

Managing Weak Calves

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Weak born calves can be caused by a number of different infectious and non-infectious conditions. This spring the most probable cause of weak calves will be related to physical condition of the cow. The thinner the cow or heifer, the more likely the occurrence of weak calves. That's only the first hurdle. The second will be the immune status of the calf during the early days of its life.

Neonatal calves depend on the cow for all physical and mental development prior to calving. All muscle tissue, nerve fibers, and energy reserves present in the calf are dependent on the nutritional status of the cow. Cold weather and snow have significantly increased the protein and energy requirements of the cow.

The best cure for weak calves is prevention. Cows and heifers in good condition (body condition score of 5 or 6) have stronger calves than cows and heifers in thin condition (body condition score of 3 or 4). These calves stand quicker and nurse sooner. Cows and heifers in good condition also produce more colostrum than cows and heifers in thin condition. For adequate production of muscle, nervous tissue, and energy reserves in the calves, cows and heifers need adequate protein and energy in their diet.

Whether or not a calf is born weak, all calves require colostrum soon after calving to have a fighting chance of survival. Colostrum, the first milk from the dam, is high in immunoglobulins or antibodies. Calves are born with a limited immune system and are dependant on their mothers to supply antibodies needed during the first six weeks of life.

A calf needs to consume about 5-6% of its body weight within the first six hours of life and again before 12 hours of life. For an 80 pound calf this is approximately 2 quarts of colostrum per feeding. Why is this important? Because the calf's digestive tract undergoes "intestinal closure". Specialized absorptive cells in the calf's gut are sloughed and the transport of antibodies from inside the gut to the circulatory system inside the calf is no longer possible. Since the calf cannot produce its own antibodies until about four to six weeks of age, it is totally dependant on antibodies derived from the colostrum for protection in its early life.

What do you do if there is no source of colostrum for the calf, such as the cow or heifer dies, or the colostrum leaked out of the udder before the calf was born? Cow-calf producers should have a source of colostrum identified before going into the calving season. Colostrum can be stored by freezing. Colostrum can be obtained from late-term cows or heifers which have a stillborn calf, from heavy producing cows (but make sure its calf receives adequate colostrum before taking any), from some dairy farms, and colostrum supplements which can provide substantial doses of antibodies to newborn calves are available from veterinarians and veterinary outlets.

Whatever the colostrum source, the same time constraints are in effect. The colostrum should be consumed within the first 6-12 hours of life of the calf. The key to assuring adequate colostrum for your calf crop is being prepared