

Grazing Bites

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Victor Shelton, NRCS State Agronomist/Grazing Specialist

I sometimes get in a hurry when I sit down to write. That sometimes causes me to have a bit of tunnel vision and I don't get in enough detail due to lack of time or space in the article. That happened in August and I heard about it, and I still have some tire tracts from a couple buses. I guess I should have said more.

I may have been a little hard on tall fescue last month, but Kentucky 31 endophyte infected tall fescue does have issues. Much of the tall fescue in Indiana is infected with the endophyte, a fungus that produces a toxic substance known as ergovaline. The endophyte and ergovaline are responsible for reduced palatability of tall fescue especially when it is under stress. Fescue toxicosis is responsible for elevated body temperatures, restricted blood flow to extremities and poor animal performance.

Most people think that ergovaline doesn't pose a problem in stockpiled fescue because the ergovaline appears to concentrate in seed heads and stockpiled fescue is generally vegetative. Livestock eat stockpiled fescue better after a couple of hard frosts or freezing conditions. This suggests that there is still ergovaline present in infected fescue, reducing intake until after freezing conditions. Most studies have found that ergovaline content drops fairly fast after mid-December. Sadly, as long as endophyte infected tall fescue is growing, it probably is still producing some ergovaline. I might like long, warm falls, but it can delay the ergovaline reduction. Earlier winter or cold weather tends to prompt lower levels of ergovaline. So, the best time frame to utilize endophyte infected tall fescue is probably mid to late winter. Ergovaline in hay also reduces over time.

Now there are some good, improved varieties of tall fescue. Ag-Research in New Zealand isolated naturally occurring endophytes that produced alkaloids associated with insect persistence, but did not produce alkaloids associated with poor animal performance. Welcome novel endophyte friendly tall fescues. The first release was MaxQ tall fescue also called Jesup MaxQ. The novel animal friendly endophyte was inserted into the tall fescue variety Jesup. There are several available today. These endophyte friendly tall fescues provided increased average daily gains, good yields, and even persistence better than even Kentucky 31. This was a huge improvement over low endophyte varieties that were not very persistent and were often quickly taken back over by old Kentucky 31.

If you are considering switching a dominantly endophyte infected tall fescue field to an endophyte friendly tall fescue, you need to make sure to kill out as much of the old fescue as possible. Time helps along with some good herbicides. It's best to first start by spraying the field of tall fescue when it is actively growing which will help get a good kill. It's hard to get all of it in one spraying and there is usually a seed bank waiting in the shadows. The ground being converted is probably needed for pasture or hay, so to buy some time to check for a successful kill and allow for any possible growth from seed, plant the field to a summer annual (or winter annual if done in late summer) and utilize that annual for grazing or hay. Then, when the next planting season arrives, check for any remaining old fescue plants or new plants and apply appropriate herbicides if needed to clean up those remaining plants. Now plant the field to an endophyte friendly tall fescue or a mix including it. The new fescues stockpile just as good, if not better, than Kentucky 31.

Some research also suggests that ergovaline may leach out with a lot of rainfall. There is a tie to ergovaline and nitrogen content of the plant, so that should not surprise anyone. The conclusion of the article was that since stockpiled fescue retains dry matter and quality throughout the winter, the best use of infected stockpiled fescue was during the late winter period.



A lowly under-utilized endophyte infected fescue plant stands alone and untouched with more palatable overgrazed forages available around it.

My last article also brought up concerns about spraying weeds because they could be beneficial. I find this very interesting. It wouldn't have been too many years ago that I would have been criticized for saying to maybe not spray weeds and try and use livestock and forage management to handle weeds instead of chemicals. To say the least, I'm glad that a more holistic approach has finally started to take hold.

Some of those biennials I mentioned, such as bull and musk thistle and burdock, could all be consumed by livestock at certain stages and even have some decent nutritional value, but I wouldn't miss them if they were not there either and certainly wouldn't plant them! We'll visit this subject at a later date. Concentrating livestock for short time frames creates enough competition that if it is not eaten, the plant is recycled one way or another.

There is still time to plant fall annuals for grazing this fall, winter and/or possibly next spring. Some areas in Indiana certainly could use more moisture. I feel fortunate for the moisture I have. I contribute a lot of that to maintaining good ground cover in the form of green live plants. I'll end today with a prayer for all the ranchers and producers in the areas tragically impacted by Hurricane Harvey. The coastal bend region and southeast Texas was historically the region that was the birth of the cattle industry in the south and was tied to those famous cattle drives to railroads in Kansas. It's a good reminder to take a moment to be thankful for what we have. Check the cows, pet the dog, kiss the spouse, hug the kids, and keep those in Texas in your thoughts.

Keep on grazing!

Reminders & Opportunities

Purdue Forage Management Workshop – September 6, 2017 – Purdue Agronomy Center, West Lafayette. This year will focus more on pasture management. For more information go to the following link:

<https://ag.purdue.edu/agry/dtc/Documents/2017%20DTC%20Workshops/2017%20DTC%20workshops%20brochure.pdf>

Stock Dog Workshop – November 14-16, 2017 – For more information contact Denice Rackley at denice.r@lycos.com

More pasture information and past issues of Grazing Bites are available at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/in/technical/landuse/pasture/>