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Management & Nutrition Tips For Beef Producers

Missing Just One Breeding Cycle Can Result in Lost Revenue

Developing a successful cattle reproductive program is not for the faint of heart. It requires careful attention to a host of details. And, all it takes is one omission or error to sabotage a producer's timeline—and profit potential.

According to Robert Larson, DVM, Ph.D., chair of Food Animal Production Medicine at Kansas State University in a recent interview with CheckPoint, just one missed breeding cycle can translate into $40-60 in lost revenue per calf. He pointed out that because calves gain 2 to 2.5 lbs. per day, calves weigh about 45 pounds less for each 21-day cycle their mothers missed.

"Currently, prices are pretty high, so a producer can easily lose $40 to $60 per head for calves born 21 days later," Larson said. And, for each subsequent cycle missed, the losses just keep accumulating.

But the losses don't stop there. While those due to lower selling weight may be obvious, other factors are more subtle. One of those factors is the uniformity of the calf crop you take to market.

"A marketing group that is as close as possible in weight and age will bring a higher price," Larson explained. "Conversely, a herd that fails to have most of the calves born early in a 60- to 70-day calving season will have a large spread in calf ages and weight at weaning. That may require more sorting at the time of sale, and result in smaller lots, which bring lower prices. That kind of loss is harder to calculate."

There are many things over which producers have little or no control when it comes to achieving reproductive efficiency. The 283 days required for gestation and the 40-45 day post partum period are the two most obvious examples. However, there are strategies producers can employ to increase the opportunity for success.

SETTING GOALS

So, what is a reasonable target to shoot for when it comes to breeding? Larson says if the program is managed effectively, 60-70 percent of cycling females should give birth as a result of the first mating.

"You want the biggest calves possible at weaning and the most consistent weight you can get," he elaborated. "To achieve that, you want 65 percent of the herd pregnant in the first cycle, then 65 percent of what's left pregnant in the second cycle, for a total of 85 percent. For the 70-day breeding season, the goal should be about 95 percent pregnant. That's probably the best we can do year-in and year-out, given the complexity of reproduction."

But, he acknowledges that this is an ambitious goal, a goal influenced by a number of variables, including cow body condition, bull health and disease control.

MANAGING COW BODY CONDITION

Of course, cows must be in good condition in order to achieve fertility and conception. A body condition score (BCS) of at least six is recommended for cows at calving and a BCS of at least 5.5 at bull turn-in. If a cow or heifer becomes too thin, she is less likely to reproduce—and rebreed. Larson cautions that body condition changes can be slow and subtle, making regular examination advisable.

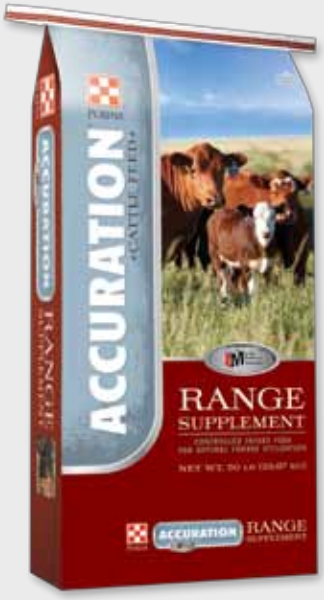
Proper winter forage and feed management is also required to assure that cows receive proper nutrition from year to year.

"A system that worked last year might not work this year because both grazed forage and hay may be of a different quality and quantity," he explained. "By mid-winter, you need to reevaluate the supplementation program you put in place in the fall, based on the cows' body conditions in January or February. If they are thin, you have time to adjust before breeding season."

ASSESSING BULL SOUNDNESS

It's also important to make

(Continued on pg. 2)



PROPER NUTRITION CAN HELP PREVENT MISSED BREEDING CYCLES

We have just experienced challenging summer and fall seasons with drought in some locations and flooding in others. Forage could be in short supply, and forage quality may vary widely. But, Purina's products containing Intake Modifying (IM) Technology® can help you manage your herd's nutritional needs effectively and efficiently. Consumption is based on the quality of the available forage, so your cattle's needs are met regardless of forage quality. IM Tech products help to maintain your cows in proper condition by providing sustained nutrition throughout the reproductive cycle. Plus, less labor will be required to achieve your objectives.

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Parker, R., Mathis, C., Hawkins, D. Evaluating the Breeding Soundness of Beef Bulls. http://aces.nmsu.edu/pubs/_b/b-216.html

(Continued from Cover)

2.25 lbs. (avg. daily gain) x 21 days (avg. cycle)	= 45 lbs. gain per cycle
45 lbs. x current market price	= revenue lost or gained per cycle

sure that there are enough bulls in sound condition for breeding season. Larson recommends conducting a soundness exam on each bull prior to breeding season. The exam should include an evaluation of general soundness, noting anything that could affect the bull's ability to breed adequately, such as sight and mobility. The bull's reproductive organs and the quality of semen should be checked, along with his libido. In some situations, bulls should also be tested for trichomoniasis, a venereal disease.

The ratio of bulls to cows can vary significantly. Larson said one rule of thumb is about one heifer or cow for each month of the bull's age up to about 35 cows per bull. For example, if the bull is 14 months old, he should be able to service 14 cows. The national average is about 30-35 cows per bull.

ELIMINATE DISEASE PROBLEMS

To minimize the effects disease can have on breeding effectiveness, make sure the herd is up to date on vaccinations for conditions such as infectious bovine rhinotracheitis (IBR), bovine viral diarrhea (BVD), leptospirosis and campylobacter (vibriosis).

In summary, Larson provided the following winter, pre-breeding recommendations:

Check cow body condition; supplement feeding. Winter is a great time of year to check body condition and supplement winter feeding, adjusting to deliver the nutrients needed to get cows to a BCS of five and heifers to six. Forage will change over the winter because you are generally feeding different sources of hay and forage. Make the best use of forage quality and quantity, and supplement as needed, rechecking body condition and adjusting accordingly. Some forage may be low in protein; some may be low in protein and energy. You can do forage testing to get a ballpark estimate of what forages in your area are like.

House bulls to protect them from frostbite. Often, bulls are ignored in the winter. But we need to make sure they are in a warm, dry place that is protected from the wind. It's an extremely important preventive measure we can take.

Conduct breeding soundness exams. Even bulls that have been successful in the past can have testicular degeneration, lameness, or other health problems, so breeding soundness exams—2-6 weeks ahead of breeding season—are important. Monitor sperm production and testicular health, test for trichomoniasis and observe any health conditions that could inhibit breeding.

Make sure herd vaccinations are up to date.

Failure to do any of these things can have a big impact, Larson warns. "A tough winter, with poor forage, or a bull fertility problem, can be corrected, but it will take several years to get back to meeting your goals. Any little mistake can compound itself."

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Seasonal Tips for Cow-Calf Management

Segregate Cows, Heifers and Calves Appropriately During Winter and Early Spring

By W. Mark Hilton, DVM, Clinical Associate Professor, Beef Production Medicine, Purdue University

One of the most important things cow-calf producers can do at this time of year is separate first-calf heifers from the adult cow herd. This can greatly decrease the chance of disease and calf scours. Cows and heifers should be separated as soon as possible after they are put on supplemental feed in the winter—even if there are no existing disease problems.

If calving will begin in early March, for instance, start separating pregnant cows and heifers in early January. For cows on a year-round grazing system, separate cows and heifers just before calving time.

Research corroborates the wisdom of this practice. We saw the real-life benefits in Iowa, where I practiced for 15 years before joining Purdue. There, producers who wintered heifers and cows together had a disease incidence that was 2.5 times greater than those who separated the groups. Everyone we worked with who tried separating the groups said, "Wow, I can't believe the difference that made." No one switched back.

In addition to reducing disease in calves, separating the groups can result in stronger, better-nourished heifers. That's because heifers don't have to compete with adult cows for feed.

To simplify things, yearlings can be included in the heifer group. Most producers have lots of different ages and body conditions, and no one wants to break up the herd into six different groups. Two groups are manageable: adult cow in one group and yearlings and two-year olds in the other.

One other thing I feel compelled to mention at this time of year is a reminder to utilize a well-drained area where calves will be born. Mud is a calf killer.

Also, make sure you have a small shed to protect calves from the cold. So that only calves can get in, you can nail a 2x4 about three feet off the ground. Allowing cows and calves to get into a shelter together is a recipe for disaster; the manure creates a cesspool for disease in calves.

To attempt to further reduce the incidence of disease, move cow-calf pairs on a regular basis, based on age, as practiced in the Sandhills Calving System. The system is named for the area of Nebraska where the practice was originally tested by University of Nebraska researchers, along with area ranchers and veterinarians. It has been proven effective—and adopted—in many other areas of the country as well.

In the Sandhills Calving System, all pregnant cows are placed in a clean pasture or paddock (where no cows have been for a few months) immediately after the first calf is born. They remain there for two weeks, after which cows that have not yet calved are moved to another (also clean) pasture/paddock. After a week, cows that have calved remain while still-pregnant cows are moved to yet a third pasture. The process, which assures that only same-age calves are together, continues until all cows have calved. The length of time spent in each paddock can be modified, depending on the operation and veterinarian recommendations. Nevertheless, rotating calves this way provides a clean environment for birthing and newborn calves and reduces the risk of infection from older calves.

Smith, D. Sandhills Calving System Prevents Calf Diarrhea. http://vetext.unl.edu/stories/200703050.shtml

SUCCESSFUL COW-CALF MANAGEMENT
√ Separate first-calf heifers from the adult cow herd.
√ Provide a well-drained area where calves will be born.
√ Provide a small shed, where only calves can get in, to protect them from the cold.
√ Move cow-calf pairs regularly, based on age, to reduce the incidence of disease.
√ Assure that only same-age calves are together to reduce the risk of infection from older calves.

Winter Cow-Calf Management Reminders

Below are some general cow-calf management reminders for the winter season. This information has been adapted from the "Beef Cow Herd Calendar"[1] developed by the Oklahoma State University Cooperative Extension Service.

JANUARY

Continue supplemental feeding of pregnant females to ensure they will be in good condition at calving.

Several times daily, check first-calf heifers due to calve for possible calving difficulties.

Weigh yearling heifers, adjust weights and calculate ratios.

Check body condition score on heifers and cows.

To assure ample water supply, break ice daily, use a heater or freeze-proof stock tanks.

Provide free-choice minerals year round.

FEBRUARY

Continue supplemental feeding and increase feed amount for cows that calved early, especially first-calf heifers and thin cows.

Consult your veterinarian on vaccinations recommended in your area.

Deworm if needed.

Evaluate growth of yearling replacements. Will they be big enough to breed in April or May?

Check cows regularly for possible calving difficulties.

Check baby calves for scours or pneumonia.

Complete selection and culling of yearling heifers.

MARCH

Continue supplemental feeding. Increase protein and energy intake to provide increased nutrients required for lactation.

Semen-evaluate bulls, trim feet if needed, vaccinate and address internal and external parasite problems.

Purchase new bulls. Use EPDs and other pertinent information to make selections. Check health history from farm of origin.

Vaccinate cows as recommended by your veterinarian.

After calving—and before breeding—vaccinate cows per your veterinarian.

Supplement cows to maintain body condition at calving and enhance rebreeding performance.

Monitor development of replacement heifers to ensure they are gaining enough to reach 65 percent of their expected mature weight by the beginning of breeding season.

Reference: 1. http://osuextra.okstate.edu/pdfs/F-3261web.pdf

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