

UK Forage News

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

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UK Ag weather updates

Sign up for UK Ag weather updates from our UK Ag Meteorologist Matt Dixon through the link below. You will receive regular updates and explanations related to severe weather that will impact agriculture. You can also sign up for the new UK Ag Weather Alert App. The new app in the Ag Weather Center was just released on Google Play, making it available for both iOS and Android devices! If a watch or warning is in effect, you'll get a push alert sent straight to your phone. Click the links for installation. Links to the UK Ag Weather Update and app downloads available at kyforagenews.com.

Electric Fence Troubleshooting School

If you are a serious grazer make plans to attend the all-day Electric Fencing School June 12 in Bulter county. Fencing experts from the region will teach technical details of installing top quality electric fencing system for all scenarios and how to troubleshoot issues. This advanced school is limited to the first 35 participants. Sign up at: <https://2024ElectricFencing.eventbrite.com> or go to the UK Forage Website for more details.

Producing Hay for Horse Markets Field Day

If you are interested in producing hay for horse markets, plan to attend this Field Day in Nicholas county June 27 (rain date July 2) from 5:30-8:00. The topics will include 1) Marketing hay to horse owners, 2) Seeding hay fields with a drone, and 3) Demo on harvesting top quality hay. At the field day James Judge will show how he utilizes even small irregular fields on ridgetops in northern KY to produce top quality alfalfa. He will also demonstrate some of the most advanced drone technology on the market today. Go "UK Forages" under Events to register. Location is Judge Farms, 4088 Moorefield Rd., Carlisle, KY.

Importance of Swath Width When Harvesting Forage

Alfalfa is about 75% water when mowed. It must be dried to 13- 14% moisture for baling or 60-65% moisture for making silage. This means approximately 5.7 tons water/acre must be removed for making hay or 4.8 tons water/acre for making silage if expected dry matter yields are 2 tons/acre. The additional consideration is the first 15% of water needs to be removed quickly (for either hay or silage making) to reach 60% moisture or less to minimize starch and sugar loss due to respiration. If this initial drying process is prolonged, then unnecessary

Forage Timely Tips: May

- ✓ Start hay harvests for quality forage. Consider making baleage to facilitate timely cutting.
- ✓ Seed warm season grasses for supplemental forage once soil temperature is at 60 F.
- ✓ Clip, graze, or make hay to prevent seedhead formation.
- ✓ Rotate pastures as based in height rather than time: TF 8 to 10 / 3 to 4; OG 8 to 10 / 4 - 5; Bermuda - 4 - 6 / 1 -2; Sorghum Sudangrass 20 to 24 / 8 to 12
- ✓ Consider temporary electric fencing to subdivide larger pastures and exclude areas for mechanical harvesting.
- ✓ Scout pastures for summer annual weeds and control when small.

amounts of readily digestible carbohydrates can be lost, lowering the overall nutritional value of the forage. The most important factor in drying forage is sunlight. If we make a wide swath, we are increasing the surface area of the forage that is exposed to sunlight, increasing the drying process. If hay is put immediately into a windrow, only a fraction of the sunlight is used to dry the forage and the remainder is covered by other forage or falls onto

Table 1. Composition after ensiling of alfalfa haylage made from narrow and wide swaths.
8 trials, UW Arlington & Marshfield, 2005-2007

Factor	Wide - Narrow Swath Difference
Hours to dry to 65% moisture	-10.8
Crude Protein, %	0.5
Neutral Detergent Fiber, %	-1.0
Non-fibrous carbohydrates, %	1.7
Ash, %	-0.2
Lactic Acid, %	0.8
Acetic Acid, %	-0.2
Relative Forage Quality	11.0

the soil. Excerpt of article from NAFA News March 27, 2024 (National Alfalfa and Forage Alliance) For the full article go to: <https://www.alfalfa.org/pdf/94.pdf>

Paying Attention Now Can Reduce Feeding Costs Later

Last fall UK Forage Specialists and county agents analyzed almost 454 hay samples as part of the Eastern Kentucky Hay Contest. Here is what we found:

- Crude protein (6.1 to 21.9%) and total digestible nutrients (45.7 to 66.3%) varied widely
- 2% of the hay samples contained less than 50% TDN
- 1% of the hay samples contained less than 8% crude protein
- 184 samples or 41% contained enough energy to meet the requirements of a beef cow at peak lactation
- 300 samples or 66% would meet the protein requirements of a beef cow at peak lactation
- 450 samples or 98% contained enough protein to meet the needs of a dry pregnant cow
- 450 samples or 98% contained enough energy to meet the requirements of a dry pregnant cow

Samples 2023 were better than 2022, but this was probably mostly due to better hay making weather. The biggest take home from the 2023 samples is that we still have a way to go in terms of improving hay quality! More than 60% of the samples still needed energy supplementation when feeding hay to lactating brood cows and first calf heifers.

So, what don't these results tell us? Since there is still wide variation in both crude protein and energy for the hay samples, average quality results CANNOT be used to make recommendations on what or how much to supplement. To make this type of recommendation, you will need to sample individual hay lots (one cutting from one field) that you will be feeding (see AGR-257 Hay Sampling Strategies for Getting a Good Sample). Once you have the results in hand, then a supplementation strategy can be designed by either working your local extension agent, nutritionist or veterinarian or by using the UK Beef Cow Forage Supplementation Tool (<http://forage-supplement-tool.ca.uky.edu/>). Steps for utilizing UK Beef Cow Forage Supplement Tool found at <http://forage-supplement-tool.ca.uky.edu/>.

Be aware of Sweet Vernal Grass in your tall fescue pastures

Sweet Vernal Grass is widely distributed across the tall fescue belt, but it is poorly understood by most farmers. It helps make up a green sod, but when present at a significant level it suggests that pastures are in low state of productivity and may be in need of renovation.

Sweet Vernal Grass, *Anthoxanthum odoratum*, came to the US from Europe as a forage crop. It is native to acidic pastures in southern Europe and northern Africa. It is a cool season perennial grass that puts up a seedhead very early, about three weeks or so earlier than tall fescue. Forage nutritive value is high, but it is very low yielding, so it is not desirable as a pasture crop in our environment.

Sweet vernal grass is on the increase because it is more tolerant of low soil fertility and pH than other common cool season grasses, and it does well in a mix with those grasses. Across the region hay fields that have been managed with low fertilizer and lime inputs show high levels of sweet vernal in the first cutting hay. This is the one time sweet vernal is often noticed, and

the hay yields in these fields are often disappointing, earning it a local name of "cheat".

Later in the year the plants "hide" among the tall fescue plants which it resembles, so that many farmers forget about it after that disappointing spring hay cutting. However, these pastures and hay fields also don't produce nearly as much forage as they could if the stand was mostly more productive species.

Sweet vernal grass can often be detected in hay by its unique sweet smell. This is often described as "vanilla-like", a smell that comes from a compound called cumerin. When cumarin is present in moldy hay it is converted to dicumarol which inhibits the action of Vitamin K in the blood clotting system, resulting in slow clotting times. This scenario is more commonly associated with "sweet clover poisoning", a malady that causes uncontrolled hemorrhaging and death when animals consume moldy sweet clover hay.

Dairy Science researchers at the University of Wisconsin working with sweet clover poisoning discovered dicumarol, and created the rat poison "warfarin" from this compound. This work also led to the first human "blood thinner", Coumadin. These are important products, but of course are not something you want in your hay! Sweet vernal grass is one of the only other plants that has the potential to cause this malady when it is present in moldy hay. Cases of slow clotting time in cattle have been investigated and traced to moldy hay containing sweet vernal grass.

Many of the low management hay fields and pastures that have sweet vernalgrass are also dominated by broom sedge (broom straw) in the fall. These fields that receive a low level of management could be much more productive if renovated to productive species, like a new novel endophyte tall fescue variety. Scout your pastures and make sure you understand the main species you are growing. If you find a lot of sweet vernal grass or other unproductive species, take steps to improve the productivity of your land. ~ excerpt from article by Dr. Matt Poore for the Alliance for Grassland Renewal. For the full article go April 2024 edition of Novel Notes at <http://www.grasslandrenewal.org>



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Forage News



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

June 12—**Electric Fence Troubleshooting School**, Butler County.

June 27—**Alfalfa Hay Field Day**, Nicholas County.

Sept. 25-26—**Intermediate Grazing School**, Versailles, KY.

Oct. 15—**Pasture Ecology Workshop**, Elizabethtown, KY.

Oct. 15-16—**Heart of America Grazing Conference**, Elizabethtown, KY.

Oct 17—**Regenerative Pasture Walk** with Greg Brann, Adolphus, KY.

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