

Introduction

A new survey amongst the UK and Ireland's sheep producing community¹ has highlighted the blowfly strike season could be getting longer. This, on top of the high liver fluke challenge, Schmallenberg and extremely bad weather conditions, adds to the list of serious welfare and productivity issues facing sheep farmers today.

For these reasons, Novartis has brought together some of the leading experts in flock health to discuss the key issues around blowfly control and what can be done to better manage the condition.

MEET THE PANEL



Professor Richard Wall Veterinary Parasitology & Ecology Group, School of Biological Sciences, University of Bristol



Mr Joe Henry BVMS cert SHP MRCVS Alnorthumbria Vet Group, Partner & executive committee member of the Sheep Vet Society



Dr Fiona Lovatt Independent Sheep Consultant and Vice President of the Sheep Veterinary Society



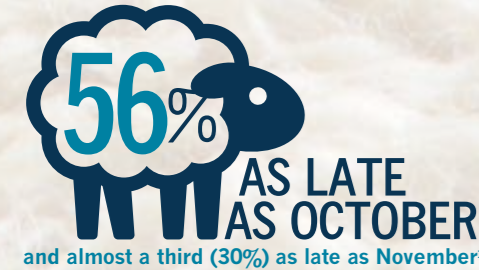
Dr Peter Bates Sheep welfare expert and entomologist

The changing flock health challenge

We asked the panel what the major challenges are to flock health and welfare affecting sheep producers in the UK and Ireland today. Here are the top three risks:

Unpredictable weather patterns

2012 and 2013 have seen some of the most challenging and unpredictable weather in recent years which has had a devastating impact on some agricultural and farming communities.



“ We hear a lot about climate warming but really the bigger problem facing farmers is climate variation. Last year in the UK we had a very early spring and a wet summer. This year spring is much later. Therefore timing the treatment of animals can be difficult as it's difficult to predict what the long-term weather will be like. ”

RICHARD WALL

Increasing risk of treatment resistance

The responsible use of medicines in agriculture and specifically antiparasitics is a topic of much debate and has always been a fundamental principle of good livestock keeping.

According to RUMA (The Responsible Use of Medicines in Agriculture Alliance), best practice in the use of veterinary medicines must be an integral part of effective health planning, particularly in the use of antibiotics and vaccines in sheep and other livestock production.

In Australia there is also evidence to show that blowfly have developed resistance to at least three classes of insecticides that have been used to treat or prevent flystrike on sheep⁵ so the debate is likely to continue for some years to come.

“ If left unchecked, medicine resistance could be one of the biggest challenges to the future health and profitability of the UK

sheep industry and has already been recognised as a contributing factor to loss of production in the UK and Ireland. ”

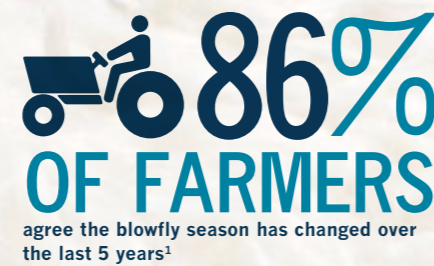
PETER BATES

Treating parasites too late

Recent reports show that the changing patterns of climate in the UK and Ireland are predicted to extend the length that parasites are abundant, with an earlier spring and longer autumn².

“ For example, in the case of fly strike, early March 2012 saw the earliest incidences reported in 20 years. Many farmers will wait until they get the first few strikes before treating, but best practice is to treat early, in advance of the strike season, because then you will reduce the population of flies for the remainder of the season. ”

RICHARD WALL



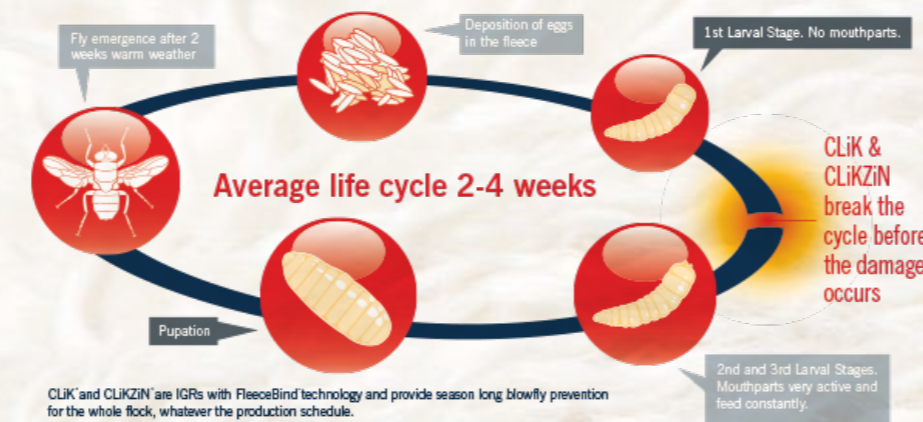
A focus on blowfly strike

Blowfly strike is one of the most unpleasant yet familiar annual problems that sheep farmers face. It is caused by maggots of the common greenbottle, *Lucilia sericata*. Adult flies lay their eggs in areas of the wool which are wet or soiled, so most cases of strike occur in the breech region. Strike happens very fast. After hatching, the blowfly maggots feed at the skin surface, taking about 2.5 days to fully mature, before they drop off and complete their life-cycle in the soil. The foul-smelling wound created by feeding maggots is also a powerful attractant for more egg-laying female blowflies. Infestations can therefore build-up quickly, leading to the death of the struck sheep if not spotted and treated promptly.

The timing and severity of strike is strongly influenced by the weather. In most years, the first adult flies emerge in April and are ready to lay eggs within a few days. The initial strikes are usually seen largely in sheep with soiled fleeces. This attracts female flies and allows a high level of blowfly egg and larval development.

“ I often find that sheep will lose weight after suffering with strike, which will directly result in lost earnings. What's more, struck sheep are very noticeable, the fleece and skin will look patchy and scarred which will also affect market price. ”

JOE HENRY



Narrow vs. broad spectrum treatments

Blowflies are the most widespread ectoparasite affecting sheep in the UK, with surveys showing that every year up to 80% of flocks will have one case or more. If not properly controlled with a preventative product, strike can result in serious welfare problems and reduced profitability in up to 500,000 sheep³.

There have been reports of resistance in the UK to synthetic pyrethroids and OP dips from lice and mites. In Australia, resistance in blowflies has been reported by farmers using broad spectrum products⁵. Due to the lack of products available to treat ectoparasites, especially lice and scab, it is essential that we try and preserve these broad spectrum products and use narrow spectrum products wherever possible.

“ It is tempting for farmers to choose broad spectrum products to save time and initial costs, however because these products aren't specific farmers can end up wasting money if they don't treat particular ectoparasites effectively. I would always advise using a product targeted specifically at a particular ectoparasite, administered at the right time and at the right dose. ”

RICHARD WALL

“ It has been shown that the timely use of a preventative product will limit the build-up of flies and the spread of disease. This is a situation where there is absolutely no doubt that prevention is better than cure. I would prefer it if all products were narrow spectrum as it helps producers have a better understanding of what they are treating and why. ”

FIONA LOVETT

How to spot the signs

A case of strike can be quite difficult to spot. When attacked, sheep tend to move themselves away from the main flock, tucking themselves into ditches. So if an animal gets into that condition it will hide and could be difficult to spot by the farmer. The result is the animal can die very quickly.

Prevention is always best in the case of blowfly strike because adult flies can lay so many eggs on a sheep and strike can establish very quickly. Even the best shepherds could lose animals by just relying on picking them out of the flock.



“ As soil temperatures rise above 9°C, overwintered blowfly larvae start to develop and eventually pupate, so the start of the strike season will not be far behind. ”

RICHARD WALL

FAST FACT:

Female blowflies lay up to



eggs in every egg batch and surviving flies can mature an egg batch every few days

“ Strike can happen very fast and be devastating. Animals can die within 1-2 weeks if it's missed. A common mistake is to wait until 2-3 strikes have been spotted before treating but the reality is that the animals can die very quickly. ”

RICHARD WALL

Strike out against blowfly

A summary of best practice advice

1. Prepare

Arm yourself with the facts and put in place a parasite protection plan

Experts advise that preventative action against blowfly strike must be considered, with vets and SQPs best placed to discuss an effective year-round parasite control strategy for British and Irish flocks.

“ You don't need to wait until the fleece is long enough for the humidity to build up in the fleece which is the right environment for larvae to live. You can treat a short coat in lambs and then the flock are protected for a long period of time. ”

JOE HENRY

“ Diarrhoea and worms are intrinsically linked to strike as this is what attracts the flies. Therefore farmers need to make sure their worm control is also up-to-date. ”

RICHARD WALL

FAST FACT:

“ Even if the winter and early spring weather has been very cold as in 2013, it's always a good idea to treat early. A proportion of larvae in the soil will die in cold weather, but if you do an early spring treatment there will be a decrease in flies throughout the rest of the year. ”

PETER BATES

FAST FACT:

Up to 4 generations can develop between May and September



2. Predict

Know the triggers that are most relevant to your flock

For many sheep farmers, spring strikes represent a practical problem in both ewes and early season lambs. At present, many farmers do not treat their ewes to prevent strike before shearing. Once sheared, ewes can be protected with a long-acting product. Many farmers have traditionally preferred to treat early-season strikes in ewes on a case by case basis only. This means that ewes and early lambs are particularly vulnerable to fly-strike in the spring and early summer and, if no prophylactic treatment is used, a warm spring will leave these animals exposed to a high strike challenge.

“ I would advise farmers to have a serious think about their farm location and climate. Be aware of the earliest period of risk, keep talking with your farming neighbours and keep an eye on the weather! ”

FIONA LOVATT

“ For spring-born lambs, their short fleece means that they can be initially less susceptible to strike; however this risk of strike increases quickly and especially after weaning in summer when a combination of diarrhoea caused by parasitic worm infection and a lengthening fleece leads to faecal soiling so favouring strike development.

Towards the end of the season can be another period of higher risk and should not to be forgotten, particularly if the autumn is warm and wet. ”

RICHARD WALL

“ The temperature required for grass to grow is the same as when blowfly larvae hatch, so farmers should put out flytraps for early warning of strike as when grass has a spurt that is when the soil is warm enough for larvae to develop. Fly traps are also a good prevention strategy when most needed ”

JOE HENRY

28% OF FARMERS do not talk to their vet about a parasite protection plan¹

3. Prevent

The key to good seasonal blowfly management is to plan ahead and act early

A range of treatment options exist to help manage strike problems. The characteristics of each treatment option need to be carefully matched to the specific husbandry system requirements.

Dipping is becoming increasingly unpopular for blowfly strike control and most farmers find the ease of use of pour-on products preferential. Among these, insect growth regulators (IGRs) are a popular choice for prevention. The active ingredient in these products halts maggot development in its early stages, preventing damage to the sheep and subsequent flystrike. In early spring, products with medium duration periods of activity may be used to protect ewes from April to June, during the pre-shearing at-risk period.

49% OF FARMERS BELIEVE THAT WHEN IT COMES TO BLOWFLY, PREVENTION IS ALWAYS BEST PRACTICE¹

47% SAID THEY RELY ON INFORMATION FROM NEIGHBOURING FARMS¹

FAST FACT:

Sheep welfare guidelines created by DEFRA state it is a legal requirement to check the flock twice a day and to treat active infestations of parasites⁴



SCOPS advise best practice advice to help minimise the impact of strike includes:

- ☘ Dag to reduce soiling and/or remove dirty wool around the breech
- ☘ Reduce the incidence of soiling by avoiding nutritional upsets causing scouring
- ☘ Having a sound worm control strategy in place
- ☘ Tail docking
- ☘ Avoid breeding from sheep that are habitually struck and/or tend to soil themselves
- ☘ Dispose of carcasses quickly
- ☘ Reduce the incidences of foot rot

For prevention of blowfly strike, SCOPS recommends the use of a targeted narrow spectrum product such as an Insect Growth Regulator (IGR) if using a pour on product.

ONE IN FOUR



(26%) sheep producers believe the commercial benefits of using a preventative treatment **STRONGLY OUTWEIGH** the financial losses of waiting for strike to hit!

“If you haven't got a tick, louse or scab problem diagnosed then its best to use a blowfly treatment that doesn't affect those parasites. It's the accidental exposure to these products that can lead to long term resistance as well as misuse by farmers.”

PETER BATES

“Anything which increases the amount of faeces that accumulates in the wool, such as an undocked tail, longer fleece, parasitic worms and diarrhoea, will increase an animal's chance of getting struck.”

RICHARD WALL

“Every early case of strike not only represents a serious challenge to the welfare of that individual sheep but it contributes to a build-up in the fly population; thus it increases the challenge to the flock later in the season.”

FIONA LOVATT

Spot the signs

The initial lesion creates a foul smelling area of moist brown wool with maggots visible. Sheep are distressed and depressed. In breech strike, animals stamp their hind legs and shake their tails vigorously.

FAST FACT:

Blowfly strike can be prevented by using an Insect Growth Regulator (IGR)

FAST FACT:

Information from EBLEX suggests that £2.2 million is lost annually due to blowfly alone⁴



88%

of farmers say blowfly is the most widespread ectoparasite affecting sheep in the UK¹

PETER BATES



“It's important to get out of the mind-set that strike is something that is inevitably going to happen. With the right product used effectively and early, strike really doesn't have to be the reality.”

RICHARD WALL



The only IGRs with FleeceBind™ technology - CLiK® and CLiKZiN®

- ☘ CLiK® – season-long protection
- ☘ 16 weeks full body blowfly strike prevention
- ☘ Ideal for early season lambs and ewes after shearing
- ☘ CLiKZiN® – for a short meat withhold
- ☘ 8 weeks protection against blowfly strike, with only a 7 day meat withhold
- ☘ Ideal for market lambs and pre-shearing ewes
- ☘ Ideal to provide extra cover as the blowfly season gets longer

Useful links

- NATIONAL SHEEP ASSOCIATION www.nationalsheep.org.uk
- RESPONSIBLE USE OF MEDICINES IN AGRICULTURE www.ruma.org.uk
- SUSTAINABLE CONTROL OF PARASITES IN SHEEP www.scops.org.uk
- NFU ONLINE www.nfuonline.com
- BRITISH VETERINARY ASSOCIATION www.bva.co.uk
- SHEEP VETERINARY SOCIETY www.shepvetsoc.org.uk

For more information on blowfly strike prevention visit www.farmanimalhealth.co.uk/fleecebind

Press enquiries: Luke Hopkins, Pegasus - +44 (0)1903 703292 · lhopkins@pegasuspr.co.uk

For more information about CLiK® or CLiKZiN® contact Novartis Animal Health UK Ltd, Frimley Business Park, Frimley, Camberley, Surrey GU16 7SR. Tel: 01276 694402 or in Republic of Ireland Tel: 051 377201.

References

1. Survey of 53 sheep producers in UK, April 2013
2. Wall, R., Ellse, L. 2011. Climate change and livestock disease: integrated management of blowfly strike in a warmer environment. *Global Change Biology*, 17, 1770-1777
3. SCOPS
4. Eblex Sheep BRP Manual 10
5. <http://www.flyboss.org.au/treatment/insecticide-resistance.php>

This report has been compiled in association with Novartis Animal Health

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Advice on the use of these or other alternative medicines must be sought from the medicine prescriber.

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EXPERT REPORT

NOVARTIS
ANIMAL HEALTH

Protecting the Future of Your Flock: Blowfly strike in the spotlight

A new survey has shown that farmers believe the blowfly strike season is getting longer and more challenging.

This report outlines some of the views and best practice recommendations from key experts across all areas of the sheep farming industry to help ensure flock welfare

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