

Ram Breeding Soundness Examination (BSE)

The ram is the crucial link in a successful breeding program. A good mature ram can breed more than 50 ewes in a season. If one of those ewes fails it will not result in severe loss to the producer. However, if the one ram fails, the results could be devastating. The producer must insure that the ram is ready to do the job of finding ewes in estrus, breeding and conceiving.

It must be remembered that the production of sperm is a long process and it can be 7 weeks from the time the sperm cells are produced in the seminiferous tubules of the testes until they are matured as sperm cells. During this time any disease, trauma or nutritional stress can affect the semen quality for several weeks.



Sheep Husbandry students perform a Breeding Soundness Examination.

Steps in a Breeding Soundness Examination

The ram should be observed before handling for potential health problems. Respiration rate at rest and with moderate moving should be normal. A ram with breathing difficulties will not be aerobically fit for the rigors of breeding. The ram should be of moderate condition score. Teeth should be intact to allow grazing ability. The ram should be sound of feet and legs and able to move easily without effort or lameness. The ram should be inspected for any lesions or abscesses that may indicate some infectious condition that he could spread to the ewe flock.

The ram is then turned over. The hooves are closely inspected to insure trimming and freedom from footrot or scald. If trimming is required, it should be done two weeks before breeding starts. The scrotum should also be measured. Scrotal circumference at the widest point is a good indication of a ram's breeding ability.



Measuring Scrotal Circumference.

The testicles are examined as well. There should be two intact testicles with bi-lateral symmetry (side-by-side). Cryptorchidism is a condition where rams have only one descended testicle. This condition may be caused by a fetal hormonal deficiency or a mechanical blockage that retains the testicle in the abdomen. Rams with only one testicle can be functional and fertile. However, this condition may be hereditary and the ram should not be used.

Scrotal Circumference (cm)			
	<i>Questionable</i>	<i>Satisfactory</i>	<i>Exceptional</i>
<i>Ram Lambs (8-14 Months)</i>	< 30	30-36	> 36
<i>Mature Rams (> 14 Months)</i>	< 32	32-40	> 40

During the breeding season the testicles should be firm. Flaccid testicles are common in rams outside of the breeding season. However, during the fall breeding season this is an indication of lower fertility. The testicles should be free moving within the scrotal sac. This allows the rams to move the testicles away from the heat of the body and allow for production of viable sperm. If a ram has suffered an infection or a trauma injury, the testicles may become adhered to the inside of the scrotal sac and this will interfere with their thermo-regulation ability. At the base of the scrotal sac is the coiled epididymis and this is the location where sperm is stored. The epididymis should be firm, but not swollen, hot or painful to touch. Any of these may be an indication of infection and sterility. The opening of the prepuce is examined for any lesions or sores that would interfere with erection of the penis. A common condition of rams is called “pizzle rot”. This is the result of acidic urine, often the result of a diet too high in protein, which creates sores at the prepuce opening. The penis may be extended from the prepuce by

holding firmly at the base and gently pushing the prepuce back. The penis should be free of lesions with an intact vermiform appendage.

A semen evaluation can be performed with a trained technician. Semen is sometimes collected with an electro-ejaculator. This method of semen collection can result in poor samples and has animal welfare concerns. Most rams can be trained to serve an artificial vagina and the collected semen is evaluated under a microscope for vigor, motility and abnormalities. Semen collection and evaluation requires the use of specialized equipment and training. Consult a veterinarian to see if this service is available.

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