

Manage Bulls for Successful Breeding

BY LINDA SLEICHTER

Bulls are a substantial investment and are critical to the success of a breeding system. During the breeding season, they are often exposed to new surroundings and new companions, presented a large group of females, and expected to breed them successfully.

These expectations can result in bull injury or reduced performance. Making the season as stress-free as possible for the bulls can help maximize the pregnancy rate in the herd.

There are a number of management areas that should be addressed concerning bulls. Preventative bull management — including placement, usage rate, nutrition, injuries and illnesses — should be addressed to maximize the success of the breeding season.

Placement

Bulls instinctively establish a social order. When a group of unfamiliar bulls are congregated, they will aggressively determine who is in charge. This not only expends valuable energy the bulls will need

to breed, but it also can result in injury or reduced confidence in smaller bulls. Glenn Selk, animal reproduction specialist with the Oklahoma Cooperative Extension Service, recommends some simple steps producers can take to minimize this natural behavior.

Sort groups based on age and size. “It is not a good idea to mix older bulls with younger bulls. The bigger, older bulls will physically dominate the younger ones,” Selk says. “Some think that young bulls beaten down will never perform as well as their counterparts. For that reason, I encourage using a group of young bulls or a group of mature bulls but not mixing the two.”

Mix the bulls before the breeding season. “If you are going to use multiple sires in one pasture, it is also a good idea to mix them prior to breeding season and allow them a chance to establish the social order prior to being released with the females. That way, when it is time to breed, they won’t be expending their energy fighting amongst themselves because the pecking order will already be established.”



PHOTOS BY SHAUNA ROSE HERMEL

Since it is often difficult during the breeding season to give bulls the extra energy they need, Glenn Selk of Oklahoma State University advises emphasizing prebreeding nutrition to get bulls into good shape before going to work.

Usage rates

Bulls produce and store a finite amount of sperm in a time period. If the supply is expended quicker than the bull can rejuvenate it, his fertility rate will decrease drastically. By limiting the number of females to which the bull is exposed, the producer can prevent exhaustion of both the sperm supply and the bull himself.

Establishing how many females to which to expose a bull is not a black-and-white calculation, Selk says.

“There is tremendous variation in bulls. Some can handle very many females, and some can only handle a handful,” Selk says. “A good rule of thumb is that the number of females a bull is exposed to is equal to the bull’s age in months. So a yearling bull can be expected to service 13 or 14 females in a breeding season. Two-year-olds and older can be expected to successfully breed 25 to 30 cows.”

One way to use young bulls without exhausting them is to rotate them, using some for the first half of the breeding season and some for the second half. The rotation ensures females that come into heat later in the season will be exposed to a viable bull and reduces the possibility of bull exhaustion. However, a rotation system like this requires a significant bull battery.

Many commercial producers in the Southwest are facing additional bull management challenges with the increased use of a fall-and-spring calving system. Selk explains that one benefit of this system is the ability to use the bull twice in a year, getting the most from him. However, the double-calving system also puts more expectations on the bull.

“This system puts more pressure on the producers to know that, as bulls come out of spring breeding, they should be returned to a body condition score of 6,” Selk says. “The bulls should be fleshy and bloomy before they get back to breeding season again. They will benefit from grain, in addition to the forages, to get them back to the level they’ll need to successfully perform through two breeding seasons each year.”

Another factor affecting the usage rate is the effect of heat on semen production and quality. When bulls go through a long period of intense heat, like some experienced last August, the semen quality will diminish. But once the heat leaves, the sperm concerns do not.

“Once the temperature turns cooler, there will still be an eight-week lag before the bull is completely back to normal,” Selk says. “He may still be able to settle a female within that eight weeks, but his sperm quality and

CONTINUED ON PAGE 52

quantity will be diminished until new sperm are produced and matured.”

Nutrition

Nutrition is always a concern for livestock. If an animal does not get enough energy to meet maintenance needs, the reproductive system will suffer. And a bull’s maintenance needs increase during the breeding season due to the increased activity. While producers rarely have the time or facilities to increase the bull’s diet during the breeding season, he would benefit greatly from additional nutrients, Selk says.

“Changing a bull’s diet is very difficult to do during breeding season, since they are usually out in the pasture. The only supplements the bull may get are those given to the cows,” Selk says. “However, it does help if you can increase the bull’s energy intake because the bull will be expending extra energy during the two or three months of breeding season.”

More important than breeding-season nutrition is preparing the bull with adequate nutrition beforehand, Selk says.

“Due to the heavy activity level of the bull during breeding season, if the bull is marginally thin going into the season, then the lower condition could result in reduced hormone production, reduced sperm quantity and quality, and decreased libido,” Selk says. “By putting the emphasis on the prebreeding nutrition of the bull, producers can get them ready so they’ll know the bulls are in good shape going into the breeding season.”

Injury and illness

Nothing can wreck a breeding season faster than an incapacitated bull. An injured or sick bull can’t pull his weight and can have a huge effect on the resulting calf crop if the debilitating injury is not caught soon enough. Gerald Stokka, an Extension veterinarian at Kansas State University, says injuries to the penis and those causing lameness should be the two top concerns for producers.

“Injuries to the penis are pretty common during breeding season. The cause isn’t always clear, but more than likely it is a result of the act of breeding,” Stokka says. “Injuries causing lameness may include broken legs, hurt joints, torn ligaments and cuts. Many of these normally wouldn’t happen if the bull was paying attention or wasn’t preoccupied with breeding.”

Many of these injuries are difficult to prevent, but Stokka says producers can take steps to minimize risk of injury.

Put bulls to pasture that are familiar with one another and similar in pecking order. If a producer puts strange bulls together, they often will fight and challenge one another, resulting in injury. By putting an older, dominant bull with a group of yearlings, the fighting is minimized because the young bulls don’t want to challenge their elder.

Clean up the pasture and corrals. Make sure you don’t have any electric or barbed wire or sheet metal lying around.

Illness also can cause problems during breeding season. Stokka says producers should watch for foot rot and pinkeye. Foot rot is an infectious disease of the area



Don’t forget to observe bulls once you turn them out with the cows. Check them on a regular basis to make sure the bulls are doing what they are supposed to do.

between the toes that, if left untreated, can result in severe lameness. Pinkeye is a bacterial infection of the cornea that can be painful to the bull.

“The discomfort and handicap caused by these two illnesses can greatly diminish the bull’s ability to breed successfully,” Stokka says. “Both should be treated with antibiotic.”

Stokka says the best thing a producer can do is to keep an eye on the bulls.

“When turning the bulls out, pay attention to them and observe them on a regular basis,” Stokka says. “Make sure the bulls are doing what they are supposed to do. Know what’s going on with the herd. The more a producer checks the herd for any condition, the more likely he is to avoid losses.”

Incapacitation

If by freak accident or sudden illness, a producer winds up without a bull during the breeding season, there are two options, Selk says. Artificial insemination (AI) would get the cows bred, but it is much more labor-intensive than pasturing a bull with the females. Leasing a bull is another option, but it has its own set of risks.

“It is important when leasing a bull that you get the bull from a reputable producer but also know of the other farms that bull has serviced. If he was leased to some other, unknown herd, the possibility of disease transfer to your herd is a real concern,” Selk says. “To lease sight unseen is opening a lot of risks.”

By taking steps to prevent bull incapacitation, producers won’t have to worry about finding a bull at the last minute. Correctly managing bulls can make the breeding season much easier on producers and their animals.



When a group of unfamiliar bulls are congregated, they will aggressively determine who is in charge. Because this diverts bulls’ time and energy, they should be given time to familiarize themselves before the breeding season.

