



# Preparing Stallions for Breeding Season

*The Educated Horseman: Reproduction Series*



A breeding soundness exam is a useful tool that stallion owners and managers can use to evaluate the reproductive status of their stallion. The objective of a BSE is to determine if a stallion has the mental and physical ability to produce viable offspring without spreading infectious disease. Although this type of evaluation is critical to determine the number of mares a stallion can successfully cover in a given year, most often this step is overlooked until there is a problem. While the specifics of a BSE may vary among veterinarians, each evaluation should include:

- **Reproductive history.** The history needs to be complete to avoid inaccuracies. The following information should be collected: age; present numbers of mares covered, including their pregnancy rate, foaling rate or infection; data from previous evaluations; lameness; illnesses; fertility issues; current medications; health status; and intended method of breeding.
- **Physical exam.** Although a breeding soundness exam focuses on the reproductive health of stallions, the general health of the animal should not be overlooked. It is important to positively identify the stallion to prevent legal complications, and then focus on the horse's body condition score. Pay attention to any abnormality (physical or genetic) that may inhibit the animal's ability to mate successfully without passing on negative heritable conditions, including lameness or back pain.
- **Reproductive genitalia exam.** An evaluation on the reproductive anatomy is also important. The stallion's penis, sheath, testes and epididymis should be anatomically correct, functional and free from injury or disease. Size, shape and consistency of the testes and epididymis should be noted. A veterinarian may choose to use a set of calipers or an ultrasound to determine the overall volume of each testicle, which is a valuable measurement that helps determine the stallion's daily sperm output.
- **Sexual behavior.** Some stallions may have an aversion to displaying natural breeding behavior based on previous training. For example, stallions used as performance animals and for show are expected to "behave" and not display breeding behavior. The training used to teach them to control this natural behavior may create difficulties in the breeding shed. During a breeding soundness exam, a stallion should have immediate interest and interaction with a mare in heat, should

obtain an erection within two minutes, display a readiness to mount within 5-10 seconds following erection and should ejaculate on first mount. The total breeding time should not take longer than five minutes. A young stallion, or one that does not display normal breeding behavior, may need additional training by an experienced handler.

- **Semen evaluation.** Specialized equipment is used to evaluate the volume, concentration, motility and morphology of a semen sample. The color and consistency of the sample and its contents, such as debris, urine or blood, are examined, too. This evaluation determines the number of viable sperm cells available, which indicates the number of mares a stallion can breed per collection. In special circumstances, additional testing might be needed to rule out any reproductive dysfunction.

Although a breeding soundness exam can give stallion owners an indication of potential reproductive soundness, it does not measure fertility. To "pass" a breeding soundness exam, a stallion's second ejaculate collected one hour after the first one must contain at least a "1 billion progressively motile, morphologically normal spermatozoa." Advanced breeding technologies exist to help extend a stallion's breeding career. Therefore, managing your horse's overall health and reproductive soundness in cooperation with your veterinarian can extend your animal's overall career and impact on the equine industry.

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