

Forage News

Keeping Forage-Livestock Producers in Kentucky Informed

Dr. Jimmy Henning and Krista Lea, editors

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The *KENTUCKY*
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did not add lime, we might expect grasses and acid tolerant legume species to be present in greater quantities. Lime also makes other nutrients in the soil more available to the plant. If pastures need lime as indicated by a soil test, then lime should be the first thing applied.

Fertilizing pastures - Improved grasses and legumes need good soil fertility to persist and be productive. If soil fertility is low it will favor species that are more efficient at extracting and using nutrients from the soil.

Nitrogen - Application rate and timing can also be used to shift the botanical composition of pastures. Nitrogen fertilization will tend to encourage grass growth shifting the composition toward grasses and away from legumes. Early spring and late summer applications will encourage cool-season grass growth. In contrast, late spring and summer applications will shift the pasture composition toward crabgrass and bermudagrass in mixed stands.

Grazing management and forage plant growth - After defoliation (grazing or cutting), plants need energy to regrow. In grasses this energy comes from two places. The first is leaf area remaining after grazing. The remaining leaf area is like a solar panel that captures sunlight and converts it into energy (sugars and carbohydrates) that the plant can use for regrowth. The more leaf area we leave, the larger the solar panel and the faster pastures will regrow. The second place that energy comes from for regrowth, is stored carbohydrates. The location of these stored energy reserves depends on the plant species. Grasses that store their energy in the stem base are less tolerant to close and frequent grazing compared with grasses that store their energy in stolons and rhizomes that are safely below the grazing height of livestock. Resting pastures allows leaf area to regrow and carbohydrate reserves to be stored up.

Grazing height - In our naturalized pastures, close grazing will tend to favor grass and legume species that have leaf area and energy stores close to the soil surface. Close grazing results in a shift toward low growing species such as bermudagrass, Kentucky bluegrass, and white clover. A higher grazing height would tend to shift the botanical composition back toward our tall growing cool-season grass species such as tall fescue and orchardgrass.

Grazing frequency - Some species are more tolerant of frequent grazing. These species tend to have leaf area close to the soil surface that is retained even under close grazing and include bluegrass, white clover, and bermudagrass. This means that grazing naturalized

Consider Attending AFGC Conference Virtually

While this year has created many new challenges for us all, it also offers a few new opportunities, including the ability to attend regional conferences without traveling. The American Forage and Grassland Council's annual conference will be held in person on January 3-4, and virtually on January 8-12. There is still time to register for the virtual conference, and will include the following sessions:

- Proper use and management of ProClova
- Animal Nutrition and Forages
- Soil Health
- Calculated Parameters used in Forage Nutritive Analysis Reporting
- Making Hay
- Poster presentations

Members can register for just \$99 at afgc.org.

Pub of the Month: 2020 KFGC Virtual Fall Grazing Conference playlist

The presentations from the 2020 Kentucky Forage and Grassland Council VIRTUAL Fall Grazing Conference, "Adapting to Change: Designing Resilient Forage-Livestock Systems", can be found on the KYForages YouTube Channel. They are combined in the playlist "2020 KFGC VIRTUAL Fall Grazing Conference".

Optimizing Existing Forage Resources

Although we like to think of pastures as monocultures, as stands mature, they become a complex mixture of plants that are adapted to the region, soil type, and management regime. So, the question becomes do we fight mother nature and try to establish and maintain pure stands or do we work to optimize the management of these complex mixtures to better meet our needs? Here are a few ways we can optimize management of forage resources already existing on our farms.

Liming pastures - In a mixed sward, adding lime to a soil with a low pH would tend encourage the clover. If we

pastures closely and frequently will tend to shift the botanical composition toward these species.

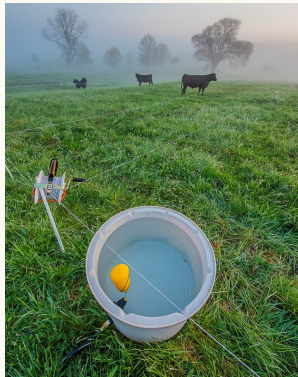
Grazing timing - Grazing a mixture that includes both cool- and warm-season species during the summer months will tend to shift the botanical composition toward the warm-season species, especially during and after droughts.

Using improved varieties - These varieties may offer considerable benefits in terms of improved yield, animal performance, and persistence.

In most cases, working with nature greatly improves the chances of success. Grazing is no different. Successful grazing systems are based on forage species that are well adapted to local conditions and managing those species to meet specific needs. ~ Dr. Chris Teutsch, for Cow Country News.

Water and Rotational Grazing

Water is the most important nutrient for livestock. Dry matter intake is directly related to water intake; the less an animal drinks, the less feed it will consume. Access to water is an essential component for rotational grazing systems. Water and water location influence dry matter intake, average daily gains, pasture utilization and nutrient distribution from manure and urine.



The rumen of cattle is a fermentation vat on legs, with a capacity of 40 gallons or more in mature cows. Adequate water is essential for the microbes in the rumen to digest the fiber in forages.

Water location has a bigger influence on rotational grazing systems than you might realize. Ideally water should be in every paddock and animals should not have to walk more than 800 feet to drink.

Research at the Forage Systems Research Center in Missouri measured the utilization of forage within a paddock at different distances from water. Pasture utilization was very high at less than 200 feet to water, fairly uniform from 200 to 800 feet, and less at further distances. Water location and grazing intensity will greatly influence nutrient distribution in pastures. In another Missouri study, manure piles were concentrated near water and shade, and few were deposited further than about 700 feet from water, except as influenced by shade.

In summary, having well-distributed water points in a grazing system will result in more uniform and increased percentage forage utilization as well as better distribution of manure and urine. ~ Dr. Jimmy Henning, for Farmer's Pride

The Alliance For Grassland Renewal Announces dates for 2021 Workshops

An online, three night Novel Tall Fescue Renovation Workshop will be held February 23-25, and is open to producers across the US who are interested in learning more about toxic and novel tall fescue endophytes. In person trainings will be held in

Forage Timely Tips: December

- ✓ Begin utilizing stockpiled pastures. Graze pastures with orchardgrass and clovers first. Save tall fescue pastures for late winter grazing.
- ✓ Using polywire, strip graze stockpiled pastures to improve Utilization. Start at the water source and allocate enough forage to for 2-3 days. Back fencing is not necessary.
- ✓ Make plans to frost seed red and white clover onto closely grazed tall fescue pastures in February.
- ✓ Some hay can be fed as stockpiled grass is grazed to stretch grasses.
- ✓ Begin hay feeding as stockpiled forage is used up.
- ✓ Supplement hay as needed.
- ✓ Minimizing waste by utilizing ring feeders.

Athens, GA (March 18), Mt. Vernon, MO (March 23), and Lexington, KY (March 25).

Workshops focus on several topics, including understanding the negative effects of toxic endophyte tall fescue on livestock, managing toxic pastures to reduce undesired effects, methods to replace toxic with novel endophyte varieties, management after establishment of a novel endophyte tall fescue system, seed quality and testing, farm-level economics of removing and replacing toxic with novel endophyte tall fescues, and accessing financial assistant programs to assist in fescue transitions. Local producers who have made the transition are also asked to share their person experiences. For in person workshops, hands on activities will include a live microscope demonstration of the endophyte, calibrating a seed drill, and touring demonstration plots of each of the commercially available novel endophyte varieties. The online workshop will include all of these aspects, duplicating the same educational experience wherever possible.

All workshops will require advanced registration and payment, available soon at <https://GrasslandRenewal.org>. In person workshops will follow all current federal, state, and local COVID restrictions and are subject to cancelation with full refunds to participants. Seating is limited. Requested continuing education credits include AAVSB RACE CE and Certified Crop Advisor CEUs. Sponsorships opportunities are available. For more information, please contact us at GrasslandRenewal@gmail.com. Stay up to date on all activities of the Alliance for Grassland Renewal by signing up for a monthly e-newsletter, Novel Notes at <https://GrasslandRenewal.org/novel-notes/>.

Upcoming Events (see website for details)

- JAN 3-6—AFGC Conference, Savannah, GA
- JAN 11-12—AFGC Conference, Virtual
- JAN 26—Pastures Please! Horse Meeting, Lexington, KY
- FEB 23-25—Novel Tall Fescue Renovation Workshop, Virtual
- FEB 25—Alfalfa and Stored Forages Conference, Elizabethtown, KY
- MAR 25—Novel Tall Fescue Renovation Workshop, Lexington, KY

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