

Master Grazer- Graze 300 Educational Program 2017 Second 4 Month Report (May 1st – August 31st, 2017)

UK Grazing News Newsletter

- A summer issue of the *UK Grazing News* newsletter, focusing on summer-time, cattle-grazing management, was published during this reporting period. This issue is the fourth issue published this year, an additional issue over our benchmark.
- This 6-page issue contained timely articles related to “Tips for Summer Grazing”, “Dung Beetles: Underground Allies”, and “Annual Lespedeza for Grazing”. In addition, the new Master Grazer Coordinator, Zach Workman, was introduced to the readers as well as an article advertising the upcoming KY Fall Grazing School.
- The newsletter was sent electronically to all 120 UK Agriculture and Natural Resource agents who utilize the articles and information in their local programming, newsletters, newspaper articles, and on local extension websites.
- In addition, the newsletter was sent electronically to 390 participants of past programs or those who signed up for this publication. Additionally, 198 households received a printed copy because of limited or unavailable email access.

TIPS FOR SUMMER GRAZING

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Cool-Season Grass Pastures (i.e. fescue, or- chardgrass, ryegrass)

- Depending on the species, 60 to 70% of the growth of cool-season grasses occurs early in the grazing season when temperatures are below 75°F with another increase in productivity seen in the fall when, in the spring when the growth of grasses is rapid, cattle should be rotated rapidly between paddocks in an attempt to keep forages vegetative. Spring rotations between paddocks or fields may be 14 days or less. When environmental temperatures increase and soil moisture becomes limiting, growth of these grasses slows. Thus, rest time for plants between grazing periods needs to be increased. Depending on rainfall and environmental temperatures, rest periods in the summer can be 30 to 45 days or longer.
- On average, grass pastures should be grazed no shorter than 3 to 4 inches. At this height, more tillers remain at the base of the plant as well as some residual leaf area allowing the plant to grow back quickly. This practice is especially important during drought situations to allow rapid regrowth after rainfall.
- During the summer, additional acreage and/or forage species which grow in warmer temperatures are needed to supply adequate forage. If forage quality or quantity is inadequate, stored forage should be fed. Don't sacrifice your pasture plants for a few more days of grazing. Not only is overgrazing hard on pastures, but we all recognize that content and full-bellied cattle are more likely to stay inside fences!!!

Preparing Fields for Stockpiling Fescue

- In early August, graze fescue pastures to remove forage growth, leaving 3 to 4 inches of residual. Remove cattle from fields to be stockpiled allowing forage to rest and recover.
- Mow weeds and mature forage, if needed, to promote vegetative regrowth. These fields will not be regrazed until November to January depending on fall forage availability.
- If economical, apply nitrogen fertilizer (40 to 80 lbs of actual nitrogen per acre) in mid-August. Generally, the addition of nitrogen in August increases forage yield when adequate soil moisture is available. UK Ag Economists annually calculate whether the addition of nitrogen will be economical for stockpiling based on nitrogen and hay prices and reading this information will aid in decision making.
- In November / December, begin strip grazing the stockpiled fescue. Strip grazing improves utilization. Backfencing is not required. At least



every 3 days, move the temporary fence to provide an additional amount of stockpiled fescue.

- Manage under the principle of “Use it or Lose it”. Quality of the stockpiled fescue is generally higher than hay. The quality of the stockpiled fescue does decline over the winter with the highest quality in the green material and quality declining as it turns “brown”.
- In February, this pasture would be an excellent candidate for frost-seeding with clover since forage residue has been removed.

Grazing Green Corn

- “Green Corn” refers to corn grazed in the vegetative or leafy stage of maturity. The corn plant may or may not have ears.
- To reduce field waste, corn should be strip grazed where temporary fencing provides an area to be grazed. Pushing down a few rows of standing corn by driving over it with an ATV allows the construction of a temporary fence, makes the fence visible to cattle, and prevents corn from blowing down on the fence. No back fencing is required since the plant will not regrow.
- Ideally, cattle should be given no more than the amount they can consume within 2 to 3 days. This management practice allows for more uniform cattle grazing patterns and improved forage utilization. When and if mature ears are present, a short grazing period also forces the cattle to consume adequate fodder (leaves and stalks) to prevent acidosis from high amounts of grain consumption.
- During rainy conditions, cattle should be removed and placed on other grass-based pastures or grassy lots to prevent extremely muddy conditions in the corn fields.
- During drought conditions, nitrates can accumulate in the corn plants. Samples of corn plants should be taken and tested before cattle graze these fields to avoid nitrate toxicity.

First page of the article on “Tips for Summer Grazing” in the Summer issue of *UK Grazing News*.

Master Grazer Website and Promotion of Upcoming Educational Programs



MASTER GRAZER
AN EDUCATIONAL PROGRAM TO IMPROVE GRAZING PRACTICES IN BEEF, DAIRY, GOAT AND SHEEP HERDS

Home | Grazing Articles | Grazing Articles (by date) | Extension | Reports/Accomplishments/Links | Videos

The Kentucky Grazing School
Grazing schools introduce new grazing concepts and provide hands-on grazing skills.

Events

- Kentucky Grazing School
Sep 27 2017 (All day) to Sep 28 2017 (All day)
- Kentucky Grazing Conference (Lexington)
May 18 2018

UKAg Videos

- Ultra-high Density Grazing
- Feeding soybean hulls to cover fescue toxicity
- Grazing Ryegrass: Kentucky Grazing School
- Soilless Pastures for Horses

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- The current Master Grazer website (www2.ca.uky.edu/grazer) has been updated with the articles from the summer issue of *KY Grazing News*.
- Besides advertising the upcoming fall Kentucky Grazing School on the Master Grazer website, this school has been advertised in *Cow Country News* and *UK's Off the Hoof*.
- Currently, we are updating the organization and improving the usability of the Master Grazer website. With the migration to another website platform for adding content and improvements in organizational structure, we hope the site will be more mobile friendly and easier for us to add monthly grazing tips and timely content.

Fall Grazing School – Demonstrations planted/managed for upcoming school participants

- The fall 2017 KY Grazing School will be held in Woodford Co on September 27th and 28th. Attendance at this time looks to be at capacity. We have spent the last 3 months planting and managing a number of demonstrations for the participants to view various practices and use of a variety of forages for grazing. These field demonstrations are outlined below.
- Demonstrating grazing alfalfa/orchardgrass pastures: During the school, participants will be divided into 8 different groups and each group will build a small paddock using temporary fencing and water for 3 beef heifers grazing for 18 hours. Alfalfa /orchardgrass pastures are not traditionally grazed as farmers believe that alfalfa is harder to manage from both the cattle and forage perspective. To prepare this field at the proper stage of maturity for grazing during the school, hay was removed from the field the end of May. After haying, the 7-acre field was divided into 6 paddocks. Approximately 35-40 heifers were rotationally grazed for three grazing cycles during the end of June, July, and late August. This schedule allowed the forages a rest period of 3 to 4 weeks and will provide optimal forage regrowth before the participants' cattle graze this area.
- Demonstrating control of Foxtail: Prior to establishing the alfalfa/orchardgrass in the majority of this 10-acre field, yellow foxtail had severely limited forage intake during previous grazing schools. To demonstrate methods to potentially control foxtail, small plot areas were clipped (mowing at heights of 3 or 6 inches) every 3 weeks starting mid-summer and had either 0 or 60 lbs nitrogen/acre applied once in May. Participants will view and learn about methods to assist in controlling yellow foxtail on their farms.
- Illustrating grass regrowth: Small plot areas were mowed every 3 weeks at either a height of 3 versus 6 inches to illustrate quicker regrowth during summer and early fall by managing residual height.
- Demonstration of warm season annual forages for grazing: On the second week of July, a warm season annual demonstration plot was planted using a no-till drill and included Red Rver Crabgrass, Tifleaf III Pearl Millet, AF7401 Dwarf Sorghum, ProMax Sudangrass, BMR Surpass Sorghum, and Non BMR Highgain Sorghum. Half of each strip of forage was harvested to a height of 8 inches and allowed to regrow. The remainder was allowed to mature.
- Demonstration plot with cool season annual forages: During the middle of August, a cool season annual plot was planted with a no-till drill. Forages planted include Persik Oats, Elbon Rye, Byron Triticale, Wheat, Appin Forage Turnip, Marshall Annual Ryegrass, and 2 mixtures of these forages.



Warm Season plot area prior to planting.



Warm Season Grasses 3 weeks after planting.

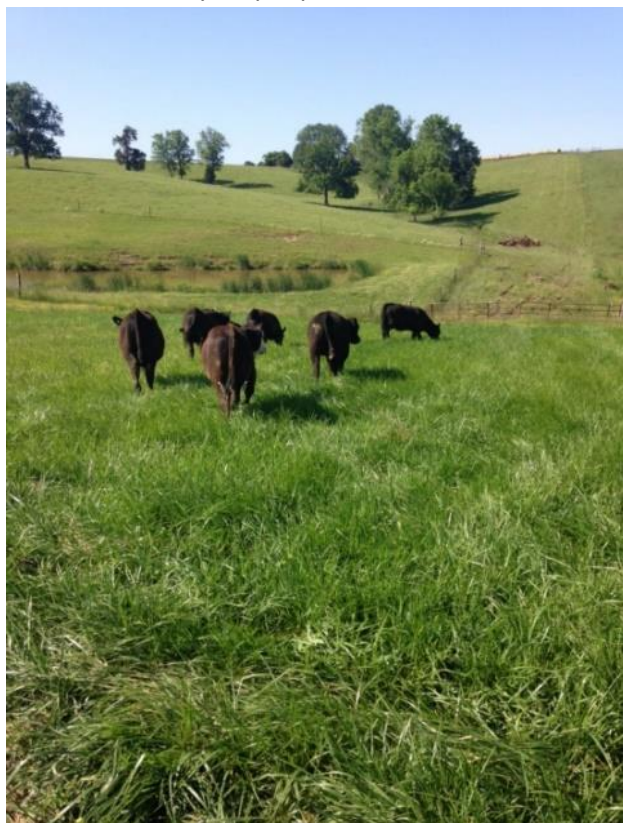
- Demonstration for Stockpiling fescue:
Standing forage was removed from a small plot area. To half of the area, 50 lbs/acre nitrogen was applied the end of August. To the adjacent area, the only fertility treatment was the manure and urine left by grazing cattle. Participants will be able to see the difference in forage growth within these two areas.



Stockpile demonstration showing area that received N fertilizer on the right and area unfertilized on the left. Note the dark green urine/dung patches in the upper left portion of the field. *Photo by Jeff Lehmkuhler.*

Madison County Novel Endophyte Field Day

- An evening program was held on August 15th on John Thomas' beef operation to discuss the establishment and grazing management of novel endophyte fescues. The event was organized by Madison County ANR Agent Brandon Sears and was attended by 90 people.
- This demonstration consisted of a 10-acre field seeded to a novel endophyte fescue, Texamo Max Q II, which replaced the original endophyte-infected fescue. Seeding occurred in September 2016. Hay was harvested April 28th and then the field was rotationally grazed from May 29th until August 15th.
- The field was the backdrop for the educational program with participants riding wagons to the field. Participants learned from industry representatives how novel endophytes are introduced into tall fescue and benefits of these novel endophytes. UK forage specialists shared information on establishment of novel endophyte tall fescue. They also discussed management tips to ensure stand longevity. Lastly, benefits related to animal performance were covered. Research indicates that novel endophyte fescues provide a half a pound average daily gain improvement over KY 31 fescue. NRCS staff also demonstrated how pasture management and the use of cover crops can improve water infiltration.
- The producer, John Thomas, was pleased with the stand and is anxious to see how the variety will hold up in the long run. This demonstration will provide valuable information to producers considering purchasing novel endophyte fescues through the CAIP program.



Cattle grazing Novel Endophyte on John Thomas' farm. Field was renovated from KY31 endophyte infected fescue.

Western Kentucky Pasture Walk Field Day

- Preliminary planning was conducted for a pasture walk educational program in Western KY. Initially, this program was going to be held in September but at this time we felt it was best to delay this program until early spring 2018 before crops are normally planted.

Clover Demonstrations Highlight Need for Targeted Education

- *Why Demonstrations Are Important:* On-farm demonstrations are an integral part of the University of Kentucky educational programs. Demonstrations provide a means of helping producers to adopt new management concepts. Often the fear to try something new is based on misconception and/or a lack of knowledge. Demonstrations provide technical and, in many cases, emotional support to ease the fear of trying a new management strategy. In addition, demonstrations can also be a route of shared discovery in which both the producer and the support team learn why certain management strategies have not been effective for a given operation in the past. The information learned from these demonstrations can then be disseminated through field days, farmer-to-farmer chats, and through presentations given by the support team to other producer groups.
- *Update on Clover Demonstrations:* The Eastern Kentucky clover demonstration efforts were detailed in the first 2017 Master Grazer report. The following is a progress update on the demonstration sites. All sites were visited in July to assess the success of establishment of red clover. Two of the three farm sites had acceptable clover establishment. However, stands sown with certified seed had better stands of red clover than did the regions sown with non-certified seed. If a farmer only used non-certified seed, they would not have noted the difference and perhaps would have been satisfied. This is an example of how on-farm demonstrations for pasture management can help support recommended practices while also supporting CAIP recommendations.
- *Demonstrations Illustrated Importance of Potash:* Additionally, each of the farm sites had soil samples collected and sent to the UK soils lab for analysis. CAIP programs provide incentive funds to improve pasture and hay areas through cost share on seed and lime. UK AGR-1 (factsheet on Lime and Nutrient Recommendations) provides useful information on soil fertility recommendations to ensure successful establishment and production for crops and forages. In AGR-1, it is stated that soil tests that are less than 100 ppm of K are very low, essentially off the chart. In this demonstration, three of the five sites had soil K levels less than 100 ppm (actual K concentrations of 62, 73 and 64 ppm). Two areas had soil K levels in the



Wolf County ANR Agent Heather Graham and Dr. Jeff Lehmkuhler utilize a grid to determine the density of Red Clover.

200 range. All five sites would have needed some potash to increase the success of clover establishment with application rates ranging from 60 lbs/acre up to as high as 180 lbs/acre. Again, this is a teachable moment with producers that demonstrates the importance of correcting soil fertility to maximize the benefit of CAIP funds received.

- *Location Experiencing Establishment Failure Provides Valuable Educational Program:* The farm site that did not have a successful stand of red clover was evaluated further. Clover had germinated, yet plants were not thrifty and did not survive. A UK Forage specialist conducted a follow-up visit. A clover plant was submitted to the UK Plant Diagnostic Lab for evaluation while the soil structure was also evaluated. It was deemed that the site, even though an upland ridge, was poorly drained. This was confirmed by the diagnostic results indicating the clover plant had southern anthracnose which can be an issue in warm, wet conditions. Use of clover varieties resistant to this disease as well as correcting soil fertility are recommendations to improve the successful establishment of red clover at this location. It is important to note that the farmer indicated that he had attempted to establish clover on this location a couple times in the past with no success. This demonstration illustrates how important educational programs are to garner the most return from KADF funds.



Red clover plant showing disease symptoms on Jackson Co. farm. Photo by Jeff Lehmkuhler.