

Poster topic 06

Poster 25

Production losses in small ruminants due to *Brucella melitensis*: a systematic review

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Robust epidemiologic and livestock production data is essential in order to conduct sound economic analyses of livestock disease impact and disease control. Brucellosis has long been thought to have a considerable effect on livestock production and most studies highlight the fact that the control of brucellosis is of economic importance. It has been reported that abortion due to brucellosis is about 3-5% and estimates on the drop in milk production fall between 10-25%. However, these estimates are based on studies conducted for *Brucella abortus* in cattle and there is an apparent paucity of readily accessible data estimating the impact of *B. melitensis* in small ruminants. Therefore the aim of the study was: (1) to identify, evaluate, critically appraise and synthesise research reporting the effect of *B. melitensis* on production in small ruminants (sheep and goats); and (2) highlight knowledge gaps or where evidence is weak, thus indicating areas where further research is needed. A systematic review was conducted according to a predefined protocol based on Cochrane guidelines. Published peer-reviewed studies were eligible for inclusion in the review, as was grey literature such as dissertations, conference proceedings, government papers and reports. Grey literature was subject to the same quality assessment as peer-reviewed studies. All studies concerning the association between *B. melitensis* and production parameters in small ruminants were included. Studies were then assessed independently for risk of bias and quality of evidence as classified according to the SIGN (Scottish Intercollegiate Guidelines Network) system, which was modified to include cross-sectional studies. The results will be presented and the implications for economic analyses discussed.