



4-2018

## Forage News [2018-04]

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### Repository Citation

University of Kentucky Department of Plant and Soil Sciences, "Forage News [2018-04]" (2018). *Forage News*. 245.  
[https://uknowledge.uky.edu/forage\\_news/245](https://uknowledge.uky.edu/forage_news/245)

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# UK Forage News

Keeping Forage-Livestock producers in Kentucky informed

Dr. S. Ray Smith and Krista Lea, MS.~ Editors

April 2018

## Register today for Grazing School

UK Agriculture Extension will be hosting their Spring Grazing School in Princeton, KY April 24-25th. The spring grazing school will focus on the hands-on setup and management of rotational grazing systems and on warm season and cool season forage crops for cattle and small ruminants. Our goal is to educate farmers to make the most efficient use of their farm and to encourage beneficial grazing practices. Registration is \$50 and includes all materials, manuals, snacks, and lunch for both days of the program. Register online by visiting [forage.ca.uky.edu/events](http://forage.ca.uky.edu/events). Grazing school classes will be held at the Central Presbyterian Church (206 W. Main St.) and hands-on activities will be at the UK Research and Education Center (1205 Hopkinsville Rd.).

## Repairing Pugged Pastures

A wetter than normal winter has resulted in significant pugging damage in pastures across Kentucky. Pugging occurs when the hooves of grazing livestock penetrate the soil surface during wet



conditions causing damage to pasture plants as well as soil structure. The net result is decreased pasture productivity. Depending on the severity of the damage, decreases in pasture productivity can range from 20 to 80% for 6 to 12 months following the initial damage. Damaged sods are much more vulnerable to invasion from less productive weedy species. Even after pastures have appeared to recover, pasture productivity can be decreased. There are several options for rejuvenating damaged pastures. *Light Damage.* Allow damaged paddocks to get a little more mature before initiating grazing in the spring and give them a little longer rest period after grazing. Make sure to avoid overgrazing these pastures during stressful conditions in the summer.

*Overseeding moderately damaged sods.* Damaged sods may be overseeded with legumes or a combination of grasses and legumes. This is best accomplished in late winter or early spring. Areas should be leveled with a pasture drag or other tillage implement, seed can then be broadcast on the soil surface and cultipacked. A

legume mixture that works well across the Commonwealth is 6-8 lb/A red clover + 1-2 lb/A ladino clover. Grass can also be added to this mixture as needed. Tall fescue can be broadcast at a rate of 10-15 lb/A and orchardgrass at 6-8 lb/A. If summer forage is needed, the damaged area may be prepared as described above and overseeded in mid to late April (after risk of frost) with a mixture of an improved crabgrass (3-6 lb/A) and annual lespedeza (10-15 lb/A).

*Complete Reseeding of severely damaged sods.* Although sods can be reseeded with cool season species in the spring, it is usually be advisable to wait until the following fall. In this case, severely damaged areas can be leveled and smoothed by harrowing in late spring and seeded with a summer annual crop such as pearl millet or sorghum-sudangrass. These crops can be utilized for summer grazing or conserved as hay or silage. This provides the opportunity to adjust soil fertility as needed and control any undesirable plant species with a nonselective herbicide application in late spring and again in late summer before reseeding the desired perennial forage mixture. This is an ideal opportunity to eliminate toxic tall fescue from a paddock and reseed a novel endophyte tall fescue variety. The best solution to pugging damage is to work hard at avoiding it. This is not always possible, so use the strategies discussed above to rejuvenate damaged pastures. ~ Adapted from Dr. Chris Teutsch, Cow Country News March 2017

## Forage Timely Tips: April

- ✓ Complete seeding of alfalfa
- ✓ Determine need for supplemental forages such as millet or sudan-grass
- ✓ Prepare for start of hay harvest
- ✓ Prepare fencing, and water for grazing season and begin grazing early pastures.
- ✓ Plant corn for silage and warm season grasses after risk of frost.
- ✓ Assess opportunity for weed control using recommended herbicides  
*always read and follow label recommendations*

## It Just Doesn't Work

For as long as I have been a forage agronomist and now a journalist, one question that continues to get asked each spring is, "Can I plant alfalfa after alfalfa?" Related to this inquiry is the question, "Can I plant alfalfa into alfalfa to thicken up an existing stand?" It's an easy answer: You can do it, but it won't work, unless the stand is less than 6-8 months old. Here's why.

Plants produce a wide range of chemicals aimed at defending them from attack by insects and diseases. Among these chemicals are some that inhibit the growth of other plant species. The production of compounds by one plant species that are toxic to another is known as allelopathy.

The production of chemical compounds by a plant that are toxic to members of the same species is known as autotoxicity. Plants produce these compounds to help "carve out" a space for themselves and reduce competition from other plants for water, nutrients, and light. Alfalfa is a plant species that exhibits autotoxicity. There are a number of potentially autotoxic chemicals produced by alfalfa, one of which is called medicarpin. This compound is more concentrated in top growth than roots and is water-soluble, leaching readily into the soil from both decomposing plant material and growing plants. Tillage affects the level of toxin in the soil. More aggressive tillage will better mix and dilute the toxins. Wisconsin research showed the effects of autotoxicity to be greater in no-till fields than those that were moldboard plowed.

The age of the existing alfalfa stand will also affect autotoxicity. Younger plants (those one year old or less) contain fewer toxins than older plants. This means that failed seedings or even new seedings that winterkill can be seeded back to alfalfa with little yield reduction.

The time interval between eliminating an old stand and planting a new one has an important influence on the effects of autotoxicity. The longer between tilling the old stand under and seeding the new one will reduce the effects.

As a general rule of thumb, it's best to have one year between the termination of an existing stand and the seeding of a new stand. Spring seedings of alfalfa following a fall-killed alfalfa stand from the previous year generally yield only 60 to 70 percent of a stand with a full year in between termination and seeding.

A classic University of Missouri study involved planting alfalfa seeds in a wagon wheel fashion around an existing alfalfa plant. Within 8 inches of the plant, new seedlings rarely survived. From 8 to 16 inches away from the existing plant, new seedlings established, but productivity was greatly diminished.

~ Adapted from Ray Smith, Hay and Forage Grower.

## Featured Publication: Alfalfa Management Guide

Profitable forage production depends on high yields. Land, machinery, and most other operating costs stay the same whether harvesting 3 tons per acres or 6 tons per acre. Top yields in the northern United States have approached 10 tons per acre while average yields are around 3 tons per acre. This booklet

[see blue.](#)

describes what it takes to move from a 3-ton yield to a 6 to 9 tons per acre. The full publication can be found at [forages.ca.uky.edu/publications](http://forages.ca.uky.edu/publications).

## New Study: Don't Graze Fescue to the Ground

The verdict is in. Grazing toxic fescue to the ground is dangerous to pastured livestock. Findings released by the University of Missouri indicate that the highest levels of toxic alkaloids are held in the bottom 2 inches of infected grass. Sarah Kenyon, an MU extension agronomist based in West Plains, Mo., documented these findings in her Ph.D. dissertation. Kentucky 31 fescue, the most-used grass in pastures, contains a toxic alkaloid that comes from an endophyte fungus inside the plant that grows between the plant's cells. Kenyon's findings differ from previous research, which showed that plants were most toxic after seed set. This particular study found that the bottom 2 inches are as much or more dangerous than seed stage. ~ Adapted from Lauren Peterson, Hay and Forage Grower, Dec. 2017.

## Sold out Fencing Schools in Princeton and Versailles

Cows running around the neighborhood can be a stressful experience for livestock producers. Fortunately, participants in the Kentucky Fencing Schools now know how to build fences capable of holding water! The schools were held in Princeton and Versailles. More than 80 participants learned how construct high tensile fixed knot woven wire fencing and the more traditional electrified smooth high tensile fencing. Combined, these fencing systems make one most effective livestock fences ever created. If you are interested in learning more about fence construction basics or honing your advanced fence building skills, make plans to attend a fencing school this fall, dates TBA. ~ Chris Teutsch



## Quote of the Month: Use Wisely What You Have

Any given ranch, farm or field has a unique set of opportunities that are determined by climate, soils, water and topography. These are difficult, expensive or impossible to change. While soil fertility can be altered with fertilizers, even this has practical economic limits. It is generally better to use what you have to its optimum rather than attempt to alter it to something you may prefer. To purchase a Livestock Quotes and Concepts Book, contact us at [ukforageextension@uky.edu](mailto:ukforageextension@uky.edu).

## Upcoming Events

APR 24-25 - KY Grazing School, Princeton, KY  
MAY 31 - Equine Farm/Facilities Expo, Harrodsburg, KY  
SEPT 25-26 - KY Grazing School, Versailles, KY

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