

Block 10: Animal health: Locomotive apparatus and monitoring

Exploiting scanning surveillance data to assess the impact of different initiatives and inform future strategies to control sheep scab.

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Abstract:

Veterinary surveillance is an essential tool designed to aid decision making and a fundamental concept in food security, public health and international trade (Hoinville et al., 2013). This study aimed to investigate the use of existing scanning surveillance data for sheep scab to assess the impact of different initiatives and inform future control strategies.

The data analysed were submissions with a positive sheep scab diagnosis confirmed through identification of *Psoroptes ovis* mites in skin scraping in Great Britain for 2003-2018. Information were also collected on all known knowledge transfer, skills training, free testing and legislative actions (initiatives) designed to improve surveillance or decrease disease within the study period for sheep scab. First, a spatial analysis to highlight areas of concern was carried out, followed by an analysis of the effect of past initiatives on temporal patterns (Tongue et al., 2019). A total of 2,401 positive skin scrapes were recorded within the study period. The yearly distribution showed a significant downward trend in positive cases, from a peak of 277 in 2004, to 55 cases in 2015. In the study period nine initiatives occurred. Three of these initiatives had a

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significant effect on the number of positive cases diagnosed and this type of scheme did evoke the intended response. In conclusion, the analysis of an existing scanning surveillance source enhanced our knowledge of sheep scab by identification of areas for targeted control and offered a framework to measure the impact of future initiatives.

References:

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