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Thematic portfolio

Controlling bovine tuberculosis: a One Health challenge



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Australia is one of very few countries to have successfully eradicated bovine tuberculosis (bTB). The last known bTB case was recorded in 2002, following a 27-year national eradication campaign. Despite ongoing intensive surveillance, no further cases of Mycobacterium bovis have been found, either in domestic or wild animal populations. Numerous lessons can be learned from the success of the eradication campaign which may be relevant to other countries.

The following is a brief overview of key lessons learned during Australia's Brucellosis and Tuberculosis Eradication Campaign (BTEC), as outlined by More *et al.* [1], which were both technical and non-technical in nature:

- **A compelling rationale**. The Australian cattle industry is highly export-oriented, and there were real concerns before the start of BTEC that bTB might threaten international trade. This was a compelling rationale for eradication, both nationally and also for individual farmers.
- **A clear, agreed outcome**. Across both government and industry, there was a shared purpose with a common goal; namely, the eradication of *bovis* from the Australian cattle and buffalo population.
- **A government–industry partnership**. Genuine industry commitment proved crucial to BTEC's success. BTEC decision-making was a partnership between government and industry, with the cattle industry actively involved at all levels of management, including nationally, regionally and on individual farms. Cost-sharing between the industry and government was also an important feature throughout BTEC, using industry funds collected through levies. These arrangements evolved during BTEC, with the cattle industry covering 50% of programme costs (operations, compensation, additional assistance measures) during the latter half of the programme.
- **A business model**. BTEC was underpinned by detailed forward planning, including multi-annual strategic plans and annual operational plans.
- **Technical standards**. Key features of BTEC included consistent and transparent technical standards and a strict regulatory regime. Improving livestock traceability through the introduction of the tail-tag system linked to property identification codes was an important element of the control and eradication programme. The programme was also underpinned by applied research.
- **Abattoir surveillance**. This was the primary method of surveillance to detect herds not previously known to be infected, and a number of strategies were used to maximise its sensitivity.
- **Effective elimination of residual infection**. Many risk-based approaches were used to minimise infection risk, including risk classification of herds and regions, pathways for herd classification, risk-based movement/trading and the elimination of uncontrolled animals. Controls on infected herds were tightened as the programme progressed, and an ongoing risk of residual infection was assumed until all cattle exposed to infected animals had been slaughtered.
- **Objective measures of progress**. Area and herd classification were used throughout BTEC, providing clear evidence of progress towards eradication.

Information about the overall Australian programme is available, both in the lay [2] and scientific [1, 3] literature.



The final round of testing on the last quarantined infected property in Queensland, Australia
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AROUND THE WORLD

SUCCESS STORIES

Lessons learned from Australian success during the successful eradication of bovine tuberculosis

KEYWORDS

#Australia, #bovine tuberculosis, #Brucellosis and Tuberculosis Eradication Campaign (BTEC), #eradication, #lesson learned, #success.

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