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Get the Full Evaluation

Male breeding soundness exams should include more than a semen test.

Story & photo by **Troy Smith**, field editor

When they talk about getting their bulls “checked out” prior to breeding season, cow-calf producers mean the bulls will be evaluated by a veterinarian to make sure they are capable of breeding cows. However, some producers may ask the veterinarian to perform a semen test, when they should be requesting a breeding soundness exam.

“A breeding soundness exam is more than a semen test,” explained University of California–Davis veterinarian Bret McNabb during the Applied Reproductive Strategies in Beef Cattle (ARSBC) symposium hosted on campus.

“The semen has to be viable, of course,” McNabb added, “but a bull has to be physically able to deposit the semen in a cow. A semen test alone won’t tell you if he can do it.”

McNabb explained that a complete bull soundness exam should include an evaluation of a bull’s overall health. While an in-depth physical examination typically is not necessary, an abbreviated version should be part of every bull soundness exam. According to McNabb, it starts with observing the bull for any obvious signs of disease or infection, an appraisal of the bull’s general conformation and determination that the bull suffers from no lameness or physical abnormalities that may hinder breeding performance.

Next comes an evaluation of the reproductive organs. McNabb said scrotal circumference is significant because of its correlation to testicular volume and daily sperm production. Besides the testes, palpation of accessory glands within the



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scrotum should include epididymi, vas deferens, cremaster muscle and blood vessels supplying the testes. Internal reproductive organs subject to examination by palpation include seminal vesicles, prostate, ampulla and the pelvic urethra.

According to McNabb, during semen collection a bull’s penis and prepuce are easily examined for abnormalities or signs of infection or injury. After semen collection, semen samples are evaluated for motility and morphology.

“A minimum of 30% individual motility is required for a bull to pass a breeding soundness examination. However, in my experience, most successful bulls are much higher than that,” stated McNabb. “Sperm morphology probably is even more important than motility, and a minimum of

70% normal morphology is required for a bull to pass.”

Venereal diseases

McNabb reminded the conference audience of the role that bulls play in two costly venereal diseases of cattle. While they are different diseases caused by very different organisms, trichomoniasis and vibriosis have similar symptoms, and both are spread by infected bulls during breeding. However, bulls infected with either disease typically show no symptoms. The costs associated with these diseases are manifested in abortions and infertility exhibited by females that become infected.

Caused by a protozoan organism, trichomoniasis is more economically significant of the two diseases. A regulatory disease, its control is based on testing and culling. Once infected, a bull remains infected for life and therefore may be sold only for slaughter.

The causative agent for vibriosis is a campylobacter bacteria. According to McNabb, a relatively inexpensive vaccine serves as treatment and prevention of vibriosis.

McNabb spoke during Monday’s ARSBC session focused on the bulls. Visit the Newsroom at www.appliedreprostrategies.com to view his PowerPoint, read the proceedings or listen to his presentation.



Editor’s Note: Troy Smith is a freelance writer and cattleman from Sargent, Neb. Comprehensive coverage of the symposium is available online at www.appliedreprostrategies.com. Compiled by the Angus Journal editorial team, the site is made possible through sponsorship by the Beef Reproduction Task Force.