

# Factsheet



## Fly Control for Sheep

Flystrike is the infestation of living tissues with the larvae of flies. There are various types of fly strike.

The vast majority of strike occurs around the tail or breech, as flies are attracted to fleece contaminated with urine or faeces and are particularly associated with scouring.

In body strike flies are attracted to sheep by the odours of excessive sweating and or decaying organic matter in the fleece, usually over the loins, shoulders, flanks, back, throat or abdomen.

Head strike occurs in horned breeds with accumulation of dirt and grease in the horn base or from wounds from fighting or de-horning

Foot strike can also occur.

Pizzle strike occurs in the wool around the opening of the prepuce.

Wound strike is caused by flies attracted by lesions or bacterial infections.

### **Symptoms**

Sheep suffering from fly strike show obvious signs of distress. They may appear agitated or dejected and spend less time grazing. In tail or breech strike infested sheep stamp their hind legs, shake their tails vigorously or gnaw and rub at the breech. As lesions develop a distinctive odour is noticeable and the wool becomes matted and discoloured. If the infestation remains untreated the affected area increases and wool is shed from the centre accompanied by signs of constant discomfort. On close examination the strike lesion appears as a foul-smelling area of moist brown wool often with early stage maggots visible.

### **Environmental factors (life cycle)**

### **Understanding the life cycle of the fly**

The most common fly species that cause fly strike problems in the UK are:

- Greenbottle (*Lucilia sericata*) - lay eggs on damaged or soiled areas of fleece.

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- Black blowfly (*Phormia terrae-novae*) - lay eggs on damaged or soiled areas of fleece.
- Blue bottle (*Calliphora erythrocephala*) - attracted by the smell of lesions.

Fly strike is predominantly caused by fly species which lay eggs on the living sheep. Fly strike may occur on any part of the body where the wool has become soiled or infected with bacteria.

Adult flies can fly 10 miles and are not greatly impeded by wind speed. Greenbottle will not enter areas of low light intensity; consequently they are rarely encountered in houses or barns

Female flies can begin to lay eggs 5 to 9 days after emerging from pupae and 2000-3000 eggs can be laid in 9 to 10 batches over a three week period depending on temperature.

## Moisture

The prevalence of blowfly strike is weather dependent, with the majority of cases of body strike occurring during periods of high humidity or warm periods after heavy rain. Eggs hatch within 24 hours into first stage larvae if there is sufficient humidity in the fleece. Eggs are continually being deposited on the fleece but these first stage larvae cannot survive in wool with moisture content below 70 to 90%.

Breech strike depends less on weather as the moisture supplied by urine and/or scouring is sufficient to attract flies.

## Temperature

**Below around 9°C flies do not lay eggs. Risk of body strike in lambs is significantly associated with higher rainfall and higher temperatures.** The mature maggots crawl off the fleece and pupate in the soil where they remain in the pupa for 3 to 21 days under summer conditions. Overwintering pupae remain inactive until the soil temperature rises above 7 °C.

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## **PREVENTION**

### **Management considerations**

- lower flock sizes
- lower stocking densities
- higher altitudes

### **Herbal remedies**

A range of herbal and essential oil-based products, such as citronella or lavender, may act as repellents. In wet weather or when sheep are dirty more regular reapplication will be required.

Garlic feeds can also be used as a repellent.

### **Dagging**

Crutching and dagging – the removal of soiled wool from the tail, around the breech and inside the back legs – is an effective control of breech strike.

The operation is best started in early April and must be repeated every 4 to 6 weeks to remain effective.

### **Minimising scour**

Flies are attracted to soiled wool. Sheep with worms often scour. Effective internal parasite control, through pasture management and worming treatments–helps keep wool clean and less attractive to flies.

Attention to nutrition can also help minimise scour by controlling changes in diet and digestive disturbances: lambs on rich spring pastures with no access to dry forage, for example, will have very loose or liquid dung which is far more likely to stick to the wool – and attract flies.

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## **Farm hygiene**

You can minimise the environments in which flies breed e.g. by keeping dung/compost heaps away from stock, ensuring fields are well drained, avoiding grazing damp areas, cleaning out livestock buildings.

## **Grazing**

Blowflies prefer a warm, moist and sheltered environment, so moving sheep to more exposed pastures can reduce the risk of strike when weather conditions become humid.

## **Traps**

Fly traps can be used either to monitor fly populations or to try to reduce them. Monitoring can be used to ensure chemical preventatives are applied at the right time.

Traps can be purchased or they can be made from plastic drink bottles baited with chopped liver or other offal.

## **Control of other health issues**

Prevent wounds and skin infections and other parasites, such as:

- open wounds from excessive rubbing
- infected wounds
- footrot
- increased fleece moisture from excessive chewing of fleece to relieve irritation
- parasite bite marks

## **Shearing?**

Shearing temporarily reduces the risk of strike - recently sheared sheep are seldom struck - but susceptibility increases as the fleece grows.

While shearing can reduce the incidence by up to 95% in ewes, it can also increase the risk to their lambs by 400%.

## **Tail docking?**

Tails help protect the anus, vulva and udder. It is thought that the ability of a lamb to shake its (undocked) tail can help minimize fly strike by deterring flies from landing, while also helping to spread and scatter its faeces. It is the amount of soiling around

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the tail and breech area of the sheep and length of wool which can lead to fly strike, not necessarily the length of the tail.

Farms that follow the prevention methods outlined above may find that tail docking is unnecessary.

## **MONITORING**

To maintain good animal welfare it is essential that you regularly assess your animals to ensure their health and welfare and watch for signs of distress, disease and injury. Special attention should be paid to high risk sheep, such as those with dirty rear ends particularly during the period of risk, from May to September.

## **TREATMENT**

Treatment of blowfly strike should aim to:

- kill any maggots present,
- prevent the likelihood of further fly strike, and
- assist the wound to heal.

The wool should be carefully clipped away from around the wound and surrounding area.

Stockholm tar may also be used to treat minor attacks for individual sheep and to discourage further problems.

If treating with a veterinary medicine (see below), the product must not seep into open flesh wounds, as this will cause affected animals even more discomfort.

Severe cases should require veterinary attention and may need additional medication to counteract pain and infection.

## **Choice of veterinary medicines**

Your livestock management plan should detail your planned use of veterinary medicines.

The following factors should influence your choice of product:

- a) a product licensed for use on this species in the UK

→ search online for the current version of 'AHDB parasite control guide'

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b) the product's effectiveness

The blowfly column of the pour-on table for sheep helps differentiate between products that can be used:

- as a targeted preventative for known risk periods and risk groups (P)
- insecticidal treatment for established strike (T)
- products that are effective at both (P+T)

c) The product's persistence

Depending on conditions you may need to apply pour-on preventatives at least twice during the fly strike season.

d) the treatment's organic withdrawal period:

- For organic meat and milk see standard 3.4.16
- For organic wool and fleece see standard 3.1.3.