

ANITA ELLIS, LIVESTOCK SPECIALIST. SERVING CALLAWAY, COLE, GASCONADE, MARIES, MONTGOMERY, OSAGE, & WARREN COUNTIES. 5803 County Road 302, Fulton, MO. 573-642-0755. snella@missouri.edu.

Nitrate Toxicity Update

In various locations around the state, some cases of cow deaths have been reported from high nitrate levels in the hay. With a shortage of hay already - and lower, stemy quality at that-don't be tempted to simply feed what you have in order to try and meet your cattle's forage needs.

Testing your hay is going to be critical. Keep in mind that you may need to test hay separately; so, if you have even the same grass species from different pastures, these will need separate tests. The same goes for silage. While it is true that ensiling breaks down the nitrate accumulation, that doesn't mean it was enough. Especially depending on the production stage of your cattle, (a dry cow can handle a little 'hotter' forage than a pregnant heifer).

The reason for some of these death losses occurring just now are because of, in these cases, extra fertility (i.e. nitrogen source) to increase fall growth this past year.

Dr. Eric Bailey (MU Extension State Beef Nutritionist) advises a strategy to dilute semi-high nitrate hay (a quantitative test will help you determine if your hay fits this). By incorporating starchy grain (corn), this will increase rumen fermentation more than other feeds and allow the rumen bugs to break down the nitrate. Nitrate provides nitrogen if the 'system' (rumen) isn't overloaded.

Begin with half a pound of grain per 100 pounds of bodyweight, then increase to a pound of grain per hundredweight. The rumen will be adapting to more grain.

Should you suspect any cattle loss to nitrate, send an eye from the animal to the MU diagnostic lab. Testing fluid from eyes of dead animals for nitrate confirms the diagnosis.

Nitrate isn't evenly distributed in forages, so some bales may contain higher levels than others.

Additionally, cattle cannot discern which bales is higher in nitrate to others.

If animals are enduring a heavy nitrate forage, then they may appear unthrifty in recovery. Pregnant cows may deliver early, weak calves or slip calves. Testing an expelled fetus can confirm high nitrate exposure.

Some helpful articles are listed here:

<https://extension2.missouri.edu/g9800>

<https://extension2.missouri.edu/g4661>

<https://extension.psu.edu/prevention-and-control-of-nitrate-toxicity-in-cattle>

If you need any forms for sending samples of hay to get analyzed or sending tissue to the vet diagnostic lab, give me a call.

Bringing SMS to Central MO

If you've been receiving this newsletter for some time, chances are you've heard of the Show-Me-Select (SMS) Replacement Heifer program. Although I report sale averages here, some basic information and further update may be appreciated. Heifers enrolled must meet standards for reproductive soundness (tract scoring), pelvis size and vaccinations. Sires in the program must meet set calving-ease scores on EPDs (expected progeny differences) as well as have-most-recently-genomic testing.

Three checks are required as the heifers are being developed: prebreeding, an initial pregnancy check, and a final pre-sale pregnancy check. All checks are performed with the producer, a veterinarian, and your livestock specialist. Not all SMS heifers are sold; as cows, they typically stay in the herd longer.

At SMS sales, all SMS heifers are checked on arrival at the sale barn by Missouri Department of Agriculture graders. Any not meeting standards are sent home.

As for the central region of the state, we have not had a sale for some time. At the request of some current central Missouri SMS producers, we will have a planning meeting to potentially host a sale

at the South Central Regional Stockyards (Vienna, MO). The goal of this upcoming meeting is to gauge the interest of local producers in the central region. This meeting will include SMS producers from previous central region sales, current SMS producers, local veterinarians, and local A.I. representatives.

Please join us **Thursday, March 21st at 5:30 p.m.** at the **South Central Regional Stockyards Café** in Vienna, MO. This event is free and includes a hot dinner. But *please RSVP for meal planning*. The meeting will begin with a Heifer Nutrition Update from Dr. Eric Bailey and a Prebreeding Evaluation Update from Dr. Jordan Thomas. For more information about the SMS Program or to view upcoming sale dates, visit <http://agebb.missouri.edu/select/>.

Grazing Schools

If you need to attend a grazing school for cost-share, or simply want to learn more about implementing a cost effective grazing system on your operation, go to <https://mofgc.org/grazing-schools/>. This is great opportunity for practical application and hands-on learning.



Woodland Stewards

This course is part of a multi-state woodland owner education series. They can be attended individually.

- February 21 at Cole Co. Extension Office: Getting to know your Woodlands.
- February 28 at Cole Co. Extension Office: Managing your Woodlands.
- March 1-2 at the Hilton in Columbia, MO: MO Woodland Owners Conference <https://forestandwoodland.org/70thanniversarycelebration/>.
- March 7 at Callaway Co. Extension Office: Identifying and Managing Woodland Threats.

- March 14 at Callaway Co. Extension Office: Wildlife and Woodlands.

All of these are from 6-8 pm. Call the Cole Co. Extension Office for more information 573-634-2824.

Preventing and Responding to Disease Outbreak Workshops

A free educational event about the latest on biosecurity in animal agriculture. Lunch and workshop materials are provided.

From 10 am- 3:15 pm.

Preregistration is required. Call Kristi Perry for more information 573-882-0085 or go to <https://extension2.missouri.edu/news/biosecurity-workshops-set-across-state-for-livestock-producers-3855>

- March 6-Versailles, Hunter Civic Center
- March 8-Springfield, Livestock Marketing Center
- March 13-Jackson, office of MU Extension of Cape Girardeau County
- March 15-Kirksville, Department of Conservation
- March 18-St. Joseph, Western State University, Leah Spratt Hall

Equine Hoof Health Clinic

If you're a general horse owner and want to learn about the basics of hoof health and trimming, join us for the Equine Hoof Health Clinic. Topics include general health and anatomy as well as hoof disease prevention. There will be a hoof trimming demonstration to follow.

Join us at the Callaway County Extension Center on Saturday, May 4th. Further details will be announced on our website

<http://extension.missouri.edu/callaway> or Facebook page soon.

