



Vet Call

► by **Bob Larson**, professor of production medicine, Kansas State University

Treating and preventing bull injuries

Last month I wrote about developing yearling bulls and some of the injuries that can be a concern when dealing with bulls. I would like to continue to emphasize bull management and other injuries that can limit a bull's ability to breed cows. Because bulls are large and aggressive, it is not uncommon for bulls to have foot and leg injuries due to mounting activities or fighting with other bulls. In addition, bulls are susceptible to injuries of the penis, testicles and other organs of the reproductive tract.

Foot, leg problems

Foot rot is an infection of the soft tissues of the foot that starts between the toes and is probably the most common problem causing lameness in bulls. If detected and treated early, most bulls will return to breeding soundness after experiencing foot rot. But, if it is not detected early, infection can invade joints or tendons above the hoof. Repair of joint or tendon infections requires aggressive veterinary care and surgery in most cases — and return to breeding soundness is only likely if the problem was discovered fairly early and the damage is not too severe.

Bulls can also damage their legs while fighting with other bulls or from other accidents. Bulls can tear the cruciate ligaments in their knees just like football players and other athletes. Cruciate tears and other stifle (knee) injuries often prevent a bull from returning to breeding soundness, but some injuries can be repaired with surgery and other therapy.

Bulls can cause bone, muscular or nerve damage to their legs, knees, shoulders or backs from fighting or from hitting solid objects like fences, feedbunks, crowding facilities and/or chutes. These types of injuries can be mild to severe — even severe enough to prevent effective breeding.

Reproductive injuries

I wrote briefly about hematoma of the penis last month. This condition is often referred to as a broken penis but is actually a tear in the tough tissue layers that surround the penis. The bull will have a swelling immediately in front of the scrotum. This swelling is due to blood forming a clot around the penis. The injury occurs during mating and is considered very serious.

About one-half of bulls with a hematoma removed from the breeding pasture and given three months sexual rest will recover and be able to breed cows again. Slightly more bulls will recover with medical or surgical care.

After the injury has appeared to heal and the swelling has disappeared, complications from the injury can still prevent successful breeding. Complications include adhesions between penis and prepuce, erection difficulty, nerve damage to the penis, and return of the hematoma.

The prepuce can be lacerated during mating or from damage to the sheath. The deeper the laceration, the less likely the bull will return to breeding. Shallow tears will commonly heal with only 30 days sexual rest. Deeper tears will cause the prepuce to become quite inflamed and swollen, and it will usually hang out of the sheath.

Treatment includes daily flushing with an antibacterial solution and often pressure bandaging. If nonsurgical treatment fails to return the penis/prepuce to normal function, surgical removal of damaged tissue may be necessary to return the bull to breeding function.

Laceration of the prepuce or hematoma of the penis can cause scar tissue to form between the penis and the prepuce, which can prevent the penis from staying straight during erection. Correction of trauma-induced deviations usually depends upon surgical removal of scar tissue or adhesions. The likelihood for return to breeding depends on the extent of the damage.

Deviations can also occur without prior injury, and, in fact, are more common than those caused by trauma. These deviations are due to an abnormality of the fibrous ligament that runs along the top of the penis. This ligament is supposed to keep the penis

relatively straight during erection. Three types of deviations can occur; they are spiral, rainbow and S-shaped. Surgical correction has been described for spiral and ventral deviations, but long-term return to breeding is not expected.

The scrotum and testicles can also be damaged. Young bulls housed together will butt each other and can cause injury that results in the scrotum appearing enlarged due to blood forming a pocket around a damaged testicle. Often, the testicle becomes hard and degenerates over a period of a few months following the damage.

The epididymis is the tube that carries sperm from the testicles up toward the penis, and it can be damaged by trauma or infection. Bulls can recover from an injury to the epididymis if the damage is fairly mild, but will frequently have increased numbers of abnormal sperm until healing is complete. Frostbite of the scrotum will result in a scab forming on the base of the scrotum. Often, the testicles are temporarily damaged by frostbite. If adhesions occur between the testicles and scrotum, the damage can be permanent.

Prevention

Each of these injuries to the reproductive tract or feet and legs can cause an otherwise fertile bull to fail to get cows pregnant. Preventing problems involves good nutrition to ensure the bulls are neither too fat nor too thin, along with good facilities that provide protection from wind, adequate bedding and minimal mud. Avoid putting young bulls with older bulls, and remove aggressive bulls to decrease the risk of injuries due to fighting. To minimize the chances of excessive open cows, all bulls should receive a thorough physical examination along with a semen evaluation prior to each breeding season. In addition, bulls should be frequently observed during mating to make sure they can successfully breed cows they are mounting.

E-MAIL: rlarsen@vet.ksu.edu