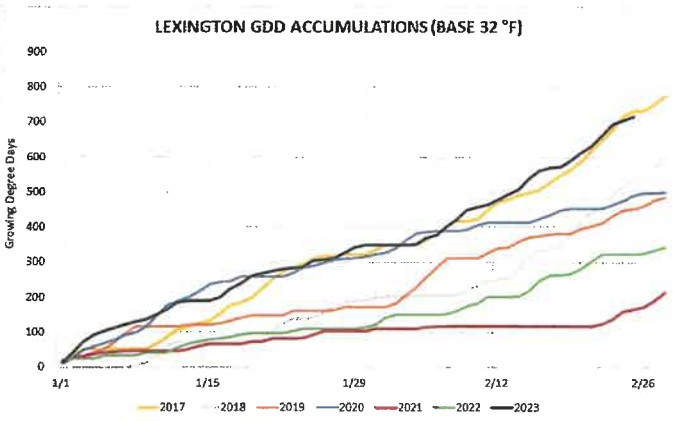
UK Forage News

Keeping Forage-Livestock Producers in Kentucky Informed
Dr. Ray Smith and Krista Lea, editors
March 2023

2023 appears to be following 2017 weather patterns

As of February 25th, Lexington has accumulated 716 GDDs, actually exceeding the pace in 2017 at this same time. Just to put in perspective, we didn't hit 716 until March 24th in 2022. Paducah lies in a similar spot, accumulating 742 as of February 25th.

As you may imagine, while we're seeing signs of spring early in the year, this isn't necessarily a good thing. Our warmth in 2017 was actually followed by below normal temperatures in March. In fact, we had lows dip well into the 20s and even the teens over multiple nights. While I'm not saying we'll get that cold, the outlook above definitely hints at some cold days and nights ahead!
~ Matt Dixon, from Ag. Weather Update, 2-27-23



Farmer Scholarships to attend the International Grassland Congress

We want to remind you that the International Grassland Congress will be held in Covington Kentucky, May 14-19, 2023. This is the first time this international conference will be hosted in the US since 1981. Funding is available to help cover your expenses to attend this conference. The registration cost is $600 for the entire time or $200 per day.

The National Cattleman's Beef Association offers scholarships to producers through the Rancher Resiliency Grant program. You can apply and should be approved to receive up to $1,622 to cover/reimburse your expenses related to attending the event. Here is the link with details to the grant information: https://www.ncba.org/producers/rancher-resilience-grant. During on KFGC scholarship available soon.

Here is the link to the International Grassland Congress https://www.internationalgrasslands.org/
Strongly consider attending this international conference!

Forage Timely Tips: March

- ✓ Continue pasture renovation by no-tilling seeding legumes.
- ✓ Place small seed at 1/4 to 1/2 inch deep and check depth several times during planting; slow down for more precise seeding.
- ✓ Continue feeding hay until adequate forage exists in the pasture for grazing.
- ✓ Spring seeding of grasses should be done in early to mid-March (but fall is preferred)
- ✓ Begin smoothing and re-seeding hay feeding and heavy traffic areas.
- ✓ Graze pastures overseeded with clover to reduce competition from existing grasses (Pull off before grazing new clover plants).
- ✓ Provide free choice high-magnesium mineral to prevent grass tetany on lush spring growth.

Registration open for several spring events

This spring, the University of Kentucky will host two regional fencing schools to help livestock producers learn about the newest and most sound techniques to build fences. The schools are April 11 in Scottsville and April 13 in Richmond. UK specialists and experts in the fencing industry will teach producers and agricultural and conservation professionals how to construct both fixed knot woven wire and smooth electrified high tensile fencing. Emphasis will be placed on proper construction of H-braces, which are key components of all fencing systems. Participants will learn through a combination of classroom sessions and hands-on exercises and demonstrations. Hands on exercises and demonstrations will include post driving, brace building, high tensile knot tying, installation of offset brackets, and the proper installation of fixed knot woven wire fencing. Due to the hands-on nature of the school, registration is limited to 30 participants. More information on registering for this program can be found under the UPCOMING EVENTS tab on the UK Forages Webpage.

The University of Kentucky will host the Kentucky Beginning Grazing School April 25 and 26 at the Kentucky Soybean Board Office in Princeton, KY to help ruminant producers maximize the use of their forages as the fall grazing season begins. Topics covered will include plant growth and grazing management, grazing math, pasture renovation, forage species for extended grazing, pasture layout and design, and many more.

Students will learn through hands on exercises the use of temporary electric fencing, estimating forage biomass, assembling and utilizing temporary watering systems. Due to the hands on nature of the school, registration is limited to 35 participants. More information on registering for this program can be found under the UPCOMING EVENTS tab on the UK Forages Webpage. For more information on these events or other, please visit www.forages.ca.uky.edu/events.

Evaluation of fungicide seed treatments on alfalfa in western Kentucky, 2020.

Plots were established at the University of Kentucky Research and Education Center (UKREC) in Princeton. The previous crop was soybeans. Field tillage, fertilizer, and weed control were managed according to standard practices. The alfalfa cultivar Algonquin was drilled on a 7-in. row spacing at a rate of 15 lb seed/A on 3 Apr using a modified plot-sized drill. Fungicide seed treatments were applied using a batch seed treater prior to planting. Alfalfa stands were measured in each plot on 4 Jun, at the second trifoliate growth stage, by arbitrarily selecting two 1 sq ft areas within each plot and counting the total number of alfalfa plants in each square. The center 5 ft of each plot was harvested with a small plot harvester on 18 Aug to determine yield and forage quality. Neutral detergent fiber (NDF), and acid detergent fiber (ADF) were determined using near infrared reflectance spectroscopy.

The trial location experienced below average temperatures in April and May which delayed emergence and impacted stand and plant growth. Alfalfa growth was slower than expected with only one harvest possible. The fungicide treatments significantly improved stands. Rizolex + Apron XL resulted in a greater plant population compared to other treatments and the non-treated control. Apron XL alone also resulted in greater population than the non-treated control. The fungicide treatments did not significantly affect dry matter yield or forage quality as measured by NDF and ADF.
~Chris Teutsch and Kiersten Wise

Buttercups in Grazed Pastures

Buttercups and other winter annual weeds have already emerged or renewed their active growth during the past few weeks. This has been particularly true with the early arrival of warmer temperatures that has occurred this winter. As a cool season weed, buttercup often flourishes in over grazed pasture fields with poor stands of desirable forages. In fact, many fields that have dense buttercup populations are fields heavily grazed by animals during the fall through the early spring months.

Buttercups mostly grow as winter annuals, although some species are classified as short-lived perennials. In Kentucky there are different species of buttercups that are known to impact pasture fields, such as hispid buttercup (Ranunculus hispidus), creeping buttercup (Ranunculus repens), tall buttercup (Ranunculus acris), bulbous buttercup (Ranunculus bulbosus), and small flower buttercup (Ranunculus arbortivus). These plants typically produce five, shiny yellow petals beginning in the early spring. Although different species may have somewhat similar flower heads, each of these buttercup species differs somewhat in their vegetative leaf characteristics. New seed begin to develop during the time petals are showy. Waiting until after flowers appear can be too late to implement control tactics. This is one reason buttercups survive year to year and new plants emerge each year.

Some buttercup plants may emerge in the fall but most plants emerge from seed during the late winter months when temperatures begin to warm. Therefore, pasture management practices that improve and promote growth of desirable plants during these months is one of the best methods to help compete against the emergence and growth of this plant. Whereas, livestock animals allowed to overgraze fields during the fall and winter months is one of the main factors that contribute to buttercup problems. Mowing fields or clipping plants close to the ground in the early spring before buttercup plants can produce flowers may help reduce the amount of new seed produced, but mowing alone will not totally eliminate seed production.

For chemical control, herbicides registered for use on grazed grass pastures that contain 2,4-D alone will effectively control buttercup. Depending on other weeds present herbicides that contain dicamba+2,4-D (eg. Weedmaster, Brash, Rifle-D, etc.), aminopyralid (eg. GrazonNext, Duracor), triclopyr (eg. Crossbow), or metsulfuron (eg. Cimarron) can also be used. However, legumes such as clovers interseeded with grass pastures will be severely injured or killed by these other herbicide products. For optimum results apply a herbicide in the early spring (March or early April) before flowers are observed, when buttercup plants are still small and actively growing in a vegetative growth stage. For best herbicide activity wait until daytime air temperatures is greater than 55 F for two to three consecutive days. Consult the herbicide label for further information on grazing restrictions, precautions, or other possible limitations.

For fields heavily infested with buttercup a variety of control tactics may be needed. Apply a herbicide to help reduce the population of buttercup plants in the spring plus use good pasture management techniques throughout the year to help improve and thicken the stand of desirable forages. ~ J. D. Green, Extension Weed Scientist

Upcoming Events (see Forage website for details and to register, click on EVENTS)
April 11-KY Fencing School, Allen Co.
April 13-KY Fencing School, Madison Co.
April 25-26-KY Grazing School, Princeton, KY
May 14-19—Int. Grassland Congress, Covington, KY
Sept. 21 - Nat. Hay A. Convention, Bowling Green, KY
Subscribe or access full articles at the UK Forage Website www.forages.ca.uky.edu.

UK Plant Disease Diagnostic Lab – Sample Submission in 2023

The UK Plant Disease Diagnostic Lab (PDDL) staff have had a busy year of samples in 2022 and look forward to providing diagnostic resources to Extension personnel and stakeholders in 2023. Anticipated procedures for sample submission are as follows:

All samples requiring physical examination for disease diagnosis should be submitted to the local County Extension Office where they can then be sent to the PDDL in Lexington as needed. Although walk-in clients are not turned away at the PDDL, diagnosis is often possible at the county office. The local Extension agent can make the determination on whether samples need to be referred to the PDDL and may decide to make a site visit or otherwise advise stakeholders on sample collection. Extension agents and office staff who have questions about the correct forms and mailing address/delivery location may contact PDDL personnel directly for additional assistance.

Facilities and personnel at the UK Research and Education Center (UKREC) in Princeton are not set up to accept samples for the foreseeable future. Walk-in and mailed samples to the UKREC will not be processed. Commercial samples are prioritized during the busy summer season. We appreciate extra patience regarding the diagnosis of residential samples and will process those as quickly as possible.

Plant samples often have insect or abiotic disorders (soil fertility issues, herbicide drift, etc.). Agents may wish to contact Extension specialists in Entomology, Horticulture, Plant and Soil Sciences, and Forestry as an appropriate first step when non-disease issues are suspected. These specialists can also help determine if a physical sample needs to be submitted to the PDDL.

For consultation on commercial samples with suspected disease, Extension agents should consider contacting the appropriate Extension Plant Pathology Specialist for help determining whether a physical sample should be submitted to the PDDL. Specialists' commodity responsibilities are listed below:

- Corn, sorghum, forages: Kiersten Wise
- Soybean, small grain crops (i.e. barley, rye, wheat), canola: Carl Bradley
- Tobacco: Currently no specialist with pathology responsibilities for tobacco
- Fruit, vegetables, hemp: Nicole Gauthier
- Ornamentals and turfgrass: Paul Vincelli

~ Julie Beale, and Sara Long, from KY Pest News

Pub of the Month: Bermudagrass—A summer Forage in Kentucky (AGR-48)

Climatically, Kentucky lies within a transition zone, where extreme temperatures and variations in rainfall occur. Cool season grasses, such as tall fescue, orchardgrass, Kentucky bluegrass, and timothy are well adapted to this zone. However, forage productivity and quality of these species typically reach seasonal lows in the midsummer months, when cool season grasses grow more slowly. Bermudagrass can be used successfully as part of a livestock forage program to supplement summer production of cool season grasses. It is high-yielding, sod-forming, warm season perennial grass that is most productive on well-drained, fertile soils. Bermudagrass is widely grown in the southern United States for pasture and hay. Download the full publication at www.forages.ca.uky.edu/pubs.

Prepare to plant spring annuals

Planting small cereal grains in the spring can jumpstart the grazing season or bolster hay and silage supplies. No matter what the end goal of these cool-season species may be, now is the time to start planning spring annual forage production. In a recent article from the University of Nebraska Extension, Jerry Volesky, a range and forage specialist, and Darren Redfearn, a forage and crop residue specialist, say small grains can yield between 2.5 and 4 tons per acre. The specialists note that oats are the most common spring annual species planted in their Nebraska (and in KY), but spring barley and spring triticale have been shown to have similar forage quality and yield (but these have limited use in KY and adapted varieties can be hard to find).

Seeding dates and rates

Plant spring annuals when soil temperatures are between 42°F and 45°F, which is typically in late March or early April (early to mid-March in KY). The specialists recommend seeding oats at 76 to 114 pounds per acre, spring barley at 96 to 120 pounds per acre, and spring triticale at roughly 116 pounds per acre. They also suggest buying seed that has been developed specifically for forage use. "For these varieties, some of the characteristics might include plant height, leaf width, days to maturity, and overall forage yield and quality," the specialists state.

Oats, spring barley, and spring triticale can also be planted together in a mixed stand. Other forage species that may benefit oats in a mixed stand are field peas and Italian ryegrass. Field peas can fix nitrogen in the soil and boost overall forage quality. For example, a field trial in North Platte, Neb., showed a mix of oats and field peas had approximately 14% crude protein, whereas oats that were grown alone had 8% crude protein.

Planting Italian ryegrass with oats may be especially advantageous for grazing purposes. The specialists say this species has good regrowth that could prolong spring grazing into the summer. They recommend seeding 60 to 80 pounds of spring oats with 15 to 20 pounds of Italian ryegrass. Before planting, consider previous herbicide use in the field. Some products may have a long-lasting residual that can negatively affect spring annual seedling establishment. Moreover, test soil to determine fertilization rates for forage. "With spring-planted small grain cereals, nitrogen is usually the limiting nutrient," the specialists state. Apply 50 to 70 pounds of nitrogen per acre can be applied at planting or within the first month.

Harvest timing

Start grazing spring annuals when plants are 6 to 8 inches tall, which typically occurs in the third or fourth week of May. Then aim to keep plants 6 to 12 inches tall with strategic grazing management. "This might require an initial lighter stocking rate — about one cow-calf pair for every two acres. Then adjust animal numbers upward as oat growth changes," the specialists explain. "In general, a good stand of cereal small grains could support up to two cow-calf pairs per acre for about a six-week period."

Hay, silage, or baleage harvest timing for hay depends on desired forage quality and yield. Small cereal grains that are cut in the late-boot stage may have 12% to 14% crude protein but yields will be lower. Harvesting these crops in the milk or soft dough stage will promise higher yields but crude protein levels could drop to 7% to 10%.

If forage is chopped for silage, ensure plants are between 40% to 60% moisture before ensiling. Small cereal grains that are harvested from boot stage to soft-dough stage will need at least 24 hours to reach this range. Forages should not be ensiled with more than 65% moisture due to potential seepage losses and growth of detrimental bacteria, which can result in an undesirable fermentation. ~ Amber Friedrichsen, for Hay and Forage Grower, published Feb. 2023

More Details on Spring Fencing Schools

This fall, the University of Kentucky will host two regional fencing schools to help livestock producers learn about the newest and most sound techniques to build fences. The schools are April 11th in Scottsville, KY and April 13th in Richmond, KY. Registration begins at 7:30 a.m. local time. Classes throughout the day include fencing construction basics, fencing types, costs and fencing laws among other subjects. UK forage extension specialist Chris Teutsch started these one-day events in Kentucky in 2018 to help farmers improve their grazing management.

"If you've ever driven through the country, you've probably seen a lot of fences, but not a lot of well-built ones," said Teutsch, a professor at the UK College of Agriculture, Food and Environment. "One of the goals of this school is to teach people basic fence construction. So, they can build a strong, long-lasting fence that will last 25 or 30 years, or if they decide to hire a contractor to build it for them, they will at least know what a well-built fence looks like."

UK specialists and experts in the fencing industry will teach producers how to install both fixed knot woven wire and smooth electrified high tensile fencing. Participants will learn though a combination of classroom sessions and hands-on demonstrations. If producers choose to participate in cost share programs, they can use the skills learned to construct fences that meet Natural Resources Conservation Service specifications.

Each school is limited to 30 participants and costs $35 per person. The registration fee includes morning refreshments, a catered lunch, a fencing note, and safety glasses, and hearing protection. Those wishing to sign up for the Scottsville school can do so at https://2023_Scottsville_KY_Fencing_School.eventbrite.com. Those interested in attending the Richmond school can do so at https://2023_Richmond_KY_Fencing_School.eventbrite.com. UK extension urges producers to sign up early because spots will go fast. The deadline to sign up is two weeks before the workshop.

This program is a combined effort of industry partners Gallagher USA, Stay-Tuff Fencing, and ACI Distributers, and the Kentucky Forage and Grassland Council, the UK Cooperative Extension Service, and the Master Grazer Program.

More details on Spring Grazing Schools

The University of Kentucky will host the Kentucky Grazing School April 25th and 26th at the KY Soybean Board Office in Princeton, KY to help ruminant producers maximize the use of their forages as the fall grazing season begins. The school includes a mixture of classroom presentations, on-site demonstrations and hands-on activities. University of Kentucky College of Agriculture, Food and Environment specialists in livestock, forages, engineering and economics will join county extension agents, and representatives from the Natural Resources Conservation Service and industry to lead the schools. Each day begins at 7:30 a.m. CDT and ends at 5 p.m.

During the first day, participants will break into small groups with an assigned set of calves. Students will then calculate the amount of forage their calves need for a 24-hour period. At the research farm, students will estimate the available forage in the pasture, and set up a paddock using temporary fencing and water that provides enough forage for the 24-hour period. Cattle will then graze the paddocks. Attendees will observe and report on their paddocks to the entire class near the end of day two. Also in groups, participants will design a grazing system for a local producer's farm and share their designs with everyone.

Grazing school participants assemble a temporary watering system as part of the grazing exercise at the Kentucky Beginning Grazing School that was held in Versailles.

Participation is limited to 35 people and is filled on a first come, first served basis. The cost to attend is $60 per person and includes all educational materials, grazing manuals, breaks and lunch both days. April 10th is the registration deadline. Individuals can register online at www.2021fallgrazingschool.eventbrite.com or mail registration and a check payable to the Kentucky Forage and Grassland Council to Jimmy Henning, 222 Ag Science North, 1100 S. Limestone, Lexington KY 40546-0091.

Program sponsors include the Kentucky Forage and Grassland Council, UK Grain and Forage Center of Excellence, Kentucky Agricultural Development Fund, Kentucky Master Grazer Educational Program and Kentucky Beef Network.