Feeding the Dairy Calf on Limited Milk

Cooperative Extension
South Dakota State University
Feeding the Dairy Calf

The surest and most practical way to improve or increase your dairy herd is to raise herd replacements.

In South Dakota nearly one-fourth of the milking cows must be replaced each year. This means that in a 20-cow herd, four or five heifer calves must be raised each year.

Select only those calves that are sired by good registered bulls and out of profitable cows, because each calf represents a big investment in feed, time, and labor. Then protect your investment by getting your calves off to a good start. Calves should be grown as rapidly as possible, with the lowest possible feed cost.

Feeding methods vary in different parts of the state because of dairy marketing practices. In the change from selling farm separated cream to selling whole milk, many producers are raising calves without skim milk, which has been the main diet of our dairy calves in the past.

FEED REQUIREMENTS AT DIFFERENT AGES

The stages of the calf's development can be divided according to the types of feed needed for good growth.

One to Four Days. Let the calf stay with its dam for about 3 days. The calf will nurse frequently and is not likely to take too much milk at this time because its stomach has only a capacity of 2 to 3 quarts of liquid. A calf should receive its mother's first milk (colostrum) within an hour after birth. This milk has a tendency to build up the calf's resistance towards diseases, is slightly laxative, easily digested, and high in vitamin A and protein.

Three to Seven Days. The amount of milk you feed the calf after taking it away from the cow depends on the size of the calf. Feed 1 pound of whole milk per day for each 10 pounds of body weight. Feed twice daily. There is more danger of overfeeding than underfeeding at this age. Holsteins and Brown Swiss will require 9 to 10 pounds of milk each day and Guernseys, Jerseys, and Ayrshires, 4 to 8 pounds. Use a dairy scale to weigh the milk—don't guess. For best results, feed calves warm milk on a regular schedule, using clean utensils.

Second Week to One Month. Start feeding dry calf-starter or milk replacer at the beginning of the second week, if you are not going to feed any skim milk. Start with less than one-fourth pound daily the first week and increase to three-fourths pound daily in 3 weeks, depending on the recommendations of the feed manufacturer. This prepared calf feed will supplement the whole milk being fed. You may have to put a little of the feed in the calf's mouth to teach it to eat. At about 3 weeks of age, the calf will begin to eat small amounts of hay. From then on, it should have free access to good quality alfalfa hay. Some dairymen prefer alfalfa-grass mixtures but the important thing is to keep a fresh supply available.

Second and Third Month. Taper off on the amount of whole milk when the calf is 1 month old. Reduce the volume 1½ pounds per week until the calf is receiving three-fourths pound per day at 5 weeks of age. Increased consumption of calf starter will replace the nutrients formerly supplied by the milk. Dry calf starter should be increased daily from three-fourths pound to 2¾ pounds by the time the calf is 5 weeks old. When the calf is 6 to 7 weeks old it will start eating grain in addition to the calf starter and hay. This ration, along with high quality hay and grain, will supply nutrients for the calf until it is about 5 months old. Have clean water available for the calves at all times.

Fourth to Sixth Month. At 4 months of age the calf starter can gradually be reduced. You should limit the grain to 4 pounds to encourage consumption of hay. This will develop larger bodied calves and encourage growth, not fat. (Remove unused feed each day.)

Pasture and Silage. Calves should not be pastured for the first 3 to 4 months. Older calves on pasture still need a grain mixture until they are at least 1 year old. A good mixture would be corn (course ground) 40%; oats (crushed) 30%; soybean meal 28%; salt 1%; and mineral 1%. Do not feed silage until the calf is 4 months old. Then you can feed about 5 pounds daily. Do not feed unlimited amounts of silage until calves are at least 8 months old.

By Ervin Kurtz, Extension dairyman