

Severe Winter Brings Calving Challenges

After experiencing winter hardships, cow-calf operators must move quickly and decisively to avoid an economic train wreck.

Story & photos by Ed Haag

The advice from those who have made a career of evaluating the long-term effects of severe winters on cow-calf operations is simple: Immediately evaluate your circumstances, consider all your options, consult with your experts, develop a long-term plan and act.

“Like it or not, many calf producers are now looking at some very tough choices,” says Bob Bellows, a retired Montana State University beef researcher and one of the world’s leading authorities on calving stress. “What they do over the next three months could decide their economic future.”

Bellows spent almost four decades studying how weather influences calving performance in Miles City, Mont., one of the coldest beef production areas in the U.S. If he learned one lesson from his research, he says, it is that having a well-thought-out recovery strategy is paramount after suffering through a particularly nasty winter.

One piece of information that supports this view originates in the 1997 U.S. Department of Agriculture (USDA) National Animal Health Monitoring System (NAHMS) survey. The largest reason for calf death loss was reported to be weather-related.

This telling statistic manifests itself in several ways, including physical stress and loss of body condition due to storms; exposure to cold, wet, windy weather; and periods of inaccessibility to feed and water. These stresses are all exacerbated by the increased nutritional requirements associated with pregnancy.

In addition, extended periods of severe weather can further reduce a pregnant cow’s body reserves leading to increased calving difficulties, prolonged delivery times, premature births, and decreased colostrum and milk production which, in turn, may influence calf health and survivability.

Calves born to cows with lower body scores are more likely to be slower to respond, weakened, stressed, and more susceptible to communicable diseases like scours.

Considering all the implications associated with beef cows giving birth to calves while in poor condition, Bellows recommends that cow-calf operators whose cows have been



► Calving on clean, uncontaminated ground is critical to preventing communicable calf diseases.

negatively affected by this winter’s weather should do everything possible to improve their cows’ body condition prior to calving.

“You have to figure out how to get your cows back in shape before they calve,” he says, “If you only have a few days, there isn’t a whole lot you can do to build them up, but if you have a month to six weeks, you can recover a lot of what your animals have lost.”

Bellows adds that playing catch-up usually entails more than providing a cow with her routine diet. “Under normal circumstances people just feed hay through gestation, and cows do reasonably well,” Bellows says.

“When you are trying to rebuild an animal over a limited period of time, it requires a lot more than that.”

In addition to feeding quality hay, Bellows recommends supplementing stressed animals with grain or some other source of protein and energy.

Jack Whittier, Extension beef specialist and professor at Colorado State University (CSU), agrees it is necessary to respond aggressively when a mother cow’s body condition has been negatively affected by severe weather conditions. But unlike previous years, the costs associated with recovery will be particularly high.

“Ideally, a cow should go into calving with a body condition score (BCS) in the high-5 to mid-6 (range),” he says. “The real challenge this year is that feed costs have climbed so

CONTINUED ON PAGE 98

high that the availability of lower-cost options is extremely limited.”

He cites, as an example, the nutritional requirements associated with bringing back a cow that has dropped in body condition to as low as BCS 4. “It will require bringing the animal back by at least one condition before she calves,” Whittier says. “That means supplementing the equivalent of 3 to 6 pounds of corn per day.”

Know where you stand

With corn hovering around \$4 per bushel (bu.), when it is available, Whittier cautions that a cow-calf producer should thoroughly evaluate the costs and benefits of bringing an

animal back into condition before making any decisions.

“The blizzard that has hit southeastern Colorado and western Kansas has put a real stress on all cattle,” he says. “With all things equal, without additional stress, it will take 45 to 60 days to put one condition score back on. That can involve a substantial financial commitment.”

Roger Ellis, CSU cooperative Extension veterinarian, observes that for some calf producers in his area, soaring costs aren’t the only feed-related problems.

“The most dramatic issue producers are commenting on are the limited feed resources that are available at any price,” he says. “Some

are just having trouble finding what they need to get their animals through to calving.”

Whittier recommends doing a realistic assessment on each animal, considering its overall condition, age and future productivity. He notes that the first step involves sorting cows and heifers by body condition, health, pregnancy status and calving time.

This will allow a producer to feed animals according to their needs and allow him to direct the higher-quality, more expensive feeds to the animals that offer the best opportunity for a return on investment. Culling cows and heifers that have aborted or have chronic physical disorders will also help conserve feed and labor resources.

“This should be viewed by the calf producer as an opportunity to cull the less productive cows,” he says. “It might make more sense to cut your losses on those animals right now rather than putting expensive feed into them.”

Ellis notes ranchers should not overlook their bulls when evaluating the physical and reproductive condition of their herds.

“Producers should be inspecting their breeding bull battery for any lameness, physical debilitation or damage to the testicles from the cold weather,” he says. “They need to do that assessment to determine what their bull needs are going to be and how to manage those needs because we will definitely see some bulls with scrotal frost bite [and] leg, feet and neck injuries that will cripple them and affect their ability to travel.”

The need to build up the body condition score doesn’t just apply to cows and heifers, Ellis says. “Older bulls, at minimum, need to be in a 5 body condition, with younger bulls at a 6 going into breeding season,” he says.

What are the options?

The location of an operation’s cows becomes a major consideration when the weather is unpredictable and the need to improve condition scores demands close monitoring and easy access to feed. While Whittier, Ellis and Bellows agree that keeping animals spread out offers the best protection from infectious diseases, there are some excellent reasons to keep cows close at hand and in a confined area prior to calving.

One reason pertaining to the most efficient way to build body condition was demonstrated in a study Bellows and his colleagues conducted in Miles City. A herd of pregnant heifers was divided into two groups. One group was confined in a 90-foot (ft.) × 190-ft. lot and fed from conventional bunkers, while the others were left on pasture where they were fed 1 mile from their only water source.

“Those heifers that remained on range required 30% more feed just to maintain



► Segregating calves by age is an important disease prevention practice, especially when cows and calves are already stressed.



► Pregnant heifers in feedlot environments require 30% less feed to maintain body condition than active heifers on pasture.

their existing condition,” he says, adding that when feed sources are scarce and expensive, confined feeding is probably the most cost-effective way to improve condition score. “That way the feed that we are using to build up reserves in the pregnant cow will go directly to her and her fetus and not for physical activity.”

Ellis adds that cows that have been stressed during pregnancy require more intense observation than normal. “Some of these cows may be weak and have prolonged delivery times, calves may come premature and may need some assistance,” he says. “There is a lot that can happen when a cow has been stressed during [her] pregnancy.”

Ellis, Bellows and Whittier all agree that one of the most important aspects of calving is the intake of colostrum by the newborn. “From a survivability standpoint, it is critical that the calves get their colostrum early and as much as possible,” Ellis says. “Colostrum substitutes are available, and it is a good idea to have some on hand just in case the mother cow does not produce enough on her own.”

Follow-through is critical

While it might make sense to calve in a centralized location that allows the producer to intercede when necessary, preventative actions must be taken once the calves are born to control herd epidemics of infectious calf diseases (calf scours, pneumonia, septicemia, etc.).

The most effective way to accomplish this is using the Sandhills method of physical separation developed by David Smith and his colleagues at the University of Nebraska. While researchers have focused on using it to prevent the most deadly of calf diseases — scours — they have found that physical separation works well for most communicable calf diseases that confront today’s rancher.

In the Sandhills calving method, cow-calf pairs are grouped by calf age to keep older and younger animals in separate locations. Cows that have not calved yet are regularly rotated into new pastures so that their newborns are not exposed to germs spread by older calves.

For the system to work properly, the age difference between calves in the same grouping should not exceed a week. This requires eight separate locations. Cows are turned into the first calving location when the first calves are born. After a week, cows that haven’t calved are moved into a second location, with cow-calf pairs remaining behind.

After a week of calving in the second pasture, the cow-calf pairs stay, and pregnant cows are moved to a third pasture. This system continues each week. The result is that

each pasture contains calves that are within one week of age. Once the youngest calf is 4 weeks old, cattle from all pastures can be combined.

A three-year study on a 900-cow ranch documented the first large-scale use of this system and the subsequent elimination of scours in years two and three. Before adopting the calving system, the ranch typically lost 7%-14% of its calves to scours.

Ellis recognizes that, for many ranchers who have been inundated with snow, plowing out eight separate calving locations might seem like an insurmountable task, but, he adds, the importance of maintaining calf separation —

especially when the young animals might be already nutritionally compromised — cannot be overstated. “In spite of all the other stuff, the calf producer must contend with this year, he must intensify his efforts to separate his animals,” he says. “We are already getting some reports of higher-than-normal levels of scours. With everything that has occurred, it is not surprising.”



Editor’s Note: For more information on how to determine and use body condition scores, visit www.cowbcs.info. This article was distributed via the Angus e-List March 2. To subscribe to this service, submit your name and e-mail address in the upper left corner of the www.angusjournal.com home page.