University of Prince Edward Island

Faculty of Veterinary Medicine
Summary of Dissertation

Submitted in Partial Fulfilment
of the Requirements for the

DEGREE OF MASTER OF VETERINARY SCIENCE

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Occurrence of Maedi-Visna in Adult Sheep on Prince Edward Island

Objective: The objective of this study was to determine the occurrence of Maedi-Visna virus (MVV) in sheep greater than 6 months of age on Prince Edward Island. Secondary objectives included collecting flock management information and evaluating the risk of MVV in flocks associated with these management factors.
Animals: Fourteen (14) sheep flocks with a total of 1432 sheep on Prince Edward Island (PEI) were selected as a convenience sample.
Procedure: Serum samples were obtained from 1342 sheep via routine venipuncture. Data collected for each farm included: flock size, management system, herd system, deworming protocol, and vaccination protocol. An indirect antibody ELISA was used for MVV detection.

Results: Only 34 sheep from 11 flocks tested positive for Maedi-Visna virus. The overall apparent occurrence of MVV was 2.5%, with a calculated true occurrence of 1.86%. There was no statistically significant association between the flock management factors and MVV at a flock level.

Conclusion: The current study indicated a low overall occurrence of MVV in PEI (1.86%) compared to the apparent prevalence reported by Simard and Morley in 1991 (13.6%).
Clinical relevance: This study has shown that the overall apparent occurrence of MVV in PEI is low.

Publications

M. L. Genis, J. E. Crafford, C.T. Weyer, D. Pollard, J. D. Grewar, A. J. Guthrie (2023). African horse sickness vaccination status correlated with disease outcome in South Africa. Journal of the South African Veterinary Association 2023; 94:99-106. https://doi.org/10.36303/JSAVA.573.

Presentations

1. Prevalence of Chronic Diseases Affecting Adult Sheep on Prince Edward Island (oral presentation). Canadian Emerging Veterinary Scholars Symposium, October 26 – 28, 2023, Calgary, Alberta.

2. African horse sickness vaccination status correlated to disease outcome (webinar poster presentation). World Veterinary Association Congress, April 6 – 8, 2020, Auckland, New Zealand.

Biographical Data

Born in Windhoek, Namibia

Awards

1. Sam Cohen Scholarship recipient for BVSc and MSc studies, 2012-2019
2. Golden Key International Honor Society Member