

# Bull Breeding Soundness Evaluations

**ANR-1335**

**F**ailure to properly evaluate bulls can result in huge economic losses, yet performing bull breeding soundness evaluations prior to the breeding season is one of the most neglected reproductive management practices in cow-calf operations. A bull's fertility can be considered fertile, subfertile, or sterile. Subfertile bulls may eventually get cows pregnant, but they will take much longer than fertile bulls to settle a group of cows. The result is that subfertile bulls produce calves that are born later and are therefore younger and lighter at weaning. Subfertile bulls also produce fewer calves during a breeding season. In either situation, subfertile bulls produce fewer pounds of beef per exposed cow, affecting the economic profitability of a cow-calf operation.

A bull breeding soundness evaluation (BSE) is a uniform method of assessing a bull's likelihood of accomplishing pregnancy in an appropriate number of open, healthy, cycling cows or heifers in a defined breeding season. A bull BSE includes the following four components:

- **Physical exam**

Evaluates the physical characteristics of a bull necessary for mobility and athleticism in the pasture, structural soundness, overall internal and external reproductive tract development, etc.

- **Scrotal circumference**

Evaluates testicular size and health, as well as estimating the bull's sperm-producing capacity. Bulls must meet minimum scrotal circumference measurements based on age in order to pass a BSE.

- **Sperm motility**

Ensures that the bull is producing sufficient numbers of live sperm. Bulls must have at least 30 percent motility to pass a BSE.

- **Sperm morphology**

Ensures that the bull is producing sperm that are properly shaped and capable of fertilization. Bulls must produce at least 70 percent normal sperm to pass a BSE.

The recommended minimum requirements for scrotal circumference, sperm motility, and sperm morphology are outlined by the Society for Theriogenology. Additional factors influencing the

number of cows a bull can breed in a season include pasture size and terrain, physical soundness, age of the bull, libido, and number of bulls in the group.

Based on the results of the BSE, a bull is then assigned to one of three classifications:

- **Satisfactory potential breeder (fertile)**

This classification indicates that the bull:

- passed a physical exam
- met the minimum requirements for scrotal circumference
- has at least 30 percent sperm motility
- produces at least 70 percent normal sperm

- **Unsatisfactory potential breeder (subfertile or sterile)**

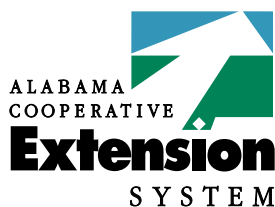
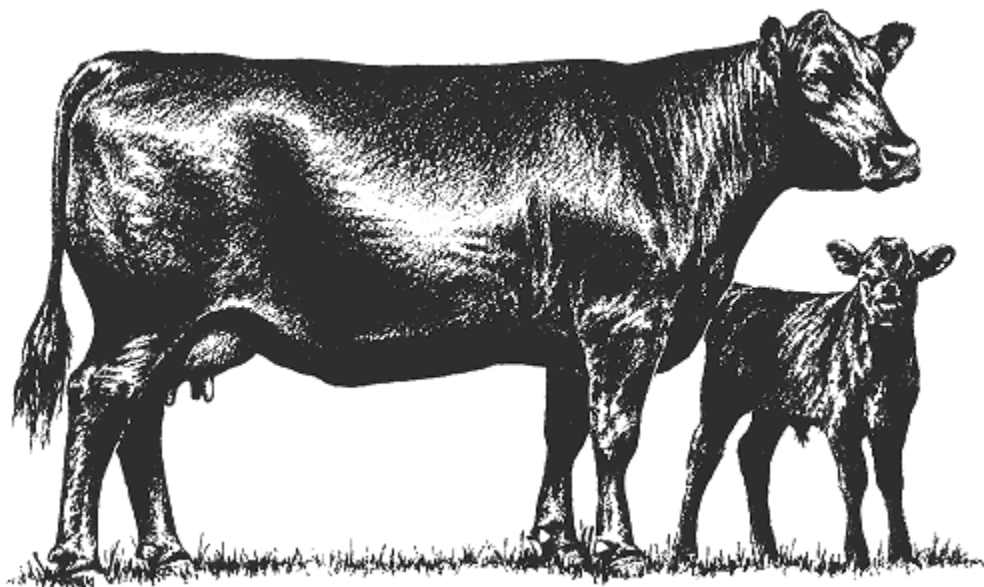
- The bull did not pass at least one of the four components of the BSE.

- **Deferred**

- The bull did not pass at least one of the four components of the BSE due to a condition that may resolve with time. A "deferred" bull should be rechecked at a later date.

A BSE does not evaluate a bull's libido, nor does it ensure that a bull will remain a satisfactory potential breeder the entire breeding season. If a bull suffers injuries to his feet, legs, reproductive tract, etc., such an injury may render him incapable of breeding your cows. Therefore, it is still extremely important to observe your bulls regularly to ensure they are doing

their job. A BSE also does not guarantee that bulls are free of infectious diseases, so consult with your veterinarian on what diagnostic tests may or may not be appropriate for your bull. The extra pounds of beef per exposed cow will more than pay for the BSE, so contact your veterinarian for a bull BSE prior to the next breeding season.



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**For more information**, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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