

# Meeting the Mark

Nutritional needs and reproductive cycles intertwine to find success in the cow herd.

by *Adrian Austin*



When questioned, most cattlemen will say a good cow is the true foundation of any operation. To create a lasting legacy, a quality female needs to be on the bottom side of the pedigree. If cow power is the key to success, producers want to ensure females will be retained in the herd for as long as possible. In order to achieve this goal, nutrition and reproduction numbers are studied to maximize performance of females.

Undoubtedly, there is a strong correlation between nutritional and reproductive success. The question arises of how, numerically speaking, this success can be defined for producers.

"I would establish nutrition and reproductive success as cows having one calf, per cow, per year," says Elizabeth Backes, Ph.D., cattle nutritionist and beef technical solutions partner for Purina®.

In other words, Backes emphasizes the importance of cattle not having "bad days." Every day counts on a reproductive timeline, and cattlemen should make sure their nutritional requirements match up to meet industry standards for reproduction.

## BCS affects reproductive success

One common numerical benchmark producers strive for in order to achieve reproductive success is body condition score (BCS). "Producers should be meeting the nutritional requirements for cows to maintain their body condition score so those females come in heat when we need them to and we get more cows bred in the first 21 days of the breeding season," Backes explains.

Focusing on the concept of efficiency, cows need to meet the mark of being bred within the initial segment of the breeding season in order to have a more uniform calf

crop. Just as important, though, is a cow's ability to get rebred within 85 days after weaning a calf. Both of these numerical ideals are directly tied to a cow's performance and appropriate body condition.

"Really, it goes back to making sure she's in the right body condition at the right time so she can have one calf, per cow, per year, that calf is healthy and she can wean that calf off every year," Backes says. If they meet this mark, cattlemen keep their females more efficient.

A BCS 6 is one of the industry benchmarks serving both nutritional and reproductive excellence. Ideally, a cow will calve with no less than a BCS 6, and this score is imperative. "By calving at a body condition score 6, we know that she's going to hit lactation right," Backes explains.

"We also know her nutrition requirements are going to go up, so we want her in good condition because cows that calve in the right amount of flesh have less dystocia," she adds. "Those calves will get



BCS 6 is ideal for a cow soon to calve. By calving in that condition, a cow will lactate appropriately for the calf's nutrition.



better colostrum. That's why we want the cows at a 6. We want them at no less than 5½ when we let the bull out and then no less than a 5 at weaning time. With these gauges, we can set our nutrition program to match those time periods."

#### Well-rounded nutrition programs

Keeping in mind the concept of "no bad days," emphasis should be placed on a nutrition program which helps cattlemen achieve a good reproductive capacity. Cows not fed to meet their nutritional requirements will lose weight.

In turn, these females are more difficult to breed than those on an increased nutrition plan. Backes shares in cowboy speak, "You have to breed them to feed them, but you also have to feed them to breed them."

From her point of view, the argument can be made either way as to whether nutrition or reproductive management should be prioritized. Yet, she stresses the two truly go in tandem and producers need both components to find herd success.

One key piece in achieving that success is the makeup of a herd's nutrition plan. "The cornerstone to any good nutrition program is mineral," Backes notes.

In terms of biological functions, different minerals have different levels of importance. Whether producers are focused on reproduction, bone development or other biological factors, macro and micro minerals play a huge role in the process of nutrition.

"Calves should be supplemented with mineral, and when I talk mineral, I'm talking about a complete mineral where they get all 14 macro and micro minerals because all of those are important," she says.

Nutritional supplementation should not stop with mineral. Backes recommends combining mineral with a forage option, along with protein and energy supplementation. "A good nutritional program has a mineral component, forage component and then protein and energy supplementation to fill that need that maybe forage is lacking," she says. "This way your herd is getting all they require."

#### Team efforts promote positive returns

Ultimately, a producer's goal should be to keep a productive cow in the herd for as long as possible. "From a cow perspective, she has a cow dollar value associated with her regardless of if she has a calf or not," Backes points out. "By getting a calf per cow, per year, we're getting some more income back in our producers' pockets. If she doesn't have a calf, she's not returning anything in terms of an investment stand point for the producer."

Keeping the bottom line in mind, producers should view nutritional and reproductive success as a joint effort. If both elements are excelling, the profit return per cow will be higher.

"We don't want a cow to leave the herd before they are making profit for the cattlemen," Backes reiterates.

A team effort is needed beyond the ranch to achieve positive results. Local feed dealers, veterinarians and producers should be working together to achieve nutritional and reproductive success. "You need people that can help you make some

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management decisions or help you with your herd health program. Set goals for where you want to be and as a team try to achieve them," Backes says.

#### Feeling the effects

Backes offers a closing thought for producers who may be skeptical of why nutrition and reproduction go hand-in-hand or why these elements should be an operation's main focus. "Think about meeting the nutritional needs of a cow," Backes says. "Not only are you impacting reproduction for that cow, but you are also impacting performance from a longevity stand point."

When calves are born, they are born with all of the reproductive cells they are going to have. In utero a female heifer calf's reproductive cycle can be compromised based on how the cow is being managed.

"We are impacting three generations just by the kind of program you keep a cow on year-round," Backes says. "Key things happen at certain times of gestation — reproductive cells are in the first trimester, there's some organ growth development in the second trimester, the third trimester the lungs are finally developed, and so at any point in time you are impacting that calf in utero's lifelong performance."

Cattlemen should consider how the nutritional program offered to a cow will affect not only her but her calves as well. "If you short mom during gestation, her reproductive capabilities are impacted for her long-term, her lifetime, her longevity and so how we feed that cow is important, not only for her, but for future generations," Backes concludes. **HW**



When weighing nutrition programs, it is imperative to remember decisions regarding nutrition affect not only the cow, but also her offspring.