

Consider Nutritional Influences On Reproduction

by **TOSHA POWELL & KINDRA GORDON**

Environment and nutrition play an important role in reproductive success in a beef female, Rick Funston, University of Nebraska Extension reproductive physiologist, reminded participants at the most recent Applied Reproductive Strategies in Beef Cattle seminar. Funston discussed the importance of selecting for a balance of traits, but he emphasized that producers must also select traits that match animals to their environment.

Crossbreeding can be a valuable tool in achieving herd longevity, calf weight per cow exposed and net profit per cow exposed, he noted. But, he also cautioned that it's not as simple as putting two breeds together. Instead, he stressed that producers must be attuned to a cow's nutrient requirements in order to achieve reproductive success within the herd.

Most importantly regarding nutrition and reproduction, Funston said that research indicates, "It is better to have cows and heifers in good condition before calving than to play catch up after calving." He recommended that cows be in a body condition score (BCS) of 5 to 6 prior to calving (see www.cowbcs.info).

To that end, he said, "Balanced nutrition is the key to optimizing production." On his list of nutrients to consider were protein, energy, minerals, vitamins and water. Some tips that he highlighted to achieve this balance:

- Minerals and vitamins must be balanced in the diet to optimize reproductive performance. Funston said mineral supplementation is critical 45 days prior to calving, through the breeding season and prior to weaning.
- Consider water quantity and quality when balancing diets.
- Be cautious about overfeeding nutrients as it has been shown to delay puberty, lower ovulation and lower conception. Funston acknowledged that there is a misconception that feeding cows protein

too extensively prior to calving increases dystocia. Research has proven otherwise, he said. "It may increase the birth weight slightly, but there is no impact on calving difficulty." To avoid overfeeding, he reiterated that the rule of thumb for a herd should be a BCS of 5-6 prior to calving.

- Consider feeding fat as a prepartum supplement. Funston reported on multiple research studies that indicate feeding fat — from sources such as sunflowers to ethanol byproducts — about 60 days before calving can improve pregnancy rates in beef cow herds.

There is no quick fix for reproduction challenges brought on by poor nutrition, Funston emphasized. "There is no magic feed ingredient that exists to compensate for a diet deficient in any of the mentioned nutrients or poor BCS."



Reproduction is the most important factor affecting profitable beef production, said Rick Funston, University of Nebraska Extension reproductive physiologist. Funston discussed how nutrition is a key influence on reproduction.

