

## Winter Calf Care Tips

As cold weather approaches, many producers will begin to winterize their equipment and make sure that water lines are protected from freezing. This is also a critical time to evaluate calf facilities and management practices to insure healthy, well-doing dairy replacement heifers.

When temperatures drop below 50 degrees F, calves require additional energy to maintain their body temperature and to grow. This increased energy requirement can be met by supplying the calf with an increased volume of liquid milk replacer solution or by increasing the amount of powder and keeping the liquid volume the same. If temperatures are between 0 and -10 degrees F, milk replacer should be increased by 20% and increased by 40% if temperatures are below -10 degrees F. It is best to switch to feeding three times per day under severe conditions to avoid digestive upsets.

Bedding should be clean and dry at all times. Deep straw bedding allows the calf to create a nest to help reduce heat loss and exposure to drafts. Using other forms of bedding such as sawdust or shavings does not provide enough protection in cold climate areas. Sawdust can be used as a base to absorb moisture, followed by eight to ten inches of straw on top for insulation. In some of the warmer climate areas, calves are kept in elevated crates or bedded on screened gravel. These types of housing are ideal for summer climates since they aid in fly control and allow for better ventilation. However, these types of systems do not provide a way for the calf to bed down and preserve its body heat. Therefore, measures should be taken to eliminate drafts and wet conditions in these types of housing. And "winter feeding" programs should be implemented to provide more calorie dense diets to these animals. If this is not done,

calves born during the cold season may have a substantial size disadvantage to their warmer season counterparts. This could result in increased age at breeding or smaller frame size at calving – both of which have been shown to decrease profitability in lactation. Therefore, the added cost of increased supplementation during the winter on young calves is more than returned in later life.

Shelters should be designed to protect calves from wind, rain, snow, and drafts. Heated housing is generally not necessary. In barn structures where calves are kept in individual pens, protection from drafts becomes more of an issue. Shutting these facilities up too tightly can also result in too limited air movement and an increase in respiratory problems. One point to remember is that calves can handle much colder temperatures if they are in a dry and draft free environment.

Calf caretakers should do all that is possible to encourage starter intake. Access to clean, fresh, palatable starter will help the calf to be able to provide more of its nutrient needs through the starter rather than on the more expensive milk replacers. Digestion of solid feeds produces heat within the calf's body which aids the calf in staying warm.

Free choice water should be made available as long as weather permits. As discussed in a previous technical bulletin (Technical Bulletin 06-12), water intake is directly correlated with starter intake. Offering warm water at least once per day during winter months will help with winter stress.

By following these steps, calves should be able to cope well during the cold winter months. If calves appear to be showing signs of hypothermia

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(depression, weak, loss of appetite, abnormally cold extremities) measures must be taken to warm the calf. Taking rectal temperatures is a simple method in determining if the calf is experiencing hypothermia. Body temperatures below 94 degrees F require immediate attention. Warm calves by

using warm, dry blankets or a warming box. Warming boxes should be kept at a temperature no higher than 108 degrees F. Adequate ventilation to prevent moisture and carbon monoxide build-up is necessary. Clean and disinfect warming box after each use.

Adapted from article by Jim Linn, University of Minn. Extension.