Grazing Bites

April 2021

Victor Shelton, NRCS State Agronomist/Grazing Specialist

Yes, it's getting to be that time of year — new spring green growth! The cows start complaining about eating hay and bellowing when they hear my voice or even just see me. It's not that the hay is any less delectable, it's just not what they know is available across the fence. It's about like a kid walking by a candy store; the focus is on the treat.

Poison Hemlock is already up and growing!

I've listened to several pretty intense arguments over the years on the topic of when to start grazing in the spring. Some spoiled cows are never denied their micro-greens and sadly, the pastures usually show it. I've heard some say, "the cows know best." They do have excellent biological feedback from their stomachs that tells them there is usually more energy and protein in that lush new forage. This is even more true with small ruminants such as sheep and goats who can and will sometimes select specific plant parts because of differences in energy or nutrients that are needed at the time. Perhaps this is the ruminant animals "gut" instinct.

Unfortunately, just like eating too much candy from the candy store, ruminants eating too much lush green cotton candy growth early in the year can have its consequences. If you don't believe me, let them graze that short new growth for two or three days and then run them through the cattle chute to work them. You won't want to be the person tailing them in the chute. Like I've said before, don't stand too close behind those cows! One cough or skuttle from the cow in front of you and you might be covered.

What the cows try to initially ignore is the same thing your doctor may tell you: you need fiber. If that particular pasture was grazed down tight last fall and little or no residual was left behind, there is little or no fiber present. This young lush forage is rapidly fermentable in the rumen and may not meet two critical forage roles: maintaining the rumen forage mat and stimulating cud chewing. The rumen/fiber mat is essentially a mass of long-fiber plant matter that slows down and buffers the rumination and digestive processes of any other feeds that are consumed. It keeps the microbe balance, pH and digestive speed of the rumen stable throughout the day.

I can hear my wife saying, "cut to the chase." Okay, it is somewhat situational. Ideally, continue feeding hay until the forages have grown more and start containing more lignin. Lignin is a major component of the plant cell wall and give plants structure. Those fields grazed short last fall will lack sufficient fiber to go with all the washy high-water, high-protein forage that will come on with first growth. All ruminant livestock need to balance the carbon-nitrogen ratio in their rumen to maintain that mat. If they don't, then they will not perform the way you want them to and have less gain and milk production. The plants just go through their system faster than they can effectively utilize it.

If stop grazing heights were maintained with the last grazing prior to winter, then that dry forage left behind can help to balance out the lush forage. At a minimum, everyone should leave at least one field, ideally the one they plan to use first in the spring, with a fair amount of residual over winter and, in this case, more is better (four to six inches). That field can also provide a great alternative for calving over a muddy lot.

If you watch the cows after early turnout, they will graze exclusively on the lush new forage for two to three days and if sufficient fiber is not present, they will quickly start hitting fence rows and eating about any dry material they can find and will actually eat straw too if available, something they would normally rarely do.

Another alternative is to feed some hay along with the new growth. The cows will then eat enough dry hay to help balance out the fiber needs to maintain that rumen mat. This is certainly better for the cow, but not particularly ideal for the forage. Grazing too early can be costly by reducing total forage production for the entire grazing season. Grazing too early in the spring does nothing but remove the solar panel the plants need to start building sugars and growing new roots. The forages really need to be able to fully leaf out or canopy and get a good start before animals start removing that new growth, otherwise production will be reduced. Forages should be at least eight to ten inches tall, ideally more. If the cows-to-pasture acres ratio is low, then starting to graze a bit early might help to keep growth under control later, but in most cases, the cows-to-pasture acres is higher than it should be and therefore, detrimental to overall production.

If I have plenty of hay, then I'd continue feeding hay. Strategically, saving the better hay for early spring and feeding less quality hay earlier is usually a good thing and that usually is also true nutritional-wise for spring calving cows too.

That biological feedback mentioned earlier doesn't always work quick enough when it come to poisonous weeds — for some, it doesn't take very much. I am already seeing a fair amount of poison hemlock in some fields and especially along roadsides and low areas. Poison hemlock looks a lot like cow or wild parsnips but has purplish colored streaks and spots on the smooth stem. This plant is poison to both livestock and humans. It is a true biennial so it will set seed the second year — so kill it the first year! It is a prolific seed producer. Do not handle with bare hands. According to Purdue's toxic plant website, poison hemlock has toxic components that include the volatile alkaloids coniine and gamma-conicine. A lethal dose for a horse is four to five pounds of leaves. Cattle may be poisoned with one to two pounds, and sheep with a half-pound or less. Humans are often poisoned, mistaking the roots for parsnips, the leaves for parsley or the seeds for anise.

Poisoned animals show signs within two hours of eating the plant, and tend to become nervous, will tremble and become uncoordinated. After the excitement phase, the animal becomes depressed. The heart and respiratory rates slow down, the legs, ears and other extremities become cold, colic and/or bloating may occur. Even at this stage, the animal may not die, but may remain like this for several hours to days, and then recover. In lethal cases, the animals tend to die within five to 10 hours after the onset of the clinical signs, typically from respiratory failure (in which case the mucus membranes will appear blue). A mousy odor has been reported to emanate from affected animals. Contact your local extension office for more information on this plant or control methods.

I'll end today with a reminder on magnesium. It is a good idea to move to a high magnesium type mineral supplement (usually 10-20% instead of 1 or 2%) and continue with it until we are past the early flush of new forage. The issue with insufficient magnesium is more of a problem where nitrogen and/or potassium has been recently applied or in excessive amounts. For more detailed information about grass tetany, contact your local extension service or large animal veterinarian.

Management of spring regrowth will impact overall production. The cows or sheep are the tools to help manage the forage! Remember, it's not about maximizing a grazing event, but maximizing a grazing season! Keep on grazing!

Reminders & Opportunities

Purdue "Forage Friday Forum" - Friday noon ET from March 5 to April 16, individuals will discuss topics related to forage management for an hour. Flier Register at: https://bit.ly/2LlPnZK
More pasture information and past issues of Grazing Bites are available at
https://www.nrcs.usda.gov/wps/portal/nrcs/in/technical/landuse/pasture/