Department of Agriculture and Food
GOVERNMENT OF WESTERN AUSTRALIA

May 2009

Non Mulesing Network

Newsletter of the Department of Agriculture and Food

Contents

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WELCOME

Welcome to the fourth edition of the Department of Agriculture and Food's newsletter on the transition from mulesing and managing breech strike.

Please pass this newsletter on to anyone who is interested and encourage them to register for future editions by emailing Julia Smith (Department of Agriculture and Food, Albany) julia.smith@agric.wa.gov.au

Have you recently stopped mulesing or are you thinking about it?

If you would like to share your experiences with other sheep producers who are in the same position and learn from other experiences, please email Julia Smith on julia.smith@agric.wa.gov.au or phone on 08 9892 8450.

You can remain anonymous if preferred.

In brief!

Sheep Updates 2009

On the 21st July 2009, the Department of Agriculture and Food, in conjunction with the Sheep CRC will be holding a 'Sheep Updates', with half a day focusing on the transition from mulesing, and the other half on sheep reproduction. More details will be available soon from www.agric.wa.gov.au.

For further information contact:

www.agric.wa.gov.au/mulesing

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Tail length issues

There have been numerous enquires and questions over the correct tail docking length, with the general misconception that in light of ceasing mulesing, a shorter tail length is beneficial in reducing flystrike to the breech area. This is NOT so.

Studies (e.g. Messrs *et al*. CSIRO 1939-41) completed in the 1940s shows that a tail with adequate length rather than a short tail provided better protection from breechstrike (23% strike vs. 76% strike). This is backed up by recent reports from farmers who have ceased mulesing.

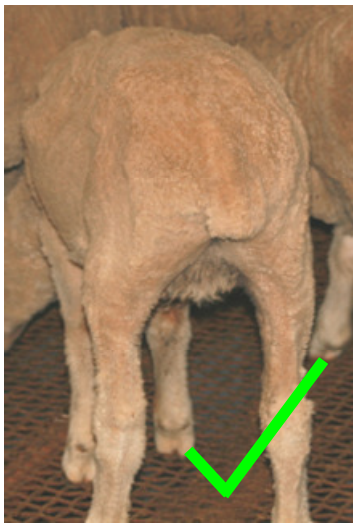
The current recommendation is to dock immediately below the third tail bone or to the tip of the vulva in ewes and to an equal length in wethers. The Department is aiming to test tail length against various methods of tail docking in 2009.

Shorter tail lengths have been reported to have numerous problems, such as increased strike risk, reduced fertility and other health issues.

Sheep with tails docked shorter than recommended are more susceptible to urine stain and dags, due to the inability to lift their tails, which inturn increases the risk of strike, especially in high rainfall areas due to the higher worm and fly risk.

Sheep with shorter tails are also more prone to cancer, due to larger amounts of bare skin being exposed to UV radiation. Producers have also noticed that shorter tails may be linked to lambing difficulties.

It is suspected that very short tails may affect the muscles around the vulva in ewes and lead to difficulties in lambing. Therefore it is strongly recommended that producers do not tail dock shorter than the third tail bone.



IMPORTANT:

There have been a few enquires regarding tail stripping. Tail stripping is part of the mulesing procedure, so tail stripping alone is still considered mulesing.

Blowfly trapping

Blowfly trapping can be used successfully as a part of an integrated pest management system (IPM). Blowfly trapping may be an efficient way to reduce the number of blowflies in an area under certain conditions but are probably not recommended for broad scale use due to the costs and variability in efficacy.

Various trap designs are available and range from small backyard models, which are available at hardware stores, to commercial ones designed for large on-farm use.

The Australian Sheep Blowfly, *Lucilia cuprina*, is strongly associated with sheep so, to be effective, traps must be placed near the sheep and moved when the sheep are moved.

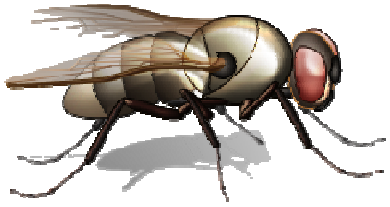
There are various models, such as the Lucitrap and Bait Bins. Lucitraps are designed to specifically target the Australian Sheep Blowfly and consists of a specifically designed trap that contains a blend of chemicals that mimic the odours of fleece rot, animal carcasses, urine and faeces. The design allows blowflies to enter the trap, but not leave and emit odours into the air for up to six months. Manufacturers recommend one trap per 100 sheep.

Lucitraps can be extremely useful for monitoring fly numbers and offer the most effective 'early warning' for the presence of the Australian Sheep Blowfly.

Department of Agriculture and Food entomologist Nick Monzu demonstrated many years ago in his fly trap study that any blowflies caught in traps is ample warning that there are enough flies to cause a seriously strike problem if other conditions are ideal.

Bait bins were developed in the early 1990s by the University of NSW Fowler's Gap Arid Zone Research Station. Bait was placed at the bottom of the bin, enticing blowflies to enter the bin. Once inside the bin, the blowflies could not escape. The research concludes that whilst the bait bins did not reduce the incidence of flystrike in the sheep flock, many producers were impressed by the sheer volume of flies that could be captured.

If baits are going to be used, it is important that they are put into services at the correct time and maintained correctly.



Diazinon ban for use as flock treatments

In May 2007, the Australian Pesticides and Veterinary Medicines Authority (APVMA), the independent national regulator of agricultural and veterinary chemicals, suspended the use of diazinon for sheep dipping and jetting.

Diazinon belongs to the organophosphate group of chemical compounds and is effective against a broad range of insects, spiders and mites. Veterinary products that contain diazinon are used to control external parasites such as flies and lice on sheep, cattle and other farm animals.

The APVMA conducted a review of diazinon based products and found them to pose undue risks to workers, human health, trade and the environment. Such risks include inhalation toxicity from volatilisation during and after use of diazinon and its harmful effects on the environment.

The APVMA's decision is based on extensive evidence of neurological effects on humans from diazinon, such as headaches, dizziness, nausea and difficulties in breathing.

A decision was made by the APVMA to rescind registration of diazinon for flock treatments effective as of 4 May 2007. Diazinon produced and sold after this date could not be used for flock treatments in shower or plunge dipping for lice, but was available for use in individually treated animals that required treatment for blowflies or lice.

It was concluded that diazinon was unsuitable to treat whole mobs via dipping and jetting and an immediate ban on this practise was implemented.

The APVMA has allowed a two year phase-out period, in which producers could continue using diazinon if it was manufactured prior to May 4 2007 in a flock situation.

After the 4 May 2009, it will become illegal in all states and territories to use diazinon on a flock jetting or dipping of sheep.

Products containing diazinon continue to be registered for use on individual sheep as wound dressings in flystrike and for individual animal lice treatment.

Temphos (Assassin®, Coopers) is a highly effective organophosphate sheep lice treatment alternative to diazinon, which is registered for dipping. There are also other alternative lice control options which can be found at www.liceboss.com.au

Remember:
Diazinon is not allowed for jetting or dipping. It is only allowed to treat individually struck animals

New research indicates resistance

A paper recently published by the Australian Journal of Entomology has suggested that there are signs of resistance to ivermectin and spinosad treatments by the Australian sheep blowfly, *Lucilia cuprina.*

In 2001, the blowfly developed high resistance to the insecticide diflubenzuron (e.g. Magnum IGR Pour-On, fleececare, strike etc.) and resistant populations are becoming more common and broadly distributed.

The study tested Ivermectin and Spinosad solutions in the laboratory against the larvae of three strains of blowflies. The insecticide susceptible strain 'LS' that was used was not exposed to insecticides for over 50 years. The 'field' strain comprised of descendents of blowflies collected as larva from struck sheep across properties in NSW. The third strain (DFB-res) comprised of descendents of larvae from populations that were highly resistant to diflubenzuron.

The field strain was strongly resistant to diazinon, moderately resistant to diflubenzuron and slightly resistant to spinosad (e.g. extinosad) and ivermectin.

The DFB-res strain was moderately resistant to diazinon and so highly resistant to diflubenzuron that only four per cent of larvae died after exposure to a solution containing 256 mg/L, where as 100 per cent of the susceptible strain died after exposure to a solution with just 0.5mg/L. These larvae were also slightly resistant to ivermectin and spinosad. The results also suggest that when treating struck sheep with ivermectin, the larvae remain in contact with the insecticide for longer than 60 seconds to increase larvae mortality. For each strain of blowfly tested, longer exposure or higher concentrations of spinosad resulted in higher larval mortality. However, it is interesting to note that when older larvae were exposed to levels representing the registered rate there was only about a 40 per cent mortality rate in each strain, even after a longer treatment period.

As effective flystrike treatment is achieved by eliminating the larvae from strike lesions long enough for the wound to heal and become less-susceptible, it is important that producers are aware that some chemical treatments may not effectively kill all of the larvae present.

Previous studies have demonstrated that in more than 90 per cent of cases simply clipping the wool from the flystrike lesion removed many larvae, or caused them to fall from the sheep. This suggests that the chemical application primarily provides protection of the wound from re-strike, as opposed to killing the larvae on the wound.

This study recommends that producers physically remove larvae and struck wool from sheep and then apply a chemical treatment to prevent re-strike of the wound, as opposed to relying on chemical treatment to kill larvae.

Remember:

- **Check what products you are using and how effective they are.**
- **When treating struck animals make sure you remove affected wool around the wound site before treating with chemicals**

Electrodip

The New Zealand Electrodip is an electronic jetting race which is gaining some level of acceptance and use in the sheep industry in WA.

It allows producers to effectively and quickly jet their sheep, with minimum chemical wastage. An electronic eye within the portable machine senses when a sheep is entering, and the jetting mechanism is activated. This means that there are no manual levers needed to operate the machine. The pressure is stored at the nozzle and once activated, delivers the chemical with no lag time.

The machine can handle up to 40 sheep a minute, all of which run through on their own and is designed to take any size of sheep, from lambs to rams.

The machine has application in fly treatments and a limited place for treatment of lice in sheep. Numerous producers used the elector dip last season and found it to be an effective way of controlling fly strike.

The main concern is that sheep are sometimes not adequately wet to ensure adequate dip solution coverage. Producers who take the decision to use the machine need to be aware that two to three treatments per year may be necessary to control lice, that there is potential for increased chemical costs, and increased chemical residues in wool, and that sheep may still have lice at the end of the year.

On the positive side producers would have kept lice under control, hence avoiding major cotting and loss of fleece weight.

The machine is valued at approximately $6,200. For more information on the Electrodip, please visit http://www.electrodip.co.nz/

Te Pari hot knife

The new Te Pari Patesco docking iron can be used as a management option to control breech fly strike in un-mulesed sheep.

Generally, tail docking leaves the end of the tail still covered in wool and this can become an issue when the wool grows and urine stain and dags attach to the tail attracting flies.

The iron sears and removes the tail and stretches the woolly skin producing a bare area on the top of the tail. It works in a similar fashion to normal docking irons, however, as it has a rotating anvil system extending the skin on the woolly side of the tail causing it to recede back and leaving bare skin on top side of the tail. This leaves a bare area, where wool would normally grow and be at risk of urine stain and dags.

Producers have experienced mixed results using the docking iron, with some reporting no differences in the amount of strike whilst others found it an effective way to reduce the wool at the tip of the tail.

It is important that when using this docking iron that is used correctly to ensure effective results.

The department is keen to test the pair knife at marking this year on one of our flocks to gauge its effectiveness against other methods of tail docking.

If anyone knows of a Te Pari gas knife contractor or some one very experienced in using it please contact Julia Smith julia.smith@agric.wa.gov.au or phone on 08 98928450