



GENSTOCK PTY LTD **ANIMAL BREEDING SERVICES**

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Ovine Brucellosis (*Brucella ovis*)

Ovine brucellosis (OB) is a bacterial disease of sheep found throughout Australia. It is a common cause of infertility in rams. The disease is of importance as it may cause considerable economic loss in flocks due to reduced lamb marking percentages, increased culling of rams and extended lambing periods. It can very occasionally cause abortions and the birth of weak, poorly viable lambs.

Genstock performs on-farm testing of rams for Ovine Brucellosis throughout the state. We have seen cases of Ovine Brucellosis cost producers a considerable amount of money to eradicate and subsequently, replenish their ram flock.

The bacteria causing the disease, *Brucella ovis*, is confined to sheep. All breeds of sheep are susceptible to Brucellosis; however, some breeds tend to spread it more rapidly due to them being sexually active at a younger age. Infection can be spread from ram to ram directly or via ewes. Ewes rarely become infected but can infect clean rams by exposing them to infected semen from a recent mating. Ewes rarely carry the infection for more than one or two oestrus cycles. Infection may cause early embryonic death without outward signs. If the placenta becomes inflamed, this may result in reduced nutrient supply to the foetus and subsequent abortion or production of small, weak lambs, although this is rare. After abortion or giving birth, the brucella organism may be present in vaginal discharges and milk. Infection in most ewes is self-limiting so, following infection, ewes will usually breed normally in subsequent years.

By contrast, rams usually become permanently infected and excrete the bacteria periodically in their semen. Obvious lesions can be palpated in the testes and epididymis (the tubes where sperm is transported from the testes) of about 40% of infected rams. The percentage tends to be lower in recently infected flocks. The disease in rams causes inflammation of the epididymis, resulting in infertility and sterility in some, but not all affected rams. Other causes of epididymitis and scrotal lesions include infections with other bacteria and injury.

When veterinarians are testing rams for Brucellosis, they will feel the testicles of the rams to ensure there are no issues with the epididymis. A blood sample is taken to test for an animal's immune response to the bacteria. This does not occur immediately after infection. It is important to discuss the blood test results with your veterinarian to determine the best course of action when a suspect or positive result is received.

Treatment of infected animals is not worthwhile. In most rams, the damage is permanent, and the fertility of the ram will be low, even after treatment. Eradication can be achieved by a combination of manual examination, blood testing and removal of all infected rams as soon as they are detected. We recommend you discuss any eradication program with your veterinarian.

We advise that producers feel the testicles and scrotum of all rams routinely well in advance to mating. This not only monitors for brucellosis but will identify, for culling, suspect and infertile rams due to other issues. It also enables producers to budget and plan their ram requirements for the upcoming ram purchasing season.

It is advisable to consider purchasing your rams from Ovine Brucellosis Accredited free flocks or from a flock which has tested negative for the disease. The Department of Primary Industries and Regional Development administer a voluntary, accreditation scheme for ram breeders, in conjunction with private veterinarians. In July 2020 there were about 210 flocks in WA accredited as free of ovine brucellosis and a listing of accredited properties can be located on their website. If you purchase rams from a flock that have not been tested for Ovine Brucellosis we strongly advise feeling their testicles and having your veterinarian test those rams to ensure they are free. Please feel free to contact the Genstock team as we can advise you on biosecurity plans to keep Ovine Brucellosis out of your flock.