Blowfly Strike – Appropriate Steps for Prevention & Treatment

As spring quickly approaches the problem of blowfly strike once again looms. Many will be apprehensive following last year’s particularly warm summer which resulted in a severe fly challenge.

Blowflies are the most common ectoparasite of lambs and surveys suggest that every year 80% of farmers will encounter strike.

Blowfly strike is a devastating disease which impacts welfare as well as costing both time and money to counteract, so it’s important that we anticipate it and protect against it.

Once the soil temperature increases above 10°C and the air temperature is more than 17°C, the flies hatch from their pupae which survive in the soil over winter. This means the first wave of flies emerge around mid-April, although it could be earlier in a particularly mild year. One adult fly can lay up to 3000 eggs in its 28-day lifetime!

Blowfly strike occurs when the female fly is able to land on the sheep or lamb and lay eggs. The flies are attracted to moist, soiled fleeces and wounds. Once laid, the eggs secrete an odour which attracts other flies and rapidly exacerbates the problem.

These eggs quickly hatch into maggots and the maggots feed on the dead skin cells and secretions. As they feed, they ‘burrow’ deeper into the skin, creating wounds, which ‘kills the skin’, providing the maggots with more food and gradually creating bigger and bigger wounds.

If left to worsen, 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.

Animals Most Susceptible:
- Sheep/lambs with faecal staining of the wool (parasite-induced or dietary)
- Sheep/lambs with open wounds (footrot or shearing injuries)
- Sheep/lambs with fleece rot.

Treatment
Clipping of the affected area is vital to see how far the wounds extend, to clean, and to ensure that all debris which the maggots can feed on has been removed. Treatment with a licensed larvicidal product such as a cypermethrin pour-on is then required. The wounds may be serious and infected, causing the sheep to be systemically ill, in which case veterinary intervention is vital to ensure the best outcome.

Prevention
Prevention is necessary to reduce the risk – good management and planning are vital, alongside preventative products, to minimise the risk of blowfly strike as far as possible.

1. Sheep, even after receiving preventative treatment, should be checked regularly and at least daily in periods of high risk where possible. The majority of strikes occur around the breech, where there is faecal or urine contamination of the fleece, with the remainder on the shoulders and the back.
2. Reduce the incidence of soiling by avoiding nutritional upsets which may cause scouring, and have a sound worm control strategy.
3. Dock lambs’ tails.
4. Dispose of carcases quickly to avoid them acting as a source of blowflies.
5. Reduce the incidence of footrot.

A UK study (by French et al in 1994) showed that the incidence of blowfly strike was approximately five times greater in undocked lambs. (Tail-docking must be carried out only in strict accordance with the following guidelines. It must be performed by a competent, trained operator and with the use of a rubber ring, or other device, to restrict the flow of blood to the tail. It is only permitted without an anaesthetic if the device is applied during the first week of life.)
Footrot acts as a source of blowfly problems as well as causing serious welfare and production problems. Isolate and promptly treat any lame sheep. Consider zinc supplementation if lameness due to zinc deficiency is suspected and talk to your vet about vaccination in problem flocks.


7. Regular dagging of the fleece. It’s not enough for farmers to ensure that sheep are clean on application of the preventative product – farmers must ensure that lambs are kept clean in the weeks following treatment as faecal contamination will reduce the efficacy of all plunge and spray-on products.

8. Open wounds should be treated and monitored until resolved.

9. Pour-on/dip (e.g. cypermethrin pour-ons, dicyclanil pour-ons, organophosphate dips). Most farms now rely on pharmaceutical products to minimise the strike-affected sheep on their farm. It is important to note that products have to be correctly applied as per the pack instructions and that they have to be used in conjunction with the other management practices as outlined here.

Which Product is Best for my Flock?
We all know there is a thin line between profit and loss when rearing lamb so it’s vital we make economical choices when selecting which products we use for protection. Pyrethroid pour-ons (high-cis cypermethrins) can give up to eight weeks’ blowfly protection. Insect growth regulators (IGRs) such as dicyclanil are suitable only for blowfly prevention and are not suitable for other ectoparasites or for blowfly treatment.

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. Shorter-acting cypermethrins are much more cost-effective than longer-acting IGRs, and have the advantage of treating lice, ticks and blowfly strike in addition to prevention accompanied with a shorter withdrawal.

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