Cornell University Cooperative Extension

Cold Weather

NNY Dairy Programs

January, 2014

Tips on Dealing with Extreme Cold

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Winter is well underway and has provided North Country farmers with plenty of challenges this winter. Snow, ice storms, power outages, freezing temperatures with multiple days below zero, have added to the daily chore load.

The goal of this article is to provide some cold weather tips to keep you and your livestock healthy and safe during the frigid days of winter.

THE ANIMALS

WATER - Regardless of if you have dairy cattle, beef, sheep or goats, **water is critical!**

Livestock require water to maintain their immune system and stay healthy. Decreased water consumption leads to decreased feed intake, decreased milk production, decreased reproduction efficiency and reduced metabolic function.

During winter months, check water sources throughout the day to make sure they are free of ice and properly functioning.

Lactating animals have increased water requirements compared to non-lactating and youngstock. These requirements do not changes in the winter just because it is cold outside. Look into options to divert the water from the plate cooler to the water tank for the fresh pen, or price out water heaters. Yes, there may be some increased costs in December, January and February to keep the water flowing, but it's likely better than the alternative of decreased milk production and sick cows.

Yes, even pre-weaned calves require water and yes, I realize water in hutches does freeze when it's -10 (or +20). Having grown up feeding calves in hutches, in NH, I understand it's not a fun job lugging buckets but having sick dehydrated calves is even worse. Providing warm water shortly after feeding milk is when the calves will get the most benefit. Collect the water buckets 20 to 30 minutes later. This prevents frozen buckets and provides another opportunity to observe the calves.

ENERGY – Animals use energy from their diet for growth, reproduction, production, maintence and thermoregulation.

Thermoregulation is how animals (and people) are able to maintain a core body temperature when the temperature outside changes. When the temperature outside drops below the thermal neutral zone (TNZ) the animal must divert energy from the diet to maintain body temperature. This is energy that could have been used for growth, production or immune function.

Lactating cattle - Often we do not worry about cold stress with lactating dairy cattle because as they ruminate they are producing heat. However, if the temperature drops below zero, or cows are not housed in a dry and draft free environment adjustments may be needed to accounted for increased energy needs. Work with your nutritionist to make sure energy needs are being met for cold conditions.

CALVES NEED MORE ENERGY!!!

When the temperature drops below 60^0F calves need more energy!

Calves are born with <5% body fat and do not have a functioning rumen to help keep them warm. If you do not increase the energy in their diet, they will use the energy to from the milk or milk replacer to stay warm and will not grow.

To improve calf health, growth and thermoregulation :

- Feed a milk replacer that is formulated for cold weather
- Feed adequate amounts of milk replacer
    - make sure the calves get enough MCals/ day to meet energy requirements
- Milk should be warm when fed, so the calf does not have to use energy to warm the milk during the digestion process.
- If you are only feeding calves 2 times/day, a third feeding may be needed to get enough energy into the calves when the temperatures drop below zero.
- Provide each calf with a calf jacket
- Provide enough bedding so the calves can nest
- Make sure bedding is clean and dry
- Make sure the calf is protected from the wind.

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Pre-Weaned Calf Management

UDDER CARE – Udder prep, pre and post is always important, in wintertime it is even more important as chapped or frozen teats are a great place for bacteria to thrive. Unfortunately, freezing temperatures and teat dip don't always mix.

These tips will hopefully help keep your cows happy, healthy and help you get that Quality Milk Premium!

- Make sure teats are dry before the cows leave the parlor.
- Switch from a water based to a glycerin based teat dip.
- Store teat dips in an area that is less likely to freeze
    - Freezing can inactive some ingredients as well as cause ingredients to separate.
- Make sure milking systems are functioning properly as well as provide cows with clean, dry housing and protection from the wind.

THE BARN

Smoke & Fire detectors:
Make sure these are in all of your barns and in your house and make sure they work. With all of the heater systems that get set up during winter, safety should be the #1 factor.

Windows & Doors:
Double check that all windows and doors that have been opened during the day (or warmer weather) have been latched to prevent water or other items from freezing. Everyone wants to get home at night, but take 5 minutes to double check things at night, or create a check list and make this one persons responsibility.

Vaccines:
Make sure vaccines, medication and other thermal sensitive items are properly stored, or temporarily re-located. Recently a farmer told me it was so cold out that the vaccine was freezing in the syringe. This inactivates the vaccine and provides no benefit to the animal and costs the farmer twice the money as they now have to buy another round of vaccine**.**

Space heaters:
Space heaters can be the difference between freezing and 33^0F, but **USE WITH CAUTION** and **COMMON SENSE!** Do not place near flammable items such as paper towels or bedding.

YOU:

You have spent all day, out in the cold caring for the animals that are your livelihood. **You need to take care of yourself.**

WATER – Dehydration can occur in winter months just as easily as in the heat.

Make sure you are drinking plenty of fluids and not just coffee! Signs of dehydration include, but are not limited to, headache, dizziness, fainting, tiredness and lack of appetite.

Clothing – Be prepared, have lots of extra layers available.

- Dress in layers
- Wear clothes that wick away the sweat.
- Keep extra clothes in the barn and in your vehicle.
- If you get wet, don't "tough it out", take a few minutes, put on warm, dry clothes and stay healthy. A few minutes added onto chores is a lot better than frostbite due to wet socks or a week in the hospital with pneumonia due to wet overalls.
- Buy some cheap, "stretchy" gloves—they fit well UNDER your milking gloves and help keep your hands a little warmer.

STRESS :
With the challenges that comes with the cold, people getting sick, cows and livestock needing extra attention and barns that need additional maintenance, it's important not to get overwhelmed. Take a 15 minute coffee/ hot chocolate break to warm up and catch up with your kids. If you are feeling overwhelmed take a break, call your neighbor, call your local Extension Educator and find out what programs are coming up ☺ In a couple months' we'll be thinking about making sure there are enough fans in the barn and worrying that the sprinklers are working properly.

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