

Colostrum: The Critical First Step in Newborn Health



It is nearly impossible to overstate the importance of colostrum. Keeping newborn kids or lambs healthy and thriving in the first weeks of life is one of the greatest management challenges, and colostrum is the critical first step in achieving life-long health for your newborn.

Colostrum is the very first milk produced by a mammal after she gives birth. This thick, yellowish substance has elevated levels of protein, fat and certain vitamins and minerals to supply a nutrient-rich first meal for the newborn. It also helps build energy reserves that regulate body temperature and includes laxative properties that help clear the digestive tract of fecal matter.

But colostrum is so much more than just a first meal; it is a critical building block of a newborn's immune system. Colostrum contains important antibodies, or immunoglobulins, that the mother was not able to pass through the placenta to the fetus in utero. These antibodies help build the newborn's passive immunity – the ability to fight off pathogens to help prevent illness and premature death. Immediately after birth, the newborn kid or lamb is exposed to a host of new germs that can cause intestinal, respiratory or other diseases. Armed with colostrum antibodies, the newborn is better equipped to fight against infection.

The window for reaping the benefits of colostrum is a small one. Mothers will only produce colostrum for about 24 hours. And for just the first 12-18 hours after birth, a newborn's body has the unique ability to absorb the antibodies from the colostrum into the bloodstream via the intestines before gut closure begins. That's why it is so important to have colostrum replacer stocked in your emergency kit: to ensure your baby kids or lambs receive ample antibodies early enough to be effectively absorbed.

Colostrum from the mother or another healthy female in the herd is usually the best option for a newborn kid or lamb because it will contain antibodies specific to the herd and to any vaccinations she received while pregnant. However, there are several scenarios where supplementing or replacing the doe or ewe's colostrum with colostrum replacer is beneficial. In cases of maternal death or other distress that prevent the newborn from nursing and receiving colostrum, colostrum replacer fed immediately is an effective alternative. In addition, some diseases can be passed to a newborn via infected colostrum. If the dam has tested positive for diseases such as *Ovine Progressive Pneumonia (OPP)*, *Caprine Arthritic Encephalitis (CAE)* or *Johne's Disease*, the newborn should not be allowed to nurse. Instead, feed a colostrum replacer for the first 48 hours, then switch to a milk replacer to prevent transmission of the disease.

Supplementing with colostrum replacer is also good management practice in situations where you are unsure if the kid or lamb has received adequate colostrum, as in the case of multiple births or when the newborns are weak or underweight. Colostrum or colostrum replacer should be fed at a minimum of 10% of the kid or lamb's body weight, so a 10lb newborn needs to consume a minimum of 16 oz. of colostrum in the first 12-18 hours of life.

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Some caretakers prefer to use frozen maternal or bovine colostrum to replace or supplement the newborn's needs. However, these supplies can have variable levels of nutrition and antibodies, and the antibodies are easily destroyed by heat during the thawing process. Frozen colostrum must be thawed very slowly in a warm water bath to the newborn's body temperature (102-103 F), which may unnecessarily delay the crucial first feeding of colostrum. To ensure adequate levels of antibodies and key nutrients, colostrum replacer is the most consistent and reliable choice. Be sure that the product you are using is labeled "colostrum replacer" or "colostrum substitute," as colostrum supplements and milk replacers do not contain the crucial antibodies newborn kids and lambs need. When prepared with warm water according to package directions, colostrum replacer will give you the peace of mind that you are providing optimal nutrition and immune support to help your newborn kid or lamb survive and thrive.