



Department of
**Primary Industries and
Regional Development**

Western Australia Ovine Brucellosis Accreditation Scheme

Operational Guidelines 2018/2019





Department of
**Primary Industries and
Regional Development**

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Overview

Ovine brucellosis is a disease of sheep caused by the bacterium *Brucella ovis* (*B. ovis*).

The bacterium causes an inflammation of the epididymis in rams, orchitis and impaired fertility. *B. ovis* can cause inflammation of the placenta in pregnant ewes and result in abortion. The disease can cause considerable economic loss due to increased culling of rams, reduced lamb marking percentages, extended lambing seasons and ill-thrift in new born lambs.

Ovine brucellosis occurs in all sheep breeding areas of the world and in sheep flocks in all states of Australia. All breeds of sheep are susceptible to the disease.

The Western Australian Ovine Brucellosis Accreditation Scheme (OBAS) is a voluntary, user-pays scheme run in an association between the sheep breed societies, private veterinarians, individual owners and the Department of Primary Industries and Regional Development (DPIRD).

The scheme was developed in response to calls from the sheep breeders for a flock classification scheme that could give them, and their clients, confidence that participating flocks have been objectively assessed and no infection with *B. ovis* found.

The scheme aims to identify and protect flocks that are free from *B. ovis* infection. It is based on a test and cull regime together with flock and property biosecurity measures that minimise the risk of spread of *B. ovis* within a flock and the introduction of *B. ovis* into the flock.

The scheme uses a series of clinical examinations, together with serological screening tests and follow-up investigations of reactors, to assess the risk of the flock being infected.

The scheme requires high levels of flock management. Biosecurity measures apply to the introduction of sheep, husbandry and record keeping and are critical to the success of the scheme.

Objective

The Western Australian Ovine Brucellosis Accreditation Scheme (OBAS) was introduced in response to industry support for a scheme to provide objective accreditation for demonstrable flock freedom from *B. ovis*. The scheme places a strong emphasis on biosecurity in assisting owners to protect their sheep breeding flocks from the effects of ovine brucellosis, and the scheme provides them with accreditation they can use to promote the health status of their flock.

The Department of Primary Industries and Regional Development (DPIRD) manages the Western Australian Ovine Brucellosis Accreditation Scheme which is a voluntary program.

The scheme aims to:

1. Provide a source of *B. ovis* free rams for uninfected flocks who want to avoid introducing infection.
2. Facilitate the movement of *B. ovis* free rams between states.



3. Provide a source of rams suitable for restocking properties that have undertaken an eradication program.
4. Maintain a reservoir of *B. ovis* free rams by the use of management strategies that minimise the risk of introducing disease into accredited flocks.
5. Reduce the risk of *B. ovis* infection being spread at shows and sales.
6. Provide objective accreditation for producers to promote the health status of their flock.

Regulatory requirements

Western Australia does not have a state or regional ovine brucellosis eradication or control program. *B. ovis* is not a notifiable disease within Western Australia.

There is no regulatory requirement for a sheep breeder to have their flock accredited free of *B. ovis* or to eradicate *B. ovis* from their flock.

Some breed societies, show societies and selling organisations may require sheep coming to an exhibition, show or sale to be from an ovine brucellosis accredited free flock or to have been tested for *B. ovis* with negative results.

1. Responsibility of participating parties

1.1 Owners

All owners of sheep breeding flocks within Western Australia are eligible to apply for accreditation. Applicants may apply in writing or via the forms on the DPIRD website.

The owner should be able to demonstrate their understanding and ability to maintain sound biosecurity practices on their property to reduce the risk of infection into their flock.

Applicants and the owners of accredited flocks agree to:

- liaise with their nominated testing veterinarian in the conduct of the scheme
- ensure all rams are permanently identifiable and presented for examination and testing by their nominated veterinarian
- maintain sheep-proof fences
- provide a property plan to the OBAS administrator
- permit property inspections
- prevent contact between their accredited flock and non-accredited, untested or infected rams
- provide adequate property and flock records, including any introductions to the flock
- treat any sheep that has strayed from their accredited flock as an introduction from a non-accredited flock
- transport sheep in isolation from sheep from other flocks

Any costs resulting from inspection, testing and accreditation will be the responsibility of the owner.



1.2 Breed societies and associations

Industry ownership and commitment to the scheme is essential for its success. Promotion of the scheme is an industry responsibility.

Breed societies and associations will:

- ensure that existing and new members are aware of the scheme
- ensure that when organising shows, exhibits or sales, accredited sheep are not mixed with non-accredited sheep
- liaise with DPIRD to resolve any issues in relation to administrative principles and scheme policy.

1.3 Department of Primary Industries and Regional Development

The DPIRD Diagnostic Laboratory Service (DDLS) will perform laboratory testing of samples as required under the scheme. The Department will also assist in the interpretation of test results if required.

The Department of Primary Industries and Regional Development (DPIRD) will:

- maintain and administer the scheme
- maintain a register of accredited flocks on their website
- charge an application fee for accreditation and a re-accreditation fee
- reserve the right to reassess or modify the operational guidelines at any time
- reserve the right to reassess or modify the fees at any time

The CVO or their delegate may make orders about the testing and accreditation of any applicant or accredited property.

1.4 Nominated veterinarian

The veterinarian nominated for testing by the owner is to be registered with Veterinary Surgeons Board of Western Australia. It is the responsibility of the testing veterinarian to read and be familiar with the OBAS operational guidelines.

The testing veterinarian will:

- clinically examine and test the rams as outlined in the procedures section of this document
- perform an on farm visit to assess the biosecurity and fencing of the property applying for initial accreditation with the scheme
- provide advice to owners on ovine brucellosis as required
- contact the OBAS administrator if there is knowledge or suspicion of a breakdown
- provide advice on eradication protocols in the event of positive serology results

Testing, palpation of the scrotum and property inspection must be carried out by a registered veterinarian. The veterinarian must sign the veterinary declaration form, certifying they have personally completed all requirements. It is an offense to make a false declaration.



To avoid any potential or perceived conflict of interest, the nominated veterinarian may not be a part or whole owner of the flock or related to the owner of the flock.

In the event of a veterinarian wanting their flock accredited with the scheme, they must employ the services of another registered veterinarian.

2. Procedures

2.1 Initial accreditation

2.1.1 Administrative requirements

The flock owner is to submit the following documents to the OBAS administrator:

- Form 1a – application to join the scheme
- Form 1b – scheme data sheet and payment declaration
- Form 2 – producer and veterinary declaration
- Form 3 – record of testing
- Form 4 – private veterinarian biosecurity declaration
- Form 5 – property plan

These forms can be found on the DPIRD website, or may be sourced from the OBAS administrator.

Only the land described on the application may be used for the flock, unless the owner has the prior approval of the CVO or their delegate.

At the conclusion of the required negative testing and submission of satisfactory documentation DPIRD will issue a certificate of accreditation.

2.1.2 Biosecurity assessment by private veterinarian

The private veterinarian will assess biosecurity on the property and discuss management with the ram flock owners. The private veterinarian will record their findings on Form 4 – Private veterinarian biosecurity declaration.

The testing veterinarian will inspect the property at the initial testing visit and will report to the OBAS administrator on the property status, emphasising the suitability of the fences to contain the rams and ram lambs.

The CVO or their delegate may instruct an officer of DPIRD to inspect the property. A charge may apply to this service.

Land owned by the applicant but not included in the accredited property will be considered on the same basis as land used for agistment.

2.1.3 Testing protocol

The following testing protocol must be followed for eligibility to join the scheme.

- Prior to accreditation, all rams and teasers tested must be negative at each of two consecutive tests carried out 60 to 120 days apart.
- All rams over the age of 6 months must be palpated for testicular abnormalities and evidence of epididymitis. Both testicles and epididymides must be palpated by the testing veterinarian. Any rams with palpable abnormalities are to be blood tested.
- All rams and teasers over 10 months of age at the time of testing, plus any clinically suspect rams less than 10 months of age, are to be blood tested.
- No sooner than 60 days and no more than 120 days following the palpation and sample collection for the first negative test, all working rams and teasers, rams and teasers over 10 months old are to be palpated and blood tested.
- All tested animals must be accounted for at all tests.
- No untested or unaccredited rams are to be introduced into the flock from the time of the first test.
- All blood tests are to be carried out at the DPIRD Diagnostic Laboratory Service (DDL), South Perth or other NATA accredited laboratories.
- All rams must be individually and permanently identified by means of an NLIS eartag, tattoo and/or other means as approved by the relevant breed society or association, and as specified by the National Livestock Identification System and the Biosecurity and Agriculture Management (Identification and Movement of Stock and Apiaries) Regulations 2013.

2.1.4 Establishing a new flock from an accredited flock

Where a newly registered flock is being established and all rams are purchased from currently accredited flocks, the newly established flock is to undergo one test of every ram within 60 days after purchase and establishment of the new flock. Provided the results are negative, a second test is not required for accreditation.

2.1.5 Previous testing in an unaccredited flock

Where testing has been carried out for five years on a property and complete records of prior testing are available, the CVO or their delegate may allow a flock to be admitted to the scheme with reduced testing provided:

- (i) the owner is able to demonstrate an excellent level of biosecurity,
- (ii) the level of testing is equivalent to the testing protocol outlined in 2.1.3,
- (iii) all prior testing results have been negative,
- (iv) the testing veterinarian certifies the previous history of the flock, and
- (v) the owner has complied with the management requirements of the scheme.

2.2 Reaccreditation

DPIRD will forward a reminder letter, together with the reaccreditation paperwork, 60 days prior to the expiry of the accreditation period. The flock owner is to submit the following documents to the OBAS administrator:



- Form 1 – application for reaccreditation
- Form 2 – producer and veterinary declaration

It is the responsibility of the flock owner to ensure that the testing is carried out by the due date for re-accreditation, and the absence of a reminder letter from DPIRD is not a reason for any failure by the owner to carry out the required testing at the required time.

Blood samples should be collected and submitted to the DDLS 30 to 40 days prior to the due date for re-accreditation.

If all the required reports and the re-accreditation fee have not been received by the OBAS administrator by the expiry date of the accreditation, the accreditation will automatically lapse.

At the conclusion of any required testing for re-accreditation, and the submission of paperwork, DPIRD will issue a certificate of accreditation.

2.2.1 Timing

Re-accreditation testing will be carried out annually for the first three years of accreditation, so that there will be three annual re-accreditation tests after the initial accreditation.

The expiry of annual accreditation will be the anniversary of the date of the completion of the testing for the initial accreditation.

In satisfactory circumstances, and on written recommendation from the testing veterinarian, the CVO or their delegate may after the completion of three annual accreditation periods permit two biennial tests for four years then triennial testing.

Timeline for accreditation:

- Initial accreditation granted
- 1 year: Annual accreditation granted
- 2 years: Annual accreditation granted
- 3 years: Biennial accreditation granted
- 5 years: Biennial accreditation granted
- 7 years: Triennial accreditation granted.
- 10 years: Triennial accreditation granted
- 13 years: Triennial accreditation granted

2.2.2 Testing protocol

- (i) All blood tests are to be carried out at the DPIRD Diagnostic Laboratory Service, South Perth or other NATA accredited laboratory.
- (ii) Any ram, irrespective of age, which is suspect because of the flock history or clinical examination is to be blood tested.

- (iii) All rams and teasers 12 months of age and older are to be palpated and blood tested.
- (iv) All rams and teasers older than 10 months and less than 12 months that are to remain on the property for use within the flock are to be identified, palpated and blood tested.
- (v) All rams and teasers older than 10 months and less than 12 months of age that are destined for sale without being used in the flock are to be palpated and a proportion of the group blood tested as outlined in Appendix 1.

In the event of a positive reactor during reaccreditation testing, producers on biennial or triennial testing will revert to annual testing for a period of not less than three years thereafter to satisfy reaccreditation requirements.

2.3 Interpretation of test results

The private veterinarian is to discuss the test results with the producer. Assistance in interpretation and advice may be sought from the Department if required.

2.3.1 Negative

No serological evidence of infection. No further action required.

2.3.2 Anti-complementary

Anti-complementary results may occasionally occur. These reactions can result from improper handling of the blood after collection, or from cross reaction between an unknown compound within the blood and the test reagent.

These animals should be isolated and retested within 4 weeks. If negative, the flock may proceed with accreditation.

If a persistent anti-complementary reaction is found the animal may be:

- slaughtered and the reproductive tract removed and the organs (tail of epididymis, seminal vesicles and ampullae) cultured and examined histologically; or
- semen is to be collected three times at four-week intervals from the ram and cultured.

2.3.3 Suspect

Any animal that has an inconclusive (suspect) blood test result is to be isolated and re-tested four weeks later to resolve suspicion.

If the blood test remains inconclusive (suspect) on re-test, the animal is to be either:

- slaughtered and the reproductive tract removed and the organs (tail of epididymis, seminal vesicles and ampullae) cultured and examined histologically; or
- semen is to be collected three times at four-week intervals from the inconclusive (suspect) ram and cultured.



2.3.4 Positive

A confirmed positive animal should be removed from the flock and disposed of. The accreditation of the flock will be suspended until freedom from the disease can be demonstrated.

Remaining flock animals should be tested at 3 week intervals to minimise the spread of the disease until a negative result is demonstrated from the entire flock.

All tested animals must be accounted for at all tests.

A second flock negative test 60-120 days later is required for reaccreditation with the scheme.

Positive animals indicate a breakdown in the biosecurity of property. Property biosecurity and management should be reviewed to determine the likely cause of the breakdown and mitigate the risk of a breakdown re-occurring.

2.4 Suspension of accreditation

DPIRD may suspend accreditation where any of the following occur:

- (i) a diagnosis of ovine brucellosis is confirmed in any ram on the property
- (ii) testing for renewal of accreditation is not carried out by the due date for re-accreditation
- (iii) there is any actual or apparent breach of the conditions of accreditation, and CVO or their delegate determines that suspension is appropriate
- (iv) at any time the fencing is found to have deteriorated and no longer meets the required standard.

2.4.1 Breakdown

The detection of any test positive sheep (including strays) on an accredited property constitutes a breakdown and accreditation will be suspended.

For reinstatement of accreditation, the owner must fulfil the inspection and test requirements for a new application, except that all rams over 10 months of age present on the property will be required to be blood tested and identified.

In some cases it may be possible to show that only part of the property has been infected, and the CVO or their delegate may approve a lesser degree of testing.

The owner must comply with any additional conditions the CVO or their delegate may determine.

2.4.2 Eradication of disease

A confirmed positive animal should be removed from the flock and destroyed. The accreditation of the flock will be suspended until freedom from the disease can be demonstrated.



Remaining flock animals should be tested at 3 week intervals to minimise the spread of the disease until a negative result is demonstrated from the entire flock.

All tested animals must be accounted for at all tests.

A second flock negative test 60-120 days later is required for reaccreditation with the scheme.

Positive animals indicate a breakdown in the biosecurity of property. Property biosecurity and management should be reviewed to determine the likely cause of the breakdown and mitigate the risk of a breakdown re-occurring.

2.4.3 Reaccreditation after breakdown

After a breakdown has occurred, re-accreditation will be granted after two consecutive negative tests 60 to 120 days apart.

Re-accreditation following a breakdown will be for 12 months and re-testing will be annually for the first three years following re-accreditation. In satisfactory circumstances the CVO or their delegate may then permit biennial or triennial testing.

Re-accreditation following suspension for any reason other than a positive diagnosis of ovine brucellosis will be at the discretion of the CVO or their delegate.

3. Other considerations

3.1 Introduction of rams

3.1.1 Rams from intrastate

Rams and/or teasers may be introduced to the flock either:

- by transporting sheep from another accredited flock in complete isolation; or
- where the introduced animal is from a non-accredited flock in which ovine brucellosis is not known to be present, and agreement has been reached with the testing veterinarian prior to moving the animal(s), by holding the animal(s) in complete isolation pending the completion of two clinical examinations and two blood tests 60 to 120 days apart.

The first test may be carried out on the property of origin not more than 14 days before shipment. The animal(s) must be held in complete isolation from the time of the first test, during transport, and until the result of the second test is known.

The second test must be not less than 60 days after shipment.



3.1.2 Rams from interstate

A Health Certificate (Form LB 1) is required for the movement of all sheep into Western Australia from another state or territory.

Rams from flocks accredited under an approved interstate ram accreditation scheme may be introduced to Western Australian accredited flocks without further testing provided that transport is in complete isolation from non-accredited sheep.

Rams from non-accredited interstate flocks may be introduced under the same conditions as above. Tests must be carried out by DPIRD or a NATA-accredited laboratory in the state of origin.

3.2 Introduction of ewes

Non-accredited non-pregnant ewes that are introduced to an accredited property are not to be joined for four months.

If pregnant they should be lambled in isolation and not re-joined for four months post-lambing.

Ram lambs should be weaned early, and tested when over six months of age, before mixing with other ram groups.

3.3 Rams returning to property from shows, sales or for any other reason

Rams, other than rams that have been in direct contact only with other accredited sheep and have been otherwise held and transported in isolation, that are part of an accredited flock and leave the designated property must:

- (i) if contact with other sheep is unknown but unlikely, be held in complete isolation for 60 days on return, and then undergo one clinical examination and blood test.
- (ii) if contact with untested sheep is known, be held in complete isolation for 60 days on return and then undergo two clinical examinations and blood tests, 60 days apart.

3.4 Stray sheep

The owner will report to the attending veterinarian, any stray sheep on or from his/her property or any other significant failure of the isolation of his/her flock.

Where the owner's sheep have strayed, testing will be appropriate to the circumstances and at the discretion of the testing veterinarian. Rams may be held in isolation for 60 days and returned after one test.

3.5 Transport

Sheep are to be transported in isolation from non-accreditation flocks.

3.6 Agistment

Agistment or other de-pasturing of rams from an accredited flock on land separate to the accredited property may be approved by the CVO or their delegate. The property



identification code (PIC) of the agistment property and a written declaration by the supervising veterinarian on the biosecurity and fencing status of the property must be provided to the OBAS administrator.

All rams so de-pastured at the time when an accreditation test is due must be tested as required within 30 days of the date when the rest of the rams in the flock are tested.

The conditions for returning such rams to the main flock will be appropriate to the degree of risk involved:

- (i) Where the fencing is good and there has been no contact with unaccredited rams, no testing will be required on return.
- (ii) Where the fencing is doubtful and it is unlikely there has been contact with other rams, then on return, isolation for 60 days and one clinical and blood test will be required (sample testing may be used for non-working rams under 18 months of age).
- (iii) The onus to maintain isolation rests with the owner. If the owner is concerned that there may have been contact with suspect rams, or where it is known that there definitely has been contact with other rams, the rams must be isolated and have two negative clinical and blood tests before returning to the flock.

3.7 Artificial breeding

3.7.1 Artificial insemination

Artificial insemination may be carried out on the ewes of an accredited flock only if the semen is:

- (i) derived from an ovine brucellosis accredited ram, or
- (ii) derived from rams which have been held in isolation and tested negative for ovine brucellosis twice at a period of between 60 and 120 days prior to using the semen.

3.7.2 Embryo transfer

Embryo transfer may be used in an accredited flock.

4. Fees

The owner is to pay an initial application fee for each separate flock to DPIRD at the time of application to join the accreditation scheme.

The owner is to pay a re-accreditation fee to DPIRD at the time of each re-accreditation test. Payment is necessary before a re-accreditation certificate can be issued.

For 2018/2019 the fees are:

- Initial accreditation: \$310 (GST included)
- Reaccreditation: \$186 (GST included)



5. Definitions

CFT: Complement fixation test

CVO: Chief Veterinary Officer

DDLs: DPIRD Diagnostics and Laboratory Services

DPIRD: Department of Primary Industries and Regional Development

NATA: National Association of Testing Authorities

Testing veterinarian: A private veterinarian currently registered in the state of WA.

Appendix 1

Testing a sample of sale rams

The minimum number of sale rams 10–12 months of age to be tested will be determined using the table below. The sample group must include all the rams in the group that were found with clinical signs on palpation.

In flocks where young rams are run in separate mobs, the necessary sample size from each mob is to be blood tested.

All rams found to have clinical signs on palpation are to be blood tested, including the case in which the number tested is greater than the required random sample.

The veterinarian carrying out the palpation and sampling will record the identity and number of rams found to have clinical signs on palpation.

These sample sizes have been calculated to provide 99% confidence of disease detection within a flock at a disease prevalence of 2%.

Table 1 Re-accreditation test: minimum number of sale rams 10–12 months of age to be tested

Number of sale rams 10–12 months of age	Minimum number to test
1 – 83	All
84 – 90	83
91 – 100	90
101 – 120	100
121 – 140	113
141 – 160	122
161 – 180	129
181 – 200	136
201 – 250	150
251 – 300	160
301 – 350	168
351 – 400	174
401 – 450	179
451 – 500	183
501 – 600	190
601 – 700	195
701 – 800	199
801 – 900	202
901 – 1000	204