

Colostrum Replacers for Dairy or Beef Calves – Do They Work?



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We all realize that the timely consumption of adequate amounts of high quality colostrum is essential to the survivability and health of newborn calves. Calves are born without antibodies to fight-off diseases and thus rely on the passive immunity provided through colostrum until their own immune system develops later in life. Well-known and respected calf researchers agree that the golden standard to provide the best defense against disease still is to feed 3 to 4 quarts of natural high-quality colostrum from the calf's dam within 6 hours of life. However, commercially-available colostrum products have become popular because of convenience and as part of a biosecurity and disease-control program to help prevent the spread of Johne's Disease and Bovine Leukosis.

Several commercially available colostrum supplements and replacers are sold in the United States. When choosing a "colostrum replacement product", one first needs to understand the difference between a colostrum replacer and a colostrum supplement. Secondly, you should evaluate if the product you want to purchase has been shown to be effective in university or independent-based trials. To be effective, the product should increase serum IgG concentrations in calves above 1000 mg/dl or 10 mg/ml - watch the units.

Colostrum supplements are meant to be fed with colostrum to improve the quality (antibody level) of a farm's colostrum. They generally contain less than 75 g of IgG per dose. Feeding two bags of this type of product instead of one has not been effective as a colostrum replacer.

Colostrum replacers, on the other hand, are designed to be the sole source of nutrition for newborn calves and contain greater than 75 to 100 g of IgG per dose. Colostrum replacers often times are made from bovine serum or dried colostrum. They contain additional nutrients, such as carbohydrates, fats, digestible proteins, minerals and vitamins, needed by the newborn calf to maintain body temperature and other body functions. Some of the products on the market have research to show they are effective at providing effective IgG or antibody levels in the blood. Other products, especially some of the colostrum-based products made with earlier technology, may not allow for the absorption of adequate amounts of antibodies. Several different companies may handle the same product marketed under different names. The bottom line is to ask for the data from university or independent based trials which show that the product is effective as a replacement for colostrum.

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