



# Brucella ovis Positive Flock Management and Free Flock Certification

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*Brucella ovis*, the cause of ovine epididymitis, is a bacteria that infects the reproductive system of rams and can cause severe financial losses due to decreased fertility, abortions, and culling. *B. ovis* does not infect people, and rarely infects other species. Any person who suspects that a ram is infected with *B. ovis* must report it to the Utah State Veterinarian.

*B. ovis* causes inflammation of the testicles and epididymis (the tube that carries sperm from the testicles to the penis).

Infected rams may have:

- Poor quality semen with reduced motility
- Reduced concentration or volume of semen
- An increased number of abnormal sperm
- Swelling or hardening of the epididymis that can be felt through the scrotum
- Pain and discomfort
- Scar tissue in the epididymis or testicles

*B. ovis* is usually spread from ram to ram when an uninfected ram breeds a ewe that was recently bred by an infected ram. Direct ram-to-ram transmission is also possible if the bacteria come in contact with the mouth, nose, eyes, or prepuce (skin around the penis). Young rams are more likely to mount each other and may spread the infection.

Ewes become infected through breeding. Ewes can carry the bacteria in their vagina for up to two months but rarely show signs of disease. A pregnant ewe that becomes infected may have an abortion, stillbirth, or weak lambs. Most abortions are so early that they are not noticed, and the ewes will often breed back normally later in the season.

The best test for *B. ovis* is a blood test called an ELISA. This test can be run at the Utah Veterinary Diagnostic Laboratory (UVDL). The test looks for antibodies that

indicate that the ram was exposed to *B. ovis*. Antibodies may not be detected for up to seven weeks after infection, so rams should be tested a second time after positive animals are culled.

## Positive Flock Management

- Test all rams prior to breeding with the *B. ovis* ELISA at UVDL.
  - Cull any *B. ovis* positive rams. These rams should go directly to slaughter or have a slaughter-only tag placed at an auction.
  - Retest all remaining rams 45-60 days after the initial test.
  - Cull all open ewes or any ewe that aborts.



## B. ovis Free Flock Program

Some states will waive the *B. ovis* testing requirement for imported rams if the flock is participating in a state-run *B. ovis* free flock program. UDAF does not currently have a free flock program, but will establish one if there is interest from industry. The program would consist of the following requirements:

### To establish a free flock

- Test all rams 6 months of age and older with two blood tests 45-60 days apart.
- Submit a ram inventory and test results to UDAF.

### To maintain free flock certification

- Test all new rams 6 months of age and older prior to addition to the flock.
- Test all rams over six months of age annually.

For more information on *Brucella ovis*, contact the Utah State Veterinarian's office.