

# Preventing Calf Scours

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**E**nsuring that calves receive adequate high-quality colostrum containing antibodies within two to four hours of birth is key to preventing scours. There are a number of factors that influence the quantity and quality of colostrum the calf receives from the dam. These include:

- age of the dam
- precalving nutrition
- precalving vaccination
- calving difficulty
- calf vigor

## Nutritional Management

Research indicates that adequate precalving nutrition is an important ingredient in ensuring calf survival. In 1975, a study showed that pregnant cows that were fed 70 percent of their calculated energy requirements over the last 90 days of pregnancy produced calves more likely to become sick or die.

First-calf heifers, which were restricted either in protein or energy, produced calves that were less able to generate body heat soon after birth. This likely results in calves that are more susceptible to cold stress. Literature also indicates that calves born to 2-year-old heifers with a body condition score below optimum are less vigorous and have reduced antibody (immunoglobulin) levels as soon as 24 hours after calving.

To ensure delivery of a healthy calf, it is important to meet a pregnant cow's nutrient requirements. This maximizes the calf's chances of resisting environmental stress and disease. First-calf heifers have different nutrient requirements than older cows and tend to get less feed when fed with the herd. We

recommend sorting 2-year-olds from older cows.

Body condition scoring is an excellent tool for ensuring that nutrient requirements are met for all cows. Those on the low side can be separated from the herd to ensure they receive better or more feed

before calving. Targeting cows for a medium body condition score of 5.0 and first-calf heifers for an even higher score of 5.5 to 6.0 at calving is important. (The scale runs from 1 to 10, thin to fat.)

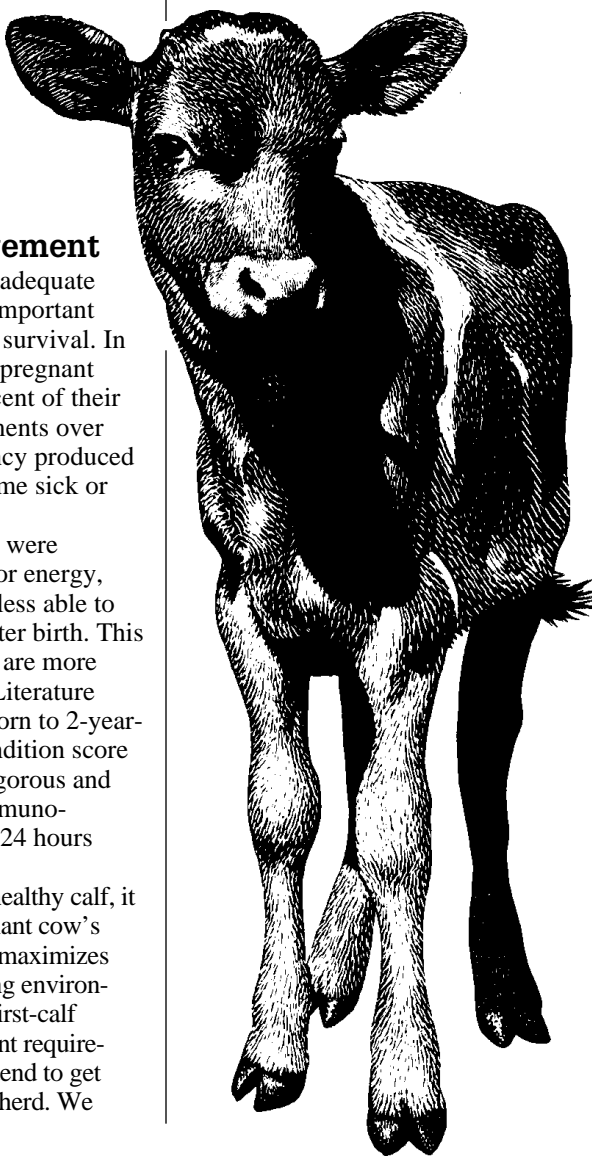
## Precalving vaccination

A number of vaccines on the market are designed to protect the calf through colostrum immunity after vaccination of the pregnant cow.

Ideally, we want to know the cause of every disease case on the ranch. However, that is difficult to achieve even in the best of circumstances. Most of us would agree that if we identify an *E. coli* problem in neonatal calves, vaccinating cows prior to calving would be indicated to prevent or reduce the likelihood of this problem.

Should a specific product like an *E. coli* vaccine or an *E. coli* rota and corona vaccine be recommended for every herd? Experience tells us that in many large, extensively managed cow herds, there isn't much opportunity to "work" these cows just before the calving season (except for first-calf heifers). These extensively managed cow herds are also more likely to be calving in larger areas where exposure to infectious organisms is not likely to be as great as when the herd calves in more confined areas.

In these herds, recommending vaccination precalving against scours is a function of herd history, disease risk, vaccine cost, and cattle accessibility. Typically, producers become interested



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in vaccinating against any disease after experiencing a problem with that disease.

### Clean calving environment

The incidence of infectious disease is a function not only of immunity level but also of exposure level. Exposure to infection organisms is highest in confined environments. First-calf heifers are frequently maintained in confined environments because they require more assistance at calving. As indicated, these calves may be more susceptible to disease, so increasing the level of exposure for these calves could cause more problems. Some procedures that may help reduce the exposure level to organisms include:

- cleaning the area to assist delivery;
- washing teats on a cow that has an assisted delivery;
- cleaning the esophageal feeder when it is used to administer colostrum;
- cleaning and drying maternity pens, and
- moving pairs out to clean pasture as soon as possible after calving.

### For more information

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