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Forage News

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## Forage News [2020-09]

Department of Plant and Soil Sciences, University of Kentucky

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# UK Forage News

## Keeping Forage-Livestock Producers in Kentucky Informed

Dr. Ray Smith and Krista Lea, editors

September 2020

This month's newsletter was mailed with the gracious support of the Kentucky Forage and Grassland Council. If you

would like to receive this newsletter via email, please visit: <https://kyforagenews.com/sign-up/>



The *KENTUCKY*  
*Forage and Grassland*  
COUNCIL

### KY Grazing Conference Moves Online

Because of continued limitations due to COVID-19, the KY Grazing Conference will be moving online. Details will be announced soon. Additionally, the KY Grazing School scheduled for Sept. 8 and 9 has been canceled. However, the Fall Fencing Schools are a Go! Go to the UK Forage Extension events page for the most up-to-date information.

### KFGC Forage Spokesperson Contest

The KY Forage and Grassland Council hosts an annual Forage Spokesperson Contest. This contest allows producers to share with others what they are doing on their operations in regards to forages- struggles, successes, etc., in a 15 minute presentation. The winner of the KFGC contest moves on to the American Forage and Grassland Council's contest, located in Savannah, GA for 2021. The KFGC contest is held in conjunction with the KY Grazing Conference. If you are interested in participating in the contest, or you would like to nominate someone, please contact Heather Graham at [heather.graham@uky.edu](mailto:heather.graham@uky.edu) or 606-495-1026.

### To Spray or Not To Spray

Here are some guidelines that help me formulate a weed control plan. I will be the first to admit this is a highly subjective set of guidelines or suggestions.

Non-chemical control - Farmers have other options besides spraying herbicide. Sometimes the best approach is to use cultural practices or grazing management to strengthen the forage crop and deal with the weed. Ragweed and some thistles are common examples. The UK publication AGR 207 'Controlling Broadleaf Weeds in Kentucky Pastures' evaluates the effectiveness of mowing as a weed management tool for many of our problem pasture weeds.

The Clover Dilemma - A vigorous stand of red clover would be worth protecting in all but the worst weed infestations. A stand of small, white dutch clover probably not. And remember that some new herbicide formulations

will take out broadleaves without killing clover. Proclova® is one example.

Annuals - With annual weeds, it is usually best to first try to thicken up the forage stand. Annuals are opportunistic; they germinate and grow when forage stands get sparse. Addressing lime, P and K needs and strategic use of nitrogen fertilizer are some of the most powerful tools to shift the advantage to the desirable forage. Implementing rotational grazing and maintaining good residual heights on the base grass will help suppress the onset of these weeds.

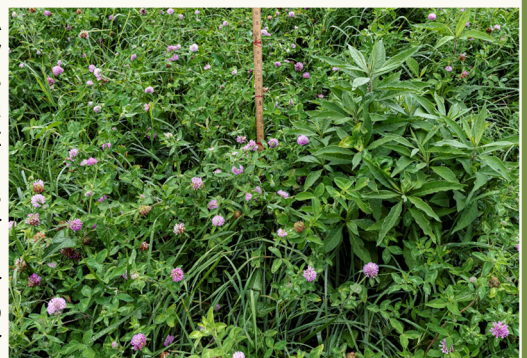
Toxic and invasive plants - Toxic and invasive weeds will often necessitate the use of herbicides. The cost/benefit ratio of using chemical control is influenced greatly by the threat of loss of livestock and the loss of value due to their presence in hay.

Cash hay vs pasture - Some weeds can be tolerated or even be beneficial in pasture that would warrant herbicide application in a cash hay crop. For example, johnsongrass and crabgrass are highly palatable forages that benefit summer pastures but are not welcome in hay intended for high end horse markets.

Weed growth stage matters - Weeds are most easily controlled when they are green and actively growing. For perennials like ironweed, time herbicide applications so that plants are young and vegetative. Often that means timely mowing in mid-summer to knock them back and following up with herbicide in two or three weeks.

Replant strategy - A plan to spray almost always requires a plan to replant because when the weed is gone, mother nature will insert another one. Refer to the label for the proper re-seeding interval.

The decision to spray herbicide on pastures and hayfields is complicated.



Would you spray this field? Tough question to weigh the value of a good stand of vigorous red clover (18 inches tall) compared to freedom from ironweed (24 inches tall). The decision to spray is a subjective process depending on many factors, including weed pressure, invasiveness and/or toxicity of the weed, cost of the control measure, forage value of the weed and its life cycle, and the ability to restore the pasture stand.

The decision to spray is a subjective process depending on many factors, including the visual assessment of the weed pressure, the invasiveness and/or toxicity of the weed, the cost of the control measure, the forage value of the weed and its life cycle, and the ability to restore the pasture stand. Don't forget that the best first step is to thicken up the existing stand of forage. Happy foraging. ~ Dr. Jimmy Henning, Farmer's Pride, August 2020. Read the full article in the August edition of Farmer's Pride.

### Novel Endophyte Tall Fescue Seed Availability This Fall

Fear not, novel endophyte tall fescue seed will be available soon. Almost all novel endophyte seed will be from the new crop to make sure it is fresh and that the endophyte is viable. Most of this seed is grown in Oregon and harvested during July. The seed is then cleaned and sampled for quality control analysis under the guidelines and standards of the state of Oregon and the Alliance for Grassland Renewal. Once quality is verified, which can take up to a month, the seed is packaged and shipped to dealers.

So, if you plan to plant Novel Endophyte Tall Fescue and have heard seed is not yet available, fear not, the seed is in the pipeline and quality and supply look good. Most varieties are now ready to ship to distributors and dealers, so call your seed dealer and ask them to order your seed today. Options this year include Jesup MaxQII, Texoma MaxQII, and Lacefield MaxQII from Pennington Seed; Estancia with Arkshield from Mountain View Seeds; Martin2 Protek and Tower Protek from DLFPickseed; and BarOptima E34 from Barenbrug Seeds. There looks to be an ample supply, but some specific varieties might be a little tight. If you expect to plant, talk to your advisors and make your variety selection, and then get your seed ordered soon to make sure you can get what you want.

For more resources or to learn more about the Alliance for Grassland Renewal, go to <http://www.grasslandrenewal.org>. To stay up to date on all things regarding novel endophyte tall fescue, sign up for the Alliance for Grassland Renewal's monthly e-newsletter, Novel Notes.

### Cool-Season Annuals Drive Profits

Average weaning weights for cattle in the Southeast have lagged behind those in the Midwest for many years. But that trend has reversed in recent years. The reason, according to University of Arkansas researcher Paul Beck, is because cattle in the Southeast can graze nearly year-round, but to do so, cool-season annuals such as cereal grains and ryegrass have to be a part of the system.

Cereal grains, before jointing, contain 25 to 30 percent crude protein. Sixty percent of the total nitrogen is soluble nitrogen, which means it's available in the rumen almost as soon as the animal consumes it.

The total digestible nutrients (TDN) in young, vegetative cereal forages during late fall and early spring can range from 75 to 80 percent. "These forages are providing nutrition that is equal to or greater than a feedlot finisher ration in terms of net energy of maintenance and gain," Beck said. "So, when we put cattle on these wheat pastures at this time of year, it's a high-energy diet."

see blue.

### 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.

Quality is highest in the fall and spring, but at no time up to the reproductive phase are the energy and protein concentrations going to limit performance for grazing cattle. Cereal forage users should expect cattle to gain 2.5 to 2.75 pounds per day if the pasture is fully utilized.

For determining an initial fall stocking rate that will maximize average daily gain, Beck's rule of thumb is 5 pounds of forage dry matter per pound of animal body weight. This will change through winter and spring. For the entire fall-winter grazing season, he said it's actually about 3.5 pounds of forage dry matter per pound of animal body weight. ~ Mike Rankin, excerpt from Hay and Forage Grower, Dec. 2019

### What is a dung beetle?

Dung beetles are biologically classified as members of the order *Coleoptera* which includes all true beetles. They have rounded features and hardened forewings that usually have pronounced, parallel ridges. Their front legs are often modified for digging. Most dung beetles have a shiny appearance and may be black, brown, or green in color. These creatures tend to be on the smaller side, rarely larger than 1.5 inches, however some dung beetles can grow to be over three inches long! ~ Jordyn Bush

### Pub of the Month: Grain Drill Calibration Video

Successful seeding includes planting enough seed at the correct depth. To ensure you are planting seed correctly, be sure to calibrate your drill first. Dr. Chris Teutsch breaks down how to easily calibrate nearly any grain drill in this video.

### Upcoming Events (see website for details)

SEPT 8-9—KY Grazing School, Versailles, KY

OCT 16—Pasture Walk with Greg Brann, Adolphus, KY

OCT 27,28,29—KY Grazing Conferences, Online

FEB 25—Alfalfa and Stored Forages Conference, Bowling Green, KY

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[www.forages.ca.uky.edu](http://www.forages.ca.uky.edu)

Bonus Content on Pages 3 and 4!

**Publication of the Month (continued):** View the video at <http://forages.ca.uky.edu/establishment>. For those who cannot view online, a one-page guide can be found attached to the end of this newsletter.

### **Quote of Month: Technology is On the Rise**

It is amazing how many forage-livestock managers have a smartphone and use it. We are living now in a technological age of google searches, Facebook communications, amazon orders and smartphones. There is instant communication through phone, text and email as well as apps that provide real-time weather predictions and radar, varieties with value-added precision farming, step-in electric fences with solar panels supplying the power, drones, etc. The list is seemingly endless. The question is which ones to use and how can they make any operation more profitable and productive. Order your copy of Forage-Livestock Quote and Concepts, vol. 2, today at <https://forages.ca.uky.edu/content/forage-books>.

### **Fall Overgrazing Can Be Double Trouble**

Essentially, overgrazing is function of both time on the pasture and time away from the pasture. What is known for sure is that overgrazing is detrimental to pasture productivity and, ultimately, livestock performance. Here's why:

- 1) Removing too much of the photosynthetic factory (leaves) severely limits the plant's ability to recover and regrow. Overgrazed plants regrow slowly; if rotations do not allow enough time to reach a grazeable height, these stressed plants are doubly damaged by the next grazing cycle.
- 2) The plant's ability to grow new tillers is compromised when plants are routinely grazed too short. Some species keep their carbohydrate reserves in structures below ground, others keep them in the lower one-third of the canopy. Removing these storage structures limits the plant's capacity to generate new tillers and persist long term.
- 3) Weeds proliferate when overgrazing occurs. Slowed plant growth and more exposed soil usually result in higher populations of undesirable weed species.
- 4) Plant root growth is severely impacted. Research studies show that overgrazed pastures result in plants that have shallower root systems with less mass. The lower root volume limits the plant's ability to take up both water and nutrients, especially during periods of dry weather. Not leaving enough forage residual can cause drought-like conditions even where adequate amounts of rainfall are received.
- 5) Overgrazing exposes more of the soil surface allowing for a higher degree of runoff, less water infiltration, more soil erosion, and elevated levels of evaporation. Adequate forage cover intercepts raindrops, which slows impact at the soil interface and enhances water infiltration.
- 6) Animal performance suffers as forage intake declines when pastures are overgrazed. Milk production or gain can be impacted both short and long term if pastures are not given an adequate recovery period after being overgrazed.

~ Mike Rankin, excerpt from Hay and Forage Grower, August 2020.

### **Dr. Joseph Bouton to Represent Grasslanz Technology in the US.**

Grasslanz Technology is pleased to announce that Dr Joseph Bouton of Bouton Consulting Group, LLC has agreed to provide consultancy services to Grasslanz on research projects in the United States. These projects will further Grasslanz's interests to develop technologies and products that will exploit the benefits of emerging technologies such as microbials and condensed tannins in a range of forages and row crops. In his prior positions as Professor and Forage Breeder (now Emeritus Professor) at the University of Georgia and then Senior Vice President and Director of the Forage Improvement Division at The Samuel Roberts Noble Foundation (now Noble Research Institute), Joe led successful collaborations with Grasslanz and AgResearch to develop and commercialise new forage cultivars and the MaxQ fungal endophyte technology.



# Don't Make a Mistake-CALIBRATE!!!

- 1) Read your drill's operators manual to learn where the adjustments for leveling, seed depth, and seeding rate are located.
- 2) Ensure that seed tubes are not blocked by spraying them out with an air hose and running a wire through them. DO NOT SKIP THIS STEP!!!
- 3) Use the "Seeding Rate Chart" on the drill to determine the initial drill setting and set the drill accordingly.
- 4) Select the proper gear box setting or drive gear for the desired target seeding rate based on the manual.
- 5) Place a small amount of seed above each opening in the drill box.
- 6) Lower the drill to engage the seeding mechanism.
- 7) Turn the seeding mechanism until seed comes out. Make sure that seed is coming out of each disk opener.
- 8) Disconnect three to five seed tubes from the disk openers.
- 9) Place and secure a collection container on each seed tube. A sandwich bag secured with a rubber band works well.
- 10) Pull the drill 150 feet OR turn the drive wheel the number of revolutions it would take to travel 150 feet.
  - a. Revolutions can be determined by using the following formula: Number of Revolutions = 150 / (3.14 x Diameter of the Drive Wheel in feet).
- 11) Carefully remove collection containers.
- 12) Tare the scale for an empty collection container and then weigh and record in grams each collection container with the seed in it.
- 13) Add the seed weight for each collection container together and divide by the number of seed drop tubes collected to get the AVERAGE weight per disk opener.
- 14) Compare the AVERAGE weight per disk opener to the grams of seed/disk opener found in Table 1 for the desired seeding rate and row spacing.
  - a. If the collected weight is within 10% of the target weight found in Table 1, then you are finished.
  - b. If the collected weight is more than 10% different than the target weight found in Table 1, repeat steps 7 to 12 after adjusting seeding rate setting on drill.

**Items Needed to Calibrate Drill:**

1. Tape measure (150 feet)
2. Flags to mark stopping and starting points
3. Gram scale with 0.1 gram accuracy
4. Plastic sandwich bags
5. Rubber bands

Table 1. Grams of seed to catch per disk opener in 150 feet for given combinations of disk opener width (inches) and seeding rate (pounds/acre).

Distance between Disk Openers	Seeding Rate in pounds/acre																							
	2	4	6	8	10	12	14	16	18	20	25	30	35	40	50	60	80	90	100	120	140	160	180	
inches	grams of seed/disk opener to catch in 150 feet																							
6	1.6	3.1	4.7	6.3	7.8	9.4	10.9	12.5	14.1	15.6	19.5	23.5	27.4	31.3	39.1	46.9	62.5	70.4	78.2	93.8	109.4	125.1	140.7	
7	1.8	3.6	5.5	7.3	9.1	10.9	12.8	14.6	16.4	18.2	22.8	27.3	31.9	36.5	45.6	54.7	72.9	82.0	91.1	109.4	127.6	145.8	164.1	
7.5	2.0	3.9	5.9	7.8	9.8	11.7	13.7	15.6	17.6	19.5	24.4	29.3	34.2	39.1	48.9	58.6	78.2	87.9	97.7	117.3	136.8	156.3	175.9	
8	2.1	4.2	6.3	8.3	10.4	12.5	14.6	16.7	18.8	20.9	26.1	31.3	36.5	41.7	52.1	62.6	83.4	93.8	104.3	125.1	146.0	166.8	187.7	

A YouTube video on grain drill calibration can be viewed on the KYForages YouTube Channel at <https://www.youtube.com/c/KYForages>