

Executive Summary

Mycoplasma bovis infection rates in Western Australian calves and dairy cows

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The infectious pathogen *Mycoplasma bovis* infects dairy cattle and is difficult, expensive, and frequently disregarded. It has a negative effect on the welfare and productivity of dairy cattle and leads to mastitis, respiratory disease, conjunctivitis, otitis media, arthritis, and a host of other problems. As a result, the dairy industry suffers significant financial losses. The bulk milk tank (BTM) pathogen most frequently isolated from cattle with clinical or subclinical mastitis is *M. bovis*. *Mycoplasma* infection detection is directly correlated with larger herd sizes, which may be related to more challenging husbandry and management techniques, denser animal populations, and animal movement. This study's goal was to find out how common *M. bovis* was in adult cows and calf populations in Western Australia's south-west.

The 2013 Australian Code of Practice for the Care and Use of Animals for Scientific Purposes was followed when conducting the study. 29 farms in all took part in the study. 140 dairy producers who are registered were recruited as a convenience sample via email. A regional newsletter (Feed Trough) and a local farmer's day event were used to send additional expressions of interest to the dairy farmers. 699 cow blood samples and 495 calf blood samples, totalling 1194, were taken. For the investigation, a bulk tank milk (BTM) sample was taken from each of the 29 dairy farms. The 29 dairy herds' healthy calves provided a total of 495 nose swab samples.

For both adult and young cattle, *M. bovis* is an emerging disease that poses a financial and welfare risk. It typically enters the farm when new animals that are subclinical carriers are introduced. Due to the pathogen's highly contagious nature, it is practically impossible to stop it from spreading amongst animals once it reaches a farm. 29 dairy farms in Western Australia's southwest were sampled, and the seroprevalence of *M. bovis* in adult lactating cows ranged from 4 to 92% on a farm-level basis. As all 29 BTM samples were negative on the ELISA, it was determined that none of these breastfeeding animals were positive for current infections.

Dairy producers and the relevant departments may be interested in the prospective information from this study since it could help the stakeholders implement suitable future strategies for the prevention and control of *M. bovis* infections.

This study documents the seroprevalence of *M. bovis* exposures in the dairy farms of Western Australia's southwest. Potentially concerning is the high seroprevalence of *M. bovis* on dairy farms in Western Australia, which affects both adult and young animals. To regulate the pathogen's entry and



spread on the farm, care should be taken using biosecurity measures. Before any new animals are introduced to a bad farm, they should all be screened.

Source: [Veterinary Sciences](#)

KEYWORDS

Calves; dairy cows; Mycoplasma bovis; seroprevalence; Western Australia

