Managing reproductive performance in

Drought-Condition Cows

Stress due to drought may adversely affect the length of time between when a cow calves and when she breeds back. During cattlemen's workshops held at the 2002 Northern International Livestock Exposition in Billings, Mont., Tom Geary advised producers to take steps to shorten the postpartum interval, reducing the number of late-calving cows and increasing the number of cows that deliver early in the calving season. [PHOTO BY SHAUNA ROSE HERMEL]

Story by
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Widespread drought took its toll last summer. In some areas, 2002 marked the third in a succession of dry years, forcing cow-calf producers to reduce cow numbers or to liquidate herds. For those still hanging on, it's a matter of bringing in more feed, or sending cattle to where the feed is. In many areas, however, fall moisture has been encouraging, inspiring hope for next year.

Drought and its aftermath have inspired considerable thought concerning how best to manage beef herds during and after a long dry spell.

Some cow country pundits advise producers to take stock of the moisture situation each spring and to determine if a drought management strategy is needed. Certainly, a scarcity of spring precipitation bodes ill for forage production. According to Tom Geary, reproductive physiologist at the U.S. Department of Agriculture (USDA) Fort Keogh Livestock and Range Research Laboratory, Miles City, Mont., 50% of the forage produced annually in the western United States is grown by June 1, and 91% is grown by July 1.

Always have a drought plan

Geary tends to agree with the old saw warning that, at any given time, a cowman is only two weeks away from a drought. So the time to develop a drought strategy is before it gets dry. The time to plan for drought is "always."

During cattlemen's workshops held during the 2002 Northern International Livestock Exposition (NILE) in Billings, Mont., Geary urged cattlemen to consider three steps for managing drought-condition cows. Geary said early weaning of calves, tightening of the calving season and close attention to herd fertility can help improve reproductive performance under the best environmental conditions, but these practices can be particularly valuable when cows are drought-stressed.

"Through early weaning, we can reduce the cow's nutritional requirements, decreasing energy and protein demand by up to 30%. This is especially beneficial to first-calvers," Geary offered. "It's pretty easy to put a quick 100 pounds and a body condition score on a cow through early weaning. And not only can we save on feed for the cow, but there are also cost benefits on the calf side. It's possible to wean as early as 50 days of age and take the calf to 205 days (of age) for a cost of about $75. And we should get around 60 pounds more weight than when the calf is weaned at 205 days."

However, early weaning is tough if the calving season is extended, Geary warned. That's why he recommends tightening the breeding (and therefore calving) season. He suggested planning the breeding season in 21-day (the length of an estrous cycle) increments.

"I recommend early bull removal, then pregnancy examination and fetal aging with ultrasound. Usually, it is more expensive than palpation, but with ultrasound we can accurately identify a 27-day pregnancy. We can preg-check earlier and with more accuracy," Geary explained. "Identifying open cows early may provide additional marketing alternatives. You might be able to market your open cows at a time when somebody else really wants them, instead of when you really have to get rid of them."

Rebreeding

Stress due to drought may adversely affect the length of time between when a cow calves and when she breeds back. Geary advised steps to shorten the postpartum interval, reducing the number of late-calving cows and increasing the number of cows that deliver early in the calving season. He called this an important step to improved herd fertility.

"It's possible to shorten the postpartum interval with practices that encourage cows to cycle. Feeding an ionophore costs around 1.4¢ per day, but studies have shown that it can help cows to start cycling up to 18 days sooner," he said.

An ionophore often is included in heifer development rations to hurry puberty. Exposing heifers to sterile bulls for 15 to 45 days prior to breeding often results in higher pregnancy rates with more heifers settled early in the breeding season. It works with mature cows, too, to trigger the estrous cycle.

"We've seen the postpartum interval shortened by about 15 days when cows are exposed to sterile bulls, starting at about four weeks after calving. Androgenized cows can be used instead of bulls," Geary added.

"Estrous synchronization is an option, even with natural service, for cows or heifers. And another practice to consider for stimulating females to cycle is removing calves from their mothers for 48 hours at 21 days prior to breeding. Studies have shown that calf removal alone can stimulate 27% more pregnancies during the first 21 days of the breeding season."

Geary said Fort Keogh research by Bob Bellows has shown that providing calving assistance early can help reduce stress and enhance the ability of a heifer or cow to recover and breed back more quickly. After calving has progressed to Stage II, when the calf's hooves are visible, a 30-minute delay in progress can translate to 60 days added to the postpartum interval.

"Another important part of herd fertility is knowing your bulls are fertile, but also sound. Always have bulls examined for fertility and breeding soundness. And consider the dominance of older bulls in multiple-sire pastures. It's better if bulls running together are of similar age. If you're running an older bull with young ones, chances are the older bull will service more cows, so be sure he's fertile," Geary warned.

Geary concluded that nutrition is always important and urges producers to keep their cows from falling below a body condition score (BCS) 4. He says, "There is very little improvement in reproductive performance going from a condition score 5 to 6, but a cow with condition score 4 generally will have poor reproductive performance. Avoid it."