

Adams Advanced Nutrition, Inc.

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It's Time to Think Winter!

Even though most farms have completed the harvest and other crop-related work, dairy producers also need to be thinking "winter". They should be looking at their facilities and equipment well ahead of winter weather to be sure the systems are ready to deal with the extremes of winter and provide the best possible winter environment for livestock. The occasional rainy days in fall make good days to look over the livestock operation and take any corrective actions necessary. Here are a few things to check on those rainy days.

Many small-to-medium size dairies still use tie stalls. These buildings can provide nice, comfortable working conditions for people during cold weather, but those same conditions may be detrimental to the cows in the winter.

Without talking about ventilation rates, the 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 and bent so they don't open, or are blocked in any manner. Clean fans and motors 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 enough 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 means keeping the air as dry as possible, in any dairy barn. While warmer air does hold more moisture, it is not enough reason to close the building up to keep it warmer. Extra moisture in the air is what causes so many respiratory problems in cattle. Minimum fans and air inlets need to be operating at all times to keep moisture moving out of the barn. To prevent problems with air restriction, continuously running fans should have louvers removed. If the louver isn't there, it can't get dirty and slow air exchange.

Continuous fans don't need thermostats, while other types of fans are usually on thermostats, turning them on as needed. Contact points in thermostats corrode easily when they aren't being used regularly. Check that thermostats are clean and their contacts are working properly. Replace thermostats that simply won't work after routine cleaning.

The most common housing today is a freestall barn, and usually that is a cold barn. Cows can be productive at temperatures well below 20° F, if they are kept dry and sheltered from harsh winds. There are some common mistakes with a freestall operation, which should be avoided. These mistakes are:

- ***Limiting ventilation to prevent waterers from freezing.*** Find other ways to keep the water running. A

barn closed up enough to keep water running will often be a barn with respiratory problems in the winter.

- ***Limiting ventilation to keep manure from freezing.*** Manure may freeze in the coldest part of the winter, but your cows are much better off if you prepare some alternatives for manure handling rather than keeping it warm in the barn so the manure won't freeze.
- ***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 that need extra protection, consider additional bedding or partitions that limit airflow within the pens, but not through the 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, that open ridge is what keeps 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 about 5-10 degrees warmer than the outside temperature.

If the weather becomes extreme and you feel you have to cut down the air exchanges, 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 10+ degrees higher than the outside temperature, you are probably shutting the airflow down too much.

If your barn's open walls are controlled by curtains, this is a good time to unroll the curtains for inspection. Look for tears and holes caused by rodents. Are all the mechanics working properly? If you have an automatic system, see that it opens and closes properly. If you have a manual system, open and close your sides as well. If lubrication is called for, this is the time to do it.

Are the eave openings on your barn continuously open or are they variable? Look at how you can close them part way if an extreme cold spell calls for some air inlet restriction.

Also, it is far easier to check and repair a heater element in a waterer now than in December. While checking the heating elements, check the wiring to be sure all wires are well-insulated and the system is properly grounded, preventing stray voltage problems through the waterers.

Winter ventilation [in any dairy barn] means keeping the air as dry as possible, while ensuring good circulation and air exchange. Get ready for winter... before it comes!

(edited from an article by Chuck Schwartau, written for Dairy Star)

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call me! My goal is to help you. That's Renaissance's commitment!

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Talk with me today about **NutroCAL™** and its ability to provide exceptional energy for transition cows.

WINTER IS COMING! WHAT ABOUT THE YOUNG STOCK?

Cold weather can play havoc on calves and heifers! It can impact their growth and development, as well as overall health – delaying their maturity toward first calving at 24 months of age. It is important to consider all aspects of their care and management, including housing and ventilation, hygiene, and feeding a quality, energy-balanced milk replacer and starter feed – products that can help ensure they receive adequate energy and nutrients to meet the needs of growth, development and bodily warmth.

During cold winter weather, it is necessary to feed more energy to calves, in order to meet their higher energy needs for maintenance. Once the environmental temperature drops below 59°F, the calf has to increase its metabolism in order to maintain its body temperature. A calf housed at an environmental temperature of 25°F requires roughly 30% more energy for maintenance than one housed at 50°F. In extremely cold weather (<0°F), sick calves are at great risk due to potentially reduced feed and energy intake, coupled with limited body reserves of energy.

To maximize the growth of calves, it is important to supplement nutrient intake during cold weather, thereby increasing the animal's ability to generate and maintain its body heat. To ensure your calves are getting enough milk replacer on cold winter days and to review your entire calf program, call me today! Together we can make a difference in your future herd.

Keep your calves warm this winter and appreciate the difference in their growth and development. After all, they are your future lactating herd!



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Happy Thanksgiving!

November 2007...



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NutroCAL™ & transition cows...
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Check it out.