

NAVAN VETERINARY SERVICES NEWSLETTER - FEBRUARY 2013

The extreme cold weather we've recently experienced provides a good reminder to re-evaluate calf health and comfort on your farm. Calves require a lot more energy to maintain health and growth as ambient temperatures drop.

The most common problem we see in calf feeding programs in winter is underfeeding milk volume or errors in mixing milk replacer. Problems arise from either not measuring the milk powder or the water required for dilution. Adding 3 litres of water to 450 grams milk powder will yield more than 3 litres of milk replacer, actually approximately 3.45 litres total volume. This volume is what needs to be fed for example to a very young calf. If you mix your replacer and water and then rack off 3 litres for the calf's meal, you could be effectively underfeeding fat and protein by 15%. This can have a critical effect on calf health in winter as illustrated in the table below, using a 26/16 milk replacer, and assuming no calf starter is consumed.

	Temperature	
	-20°C	0°C
Feeding rate 150 g	0.24 kg/d	0.53 kg/d
Feeding rate 125 g (approx. 16% less)	weight loss	0.33 kg/d

If we can get a calf to gain approximately 0.45 kg/d, its immune system will be functioning optimally, to combat disease. Growth rates less than this result in sick calves often fighting diarrhea and pneumonia. As temperature drops even further, calves can quickly become hypothermic and die.

The correct way to mix a batch of milk replacer is as follows:

- 1) Mark your mixing pails with lines eg. For 5,10,15 or 20 litres of water
- 2) Add the correct amount of measured milk replacer powder
eg. 15 litres of water requires 2.25 kg powder (at 150g/L of water)
- 3) Add hot water, just enough to fully dissolve the milk powder
- 4) Add cold water to get your desired level

Another important issue to address during cold weather months is adequate bedding in calf hutches or pens. Dry, deep bedding will minimize heat losses through the ground and minimize evaporative losses from a wet calf. When a calf is lying down, a good measure of adequate bedding is when you cannot see its legs. A draft free area to lay down is important. Calves can thrive in cold weather, as long as they have enough energy in their diet, clean dry bedding and fresh air.

Our annual spring meeting will be on Friday, March 22, 2013. The speaker will be Dr. Dave Reid.

Dr. Reid is a milk quality specialist, who travels around the world helping to solve problems with all issues relating to milk quality and especially milking equipment. Dr. Reid is owner of Rocky Ridge Dairy Consulting in Hazel Green, Wisconsin and is currently first vice president of the National Mastitis Council. Further information will be distributed as a flyer soon. Hope to see you there!

