



ON FEED

A newsletter of Dakotaland Feeds

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Silage Season

Silage season is here and with the conditions we have had this summer, you may be considering putting more of your crop in a silage pile than normal. With nitrates being a top of mind concern in many places, we need to put up the silage right in order to reduce the nitrates as much as possible and also get the best nutritional quality out of the feed.

In a Nutshell

- *Harvest silage at approximately 65% moisture
- *Get a good chop on it, theoretical length of chop is 5/8"
- *Use a quality inoculant like Biomax Pro
- *Pack with ~800# per ton unloaded per hour
- *Make a drive-over mound for best packing and safety
- *COVER THE PILE with plastic
- *Feed 12" per day off the face of the pile

There are a number of things we need to do to have good quality silage. **First, harvest it at the right moisture.** The right moisture for corn silage is 65% and remember, this is whole plant moisture. Getting the right moisture means that you have a better chance of having good fermentation, resulting in better feed quality. Silage put up too wet will lose nutrients through the run-off and seeping of the pile and is also more prone to clostridial fermentation. Silage put up too dry is more prone to mold and yeast growth and heating.

Get a good chop. The theoretical length of chop should be about 5/8". If the silage gets a little dry, you need to try to get a finer chop because it will be more difficult to get a good pack on it if the silage is too dry. Getting a good chop helps facilitate better packing which means better quality silage.

Use a quality inoculant. Silage will go through some kind of fermentation without an inoculant. However, the point of using an inoculant is to CONTROL the fermentation. This is particularly important if we are trying to reduce nitrates. We need the right kind of fermentation to do the best job. By using an inoculant, you drop the pH of the silage faster, create more stable silage, and inhibit yeast and mold growth. By dropping the pH faster, you retain better nutrient quality and digestibility. Good quality inoculants are packaged to maintain microbe viability. Good quality silage should smell like lactic acid, which is difficult to even detect. Butyric acid, which is a very foul smelling acid, is indicative of poor fermentation and clostridial growth. Biomax Pro will help you retain about 5% more dry matter than if you leave the silage untreated. It more than pays for itself. It also helps delay heating at feed-out. The temperature of silage should be within 10°F of the temperature the day you chopped it. If it is hotter than that, you are losing a lot of feed value because yeasts and molds are consuming the energy in your feed.

Packing is critical. You should have 800# of tractor weight per ton of silage unloaded per hour. If you have a chopper cutting 100T per hour, that means you need 80,000 lbs of weight on that pile. That is equal to 2 four-wheel drive tractors. The goal is to get the density to more than 40 lbs per cubic foot. Another way to tell if you have done a good job packing is to look at the pile after the tractor comes off. You should be able to see the tread marks, not just a tire track. You get the best pack by distributing thin layers and then packing those. Some producers have gone to using box scrapers to distribute a thin, consistent layer over the pile and then are able to pack it effectively. Pushing and packing are not be the same thing.

SEVEN STEPS FOR SILAGE SEASON

Make a drive-over mound. Pile design has an impact on your ability to pack and seal the pile. If you make a drive-over mound, then you can pack all sides of the pile. The run:rise should be about 4:1. It does take a little larger footprint to make a drive-over pile, but with getting a better pack, you may be able to cut less silage because you retain more feed and waste less. Drive-over mounds are also safer than the breadloaf shaped piles out there. You do not run the risk of tipping a tractor off a pile with a drive-over mound. We hear every year about someone who either rolled a tractor off a pile or had a very close call. A drive-over mound will also likely mean you can reach the top of the pile with your loader so you don't have to worry about getting buried by silage when you go to feed. The face of a silage pile can be a very dangerous place. At 40 lbs/cubic ft, even a small 'avalanche' of silage has enough weight to bury and suffocate a person.

Cover the pile, cover the pile, cover the pile!! When you don't cover the pile, the amount of feed that simply disappears would shock you if you could see it. Silage doesn't 'settle'. It volatilizes and you lose dry matter and real pounds of feed. Research from Kansas State shows that you lose 50% of the dry matter in the top three feet of an uncovered pile. There may not be a very deep black crust on the pile, but that doesn't mean you haven't lost nutrients. Get a piece of plastic and cover the pile with that and whatever you want to use for weight (tires, bales, etc.). Unfortunately there is no substitute for a good tarp. I know covering silage piles (and then uncovering them) is a pain, but it is worth it to make sure your silage doesn't turn to manure *before* you feed it.

Feed-out management is important to maintaining silage quality. You want to feed approximately 12" off the face every day. This makes it so that no area of the face is exposed to oxygen for more than 24 hours before it is fed. It helps retain better nutrient quality and digestibility. The yeasts and molds start consuming nutrients in your forage as soon as it is exposed to oxygen. Manage the face from the top down. Trying to lift from the bottom means you incorporate air further into the pile, which is a bad thing. Managing the feeding face across the width of the pile helps you keep the face smoother and not incorporate as much oxygen.

When you put up silage, you live with your sins all year. Everything that goes wrong during harvest will last an entire year. Corn price may be low, but we can't afford to let our money disappear from our harvested feed piles. And, quality silage means better performance for your cattle and safer feed for cows this winter and next spring. If you have questions on silage, please check with your Feed Consultant so we can help you preserve the value of your feed.

Roxanne Knock, PhD

What do you need to be thinking about this time of year?

- * Clean water tanks prior to weaning, check pens and perform maintenance
- * Get your **Stress Care starter** product on hand for weaning
- * Inventory your projected feed resources and project your winter feed needs so you can plan accordingly
- * Get your feed storage area ready for silage season and get your inoculant lined up
- * Get creep feed out for spring-born calves, ask about *Stress Care 10* for weaning
- * **Talk to your vet about getting a VFD prior to weaning if you plan to use Aureomycin**
- * Keep mineral in place for the cows on pasture, it enhances digestibility and most forage is deficient in minerals
- * Feed **Altosid** to control horn fly populations until the first frost
- * Get a pre-conditioning program in place and talk about vaccines, dewormer and treatments with your vet
- * Talk to your veterinarian about ultrasounding bred heifers for pregnancy and start feeding or sell the opens