

For Your Information

Courtesy Of:

Cotati Large Animal Hospital

8079 Gravenstein Hwy, Cotati, CA 94931

(707) 795-4356 (707) 578-4760

Gene Harlan, DVM Calvin Dotti, DVM Andrew Wirz, DVM Sally Venable, DVM

www.cotatilargeanimal.com

Scours in Young Calves

Prevention:

- A. Calves should be born in a clean environment as possible, i.e. unused pasture or a stall cleaned and prepared between cows.
- B. Feed 2-4 quarts of colostrum within 2 hours of birth and 2 more quarts by it is 12 hours old.
 - a. Colostrum should be pooled from at least 5 animals and should be the first milking after calving. Levels of antibodies decrease dramatically as time passes between calving and harvesting the colostrum. There are meters commercially available to measure antibody levels in the colostrum. Freezing colostrum destroys beneficial white blood cells that are in the colostrum, so fresh or cooled colostrum is better.
 - b. There are commercial colostrum supplements that can be used to increase serum antibody levels in the newborn, but they are not equal to actual colostrum.
 - c. Calves should receive 10% of their body weight split between two feedings
- C. Navels should be dipped with dilute Nolvasan solution (1:4) immediately after birth. They should be re-dipped 2 times daily for an additional 2-3 days or until the umbilical cord dries.
- D. Calves should be housed separately so that they cannot come into direct or nose-to-nose contact with another calf. This helps prevent the spread of disease from one newborn to another. All pens and feeding equipment should be sterilized and dried between calves. The feeding utensils and equipment for treating calves should be disinfected between uses.
 - a. In our practice there has been a real benefit to calf health by using plastic calf hutches. These can be both easily cleaned and moved to an unused area of soil. These hutches are not as successful in the winter as they are in the drier months, but this may be remedied by using 2 systems: one facility under shelter for 3-4 months of severe winter weather and calf hutches the rest of the year. This alternating of facilities breaks the cycle of one facility in constant use and can be cleaned and disinfected to stop any disease cycle.
 - b. Use of commercial products with E. coli antibodies such as Genecol 99 or First Defense, has been effective for prevention of colibacillosis in some instances
 - c. Boosting the antibodies in colostrum can be achieved by vaccinating during the dry period in the cows. Several vaccines are available for this purpose including ScourGuard, ScourBos and Gardian. These Vaccines help protect against such pathogens as Coronavirus, Rotavirus and E. coli, which are some of the most common seen in calf scours

Treatment

In most cases, treatment of diarrhea with antibiotics can be very unrewarding. Several trials have been conducted in which milk containing antibiotics was compared to milk without antibiotics as a feed for day old calves. Feeding the antibiotics to the calves almost tripled the incidence of scours during the first three days of life. Although oral treatments with other antibiotics appeared in most cases to control scours, the incidence of scours recurring was 5 times greater when antibiotics were used than when they were left out of the treatment protocol. The antibiotics fed to calves as a preventative measure destroy some of the normal protective bacterial population and serve to create antibiotic resistant bacteria while having little effect on the pathogen responsible for the outbreak. However, the treatment level of antibiotics will kill or inhibit a portion of the pathogens responsible since resistance is not absolute.

The population of the pathogen may be reduced below that necessary to cause disease symptoms and diarrhea stops. When therapy is discontinued, however, surviving pathogens face little interference from the depleted normal protective bacterial population, thus repopulating the intestinal tract and causing a second outbreak of diarrhea. To the calf raiser, it appears that the original antibiotic treatment was successful, but when the second occurrence comes, he may not realize that the original treatment may have predisposed the second outbreak. Using milk contaminated with antibiotics in newborn calves is very detrimental. It is preferred that all treated mastitis milk be discarded, or at least not fed to calves that are younger than a month of age. Although they have a place in the control of disease outbreaks, antibiotics are not a substitute for good management and health practices. Supportive care with electrolyte solutions will clear up the problem in most cases since scours is usually a self-limiting disease.

Prevention of dehydration is the most important factor in saving calves that have diarrhea. It is crucial to start treatment as soon as the disease begins. It is much easier to prevent a calf from becoming excessively dehydrated than it is to save a severely dehydrated animal.

As soon as diarrhea begins, discontinue milk and start the calf on an oral electrolyte replacement therapy. If the diarrhea is severe, it may be necessary to feed 3-4 times daily in order to prevent dehydration. Once the diarrhea is under control, the calf can be gradually started back on milk over a few days by mixing milk with electrolytes in increasing proportions until back to straight milk. Incorporate milk again as soon as possible to prevent weakness in the calf. Milk feeding can be alternated with electrolyte feeding to increase energy and control dehydration.

With the above procedures in effect the problem of diarrhea in newborn calves will generally be eliminated. However, if the problem persists and/or the animal continues to deteriorate, it is recommended to talk to your veterinarian for additional treatment options.

