The Importance of Colostrum in Calves

Colostrum is the first milk that a cow or mare provides for the newborn calf or foal. Colostrum is different from the milk that the female provides the rest of the time in that it contains antibodies against disease that she has encountered or has been vaccinated against. Failure to get colostral immunity is very likely to result in death of the calf or foal in the first few weeks of life. Newborn calves and foals that consume colostrum absorb the antibodies, which are large proteins intact without digesting them. These antibodies provide the newborn with the only disease specific immunity that they will have until their own immune system becomes fully functional at around three months of age. These antibodies can only be absorbed, in their whole immune active state, across the stomach wall for the first 4-6 hours of life and then the stomach wall closes down preventing their absorption.

If a calf does not get colostrum in the first 2-2.5 hours of life, steps should be taken to get colostrum or a colostrum replacement into the calf by bottle feeding or tubing it. Do not mistake NurseMate tubes as a colostral replacement.

Colostrum may be milked from healthy cows that have lost their calf during the birthing process or small amounts may be milked from cows after their caves have nursed for the first time. This colostrum may be frozen and kept for 1-2 years. The thawing of the colostrum is done by placing it in a warm water bath. DO NOT MICROWAVE COLOSTRUM. Microwaving of colstrum changes the structure of the antibodies (proteins) making them inactive and useless much like cooking an egg changes the protein from a clear liquid to a white rubbery state.

If colostrum from you herd is not available then a replacement colostrum needs to be given. Be careful that you are using replacement colostrum and not just a colostrum supplement. Colostryx is a good colostrum replacement. Unfortunately, the Colostryx package labelling suggests that is just a supplement. Often colostrum supplements contain no antibodies (immunity), just caffeine and quick energy supplements to get the newborn to stand more readily so that they can nurse.

NURSEMATE tubes are supplements that do not contain any antibody or replacement immunity. Anything, from milk to dirt, given orally that gets into the stomach starts the shutdown process that prevents the body from absorbing colostral antibodies as soon as it hits the stomach. This means that the first thing you as a producer give a newborn should be colostrum or colostrum replacement. If you give a NurseMate tube or something similar you need to be certain that the calf or foal gets colostrum within the next 1-1.5 hours.