

An Epidemiological Analysis of the Occurrence of Bovine Brucellosis and Adopted Control Measures in South Africa during the Period 2014 to 2019

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Abstract : Background: Bovine brucellosis is among the most neglected zoonotic diseases in developing countries, where it is endemic and a growing challenge to public health. The development of cost-effective control measures for the disease can only be affirmed by the knowledge of the disease epidemiology and the ability to define its risk profiles. The aim of the study was to document the trend of bovine brucellosis and the control measures adopted following reported cases during the period 2014 to 2019 in South Africa. Methods: Data on confirmed cases of bovine brucellosis was retrieved from the website of the World Organisation of Animal Health (WOAH). Data was analysed using the Statistical Package for Social Sciences (IBM SPSS, 2022) version 29.0. Descriptive analysis (frequencies and percentages) and the Analysis of variance (ANOVA) were utilized for statistical significance ($p < 0.05$). Results: The data retrieved in our study revealed an overall average bovine brucellosis prevalence of 8.48. There were statistically significant differences in bovine brucellosis prevalence across the provinces for the years 2016 and 2019 ($p \geq 0.05$), with the Eastern Cape Province having the highest prevalence in both instances. Documented control measures for the disease were limited to killing and disposal of disease cases as well as vaccination of susceptible animals. Conclusion: Bovine brucellosis is real in South Africa, with the risk profiles differing across the provinces. Information on brucellosis control measures in South Africa, as reported to the WOAH, is not comprehensive.

Keywords : zoonotic, endemic, Eastern Cape province, vaccination

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