

Unthrifty Calves? Assessing Passive Transfer.

One of the most frequent calf problems we encounter at MVS is sick and scouring calves. The most frequent causes of scours in young calves are one or a combination of the big three: cryptosporidium, a parasite; rotavirus, a virus; and coronavirus, a virus. According to the Minnesota Diagnostic Lab greater than 90% of all calf diarrhea samples submitted included one or a combination of these organisms. It is important to understand that antibiotics are ineffective to stop these diseases because none of them are a bacteria.



The good news? The best line of prevention against these diseases is feeding high quality colostrum in a timely manner. Colostrum and the antibodies it provides is a newborn calf's only line of defense against disease.

When it comes to feeding colostrum it is imperative that the three Q's of colostrum are followed in order to effectively give calves a strong immune system to fight disease. The three Q's of colostrum are Quickness, Quality, and Quantity. As a rule, holstein calves should be given 4 quarts of high quality colostrum as soon as possible and within 4-6 hours of birth. It is important to quickly feed colostrum to calves because antibody absorption decreases over time. A calf that does not receive enough high quality colostrum results in failure of passive transfer. A simple, inexpensive, and effective test can be performed to look for calves with failure of passive transfer: serum total protein. Serum total protein is a quantitative measurement of the solids found in the fluid portion of the blood serum. This measurement correlates to the quantity of antibodies in the calf's bloodstream. Adequate passive transfer is a total protein level greater than 5.5 g/dl, less than this is considered a failure of passive transfer. When keeping records on farm the goal is to have more than 80% of calves reach 5.5 g/dl or higher. After discovering this issue we can reevaluate the colostrum management on a farm using various other tools.

Mondovi Veterinary Service is proud to offer these and other services if you suspect your calves are suffering from failure of passive transfer.