



February  
2009

# Non-mulesing Network

## WELCOME

Welcome to the 3<sup>rd</sup> 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 (DAFWA Albany) [jesmith@agric.wa.ov.au](mailto:jesmith@agric.wa.ov.au)

The Department of Agriculture and Food ceased mulesing on its research stations in 2008 in order to develop practical strategies for producers based on the experience of managing the commercial flocks on Katanning, Mt Barker, Wongan Hills, and Avondale Research Stations. Doing this work on the research stations will allow producers to gain information on particular management strategies without added risks of testing these strategies in uncontrolled conditions.

### 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 as you, and learn from other experiences, please email Julia Smith on [jesmith@agric.wa.gov.au](mailto:jesmith@agric.wa.gov.au) or phone on 08 9892 8450. You can remain anonymous if preferred.

### In brief!

Wongan Hills Research Station reported that by not mulesing their lambs, there was more flexibility in relation to fly protection of the ewes. The routine spring jet could be foregone and applied as required rather than a precaution due to being unable to yard ewes and lambs within 4 weeks after mulesing. This allowed them to reduce the number of struck ewes they would normally have, and to manage the fly problem more effectively.

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#### For further information:

[www.agric.wa.gov.au/mulesing](http://www.agric.wa.gov.au/mulesing)

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## Unmulesed sheep in 2008 – what have we learnt?

**Rob Woodgate and Darren Michael**

With summer nearly over we have begun reviewing the data collected from the unmulesed 2008 lambs on each of the DAFWA Research Stations (RSU's).

The first surprise was that despite the horrendous season towards the end of 2008, with rain and wind, and widespread reports of high pressure for body strike, our preliminary analysis of the general flystrike data at each RSU still showed a marked predominance of breech strike amongst unmulesed young sheep.

For example, near Katanning, the 2008 summary showed an overall blowfly strike prevalence of approximately nine per cent in the unmulesed lambs. Ninety-two per cent of this strike involved the breech area. Overall flystrike prevalence in all of the adults and lambs on the property was approximately 3.5 per cent.

Major problems with breech strike occurred particularly when sheep worms began to take hold. Data from Avondale showed that up to 122 out of 1019 unmulesed lambs were breech struck in the spring. This was despite very intensive monitoring and tremendous efforts with hand jetting and crutching, whilst desperately waiting for the shearers to catch up in the district and become available to shear our lambs.

The ewes for these lambs had begun to show signs of scouring in July and faecal worm egg counts (WEC) revealed moderate worm burdens (an average of about 500 eggs per gram). So, ewes were drenched in mid-August when checking of the lamb WEC also commenced (and averaged over 500 epg).

Lambs were drenched and jetted in mid-September, but intensive fly

problems persisted up to and beyond the eventual shearing and weaning in mid-October. About 10 per cent of the weaners showed fresh dags during the week or two after shearing, and so another drench and backline treatment with *Clik* was required to help solve the problems. The weaners were also then put into good stubbles and the levels of strikes declined.

Statistical analysis of the data supported the strong field observations that dags led to breech strike, as shown by the table below.

Table 1: Relative breech fly strike risk in relation to dag score

Dag score	No. of breech-struck sheep	No. of non-struck sheep	Percent struck	Relative Risk
1	91	827	9%	-
2	12	49	19%	<b>0.8</b>
3	10	15	40%	<b>1.8</b>
4	9	4	69%	<b>3.0</b>

Significantly, lambs with dag scores of three or four were two to three times more likely to get breech struck.

Worm monitoring and closer control earlier in the season might have reduced the worm contamination of the paddocks by the ewes and hence reduced the impacts of worms and scouring in ewes and lambs. It is planned to commence checking WEC of ewes and hoggets from autumn onwards to begin worm treatments earlier in the year if necessary. This will also provide good warning of potentially 'wormy' paddocks and could influence grazing management decisions, especially of the younger

stock, during spring and early summer in 2009.

The delays to shearing during spring 2008 also caused some major headaches at other locations throughout the State. The proximity to shearing severely limited chemical choice to help protect against the extremely high blowfly pressure (due to the prevailing persistent wet conditions). This highlighted the importance of understanding the limitations (and potential applications) of the current groups of blowfly products and the major impact that the management calendar can have in these 'bad fly years'.

Infected cuts during the couple of weeks after shearing also caused some problems, with fly strike at a couple of our sites.

Further collation and analysis of the data is continuing, and we should be able to report further observations from the field during the next few months.

To learn more about the results from the RSU's and how to better manage your sheep for flies, worms and lice, see the advertisement for "Feeling Lousy?" on page 7.



## Opportunities to breed sheep for resistance to breech strike

The jointly (AWI & DAFWA) funded research project, begun in 2005, is examining whether sheep can be bred for breech strike resistance, and if so, how long it takes and what trade-offs might exist with other commercial traits such as fleece weight. There are two sites - a summer rainfall site at Chiswick Research farm of CSIRO near Armidale, NSW and a winter rainfall site at Mt Barker Research Station in WA. The experiment has been designed to provide information on which are the most important traits that can be used as indicators to breed for resistance to breech strike and how early resistant animals can be identified.

### Recent results

- Breech wrinkle, body wrinkle and neck wrinkle are all related. So, by breeding for fewer wrinkles around the breech, you will also reduce body wrinkle and neck wrinkle.
- Breech strike was the most common sort of strike in each group.
- Indicator traits, such as wrinkles, dags, wool colour, breech cover, urine stain, dermo, fleece rot, all contribute to breech strike.
- The more wrinkles present, the more likely the animal is of getting struck.
- Animals can be culled on wrinkles at marking while other indicator traits can be used from weaning.
- Although there is a tendency for wrinkly sheep to have higher fleece weights in a breech strike free flock, there are high cutting plain bodied sheep in all flocks that can be selected. This implies that selecting for fewer wrinkles does not necessarily have a negative effect on clean fleece weight.



Unselected control Line – 200 ewes

Random rams mated to random ewes.



Intense Selection Line – 200 ewes

Both ewes and rams selected on indicator traits. Demonstrating how much genetic change can be achieved.

[To read the more on the current genetic research please click here.](#)

## DAFWA's recommendations for 2009

In 2009, DAFWA will have three research stations with sheep flocks that will be part of the trial for developing strategies for managing fly strike over the next two years. The three main focus areas are management practices, chemical usage and genetic selection. After reviewing the 2008 results, recommendations for the 2009 season have been made.

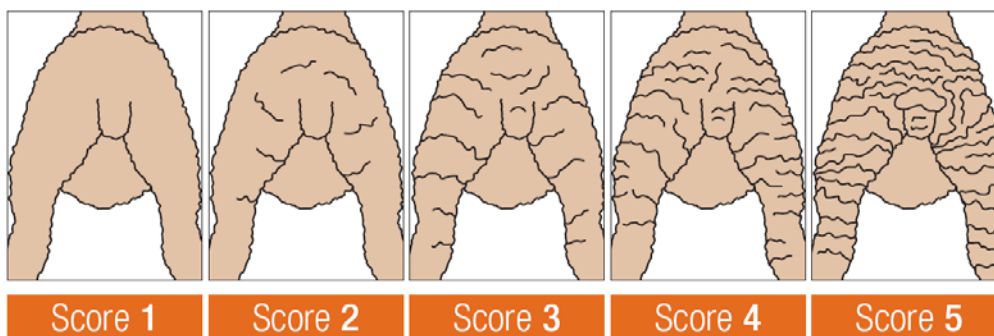
### *Management practices*

During the identified seasonal high-risk fly periods, fly activity should be monitored and sheep observations should be increased from current levels to determine if strategic jetting or crutching is needed. Bringing shearing forward may also help ease the incidents of strike. If you are still mulesing, DAFWA recommends that all operators are accredited (<http://www.kondinin.com.au/Training/courses/nmap/nmap.asp>) and that pain relief is used.

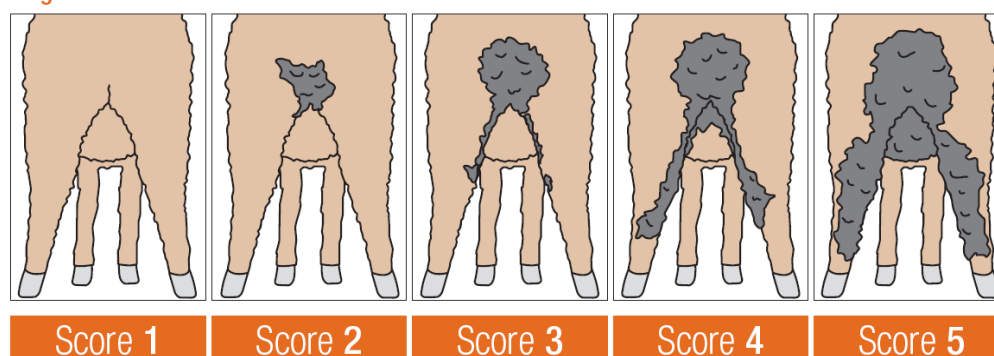
### *Genetic selection*

To reduce overall susceptibility of flocks, selection for key traits is important. Wrinkle score and dag score have been identified as the main traits linked to flystrike. Wrinkle scoring should be conducted on the cradle at marking or in short wool. Consider culling score 4's and above from your breeding flock. Dag scoring is also important, thus score all animals at weaning or at hogget age in winter/spring. In animals less than two years, make sure you have an effective worm control program in place, as sheep with wet dags are more prone to strike. It is important to understand why sheep are daggy before any culling decisions are made. The AWI dag and wrinkle scoring charts are shown below.

### **Breech Wrinkle**



### **Dag**



## Twice a year shearing – no mulesing

Fred Wilkinson, a sheep producer from Brookton, trialled twice a year shearing (May and November) as an alternative to mulesing over three seasons from 2005 to 2007. Sheep used in the study were part of a flock of plain bodied non – mulesed Merino ewes.

The incidence of flystrike recorded over 2006 and 2007 was 1.3% in ewes and 1.7% in lambs, and all were in spring. When lambs were not preventatively treated in 2007 3% were struck, indicating that using a preventative is important.

The wool cut was processed into yarn without difficulty, having characteristics suitable for producing highly valued woollen material. The fabrics showed no effects from the use of the shorter fibre.

Twice a year shearing could provide a viable alternative to mulesing for owners of plain bodied flocks that produce long wool from annual shearing.

[To read the study in full please click here.](#)

## Delaying chemical treatment after crutching or shearing may be the answer!

Delaying chemical treatment after crutching or shearing may give increased fly protection. A recent study examined the use of dicyclanil (e.g. Clik®) at various time periods after shearing or crutching. Animals had dicyclanil applied to their breech only, or breech and body, off shears or six weeks after shearing.

All dicyclanil treatments gave significant reduction in strike rates in comparison to the control group up until four months after crutching. Treating at six weeks

after crutching also showed a reduction in strike for six months.

This study suggests that in most years unmulesed sheep could be protected from breech strike by strategically timed crutching, shearing and dicyclanil application. Delaying treatment with dicyclanil to at least six weeks after shearing or crutching increased the level and period of protection provided.

PJ James et al. Strategic use of crutching and dicyclanil to protect unmulesed sheep against breech strike. *Australian Veterinary Journal* (in press).

**Next edition:**

**Review of the Te-Pari Hot Knife! Have you used it?? Would you like to share your experiences with it? Please contact Julia Smith on 9892 845 or email [jesmith@agric.wa.gov.au](mailto:jesmith@agric.wa.gov.au)**

## Feeling Lousy???

“Making More from Sheep” DAFWA and the WA AWI Network presents half day workshops on

- Lice
- Flies
- Worms
- Sheep Selection/Mulesing

What Works and more importantly What Doesn't and Why!

DAFWA Vet experts and ICON AG INDEPENDENTLY bring you the latest Technology, Products & Systems to solve your pest problems.

<i>Where</i>	<i>When</i>	<i>Time</i>	<i>Contact</i>	<i>Phone #</i>
Darkan Sports Centre	04/3	1-4pm	DFMAS	97361055
Dowerin Bowling club	17/3	1-4pm	Brett Jones	96323012
Dandaragan Rec Centre	18/3	9-12pm	Pauline Roberts	96514154
Katanning Ag Dept	23/3	1-4pm	Ed Riggall	0428299007
Jerramungup Rec Centre	24/3	1-4pm	Sandy White	98351177
Wickepin Community Centre	08/4	1-4pm	Facey group	98881223

Attendance is free but be sure to book with the above contacts or Ed Riggall on 0428299007 as space is limited!

## Further contacts for this issue:

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