



11-2017

## Forage News [2017-11]

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### Repository Citation

University of Kentucky Department of Plant and Soil Sciences, "Forage News [2017-11]" (2017). *Forage News*. 3.  
[https://uknowledge.uky.edu/forage\\_news/3](https://uknowledge.uky.edu/forage_news/3)

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# Forage News

Keeping Forage-Livestock producers in Kentucky informed

Dr. S. Ray Smith and Krista Lea, MS.~ Editors

November 2017

## Don't Let Potash Limit Your Forages

Potassium can be a neglected nutrient in forages, especially hayfields. Potassium is needed for many essential plant processes including stomatal opening and closing (regulates water status of plant), winter hardiness, and resistance to plant disease and stress. Fall is a great time to sample pasture and hayfields and apply needed fertilizer such as potash ( $K_2O$ ).



Silage crops are heavy users of  $K_2O$ , and the stover/stems contain  $\frac{3}{4}$  of the potash. If these fields are not amended with additional  $K_2O$  according to soil test, subsequent forage crops will be K deficient. Repeated

removal of hay crops without  $K_2O$  replacement results in low to very low soil  $K_2O$  test levels. Hay crops on these soils will have a diminished response to N, and can even appear nitrogen deficient after N fertilization.

A ton of fescue or orchardgrass hay will remove 17 to 19 lbs. of phosphate ( $P_2O_5$ ) per ton compared to 53 to 62 lbs. of  $K_2O$ . Using 20 and 60 for  $P_2O_5$  and  $K_2O$  removal respectively, a three ton hay crop will remove 60 lbs. of  $P_2O_5$  and 180 lbs. of  $K_2O$ . Replacement of these nutrients using 19-19-19 would require 900 lbs. of product per acre. Commonly used rates of 200 to 300 lbs. of 19-19-19 per acre would undersupply the  $K_2O$  needed by 120 to 140 lbs. per acre.

To prevent potash from being limited in your hayfields, get a current soil test and then work with your fertilizer dealer to prepare a blended fertilizer that will supply recommended nutrients. Hay fields that are very low in potash will require high application rates over time. ~ Dr. Jimmy Henning

## Register now for AFGC conference in Louisville

"Forages: Opportunities for the Next Generation" is the theme of the 2018 AFGC annual conference, to be held in Louisville, KY January 14-17. Producer day is Monday, January 15th and will open with a keynote address from Greg Peterson of the Peterson Brothers. Other highlights include practical oral and poster presentations, a trade fair, hay judging contest, National

Forage Bowl competition, Forage Spokesperson contest and Emerging Scientist Competition. For the full agenda or to register, visit [www.afgc.org](http://www.afgc.org).

## Featured Publication: Cyanide Poisoning in Ruminants

Prussic acid, cyanide, or hydrocyanic acid are all terms relating to the same toxic substance. Hydrogen cyanide was first isolated from a blue dye (Prussian blue) and because of its acidic nature it became known by the common name "prussic acid." Cyanide is one of the most rapidly acting toxins that affect cattle. Most of us think about cyanide because of its release from johnsongrass after frost. The full publication can be found at [www.uky.edu/ag/forages](http://www.uky.edu/ag/forages) by clicking on publications.

## Tell Us About You!

The UK Forage Extension Team has been busy building a new website. This new site will still house our publications and event archives, but will also allow us to better share other media forms such as videos and decision aids. To help us better design this website and all our educational programs, we are asking for your help. If you haven't yet completed our survey, please do so soon. If you have, thank you for your participation. We are excited to continue to work with producers across the Commonwealth to improve forage management and livestock production.

## Dual Locations Draw Strong Attendance at 2017 Kentucky Grazing Conference

Nearly 200 farmers, agents and industry participants attended the 2017 Kentucky Grazing Conference on October 17-18. Dual locations (Lexington and Hopkinsville) impacted a wider audience for the conference, hosted by the Kentucky Forage and Grassland Council and the UK College of Agriculture, Food and Environment. A nationally recognized panel of speakers presented on the theme of 'Pasture Management to Control Weeds and Improve Production'.

The program featured Kathy Voth, nationally recognized for her work with animal grazing behavior on weeds. Other speakers included Scott Flynn -Dow AgroScience; Greg Brann - NRCS (ret.), Micheal Flessner - Virginia Tech; Chris Teutsch - UK; and Bill Payne - KY farmer and Technical Service Provider. The speakers addressed how producers could develop and integrated approach to pasture management that

addressed various weed concerns.

David Burge, Anderson County producer was the winner of the 2017 KFGC Forage Spokesperson Contest. David will represent Kentucky at the American Forage and Grassland Council annual meeting, which is January 14-17, 2018 in Louisville, KY. The full AFGC program is available at [www.afgc.org](http://www.afgc.org).

If you missed the Kentucky Grazing Conference, all presentations were recorded and be viewed on the KYForages YouTube channel.

### Green is Good, Brown is Bad: Evaluating Pastures in the Fall

For producers with cool season grass pastures, fall (especially after frost) is an excellent time to quickly evaluate the health and productivity of pastures. If green grasses dominate the pasture, it's likely that most of those are cool season grasses and they are growing with ideal temperatures and rainfall and good soil fertility. Brown pastures at this time are either dominated by warm season grasses, or they are cool season grasses starved of soil fertility or drought stressed. While managers can't make up for warm temperatures or poor rainfall, we can take steps to determine if pastures are deficient in soil nutrients or overrun by warm season grasses. Your local county extension agent or farm consultant can assist in identifying cool season and warm season grasses, as well as collecting soil samples.

For those who want a more objective measurement of cover, there's a phone app! Developed at Oklahoma State University, Canopeo is a multipurpose green canopy cover measurement tool. Canopeo allows users to photograph a pasture close up and analyze the photograph for green and brown pixels. Green pixels show as white and are healthy, living material and likely productive, although green weeds will also be counted. Brown pixels are shown as black and represent bare soil, dead or dying material, dormant plants or a closely grazed pasture. According to the developers, pictures should contain more than 60% green to graze. Pastures with less should be monitored closely and those with much less green (<40%) should not be grazed. While this



(Left) Cool season grasses and legumes are still active and green in early November. (Right) Canopeo detects nearly 99% green cover in the picture (green is shown as white).

app cannot replace a visual inspection by managers, it does provide a more objective measure of pasture health. Canopeo is a free app, available on both iTunes and Google Play.

Late fall (after frost) is a great time to **see blue.**

visually evaluate the health and productivity of your cool season grass pastures. With cool season grasses (and legumes) active and warm season grasses dying or going dormant, color is a simple way to observe the overall composition of your pasture. Remember the phrase originally coined by Dr. A.J. Powell, Jr., (former Turf Specialist at the University of Kentucky), "Green is Good, Brown is Bad." ~ Krista Lea and Tom Keene

### Quote of the Month: "Information is Not Knowledge" ~ Albert Einstein

Information alone cannot accomplish goals. Information is not valuable until transformed into knowledge that can be used to achieve an objective. When new information is combined with experience and previously acquired information, useful and valuable management tools are created. A forage-livestock manager must have the ability to put accurate information into action in order to develop a profitable and sustainable operations. Purchase Forage-Livestock Quotes and Concepts books for \$5 each by contacting [ukforageextension@uky.edu](mailto:ukforageextension@uky.edu).

### Is My Alfalfa Safe To Graze?

Is my alfalfa safe to graze after a hard freeze? Usually the alfalfa is still quite green, even with low temperatures in the low twenties. There may be some wilting and yellowing, especially on the top, but most leaves still are attached to the plant stems.

The real question often being asked is "Can I be sure my cows won't bloat and die if they graze my alfalfa?". To be quite honest, you never can be 100 percent certain that alfalfa won't cause bloat. I remember back to my father's small dairy farm. Over the years that I helped on his farm, my dad had a couple cows that would bloat even when eating dry alfalfa hay. Since they were good milkers he didn't want to cull them. So those cows were hand fed small amounts of alfalfa hay at a time so their bloat could be minimized.

Thus, the only true answer to questions about grazing alfalfa safety is 'probably'. Bloat risk is much lower a week after a hard freeze that causes wilting. But always use good animal husbandry methods to reduce the risk further. Have cows full before turning out to alfalfa. Wait until mid-day, after frost or dew is gone, before turning out. Provide other dry, palatable feeds or even bloat guard. And keep a close eye on them for the first couple days.

Alfalfa can be grazed safely with rotational stocking, even after a freeze. Just be careful and realistic. ~ Dr. Bruce Anderson, University of Nebraska-Lincoln

### Upcoming Events

List of upcoming events at [www.uky.edu/Ag/Forage](http://www.uky.edu/Ag/Forage)

JAN 14-17 - AFGC Annual Meeting, Louisville, KY

JAN 22 - Equine Pasture Program, Georgetown, KY

FEB 22 - KY Alfalfa and Stored Forages Conf., Cave City, KY

MAR 8 - Novel Tall Fescue Workshop, Lexington, KY

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