

Meeting Your Bull's Nutritional Needs

Nutrition considerations for before, during and after the breeding season.

by Kindra Gordon



PHOTO BY SHAUNA ROSE HERMEL

What should I be feeding my bulls?" South Dakota State University (SDSU) Extension Beef Specialist Julie Walker says that is a question she is commonly asked by seedstock and commercial producers alike.

Her advice to them is this: "The goal is to have bulls that have been developed on a balanced ration that are not too thin or overly fat." She further explains that research has shown bulls with too little or too much condition can have poor reproduction and fertility.

To that end, she emphasizes, "Nutrition is very important for bulls."

To put it into context, she uses an example that while a cow produces one calf per year, a bull can potentially sire 25 to 60 calves per year — which means bulls should command some special management and care during the year.

Walker encourages producers to pay special attention to bull nutrition before,

during and after the breeding season, with the following guidelines:

Prior to breeding season

Yearling bulls should have a body condition score (BCS) of about 6 at the start of the breeding season, Walker recommends.

To achieve that goal, she suggests assessing bulls' body condition at least 30-60 days prior to turnout to determine what management action should be taken.

Thin bulls should be put on a ration with a higher level of energy to increase rate of gain.

Overconditioned bulls should be transitioned to a ration that will help reduce their body condition to the target BCS of 6 to prepare them for the breeding season.

In either of these scenarios, Walker emphasizes that when changing diets to be more or less concentrated, the change in ration should be made gradually. This reduces the possibilities of metabolic disorders and impaired breeding

performance, she explains. She also points out that ration changes prior to breeding can have an effect on reproductive performance because mature sperm is produced over a 60-day period before ejaculation. Thus, Walker says, "The nutritional effects of over- or underfeeding on sperm quantity and quality will have some carryover effect."

For bulls that are deemed "in good condition" 30-60 days prior to breeding, Walker says the key is to begin adapting them to a high forage ration prior to turnout on grass.

She explains that the general method of stepping down bulls is to gradually replace a portion of the concentrate in the ration with forage over several weeks until the bulls are consuming forage or forage plus a supplement, if needed. As a rule of thumb, she suggests reducing 10% of the concentrate in the ration per week with forage.

"Ideally, this should start at least 30-60 days prior to turnout and yearling bulls

► **Above:** SDSU Extension Beef Specialist Julie Walker encourages producers to pay special attention to bull nutrition before, during and after breeding season. "The goal is to have bulls that have been developed on a balanced ration that are not too thin or overly fat," she says.

should continue to gain 1.5 to 2 pounds (lb.) per day,” Walker says.

Walker also says some special consideration should be given to purchased bulls and transitioning them to a new ration once you get them home. “The key is to have consistency. Talk to the person you bought them from and see what they were feeding to help in deciding your ration and how to transition them,” she suggests.

During breeding season

Walker admits that there is limited opportunity to manage bull nutrition during the breeding season. “They are basically on the same plane of nutrition as the cows,” she says.

However, she says producers should still monitor BCS of bulls during the breeding season, as well as observing their ability to service the cows. She says it is normal for bulls to lose from 100-200 lb. during the breeding season.

“If a bull gets extremely thin during the breeding season,” she adds, “you may want to replace him because his ability to service cows will probably be reduced.”

After the breeding season

Once the breeding season is over, Walker stresses that the need for bull nutrition continues — especially for young bulls that are still growing.

“Nutritional management postbreeding is influenced by both age of bulls and amount of weight loss during the course of the breeding season,” Walker says. She recommends producers evaluate each bull’s condition again and sort bulls into three groups:

► **Mature bulls in fairly good condition.**

These bulls can be managed on pasture or an all-roughage diet without supplements during the winter, Walker says. Hay quality should be 8%-10% crude protein and fed at 2% of body weight. Rations should be modified based on available feed ingredients and to manage the bulls to maintain moderate body condition.

► **Growing young bulls and thin bulls that need extra care.** Because young bulls are still growing, their ration should be formulated to gain 1.5 lb. to 2 lb. per day depending on the magnitude of weight loss during breeding season. The need to supplement young bulls on summer/fall pasture will depend on the quality and quantity of forage available, Walker says.

She adds that the best method for developing a diet for bulls is to test potential feeds and formulate a ration based on age, size and desired performance. As an example, in the winter, feeding roughage at 2% of body weight plus 3-6 lb. of grain so total

Nutrition for bull calves

For seedstock producers raising bulls, South Dakota State University’s (SDSU’s) Julie Walker offers this nutritional advice pre- and postweaning:

Preweaning: Under normal environments, the plane of nutrition from dam’s milk and forage should be adequate for normal growth rates of bull calves up to weaning at 6-9 months of age. “It is important that adequate nutrition is available to the dam during this time,” Walker says.

She says early weaning or creep-feeding could be considered when the calves’ plane of nutrition is less than desired; however, the cost must also be evaluated when making this decision.

Postweaning nutrition: Walker suggests developing bulls at moderate rates of gain instead of high rates of gain and says there are many possibilities for rations. The best ration for each situation should be determined based on availability and cost of feed ingredients, she says.

Walker reiterates that the key is developing the ration to meet the desired animal performance without over- or underdeveloping the bull.

“Under-nutrition results in delayed puberty and over-nutrition can reduce semen production and quality,” she says. (Nutrient requirements for growing bulls can be obtained through your local Extension service.)

As a guideline, Walker says, typically, many of the diets to develop beef bulls contain from 40% to 60% concentrate. Higher planes of nutrition may overcondition bulls, she cautions.

diet protein content is 10%-11% will often provide the targeted rate of gain in young bulls.

► **Salvage bulls to be marketed.** With special management and the proper ration, salvage bulls can gain 3 lb.-5 lb. per day over 60 days, which can add some weight and extra value before they are taken to market.

For producers who may use bulls for two breeding seasons, for both spring- and fall-calving herds, Walker says some extra nutritional management may be needed to ensure that bulls will be prepared to serve cows at each breeding season. “Bulls have a shorter time to replenish their weight loss before the next breeding season, so young bulls may need to be on a ration that allows them to gain 2 to 2.5 pounds per day to recover from weight loss,” she says.

Additional tips

In managing bulls for a successful breeding season, Walker also emphasizes:

► Breeding soundness exams for bulls

(BSEB) should be conducted prior to breeding season each year for each bull. “This is important each year because a lot of things can impact fertility from one breeding season to the next,” she says.

► Minerals and vitamins should be made available to bulls year-round to ensure successful animal growth and breeding performance.

► Before and after breeding, keep bulls in pens and pastures that are large enough to ensure adequate exercise to prepare bulls for the breeding season. “Bulls will remain sound longer and have more sex drive (libido) if they’ve had exercise,” Walker says. As a tip, she suggests locating feeding areas away from water to encourage bulls to move around. Additionally, bunk space should be 24-30 inches (in.) per bull if all bulls are being fed at the same time.

► Develop a health protocol for herd bulls with your local veterinarian that addresses yearly vaccinations, parasite control and biosecurity.

