

Sub Zero Hangover

I'm really hoping, by the time this reaches you, we'll have warmer weather and be sailing towards spring. Even though the winter was fairly mild earlier, we really got hit with some cold temperatures for an extended period of time. Makes things pretty tough. You make it through it, but for the cows, there can be some consequences.

We try different things to help the cows get through the cold. We increase feed, if they'll eat it. We provide extra bedding and wind breaks if they're outside. But when it is -20 degrees for even a week, you can't protect them enough from the consequences. Let's talk about some of the things to expect and how to deal with them:

Calving Trouble

When it's cold for a week or more, cows don't get a lot of exercise-especially dry cows. We keep them either inside so they don't do the splits on the ice, or they're out in cold housing where they huddle together during the cold. Either way, they aren't moving as much. The first problem with this is that they start to rapidly lose muscle tone. The dry cow is building a calf and developing colostrum and she will draw from her muscles to provide the protein she needs

to perform this feat. This muscle loss can result in twisted uteruses, twisted cecums, breech calves-and a cow that has trouble getting up.

Next, she doesn't get up to eat as often as she should-it's easier just to lay there. The result is potential metabolic issues like milk fever. Finally, dry cows that are housed out in the cold may start to mobilize the fat off their backs too early and can end up with ketosis or fatty livers.

Did you ever wonder why March April typically have more calving issues than even January? It is because of extended periods of cold during the dry period.



So let's talk solutions. Obviously, we can't control the weather. And we're already bedding more, providing windbreaks and encouraging intakes. Here's what we can do to help further:

1. Make sure there is enough protein.

The dry cow should be receiving 1200 grams of protein on a daily basis. Some of this is protein she makes herself during her digestion process. When it is really cold, it can't be completely counted on. Increase the crude protein by 2% or provide higher amounts of methionine during the cold and directly after. This should help prevent muscle loss.

2. Beef up your fresh cow protocol.

Chances are, even if you have a great prefresh program on paper, they're either not

Winter's niggling problems...

Winter has a bunch of small problems that are just annoying-on top of everything else. Here are a few:

1. Frozen teats.

It's not just the cold but the wind can really do a number on teats. There are a lot of good teat dips out there but nothing beats drying the teats after post dipping if they are going to be exposed to any wind.

2. Dehydration in heifers.

The heifers actually need more water than in the spring or fall-the cold is very drying. That and having a waterer or two froze up in the heifer lot and it can result in some sick heifers.

3. Low colostrum levels.

This is actually more common in the early winter: photo light periods have a direct affect on the amount of colostrum produced. The less light equals less colostrum.

4. Herpes mamillitis.

Heifers with udder edema and cows with chilled udders are more susceptible to the herpes virus flaring up in the winter.

5. Winter dysentery

Caused by a virus, this "cow flu" can run its course during the winter. If you are experiencing bouts of dysentery in the herd, check things that could be inhibiting immunity.

THE BUZZ...

Here are some of the latest things going on out there and our personal opinions of them.

Grass digestibility:

Grasses and cocktail mixes have become more popular the last few years, and for good reason—they are typically more digestible than alfalfa.

The fiber in grass is not as woody, so even if the NDF level is higher, the lignin is lower and therefore, the digestibility is better.

I'm glad we said that. Now for the confusing part.

The NDFD 30 (% of NDF digested after 30 hours) is an evaluation based on mainly legumes. The NIR evaluation makes that assumption based on the lignin level of the feed and makes its evaluation from there. Grass, typically low in lignin, usually has a high NDFD 30 value.

But it doesn't feed exactly the same as the same value NDFD 30 from a legume like alfalfa.

Even though grass has lower lignin, it actually takes longer to digest than legumes with comparable values. The upside is that the nutrients are more available, like protein. The downside may be that grass doesn't produce a lot of quick, available energy as you think it should—based on the sample.

uNDF240 (undigested NDF after 240 hours) isn't exactly comparable either. We use uNDF240 to evaluate rumen fill, but again the numbers are largely based on legumes. Basing rumen fill on a uNDF 240 from grass would result in lowered energy and possibly lower intakes than expected, given the current parameters.

I guess what I'm saying is that the ration models aren't designed by themselves to handle large amounts of grass in the diet and neither are the testing labs. Yet.

When I discussed the issue with some of the folks that develop the CNCPS models—most ration formulators use these models—they say they are aware of the issue and they're "working on it".

In the meantime, just be aware that a standard uNDF 240 level of 4-6# per head does not work with grass, you need to make your own adjustments to provide the energy needed.

Ok, thanks for that. Rant over.

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2. Feed a good binder.

Binders will absorb some of the toxins that are produced by the mold or bacteria and may help prevent problems.

3. Let frozen feeds thaw before feeding them.

If possible, of course. The cow doesn't benefit from having to gnaw on frozen chunks, and finely ground frosted feed is just asking for trouble. If you have to feed frozen feed, try adding hay or straw to increase particle size.

4. Adjust the starch lower if temps go back down to normal.

Too many carbohydrates are a main cause of acidosis. We can increase them to avoid production and condition loss when it's super cold out, just make sure to adjust them back. Slowly.

5. Be careful with the fresh cows.

Fresh cows transitioning into early lactation are very susceptible to HBS. They are naturally under a lot of stress and going through a great deal of changes: both feed and environment. Make changes and adjustments as slowly as possible during this time of year.

6. Make all feed changes slowly.

Sudden changes in feed can be just enough shift in the rumen microflora that will promote the rapid growth of the *C. perfringens* bacteria. Make all changes slowly—over one to two weeks.

7. Do not let the cows go without feed.

This time of year especially, cows should have feed in front of them at all times. Their intake is sporadic in the first place,

when the temperatures turn sub zero and that already causes a shift in the rumen bacteria. If she is out of feed for even one to two hours, that can be enough to promote the growth of this clostridial bacteria.

Finally, you can also feed some rumen stabilizers such as yeast. These will help, but they are a very small part of the equation.

Sore feet and Sand Cracks

Winter can be tough on hoof health, especially in sub zero temperatures. The manure in freestalls freezes hard and is almost impossible to get up, until it thaws a little bit outside. Walking on frozen manure can be difficult for cows, it's pretty sharp. This sharp manure can cause abrasions and bruising on the hoof, opening areas to let bacteria in. It isn't unusual, after a cold winter, to have an outbreak of hoof rot or hairy warts when the weather warms up. This is due to abrasions that were caused by walking on frozen manure.

In tie-stalls, another problem can occur. In well-managed tie-stall barns, the hooves can dry out from the use of lime and lack of outdoor exercise. In the winter, even if they go outside, they don't move around very much. The hooves become dry and brittle, causing sand or heel cracks.

While both types of herds can benefit from foot baths, it's not always possible when it is so cold.

To help prevent hoof rot and hairy warts, try using some chelated zinc like zinpro. Zinc helps heal and harden the hoof surface. In the winter, you might need to go with a higher than your normal level of zinc, to try and prevent issues.

Preventing and healing heel cracks involves feeding biotin to help collagen in the hoof. If you already feed biotin, you may need to increase the level in the winter.

Stay warm out there!

Odds & Ends.....

Prices heard this week:

Corn: \$4.72-4.87 per bu.

Soybeans: \$12.97-13.12 per bu.

150 RFV Hay: Large squares are worth approx. 1.20-1.25 per point of RFV.

Springers: \$1200-\$1400 med grade

Cull cows: \$0.57-0.67 per pound

Bull calves: \$65-100

Connections:

*Wanted: bull calves

*Wanted: calf hutches

*Wanted: young bull, preferably holstein.

*For sale: Reg. holstein springers (21&22)

*Wanted: Beef bull.

*For sale: Wheat straw, 1g bales stored under cover.

*For sale: Good quality grass large square bales.

*For sale: John Deere 7710 MFWD tractor

*For sale: New Holland 13 ft hydro swing disc bine

*For sale: Case IH 600 Blower

*For sale: New Holland 70 chopper

*For sale: 2 row narrow New Holland corn head

*For sale: Case IH 5210 Tractor

*For sale: Relief milking done in the St. Croix county area.

If you have something to sell or are looking for something-don't hesitate to call or email. There is no charge for the posting.



Common sense is so rare these days-it's like having a superpower-Dave Ramsey.

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eating enough of it, or they are eating it sporadically-gorging on it one day and leaving it the next. Either way, they aren't exactly getting that nicely balanced diet.

Time to beef up your fresh cow protocol. If you give one bolus of calcium at freshening, add one 12 hours later. Add a probiotic. Use some Multi-min. Work with your vet and nutritionist to figure out what will work best for you.

3. Add some hay or straw.

When it's cold, add some extra hay or straw.

This sounds counter-intuitive, but when the rumen ferments higher fiber, it creates a lot of heat that the cow will benefit from.

Adding extra fiber will also stabilize the rumen and increase the absorption of nutrients during uneven intakes.

Bloody Gut Syndrome

Bloody gut syndrome or Hemorrhagic bowel syndrome (HBS), is an acute intestinal disease that usually ends in death of the animal. You've probably heard of it by now. If you haven't, it affects seemingly healthy cows-usually a top producer-and causes death in 24-36 hours. The signs, if you see any, are excreting large blood clots and/or showing signs of weakness and anorexia. Most of what is going on happens internally.

Internally, the small intestine starts to bleed, resulting in large blood clots that obstruct the passage of feed material through the remaining intestinal tract. In fact, the right side will "ping" when checked-like a DA-because the bacteria and toxins in the intestine produce gas and fill the obstructed area.

If you catch a cow early, you can have surgery performed to break up the blood clots and remove the damaged tissue. Still, the success rate of this type of surgery is less than 50%.

Prevention is more effective. We know that 2 environmental factors are part of what causes HBS: *C. perfringens*-a clostridial bacteria and *A. fumigatus*- a toxin producing mold in the aspergillus family.

The two often occur naturally in both the environment and also occur naturally in the digestive system of cattle. **It actually takes a third factor for the *C.perfringens* bacteria to rapidly grow and/ or the fungus *A. fumigatus* to start producing toxins. Those usual culprits are acidosis and sudden shifts in the diet.**

Which brings us to why winter has a higher risk of HBS. First, mold counts in the feed are typically higher. If there was mold on the plant before ensiling, it continues to grow through the feed-it needs little air to accomplish this. In the winter, the mold growth is noticeable to the cows.

Second, a lot of diets were increased in carbohydrates, particularly starch, to combat the cold. When the cold stops, this extra starch can result in acidosis.

Third, we deal daily with frozen feed.

Frozen feed not only drops the temperature and pH in the rumen, but it grinds up fine in a TMR, reducing the particle size of the overall mix. Usually, this just causes some loose manure, but it can also trigger HBS.

The practical thing to do is reduce the cow's exposure to molds and suspect feeds with bacteria levels, and prevent the secondary factors. Here are some things that may help prevent HBS:

1. Dilute any suspect feed.

Dilute feeds that fermented poorly, have a significant amount of dirt in them or have tested positive for molds. Dilution will help prevent a lot of problems.