

AN INITIATIVE OF  
*Making More From Sheep*



## Healthy sheep, healthy profits

Jane Littlejohn

Australian Wool Innovation

Acknowledgement:  
Brian Ashton

EVENT  
PARTNERS:



EVENT  
SUPPORTERS:

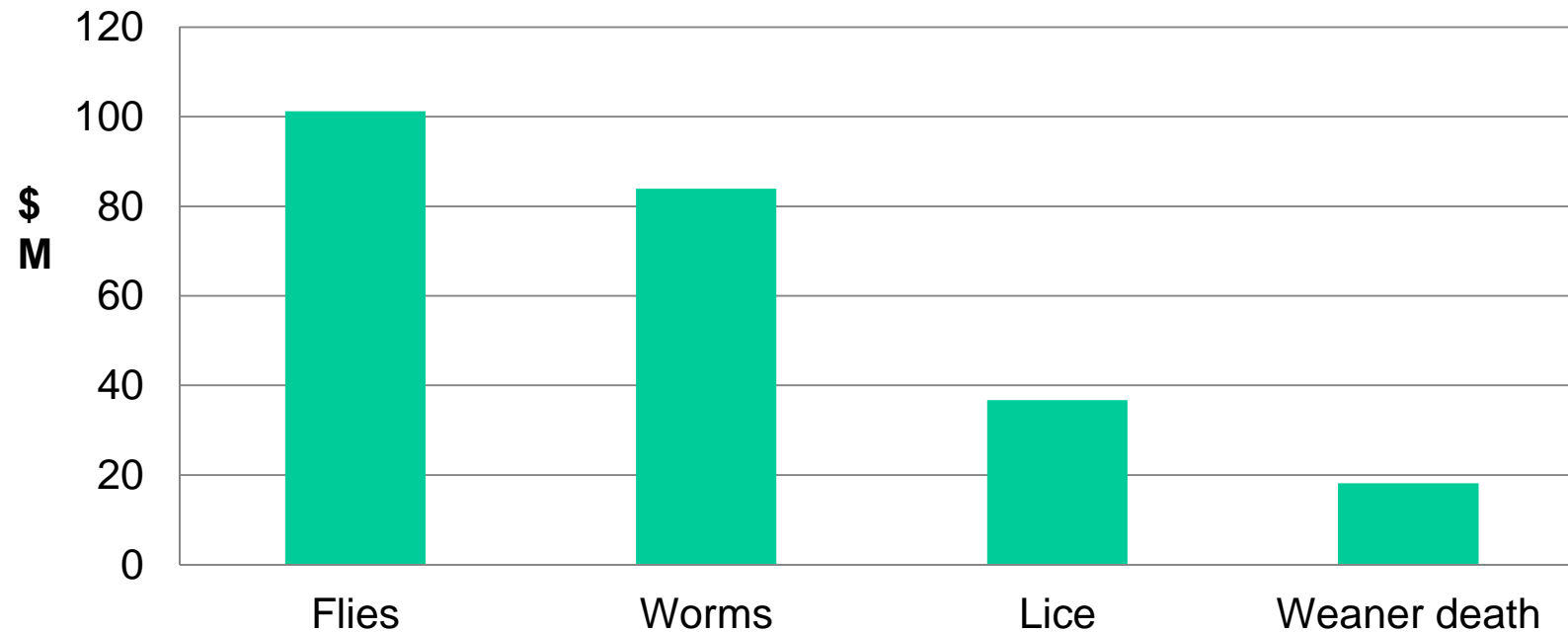


# Worms, flies & lice a wealth hazard

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## Cost of disease - Sheep/Cereal zone



Source: Sackett 2006 – MLA/AWI report

# What's new

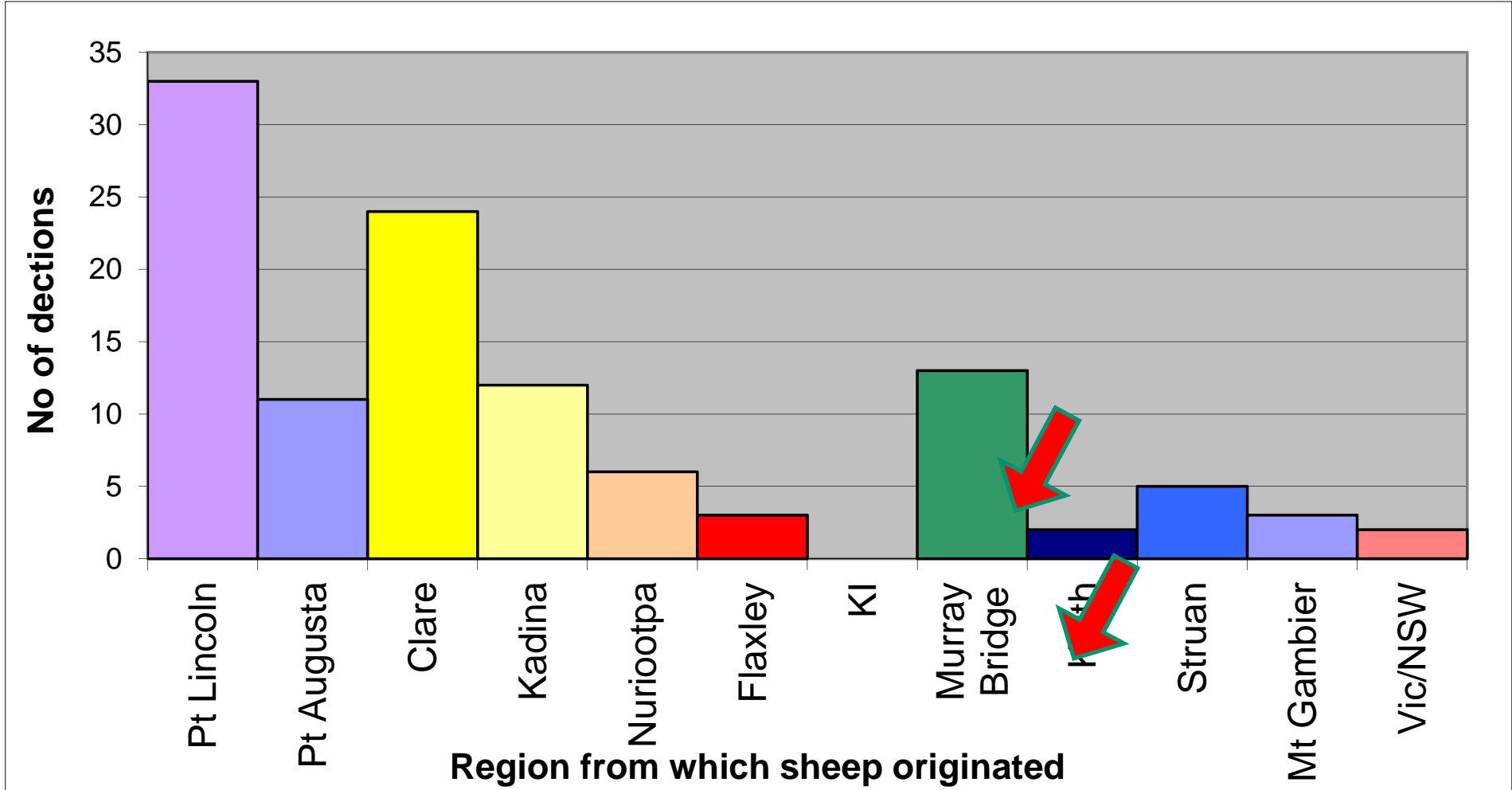
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- Lice
  - chemical choice
- Worms
  - delaying resistance
- Flies
  - breech modification

# Lice

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Source: Emily Litzow



Government of South Australia  
Biosecurity SA

# Why seeing lice now?

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Dose?



# Saturation?

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Dose?



# Back to basics – 2 new things

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- Backline resistance:
  - SP backline resistance 1980's
  - Triflumuron and Diflubenzuron backline resistance 2000's
  - Newer backliners – OP, spinosyn, imidocloprid
- Diazinon replaced with Temephos in all but one plunge dip



LiceBoss - Windows Internet Explorer

http://tools.wool.com/Liceboss/liceboss/LongWoolDss/default.aspx

Long Wool DSS



Salvage the clip – LiceBoss.com

**Mobs showing signs of rubbing**

Mob name or description	<input type="text"/>
Last shorn	19/02/2011  dd/mm/yyyy
Next shearing	19/02/2012  dd/mm/yyyy
Wool value \$/head	<input type="text"/>
Mob size	<input type="text"/>
Number rubbed	<input type="text"/>
% Rubbed	<input type="text"/> %

**Contact with lousy sheep**

If some sheep are showing signs of rubbing then this is a more reliable indicator of lice numbers than dates of contact with lousy sheep. Only enter dates here if contact is known but no sheep are showing signs of rubbing or wool damage.

Approximate date of entry of lousy sheep	<input type="text"/>  dd/mm/yyyy
Date of removal of lousy sheep	<input type="text"/>  dd/mm/yyyy

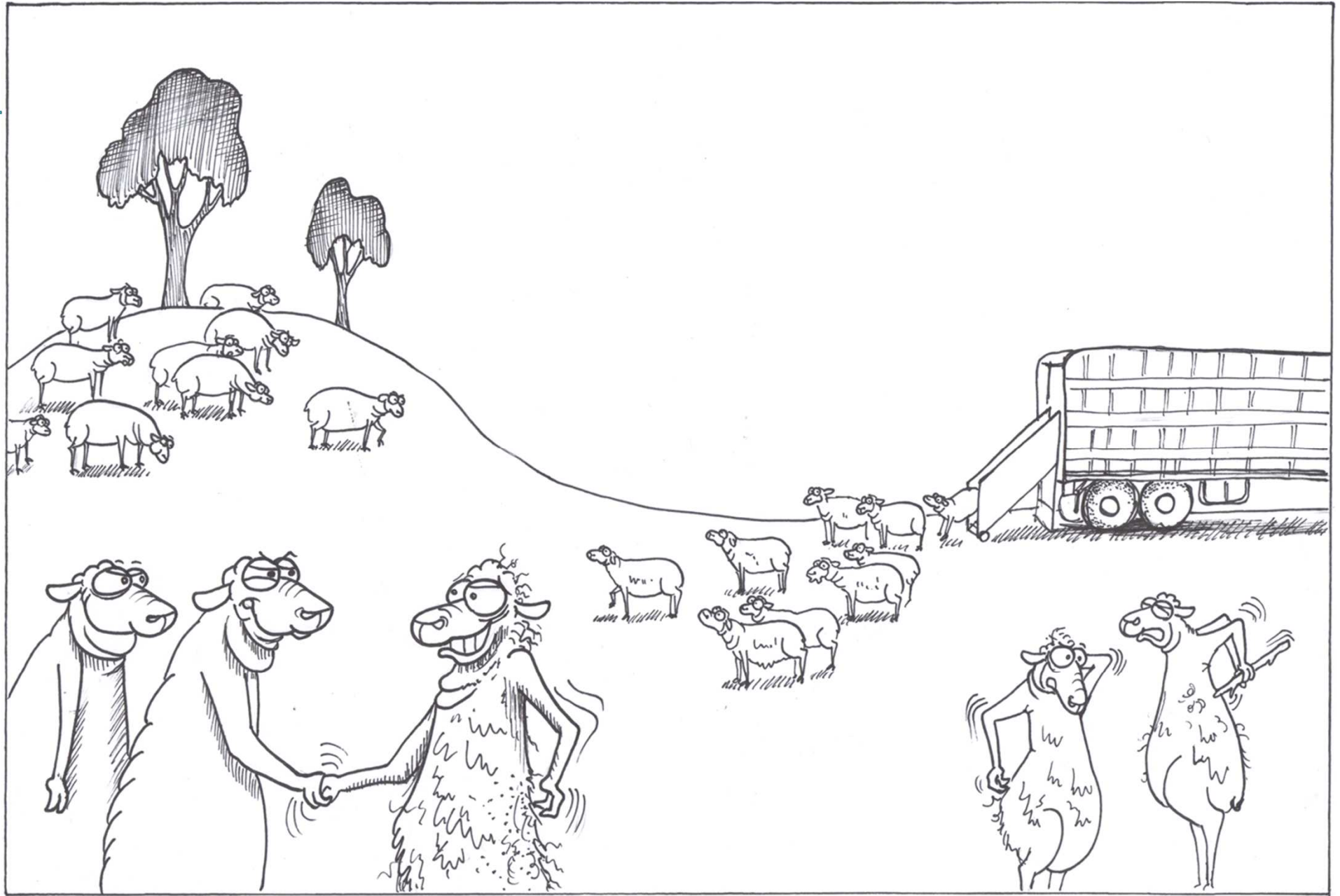


# After shearing – eradicate?

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J. Dunstan  
2009





# Use the right chemical - advice

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**Apply**  
**70% infections due**  
**to treatment**  
**failure**  
**properly**

# Worms – reminder and update

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Dag, death, BW drop, drench is reactive  
OR avoid with a proactive calendar

Production loss or not?

Drench or not?

Measure and Plan

Nutrition, age, stress, genetics, health, body weight, sex,  
preg/lact

# Drench resistance? Measure and Plan

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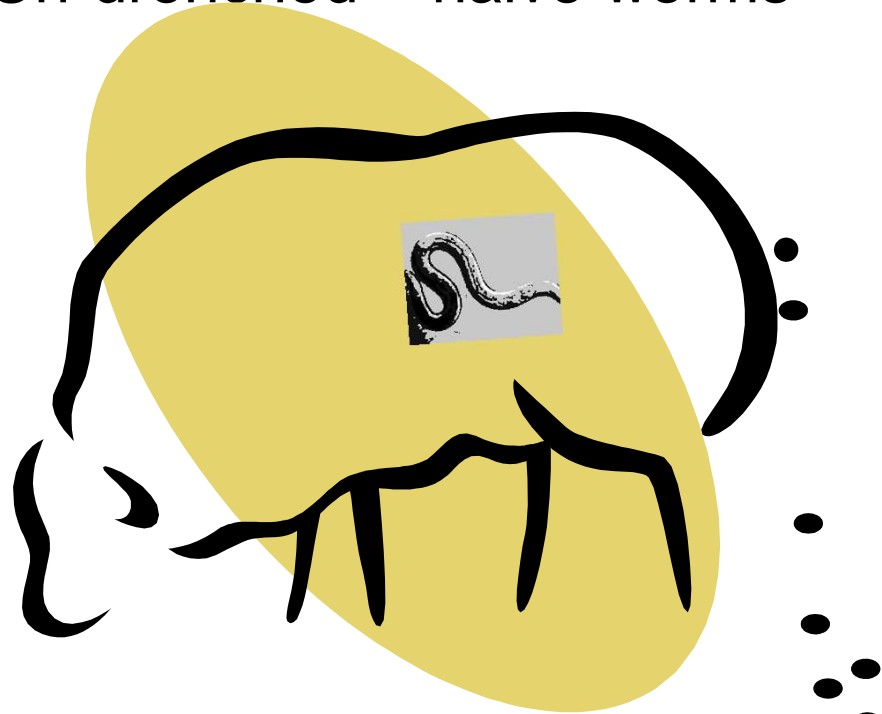
- Whites, clears, **combies, mectins** – resistance? \*
  - Measure - WEC / drench / WEC - WECRT
- Plan a non resistant drench – what combination?
- Plan rotations of drenches\*
- **“on special” vs a special job**
- Plan quarantine drenches
- Plan to drench less frequently
  - Measure what adult sheep and in which mobs?
    - WEC/doers or not?
- Plan to leave some worms in sheep over summer – seek advice

# Plan to leave worms in sheep over summer – delay resistance

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Un-drenched = naive worms



Naive worms live over autumn to dilute resistant population over summer



# Labour efficiency?

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- What worms
- What drench
- What dose
- What not to drench
- What nutrition
- What genetic gain
- Calendar
- Quarantine drench
- Clean paddocks
- WEC ASBV
- Rotate drenches
- Drench combos
- Culling
- WormBoss.com

# Flies

- Measure risk with FlyBoss.org.au

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FlyBoss - Your Online Resource For Managing Flystrike - Windows Internet Explorer

http://www.flyboss.org.au/

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**SUSCEPTIBILITY**  
Factors which make sheep susceptible to flystrike

**BREEDING AND SELECTION**  
Long term breeding plans to reduce risk of flystrike

**MANAGEMENT**  
Annual management steps to reduce risk of flystrike

**TREATMENT**  
Methods available to help treat flystrike

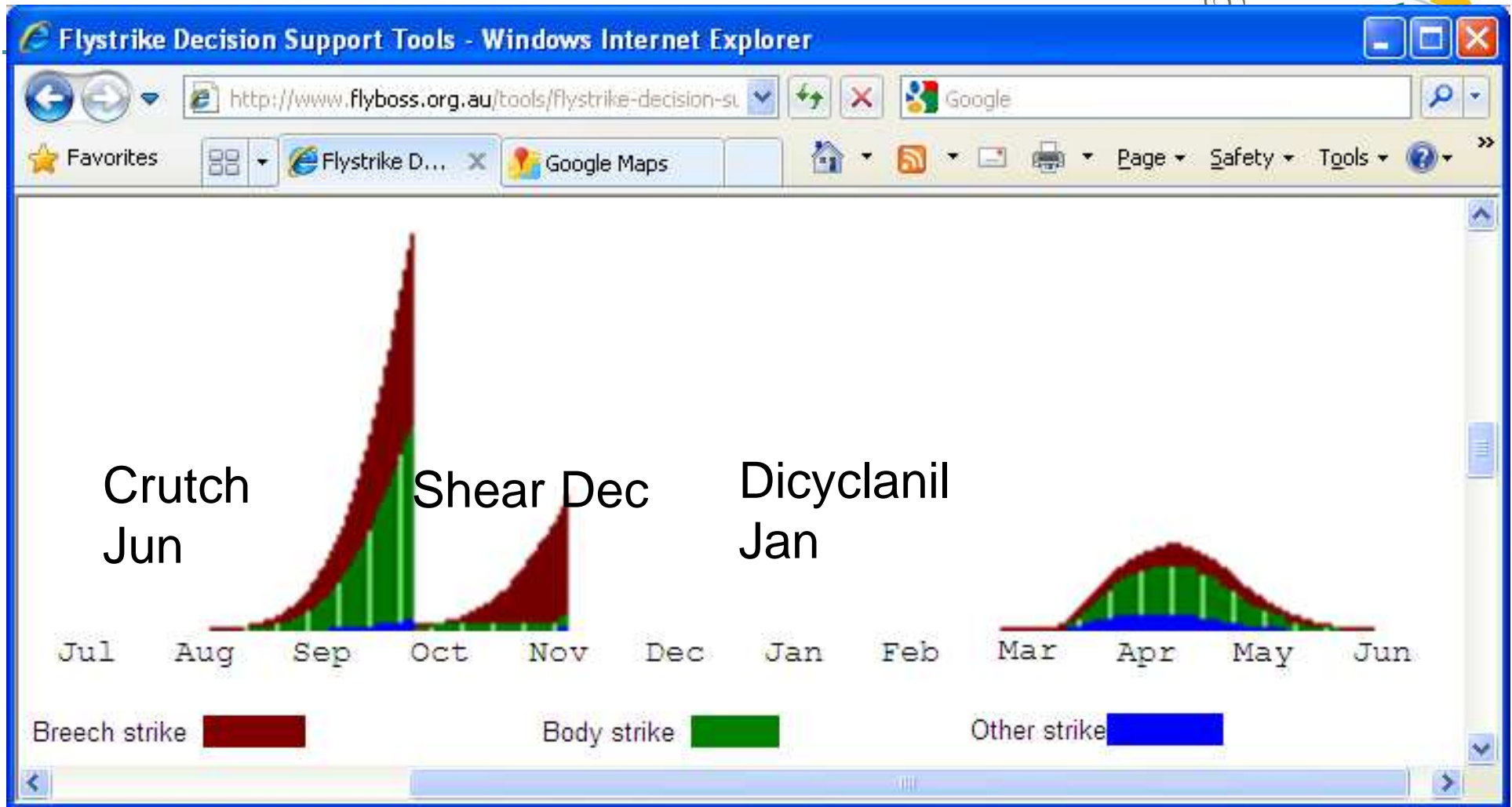
**FLYBOSS TOOLS**  
Online risk assessment and planning tools

**MORE INFORMATION**  
Contacts and newsletters to help provide assistance

Image from Making More From Sheep – module 11

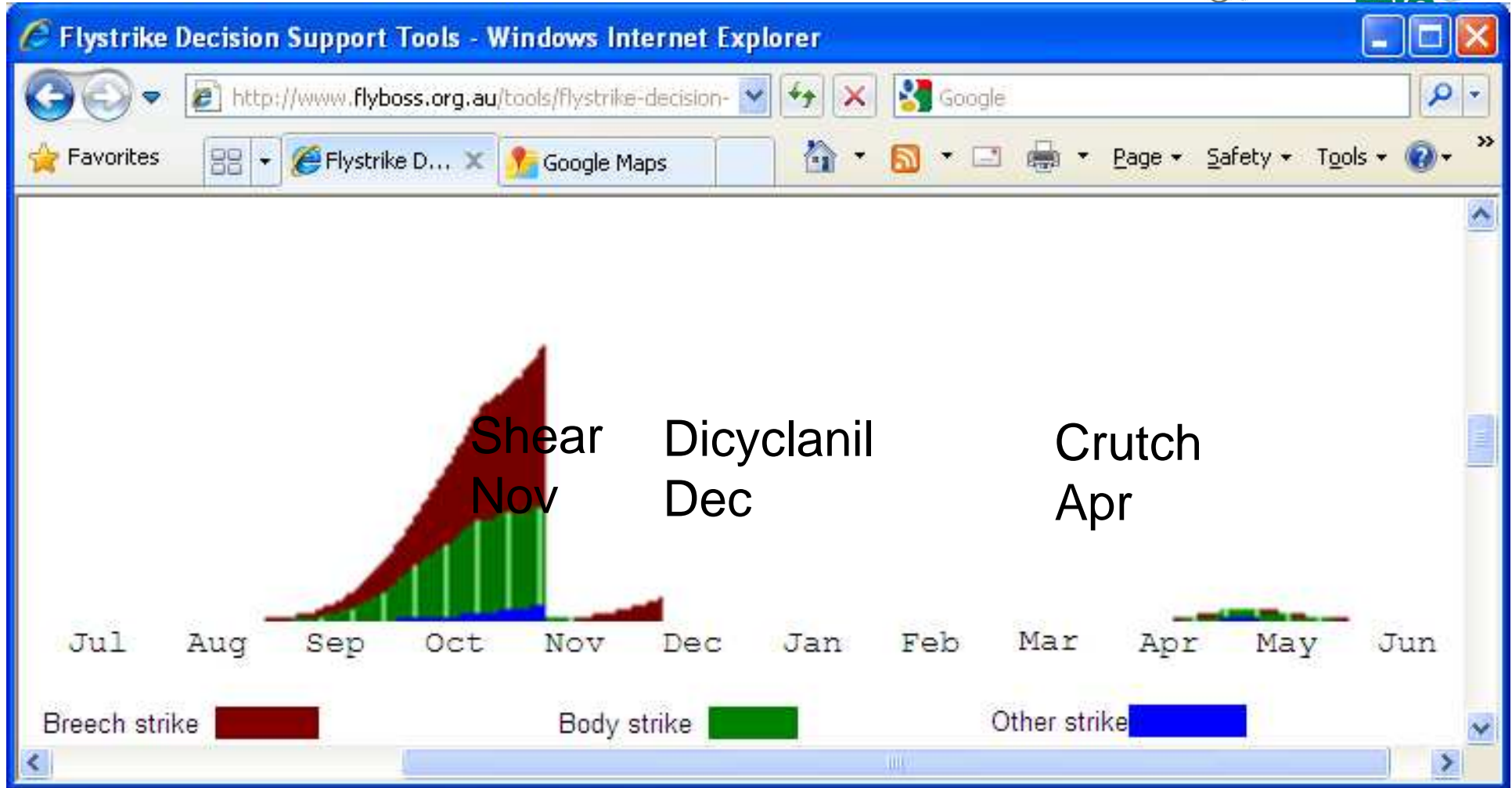
# Flyboss.org.au – Lamaroo – mulesed

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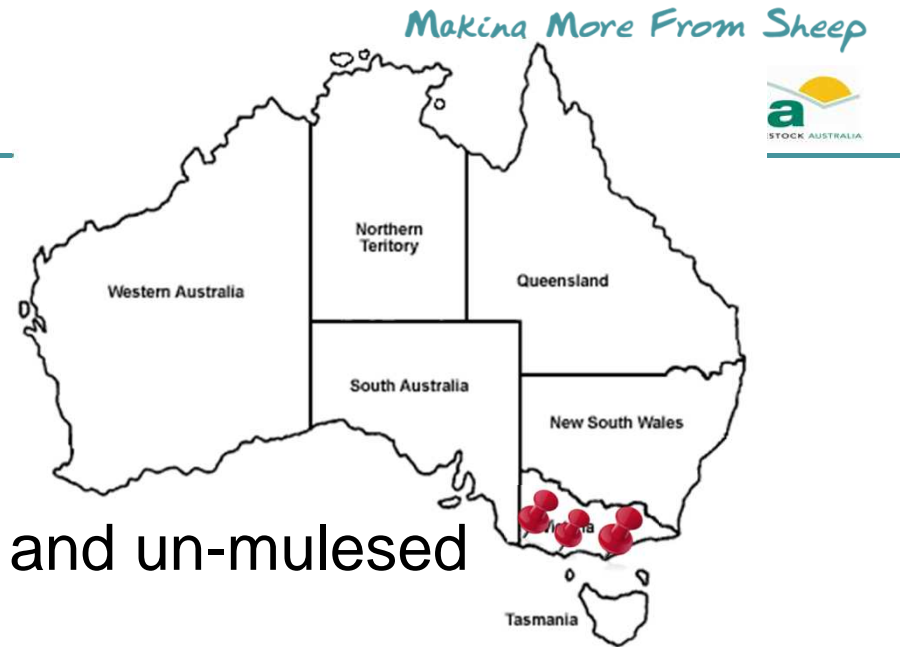
# Flyboss.org.au – Lamaroo – mulesed

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# Without mulesing

- Management of un-mulesed
  - ↑ dag and stain
  - ↑ labour
    - 40-50% longer to crutch
- Clips intermediate b/n mulesed and un-mulesed
  - ↓ dag and wrinkle
  - ↑ reliance on chemicals
- Intradermals – research phase
- First case of cyromazine resistance = dicyclanil

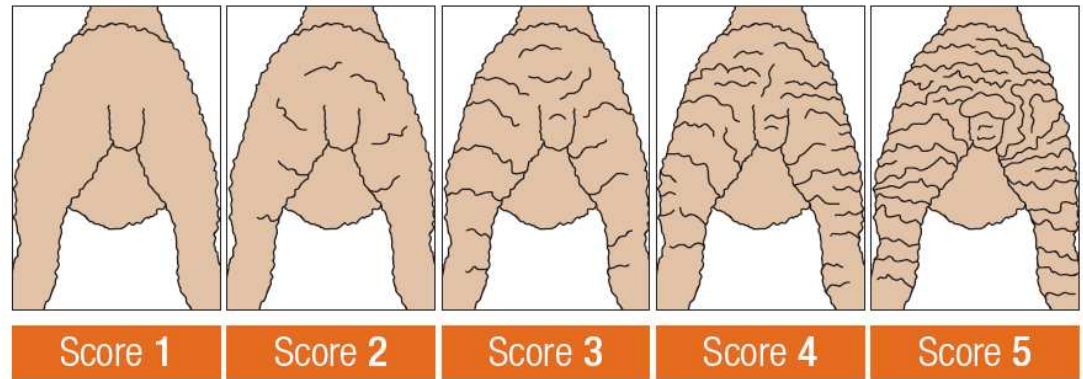


# Long term – Genetics : What traits?

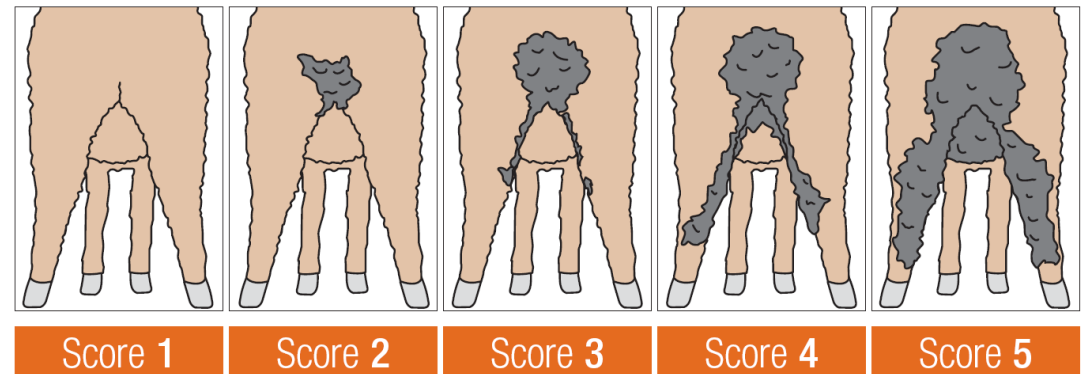
- Worm egg count
  - Lower worm egg counts
- Bare area
- Breech wrinkle
  - Reduce below score 2
- Dag score
  - Independent of WEC

## Measure

Breech Wrinkle



Dag



# Genetic gain

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- Slow progress but cumulative gains
- Most progress dependant on ram supplier
- Include in your selection criteria
- Must balance important economic traits
  - Meat production
  - Wool production





- Genetic improvement
  - Visual breech scores
  - WEC
- Calendar
  - Crutching
  - Shearing
  - preventative treatment  
(impact depends on visual scores and breech modification used)

# Find out more

- Making More From Sheep
  - Module 11
- WormBoss
- LiceBoss
- FlyBoss
- MLA, AWI and PIRSA websites
- Sheep CRC
- Your network of advisers

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MODULE 11: Healthy and Contented Sheep

What does this module do for you?



# Take home messages

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- Lice - plan
  - the treatment
  - the other risks
- Worms – measure and plan
  - good nutrition
  - do I need to drench
  - the treatment
- Flies – measure and plan
  - timing of prevention
  - genetic gain

