

# Scab, Lice and Blowflies



## Protecting sheep and profit lines from external parasites

**S**cab is caused by a parasitic mite *Psoroptes ovis*. They have piercing and chewing mouthparts which cause severe damage to the skin. Since deregulation of scab control in 1992 the disease has become endemic and represents a massive economic and welfare problem to the sheep industry.

Sheep with scab are incredibly itchy – this is due to an allergic reaction to the faeces of the scab mite. Early cases only have small numbers of mites and may not show scratching behaviour. As the disease advances sheep become restless and start rubbing on any available object. The wool develops greyish discoloration and eventually falls out, revealing typical scabby and raw areas, most frequently on the sides of the body. Sheep rapidly lose condition and may progress to fits and death.

### Scab

Scab is contracted via contact with live mites. This is usually by direct contact with infected sheep, but mites can survive off the host for up to 17 days, so can be spread on scratching posts, shearing equipment, contaminated clothing, transport etc.

Disease is most common in winter months but can occur all year round. Sub-clinically affected sheep act as a

Product	Trade names	Treatment	Length of protection	Withdrawal
Organophosphate dip	Paracide 62	Dip once	21-28 days	70 days
	Osmond's Gold Fleece	Dip once		
Ivermectin injection	Ivomec Panomec Qualimec	2 injections, 7 days apart	No claim	Min 37 days from 2 <sup>nd</sup> injection
Moxidectin injection	Cydectin 1%	2 injections, 10 days apart	28 days	70 days
	Cydectin 2% LA		60 days	104 days
Doramectin injection	Dectomax	Single injection	No claim	63 days

Produce	Trade name	Withdrawal
Cypermethrin pour on	Crovect	8 days
Deltamethrin pour on	Spot On	35 days
Alphacypermethrin pour on	Dysect	49 days
Organophosphate dip	Paracide 62, Osmond's Gold Fleece	70 days

reservoir of infection within the flock and can be a source of infection from bought-in sheep.

Early stage scab can easily be mistaken for louse infestation, so if you have itchy sheep a proper diagnosis from your vet is important to make sure you use the correct treatment. Definitive diagnosis requires skin scrapes that your vet will examine under the microscope to look for live mites.

Treatment options can be challenging (especially if you have scab in fattening lambs) as the shortest possible

withdrawal time from first treatment is 44 days – see table 1. Remember, the injectable treatments will also worm the sheep – whether they need it at the time or not!

As there is no longer compulsory annual treatment of scab in the UK it is very difficult to eradicate scab from an area. Control can be helped by:-

- Letting your neighbours know if you have scab in your flock, as this will allow them to be extra vigilant and treat their own sheep if necessary.
- Ensuring a stock-proof boundary between your flock and any neighbouring sheep. Consider double fencing in problem areas.
- Treating all in-contact sheep if you have an outbreak of scab. Treating only obviously affected animals is false economy as there will be others in the group that are in the early stages of infection, and it will take much longer to clear infection from the group.
- Remembering scab mites can survive for up to 17 days off the host, so beware the potential for reinfection if sheep are returned to the same area after treatment.
- Carefully managing bought-in stock to avoid introducing infection into your flock. New sheep should ideally be treated on arrival, or at least kept isolated for at least 3-4 weeks.

In Scotland the Sheep Scab (Scotland) Order 2010 requires anyone who knows or suspects that sheep or carcasses in their charge have sheep scab to notify the Divisional Veterinary Manager as



Scab and lice can present with similar symptoms, so it's vital to seek veterinary advice.

# Avoid Scab Control Pitfalls

## The Stamp Out Scab campaign shares some top tips



1. **Talk to your vet** – it will save you money in the long run getting some good advice to ensure you are treating correctly.
2. **Get a veterinary diagnosis** – this will also save money, as lice and scab are easily confused.
3. **Use the right product for your flock** – talk to your vet and SQP about choosing an injectable or OP dip. N.B. OP dips are harmful to human health and are not licensed for use in jetties and showers. And remember that pour-ons are not effective against scab.
4. **Weigh the sheep** if you are using an injectable – estimating weight

accurately is very difficult and weights can vary enormously across a group of ewes/lambs. Always dose to the heaviest.

5. **Correct treatment** – check the data sheet of the medicine i.e. is it a subcutaneous or intra-muscular injection? Should the sheep be moved to 'fresh' scab-free pasture (fields that have not had scab infested sheep for the last 18 days) after treatment?
6. **Calibrate your injecting gun.**
7. **Make sure every single sheep is treated**, mark them as you treat them – missing just one sheep means scab will remain on your farm, costing you money for more treatments.

8. **Keep scab out** – remember good biosecurity and quarantine treatments for bought-in sheep and those returning from tack. Maintain good fences and work out a co-ordinated approach with your neighbours to help keep scab out of your flock. Remember, quick and effective treatment is much cheaper than delayed diagnosis and treatment – see table.

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Quick and effective treatment	Delayed diagnosis and treatment
Diagnosis – vet fee	Two unsuccessful treatments
Treatment – £1-£1.40/ewe (depending on product and including labour)	Diagnosis – vet fee
Loss of production – negligible	Further treatment
Cost of treating 500 ewes = approximately £600	Loss of production – around £20/ewe
	Cost of having 500 ewes affected = £10,000+

soon as possible.

### Lice

There are two types of lice that affect sheep – biting lice and sucking lice. Sucking lice are usually restricted to the head and legs and are not considered to cause a big problem, but the biting louse (*Damalinia ovis*) is very active in the wool over the whole body and causes great irritation. Sheep are restless and scratch and rub against any available objects. In severe cases, wool loss will occur. This is easily confused with the early stages of sheep scab.

Lice can be seen with the naked eye, appearing as slender dark red/brown specks 1-2mm long in parted wool. Close body contact is usually required for transmission between sheep, as lice do not seem to survive for long on scratching posts etc.

Louse infestations are easily treated with pour on synthetic pyrethroids – see table 2 – but it is important to rule out sheep scab if you have itchy sheep.

### Blowfly strike

Fly strike (*Myiasis*) is a major welfare issue for the sheep farmer, causing severe suffering and losses during the summer months. The major species

Product type	Drug	Trade name	Duration of protection	Withdrawal
Organophosphate dip	Diazinon	Paracide 62,	Around 2-3 months	70 days
		Osmond's Gold Fleece		
Synthetic pyrethroid pour on	Cypermethrin	Crovect	6-8 weeks	8 days
		Alphacypermethrin		
Insect growth regulators pour on	Dicyclanil 5%	Clik	16 weeks	40 days
		Dicyclanil 1.25%		
	Cyromazine	Vetrazin	10 weeks	28 days

causing strike in the UK are greenbottles (*Lucilia*) and bluebottles (*Calliphora*). Pregnant female flies are attracted to wounds, soiled fleece or dead animals and lay clusters of yellow-cream eggs. In warm weather the eggs will hatch within 12 hours and the maggots will feed on the skin and tissue of the animal, rapidly creating a large wound.

Affected sheep are dull, stop feeding and stand away from the flock. The fleece may be discoloured, but the problem may not be visible until you part the fleece to reveal a foul oozing wound with maggots. Strike causes severe debilitating distress and irritation, and death may result due to secondary bacterial infection.

Treatment of struck sheep requires application of insecticide directly on to the affected area to kill the maggots – see table 2. Healing of the area will take

some time and antibiotics may well be required against secondary infection.

Prevention is better than cure, so all sheep should have protective products applied during the high risk time of year (June-September). There are three groups of preventative drugs – see table 3 – and choice of product depends on a number of factors including withdrawal time, length of protection required, facilities on the farm and if control of other parasites (e.g. lice or scab) is required.

Laura Smith is a vet with the Cain Veterinary Centre in Powys, part of the XL Vet group. She prepared this article using literature from Moredun, the SCOPS website, Veterinary Parasitology and the NOAH Compendium. Trade names and withdrawal periods were correct at the time of writing.