

It's not just the Heat...it's the Humidity

Producers have used the THI (Temperature Humidity Index), a combination of temperature and humidity, as a way to gauge heat stress environments for cows. The average THI for a cow should not be over 70 degrees. This year, I think it's fair to say that we don't even need a gauge to tell us how uncomfortable it has been-for both cattle and people.

Cows have a lot of trouble in the heat as they are very poor at regulating their body temperature through sweating. A cow sweats only 10% as much as a person, given her bodyweight-a problem that worsens with humidity.

Typically, when we think of heat and humidity stress, we talk about loss of production (up to 30% less), lowered fat tests (usually 0.2-0.3 points less) and problems with reproduction. Every year we prepare and do a pretty good job about handling them. There are a few things that are overlooked, however, once the humidity gets really high-and it's time to talk about them.

Dealing with Coliforms

With all the humidity, coliform mastitis has been breaking out on farms-even if

the producers had vaccinated their cows. The conditions have been perfect for their growth-coliform bacteria are found naturally occurring in dirt, manure, pond or waste water and contaminated bedding. The wet conditions have caused the bacteria to populate to 1,000,000 cfu per gram, that is all it takes to start an infection.

The good news is that coliform bacteria such as E.Coli or klebsiella actually cannot survive on the teat skin so they can't be spread cow to cow during milking. The bacteria have to have direct contact with the teat canal to get up and infect the cow.

Actually, 60-70% of clinical cases are infected in the dry period or during calving-even if they don't have clinical signs until they've been fresh awhile. Knowing this, we can try and prevent an outbreak from happening. Here are some things that might help:

1. Vaccinate with a coliform vaccine.

These vaccines don't prevent a cow from having a flare-up, but reduce severity. Most veterinarians recommended 3 shots: once at dry up, once three weeks later and once 2 weeks after calving. The vaccine has little



But it's good for the corn...

Corn silage is usually ready to chop around 35-40 days post silking. When did yours silk out? It was early, right?

We try and chop corn silage by the right moisture level: 60-65% for upright silos and 65-70% moisture for bags, piles and bunkers. Too dry and it heats and gets moldy; too wet and clostridial bacteria can lower the nutrient content.

How can you tell the right moisture to harvest?

Here are the more common methods:

1. Appearance

Under normal circumstances, plants that are ready to chop will have lower leaves that are browning, and husks dried to a tan color. Of course, more corn varieties have leaves that stay green after the kernels are fully dry and BMR corn matures 5-10 days faster...so this method is not always accurate.

2. Milk line on kernel

The milk line will proceed down the kernel through full dent until it reaches the bottom black layer. Chopping should begin at 1/3-1/2 milk line depending your storage method.

3. Microwave/Koester tester

Chop 3-5 stalks up and apply the microwave test or put in a Koester tester. Contact us for the step by step methods. And a note: don't use the microwave in the house-you'll be sorry!

4. Send in to the lab.

It takes a day or two but is the most accurate way of determining moisture.

Odds & Ends.....

Prices heard this week:

Corn: \$2.57-2.92 per bu.

Soybeans: \$9.15-9.34 per bu.

150 RFV Hay: Large squares are worth approx. .87 per point of RFV.

Springers: \$1300-1600 med grade

Cull cows: \$0.67-0.75 per pound

Bull calves: \$125-200

Connections:

Call us at 1-800-700-9334 or email us at mctech@centurytel.net to get connected

* 152 RFV haylage for sale. Glenwood City area

* Large square hay and straw for sale.

* Looking for small squares-150 RFV plus

* Balage for sale-excellent quality mixed grass & alfalfa.

* Springing heifers for sale-ready to go in Sept

* Looking for good farm help any leads would be appreciated.

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.



A good laugh and a long sleep are the best cures in the doctor's book.-Irish proverb

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"Common Sense Innovations"

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effect if the booster shots are not given. If the vaccine doesn't seem to be working, switch brands or add another booster shot.

2. Eliminate organic bedding.

If your operation experiences outbreaks; get rid of straw, corn stalks or green sawdust for bedding-at least until the humid weather goes away. The bacteria need a breeding ground to grow.

3. Use hydrated lime.

Hydrated lime used on the back of a stall will help reduce bacteria build up. But use for short time periods only as the lime can dry out and irritate udders if used continuously.

4. Fence off ponds and areas where water pools.

The bacteria love mud and water. Fence off any standing water and use pastures that are well drained. If the cow yard is muddy, consider keeping the cows in until it dries out. The dry cow lot is especially important to keep dry.

5. Use Orbeseal or another teat sealant at dry off.

Plugging the teat canal is an effective way of reducing infections in early lactation.

Just a quick note on treatment. In addition to the therapies recommended by your vet, don't forget to give calcium. Cows that have coliform mastitis such as e. Coli or klebsiella do not absorb calcium well and the treatment will help them recover quicker.

Fresh Cow Issues

Humidity is just plain old uncomfortable for those cows heavy with calves and due to freshen. Studies have shown that cows that freshen in the heat/humidity are more likely to have metabolic issues, produce smaller calves and have lowered immunity.

The main problem is that she really doesn't feel like eating. If a dry cow gets less than 24# of dry matter (about 50# of feed), she doesn't get the nutrients she needs to ward off metabolic problems and infections.

Water is also an issue. A dry cow needs almost 50% more water in the heat/humidity, but if the water is too hard to get at-she'll just sit and pant.

As a result, many cows freshen in the summer are sluggish and don't "take off"- a sign of sub clinical milk fever and/or ketosis brought on by lack of feed and water intake. Cooling the dry cows helps keep them on track, here are some other tips that might help:

1. Increase the nutrient density.

During the humidity, increase vitamin and mineral levels so that the dry cows get the proper amounts in the feed they will eat.

2. Have a good fresh cow protocol.

Anticipate that fresh cows, coming off a spell of humidity, will have trouble absorbing calcium and mobilizing fat. Work a solution into your fresh cow protocol.

3. Feed a yeast product.

Lowered intakes are made worse when the feed that is fed is heating or constantly changing. Feed yeast to stabilize the ration.

4. Provide warm water after freshening.

It seems weird, doesn't it-you'd think that

THE BUZZ...

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

GMO free milk:

First of all, let me say that I am not opposed to people that want to sell GMO free milk. I'm not. It's a niche market fueled by consumer interest and there are some that can take advantage of that opportunity.

The problem is, all milk is actually GMO free. The genes that are present in GMO plants are digested by the cow-broke down because they are proteins. From a nutrition perspective, GMO based plants are slightly less digestible because one of the traits of these genes is that it makes the plant cell wall a little more dense. That's it. It's why the stalks break down more slowly than conventional stalks. We adjust the ration and it is fine.

Testing for GMOs is another issue. The only accurate way to test is with a DNA test which can identify the genes in the plants that are fed. There are several "quick" tests out there-strips and brix meters. Pretty inaccurate as there really isn't any firm science that supports these testing methods-just an assumption that the GMO free feed may test differently in protein or sugars...but then again those nutrient contents are also affected by weather, soil conditions, etc.

So to those interested in taking advantage of it, GMO "free" milk brings about \$1.50 more per cwt. and the feed costs approximately \$80.00 more a ton. So far.

If you want to weigh in on this, please email us at mctech@centurytel.net.

a cow would want cool water after freshening. But studies have shown that she will drink more warm water-even if the temperature is hot outside.

The water is soothing and rehydrates the cow and helps fill the rumen up at a time when she is more likely to twist.

A bit of a Bug Problem

The bugs-especially flying pests have had a tremendous hatch this summer. Horn flies, face flies, black flies, horse flies, deer flies and mosquitos-just about everything that flies and bites.

Usually, flies are just a nuisance, biting at the heels and faces of the cattle. This year the sheer number of biting insects can increase this discomfort tremendously.

Cows need a significant time lying and chewing their cud, and if that is interrupted-the butterfat test will suffer significantly.

Flies also spread diseases. In cattle, pink eye and mastitis are spread by flies. In a study done in Louisiana State University, staph aureus was 55.2% higher in herds without fly control.

Finally, in heifers and calves, severe hatches of flies can actually effect the immunity of the animal and interfere with her growth.

Control of the flies has been a battle for years. Most are doing at least one of the following:

1. Cleaning up

Every ten days, there is a hatch of new flies. Eliminating pooled water, cleaning

up manure and organic matter reduces the hatch.

2. Put a larvicide in the feed

Larvicides such as Clarify or Rabon fed to animals, pass through into the manure and stop the life cycle of the larvae in the manure. For best control, these products should be started in the spring.

3. Hang a sticky tape

These work well for moderate fly problems. If you're changing them sooner than once a week, consider combining with another form of control.

4. Try a predator

Some wasps kill flies naturally. There are good reputable companies that have good programs available for control. Good for more enclosed areas.

5. Use a chemical spray, dip or oil

There are a variety of chemicals available, just make sure you change up the chemical every few years-the flies in your area can build up some resistance.

One more note here...if the flies are bad, the worms are probably too. This may be the year to worm your cattle-in the fall after the ground freezes.

The humidity can be tough on people too, especially when the cows aren't performing as well either and the hay doesn't dry. Hang in there!