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Calving in the Cold

How do you deal with below-zero temperatures during calving?
We asked beef producers and Extension beef specialists
experienced with cold winter climates to share their strategies.

by *Kindra Gordon*

When frigid temperatures hit during calving season, it can be a life-threatening situation for newborn calves. Beef producers know the best bet is to get calves out of the cold, but oftentimes there just isn't enough barn space. Here are some makeshift ideas to get through those cold spells.

North Dakota State University Extension Beef Specialist Greg Lardy says protection from the wind and providing a dry environment are the two most important things producers can do to help newborn calves survive.

"Wet and cold are a deadly combination," he says.

To keep cows and calves protected during bouts of frigid weather, Lardy recommends having cattle near shelterbelts or a snow fence to get them out of the wind. Stacks of hay bales can also be positioned to provide wind protection.

Likewise, Jason Ahola, University of Idaho Extension beef specialist, says, "I have seen

ranchers use several different strategies to protect cattle from cold and wind, but few seem to work in all situations with the exception of windbreaks and bedding."

Specifically, Ahola says, in addition to reducing the effects of wind chill on cattle, windbreaks also help to reduce the nutrient requirements of cattle during cold weather. Thus, he says, the cost to build a windbreak should be recovered in feed cost savings over time.

Ahola also issues a reminder that windbreaks can be permanent or temporary — such as those made from a stack of large bales — but he cautions that these structures are worthless if they are not properly placed or rugged enough to withstand high winds.

Accessibility must also be considered when planning windbreaks. For instance, Ahola says, in some cases dense brush or willows in a



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pasture can provide a windbreak for cattle, but often these are not accessible during severe winter weather.

Best bets for bedding

Adequate bedding is another key component for protecting cows and calves during subzero temperatures. “Bedding provides insulation from the frozen ground and also encourages animals to lie down and limit their exposure to wind and cold,” Ahola explains.

“Generally, providing bedding to cattle in small amounts more frequently works best, since this enables the bedding to dry out regularly and avoid becoming a ‘sponge’ for moisture and disease,” Ahola adds.

Additionally, he suggests that it can be beneficial to regularly remove snow from areas where cattle congregate and calve, to minimize future mud problems, to enable bedding to be used more effectively and to encourage more cattle to lie down.

Adequate bedding may also help reduce frozen ears, tails and feet on newborn calves. “Generally, getting wet calves out of the wind and cold and in a bedded area behind a windbreak may be your best bet for avoiding frostbite on calves,” Ahola says. To protect ears in frigid weather, he also recommends producers avoid tagging calves soon after birth, since the minor structural damage of a tag may hinder blood flow to the ear.

A solution for frozen ears

Frostbite on a calf’s ears seems to go hand-in-hand with calving in frigid temperatures. But, a North Dakota couple has sewn up their own unique solution for saving ears.

David and Linda Deutscher of Medina, N.D., call their invention “Save Me Ears.” The fabric hood is pulled on over the calf’s head and neck. Velcro® straps hold it in place. Made out of the same neoprene insulated fabric used to protect deep sea divers, the special hood is durable, warm and resists soaking up moisture.

“We invented the product out of our own needs on our farm,” Linda says. She explains that they calve in February and found that even though they’d dry calves off during cold temperatures to try to prevent frostbite, the cow would continue to lick her calf and keep the ears wet, which led to frozen ears.

Thus, Linda sewed up the special hood, which slides over the calf’s head and holds the ears back against the neck. It keeps the ears protected from the cow’s licking and the cold air.

The Deutschers recommend that Save Me Ears is best used during the first 24 hours after a calf is born, as that is when the cow is licking her calf most. Once removed, the calf’s ears may droop a little but after a day will spring back into their normal position, Linda says. The hood can then be reused on other newborn calves.

While the hood is machine-washable, Linda says during calving season it is best to let it dry and then reuse it on other calves without washing. “The more the hood smells like your barn, the better the cow will accept it,” she says.

The Save Me Ears hood is about \$40 and comes in regular and small sizes. For more information visit www.save-me-products.com/sme.htm or call 701-486-3354.

Calf care

As a final tip, North Dakota’s Lardy says calf huts can be useful in getting calves out of the cold, but they need to be used with some extra management as they can spread disease if not properly cleaned or seeded down with a scour-preventing agent.

“Ideally, from a biosecurity standpoint, producers could do something like the Sandhills Calving System, where the cows that have not calved are moved to a new, clean environment. You could also do this with a series of calf hutches,” Lardy suggests.

Ahola agrees that calf huts can be a great way to reduce calf losses due to cold. He recommends that calf huts should be small, well-bedded and not allow any access by cows. But he says the biggest challenge with these huts is getting calves to use them.

“Calf huts are really only needed for the first one to two days of a calf’s life when the calf is most susceptible to chilling. Unfortunately, calves rarely leave their mama and use these structures right after birth, which is why windbreaks and bedded areas become so important for helping keep the calf dry and protected,” Ahola says.

If a newborn calf does become chilled, it’s

important to monitor if the calf is warming up. Measuring a calf’s rectal temperature, rather than feeling its extremities, is the best way to monitor its core temperature, Ahola says.

If calves get to the point of being hypothermic, Lardy says, they need to be warmed up in a warming box in a heated environment. He has seen some producers use wool blankets to cover the calves to get them warmed back up. “That seems to work well, too,” he says.

In addition to calf warmers, tube-feeding warm milk or fluids with an esophageal tube feeder may help combat chilling, Ahola says.

He emphasizes that the best way to prevent chilling is to ensure that a calf starts nursing soon after birth —

within about 2 hours. However, he adds, “This may require that night checks be conducted more frequently and require more time.”

“Bedding provides insulation from the frozen ground and also encourages animals to lie down and limit their exposure to wind and cold.”

— Jason Ahola

Producer perspective

What are some winter tricks of the trade that producers have found to help protect cows and calves from the cold? Vaughn Meyer of Sodak Angus Ranch in western South Dakota believes in a strong herd health program as a foundation to a successful calving season.

Meyer and his wife, Lois, manage registered black and Red Angus cattle on their ranch near Reva, S.D., with their son Jeffrey as a partner and another partner, Austin Risty. About 30 days prior to calving in early February, all cows are given an annual ScourGuard® shot, with heifers receiving an additional booster shot.

When calves are 4 to 6 weeks old, they are given a shot to protect against pasteurilla and pneumonia. “We believe that that has really helped calves get through any late spring blizzards,” Meyer says. The Meyers’ commitment to animal health continues as calves are given vaccinations at branding and fall preconditioning. As a result, Meyer says, “We have had no major herd health problems.”

In addition to their focus on health, the Meyers have also created a calving area to help weather any storms. They have two large lots adjacent to a calving barn that can accommodate 75 to 90 head at a time.

Throughout the calving season, the Meyers sort so cows and heifers near calving are close to the barn.

The building has an open front with an area 72-feet (ft.) long by 16-ft. wide. A divider keeps cows out of this space, but allows a clean, dry area for calves to lie. A 32-ft.-wide addition on the barn provides an area that will shelter up to 90 cows during a severe storm.

Meyer says they have learned to keep the doors slightly open when the cows are in the barn to allow fresh air to circulate and prevent respiratory disease. And, as soon as the storm is over, the doors are opened up and the cows are moved out, and fresh bedding is put down to get ready for the next storm.

Meyer says another key to their calving success is keeping a watchful eye on the herd. Throughout calving season, they check the herd every 2 hours. When a winter storm hits or temperatures fall below 20° F, they check the cows even more frequently and also keep an eye on cows that are due to calve later in the season. "The stress of a storm can have cows calving earlier than expected," Meyer says.

At the end of the calving season, the Meyers begin preparing for the next calving season. The barn and pens are cleaned out and treated with lime to prevent the spread of any diseases.

In Montana, Bob and Kathy Lee operate a 400-head commercial Angus herd near Judith Gap. Over the years, Bob says his best advice in caring for the herd during calving is "if it's cold, you better be with 'em."

The Lees begin calving their AI'd cows in mid-February and the rest of the herd the first week of March. "Our focus is on having cattle at a good body condition score (BCS) prior to calving, so they can have healthy calves that will get up and suck," Bob says.

But, if bad weather hits, the Lees have a calving barn ready to accommodate. They built the facility 15 years ago, which Bob says, "was a lifelong dream." And he adds, "The older I get, the more I appreciate it."

The pole barn is 48-ft. wide and 96-ft. long and covered with corrugated steel. Plywood sheathing was added under the roof tin to stop condensation. Plywood was also used along the north side, where the individual pens are, to help keep cows and calves warmer.

"If it's cold, you[']ve got to be there," he reiterates. "The cattle are worth taking care of."

—Bob Lee

Five 10×10-ft. pens and a straw storage area run along the facility's north wall. In front of the pens is a 4-ft.-wide alley with 20-ft. steel panels that allow the Lees to move cows to the pens, birthing area or the pulling area. On the other side of the panels is a 33-ft.-wide precalving area. In the corner is a 16×16-ft. calving zone with a headcatch used to assist cows with problems.

The barn's roof has a vented ridge cap and sliding windows on the south side for peak ventilation. There are also 10, 3×8-ft. fiberglass skylights.

Lee's favorite feature in the barn is a 10×16-ft., super-insulated, heated room with a calf-warming crate. He says, "If a calf gets cold, you've got to get them in where it's warm."

If that need arises, Lee has concocted a homemade calf-hauler to easily get calves —

Colostrum always critical

Most cattle producers are aware that getting colostrum into the calf immediately is a critical step toward building the calf's immunity and ability to survive and thrive.

But newer research is starting to quantify just how far-reaching the effects of colostrum are to the future performance of a calf.

"The immune system starts with colostrum when the calf is born. We are finding that proper calving-time management, which includes nutrition for the cows and calves getting immediate and adequate colostrum, can help ensure lower preweaning morbidity," says Rachel Endecott, Extension beef cattle specialist with Montana State University.

She cites a Nebraska study that followed 1,568 calves from birth through the feedlot. It found that calves without adequate passive immunity from colostrum were twice as likely to get sick and five times more likely to die preweaning. That also translated to higher feedlot mortality among those calves that failed to get adequate colostrum as newborns.

To demonstrate the effect colostrum may have on heifer performance, Endecott cites an Arizona study conducted with dairy heifers that showed higher culling rates during first lactation in heifers that were classified as having a failure of passive immunity from colostrum as a newborn calf.

"This might indicate some relationship between colostrum intake and cow longevity in the herd if those females are kept as a replacement," Endecott says. "But this is only one study, and data is limited on the beef side."

Further emphasizing the importance of colostrum, Endecott says research indicates that not all colostrum is the same. An Idaho experiment with first-calf beef heifers looked at the quality of colostrum when females were fed differing levels of protein concentration prior to calving. The study found that cows fed low-protein diets prior to calving had calves that were less able to absorb the immunoglobulins in colostrum compared to calves from dams fed adequate protein before calving. Thus, Endecott says, cow nutrition also becomes critical for producing colostrum to benefit newborn calves.

The rule of thumb is that calves need colostrum as soon as possible in the first 24 hours of life, which is when they have the ability to absorb antibodies directly through their gut wall and into the bloodstream. The gut wall "closes" by the end of that 24-hour period. Calves can absorb more antibodies in the first one to two hours after birth than they can 20 to 24 hours after birth.

and their mama — from the pasture to the barn. He attached a 3×3 piece of plywood onto a pair of snowmobile skis with a seatbelt bolted onto the center. Lee can strap a newborn calf onto the homemade sled and pull it with a horse or four-wheeler. He says the secret is to have about 10 ft. of rope, so the mama cow thinks she's got the calf to herself and follows the sled to the barn.

Lee can drive into his barn, unload the calf, and the cow is usually not far behind. If the calf just needs to dry off, it will stay in a pen with the cow. If the calf is chilled, Lee will put it in the warming crate.

As another tip, Lee says that when returning the calf to the cow, he likes to back the calf into the pen so the cow can smell the calf and bond.

"If it's cold, you[']ve got to be there," he reiterates. "The cattle are worth taking care of."

