# Grazing Bites

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Victor Shelton, NRCS State Agronomist/Grazing Specialist

I wasn't going to talk about the weather in this issue. I will say though, that I believe most livestock producers are really appreciating any rock pads that they have built. It's one thing to have snow on top of ice, but in much of the state, that **was** over the top of mud. I also **was** a bit envious of the northern portion of the state that I've referred to before as being in semi permafrost, until the polar vortex hit.

*Heavy forage cover helps to reduce negative impact on soils. (Photo: Chris Hollen)*

I really don't mind mud occasionally, it's certainly expected in the livestock business, but not for weeks or months on end. Most producers are done grazing for the winter or their pasture wishes they were done. The impact of a bunch of cows on water saturated soils can be quite disturbing, no pun intended.

Areas with heavy vegetation from stockpiled forage are also barely able to hold up, even moving animals every day. If there is not much vegetation left, then the chance of it being "plowed" is inevitable.

The forage residual acts like a buffer up to a point. When there is a lot of plant material present on the soil surface and livestock create divots in the sod and soil, the hooves move some vegetative matter into the soil. I'd like to think that there might be something positive about that.

Think about this; divots in the soil with copious amounts of decaying plants jammed in them. If there is sufficient nitrogen in the system, then this material could break down into useful organic matter, and if soil life is present (fungi, bacteria, worms, etc.) then it will make use of this material and even pull some of it into the soil profile. This certainly could speed up the process of conversion of above-ground nutrition for plant and terrestrial life use. Normally, root growth and turnover have more impact on increasing soil organic matter.

Second, I wonder if there is any possible benefit of the divot itself. Talk about thinking way outside the box! Besides possibly helping to speed up any deposited plant material on the soil surface, if the soil is presently aggregated and functioning properly, and there is a normal freezing and thawing processes, then these divots could help increase water infiltration and reduce runoff in the long run. There are a lot of ifs in that statement, but it's still worth the effort to try to make lemonade out of lemons. Of course, I would never do this on purpose. If there is little vegetation present, then most likely, you don't have good soil aggregates present and more likely compacted soil. This is quite often the fact on overgrazed sites, especially on continuously grazed pastures.

The other possible positive attribute might be the creation of an improved environment for frost-seeding legumes into the stand. Severely damaged fields will probably require more TLC, if not total renovation in some cases. I think it is important that we limit the amount of damage whenever possible. The livestock must be somewhere over winter, especially after all grazing is done. It is best to limit that to only one field to limit the damage. The establishment of good pasture is not cheap. It's also best to not use the same field for overwintering every year or that field will most likely become a weedy mess due to the loss of desirable species.

I was asked recently about temporary or summer cover for overwintering areas. Overwintering areas, especially because of winter feeding, tractor tracks, a lot of disturbance, and an overabundance of nutrients and organic material are often a mess once the growing season starts up again. I'll address how to handle these areas and what to seed on them in March or April but for now I want to point out that these areas should always be a good distance from any water body. You need to keep at least a two hundred-foot buffer between winter feeding areas and

streams, creeks, ponds, or any other water body. That two-hundred-foot buffer should also be left year-round with good vegetation on it to help filter out sediment and nutrients. Heavily disturbed pastures should also be buffered, but usually require less of a buffer since they usually still are capable of some filtering. Standing in the field should give you some good insight as to what is happening and where.

The impact on these wet soils is also somewhat dependent on the animals present. Small ruminants, such as sheep or goats, don't do quite as much damage due to size. Surprisingly for some, their little hooves seem to do more compacting sometimes than larger grazing ruminants. Smaller sized cattle certainly have less impact than heavier cattle. It's best not start down that rabbit hole today, but cattle size is a good topic.

Back to where I started, mud is certainly worse around feeding, watering, and other concentrated areas, so most producers could benefit from having some heavy use area pads for winter use, especially when the ground stays wet and is not frozen. These are fairly simple and economical practices to construct.

Start by leveling the area. Remove excess organic matter, manure, and top soil if necessary, to get a firm foundation to build on. Geo-textile fabric is laid down first, followed by crushed limestone, usually #53's, which is applied 6-8 inches deep depending on the site and conditions. Finish it with a couple inches of lime. The lime makes it easier to scrape and/or clean later and a little lime spread out on the field or pasture certainly won't hurt anything.

These pads supply a firm well drained area for feeding hay in rings, feeding silage in bunkers and for areas around watering tanks. Similar designs can also be used for concentrated walking areas and lanes. If you happen to be on softer or wetter soils, then a layer of #2 lime stone could be laid underneath for a firmer base.

Mud increases stress for both humans and the livestock. Mud increases energy requirements and at the same time can decrease intake. Mud can also tend to increase disease problems. Bottom line is mud can cost you big bucks!

Rock and geo-textile fabric is cheaper than concrete and requires less maintenance than rock alone. These feed pads can also be placed right along the outside fence line, adjacent to a road or drive. In this way, the silage, grain, or hay can easily be fed without entering the field with the tractor.

Heavy use protection areas are cost-sharable practices available through several USDA programs. Contact your local Soil and Water Conservation office for more information.

Keep warm, dry, and don't lose your boots in the mud with the next thaw and we'll look forward to "keep on grazing!"

**Reminders & Opportunities**

- **Northern Indiana Grazing Conference (NIGC)** – February 1-2, 2019, Michiana Event Center (new location) 4405 E Farver St., Shipshewana, IN. For more information about the NIGC or to get a registration form, please call the LaGrange County Soil & Water Conservation District office at 260-463-3471 extension 3.
- **Southern Indiana Grazing Conference (SIGC)** – March 6, 2019, Crane, IN – Speakers include Greg Judy, Darby Simpson, and Peter Allen. For more information contact the Daviess County Soil and Water Conservation office at 812-254-4780, Ext 3, email Toni Allison dc.swcd@daviess.org or visit http://www.daviesscoswcd.org/index.php/sigc or https://www.facebook.com/SouthernIndianaGrazingConference
- 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/

*Greg Judy is back!*