

# Colostrum Feeding for the Future of the Dairy Herd

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In the dairyman's busy day, many times the management of newborn calves gets pushed to the back burner. Unfortunately, this can mean calves are not receiving adequate amounts of high quality colostrum. This can lead to higher levels of sickness and death in these young animals, since colostrum is the calf's only source of protection against disease. Because dairy calves are the future of the milking herd, there are several guidelines dairy producers should follow when feeding colostrum to newborn calves. These guidelines include timely feeding of adequate amounts of high quality colostrum.

Quality is one of the most important things to consider when feeding colostrum, however, it is the hardest to control and measure. Antibody levels can vary according to the cow's disease history, age, season of the year, breed and amount of colostrum produced. A colostrometer is one device which to some degree can help determine antibody content at the farm level. If a colostrometer is unavailable and quality is questionable, it is best to use colostrum from older cows which have lived on the farm for several years. These cows are more likely to have been exposed to the disease present on your farm. It is also advisable to choose colostrum from mature Johne's free cows. Colostrum can be frozen without diminished quality for up to a year.

Another extremely important factor in colostrum feeding is time. Calves are born with no antibodies against disease and thus must absorb them through the gut wall. The absorption of colostrum is highest immediately after birth (about 40%) and decreases to almost zero within twenty-four hours. Therefore, the time after birth to when the calf receives colostrum will determine the calf's ability to resist disease. It is critical calves acquire colostrum as soon after birth as possible to give them the best chance for survival. It is also important the calves are separated from the dam and hand fed colostrum. This will ensure the calves obtain colostrum at the proper time.

The final imperative point to consider when feeding colostrum is quantity. For years, the recommendations have been to feed two quarts of colostrum as soon as possible after birth, and two more quarts within twelve hours. However, this may not always be enough to fully protect the calf. As we now know, the quantity of colostrum needed by the calf can vary with colostrum quality as well as the time it is fed. When it is not possible to measure the antibody content of colostrum, it is best to feed three or four quarts in the first feeding. An esophageal feeder may be necessary to do this. It is also advisable to feed greater amounts of colostrum the farther away from birth it is being fed, since less of the antibodies will be absorbed. Once again, colostrum should be hand fed to ensure the calf receives adequate amounts. Studies have shown that 40% of calves may not receive adequate colostrum when allowed to nurse their dams.

In short, correct colostrum feeding is the best way to give calves a healthy start in life. It can reduce death loss and sickness in calves and lead to a healthier milking herd in the future. Just a few minutes out of a dairy producer's day can have an enormous impact on calf survivability. Hopefully, the next time things get hectic around the barn, baby calf management will not be what gets pushed aside.