in the heat and can help

producers who are renovating pastures control erosion and weeds until they can seed cool-season perennials in the fall.

Participants will tour research plots and variety trials and see hands-on demonstrations. Topics include fertility, establishment, grazing management, pest control, economics, species and testing for nitrates and prussic acid.

"We encourage producers to come with their questions," said Chris Teutsch, extension forage specialist in the UK College of Agriculture, Food and Environment. "We hope to frame our discussion around topics that interest our audience."

The event begins with registration and dinner at 4:30 p.m. CDT. Field walks will start shortly after 5 p.m. and last until 8 p.m.

While the event is free, organizers encourage interested individuals to register online to help with meal planning.

Event sponsors include the UK Grain and Forage Center of Excellence, Kentucky Master Grazer Educational Program and the UK Cooperative Extension Service.

### Pub of the Month: Weed Management in Grass Pastures, Hayfields and Other Farmstead Sites (AGR-172) \*\*\*UPDATED\*\*\*

Weeds can reduce the quantity and the stand life of desirable forage plants in pastures and hayfields. These unwanted plants are often more aggressive than existing or desired forage species and compete for light, water,

#### Forage Timely Tips: July

- ✓ Continue grazing available summer annuals (millets, sorghum/Sudangrass, crabgrass, etc.).
- ✓ Apply 40-60 lb N/A to stimulate summer annual regrowth.
- ✓ Clip pastures late June/early July as needed to maintain vegetative growth and to reduce weed seeds, but don't clip lower than 4".
- ✓ Identify fescue pastures for stockpiling. Choose pastures that are well drained, have a strong sod, and have not been overgrazed.
- ✓ Soil test pastures to determine fertility needs.
- ✓ Using UK variety trial results, select varieties to plant in the fall and order seed.
- ✓ Use a designated sacrifice lot to feed livestock hay and supplements as needed if drought sets in and no forage is available for grazing.

and nutrients. Weeds can also diminish the quality and palatability of the forage available for livestock grazing, and certain weed species are potentially poisonous to grazing animals. The aesthetic value of a pasture is also impacted by weeds.

Therefore, it may be desirable to initiate weed management strategies that reduce the impact of weeds on forage production. However, not all weedy plants are detrimental to pastures or hayfields. In fact, some weedy plants provide nutritional value to grazing animals; thus, prudent management decisions are often required to determine when or if weed control should be initiated in a pasture or hayfield. Download this publication by clicking on the weed tab of the website <https://forages.ca.uky.edu>.

### **CRP Grasslands Signup**

CRP Grasslands helps landowners and operators protect grassland, including rangeland, and pastureland and certain other lands, while maintaining the areas as grazing lands. Protecting grasslands contributes positively to the economy of many regions, provides biodiversity of plant and animal populations, and improves environmental quality.

FSA has updated the Grasslands Signup to establish a minimum rental rate of \$15 per acre, as well as new National Grassland Priority Zones.

To enroll in the CRP General signup, producers and landowners should contact their local USDA Service Center by the July 23 deadline. To enroll in the CRP Grasslands signup, they should contact USDA by the August 20 deadline.

### **Research Highlight from USDA-ARS Lexington**

Soil salinity is a major problem negatively affecting crop growth in many areas of the world, and selecting for traits in plant varieties that tolerate salt stress is a major research goal. Previous work has demonstrated that the presence of the tall fescue endophyte, *Epichloë coenophiala*, contributes to the ability of tall fescue to better withstand heat and water stress. Research was undertaken to characterize the contribution of the tall fescue endophyte in regards to salt stress tolerance. The results indicated that endophyte promoted salinity tolerance in tall fescue by maintaining higher growth and photosynthetic efficiency and lowering Na<sup>+</sup> accumulation and lipid peroxidation. This work confirms that the presence of the endophyte can aid in growth of tall fescue under salt stress, thereby demonstrating an additional benefit for the presence of endophyte in persistence of tall fescue under different stress environments. Read the full peer reviewed article here: <https://www.ars.usda.gov/research/publications/publication/?seqNo115=375989>. ~ Pan, L., Cui, S., Dinkins, R.D., Jiang, Y.

### **There's toxic and then there's toxic**

I don't know about you, but when I consult a list of all of the Kentucky pasture plants that are potentially toxic, it amazes me that livestock ever survive. Buttercup is one of those weeds. Buttercup contains the toxin ranunculin which is a blistering agent. Ingested in large quantities, it

can be fatal. We can find four species of buttercup in Kentucky, but species differ in their toxicity.

I can almost hear you say 'What? Buttercup is toxic? But it is everywhere!' It does seem to be everywhere, especially in fields that have been grazed closely during the fall and winter. This low growing pasture weed is very visible right now due to its bright yellow flowers.

Livestock will avoid buttercup in pasture, even when it seems to dominate the stand. Buttercup is not a problem in hay because the ranunculin is detoxified by the curing process. This spring, we received questions from multiple sources about the toxicity of buttercup in small grain silage in round bales. At first, this seemed to be one of those questions for which there was no good answer.

Logically, it would seem that if ranunculin was detoxified by the curing process, the wilting required before making baleage (round bale silage) would also detoxify the buttercup. There are no documented cases of buttercup poisoning at the UK Veterinary Diagnostic Laboratory, indirect evidence that buttercup toxicity is not a problem in our stored forage. However, neither provide the firm evidence that we needed to say that buttercup was not a problem in silage.

Dr. Ray Smith, my fellow UK forage extension specialist in Lexington made the contact with researchers in Switzerland, who remembered an old paper on buttercup detoxification in silage. The 1992 research paper (written in German) found that ranuncilin levels were reduced by 90% in silage compared to fresh forage. The most toxic species of buttercup in this study was not one commonly found in Kentucky.

Although it is good to know that buttercup is not toxic in silage, it is still not a desirable plant in pastures or hayfields. Buttercup emerges from seed in the fall or late winter and can be controlled by numerous broadleaf herbicides. Control is more effective in February through April when buttercup is small but before the yellow flowers emerge. For more information on weed control in grass pastures please see *Weed Management in Grass Pastures, Hayfields, and Other Farmstead Sites* (<http://www2.ca.uky.edu/agcomm/pubs/agr/agr172/agr172.pdf>) or *Broadleaf Weeds of Kentucky Pastures* (<http://www2.ca.uky.edu/agcomm/pubs/agr/agr207/agr207.pdf>).

So buttercup is still potentially toxic and a problematic weed in pastures and hayfields. But at least we now have solid evidence that it is detoxified in both hay and silage. Happy foraging. ~ Dr. Jimmy Henning for Farmer's Pride

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

July 15—Summer Annual Pasture Walk, Princeton  
July 20—Equine Forage Field Day, Crittenden  
Aug 17—KFGC Field Day, Stanford  
Sept 21-22—Fall Grazing School  
Sept 28—Equine Expo, Lexington  
Oct 26—KY Grazing Conf., Princeton  
Oct 27—KY Grazing Conf., Elizabethtown  
Oct 28—KY Grazing Conf., Winchester  
Feb 24—Kentucky Alfalfa and Stored Forage Conference, Bowling Green

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