



The Scoop

December 2010
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Cold Stress in Calves

Well fall is coming to an end and winter will soon be here and we will once again be bundling up to go do chores. Just like we take action to stay warm we need to take action to help keep our calves warm. Below are some tips that I hope will help you keep your calves warm this winter.

Land O'Lakes Purina Feed and Town and Country Coop recommend a full potential nutrition program to provide calves with the correct amount and balance of nutrients.

The program includes:

- Cows Match milk replacer with Architect technology and Future Cow 22 calf starter with Ampli-Calf technology

Here are some key points to keep in mind.

- Traditional calf feeding programs do not meet the baby calf's basic energy requirements during cold stress conditions
 - o Calves **less than 21 days** of age experience cold stress at **60 degrees**.
 - o Calves **21 days and older** experience cold stress at **42 degrees**.
- Adding additional fat to milk replacer does not deliver the right balance of nutrients
- To assure your calves energy requirements are being met, feed more volume of milk replacer with the right protein to energy balance.
 - o For example feed a 28:20, 25:20, or a 22:20 milk replacer
 - o Make sure there is at least a 20% fat.
- Always make sure your calves have a clean, dry place to lie down.
- Make sure you use straw bedding. The straw allows them to tuck their legs under it for warmth.
- The most important feeding of the day is the evening feeding. Make sure the milk replacer is around 105 degrees. It will help keep their body warm through the night.
 - Make sure the water used to mix milk replacer is at least 120 degrees.
 - Calf blankets are an effective tool to help keep your calves warm.
 - It is important to give them warm water through the winter and electrolytes can be used to prevent the water from freezing.



Temperature Impact on Requirements and Gain (88 lb calf)*

Temp Degrees F	Daily energy requirement maintenance ME Mcal	Daily Milk Replacer	Daily energy delivered ME Mcal	Daily Grain supported (lb)
60	1.62	20:20 @ 1 lb	2.15	0.54
		Amplifier Max (22:20) @ 1.5 lb	3.28	1.23
		Cows Match (28:20) @ 1.8 lb	3.98	1.74
32	2.14	20:20 @ 1 lb	2.15	0
		20:20 + 2 oz fat @ 1.1 lb*	2.59	0.16
		Amplifier Max (22:20) @ 1.5 lb	3.28	0.74
		Cows Match (28:20) @ 1.8 lb	3.98	1.23
5	2.65	20:20 @ 1 lb	2.15	0
		20:20 + 2 oz fat @ 1.1 lb*	2.59	0
		Amplifier Max (22:20) @ 1.5 lb	3.28	0.23
		Cows Match (28:20) @ 1.8 lb	3.98	0.79

*Table based on calculations made with Dairy NRC 2001. Based on adding 2 oz of fat source (7% prot.-60% fat): changes 20:20 to 18.6% prot. – 24.5% fat.

I hope this helps everyone combat the cold stress. I hope everyone has a Merry Christmas and a Happy New Year. If you have any questions please give me a call.

Thanks,
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