

BWBL Brucellosis presentation

What is *Ovine Brucellosis*?

Ovine Brucellosis (OB) is an infectious disease of sheep caused by the bacteria *Brucella ovis*. It affects the reproductive performance of sheep flocks.

OB presents primarily as infertility in rams.

The incidence of OB has been greatly reduced with the introduction of the voluntary OB-free accreditation program throughout Australia. In Victoria it is estimated between 15-60% of untested flocks are infected with OB with its prevalence being influenced by locality, farm management and producer awareness.

OB can often go undetected in a flock as poor conception rates and lambing rates can be attributed to ewe nutrition, starvation/mis-mothering, predation and exposure at lambing time.

How is it spread?

- Primarily infection is ram to ram through homosexual activity which is common among young rams and more common in British bred rams.
- Less commonly via the ewe; A ewe that has been served by an OB infected ram may carry the infection for up to 3 weeks and transmit the infection to an uninfected ram when he serves or smells her. or
- A ewe that has aborted as a result of an infection (rare) will carry the bacteria and can transmit the infection

Ram Symptoms

- Scrotal lesions causing swelling and inflammation
- Irregularities in the testicles including shrinking, change in shape and hardening (normal testes should feel firm and be uniform in size)
- Lower semen quality

Flock symptoms

OB infected flocks have the potential to suffer significant economic losses.

- Lower conception rates
- Occasionally abortions in ewes

Producers will sometimes compensate for this low fertility by extending joining periods, repeat joining or increasing ram percentages.

Detection

An examination of rams 6 weeks before joining is always recommended. This should include palpation of testicles along with condition, age, lameness and external reproductive organs. If any rams have palpable lumps, blood testing of all rams (some rams may carry the infection without showing lumps) or semen examination by a veterinarian to rule out *B ovis* should be implemented.

Rams that have been exposed to infection may incubate the disease for weeks before testing positive. Blood testing should be repeated 6 weeks after initial test.

Treatment

Once a ram has been infected with OB, treatment is ineffective. Management of OB in a flock is through culling of rams displaying palpable lesions or rams that have tested positive through blood testing or semen examination.

Preventing *Ovine Brucellosis* entering your flock

Best-practice management strategies for the prevention and control of OB:

- Physical scrotal examination upon ram selection and purchase
- Purchase rams and ewes from OB-free accredited breeders and ensure they have a current accreditation certificate
- Avoid purchasing rams out of the saleyard or borrowing rams.
- Isolate new stock from existing flock until OB status of new rams is established
- Rams should be run in small mobs with young rams and old rams separated
- Reduce the potential of infection from stray rams by ensuring boundary fences are in good order.
- Be attentive to any abnormalities in scrotal appearance and texture, conception rates and abortions in ewes as well as a lower lamb marking percentage or extended lambing period
- Quarantine potentially infected stock and seek veterinary consultation if rams present any abnormalities

Ovine Brucellosis Accreditation Scheme

The voluntary Ovine Brucellosis Accreditation Scheme ensures rams purchased from accredited studs are clean. Participating studs undertake regular testing and agree to best practice to manage potential introductions of infection.

It is important to remember bringing a clean ram home to an infected property defeats the purpose of the accreditation scheme so establishing your own disease status is important.

Take home messages

- Infection in a flock has the potential to cause damaging economic losses through reproductive inefficiencies
 - Be attentive to any abnormalities in scrotal appearance and texture, conception rates and abortions in ewes as well as a lower lamb marking percentage or extended lambing periods
 - Quarantine potentially infected stock and seek veterinary consultation if rams present any abnormalities
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