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Calf Note #01 – Colostrum Feeding – To Nurse or Not to Nurse

Introduction

When a calf is born, a common question is whether to let the calf nurse the dam, or to separate the two and feed the calf with a nipple bottle or esophageal feeder. I'd like to suggest that allowing the calf to nurse the dam is a bad idea. Usually a very bad idea. To understand the reason that allowing the calf to nurse usually increases the incidence of morbidity and mortality (sickness and death), it's important to understand the two most important things about colostrum consumption. Colostrum provides the calf with immunoglobulins (Ig, also called antibodies) that provide the passive immunity the calf so desperately needs for the first two months or so of life. Calves are born without any Ig, so if the calf doesn't get these Ig within the first 24 hours after birth, the chances of survival are not great. You can do yourself (and your calves) a favor by making sure that calves drink enough colostrum within those all important 24 hours.

The single most important component to successfully transferring Ig from cow to calf through colostrum is the consumption of sufficient colostrum. Calves must consume **enough** colostrum to provide the Ig needed for passive immunity. That's where allowing the calf to nurse the dam usually fails - calves that nurse usually don't consume as much colostrum as when the calf is bottle fed or fed through an esophageal feeder. Most research indicates that calves consume small meals and don't consume enough colostrum to achieve successful passive transfer. Estimates of the number of calves that don't consume sufficient colostrum range from 25 to 40%. That's a lot of at-risk calves. The other most important component of colostrum feeding is feed it early. How early? Well, the efficiency with which a calf can absorb Ig declines within one hour after birth and is gone by 24 hours. But the first few hours are critical - therefore, early colostrum is especially important to acquisition of passive immunity to the calf. Delays in first feeding of colostrum not only cause a decline in efficiency of absorption but can lead to disease and even death if bacteria can colonize the intestine before the colostrum gets there. Many calves - especially large calves that have experienced a difficult birth won't get up quickly after they are born. The delay in standing can further reduce the ability of the intestine to absorb Ig, thereby making the calf more susceptible to disease.

Calves left to nurse the dam can sometimes fail to find the udder or teats, and as a result don't get enough colostrum and start drinking that colostrum later than if they were bottle fed. The situation gets even worse if your cows have large pendulous udders that are low to the ground. Because a calf's natural tendency is to nurse **up**, it may spend many frustrating hours trying to find the udder. Instead of nursing colostrum, it spends its time trying to find the udder, and maybe ingesting bedding or feces that can contain deadly bacteria.

The bottom line is this - calves left to nurse the dam are at greater risk of consuming insufficient colostrum and consuming that colostrum later than when they are fed by nipple bottle. Whenever possible, you should separate your calves from their mothers as soon as possible and feed it as much

fresh, high quality colostrum as the calf will consume. If it won't voluntarily consume enough colostrum, then don't hesitate to reach for the esophageal feeder.

**Written by Dr. Jim Quigley (01 March 1997).
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