

Treating flystruck sheep

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Flystrike dressings

Ideally, a flystrike dressing should stop damage to the sheep, kill all larvae to prevent resistance and reduce future blowfly populations, and prevent restrike on the dressed area for sufficient time to allow the wound to heal.

Most registered flystrike dressing labels stipulate that the struck wool and a 50 mm barrier around the strike be shorn close to the skin before the dressing is applied.

This removes many larvae, opens the struck area so that all maggot trails are found, helps to dry the area, and ensures that less wool is treated with insecticides. Wool clippings should be placed into a sealed bag to kill maggots but otherwise left untreated.

Unfortunately, shearing the strikes increases the workload and leaves holes in the fleece. For these reasons producers are often reluctant to shear strikes and invariably miss some maggot trails and pour a lot more insecticide into the fleece.

In a NSW Department of Primary Industries trial in which strikes were shorn with a mechanical shearing handpiece but otherwise left untreated, only four strikes out of 52 (8 per cent) still contained larvae one day later.

In a separate trial, six out of 17 (35 per cent) remained unresolved if hand blades had been used.

Clearly, shearing strikes is sufficient to remove maggots in the vast majority of cases if wool is removed close to the skin.

This is very fortunate given the results of laboratory trials with some registered flystrike dressings. Products were tested against susceptible and organophosphate resistant third instar larvae – the size maggots have grown to

when farmers recognise struck sheep. Only a few of the products were capable of causing greater than 50 per cent mortality of organophosphate resistant maggots.

Many dressing products contain an organophosphate insecticide, so reduced effectiveness against resistant strains was not unexpected. However, there are some very effective non-organophosphate products that are capable of causing excellent larval mortality.

As shearing can clear up most active strikes, the main purpose of an insecticidal dressing becomes protection of the healing wound from restrike – either by *Lucilia cuprina* or the even more damaging green hairy maggot blowfly, *Chrysomya rufifacies*.

This may be achieved by preventing egg-carrying females from laying eggs, or by killing newly hatched first instar larvae that emerge from eggs laid onto treated lesions. Various registered products aim to do one or both of these things.

In the 1990s the NSW Department of Agriculture conducted a blowfly exposure house trial to investigate the abilities of the several flystrike dressings to prevent restrike.

Strikes were allowed to develop on sheep until maggots had developed well into the third instar. The strikes were then shorn, or shorn and treated with one of the proprietary products. Sheep were treated with one product only.

Seven days later the sheep were brought into a blowfly exposure house and thousands of sheep blowflies were released inside the shed.

The shorn strike lesions were very attractive to the blowflies. Egg masses were readily laid onto shorn strikes on the untreated sheep.

On the treated sheep either no egg masses were laid on the strike area, or the newly hatched

larvae were killed in all but one of the 572 insecticide treated sites.

This indicates that the insecticide residue left after the application of the various treatments is sufficient to kill either blowfly eggs or the larvae that hatch from eggs laid onto the flystrike lesions.

Recommendations

Based on the research results outlined above and mindful of the need to minimise pesticide residue in wool, prevent unnecessary stress to struck sheep, and provide acceptable restrike protection. The recommendation is to:

- shear strikes close to the skin, preferably with a mechanical shearing handpiece
- collect the clippings into a maggot-proof bag
- wear appropriate personal protective equipment
- apply a registered fly dressing to the shorn area, preferably using a pressure applicator.

Alternatively, strikes should be shorn and the sheep jetted together with other flystrike-susceptible sheep using a product capable of providing long term flystrike protection.

Always read the label

Users of agricultural or veterinary chemical products must always read the label and any permit, before using the product, and strictly comply with the directions on the label and the conditions of any permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit by reason of any statement made or not made in this publication.

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