**Brucella Ovis**

*Brucella ovis (B. ovis)* is a bacterium that circulates in sheep. *B. ovis* is in the same family of bacterium that causes brucella infection in other species (*B. melitensis* in sheep and goats, *B. abortus* in cattle, *B. suis* in swine, *B. canis* in dogs). Unlike other brucella species, *B. ovis* does not infect humans.

- *B. ovis* infection in a herd can result in significant economic losses to producers through decreased lamb crop as well as loss of production rams.

- *Brucella ovis* is not zoonotic. This means *B. ovis* is not contagious to humans.

**QUESTIONS AND TESTING**

Contact your herd veterinarian for more details or to schedule *Brucella ovis* testing.

For other questions or concerns about *Brucella ovis*, contact our Animal Health team:

Missouri Department of Agriculture
Animal Health Division
P.O. Box 630
1616 Missouri Blvd.
Jefferson City, MO 65102
(573) 751-3377
Animal.Health@mda.mo.gov

Testing is available at the Missouri Department of Agriculture Animal Health Laboratory. Producers will be reimbursed at $50 per ram tested over six months of age. If interested, contact the Animal Health Department at (573) 751-3377.
SYMPTOMS AND TRANSMISSION

*Brucella ovis* mainly affects the reproductive organs in rams, causing epididymitis (inflammation within the epididymis) and orchitis (inflammation within the testicle), which impairs fertility. Rams can become persistently infected and shed the organism in semen and/or urine starting 4 to 6 weeks post infection. The shedding can last for 2 to 4 years or longer, and can occur with or without symptoms.

Transmission is thought to be from ram to ram via ewes. Ewes act as a mechanical vector, carrying the organism in the vagina for up to 2 months. *Brucella ovis* can also be transmitted directly from ram to ram through contact with mucous membranes.

Ewes are relatively resistant to infection. If they become infected, they typically clear the organism in one to two estrous cycles. Infected ewes may shed the organism in vaginal discharges and/or milk. Lambs could become infected through nursing from an infected ewe, which could result in weak lambs. Congenitally infected lambs are rare. There is approximately a 5% chance of the ewe becoming a chronic carrier.

DISEASE PREVENTION

Purchase rams from flocks known to be free of *Brucella ovis*.

If purchasing rams with an unknown *Brucella ovis* status, it is recommended to have a negative test within 30 days of purchase. Do not house rams with unknown *Brucella ovis* status with known negative rams or allow them to breed ewes until testing is completed.

Test breeding rams before and after each breeding season to ensure negative *Brucella ovis* status.

Have your herd veterinarian perform a routine Breeding Soundness Exam (BSE) prior to each breeding season. The BSE should include palpation of the scrotum of all rams and semen evaluation, followed by laboratory testing on all abnormal rams and some clinically normal rams.

DISEASE MANAGEMENT

If *B. ovis* is diagnosed in your herd, eradication of the disease should be the goal. This can be achieved through testing and cull protocols. Once a positive diagnosis is made, immediately separate and quarantine infected rams. Infected rams should be culled from the herd as quickly as possible.

Continue to test all exposed rams every 30 days until all rams are negative on two consecutive whole ram herd tests.

Continue to test all rams after each breeding season to ensure the disease is not present.

For rams with superior genetic potential, options other than test and cull may be available. Contact the Missouri Department of Agriculture for more details.

*Brucella ovis* is a reportable disease. All cases should be reported to the Missouri State Veterinarian at (573) 751-3377.