



# Farm Notes<sub>11</sub>

## Breeding Soundness Exams

Issue #11 by Tim Wilson, Bradford County Extension

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### Breeding Soundness Exams for Bulls:

A breeding soundness exam is a procedure that includes an evaluation of physical soundness (eyes, feet, legs, body condition and health), reproductive anatomy (internal and external) and semen. This exam has undergone scoring changes over the years from a numerical system to the current classification system of satisfactory, classification deferred and unsatisfactory. A breeding soundness exam is a snapshot of the bull's reproductive capabilities and are subject to change at any time.

### Physical Soundness

Structural soundness is necessary for a bull to pass a breeding soundness exam. A bull must be able to see and pursue cattle in heat. Poor eyesight and unsound legs and feet hinder his ability to perform this task efficiently. Once he has identified a cow in heat, he must be able to support his full weight on his hind two legs for breeding to be a success. Failure to perform these tasks will result in an unsatisfactory classification. Bulls must be in excellent body condition (BCS of 6 - 7; on a 1 - 9 scale) prior to the breeding season. A considerable amount of weight will be lost as the breeding season progresses. Conditioning herd sires prior to the breeding season will help them maintain condition throughout the breeding season. All bulls should be vaccinated and free of any diseases or infections prior to the exam.

### Reproductive Anatomy

The internal and external reproductive anatomy is palpated to ensure structural soundness. Rectal palpation of the prostate, seminal vesicles and ampullae is performed to determine if any abnormalities are pre-



Brahman Bull

sent. The testis should feel firm but not hard and the epididymis should feel soft and free of any lumps. Scrotal circumference is directly related to the onset of puberty in the bull and is highly correlated to puberty in subsequent heifer calves. It is measured in centimeters around the widest part of the testis and should meet minimum requirements by age (Table 1). The penis must be able to extend fully and be free of any breaks or warts. Structurally correct reproductive anatomy is crucial for a bull to receive a satisfactory classification.

### Motility and Morphology

If a bull appears to be sound and his anatomy is functional, does this mean he is ready to breed cows in your herd? Not necessarily, although the first part of this exam is critical in for a bull to pass, he must be evaluated and have satisfactory semen morphology and motility before a final classification can be assigned. A bull must have 70% motility and sperm cells should be able to move forward in a forward

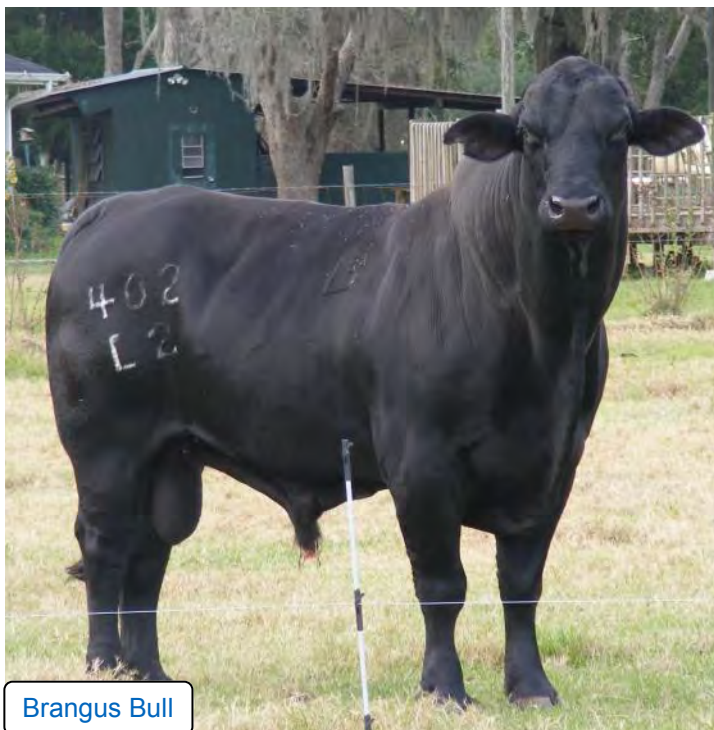
direction vigorously. These parameters are critical in order to allow the best possible chance for fertilization to occur.

A veterinarian should perform a breeding soundness exam 30 - 60 days prior to the breeding season. If an unsatisfactory or deferred classification is awarded, this window of time allows the producer to either retest a preferred bull or purchase a replacement. Young bulls may not pass a breeding soundness exam and receive a deferred classification. These bulls may need more time to reach puberty and should be retested at a later time.

If a bull is used in two herds (fall and spring breeding), this exam should be conducted prior to the beginning of each season. Retesting herd sires after the breeding season is completed is useful to ensure that bulls are still capable of breeding cattle at the end of the breeding season.

**Summary**

Breeding soundness exams provide an excellent snapshot of a bulls reproductive capabilities. Remember to continue to watch them throughout the breeding season since status can change at any time. The bull has one function in a cow-calf operation and that is to breed. If they are not "satisfactory" then alternative management strategies must be taken.



Brangus Bull

Table 1. Comparison by age of average scrotal circumference (cm) of beef breeds.

Breed	Months							
	<14	14-17	18-20	21-23	24-26	27-30	31-36	>36
Angus	34.8	35.9	36.6	36.9	36.7	36.3	36.6	38.2
Charolais	32.6	35.4	34.5	34.9	34.6	36.2	37.1	38.1
P Hereford	34.8	34.2	34.9	34.9	34.8	35.0	35.6	36.4
Simmental	33.4	36.5	-	-	36.0	-	-	37.2
Brahman	21.9	27.4	29.4	31.4	31.7	33.5	34.7	36.7

(Adapted from Sprott, et al., Texas Agriculture Extension Service (L-5051 9-98))