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UK Forage News

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

April 2023

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 for one day. The National Cattleman's Beef Association is offering 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>. Here is the link to the International Grassland Congress <https://www.internationalgrasslands.org/> We encourage you to consider attending this international conference! In addition, there are still spots available on the 8 day Central Grasslands Pre-Congress tour through Texas and Oklahoma.



KY Beginning Grazing School April 25-26-Princeton

The 2023 KY Beginning Grazing School helps livestock producers improve profitability with hands-on and classroom learning and will be held at the UK Research Station and the KY Soybean Board office.

"While this school targets beginning grazers, the topics and discussion benefits producers along all segments of their grazing journey," said Chris Teutsch, UK forage specialist and grazing school organizer. "We've updated this year's school to put greater emphasis on soils, the foundation of sustainable grazing systems."

The school will begin each morning with refreshments at 7:30 a.m. CDT. Topics for April 25 include an introduction to soils, rotational grazing, meeting nutritional needs on pasture, grazing math concepts, travel to a local grazing operation, portable/seasonal water systems, methods to access pasture production and determine stocking rate and hands-on small paddock set-up demonstrations. After lunch at the farm, more topics include electric fencing to control grazing, offsets, soil and hay sampling, forage plant growth and grazing management and choosing forage species for a comprehensive grazing system.

Forage Timely Tips: April

- ✓ Make sure hay equipment is ready for high quality May harvests.
- ✓ Graze cover crops using temporary fencing.
- ✓ As pasture growth begins, rotate through pastures quickly to keep up with the fast growth of spring.
- ✓ Creep-graze calves and lambs, allowing them access to highest-quality pasture.
- ✓ Finish re-seeding winter feeding sites where soil disturbance and sod damage occurred.
- ✓ As pasture growth exceeds the needs of the livestock, remove some fields from the rotation and allow growth to accumulate for hay or haylage.
- ✓ Determine need for supplemental warm season forages such as pearl millet or sudangrass.
- ✓ Flash graze pastures newly seeded with clovers to manage competition.

April 26 topics include fence types and costs, electric fencing for serious grazers, a grazing system design case study and exercise and a discussion on how to reinvigorate a rundown farm. Students will also learn to calibrate a grain drill and try a GPS unit designed for frost seeding pastures. A local producer will discuss how they made grazing work on their farm. The day culminates with a trip back to the research farm to observe and discuss the previous day's hands-on grazing exercise. The school will adjourn at 5 p.m. CDT.

To register, visit <https://www.eventbrite.com/e/2023-kentucky-beginning-grazing-school-tickets-539633116177>. Cost is only \$60. Registration limited and



will end April 10. To register by mail, send a check to Christi Forsythe, UK Research and Education Center, 348 University Drive, Princeton, KY 42445.

Sponsors include the UK College of Agriculture, Food and Environment, the KY Forage and Grassland Council, KY Beef Network and the KY Agric. Development Fund.

Registration Still Open Fencing School

Spaces are still available for the 2023 Fencing School April 11th in Allen County. This day long workshop include classroom instruction on fencing types and costs, electric fence basics and fencing law in Kentucky as well as hands-on fence building with post driving, H-brace construction, knot tying and high tensile fence installation. Lunch is included, but spaces are limited so register soon. For more information on this event please visit www.forages.ca.uky.edu/events.

2022-2023 Hay Crop—Summary of Cost and Returns

As we transition to spring in the coming months, we will naturally shift gears and begin thinking about and preparing for 2023 hay production. It is difficult to overstate how important it is for us to have improved forage and hay production in the Southeast. We hope it will be different than last year. In 2022, most Southern states experienced some degree of drought. Input prices for agricultural chemicals, fuel, supplemental feed, and labor were all at their highest in recent memory. As a result, hay production declined by 16%, 13%, and 20% in Arkansas, Mississippi, and Kentucky, respectively.

Part of planning for this year's hay crop is re-examining costs and breakeven prices. This article uses results from the 2022 Arkansas Hay Verification Program to examine hay production costs in Arkansas. The Arkansas Hay Verification Program (AHVP) is a collaborative effort between Arkansas forage producers, county Extension agents, and state Extension Specialists. Eight hay fields from seven farms participated in the 2022 AHVP and were all located in the Ozark district. The total acreage participating in 2022 AHVP was 252.5 acres or 36.1 acres per field. Hay production from the 2022 AHVP totaled 826.2 tons or 3.27 tons per acre. The estimated value of production from the 2022 AHVP totaled \$127,239.42.

Operating costs averaged \$375.14/acre with a range of \$192.96/acre - \$577.50/acre. Among all items, fertilizer represented the largest proportion of operating costs. Farms in the 2022 AHVP averaged \$244.43/acre on fertilizer (including poultry litter), with a range of \$92.00/acre - \$428.15/acre. Higher fertilizer expenses were positively correlated with higher per-acre hay yields. A negative correlation was observed between fertilizer expenses and breakeven hay prices. Realized yield gains offset the higher costs from applying fertilizer.

Breakeven prices are calculated by dividing total specified costs by production per acre (tons/acre). Note breakeven refers to the hay price where revenue equals costs. The average breakeven price of hay among farms in the 2022 AHVP was \$111.88/ton. Breakeven prices ranged from \$82.72/ton to \$160.99/ton. It is recommended that farms get accurate estimates for bale weights and price hay on a per-ton basis. Bales are not a standard unit of measurement and do not accurately reflect the value of production when

priced on that basis.

Note: These estimates reflect summary data from eight farms in Arkansas that will not necessarily reflect any one farm's situation. James Mitchell (University of Arkansas) and Brian Mills (MS State)

Summer stockpiled forage provided the answer

The problem at Virginia Tech's McCormick Farm in the Shenandoah Valley was not dissimilar to what many cow-calf operators face — too much feeding of hay and not enough days on pasture.

It seemed reasonable to fall stockpile some of the farm's toxic tall fescue pastures, but as a result of frequent late summer and fall droughts, there was simply no place to put cows whenever fall stockpiling was attempted.

Former Farm Superintendent David Fiske recognized that there was an overabundance of pasture growth in the spring. This was often made into hay and fed back to the cattle during five months of the year.

In 2008, rather than make all of the excess spring growth into hay, Fiske began stockpiling some of the spring and early summer growth not needed for grazing. This was then used later in the summer while the fall stockpiled forage was allowed to grow.

"Summer stockpiling is a system for enabling fall stockpiling," explained Matt Booher, an extension agent with Virginia Cooperative Extension in the Shenandoah Valley. He recently explained the McCormick Farm's summer stockpiling system during a University of Missouri Forage & Livestock Town Hall webinar.

"One acre of good, stockpiled grass can usually provide a cow with one to two months of winter grazing," Booher said. "This assumes good field productivity, favorable weather, and some form of managed grazing."

In states like Virginia and Missouri, Booher noted that a practical goal is to limit hay feeding to about 90 days per year, and fall stockpiling pasture for winter grazing is the best tool available to extend the grazing season and reduce feed costs.

Over the years, the Shenandoah Valley research farm has been able to extend its grazing season by about 60 days when using a summer and fall stockpiling system. Currently, cows graze into late January or February, and this has resulted in an estimated feed cost savings of \$1.20 to \$1.40 per head per day, depending on the year.

Booher explained that Fiske settled on a system where 25% of the pasture acreage is stockpiled during the summer beginning with spring green up. The remaining pasture acreage is then rotationally grazed. (cont. page 3)

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—International Grassland Congress, Covington, KY

May 25—Western KY KFGC Field Day, Princeton, KY

Sept. 21 - National Hay Association Convention, Bowling Green, KY

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see blue.

About mid-July, an additional one-third of the summer rotationally grazed acres are set aside to rest. The remaining rotationally grazed acres, comprising 50% of the total acres, are used until mid-August, then they are fertilized and allowed to grow for fall stockpiling.

In mid-August, the cattle are moved to the acres that have yet to be grazed or hayed during the summer — the summer stockpile. These paddocks are strip-grazed to avoid selective consumption.

Booher said no back fence is used on the summer stockpile so that cows can return to a water source. A new strip is offered about every two to three days. At the McCormick Farm, about two months of grazing is realized from the summer stockpile.

Grazing Season	Spring Turnout	Started Grazing Summer Stockpile	Fed Fall Hay	Started Grazing Fall Stockpile	Started Feeding Winter Hay	Grazing Days	Hay Days	Comment
2007	3/26/2007	None	8/19/2007	11/10/2007	2/22/2008	220	145	Extremely dry fall
2008	4/24/2008	8/20/2008		11/27/2008	2/1/2009	275	90	
2009	4/26/2009	8/18/2009		11/26/2009	12/19/2009	243	122	3' of snow on 12/19/09
2010	4/20/2010	8/20/2010		11/17/2010	1/24/2011	268	97	
2011	4/21/2011	8/22/2011		11/15/2011	2/27/2012	316	49	
2012	4/16/2012	8/16/2012		11/13/2012	2/7/2013	288	77	
2013	4/25/2013	8/20/2013		11/18/2013	2/18/2014	289	76	
2014	5/5/2014	8/14/2014		10/30/2014	1/10/2015	264	101	Dry fall
2015	4/21/2015	8/19/2015		10/26/2015	1/19/2016	264	101	
2016	4/29/2016	8/18/2016		11/10/2016	1/12/2017	261	104	Dry spring & dry Aug & Sep, good rain in early summer
2017	4/26/2017	8/21/2017		11/30/2017	1/27/2018	267	98	Very dry August - December, cold
2018	5/5/2018	8/24/2018		11/25/2018	3/8/2019	307	59	
2019	5/6/2019	8/10/2019		11/24/2019	1/23/2020	262	107	
2020	5/9/2020	9/11/2020		12/4/2020	2/15/2021	282	78	
2021	5/4/2021	8/31/2021		11/27/2021	1/21/2022	262		
2022								
Average						272	93	

Began using summer stockpiling

Once the summer stockpiled forage is consumed, which is about mid-October, then the cattle are moved to the 25% of the pasture base that's been resting since mid-July. This acreage provides enough additional forage to support cattle until late November.

Finally, the fall stockpiled forage — 50% of the total pasture acres that has been idle since mid-August — is strip-grazed to maximize utilization. The fall stockpiled forage is grazed into February.

The forage quality of the summer stockpiled forage is better than what might be expected.

In conducting forage tests of the summer stockpiled forage, Booher said it was about 12% crude protein and 60% total digestible nutrients (TDN). Not surprisingly, the total ergot alkaloid concentration was high but no worse than the rotationally grazed summer pastures.

"We've found that the summer stockpile is a simple way to extend the grazing season," Booher concluded. "There is significant cost savings without much additional labor or infrastructure. It also allowed the farm to carry one cow-calf pair on just a little over 2 pasture acres and 0.6 hay acres."

The historical results of the summer stockpile system at the McCormick Farm are outlined in the table below. Booher's full presentation is available on the University of Missouri's Forage & Livestock YouTube channel. Grazing and hay-feeding days at the McCormick Farm

Alfalfa Weevil and Insecticide Effectiveness

A few years ago, a bioassay of alfalfa weevil larvae collected in a central Kentucky alfalfa field showed low levels of control by a pyrethroid compared to other insecticide modes of action. In this particular instance, pyrethroids were used exclusively for alfalfa weevil control for well over a dozen years. For alfalfa weevil, there are only 4 different modes of action registered. When pyrethroids lose their effectiveness, only three modes of action are left to select from for this pest. So, growers must be careful to not overuse one mode of action such that the pest population in an area becomes tolerant to that insecticide, or even resistant. Once a population becomes resistant to an insecticide or a group of insecticides, the population may stay resistant for a long period of time, even if the insecticide is not used. Read the full article in KY Pest News

Pub of the Month: Baleage Frequently Asked Questions (AGR-235)

Baled silage, or "baleage," is an excellent method for forage harvest, storage, and feed efficiency. This publication focuses on common questions about baleage. Together with AGR-173:Baling Forage Crops for Silage, this information will help producers better understand the production and use of baleage as livestock feed. Download from the KY Forages website under the Hay and Silage tab.