

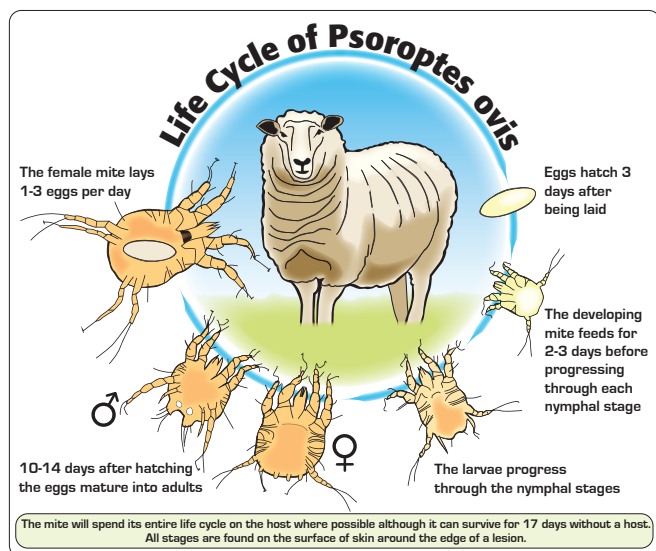
Sheep Scab – A Major Pest to Sheep Production

Dipping ceased to be compulsory in 1992, leading to a greater incidence of sheep scab with an estimated 60-fold increase in disease on UK farms!

In spite of having four medicinal active ingredients available with 16 different brands/preparations licensed and available in the UK, we are still struggling to get this disease under control.

Scab is still a major concern for UK sheep producers, as it has a significant impact on the health, welfare and productivity of affected animals.

What is Sheep Scab?



Sheep scab is a disease caused by the mite *Psoroptes ovis*, which lives on the skin surface where it feeds. The faeces produced by the sheep scab mite cause a severe allergic dermatitis resulting in the 'scabby' lesions which we associate with the later stages of the disease.

The mites are transferred from animal to animal by direct contact or on 'fomites'; pieces of wool containing sheep scab mites. These mites are able to survive for 17 days without a host to feed from, meaning it is challenging to control and the potential for re-infection is high.

Infestations can be debilitating, have a detrimental impact on welfare and can lead to severe economic losses. The Sheep Health and Welfare Group report 2016 states that the annual estimated cost of sheep scab in the UK is £8.3 million!²

Clinical signs include:

Restlessness,
 Rubbing against fence posts,
 Soiled/stained areas of wool,
 Head tossing/biting,
 Pulled wool appearance leading to eventual wool loss,

Open bleeding wounds and 'scabby' lesions,
 Loss of condition,
 Death

Diagnosis

First and foremost, get a diagnosis from your vet. The clinical signs of lice and sheep scab infestation can be identical – particularly in the early stages.

The other complicating factor is that both diseases are contracted in the same way; through poor biosecurity. Therefore, this means there is nothing to prevent animals from being dual infected with sheep scab and lice. Just because you can visualise lice, it does not confirm that the animals are not also infected with sheep scab!

Your vet can perform skin scrapes on clinically affected animals or can perform blood samples to detect antibodies to infection, before clinical signs become apparent.

Treatment

In the UK, we have four options for controlling sheep scab (Table 1). A key consideration for parasite control strategies is ensuring that we use the correct active ingredient at the correct time.

When we use dual endo- and ecto-parasiticides for sheep scab control (the macrocyclic lactones), we are targeting both internal and external parasites.

When we dip (using Diazinon) we only target external parasites.

Group	Active Ingredient	Preparation	Notes
Organophosphate dip	Diazinon	Dip	Dipping treats and protects for up to four weeks
Macrocyclic Lactones	Ivermectin	Injectable	Two injections, seven days apart
	Doramectin	Injectable	One injection and move to clean area
	Moxidectin 1%	Injectable	Two injections, 10 days apart
	Moxidectin 2%	Injectable	One injection provides 60 days' protection

Table 1. Active ingredients licensed for the control of sheep scab

The highest incidence of sheep scab occurs during the winter months. At this time of year, gastrointestinal roundworms are generally present in lower burdens and are less likely to cause disease requiring treatment than during the grazing season. To continuously expose these small burdens to anthelmintics (wormers) increases the rate of development of resistance.

SCOPS mirror this sentiment: "For the macrocyclic-lactone (clear 3-ML) wormers there has been a marked increase in recent years, probably linked to their widespread use as endectocides for the treatment of sheep scab. Action to try to preserve this group is now imperative."³

Remember that the sheep scab mite can survive for 17 days without a host to feed from, so re-infection must be controlled by using a product/protocol which provides protection for longer than this, or by moving them to clean grazing/housing.



Prevention

Good biosecurity is key to controlling this disease. It is impossible to tell simply by looking at animals if they have been recently exposed to *Psoroptes ovis*. In the early stages, the disease can be asymptomatic with no visible evidence of itchy sheep. Just because the animals do not appear to be itchy and do not have pulled wool/bald patches/lesions, does not mean that they are not carrying sheep scab mites.

When purchasing new animals, they should either be presumed infected and treated, or an ELISA test should be utilised to assess the risk. The flock should be kept separate from other sheep at the periphery of the farm (e.g. double fencing).

REFERENCES

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