

Good Growth in Cold Weather: Part 2

Calves grow very well in cold weather. Naturally, they need a good start with plenty of good quality colostrum as soon as possible after birth. Calves body reserves at birth are very limited so the first feeding of colostrum provides essential energy for survival. Several feedings of colostrum or high fat the dam's 2nd, 3rd, or 4th milking are very desirable in freezing weather.

In a previous paper, I referred to a graph that illustrated how energy needs increase as the weather gets colder. [Good Growth in Cold Weather, Part 1] Our challenge as calf rearers is to work out some plan on our farms that will get extra energy into calves during severely cold weather.

If we want calves to grow and build strong immunity, they must have plenty of energy for growth as well as that needed for maintenance. Yet freezing winter weather diverts a lot of energy into maintenance. Thus, calves often fall short of the nutrients needed for healthy growth.

WHOLE MILK

How can we increase the amount of energy fed? Do you have access to milk from fresh cows that is not yet ready to go into the bulk tank? This is an excellent feed because it is about 16 to 18 percent dry matter. Whenever it was available, I used to feed it to calves under a week old. Especially in freezing weather, they thrived on it because of all the extra energy.

If you have whole milk available, replace all or some milk replacer with milk. Holstein milk has about 25% more energy than 20% oil milk replacer. Jersey milk is higher with about 50% more energy.

But, please be careful about using waste milk. If it is held without refrigeration for more than two hours it could have high levels of coliform bacteria. This condition can easily lead to unacceptable rates of scours and respiratory illness, reduced rates of gain and even death.

Keep in mind also that unpasteurized waste milk, depending on your herd's health situation, could be the route for infecting calves with salmonella, mycoplasma or Johne's.

FEED MORE OF THE SAME

Another practical way to increase energy levels is to stay with the same milk replacer but just feed more of it. In my experience when 20% oil milk replacer is mixed according to tag instructions it can be fed in winter conditions up to 3 to 4L per feeding twice a day.

Calves will make more efficient use of this feed and begin eating concentrates sooner if free choice water is offered at least once a day. Yes, offer water even when the weather is below freezing.

More and more farms are working out ways of feeding water in wintertime. Lots of them fill water buckets once a day and, before it freezes solid, dump left over water once a day.

ADD MORE MILK REPLACER POWDER

Some farms that offer ad-lib water all year round choose to increase the dry matter content of their milk replacer in freezing weather. Without ad-lib water I never had much success increasing with this method.

As you mix in more powder for the same amount of water it is possible to create mixes up to 15% and 18% dry matter. For example, using 300g of powder per calf per feeding rather than 250g increases the energy level by 20%.

These mixes contain a lot more energy per litre. This method works well for young calves (that have ad-lib water daily).

ADD AN EXTRA FEEDING

For several years, when the labor situation was just right, in the winter I added a mid-day feeding for all the calves under two weeks of age. This is a relatively small proportion of the total calves on milk so it was workable.

We were already working with all the calves at that hour feeding them water. So, the extra milk replacer was not much extra work. I fed by size: one extra litre to average size calves and two litres to the largest ones (45kg and up). I had no problems with scours. And, it reduced my problems with respiratory illness in this age group.

ADD EXTRA FAT

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Some farms don't want to change their feeding procedures between summer and winter. These folks may wish to increase the fat content of their ration.

One way to do this is to purchase a special "winter" formula milk replacer with a high oil content (for example 25% to 27%) This provides the extra energy as fat without having to add it as a separate step. In situations where feeding has to be limited to 2 to 2.5 litres of milk replacer per feeding, this has worked well. However, there is limited availability of a specialty product like this.

In the United States dairymen have the option of adding fat separately. The product that I have worked with directly is Merrick's Super Calf Kit. There may be others available. Ask your milk replacer supplier.

It works well to increase energy. However, it is an extra step at milk replacer mixing time. Only a small amount is used per calf at each feeding. Therefore, I recommend purchasing a sturdy dustbin to store a product like this in order to maintain product quality once a bag has been opened.