

Cost benefit analysis of adoption of bovine brucellosis control measure in Brazil: preliminary results

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The aim of the present work is to estimate the costs and benefits of the adoption of bovine brucellosis control in 13 Brazilian States and to compare the strategies between the States and evaluate their economic viability. The base case is the scenario where no actions are taken, allowing the comparison with the implemented actions of control. The benefits of the base case are: meat and milk production; revenues with outward live animals. The costs of the base case are: reposition of females; inward live animals. The benefits of brucellosis control measures are: reduction of milk and meat production; abortion; infertility of aborted females; perinatal mortality; increase of interval between parturition; mortality of aborted cow; increase in replacement requirement. The costs of the control strategy are: vaccination of the eligible heifers and veterinary costs. So far, preliminary results for two States were achieved: In Mato Grosso and São Paulo, the prevalence of seropositive animals was 10,25% (2003) and 3,81% (2001), respectively. From this information, the evaluation period until a prevalence of 2% is reached and the benefit-cost ratio were calculated. Considering 70%, 80% and 90% of the vaccination of heifers, the evaluation period were 27, 24, 22 years and the ratio between benefit cost ratio of control strategy and the base-case was between 1,005-1,095 (optimist and pessimist scenario, respectively) in Mato Grosso State and 14, 13, 11 years and the ratio between benefit cost ratio was between 1,003-1,011 in São Paulo State.