



## A NEWSLETTER OF DAKOTALAND FEEDS

## Bloat Management

When bloat occurs, there are 3 factors that need to be considered: feed factors, microbial factors, and animal factors. Any of these 3 factors or a combination of them may be involved in any particular instance of bloat.

**Feed factors can include particle size and digestibility**, especially that of alfalfa. Smaller particles of hay or grains are more rapidly digestible than larger particles. Adjusting this may mean putting in a larger screen when you grind hay, or it could mean switching to a portion of

whole or lightly-cracked corn instead of only ground corn. Grain is more rapidly digestible than grass hay. That means the grain is going to be more likely to cause bloat. The moisture of the ration could also be problematic because dry rations may get sorted by the calves, which means they eat the more rapidly digestible feed first and leave larger particles that help keep the rumen consistent in the bunk. If we adjust ingredients to increase moisture in the ration by feeding more wet feeds or adding water, it is more difficult for calves to pick the ingredients they want to eat, helping us reduce bloat.

Once you have cattle that have bloated, it is often difficult to stop. Part of the reason for this is the fact that the **microbial population of the rumen shifts after bloat** resulting in a rumen population more acclimated to produce the mucin that helps stabilize a foamy bloat. Inadequate saliva production is also part of the problem. When cattle charge the bunk and eat too fast, there is less saliva produced. Saliva contains enzymes that help destabilize the foam in the rumen so a reduction in saliva is not desirable. Having finely ground hay can also contribute to less cud-chewing and less saliva production, further contributing to bloat incidence. Remember that some vertical mixers are designed to grind hay and will further reduce the particle size of your forage.

Animal factors are another piece of the puzzle. **Respiratory disease can sometimes be involved in causing bloats**. If the lymph nodes in the throat are swollen, it can occasionally result in the cattle physically not being able to belch. In that case, talk with your vet about treatment for respiratory disease. Using a pulse dose of Aureomycin at 1g per 100lbs for 5 days may be warranted. Sometimes, nerve damage can cause cattle to be chronic bloaters. If the nerve controlling the rumen is injured and not sending the signal to contract, then the animal becomes a chronic bloater, and using a trocar to maintain a hole in the rumen is about the only way to manage that.

**There are two kinds of bloat, a free-gas bloat and a frothy bloat**. In a free-gas bloat, if you pass a stomach tube, you will release a bunch of gas and relieve the rumen tension almost immediately. If you have a foamy bloat and pass a stomach tube, you may get a little bit of frothy rumen digesta to come out but likely have a hard time even getting that. When a frothy bloat occurs, the animal cannot belch or eructate off the gas. Free gas in the rumen typically causes the animal to move the gas forward to belch out. If foamy bloat triggered belching, the animal would drown itself because the gas from the rumen is redirected to the lungs *before* it is fully exhaled. If you have an animal with a foamy or frothy bloat, passing some bloat treatment or liquid laundry detergent down the stomach tube can help destabilize the foam (thereby releasing the gas) so the animal can begin to eructate some of it off. If the animal is having respiratory distress, you don't have time to let that work and will need to put a hole in their left side with either a knife or a trocar. If you need to do that, put the hole toward the top of the rumen to allow the gas or foam off but not the remaining rumen contents.

If we are behind the cattle on intake, their rate of eating may be causing bloat. If the bunks are slicked in a matter of hours, we need to increase the total amount of feed delivered. If you are only feeding once per day and looking at the bunks once per day, you might be missing the signs that calves are ready for more feed or you may not realize just how long the bunks are empty. If you look at the cattle between feedings, you will be able to notice if they are sorting the ration and pushing the roughage to the sides to let the goodies fall to the bottom. You should also notice if there are cattle with high sides, indicating bloat issues.

### In a Nutshell:

- **Feed, microbial, and animal factors all influence bloat**
- **Feed factors can include particle size or digestibility**
- **Microbial populations shift after an incidence of bloat**
- **Respiratory disease may contribute to bloat**
- **Bloats can be either free-gas or frothy**
- **Rate of consumption can cause bloat**
- **Increasing Rumensin may be an option**
- **Bunk management is still key to preventing bloat**

If the cattle consistently have the bunk cleaned in short order where you first start unloading feed, it is likely a signal that you are behind on intakes. Having cattle charge the bunk and overeat is a big contributing factor to bloat.

One thing we can do in the event of bloat is to **increase the level of Rumensin** we are feeding the cattle. By increasing the concentration of Rumensin in the ration, we help to level off the intakes of the cattle and keep them eating more consistently. If we need to make changes to the ration, keep in mind that things may not be fixed overnight because it takes the rumen several days to completely turn over. Changing the ration repeatedly is not going to be beneficial. Bloat blocks (active ingredient poloxalene) are made for cattle grazing legumes and will not reduce feedlot bloats. Bloat and acidosis are not the same thing and do not necessarily go hand in hand, especially when feeding backgrounding or grower rations.

Bunk and intake management are very important to helping keep cattle healthy and gaining. When we start weaned calves, we may increase 2 lbs of dry matter every 2-3 days. After the cattle have been on feed for a couple of weeks, we shouldn't need to be adjusting those cattle more than about  $\frac{3}{4}$  lb of dry matter per head per day. If we increase dry matter delivery by  $\frac{3}{4}$  of a lb, we need to make them clean that up 2 to 3 days in a row or we will be finding a bunch of feed left in the bunk in a couple days. If cattle are pushing each other into the bunk or through the fence-line feed bunks at feeding time, you are behind the cattle and need to increase total feed delivery. Cattle feeding can be hard. If it was easy, everyone would do it!

*Roxanne Knock, PhD*

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

- Remember to recirculate your liquid supplements for 10 minutes daily
- Heat taping lines on liquid tanks will help keep the liquid fluid
- Get Cow Balancer to supply minerals, vitamins and Rumensin if you are feeding your cows with the wagon
- Implant calves during backgrounding to get the best gain and efficiency
- Inventory your projected feed resources and project your winter feed needs so you can plan accordingly
- Pregnancy check cows and decide on a strategy to sell or feed them- implant them if you decide to fatten them

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