



MANAGING KEY INVESTMENTS

THE BEEF HERD SIRE

Warm spring rains and the smell of summer are floating about the country and the minds of many beef producers have turned to bull turn out. Making sure that bulls are ready to service cows and move the next calf crop forward is something that should not be a last-minute thought! In beef herds, about 90% of the cows are impregnated by natural service sires each year. The herd sire is such an important part of the success of a cow-calf operation that great care should be given to his selection and care.

In this article, I will put forward some considerations for your bull leading up to and including the current breeding season. However, managing the bull's health and productivity is a year-long process that is often not able to be corrected overnight if mismanaged. Spermatogenesis is the production and development of sperm and is a 60-day process. In other words, the sperm that hopefully settles the first cow of the breeding season was created two months ago... Were you focused on your bull two months ago?

Nutrition is a key factor in bull care. Bulls need to be in proper body condition at the start of the breeding season, which is

a 5.5 to 6.5 Body Condition Score on a 9-point scale. Bulls that are over-conditioned or under-conditioned may fail in the breeding pasture.

Young bulls that have been developed on high-energy diets and are over-conditioned need to be "let down" slowly and have their diets switched to a more forage-based ration for at least 30 days prior to turn out. Bulls that are over-conditioned at the beginning of breeding season often experience dramatic weight loss that can affect fertility, endurance, and even interest in servicing females. Bulls do need to be fed in the off season so that they are in good body condition and proper mineral status well in advance of being turned out. Regaining condition is especially important after a yearling bull's first season as he will continue to grow to reach his proper mature weight.

Exercise also plays a role in the endurance and mating ability of a bull. Make sure that your herd sire is sound on his feet and legs and has been housed so that he receives daily exercise. Bulls should not be taken straight from being housed in a barn or small lot and be turned out

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and expected to cover large pastures. Bulls need to have a proper period to exercise and be able to tone up before heavy service.

Bulls should be included in your operation's normal health programs, such as vaccinations and deworming. These practices need to be performed well in advance of the breeding season. Specific protocols should be developed with your veterinarian and will be focused on the challenges of your area and operation.

Body Condition Scoring and evaluation of feet and legs help us to evaluate the bull from a physical standpoint; however, to increase the true success of the bull's ability to complete his duties, we should also complete a Breeding Soundness Exam on bulls each year. Yearly Breeding Soundness Exams (BSE) should be conducted before the breeding season so that a producer has the time to correct issues or replace the bull if issues are found. A bull's breeding ability can change from one year to the next and even within a breeding season, so annual evaluation is important. It is also important to observe the bull throughout the breeding season because injuries can occur that would hinder his ability to settle cows.

Several factors go into a BSE and all of them play an important part in the bull's ability. Exams are broken into three basic areas:

Physical Examination – feet, legs, eyes, sheath, and overall structural condition

Reproductive Examination – internal and external sex organs, scrotal circumference

Semen Collection and Examination – at least 30% Motility and 70% morphology

Briefly, for example, there are minimum Scrotal Circumferences (SC) for different ages of bulls (Table 1). Scrotal Circumference not only plays a role in fertility, but research has also shown that bulls with larger scrotal measurements produce daughters that tend to reach puberty earlier and are more fertile.

Table 1: Minimum Scrotal Circumference requirements based on bull's age.

AGE IN MONTHS	<15	15-18	18-21	21-24	>24
SC IN cm	30	31	32	33	34

Libido is something that is not evaluated in a Breeding Soundness Exam but is extremely important to a successful breeding season! You should make sure that you take the time to watch your bull once he is turned out to ensure he is finding and servicing cows that are in heat. Mark a few dates

down as to when certain cows could be coming back into heat and watch to make sure a large number are not re-cycling. Bulls can lose their libido because of injury, extremely heavy service, or competition with other bulls. If you are running multiple bulls in a pasture, it is best to put bulls of similar age and disposition out together so that the odds of heavy fighting and injury decrease.

Heavy service may be determined by the bull to cow ration. Several factors should go into decisions on what your bull to cow ratio should be for a controlled breeding season. Things such as pasture size and terrain, time of the year, if synchronization and AI breeding were used, and age of the bull

The old rule of thumb is a bull in proper condition and soundness should be able to cover one female for each month of age (Table 2). But, there are several factors mentioned already that can change that number.

Table 2: Bull to cow ratio recommendations for a 65-day breeding season.

BULL AGE	# OF FEMALES
12-18 months	10-15
19-23 months	15-20
24-29 months	20-25
30 months or older	25-35

Bulls will be the main source of genetic improvement in a cow herd and often are a large investment. Producers should make sure that this key investment has every opportunity to work! Successful breeding seasons are based on many factors that are influenced by the management of the cowherd and of the herd sire. Operations need to make sure that every effort has been made to manage the herd sire for a successful breeding season. Think about year-long care, health programs, nutrition, and Breeding Soundness Exams so that your bull performs well on day one of your breeding season.

Article published May 30, 2024 by Penn State Extension by Dustin Heeter, Livestock Educator