



OVINE BRUCELLOSIS

B. melitensis in Sheep and Goats

Brucellosis is a bacterial disease caused by various species of *Brucella*, which can affect both animals and humans. Animals commonly experience reproductive losses, while humans may suffer from a debilitating illness or localized organ involvement. *Brucella* species are usually associated with specific animal hosts, but cross-infections can occur, especially in close contact settings. *Brucella melitensis*, commonly found in sheep and goats, is the most frequent cause of human infections, often transmitted through direct contact with infected animals or consumption of contaminated dairy products. Despite eradication efforts in some countries, *B. melitensis* continues to impact productivity and trade in many developing regions, and vigilance is required to prevent its reintroduction.

CAUSES OF *B. MELITENSIS*

B. melitensis is mainly transmitted to animals through direct contact with infected animals or their bodily fluids, ingestion of contaminated feed or water, and contact with contaminated equipment. Vertical transmission from infected pregnant animals to their offspring is also possible. Preventive measures include regular screening, biosecurity practices, and proper hygiene to reduce the risk of transmission among animals and to humans.

PREVENTION OF *B. MELITENSIS*

To prevent *B. melitensis* introduction, avoid contact with infected animals or contaminated environments. Select replacement stock from *Brucella*-free herds, quarantine new additions, and test before release. Remove and destroy placenta, abortion products, and contaminated bedding in infected herds while disinfecting fomites. Avoid using offspring of infected animals as replacements due to latent infection risks. Eradicate *B. melitensis* through test and slaughter or depopulation, employing movement controls, surveillance, and tracing.



***This is a
Reportable disease***

SYMPTOMS OF *B. MELITENSIS*

Symptoms of *Brucella melitensis* in sheep and goats may include:

- Reproductive issues like abortions and infertility.
- Swollen testicles in males.
- Joint swelling and lameness.
- Reduced milk production.
- Weight loss and weakness.

TREATMENT OF *B. MELITENSIS*

Antibiotics can alleviate clinical signs, and studies suggest treatment may eliminate brucellae, but latent infections may persist. Adult vaccination programs have been conducted, but vaccines with live attenuated organisms should not be given to pregnant animals. Controlling *B. melitensis* in sheep and goats prevents infections in other species, and vaccination efficacy in these animals is not well understood. Camels and cattle have been vaccinated in some cases, with certain vaccines showing potential for significant protection during outbreaks in mixed-species herds.

Sources

Brucellosis: Brucella melitensis - CFSPH. (n.d.-b). https://www.cfsph.iastate.edu/Factsheets/pdfs/brucellosis_melitensis.pdf

Factsheet provided by:

**The Idaho Sheep & Goat
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