

# The cost of sheep scab

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Sheep scab is a highly pathogenic, contagious disease caused by infestation with the mite *Psoroptes ovis*; after reintroduction in the UK over 50 years ago its incidence increased exponentially and it is now a widespread and persistent problem, particularly in upland flocks.

The cost of scab to the UK sheep industry was estimated to be £8 million per year in 2005<sup>1</sup>. This figure has been cited more than 300 times, however, the data used in this estimate are outdated. Assuming the same within-farm prevalence of 15% but using more up-to-date estimates of regional scab risk<sup>2</sup>, flock numbers<sup>3,4,5</sup>, costs of treatment, and production losses<sup>6</sup>, in a spreadsheet model, we estimate that the true cost of scab to the sheep industry in Great Britain is within the range of £78-202 million per year, depending on the treatment used, time of year and the proportion of lambs present during an outbreak. For a flock of 300 ewes, the cost of contracting scab is estimated to be £1000- £2400 per outbreak for a lowland flock and £1000- £2100 per outbreak for an upland flock, depending on the treatment used, lambing ratio and time of year. Clearly, given existing farm economics, the viability of a sheep enterprise with a persistent history of scab infection would be almost unsustainable.

Understanding the economic impacts of scab is essential to allow the relative cost-effectiveness of different approaches to scab management to be evaluated. In addition, with the prevalence of scab expected to increase due to reports of resistance to macrocyclic lactones<sup>7</sup>, the continued need for the sheep industry to prioritise scab management is evident.

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