

# HOW COLD CALVES CAN FREEZE YOUR PROFITS

(Plus tips for keeping them warm)



Building a snowman. Ice fishing. Polar bear plunges. Many of us cherish *all things* winter. But for your calves, the winter cold can be dangerous and negatively impact their future milk production. Cold stress influences growth rates as calves use their energy to keep warm instead of for growth. In a Cornell study, researchers found that an increase of 2.2 pounds in daily gain during the pre-wean period can result in 1,874 pounds more milk in first-lactation cows, and the trend continues in later lactations. Clearly, it's important to optimize average daily gain and take steps to protect calves from cold stress.

**1. Check milk replacer (or milk) feeding temperatures:** The optimal temperature for feeding milk is 101-105°F. A calf's body temperature is about 102°F and feeding milk at that temperature means she does not have to use energy to warm up

the milk. This gets trickier in cold climates. Some farmers keep bottles in a pail of warm water and feed a maximum of four calves at a time. Others use insulated tanks for storage or put lids on pails to keep the heat in. Take temperatures during the feeding process to ensure you're within the ideal range. You might be surprised how quickly the milk can get cold.

**2. Make sure bedding is dry and deep:** Straw bedding is preferable in winter, allowing calves to nestle into it and reserve body heat. Bedding should be deep enough that you cannot see the calf's legs when she lies down. One way to check for dampness is the "Knee Test." Kneel on the bedding for about 30 seconds to a minute. If you stand up and your knees are wet or cold then there isn't enough bedding.

**3. Review newborn protocols with employees:** Make sure your calf-care team knows why they need to keep calves warm and dry and how to be most efficient getting the job done.

**4. Use calf jackets to keep calves warm:** A rule of thumb for using jackets is when the daytime high and the nighttime low added together equal 90°F or less, it's time to pull out those jackets. Make sure calves are completely dry before putting a jacket on them and adjust straps weekly to allow for growth. Between calves, it's important to launder jackets with detergent in hot water to prevent spreading bacteria.

**5. As temperatures drop, increase the amount of milk being fed:** Calves use energy to keep themselves warm. Increasing the amount of milk or milk replacer fed will offset this energy expenditure so calves are not consuming fewer calories than they use up. For every 10°F below 32°F, a calf needs about 10% more milk to meet its nutritional requirements. You can add more milk to each feeding, or add another feeding in order to meet these needs.

**6. Offer free choice water:** Calves that have available water show a higher average daily gain, but it can be difficult to keep water in front of calves in the colder months. You want calves to have access to water but you don't want it to freeze or be too cold that they have to use energy to warm it up as they drink. One way you can combat this is to provide warm water. Additionally, use the feed-and-dump method in cold months to help prevent water buckets from freezing. To implement this method, give calves in a row warm water, go back around and feed them, and then come back and dump water pails. Or put out warm water before you take your lunch break and then go back after and dump water buckets.

**7. Block the wind:** Wind chill can cause major problems for calves. To stop the wind, use wind breaks, patch up holes in hutches, use hay bales as a makeshift wall, or move hutches to a less windy area during the colder months. These steps will decrease the chance for frostbite and help calves save energy.

**8. Boost employee moral:** It's not always fun to work outside in winter months. Even if you have a calf barn, chances are it's still chilly and employees have to endure some rough elements. The cold adds one more layer of stress to your employees, so try to combat this with small acts of kindness. A coffee/hot cocoa station, providing hand warmers or even a few winter caps can go a long way and it lets your employees know they are appreciated! Appreciated employees tend to work harder and feel more purpose from their job, which should result in overall better calf care.

**9. Keep the maternity pen clean:** The maternity pen is where it all starts. If the pathogen load is high in this pen, odds are you will deal with sick calves. Make sure the bedding is clean, deep and dry to help keep calves warm and prevent pathogen exposure. Give special attention to this area when your calving numbers are higher. Rather than always cleaning out the maternity pen on a specific day, try to clean it every so many calves. Because a week where you have 20 calves is a lot different than a week when you have five.

**10. Prevent scours:** Sick calves are never fun to deal with, but treating sick calves in the winter is the worst. Calves are born without an immune system and therefore colostrum antibodies are vital to preventing diseases, such as *E. coli*, coronavirus and rotavirus. Unfortunately, colostrum does not always have the antibody levels a calf needs to outweigh the environmental pathogen load, and that's where you can insert a verified colostrum antibody product to help push your calves through the first few weeks of life. Although prevention means taking another step early on in the calf's life, it significantly outweighs the cost of treating later.

It might be tempting to rush through protocols when your skin prickles from the cold. But unlike calves, we can take care of ourselves. How well do you typically adjust for them in colder months? Remember, the effects of cold stress can linger far past the last snowmelt. Let's protect our calves from all that conspires to harm them.



THE BEST VACCINE FOR SCOURS,  
ISN'T A VACCINE.

