

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

September 2022

Fall Fencing School Registration is Now Open

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 Nov. 1 at the Marion County Cooperative Extension Office in Lebanon and Nov. 3 at the Clay County Cooperative Extension office in Manchester. Registration begins at 7:30 a.m. EDT. Classes throughout the day include fencing construction basics, fencing types, costs, fencing laws and more.

Chris Teutsch points out that one of the main goals of this school is to teach people basic fence construction. Then 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 wellbuilt fence looks like.

UK specialists and fencing industry experts will teach producers how to install both fixed-knot, woven wire fencing and smooth electrified, high-tensile fencing.

Participants will learn through 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 costs \$30 person and has a 30participant limit. Organizers urge producers to sign up early. The registration fee includes morning refreshments, a catered lunch, a fencing notebook, safety glasses and hearing protection. To sign up, visit www.forages.ca.uky.edu/events. The registration deadline is two weeks before each workshop.

Forage Establishment – The best ways to get to do it over!

Have you ever heard the saying "You never have time to do it right, but you always find time to do it over". My father said it to me often. You can imagine the context. In (my) defense, it is human nature to be in a hurry and to skip steps that seem to be less than absolutely necessary. Few processes on the farm provide as much temptation for this 'skip a step' thinking as forage establishment.

With a tip of the hat to my dad, here are my top ways to get to 'do' forage establishment over. I have made every mistake below, so consider this autobiographical.

Assume the last user left it set right for you. For rental equipment, it is better to assume that the settings are completely wrong. One county went so far as to stencil

Forage Timely Tips: September

- If not already done, soil sample and apply fertilizer as needed.
- Plant perennial grasses and legumes. Consider using a novel endophyte tall fescue.
- ✓ Harvest hay as needed. Do NOT harvest alfalfa after mid-September.
- Scout pastures, identify perennial weeds and woody brush. Consult an agricultural professional to determine the control strategy.
- Closely monitor livestock and do NOT overgraze. Pasture plants accumulate energy reserves in the fall that help them overwinter and regrow in the spring.
- Feed hay to allow pastures to stockpile for winter grazing.
- Rest native warm-season grass fields until after frost for better winter survival.

this warning in big block letters on the side of the drill, "NOT RESPONSIBLE FOR SETTINGS"!

Don't check the tubes for blockages and sprouted old seed. Drills have multiple tubes and compartments that seem to just right for spider to build webs and for leftover seed to sprout. Make sure all passages are clear before seeding.

Don't read the manual (for the seeder). From spinner seeders to expensive no-till drills to cultipacker-type seeders, all can be successful when operated correctly. Improperly set equipment is one of the most common causes of doing it over.

Don't check the seed depth and placement. News flash - most forage crops have small seeds. Small seeds need shallow placement. Most forages should be no deeper than 1/4 to 1/2 inch. Forage seeds benefit from being pressed into the soil as with a cultipacker or packer wheel, or at least some type of drag.

Ignore weeds. The most successful seedings are where weed problems are addressed before and after seeding. Some weeds, like johnsongrass are such problem weeds that may take a multi-year approach to clean up a field, especially if it is going back into a grass. Preventing seed production of toxic tall fescue is critical for establishment of endophyte-free or novel tall fescues. New seedings are especially vulnerable to weed competition after seeding when seedlings are newly emerged and not fully established.

2022 Kentucky Grazing Conference

Profitable Grazing Systems from the Soil Up

Western Kentucky - October 26th

Grayson County Extension Office, Leitchfield

Eastern Kentucky - October 27th

Clark County Extension Office, Winchester

- 7:30 Registration
- 8:30 My soil is alive! Ray Archuleta
- 9:30 Right-sizing your cows for profit Les Anderson
- 10:30 Don't let grazing myths impact your profitability **Greg Halich**
- 11:15 Hay Feeding Strategies to Build Fertility in Grazing Systems **Nick Roy & Fred Thomas**
- 12:00 Lunch
- 1:15 Producer Speaker / Forage Spokesperson Contest
- 2:15 The role of extended grazing in profitable ruminant livestock operations **Jim Gerrish**

3:15 Closing

Kentucky
Forage and
Grassland
Council

Tickets: \$35 Advance / \$50 Onsite / \$15 Students Leitchfield: <u>https://2022GrazingLeitchfield.eventbrite.com</u> Winchester: <u>https://2022GrazingWinchester.eventbrite.com</u>

Not addressing fertility needs. Soil fertility is one variable you completely control, so get a soil test and apply the critical amendments. Your extension agent can help you interpret a soil test report and develop a fertilizer strategy.

Ignoring the calendar. Hitting the right calendar window for seeding is complicated. There are generally accepted windows for seeding grasses and legumes but year to year variation in weather, access to equipment and frankly just available time can be factors making you consider planting outside the optimum dates. Seeding outside of the recommended dates means you are choosing the greater risk of seeding failure with the 100% chance of failure if you don't seed at all. Late summer/ early fall is the best time to seed cool season grasses, but ideally legumes should be added later (like a frost seeding in February). Grasses like tall fescue and orchardgrass require 7 to 10 days of moist conditions to emerge. Legumes germinate and emerge faster than grasses and are more competitive for light. Legumes have taproots which give them an advantage over grasses when moisture is limiting. Legumes are more tolerant of drier and warmer conditions after emergence than the fibrous-rooted cool season grasses. So spring seedings favor legumes, but they can be seeded in the fall if seeding by early Sept. The cooler, and typically wetter conditions of fall are the best for cool season grass establishment. Legumes drilled into a firm, moist seedbed can emerge in two to three days.

Using cheap seed. Uncertified or common seed is never worth the risk when seeding a perennial forage crop. Do your homework on what is available from your preferred vendor and check those products against the extensive test data available from UK Forages web site (https://forages.ca.uky.edu or just google UKY Forage Varieties). Blends or mixes can be good buys, but only if the tag confirms you are getting proven varieties.

Careful attention to these forage establishment principles will greatly lower your risk of getting to 'do it over.' Happy foraging. ~ Jimmy Henning for Farmers Pride

Pub of the Month: Establishing Forage Crops (AGR-64)

Successful livestock production depends on a forage program that supplies large quantities of quality, homegrown feed. Such forage programs do not develop by chance but are the result of careful planning and detailed attention to establishment, production, and utilization of forage crops. Establishment of a good stand is a first and important step in a successful forage program. Find the full publication and others at www.forages.ca.uky.edu/publications

Eastern Native Grass Symposium

Join us in Kentucky at Louisville's renowned Galt House Hotel, October 3rd -6th, for the 12th Eastern Native Grasslands Symposium! This year's Symposium will feature two days of speakers and poster presentations, as well as a full day of field trips. Continuing Education Units (CEUs) will be offered for landscape architects and certified crop advisors.

biennial Eastern Native Grasslands The Symposium is sustained by the expanding

spectrum of people involved with native grasses, forbs, and wetland plants of the eastern United States. These include restorationists, landscape architects, ecologists, landowners, forage producers, biologists, wildlife and pollinator enthusiasts, private consultants, government agencies, seed and plant producers, and many more! This year's symposium will cover:

- Native Plants in Landscape and Design •
- Native grasses in energy and transportation of rightsof-way
- Site preparation, seed selection, establishment and maintenance
- Native grasses and forbs for pollinator conservation
- Grasslands for pasture and forage
- The role of natives in conservation agriculture
- Restoration of Grasslands •
- Native grasses and forbs in the solar industry and more!

Upcoming Events (see Forage website for details and to register, click on EVENTS)

Sept 13-14—KY Grazing School, Versailles, KY

Oct 3-6—Eastern Native Grass Symposium, Louisville

- October 26 and 27—KY Grazing Conference, Leitchfield and Winchester, KY
- Nov 1 & 3—KY Fencing Schools, Lebanon and Manchester, KY

Nov 14-17—World Alfalfa Conference, San Diego, CA

Feb 21, 2023—KY Alfalfa and Stored Forage Conference, Cave City, KY

May 14-19, 2023—International Grassland Congress, Covington, KY

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Alfalfa may have a future on Mars

The benefits of alfalfa as a feedstuff, soil enhancer, and nitrogen contributor are well known here on Earth. Someday, those same benefits may be leveraged on Mars.

While evaluating possible food sources to sustain life on the Red Planet, Iowa State University researchers were investigating the possibility of growing crops such turnips, lettuce, and radishes.

Of course, the soil on Mars is much different than the majority of our native soils on Earth. A Mars' soil is mostly derived from past volcanic activity, which makes it basaltic in composition. It is salty but has also been found to contain low concentrations of most of the macro and micro elements we are familiar with on Earth. It also has poor water-holding capacity due to absence of organic carbon."

In the greenhouse study, a Mars-like soil was simulated from ground basaltic rocks. Turnips were planted in the basaltic soil or in a garden soil, which was used as a control treatment. As would be expected, "... the growth of turnip plants in the basaltic Mars-like soil was unhealthy as compared to that grown in garden soil," the researchers noted. The addition of liquid fertilizer to

the basaltic soil significantly improved turnip interests and cooperation of a diverse See blue growth.

The researchers also investigated the possibility of using one plant species to provide nutrition for the desired edible plant species. It was noted that alfalfa exhibited "robust growth" in the Mars-like soil when fresh water was applied.

Alfalfa was tested to see if it could serve as a nutrient source in the Mars-like soil for growing food crops. The alfalfa was grown on the basaltic Mars soil and harvested. It was then dried and ground into a powder, which was applied to the edible crops' grown in Mars soil.

The growth of turnip plants increased by 190% in the alfalfa-treated Mars-like soil compared to the untreated soil and produced healthy bulbs. The biomass of radish bulbs improved by 311% and lettuce leaf production jumped 79% when grown in the alfalfa-treated Mars soil.

The photos show the effect of dried and ground alfalfa on the growth of turnip (left) and radish (right) in a basaltic Mars simulant soil.

In their discussion, the researchers stated, "this study signifies that for long-term purposes, it is possible to treat soil and water resources in place for farming on Mars to sustain human missions and permanent settlements."

Perhaps . . . just perhaps . . . alfalfa has a future on Mars, but you may want to wait a few years before buying cropland on the Red planet.

~adapted from Mike Rankin, Hay and Forage Grower



Left: garden soil + fresh water. Right: Basaltic regolith simulant soil + fresh water.