

Grazing Bites

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I am glad that winters like this don't come around too often. Memories of the winter of 1977-78 seem too familiar again; a slightly real *Deja vu!* It takes a winter as cold as this to remind me of why we build some things the way we do. Number one, burying pipeline deep enough not to freeze. Most years, I rarely see the ground frozen very deep at all, quite often just a few inches. That depth of freezing is highly influenced of course by the temperatures that are occurring, the duration of them, but also by cover. Bare soil, rocky areas, or soil with no insulation value on it, certainly will freeze deeper than soil that has some kind of "blanket." That blanket is usually good sod; the heavier the sod, the higher the insulation value and the shallower the freeze line. Snow can also have some decent insulation values, but snow may or may not happen and be present when really needed.

I generally try not to dig in the ground in the middle of the winter, especially if the wind chill can freeze your spit before it hits the ground. Luckily, I've not had to do that...yet, but I have found the temperature limitations of my old pump house. Pipelines need to be installed below the freeze line, not the average freeze line (depth), but the potential freeze line.

I've not dug down to see just how deep we are frozen right now. I'm curious, but not quite that curious. NRCS Soil Scientist Steve Wade recently told me that he had seen some sandy soils frozen down to 14 inches with some cover in central Daviess County. I'll take his word for it. With good cover and short durations, the freeze line should be less than 12 inches. No cover, and depending on where you are located, it could easily be approaching 30 inches or more. "Frost" levels could be even deeper, which is a good reason to keep pipelines a minimum of 36 inches deep or deeper north of I-70 and 30 inches or deeper south of I-70. Shallow lines, and I have a few, should be designed to be drained during the coldest months. This can be accomplished by gravity in some cases or blown out with an adapted air valve.

All-weather tanks such as "ball" tanks or heated tanks are great for extending the grazing season out in the field and for winter feeding areas. These tanks often indicate that they can handle more than fifty cows (2-ball) or something similar. These are sized (cow numbers) based on feedlot conditions, not for open pasture with long walking distances. Trying to utilize only this type of tank in the summer with more than eight hundred feet of walking distance is going to leave you with some unhappy cows, just not enough drinking space.

Most non-electric type tanks are well insulated above ground and rely somewhat on a geo-tube to help keep the tank from freezing solid. The geo-tube is usually made of thick polyethylene plastic or very dense strong foam and is placed from under the tank down to four feet or more in the ground. This allows heat in the ground to rise up through the tube and help maintain warmer temperatures within the tank. Pipes to the tank are normally run within this tube to also protect them from freezing. It is amazing how well some of these work.

Heated tanks also work very well, but of course require electricity, which can be a feat in itself. When choosing a heated unit, pay careful attention to what it will take to replace the heating element, which do tend to need to be replaced over time...some are easier to replace than others.

There are some gadgets out there that read the air temperature and when cold enough open up a valve to let a tiny stream of water flow freely or create a small spray. This keeps water somewhat “flowing” or moving and flowing water is less likely to freeze. These are best used on tanks with overflow pipes built in to keep the tanks from overflowing and creating a major mess or new resource concern. The overflow pipe generally goes underground to an outlet at a stable area away from the permanent tank. It also then helps keep the cows from using the area around the tank as a skating ring.

One of the more familiar tank systems with an overflow are tanks associated with spring developments. Natural springs occur where you have areas in the landscape where water from higher reservoirs find an outlet of least resistance and flow that direction. Springs are susceptible to contamination and seasonal changes in flow rate, but can be a very reliable and relatively inexpensive source of high quality soft drinking water if they are developed and maintained properly. Spring developments also make really great winter watering systems because water is constantly flowing through them keeping them open and fresh.

Most livestock prefer water between the temperatures of 37 and 65 degrees Fahrenheit. Honestly, that is about the same range I think I also prefer. When the water temperature deviates very much beyond this range intake is reduced. Being too hot is certainly more of an issue than being too cold which needs no explanation.

Cows will consume a fair amount of snow, especially if they are grazing stockpiled forages or winter annuals covered with it. Could it be the only source of water in some cases? This is a good question and the answer would probably begin with the words, “it depends.” The moisture content of what the cattle are grazing and their personal water needs play a big part here, with dry cows probably most likely able to do it. But, if water is available...I’ve never seen them turn it down which tells me they still prefer to be able to drink some, and liquid water (or warmer water) utilized won’t require as much energy.

Spring will come; we just need to be patient. Keep on grazing!

Reminders & Opportunities

Livestock Forage and Grain Forum – March 13, 2014 – Marriott Hotel in downtown Indianapolis, IN. For more information go to:
<http://www.indianasoybean.com/events-and-promotions/livestock-forage-and-grain-forum>



As of September 7, 2013, the Grazing Lands Conservation Initiative (GLCI) is now the National Grazing Lands Coalition (GLC).