Fly and Louse Problems in Sheep

While sheep scab is the most important skin infestation affecting sheep, farmers must also be aware of the other ectoparasite infestations that can affect their flocks causing both financial loss and welfare concerns. Control of all ectoparasites infestations can be achieved by strategic treatments and strict biosecurity although these principles of disease control appear to have been largely forgotten in the 15 years since the cessation of compulsory plunge dipping. Some estimates quote sheep scab affecting up to 10 per cent of UK flocks annually. A control programme must be included in all veterinary flock health programmes and implemented before the major risk periods. Skin infestations are a major animal welfare concern.

Headfly

In the UK, headfly can present a major problem during the summer months. Grazing patterns are disturbed and affected sheep often isolate themselves and remain in the shade where available. They may stand with the head held lowered, with frequent head shaking and ear movements. Alternatively, sheep adopt a submissive posture in sternal recumbency with the neck extended and the head held on the ground. Kicking at the head often greatly exacerbates damage caused by headflies and such action may also traumatis the skin of the neck and ears. The impact of headfly discomfort on sheep welfare must not be underestimated. Fleece quality is adversely affected and the loss of body condition will reduce ovulation rate and subsequent litter size costing the farmer money.

Topical emollients and antibiotic preparations are not usually necessary and skin wounds heal well, provided the flies are denied access to these areas. Housing is essential for sheep with large skin lesions to allow time for complete healing. Ear tagging and notching must be undertaken carefully and not during the fly season.

Pour-on fly control preparations, such as high cis cypermethrin or deltamethrin, must be applied before the anticipated headfly season and, especially to horned sheep, with re-application as directed by the manufacturer’s instructions.

Blowly strike (Cutaneous myiasis, maggots)

Blowfly lesions may range from one centimetre diameter areas of skin hyperaemia with a small number of maggots, to extensive areas of traumatised/devitalised skin, causing death of the sheep in neglected cases. It is legal requirement to inspect all lowground and upland sheep daily. The death of a sheep due to blowfly strike could lead to prosecution under animal welfare legislation.

Typical behaviour associated with flystrike with the lamb attempting to nibble at the flanks/tailhead.

Housing is essential for sheep with large skin lesions to allow time for complete healing.

 Adults flies are attracted to areas adjacent to faecal staining surrounding the perineum.
Adults flies are attracted to areas adjacent to faecal staining surrounding the perineum; and less commonly virulent footrot lesions with exposed corium/exuberant granulation tissue, dermatophilosis lesions on the skin and urine scalding around the prepuce. In severe infestations, the sheep are depressed and isolated from the flock. Large numbers of adult flies are seen on the fleece with maggots on the blackened skin, once the surrounding fleece has been lifted clear. There is an associated putrid smell.

Death caused by extensive blowfly strike.
Affected sheep can be treated by plunge dipping using an organophosphate preparation but it is more usual to treat individual infested sheep with dip wash applied directly to the struck area after first clipping away overlying wool. It should be noted that some organophosphorus compounds carry dangers for the user making it is necessary for the operator to wear protective clothing during the dipping procedure.

Before preventive measures using various chemicals are considered, much can be done to reduce the attraction of blowflies, for example a grazing programme to prevent the massive build up of infective helminth larvae on permanent pasture during July and August (mid-summer rise) reduces diarrhoea caused by high parasite burdens. Where faecal staining of the perineum occurs this wool must be removed (“dagging” or “crutching”). In adult sheep, removal of the fleece and any faecal contamination by shearing during late May/June in the UK, removes this attraction well before the peak of the blowfly season.

Where faecal staining of the perineum occurs this wool must be removed. What is your opinion of the care of this sheep?

Dimpylate (diazinon) is effective against blowfly strike for up to six weeks. This compound is strongly lipophilic and replenishment of dips is important to maintain effective concentrations within the bath. It is essential to follow all instructions on the data sheet.
While topical application of high cis cypermethrin pour-on preparations provides protection against fly strike, these preparations persist for only 6 to 8 weeks at the site of application and require re-application in most situations. The insect growth regulator, cyromazine, applied before the risk period, is very effective against blowfly strike for up to 10 weeks after topical application and dicyclanil affords 16 weeks’ full body protection.

Topical application to the breech area.

“Recreational” rabbit shooting on this farm provides blowflies with the perfect breeding ground to rapidly multiply and attack sheep.

Louse populations are highest during late winter and may cause disrupted feeding patterns, fleece damage/loss, and self-inflicted trauma.

Heavy louse infestation in an emaciated ewe.

The important differential diagnosis for flock problems of pruritus and fleece loss is psoroptic mange (sheep scab). Reliance on systemic endectocides to control sheep scab has resulted in an upsurge of louse infestations in sheep flocks in the UK. Maintenance of a closed flock and effective biosecurity measures would prevent introduction of louse infestation.

Lice (Pediculosis)

Lice populations are highest during late winter in sheep in poor body condition kept under unhygienic conditions, rather than the reverse situation where lice cause debility. The chewing louse Bovicola ovis is the most common infestation and may cause disrupted feeding patterns, fleece damage/loss, and self-inflicted trauma. Spread occurs by close contact. The slow reproductive capacity of Bovicola ovis results in a gradual build-up of louse numbers over several months.
Louse infestation can be readily eliminated by plunge dipping using an organophosphate preparation. Use of plunge dipping for other reasons, such as control of sheep scab, cutaneous myiasis and headfly problems, also effectively controls louse infestations. Louse infestations can also be controlled with topical application of high cis cypermethrin or deltamethrin. The presence of lice on sheep reflects poorly upon biosecurity measures and the overall flock health plan. Such infestation must prompt a review of these processes before more serious and costly infections are introduced.

The presence of lice on sheep reflects poorly upon biosecurity measures and the overall flock health plan.

Copyright © NADIS 2013

NADIS hopes that you have found the information in the bulletin useful. Now test your knowledge by enrolling and trying the quiz. You will receive an animal health certificate for this subject if you attain the required standard.

Enrol by clicking here  Health Quiz

Supporting Knowledge Transfer

To view a WEBINAR (video) of the full NADIS Disease Alert please click

WATCH THE WEBINAR

NADIS seeks to ensure that the information contained within this document is accurate at the time of printing. However, subject to the operation of law NADIS accepts no liability for loss, damage or injury howsoever caused or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document.

To see the full range of NADIS livestock health bulletins please visit www.nadis.org.uk