

# Stopping Scours

*Plan ahead to prevent calf scours with good management and proper vaccination.*

What producer doesn't enjoy seeing a new crop of calves arrive? Joy can quickly turn to despair if calf scours runs rampant in those early days and weeks, killing calves and weakening others so that they often never catch up.

Scours is one of the major causes of death in newborn calves, and sick calves that survive cost producers both time and money through lost production and reduced weaning weights.

It doesn't have to be that way, says Jon Seeger, managing veterinarian of beef veterinary operations for Pfizer Animal Health.

"Calf scours is a result of many infectious agents — bacterial, viral and even protozoal — ganging up on calves at their most vulnerable time," Seeger explains. "Being a newborn is tough enough. But if the calf is born to an undernourished or unvaccinated dam, doesn't get enough good-quality colostrum as soon after birth as possible, or is stressed by a wet and muddy environment teeming with infectious organisms at birth, it doesn't have a fighting chance. And calves chilled at birth have even less colostrum absorption."

The good news is that by combining good nutrition, effective vaccination and environmental hygiene with good calving and colostrum management, calves can be protected in a cost-effective manner from the constant threat of scours.

## **Nutrition**

Seeger reminds producers to feed cows and first-calf heifers enough energy and protein during the last three months before calving for optimum development of calves' immune systems and for quality colostrum production. Calves born from cows in good body condition are stronger at birth and will stand and nurse quicker, resulting in better colostrum immunity. Trace minerals, such as selenium (Se) and copper (Cu), are also essential for strong immune systems.

## **Vaccination**

"Vaccinating cows before calving lets newborn calves take advantage of antibody-rich colostrum for scours protection," Seeger notes. In U.S. herds, the four major causes of calf scours are rotaviral enteritis, coronavirus enteritis, and bacterial infections such as *E. coli* (K99) and *Clostridium perfringens* Type C, he explains.

ScourGuard 3® (K)/C, he says, helps protect calves against the deadly causes of scours. The vaccine is proven efficacious both in delivering strong protection to calves against all four of the scours-causing agents and for significantly reducing rotavirus shedding.

"In one study, when calves protected by ScourGuard 3 (K)/C were challenged with rotavirus at 8 to 12 hours after birth, all were alive 14 days later," Seeger reports. "When the control calves (nonvaccinates) were challenged with rotavirus in the same way, 36% of

them had died from scours within 14 days.<sup>1</sup>

Of special note for beef producers, the vaccine offers tissue-friendly protection, Seeger says. When tested against another scours vaccine to compare the injection-site lesion weight, cows vaccinated with ScourGuard 3 (K)/C had lesions less than 1 ounce (oz.), while those from the other vaccine were 34 times heavier, at 1.62 pounds (lb.).<sup>2</sup>

Proper vaccination requires pregnant females to receive two 2-milliliter (mL) doses at least 2 weeks apart for their primary vaccination, timing the second dose 2-3 weeks prior to calving. Annual revaccination with a single dose 2-3 weeks before each subsequent calving is recommended. All vaccinations with ScourGuard 3 (K)/C should be given intramuscularly in the muscular region of the neck. The harvest withdrawal time is 21 days compared to at least 60 days with other vaccines in this category.

### Environment and hygiene

While no one can completely control the calving environment, the goal is to calve in clean and dry areas as free from pathogens as possible. Some suggested steps are to:

- **Calve first-calf heifers in clean fields away from the main adult cow herd.** Calves born to heifers are more susceptible to scours and could both pick up pathogens from the main cow herd and/or contaminate the main herd area if left in a mixed calving environment.
- **Try to calve in a dry area.** If weather permits, use the pasture for calving and provide a clean and dry environment with bedding or a portable calf shed. If calving inside, keep the calving area clean and dry. Turn healthy cow-calf pairs out to pasture as soon as possible. Alternatively, move pregnant cows away from pairs in a planned pasture rotation system.
- **Avoid feeding hay in high-population areas.** These areas increase calves' exposure to concentrated levels of bacteria and other scours-causing pathogens. Consider alternative grazing options during calving season to avoid crowding in feeding areas.
- **Keep the calving season as short as possible.** Herds that have longer calving seasons tend to have more calf scours.
- **Practice strict sanitation when working with sick calves.** Treat them last; use disposable gloves; disinfect balling guns, esophageal feeders and syringes; wash your clothes before working with healthy calves; and isolate sick calves and cows.

### Colostrum management

A calf must take in high-quality colostrum to receive its only source of antibodies that provide immunity and disease-fighting ability. If conditions require colostrum supplementation, the

rule of thumb is to get approximately one gallon of colostrum into the calf as soon after birth as possible.

Studies show that the sooner and the more colostrum ingested, the higher the survival rate of the calf in the early weeks of life. For that reason, Seeger says to force-feed the calf if intake is inadequate due to dystocia or other factors.

Seeger cautions that harmful diseases

can pass through colostrum. Diseases such as Johne's disease, bovine leukosis virus (BLV), salmonella and mycoplasma can transfer to the newborn. Supplemental colostrum sources should be scrutinized for the presence of these diseases.



**Editor's Note:** This article was provided by Pfizer Animal Health through its agency, Charleston-

Orwig Inc. Referenced in the text are two studies — <sup>1</sup>Study 2934H-60-00-012 and <sup>2</sup>Study 2134H-60-00-075 — on file at Pfizer. For additional information on Pfizer cattle vaccines and other cattle health products, visit [www.pfizerah.com](http://www.pfizerah.com). Producers should consult their local veterinarians with questions regarding animal health and vaccine options.