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Turnout Tips

Proper evaluation of herd sires is important leading into the breeding season. Follow these tips to keep your bulls healthy and ready to breed cows.

*by **Shelby Mettlen,** assistant editor*

Overall health and soundness are key factors in determining if your bulls are ready to head to the breeding pasture this year. Bob Larson, veterinarian and professor of food animal production medicine with the Kansas State University (K-State) College of Veterinary Medicine, and Leo McDonnell, former operator of the Midland Bull Test in Columbus, Mont., share tips to keep your bulls ahead in the breeding game.

Larson says it's a good idea to categorize your bulls' needs by maturity level.

"Often, I'll break bull management and breeding soundness exams, and assessment of those bulls, into yearling bulls and adult bulls," he says. "The difference, in my mind, is yearling bulls are just reaching puberty and becoming able to breed cows. They're young. They've never bred cows before, so there's certain things I'm concerned about with yearling bulls that I'm not as concerned about in adult bulls."

Starting out

Start by evaluating your young bulls to ensure success during subsequent breeding seasons.

Environment. Housing and nutrition are particularly important to young, unproven bulls reaching puberty. Good sanitation, clean lots with minimal mud, and protection from wind and cold are key factors to ensure your yearling bulls reach maturity and maximize their ability to breed cows.

During the winter and spring, particularly in the northern states, it's important to provide heavy bedding to protect bulls' testicles from frostbite. Maintenance of testicular temperature is paramount leading into the breeding season.

McDonnell, whose father founded the largest performance bull test in America in 1962, knows a thing or two about preparing bulls for extreme temperatures.

"In Montana, we can go as low as -20° to -30° F some years, and in the summer reach highs of 100° F," he says.

Temperatures like that call for some heavy bedding during the winter and spring months. McDonnell beds his bulls in straw or cornstalks, not only to benefit health and feed efficiency of the animals, but to protect the scrotums from freezing or stress as well.

He also notes that in subzero temperatures the bulls' rations can be adjusted to increase energy content by adding more grain.

"These young bulls, if they have some structural protection or nice bedding, they can protect themselves," he says.

Protecting bulls from frostbite and cold stress is extremely important, as both can have short-term detrimental effects or cause permanent sterilization in bulls.

Genetic defects. Although they're rare, there are genetic defects that may occur in semen or calves that producers should be aware of, Larson says.

"Genetic defects in semen are very uncommon, but they're very obvious if you do a breeding soundness exam, so it's important to do breeding soundness exams," he says.

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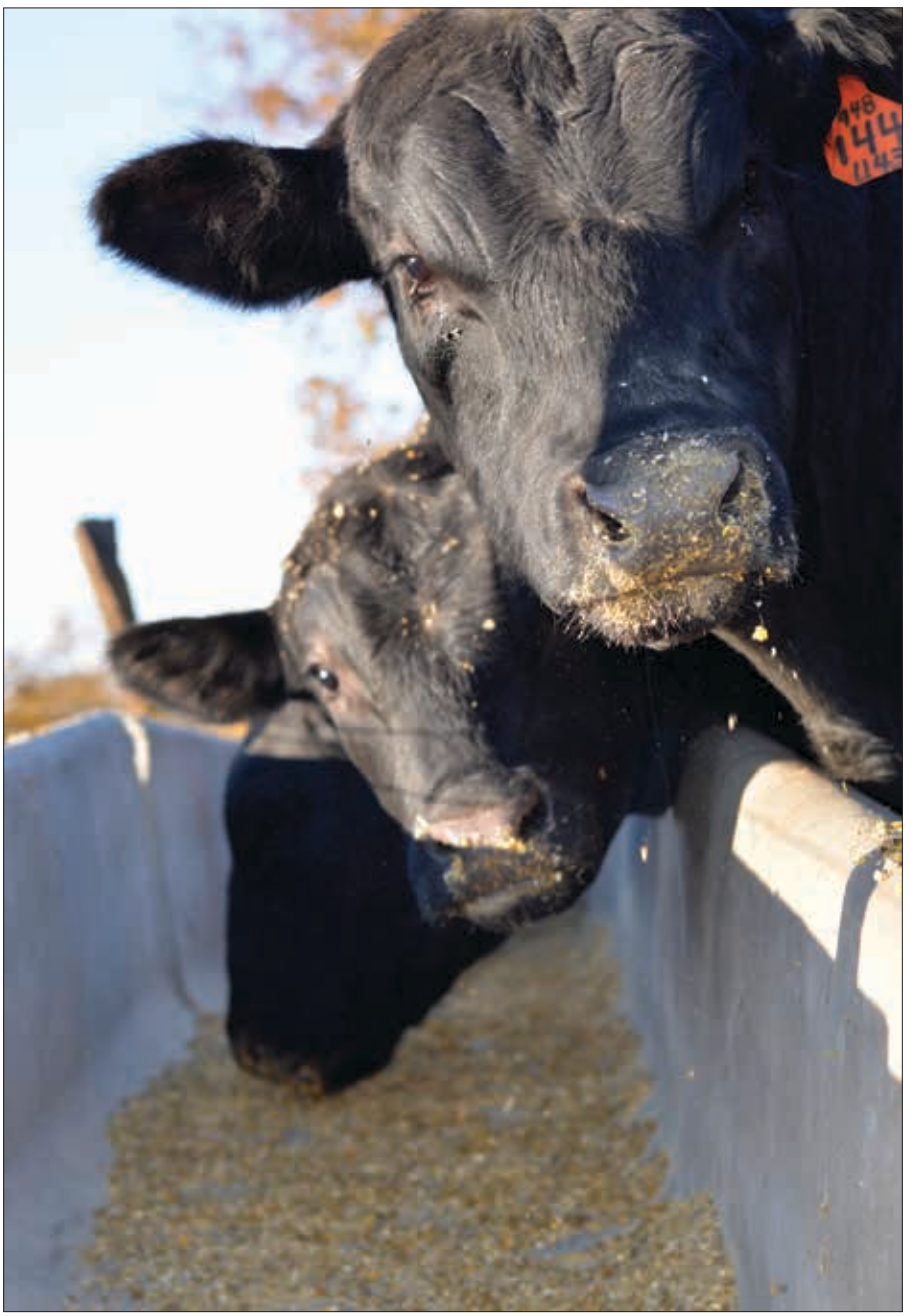
Genetic defects will present themselves for the first time in calves from your yearling bulls, Larson says. "Once the calves are born, recognition of those defects becomes very important."

Structural soundness. Feet and leg structure and scrotal circumference are two highly heritable, genetically linked traits Larson says are important to select for in breeding bulls. Scrotal circumference of yearling bulls serves as an indicator of when bulls will reach puberty. Selecting for large scrotal circumference ensures that bulls reach puberty at a relatively young age and that they will have large testicles with good total capacity to make semen, he says.

"Scrotal circumference is pretty highly heritable, musculoskeletal structural traits are fairly highly heritable, so those become really important to me," he says. Pay attention to selecting good structure and good scrotal circumference.

Developing the ideal. Ahh, the never-ending quest for the ideal.



►Bob Larson says it is imperative to make sure your bulls are in good body condition. "That means they've received enough nutrition and that they've reached their potential for skeletal growth and body growth, but they're not overly fat — about a 6 or so body condition score on a 9-point scale, so they've got a little bit of flesh," he explains.

The ideal bull possesses a combination of traits tailor-made to fit an operation's environment and overall breeding goals while maximizing profit. McDonnell stresses that this bull may not be, and likely isn't, the same for each operation.

"The ideal bull is that bull that genetically positions me the best for profitability in our seedstock program, feedlot and ranch," he says.

"Fertility, structure and maternal background are very important to us, as well as high efficiency and strong performance traits," he says, pointing out that many of his customers rely on the cattle business as their main source of income. "The importance of the cow to function at a high level for harvesting grass and providing a calf that is highly marketable is very important.

"In fact, when you think about it, the primary reason we exist is to take these ruminants and convert these vast grasslands we have to a product that can be consumed to help feed the masses," McDonnell continues. "As we look at herd bulls for seedstock, we are mindful of our customers' birth weight parameters, and phenotype is important in our seedstock herd.

"I can't stress enough the dedication we have and the importance of identifying and using these high-integrity, efficient bulls in the future."

Nutrition. During a yearling bull's first breeding season, Larson says it is imperative to make sure your bulls are in good body condition.

"That means they've received enough nutrition and that they've reached their potential for skeletal growth and body growth, but they're not overly fat — about a 6 or so body condition score on a 9-point scale, so they've got a little bit of flesh," he explains.

Due to activity in large breeding pastures, bulls will likely lose body condition while with the cows, so Larson says it's important for them to have "a little bit of extra body condition, but not be overly fat."

He also stresses that it is important for bulls to be acclimated to the type of environment they're going to be placed on, whether that be flat pastures or rolling hills.

"Whatever they're going to be placed on as a breeding animal, I'd like them to be well-exposed to that and be used to traveling and walking around in whatever type of environment they're going to be in," Larson says. Provide them with a large enough drylot or small pasture to give them some exercise before turnout.

McDonnell places his bulls on a "fairly high-roughage ration," usually 48 megacalories (Mcal).

"To put that into perspective, most of your bull feeds you purchase are mid-50 to 60 MCal, which is nearly equivalent to a finishing ration," he explains. "We are very aware of the negative impact heavy fat placement around testicles can have on a bull's development in fertility, so we really watch this."

McDonnell also places his bulls on a custom mineral-vitamin supplement package made specifically for the Midland Bull Test.

"We have never been comfortable with the national guidelines, as we don't believe they adequately reflect the needs of these young bulls for muscle and bone development," he explains. He says that he also adds some products to enhance fertility and ensure proper hoof development.

Mature audiences only

Give your mature bulls a checkup before turning them out for pasture breeding.

Overall soundness. So, what do you do for your proven sires?

When you know your bulls are successful breeders, Larson says it's time to focus on maintenance of that success.

"I need to evaluate those bulls leading into the breeding season, making sure nothing has changed," he says.

Check feet and legs for foot rot, corns and overgrown toes to ensure proper movement and ability to breed in the pasture. The penis, prepuce and scrotum need to be evaluated for trauma or injuries. Check for any changes from last year that may make them less fertile than they were in the past.

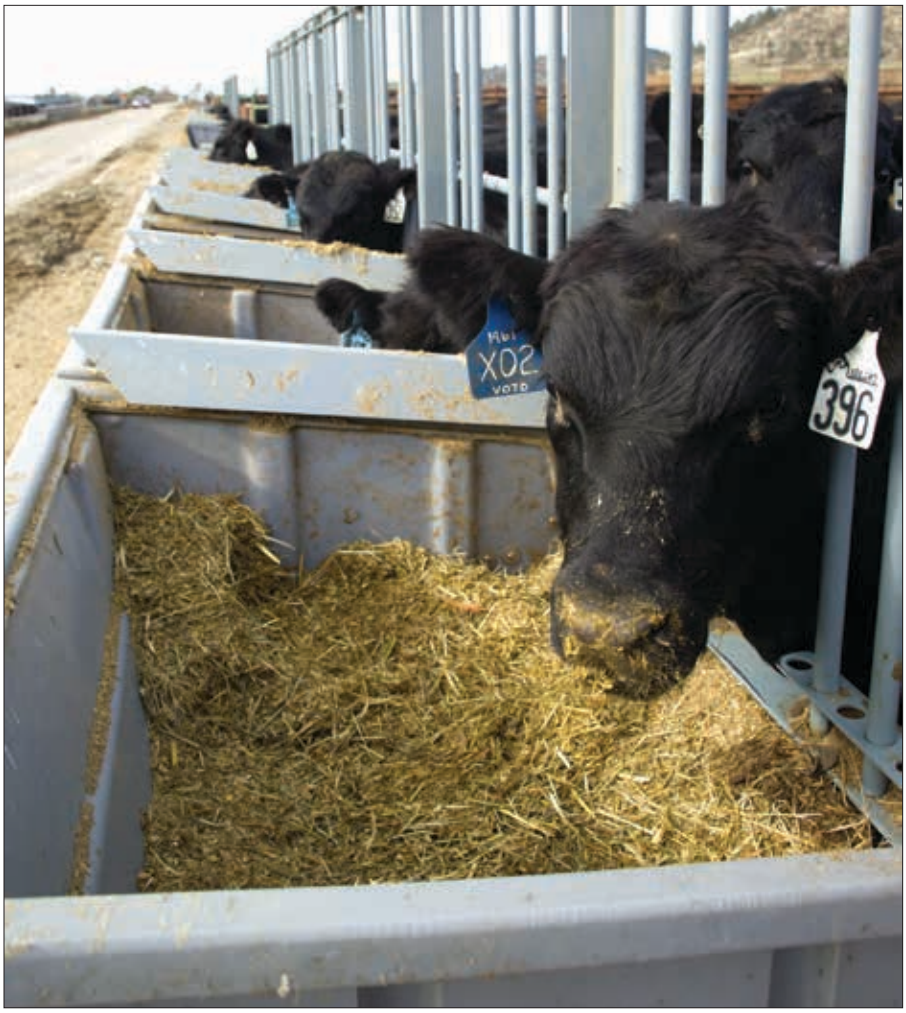
Trichomoniasis. Infertility, low pregnancy rates, an extended calving season, a diminished calf crop and early-term abortions are not things producers like to deal with in their cow herds. However, if your herd bulls contract trichomoniasis, or trich, you just might have to.

"I think being aware of trichomoniasis is really important," Larson says. "It's a fairly rare disease, but when it does enter a herd, the impact is very negative."

The protozoa organism responsible for trichomoniasis, *Tritrichomonas foetus,* is spread from the reproductive tract of infected bulls to cows and causes infertility and early embryonic death.

The only symptom an infected cow may show is subtle, mild vaginal discharge one to three weeks after becoming infected. Infected bulls will have no symptoms.

There is no approved treatment for trich, but cows will often be cleared of the infection with 120-150 days of sexual rest. Infected bulls become long-term carriers of the disease. Consequently, they can reinfect cows the following breeding season if the infection goes unnoticed.



►Leo McDonnell, former operator of the Midland Bull Test in Columbus, Mont., places his bulls on a "fairly high-roughage ration," usually providing a 48 Mcal diet.

Larson suggests working with your veterinarian to make sure your facilities have proper biosecurity to minimize the risk of bringing the disease into your herd. Talk to your veterinarian and have strategies in place to minimize the risk of bringing the disease into your herd.

Pre-turnout timeline. "The closer I can do an evaluation to the start of the breeding season, the more I can be sure that that's the way they will be when we turn them out," Larson says. "However, if we do an evaluation very close to the breeding season, then I don't have any time to correct problems in that animal or to buy a replacement for that animal if he's not fertile."

Larson recommends evaluating breeding bulls three to eight weeks before turnout. At the time of evaluation, you'll likely want to vaccinate your bulls and cows for infectious bovine rhinotracheitis (IBR) and bovine viral diarrhea (BVD), as well as other routine vaccinations. Whatever treatments you're administering to your cow herd — both vaccination and parasite control — you'll want to administer to your bulls at the same time.

Be aware of general health issues, Larson says. "Anything the cows can get can be a problem with bulls, as well."

Watch out for anaplasmosis if it's an issue in your area. Be aware of foot rot, pneumonia and other illnesses. A bull that isn't feeling well won't get cows bred.

Get them up and get them moving, Larson urges. Make sure the bulls are sound and free of lameness. Check the underline of bulls to ensure the prepuce and reproductive tract look normal and free of trauma. Don't forget to continue to monitor your bulls during the breeding season as well.

"Continually monitoring those bulls to make sure they're healthy and thriving well throughout the entire breeding season is important," Larson concludes.