

# FACT SHEET

## OVINE BRUCELLOSIS



livestock  
health &  
biosecurity  
VICTORIA



Victorian  
Farmers  
Federation

### WHAT IS OVINE BRUCELLOSIS?

Ovine brucellosis (OB) is an infectious disease caused by the bacterium, *Brucella ovis*, affecting sheep.

It is distinguished by infertility in rams and can significantly affect the reproductive performance of sheep flocks.

Incidences of OB have been reduced with the introduction of the voluntary OB-free accreditation program.

In Victoria two-thirds of registered flocks are OB-free accredited, however OB is still widespread in 15 to 60 percent of untested flocks.

Prevalence of the disease is influenced by location, farm management such as the ability to keep rams in property boundaries, and producer awareness.

### HOW IS IT SPREAD?

Ovine brucellosis infects primarily rams, however ewes can infect a clean ram. OB is spread:

- ▶ ram to ram through sodomy, which is common among young rams
- ▶ when a ewe exposes a clean ram to infected semen from a recent, previous mating.

### SYMPTOMS OF OVINE BRUCELLOSIS

Symptoms of ovine brucellosis include:

- ▶ scrotal lesions causing swelling and inflammation
- ▶ swelling of the epididymis
- ▶ irregularities in the testicles such as shrinking, change in shape and hardening
- ▶ lower semen quality, causing subfertility or sterility
- ▶ lower conception rates with an increase in ewes returning to service after 17 days.

Be aware that OB can exist in ram flocks without displaying obvious scrotal lesions. Infected rams may possess microscopic lesions in the testes, epididymis and accessory sex glands.

### HOW DOES IT IMPACT YOUR FLOCK?

Rams infected with OB generally produce lower quality semen, often resulting in them being sub fertile or sterile.

If more than 10 percent of rams are infected with OB then there is a predicted 30 percent reduction in lamb marking. However, the impact on overall flock fertility depends on the number of infected rams and flock breeding management,

## MANAGING OVINE BRUCELLOSIS

If infected rams are ignored, reduced fertility and overall production can be repeated year-to-year. Blood test or semen examination by a veterinarian will identify if a ram has the disease.

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

Best-practice for the prevention and control of OB includes:

- ▶ conduct physical scrotal examination when selecting and purchasing rams
- ▶ purchase rams and ewes from OB-free accredited breeders, ensuring the accreditation is current
- ▶ isolate new stock from the existing flock until you know their OB status
- ▶ run rams in small mobs, separating young and old rams
- ▶ test rams for OB at least one month before joining
- ▶ reduce the potential of infection from stray rams by keeping boundary fences in good order
- ▶ avoid running rams with ewes during lambing
- ▶ quarantine potentially infected stock
- ▶ seek veterinary advice if rams present any abnormalities.

Once a ram has been infected, treatment is considered unfeasible as rams generally remain sub-fertile or sterile regardless. It may be necessary to cull rams that display clinical signs or have tested positive to the disease. However, culling of rams with palpable lesions without completing an eradication program can result in high turnover costs and so an effective management and eradication plan is essential.



Image: *Brucella ovis* often causes the tail of the epididymis to swell and the associated testis to shrink - as shown on the left from a 15-month-old ram. Source: Sheep Connect SA

## TAKE HOME MESSAGES:

- ▶ An Ovine Brucellosis outbreak in a flock has the potential to cause damaging economic loss through reproductive inefficiencies.
- ▶ Be alert 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.

## ERRADICATION SCHEME

Since 1974, Victoria has had a voluntary OB accreditation scheme to help control the disease. The scheme is managed by Agriculture Victoria.

The OB-free accreditation of stud flocks requires two consecutive negative tests of all rams at an interval of between 60 and 180 days.

Accreditation ensures rams are OB-free for interstate movement, ram sales, attendance at shows and export.

For further information, please contact the VFF Livestock Group on 1300 882 833 or [lhbv@vff.org.au](mailto:lhbv@vff.org.au)

## FURTHER LINKS

[Agriculture Victoria](#)

<http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/sheep/ovine-brucellosis>

[Meat and Livestock Australia](#)

[www.mla.com.au/research-and-development/animal-health-welfare-and-biosecurity/diseases/infectious/ovine-brucellosis/](http://www.mla.com.au/research-and-development/animal-health-welfare-and-biosecurity/diseases/infectious/ovine-brucellosis/)

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