Important ectoparasites of sheep and cattle

A summary of common and emerging exotic ectoparasites found on farmed ruminants in the UK

Ectoparasites can be an important cause of disease and welfare concerns in farmed ruminants in the UK and are more common in the autumn and winter. In this article, the conditions that are more likely to be brought to the practising veterinary surgeon’s attention are summarised and other parasitic skin diseases that may be diagnosed in the future are discussed.

Sheep scab (*Psoroptes ovis*)

This disease is endemic in the UK and notifiable in Scotland and Northern Ireland. Although its prevalence is not known with certainty, it is likely to have increased since the 1990s (Bisdorff et al., 2006). Disease is caused by an allergic reaction (*Figures 1 and 2*) to *Psoroptes ovis*, a mite which is capable of infecting sheep and surviving in the environment for approximately 15 days. Sheep scab does not affect humans and rarely affects cattle.

Diagnosis is made by examining skin scrapes and scab material taken from the edge of the lesion. The APHA will examine the sample by direct microscopy (*Figure 3*), but will also carry out a potassium hydroxide (KOH) digest, which may detect mites if numbers are small, or they are hidden in scab material.

There is also a recently introduced commercial ELISA test that detects antibodies to *P. ovis* mites. It is to be used in groups of animals and can aid early diagnosis as the antibody response can be detected within two weeks of infection. It can also indicate infection in chronically affected animals where clinical signs and mite numbers may be reduced.

There are only two types of treatment for sheep scab: the organophosphate (OP) dips or the injectable macrocyclic lactones (MLs). All of the affected group should be treated.

The ML treatments vary as to their persistency, leading to variations in whether animals have to be moved from the infected areas after treatment (necessary for all ML treatments apart from moxidectin) and the amount of time before they can mix with untreated sheep. They are also all anthelmintics, so their use will have implications for the development of anthelmintic resistance.