

Brucella ovis (brucellosis) in rams - information for New Zealand sheep farmers

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Brucellosis is the disease caused by the bacteria *Brucella ovis*. Its major effect is epididymitis (lumps at bottom of the rams testicles), which causes a permanent reduction in fertility. In NZ the disease will only affect ewes for a short time and they tend to clear the disease by the next oestrus cycle.

Transmission requires close proximity (often by sexual contact), and is typically by direct ram to ram contact or from ram to ram by mating of the same ewe.

Brucellosis may reduce the ewe pregnancy scanning percentage on a farm when it is well entrenched in the ram flock. However, these effects can often be masked if a high percentage of rams are used e.g. if tupping ratios of 1:50 are used, even if half the rams are infertile there may be enough rams with viable semen to achieve an acceptable tupping result.

For this reason, we encourage farmers to think about the cost of Brucellosis mainly in terms of the effect on ram wastage. In an infected flock, the main loss occurs as rams become infected and infertile and they are no longer able to contribute to the flock genetics or a crop of terminal sire lambs. Due to 'social interaction', as new rams find their place in the ram flock hierarchy each year there is a high chance they will become infected soon after introduction. Think about this and what you spend a new ram – money that is wasted if the ram is infected soon after he arrives on the property.

For flocks that have been recently infected it is usually possible to eradicate the disease by repeated blood testing and culling. In flocks that have been infected for a long period of time, it may be more practical and less expensive to replace the entire ram flock.

Common causes of new infections that we tend to see are as follows:

- Stray rams (e.g. from neighbours who don't get their rams examined yearly or feral sheep in scrub/forestry blocks)
- Bought in rams e.g. cheap Black-face rams from a neighbour or dog tucker rams from a sale. Local ram fairs can be a risk, as entry requirements are variable and are sometimes slack.
- Winter ram lambs. Although lambs are free of the disease when they are born, as soon as they become sexually active they can become infected and very rapidly start spreading the disease around and between farms.

In terms of stray rams, the riskiest time of year tends to be tupping. During the rest of the year rams should be safely in their ram paddock with no risk of strays coming through a boundary fence. However, during tupping rams are very active and are obviously distributed around a larger area of the farm, increasing the risk of contacting stray rams.

In areas where there have been recent infections local farmers tend to retain a healthy fear of the disease. Once eradication in an area has occurred, over the years complacency tends to creep in and people start to make poor decisions. The exact number of infected flocks in NZ is unknown but unfortunately there are still relatively high numbers of commercial rams that are never examined – some of these are likely to be infected.

In NZ a voluntary *B. ovis* accreditation scheme is in place. For stud breeders most (if not all) of the Breed Societies make accreditation a compulsory part of membership. For a variety of reasons there now seem to be a large proportion of breeders who are not members of a breed society. Most of these have joined the accreditation scheme independently, but never assume this.

Some golden rules for your rams:

1. Never buy a ram without seeing a current *B. ovis* accreditation certificate.

There are still reasonable numbers of rams being sold around the country from breeders with no accreditation program in place. Don't assume, and don't just take a verbal assurance that the rams are 'Vet Checked' – confirm that the Rams and Stud are actually Accredited free of Brucellosis. Accredited-free flocks should have a current certificate issued by their veterinarian.

2. With stray rams, if you are in a risky area, shoot first and ask questions later.

Treat any stray ram as infected. If you see a stray ram, remove him as quickly as practically possible (by any means necessary!). If the stray has been in the mob for a while it may be a good idea to get the ram flock tested.

3. Get your rams palpated by your local Veterinarian every year.

If you are unlucky enough to have your flock infected, the sooner this is identified the sooner steps can be taken to reduce the impact. Keep your new rams separate until you have the flock checked each year. In high risk areas, many farmers choose to blood test the entire ram flock every year.

4. Don't buy dog tucker rams.

A high percentage of these are infected (this is often the reason they have been culled).

Compared to many diseases, Brucellosis is an easy one to keep on top of with some good habits and a community approach. If you have been following the above guidelines, keep up the good work – if you haven't then talk to your local vet about what the best plan is for your flock.

For further information about *B. ovis* or the accreditation scheme, talk to your veterinarian.