

Central Washington Animal Agriculture Team

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Bull Fertility

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Evaluating bulls for breeding soundness is probably one of the most neglected management practices in cow-calf operations. Fertility is unquestionably one of the most important traits in bulls, because a cow-calf producer derives their primary income from the number of calves born into the herd each year.

Bull fertility can be a major limiting factor in a breeding program. Infertility rates in bulls are estimated to be between 15 to 25 percent in the United States and Canada. In most cases, bulls that have been in the herd for a year or more are assumed to be of sound breeding value, however, this is not necessarily true. There are a number of factors that can impact future fertility of any bull such as age, health, and injury. Even if a bull has proven satisfactory at the time of purchase, it is important to consider a breeding soundness evaluation (BSE) about 60 to 90 days prior to each breeding season. A basic BSE consists of: physical examination of the bull, examination of the reproductive organs, measurement of the scrotal size and semen evaluation.

The criteria used to assess the score for fertility in a breeding soundness evaluation is: 40% testicular capacity, as measured by scrotal circumference, 40% sperm cell

morphology, and 20% sperm cell motility. Bulls which score higher than 60% and do not have any limiting physical or genital disorders, are considered to be satisfactory breeding animals. Bulls scoring between 30% and 60% should be considered questionable breeders. Those bulls scoring less than 30% are classified as unsatisfactory breeders.

Breeding soundness evaluations provide a cost-effective, immediate and objective evaluation of the breeding potential of bulls. It can be a very effective tool when done prior to either the breeding season or at the time bulls are purchased or sold. It provides an accurate method of having your bull evaluated for fertility so the infertile and sub-fertile bulls can be eliminated from your breeding herd.

Remember that a bull may have the genetic characteristics you want and produce high-quality semen, but be of little value as a herd sire if he is not capable of breeding. Observing the bull service a cow often enables you to identify any back, leg, feet or other reproductive problems that prevent him from completing the act successfully.

Bull dominance is a factor that is also often overlooked in a multi-sire breeding

program. The most dominant bull in the herd is usually the oldest and heaviest, and has been in the herd the longest.

Therefore, the way bulls are grouped in breeding pastures is very important. Keeping young and old bulls in the same breeding pasture may contribute to lower reproductive efficiency in your herd. As bulls reach four or five years-of-age, their reproductive ability declines, but their dominance remains high. Since older bulls

often prevent younger, more potent bulls from mating, the highest percent calf crop may not be achieved.

The more you know about your bulls, the better you will be able to strike that combination of breeding capacity, age, aggressiveness and breeding efficiency to help ensure a productive, profitable calf crop next year.