

## **Good Growth in Cold Weather2**

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.

Thus, the first feeding of colostrum provides essential energy for survival. Several feedings of colostrum or high fat transition milk 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. [See resource “Good Growth in Cold Weather” graph is on page 3] Our challenge as calf raisers is to work out some plan on our farms that will get extra cold weather energy into calves.

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. Freezing winter weather conditions divert a lot of energy into maintenance. Thus, calves often fall short of the nutrients needed for healthy growth.

### **TRY FEEDING WHOLE MILK**

How can we increase the amount of energy fed? Do you have access to transition milk? That is, milk from fresh cows not yet ready to go into the market 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 the 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 twenty-five percent more energy than 20-20 milk replacer. Jersey milk is higher, fifty percent.

Please be careful about using waste milk, however. On one hand, if fed within 30 minutes after milking, it could have an acceptable level of coliform bacteria for calves. On the other hand, 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.

### **TRY FEEDING 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 20-20 milk replacer is mixed according to tag instructions it can be fed in winter conditions up to three and one-half to four quarts per feeding twice a day.

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

More and more farms with cold housing are working out schedules to feed water in wintertime. Lots of them feed water once a day and, before it freezes solid, dump pails once a day.

### **TRY ADDING MORE MILK REPLACER POWDER**

Some farms that feed free choice water all year round choose to increase the dry matter content of their milk replacer in freezing weather. Without free choice water I never had much success increasing dry matter content of milk replacer.

As you mix in more powder for the same amount of water it is possible to offer mixes up to 15 and 18 percent dry matter. For example, using ten ounces of powder per calf per feeding rather than eight increases the energy level by twenty-five percent.

These mixes contain a lot more energy per quart. This method works well for young calves (that have free choice water daily).

### **TRY ADDING 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 less than two weeks old. This is a relatively small proportion of the total calves on milk so it was workable.

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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 quart to average size calves and two quarts to the largest ones (100# and up). I had no problems with scours. And, it reduced my problems with respiratory illness in this age group.

### **TRY ADDING EXTRA FAT**

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 such as a 20-27. 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 two or two and one-half quarts of milk replacer per feeding, this has worked well.

The other method is to add fat separately. The product that I have worked with directly is Merrick's Super Calf Kit. There are 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 garbage pail to store a product like this in order to maintain product quality once a bag has been opened.

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