

## THE BULL PERFORMANCE REVIEW: DAY 21 TO DAY 30 OF THE BREEDING SEASON

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Many cattle producers will have a bull soundness exam performed on their bulls before turning them out with cows. This is an important management practice which can improve herd conception rates. Research has shown that bulls that have successfully passed a bull soundness exam prior to entering the breeding season will settle an average of 6% to 20% more cows than bulls that were not examined. The examination evaluates fertility, bull structure, the bull's health, and eyesight. After successfully passing the exam, bulls are often put out with the cowherd.

Cattle producers should be encouraged to consider following this up with a "bull performance review" 21 to 30 days into the breeding season. This is a lot easier than it sounds and you can do it from the pickup, four wheeler, horseback, or on foot. There are five general questions that the bull performance review is meant to answer.

- 1) What is the bull's body condition score?
- 2) Has lameness or other impediments to movement or mounting developed?
- 3) Have injuries occurred to the bull's reproductive organs. (penis, prepuce, or testes)
- 4) Does the bull have an interest in breeding cows? (bull libido)
- 5) What percentage of the cow herd is still coming into heat?

The rule of thumb is that bulls should enter the breeding season in a body condition score of 4 or 5. If they are too skinny they may not have the energy for breeding and they are more prone to injury while fighting with other bulls. A bull that is too fat can have lowered fertility due to stress, hormonal imbalances, and high scrotal temperatures. As the breeding season progresses, your bull should be working; creating a demand for a high level of nutrition. Remember that it takes about two months for sperm to develop. So a bull with low fertility due to being overly fat is going to need some significant time to develop a healthy sperm supply.

Bulls can easily be injured once they are in with the cows. Uneven surfaces, holes, rocks, loose wire, cow mounting accidents, and dominance fighting are just a few of the common causes of injury to bulls. We often think of these as causes for lameness but the rancher needs to keep in mind that the bull's reproductive organs are at risk to injury as well. Cuts to the penis, a stepped on testicle, an inflammation to a testicle, or a broken penis are all more common than many would think. Spend some time watching the bull's movement and how he mounts cows. This can give you some insight into lameness and other injuries.

A bull's libido can be hard to judge. It refers to the bull's interest to breed a cow that is in standing heat. Factors that can play into libido can be general interest, injuries, dominance of another bull or even a cow, the bull's age, nutrition, over condition of the bull, etc. Sometimes a bull will start the breeding season with a lot of vigor and enthusiasm but lose his interest after a while. This adds to the importance of the bull performance review between 21 and 30 days into the breeding season. While not wanting to confuse the issue, it is also important that cattle producers know that there is such a thing as a shy bull. (Sometimes referred to as "night breeders.") These are bulls that get the job done year after year, but you never see them mount a cow. They are rare but they do exist.

Note that dominance is a factor in both injuries and libido. Many cattle producers are convinced that having multiple bulls with a cow herd counteracts injury, libido, or fertility issues. The idea is that if there are several bulls in a pasture, they can divide up the cows and it is less work for each of them. Research has shown that this is not necessarily the case. Dominate bulls still do most of the work. Ax, et al. (2002) used DNA to match calves from a multi-sire group to their specific sire. They found that 80% of the cows were bred by 50% of the bulls. The table below shows their results.

**Table 1: The effect of dominance on percentage of cows bred in multi-sire pastures.**

	Bulls per pasture		
	3	4	5
Dominate Bull	66%	50%	40%
Subordinate Bull A	28%	31%	29%
Subordinate Bull B	7%	13%	19%
Subordinate Bull C		6%	8%
Subordinate Bull D			3%
			Ax et al., 2002

Another common belief of cattle producers is that if one bull has a problem, another bull in a multi-sire group will step in. This misconception can cause serious problems when one of the herds more dominate bulls experiences an injury or reproductive failure. A dominate bull that is unable to settle a cow is still a dominate bull and may keep other bulls from breeding cows. If we extrapolate the data from Ax's research and assume the most dominate bull has a reproductive failure, we could infer that 40 to 66% of a herd may not get bred in this situation.

Some of these problems can be obvious from spending some time watching your bulls in action. Others are not so obvious. The problems that are not obvious are why you want to do your bull performance review between 21 and 30 days into the breeding season. Pick a 3 to 5 period to monitor the herd and if 20% or more of your cows are in heat during this timeframe, you may have a problem. If this is the case there are some options to consider. You can pull the bulls out and have another bull soundness exam conducted. Some ranchers will simply replace the bull(s) that are in that pasture. Another option, all be it expensive a labor intensive, is to have your veterinarian preg check the cowherd with an ultrasound at day 40. If your bulls are performing correctly, 50% to 65% of the cows should have fetuses at least 22 days of gestation by day 40. Twenty-two days into gestation is when the heartbeat can be picked up by ultrasound. This method is expensive and labor intensive but it will give you answers and can save a shy bull from the slaughterhouse.

The bull soundness exam is a very good management practice that cattle producers should seriously consider utilizing. Yet, it is just the beginning of the story. You really should take the time to conduct the bull performance review between day 21 and day 30 of the breeding season. It can save a calf crop.