

Blowfly Prevention in Sheep- Strike First

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Increasingly unpredictable weather conditions mean that farmers are still being caught out by blowfly strike, with up to 80% of farms affected and up to half a million sheep struck annually in the UK.

The historical, more predictable summer fly season is a thing of the past and in recent years we've seen great variations in the months which fly strike occurs beginning as early as March and in 2016 lasting as late as November!

This variation in incidence means farmers must be more observant and more targeted in the timing of preventative treatments. It is becoming increasingly difficult to manage as historical approaches to prevention are based on specific timings, such as holding off until post shearing – now preventative action must be strategic according to the risk and weather conditions. As SQPs you have a unique role in encouraging farmers to be pro-active and treat preventatively before any incidence of strike on farm.

Break the Life Cycle!

The life cycle of the female green bottle fly (*Lucilia sericata*) begins when they hatch from their pupae in the soil- this is governed by environmental factors and generally falls around mid-April but can be earlier or later.

One adult female Greenbottle fly (*Lucilia sericata*) will deposit batches of approximately 200 eggs in the fleece. She will seek out damp, humid places to lay eggs. Fleeces which are contaminated with faeces and urine or even which are damp and humid make the perfect conditions for egg laying. One female fly can lay up to 3000 eggs in her 28 day life!

These eggs quickly hatch into larvae (or maggots) which produce enzymes- these enzymes digest the host tissue leading to skin damage and cause the painful wounds associated with blowfly strike. The developing maggots feed on the dead and dying tissue and produce powerful odours. These odours attract other egg-laying females and this quickly increases the numbers of eggs/larvae present.

If left untreated, the wounds will increase in size, become infected and ooze. This will cause the sheep to enter a state of shock and perish. This further complicates the situation as an undetected carcass would be an excellent host for more larvae to develop and exponentially increases the number of flies in the area.

If farmers delay preventative treatment for the flock until animals become struck they will suffer losses (whether from death or reduced productivity). However the most significant factor is the impact on the welfare of the animals. By the time fly strike is observed in a small number of animals, many more may be covered in eggs and may go on to develop strike.

Risk Factors for Fly Strike:

Presence of organic matter in the fleece

Fleeces soiled with faeces or urine provides the perfect environment for fly strike and the presence of organic matter can reduce the efficacy of preventative products leaving the animals at high risk.

Open wounds

This could be from footrot, a dagging injury or potentially even a fly strike wound. Even where preventative products have been applied, animals with open wounds are still susceptible to strike and need to be monitored more closely until the wound has healed completely.

Thick fleeces

Humidity is a key risk factor for strike and thick fleeces can create the perfect, humid micro-climate for maggot development.

Environmental conditions

Prolonged periods of hot weather can lead to an explosion in the fly population resulting in a very high challenge to livestock.

Prevention:

- Annual shearing and regular dagging of soiled fleeces. Shearing results in a 95% reduction in the incidence of strike.
- Docking- where appropriate, and when done in conjunction with the law. Docked lambs are 5 times less likely to suffer from fly strike.
- Check animals frequently.
- Use preventative products to reduce the risk.
- Remove any carcasses promptly.
- Reduce scouring (gastrointestinal parasite control, good nutrition).
- Any wounds should be monitored closely until resolved.
- Reduce the incidence of footrot.

Which Preventative Product is right for each flock?

There are a number of factors to consider when choosing a fly prevention product for your flock.

The withdrawal period and duration of action is very important as lambs may be going for sale in a matter of weeks and this will be a key factor in deciding what treatment is appropriate for the lamb crop. Consider the duration of protection you need and the cost associated with that treatment. It is also worth considering whether you require more than blowfly control? Would it be beneficial to also treat for other ectoparasites such as ticks, lice and scab?

SQPs should be able to detail the cost/animal for treatment to allow the farmer to come to a decision about which product is most suitable when taking into account the duration of protection required.

Correct application of prevention products is key to success!

The correct dose per animal must be used to prevent the development of resistance and the product must be applied according to the SPC data sheet. When prescribing a product to a farmer you should be confident describing how the product should be used to ensure a successful outcome. The presence of urine/faeces in the fleece is a risk factor for strike in spite of treatment so any animals which have dirty back ends should be dagged.

Table1. Active ingredients licenced for the treatment and/or prevention of blowfly strike

Active	Parasites controlled						
	Blowfly Prevention	Blowfly Treatment	Ticks	Lice	Keds	Sheep Scab	Headflies
Cypermethrin	✓	✓	✓	✓	x	x	✓
Alphacypermethrin	✓	✓	✓	✓	x	X	✓
Dicyclanil	✓	x	x	x	x	x	x
Diazinon (dip)	✓	✓	✓	✓	✓	✓	x
Deltamethrin	x	✓	✓	✓	✓	x	x

Data sheets for all products are available on the VMD website. Please consult them for the duration of action and additional information on the parasites controlled.

About the Author

Rachel Mallet is a Veterinary Surgeon, who now works as a Professional Services Vet providing technical support to vets, SQPs and farmers in the UK. Rachel is passionate about animal health and about promoting best practice and preventative medicine amongst farmers.

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Use medicines responsibly. Noah.co.uk/responsible.

*Vectocert contains 12.5mg/ml cypermethrin Cis 80: Trans 20 and is a POM-VPS medicine.

References

Sustainable Control of Parasites in Sheep: <http://www.scops.org.uk/ectoparasites-sheep-blowfly.html>