

Calving Ease

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Once-a-Day Feeding: Yes or No?

Just like all other management practices for preweaned calf care, once daily feeding can be used correctly or incorrectly. Let's think through this management practice together.

Why consider once-a-day feeding?

You can expect some decrease in labor needed for calf care. Do not expect the net decrease to equal one feeding time. You still need to check on calf health for all the calves at least twice a day. And, most caretakers feed milk or milk replacer twice a day to the youngest calves. Another plus is that feeding trials consistently show that calf health and growth can be the same for both once and twice daily feeding programs. Reported average daily weight gains range from just under 1.0 up to 1.4 pounds at six weeks (42 days).

Start with good newborn management

There is no substitute for getting calves off to a good start. Avoiding contact with adult cow manure is essential. That means a clean calving area and, for most farms, getting the calf away from her dam as soon as she can stand up. A good start also means feeding plenty of clean, good quality colostrum as soon as possible after birth. Then, calves are moved into clean, dry and well ventilated housing for a low pathogen environment.

Provide water and calf starter

Do not even think about once daily feeding if your calf program cannot provide free-choice water and calf starter grain 24/7 for 365 days a year. Keeping the calves hydrated in both hot and cold weather is a must. Not every feeding trial has shown that once-daily calves consume more calf starter grain than those fed twice daily. However, in recent trials once-daily calf grain consumption has been slightly higher than twice-daily calf intake. Producer observations from other countries where once daily is more common than in US suggest calves fed once a day have both earlier and higher calf starter intake rates compared to twice daily feeding.

Consider twice daily feeding for neonatal calves

Nearly all feeding trials started calves out on twice-a-day feeding. Once they were off to a good start then the feeding schedule was cut back to one time a day. My clinical observations for once daily feeding programs suggests the preferred time to switch from 2X to 1X is when calves are past the highest risk period on that farm for diarrhea. One strategy is to plan on changing at two weeks. When the change is made any calf that is scouring is passed over. I have seen caretakers mark these pens

(hutches) with Velcro cow leg bands, clothes pins, or shower curtain rings. While it is extra work to accommodate these exceptions, moving them to the once daily feeding while scouring tends to prolong or even make diarrhea worse. However, with exceptionally good management once daily feeding can begin on day two.

How much milk or milk replacer to feed?

For the youngest calves milk or milk replacer will have to meet their needs for both maintenance and growth. Therefore, we have to be sensitive to environmental temperatures. Some of the feeding trials fed whole milk at 10 percent of initial calf body weight. Until temperatures dropped to nearly freezing these calves still had some energy left over for growth after meeting their maintenance needs. As you adjust milk volumes upward to compensate for winter conditions you may have to modify the age at which you move from twice to once daily feeding. Just be sure that once daily calves consume their entire milk feeding every day.

Remember that whole milk feeding, in addition to having greater energy per quart, has the advantage of casein protein. Recall that this protein coagulates in the abomasum and is slowly released into the small intestine. Milk replacer, with only whey protein, does not have this “slow release” advantage.

Excellent calf starter grain management is a must!

First, remember that palatability is usually the first limiting factor in consumption of starter grain. For the youngest calves I recommend replacing starter every day. The fresh grain has not only a good smell but fines are held to a minimum this way. In hot weather fresh grain will not be moldy even if calves get it wet.

Second, some hand feeding can make a big difference in getting very early starter intake. If housing makes it convenient try placing a little grain in each young calf’s mouth as you pick up bottles or feed water. If calf access is limited, some caretakers drop a small amount of grain into the milk feeding bucket just as calves are finishing their milk. Even before rumen fermentation begins grain will be digested in the small intestine. If we feed twice daily until two weeks and actively promote starter intake, some limited rumen fermentation will begin supplementing milk or milk replacer about the same time we switch to once daily feeding.

References:

Galton, D. M. and W. J. Brakel. 1976. Influence of feeding milk replacer once versus twice daily on growth, organ measurements, and mineral content of tissues. J. Dairy Sci. 59:944-948. Hopkins, B. A. 1997 Effects of the method of calf starter delivery and effects of weaning age on starter intake and growth of Holstein calves fed milk once daily. J. Dairy Sci. 80:2200-2203. Stanley, C. C. and Others. 2002. Effects of feeding milk replacer once versus twice daily on glucose metabolism in Holstein and Jersey calves. J. Dairy Sci. 85:2335-2343. Jones, C. and J. Heinrichs. 2007. Feeding calves once a day cuts labor needs. Penn State Department of Dairy and Animal Science Dairy Digest. Accessed at <http://www.das.psu.edu/user/dairy/newsletter/fullStory.cfm?newsID=869> on 6/11/07.

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