



The Veterinary Link

by **BOB LARSON, DVM**, Kansas State University

Prevention of calf scours

When a veterinarian and producer sit down to plan a strategy to prevent calf scours, an important concept to understand is the role that the population of calves plays in increasing the load of germs as the calving season progresses.

Building problem

The germs that cause scours are common and present in the cows and calves on essentially all farms and ranches in the U.S. Calves exposed to low concentrations of these germs are likely to stay healthy or show only mild signs of illness; however, the scour-causing germs in the guts of these calves will be multiplying, and the calf will shed higher concentrations of germs into the environment than it was exposed to a few days earlier.

Early in the calving season, when there aren't many calves in a pasture, there aren't many scour-causing germs around either. As the calving season progresses, the number of germs in the pasture increases, especially if the

weather is cool and wet, which allows the germs to survive longer in the environment.

Eventually, the amount of scour-causing germs that calves are exposed to is high enough to cause severe disease. One way to consider the situation is to realize that a young calf's worst enemy (in regard to scours) is a group of slightly older calves contaminating its environment.

Calving system

A few years ago, a group of veterinarians at the University of Nebraska described a simple and highly effective strategy to prevent calf scours called the Sandhills Calving System. The system prevents young calves from coming into contact with older calves, thereby ensuring that calves are not exposed to overwhelming concentrations of scour-causing germs during the first few weeks of life.

For spring-calving herds, pregnant cows are moved from the winter-feeding pasture to the calving pasture about

the time the first calf is born. They stay in that pasture for two weeks. At the end of the first two weeks of the calving season, cows that are still pregnant are moved to a new calving pasture, and the cow-calf pairs are left in the original pasture.

At the end of each subsequent week of the calving season, the pregnant cows are moved to a new calving pasture. The cows that calved the previous week and their calves remain in the pasture where they calved.

Once all the calves are older than three to four weeks, the herd can be reassembled. With this system fully implemented, the age spread from the oldest to the youngest calf in a nursery pasture will never exceed seven days (except in the first pasture where the spread can be 14 days), and the exposure of young, susceptible calves to scour-causing germs is minimal.

If the breeding season can be reduced to 60 to 70 days, with most of the cows becoming pregnant in the first 21 days, the number of pastures needed is less than a herd with a longer calving season. In addition, by using estimated breeding dates based on palpation or ultrasound, later-calving cows can be kept in a separate pasture and added to the calving group as appropriate, thereby reducing the number of cattle moving through the initial series of pastures.

Customize to ranch needs

The details of how best to implement the system will vary between herds and must meet the limitations and needs of each producer. The keys to the Sandhills system are:

1. keeping older calves separated from younger calves; and
2. moving late pregnant cows to new pastures rather than moving cow-calf pairs.

By having calves born in pastures that have been utilized for a week or

less and not contaminated by older calves, each week the Sandhills system recreates the ideal conditions that exist at the start of each calving season.

To make the Sandhills Calving System work well, the producer, veterinarian and possibly a range specialist or other advisors should get together and develop the ranch-specific plan well in advance of the calving season. The available calving pastures must be identified or created with electric or permanent fencing; and water, feed and shelter needs should be met. The size of the pastures should be matched to the number of calves expected to be born each week.

The Nebraska researchers who developed the system report that there are other benefits in addition to prevention of scours. Some producers appreciate:

- having weekly scheduled cattle movements so that labor needs are known and can be planned;
- moving cows without calves, which is easier than moving cow-calf pairs; and
- dividing the calving season workload between the pregnant cows at risk of calving difficulty in one pasture and young calves at risk of scours in another.

Scours can be effectively prevented if a well-planned approach utilizing multiple pastures and good animal husbandry can be implemented. The Sandhills Calving System developed by Nebraska researchers was developed to prevent scours by using clean calving pastures, preventing direct contact between younger calves and older calves, and preventing later-born calves from being exposed to an accumulation of pathogens in the environment.

