

A sheath scrape model attached to a multifunctional life size Breeding Soundness Examination (BSE) bull



The diagnosis of bovine venereal diseases is an important skill required of any rural or large animal veterinary practitioner in Southern Africa. All newly graduated veterinarians as well as veterinary nurses must be able to perform a sheath scrape. The procedure is slightly invasive but fairly simple and can be taught well on a veterinary model.

Once the idea for the sheath scrape model was developed, it was decided to attach it to a life size BSE bull. An existing taxidermy mould was used to manufacture a “Brahman” bull made of fiberglass with a gel coating.

The skin from a bovine carcass was preserved. The scrotal contents (testes and epididymides), penis and accessory sex glands were used to make moulds of these organs. The moulds were then used to cast silicone models of the organs. Further parts used to construct the bull model included a dragon skin perineum, a pilates ball (“rumen”), rubber tubing (“oesophagus”), pool pipes (“trachea”) and silicone injection pads. Cleaned anatomical specimens of the pelvis, sacrum and tail vertebrae were also added to the model.

Skills that can be taught on the bull include most of the procedures done during a BSE, i.e. rectal palpation to assess the accessory sex glands, palpation of the sheath and its contents, palpation of scrotal contents (interchangeable normal and abnormal testes, epididymides and spermatic cords), measurement of scrotal circumference, palpation of the penile sigmoid flexure, evaluation of sheath confirmation as well as the sheath wash and scrape procedure.

Additional features are the passing of a stomach tube into the “rumen”, with the possibility of rumen auscultation to ensure correct placement of the stomach tube, intravenous and intramuscular injection sites and an epidural anaesthesia function, where correct needle placement is confirmed by a light coming on.