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[PHOTOS BY SHAUNA ROSE HERMEL]

Below: Yearling bulls should be well-grown, but not too fat. If bulls are getting overweight, reduce the energy in their rations, Glenn Selk, animal reproduction specialist, advises.



Bull POWER

Here's how to avoid a power outage during breeding season.

Story by
BOYD KIDWELL

For many cattle producers, bulls are a necessary evil. Sure, it's interesting to study expected progeny differences (EPDs) and pick out outstanding sire prospects. But it's not much fun to feed and care for bulls during the months they aren't working.

"Many producers might like to forget about bulls for the balance of the year, and some producers almost do. While it's true that during the postbreeding season bulls don't require much management, adequate planning and care help keep bull costs within reason and ensure that bulls will be ready to go the next time they are needed," Glenn Selk, Oklahoma State University Extension animal reproduction specialist, says.

Age goes a long way in planning a bull's nutritional needs. A common mistake made in purchasing weaning-age bulls is caused by producers failing to provide adequate diets to help the young animals continue their growth and development. If a young bull is

simply turned out to "rough it" until breeding season, his sexual maturity may be delayed, and this can show up in a reduced calf crop, Selk points out.

The first step in providing nutrition is determining the desired level of performance. For bulls to reach 1,000 pounds (lb.) as yearlings, a sire prospect probably needs to gain 2.5 lb. per day after weaning. To meet this milestone, young bulls that aren't going onto a gain test should receive concentrates at about 2% of body weight. For example, a 600-lb. calf should receive 10-12 lb. of grain along with free-choice access to high-quality hay.

Grain feeding should start gradually, and the grain should be increased to maintain the 2% of weight level as the bull grows.

At a young age, the bull is growing rapidly, and he needs at least 12%-13% total protein in his diet. Depending on the quality of the roughage and the type of grain being fed, a protein supplement will probably be required in the grain mix.

Young bulls may require 16%-20% protein in the grain

mix. Mature bulls require lower concentrations of dietary protein. Rumen function may be impaired if the diet doesn't contain at least 10.5% protein, so it's desirable to feed supplemental protein to mature bulls grazing low-quality grass or hay, Selk says.

Yearling bulls should be well-grown, but not too fat. If bulls are getting overweight, reduce the energy in their rations, Selk advises. As breeding season approaches, bulls should be gaining weight and maintaining moderate body condition. A body condition score (BCS) of 6 is an optimum condition for young bulls.

During the breeding season, a young bull will use his energy stores and will lose more than 100 lb. This weight loss should come from energy stored as fat rather than from muscle tissue. Yearlings should be left with cows for 60 days or less. If left with the cows for a longer time period, a young bull's condition will continue

to drop, which may have long-range effects on his growth. After removal from the cows, yearling bulls should be separated from older bulls — at least through their second winter.

Sorting styles

As bulls come out of breeding pastures, Selk recommends sorting them three ways. The largest group should be the mature bulls in good condition that don't require special care. The second and most important group (in terms of nutrition) is the young bulls that are still growing and need high-quality feed. Mature bulls that are extremely thin can also be placed with this group. The third group includes old and crippled bulls that have ended their final breeding season.

All of these animals should have access to a high-quality mineral mix. Phosphorus is the critical mineral for successful reproduction, but it usually isn't available in adequate amounts from dry or harvested

forage. Vitamin A nutrition is also important to resting bulls. Green, growing plants or high-quality hay with green color are natural sources of vitamin A. Supplemental vitamin A can be added in mineral mixes or fed with a supplement.

After breeding season, mature bulls in good condition do well on a roughage diet. They require about 2% of their body weight in dry feed per day. During the off season, protein needs for mature bulls are about the same as those for dry pregnant cows, so protein can be supplemented as needed.

Finally, bulls that have completed their pasture service due to age will usually gain enough weight to pay for feeding them before sale day. After breeding season, most cull bulls gain weight rapidly and efficiently. These bulls should be placed on excellent forage or free-choice, high-quality hay and fed concentrate feed. Start the bulls on feed slowly, and gradually increase the grain level to avoid digestive problems. With a high level of nutrition, bulls can gain at least 3 lb. a day for 60 days, Selk says.

Exam payoff

Since he's been producing calves, you may think your bull is doing a good job. But a breeding soundness exam (sometimes referred to as a BSE) is more than an insurance policy.

Bulls are seldom sterile, but even a sire with low fertility can reduce the reproductive efficiency of your cow herd and cost you money in the long run.

Using a bull with low fertility may cause cows to miss conceptions in their first heats, and being bred in later heats will make their calves at least 21 to 30 days later than they should be. Once a cow falls behind the rest of the herd in calving, it's very difficult for her to catch up. Replacement heifers sired by a low-fertility bull may not be as fertile as heifers sired by bulls with high fertility.

"Fertility is heritable, so daughters of low-fertility bulls are less fertile," says Richard Hopper, veterinarian and professor at Mississippi State University.

A complete breeding soundness exam includes:

- measurement and examination of scrotum and testicles;
- microscopic examination of sperm motility (movement) and morphology (normal vs. abnormal sperm);
- rectal palpation of internal reproductive organs; and
- physical assessment of feet, legs and gait.

"A completely performed BSE is a valuable procedure," Hopper says. "An incorrectly performed or partial exam may cause a false sense of security. Just a quick look at semen on a slide is next to worthless."

Breeding soundness exams can be performed at the end of the breeding season. At this time, you obviously don't want to feed a bull any longer if he can't do the job. Culling herd sires early also gives you plenty of time to find replacement sires. However, a bull's

semen quality may be low at this time due to heavy usage during the breeding season.

The best time to perform a BSE is just before the breeding season. The longer the time between the BSE and breeding season, the greater the chances that an injury or illness could unknowingly reduce the bull's fertility or physical ability.

In some areas, bulls should be tested annually for venereal diseases.

Trichomoniasis (trich) is a venereal disease that affects the reproductive performance of cows. The disease is caused by a one-celled protozoa that's found in the prepuce and sheath of a bull and in the reproductive tract of a cow. This organism kills the embryo or fetus, which is expelled by the cow. After a couple of heat cycles, a cow may regain fertility and rebreed to produce a late calf. However, bulls are most often

carriers of trich. Talk to your veterinarian about testing bulls for this disease.

To learn more about breeding soundness exams and bull fertility, visit www.vetmed.lsu.edu/citstotus/theriogenology-5361/bull.htm or www.cabe.mmsu.edu/pubs/_b/b-216.html.



