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Conestogo, Mount Forest, Tavistock

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## CALF BEDDING MATERIALS FOR FALL AND WINTER

It is time to change to winter bedding and bring out the calf jackets to provide calves extra warmth from low temperatures.

If you normally use shavings as calf bedding during summer, it is now time to switch to straw bedding to help keep calves warm. Michigan State University Extension\_recommends using straw bedding when temperatures are 40 degrees Fahrenheit or below. Straw bedding is ideal when daytime highs or night time lows are below the thermo-neutral zone for a young calf. A newborn Holstein calf has to burn energy to keep herself warm when temperatures are below 50 F. If there is draft, wet bedding, or an immune system challenge, then the critical temperature is higher.

A calf is born with only 2-4 percent of body weight as fat, which will not last long if she is forced to burn fat for heat production. Burning body fat for heat can lead to lower growth rates, compromised immune status, and even death. The need for straw bedding at this time of the year to provide warmth for young calves is true both in barns and in hutches. Unless the calf barn has supplemental heat, it should be well ventilated, but without drafts on the calf, and within 5 degrees of outside temperatures, necessitating the use of straw bedding and calf jackets.

Straw is the best choice of bedding to provide thermal insulation for the young calf. Straw tends to hold moisture, so it is important to add fresh bedding regularly. Moisture exceeding 20 percent is too high. If you kneel with all your weight in the calf bedding, any moisture on your pants indicates the bedding is too wet. Straw should be bedded deep enough that the calf can nestle in. This traps warm air around the calf, which will help maintain body heat. For winter months, the straw should be deep enough that when the calf is lying down its legs are generally not visible.

Calf jackets are another way to protect calves from losing excess body heat. A field trial from North Dakota State University found that calves housed in hutches during winter had higher average daily gains when wearing calf jackets. Gains for jacketed calves averaged 1.15 pounds per day for the first three weeks of life, while calves without jackets averaged 0.82 pounds per day. When using calf jackets, ensure that they are sized correctly and stay dry.

The use of deep straw bedding and calf jackets during low temperatures will help young calves stay warm resulting in improved average daily gains and immune status. (DairyHerd)

# **THANK YOU!**

We want to thank you for your cooperation during our shutdown in October. Our upgrades went smoothly.

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# IT IS TIME TO THINK WINTER

Winter is here and hopefully you had time to look at facilities and equipment well before the arrival of its cold, wet and winds! The goal is to provide the best possible winter environment for your livestock. Here are a few things to keep in mind as winter progresses.

Many small dairies still use tie stall barns. These buildings provide nice, comfortable working conditions for you during cold weather, but those same conditions may be detrimental to the cows. Without even talking about ventilation rates, all equipment needs to be in proper working condition. Fan blades should be clean for easy airflow. Louvers designed to prevent cold air inflow can also restrict warm, moist air exhaust if they are dirty, bent so they don't open, or blocked in any manner. Make sure fans are cleaned, so the motor will run cooler and more efficiently. A dirty fan may have its airflow capacity reduced by 40%.

Proper ventilation is almost more about air inlets and air distribution than it is about exhaust fans. Especially for winter ventilation, air distribution needs to be uniform around the dairy barn so dead air spots with high moisture content don't develop. Air inlets come in a wide range of designs. It makes little difference what system you use as long as it provides sufficient air distribution throughout the barn. Be sure air passages are not blocked by dust, feed, collapsed ducts or dead critters that have collected over the seasons. Winter ventilation in any dairy barn is all about keeping the air as dry as possible. While warmer air does hold more moisture, it is not enough reason to close the building up to keep it warmer. That extra moisture in the air is what causes many respiratory problems. A minimum number of fans and air inlets need to be operating at all times to keep moisture moving out of the barn. To prevent some problems with air restriction, continuously running fans should have louvers taken off. If the louver isn't there, it can't get dirty and slow air exchange. Continuous fans don't need thermostats, but other types of fans are usually on thermostats to turn them on as needed. Contact points in thermostats corrode easily when they aren't being used regularly. Check that all thermostats are clean and their contacts are working properly. Replace thermostats that simply won't work after routine cleaning.

A more common housing option today is a freestall barn and usually these are cold barns. Cows can be productive at temperatures well below 20° (F) if they are kept dry and sheltered from harsh winds. Ventilation in freestall barns is sometimes mismanaged during freezing weather.

### Common mistakes to avoid include:

**Limiting ventilation to prevent waterers from freezing**. Find other ways to keep water running. A barn that is warm enough to keep water running may be a barn with the potential for respiratory problems in the winter.

**Limiting ventilation to keep manure from freezing**. Manure may freeze for a few days during the coldest part of the winter, but your cows are much better off if you prepare some alternatives for the manure handling.

Limiting ventilation to prevent drafts. Cold, naturally-ventilated barns depend on airflow to keep moisture moving out of the barn. If the barn houses younger livestock needing extra protection, consider some sort of plywood partitions that limit airflow within these pens, but not through the entire building. Curtain barns are intended to restrict some airflow in cold times without cutting off all airflow. Let the barn work the way it is intended. While it may be tempting to close down the open ridge of a naturally - ventilated barn, the open ridge is what helps to keep the barn dry. Warm, moist air needs a place to escape and that place is the open ridge. Cold freestall barns are intended to operate between 5 and 10 degrees warmer than the outside temperature. If the weather becomes extreme and you feel you have to cut down air exchange even a little, it would be better to put restrictions on the sidewall inlets (at the eave level). Do not close them entirely, however, or you will prevent proper airflow out the ridge. If the inside temperature of the barn is more than 10 degrees higher than the outside temperature, you are probably shutting the airflow down too much. Additionally, be sure to check the eave openings on your barn to see if they are continuously open or if they are variable. Look at how you can close them part way, if an extreme cold spell calls for some air restriction. Always keep in mind safety around the farm – from icy walkways to faulty wiring and improperly insulated wires, heating elements and more. Make this a safe and productive winter – regardless of the cold, wet weather of winter.

**WE WILL BE CLOSED....** 

December 24 and December 31 at 12:00 noon December 25 and January 1 2016