

# Master Grazer Report: September – December 2019

## Master Grazer Website

The Master Grazer website continues to be the program’s source for science-based, timely articles specifically related to grazing programs for all ruminant species. Updates to this site allow the user to locate information on how to incorporate improvements in their grazing practices.

## Materials added to the Master Grazer Website:

Two new tabs were added to the main menu navigation bar –

- Grazing Basics
- KY Forages YouTube Channel

The screenshot shows the Master Grazer website homepage. At the top, the title "MASTER GRAZER" is displayed in white on a dark blue background, with the subtitle "an educational program to improve grazing practices in beef, dairy, goat and sheep herds" below it. A navigation bar contains links for "Home", "Grazing Basics", "Grazing Articles", "Seasonal Reminders", "Reports/Partners", and "KY Forages YouTube Channel". The "Grazing Basics" and "KY Forages YouTube Channel" links are highlighted in yellow. Below the navigation bar, a paragraph describes the program: "Master Grazer is an outreach program providing producer workshops with the most up-to-date research on environmentally sustainable and economically feasible grazing management. Our fencing and grazing schools offer hands-on learning experiences through field days, pasture walks, workshops, conferences, and farm visits." The main content area features a featured article titled "Grain Drill Calibration" with a sub-headline "Simplified procedure to calibrate your grain drill." and a "Read More »" link. Below this is a video player titled "KY Fencing School 2019" showing a video titled "Overview of Kentucky Fence Law-Clint Quarles". To the right of the main content, there are three promotional boxes: "Subscribe to Forage News", "Visit the University of Kentucky Forage Extension", and "Upcoming Events". Below these is a "News" section with a list of links: "KY Fencing School Presentations", "2019 Forages at KCA Proceedings", and "2019 Novel Tall Fescue Renovation Workshop Presentations", along with a "Browse News Archives >>" link. At the bottom right, it says "KY Forages YouTube Channel".

## 'Grazing Basics' webpage

This page features many of the materials we offer in our grazing school notebooks. It gives a producer a good introduction to Rotational Grazing.

### Grazing Basics

#### Rotational Grazing

- [ID-143 Rotational Grazing](#)
- [Extending Grazing & Reducing Stored Feed Needs](#)

#### Grazing Math & Economics

- [Profitability of Nitrogen Applications for Stockpiling Tall Fescue Pastures](#)

#### Stocking Rates

- [AGR-191 Using a Grazing Stick for Pasture Management](#)
- [A Falling Plate Meter for Estimating Pasture Forage Mass](#)
- [Estimating Pasture Forage Mass from Pasture Height](#)
- [AGR-16 Taking a Soil Test](#)

#### Nutritional Needs & General Management

- [ID-186 Managing Legume-Induced Bloat in Cattle](#)
- [ID-217 Forage Related Cattle Disorders: Nitrate Poisoning](#)
- [ID-220 Cyanide Poisoning in Ruminants](#)
- [ID-226 Forage Related Disorders: Hypomagnesemic Tetany or 'Grass Tetany'](#)
- [ID-221 Fescue Toxicosis](#)
- [PPA-30 Sampling for the Tall Fescue Endophyte in Pasture or Hay Stands](#)

#### Watering Systems

- [USDA-NRCS Watering Systems for Serious Graziers](#)
- [AEN-105 Pasture Feeding, Streamside Grazing, and the KY Agricultural Water Quality Plan](#)

#### Forage Species

- [KY Forage Variety Trials](#)
- [AGR-160 Managing for Small Grains for Livestock Forage](#)
- [AGR-18 Grain & Forage Crop Guide for KY](#)
- [ID-152 Grazing Corn: An Option for Extending the Grazing Season in KY](#)
- [AGR-145 Native Warm Season Perennial Grasses for Forage in KY](#)
- [AGR-229 Warm Season Annual Grasses in KY](#)
- [AGR-48 Bermudagrass: A summer Forage in KY](#)

#### Grazing System Layout

- [AGR-222 Estimating Carrying Capacity of Cool Season Pastures in KY using Web Soil Survey](#)

#### Weed Management

- [AGR-172 Weed Management in Grass Pastures, Hay Fields, and other Farmstead Sites](#)
- [AGR-207 Broadleaf Weeds of KY Pastures](#)
- [AGR-175 Forage Identification and Use Guide](#)

### Fencing Basics

#### Fencing Lay

- [Ky Fencing Laws](#)

#### Fence Construction & Planning

- [ID-74 Planning Fencing Systems for Intensive Grazing Management](#)
- [FORFS03-05 Installing Wood Posts for Greatest Longevity in Farm or Paddock](#)
- [Pub 442-130 Planning Fencing Systems for Controlled Grazing](#)
- [Pub 442-131 Fencing Materials for Livestock Systems](#)
- [NRCS KY Conservation Standard - Fence Code 382](#)

#### Electric Fencing

- [Pub 442-132 Constructing High-Tensile Wire Fence](#)
- [USDA-NRCS Electric Fencing for Serious Graziers](#)

#### Fencing Budget

- [VA Cooperative Extension Fence Budget](#)

## Woodford County Fall Grazing School – September 10<sup>th</sup>-11<sup>th</sup>

Forty-one participants registered for the Fall Grazing School held in Versailles, KY. On the first day, participants worked in groups to install a rotational grazing system then allocated cattle to the paddocks constructed by each group. On the second day, participants observed the grazed paddocks and heard reports from each group.

Representatives from UK College of Agriculture, Food and Environment and Gallagher North America presented a variety of topics including the benefits of

rotational grazing, temporary fencing, portable/seasonal water systems, economics of grazing, and rejuvenating run-down pastures. The program also hosted one local producer discussing what works on their farm.

**Methods to Assess Pasture Production:** Participants were each provided with a grazing stick, falling plate meter, and clippers. With these tools, the participants were able to calculate the available amount of forage.

**Pasture Allocation Exercise:** Participants were divided into 6 different groups and each group built a small paddock using temporary fencing and water for 2 beef heifers grazing for 18 hours. Based on their calculations from the previous field demo, participants allocated enough pastures for the two heifers for 18 hours. The following day each group discussed the how close they came to their assigned pasture allocation.

**Case Study Farm:** Participants were taken to a local farm, given an aerial printout, and tasked with developing a rotational grazing system based on their assigned farm operation (cow-calf, horses, stocker, etc). Each group also determined temporary vs permanent fencing, water sources, and movement of animals. This exercise allowed the participants to use what they had



Chris Teutsch, grazing school instructor and forage extension specialist at the University of Kentucky, talks with grazing school participants about utilizing summer annuals as part of a comprehensive grazing system.

learned and encouraged great discussion with theoretical scenarios and their own on-farm experiences.

Grazing school students visited a local farm. Participants were then assigned a specific livestock class and given the task of designing a grazing system for the host farm. Each group presented their grazing system design.

*Grazing School Survey Summary*

*Survey data based on 26 returned surveys, a response rate of 61%.*



Grazing school participants present their group’s grazing system design and plan to other grazing school participants. In this plan they specified paddock layout, water system design, forage species, animal class, rotation schedule.

| Topic   | Very Useful | Useful | Not useful | Did NOT attend |
|---|-------------|--------|------------|----------------|
| Benefits of rotational grazing  | 18          | 5      |            | 3              |
| Nutritional needs of livestock  | 15          | 9      |            | 2              |
| Grazing math  | 14          | 11     |            | 1              |
| Field exercise-estimating forage availability                         | 18          | 7      |            | 1              |
| Field exercise-grazing paddocks with temp fencing and watering system | 20          | 5      |            | 1              |
| Portable water systems demonstration                                  | 19          | 4      | 1          | 1              |
| Temporary fencing systems   | 18          | 6      | 1          | 1              |
| Hands On: Forage plant growth   | 18          | 7      |            | 1              |
| Forage species for grazing systems                                    | 20          | 6      |            |                |
| Grazing management considerations                                     | 17          | 9      |            | 1              |
| NRCS tools and programs   | 15          | 11     |            |                |
| Designing a grazing system  | 15          | 10     | 1          |                |
| Grazing management on my farm – local producer                        | 22          | 4      |            |                |
| Case study: designing a grazing system                                | 15          | 10     | 1          |                |
| Rejuvenating rundown pastures   | 18          | 8      |            |                |
| Fencing Types and Costs   | 17          | 9      |            |                |

*Practices that participants plan to incorporate on their farms:*

Rotational Grazing: 18/26

Alternative forage species: 13/26

Temporary fencing: 16/26

Participate in conservation programs: 15/26

Soil testing: 10/26

*Comments from Participants:*

“We already rotationally graze and use temp fencing, but I got some new tools and thoughts. Recently moved here from OR high desert; so appreciated learning about and discovering the portable watering systems plus all the resources available and what’s best for my area.”

“Took class specifically for grazing math concepts.”

“I am going to go home and make myself a square foot tool for clipping and run some calculations. The grazing stick, hand lens, and binder far exceeded my expectations. I could go right back through this and pick up more. I like how the topics correlate.”

### **Wendell Berry Fall Grazing School – September 23-34<sup>th</sup>, 12 participants**

The Master Grazer program delivered a grazing school program to 11 students who participate in the new undergraduate program at the Wendell Berry Center in collaboration with Sterling College. The undergraduate program is funded by the Warren Buffet Foundation with free tuition. Through classroom lectures and hands on experiential learning students were exposed to grazing concepts including forage plant growth, rotation stocking, pasture renovation and establishment, use of temporary electric fencing, forage measurement and allocation, grazing and watering system design.



Jeff Lehmkuhler, grazing school instructor and beef extension specialist at the University of Kentucky, talks with grazing school participants about utilizing temporary electric fencing as a cost effective means to control grazing.

## **Two Regional Grazing Conferences:**

### ***2019 Heart of America Conference -- Kicking the Hay Habit: Optimizing Profitability***

*October 29-30<sup>th</sup>, Boone County, 250 participants*

The theme of the 2019 Heart of America Grazing Conference was “Kicking the Hay Habit”. Keynote speaker, Jim Gerrish, discussed in detail the negative relationship between the number of days that hay is fed and profitability. Gerrish also outlined opportunities for Kentucky producers to reduce that amount of hay that they are feeding. These included stockpiling tall fescue, grazing crop residues, and utilizing winter annual forages. Chris Teutsch from the University of Kentucky discussed summer stockpiling, a novel approach to utilizing tall fescue in grazing



Jim Gerrish, keynote speaker at the Heart of America Grazing Conference, visits with conference participants about the impact of hay feeding on the profitability of ruminant livestock operations in the Commonwealth.

systems. In this scenario, spring growth of from cool-season pastures is saved for grazing during late summer and fall. This allows the growth in other pastures to accumulate for extend grazing during the winter months. A special guest from Gallagher Fencing in New Zealand visited with conference participants about innovations in electric fencing. He described the latest innovation in fencing technology – a wireless fencing system that employs GPS equipped livestock collars to deliver an electrical shock when virtual pasture boundaries are approached. This conference attracted 250 participants from the Commonwealth and beyond.

### ***2019 Western Grazing Conference -- Reducing Hay Feeding & Optimizing Profitability***

*October 31<sup>st</sup>, Christian County, 85 participants*

The primary focus of this conference was increasing the profitability of ruminant livestock operations in western Kentucky by reducing the number of days conserved forage is fed. The keynote speaker, Jim Gerrish, talked about the relationship between hay feeding and profitability. He explained that in most cases, as hay feeding days increase, profitability decreases. Gerrish also offered practical tips on ways to extend grazing in the Commonwealth.

Greg Halich from the University of Kentucky led conference participants through an analysis that was designed to determine the “optimal” number of hay feeding days. To the surprise of many conference participants, he concluded that in most cases, feeding hay for around 60 days is the most profitable scenario. This conference was held at the Christian County extension office and was attended by 85 producers and agricultural professionals.



Greg Halich, conference speaker and ag econ extension specialist at the University of Kentucky, talks with conference participants about optimizing the number of days that they feed hay on their farms.

### **Pasture Walk with Jim Gerrish – November 1:**

Dogwood Farm, owned and operated by Toby and Debby Dulworth since 1977, is located in Ballard County, Kentucky, between the communities of Bandana and Oscar. Dulworth ancestors have farmed in this area since 1897. Since its beginning, the DWF cow herd has grazed pasture without supplemental grain, expanding from three head in 1964 to about 300 head today. In 1989, adaptive multi-paddock grazing began, to allow pastures ample rest between grazing periods. The pasture walk actively engaged participants as they explored Dogwood farm discussing what has and hasn't worked and the whys as interpreted by Jim Gerrish. The pasture walk attracted 40 participants.



Debbie Dulworth, owner of Dogwood Farm, talks to pasture walk participants about using alternative summer forage like crabgrass.

### **Social Media Strategy & Activities:**

- All fencing school and grazing school participants are automatically enrolled in the Forage News List Serve. All Master Grazer articles and announcements posted on the list serve are linked back to the Master Grazer Website.
- Events are mentioned in articles or posted in calendars through the following: KyForageNews.com, County Extension Newsletter, OnPasture.com, Cow Country News, and Farmer's Pride.
- Articles, videos, and event announcements are shared through the KFGC Facebook page and the ReGenerative Grazing Facebook group. We will continue to incorporate other groups and pages like the KY Cattleman's Association and County Extension.
- Recorded and placed presentations from the Heart of American Grazing Conference, and Western Kentucky Grazing Conference on the KYForages YouTube where they have received more than 7,500 views for a combined watch time of more than 117,250 minutes.

### **Upcoming Events & Activities:**

- Forages at KCA, January 19, 2020
- Alfalfa and Stored Forage Conference, February 20, 2020
- Novel Endophyte Tall Fescue Workshop, Lexington, March 14, 2020
- Kentucky Fencing School, Barren County, April 14, 2020
- Kentucky Fencing School, Grand Rivers, April 16, 2020
- Kentucky Grazing School, April 21-22, 2020
- Kentucky Fencing School for Small Ruminants, KY State University, May 19, 2020
- Kentucky Fencing School, Wolfe County, May 21, 2020
- W. KY Summer Forage Tour, Calloway County, TENTATIVE Date, August 6, 2020

*This report was prepared by Carrie Tarr-Janes, Master Grazer Coordinator and Chris Teutsch, UK Forage Extension Specialist.*