

AN INITIATIVE OF
Making More From Sheep



Healthy and contented sheep

Leah Tyrell

Mackinnon Project – University of Melbourne

EVENT
PARTNERS:



EVENT
SUPPORTERS:



STATE
PRIMARY
INDUSTRY
AGENCIES

Agenda

- Animal health – costs
- Worms – control and drench resistance
- Flies – managing un-mulesed sheep, genetics
- Lice - effective eradication
- Weaner survival – know your targets

Relative disease importance

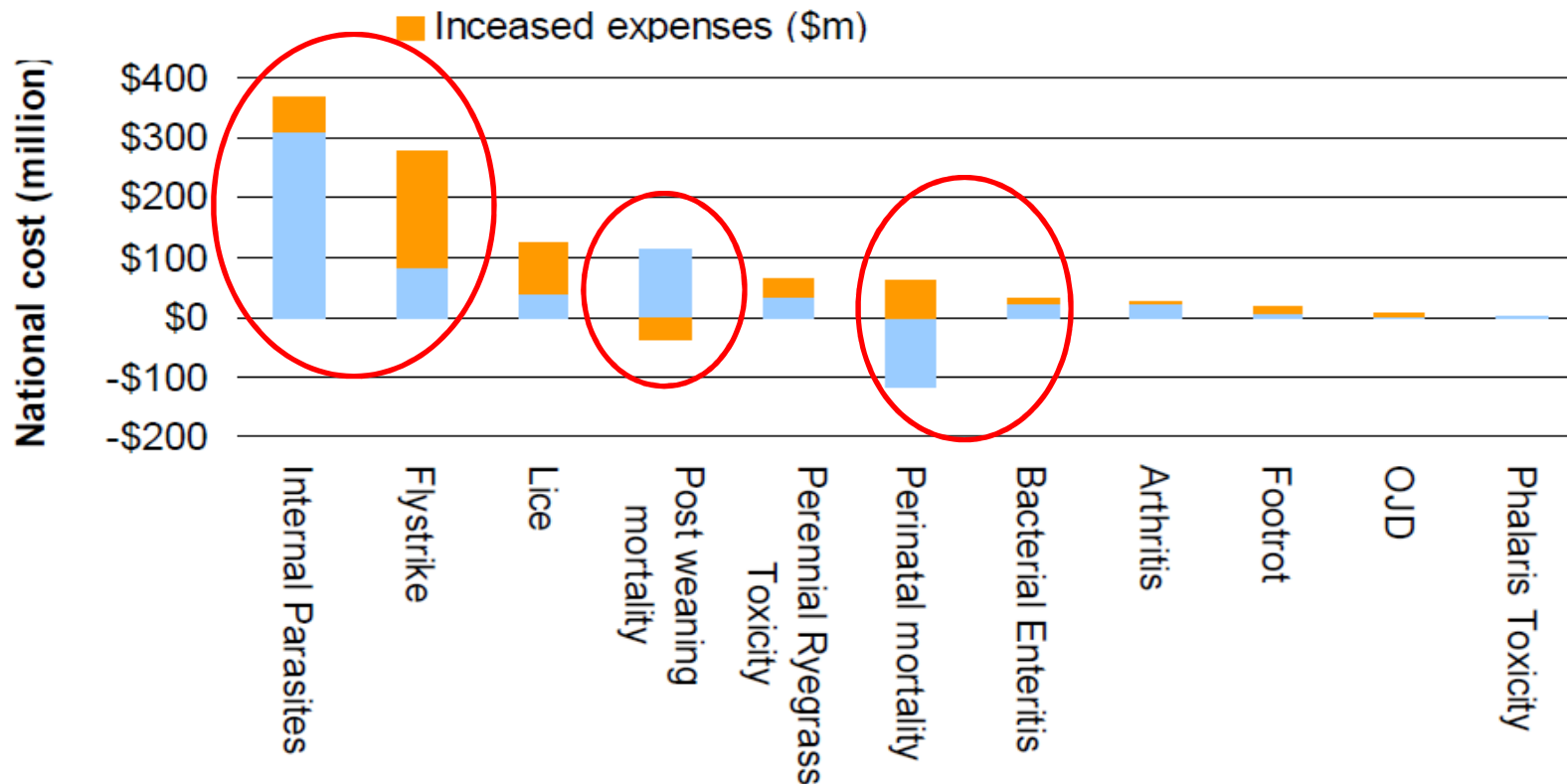


Figure 2 National cost of diseases to the sheep industry

Impact of animal health

- The difference in overall farm costs is small, however the income difference is large
- 4-7% of overall farm costs

<u>Worms</u>	
Good management	Poor management
\$3.00-\$5.00/hd	\$5.00-\$12.00/hd

Nutrition is key to healthy sheep

Adult weight (kg)	Birth	Weaning pasture dry	Autumn break	Late winter	Mating/pasture dry
50	4.5	22.5	25	30	37-40
70	5.5	31.5	35.5	42	52-56
% of adult	8-9%	45%	50%	60%	75-80%

Table from Making More from Sheep Manual

- Poor nutrition impacts on:
 - Conception rates and lamb survival
 - Growth rates – less value, weaner mortality
 - Risk of disease – i.e. internal parasitism

Worms

- Don't rely on drenching alone, use it in combination with:
 - Strategic drenching
 - Monitoring (WEC's)
 - Grazing management
 - Managing drench resistance



Worms – Good management = control

- **Strategic drenching**

- Weaning drench
- First summer drench

- Additional drenching → Monitor WEC's
 - Second summer
 - Pre-lambing
 - Weaners



Image from www.sheep101.info



Worms – Good management = control

- **Grazing management**

- Provide low risk pastures for weaners, lambing ewes
- Important after a wet summer
 - Prepare several
- Safe: cattle >6 months, new pasture, smart grazing
- Intermediate: hay aftermath?
- Dangerous: weaners/lambing ewes last 12 months

Worms - resistance

- < 10% of producers know their status
- Drench resistance is widespread



White (BZ)	>90%
Clear (Levamisole)	>80%+
Combinations	>60%+
ML's mectins	~80% of farms

Worms –resistance

- Manage the risk
 - Know your status - WECRT
 - Rotate effective drenches
- Quarantine drench new arrivals
- **Dose to the heaviest**
- **Treat all sheep**



Image courtesy of Angus Campbell

Fly-strike – without mulesing

- Management of un-mulesed sheep
 - Greater reliance on chemicals
 - ↑'d dag and stain
 - Additional labour
 - 40-50% longer to crutch vs mulesed
- Clips intermediate between mulesed and un-mulesed
 - ↓'d dag and wrinkle
 - However, additional protection against breech strike still required – chemicals
- Intradermals



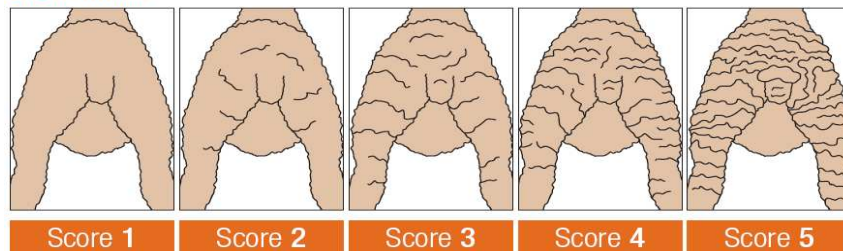
The Australian blowfly
(*Lucilia cuprina*)

Image from Making More From Sheep – module 11

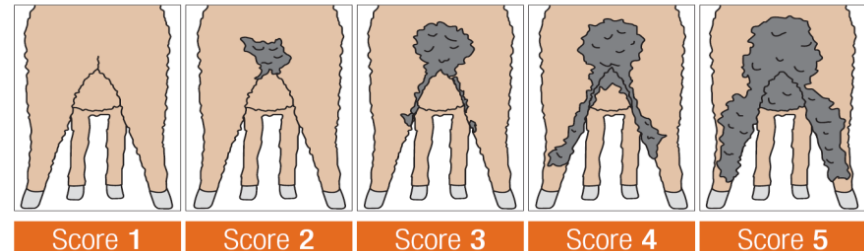
Fly-strike – Long term management = Genetics

- Aim to ↓ breech wrinkle, dags and WEC
- Gains are cumulative but slow
 - ↓ breech wrinkle by 0.8 of a score over 10 years
- Include in your selection criteria
- Consider economically important traits i.e. fleece weight, fibre diameter, meat characteristics

Breech Wrinkle



Dag



Images from Visual Sheep Scores booklet – AWI/MLA

Lice

- 70% of infections are due to failures of eradication
- **Eradication is possible**
 - Effective chemical
 - Avenge, Assassin vs IGR's
 - Correct application
 - Keep strays out
 - Muster all sheep
 - Quarantine new arrivals



Image from Making More From Sheep – module 11

Weaner mortality

Poor ewe management
Inadequate protein/energy
Trace element deficiency
Worm burdens



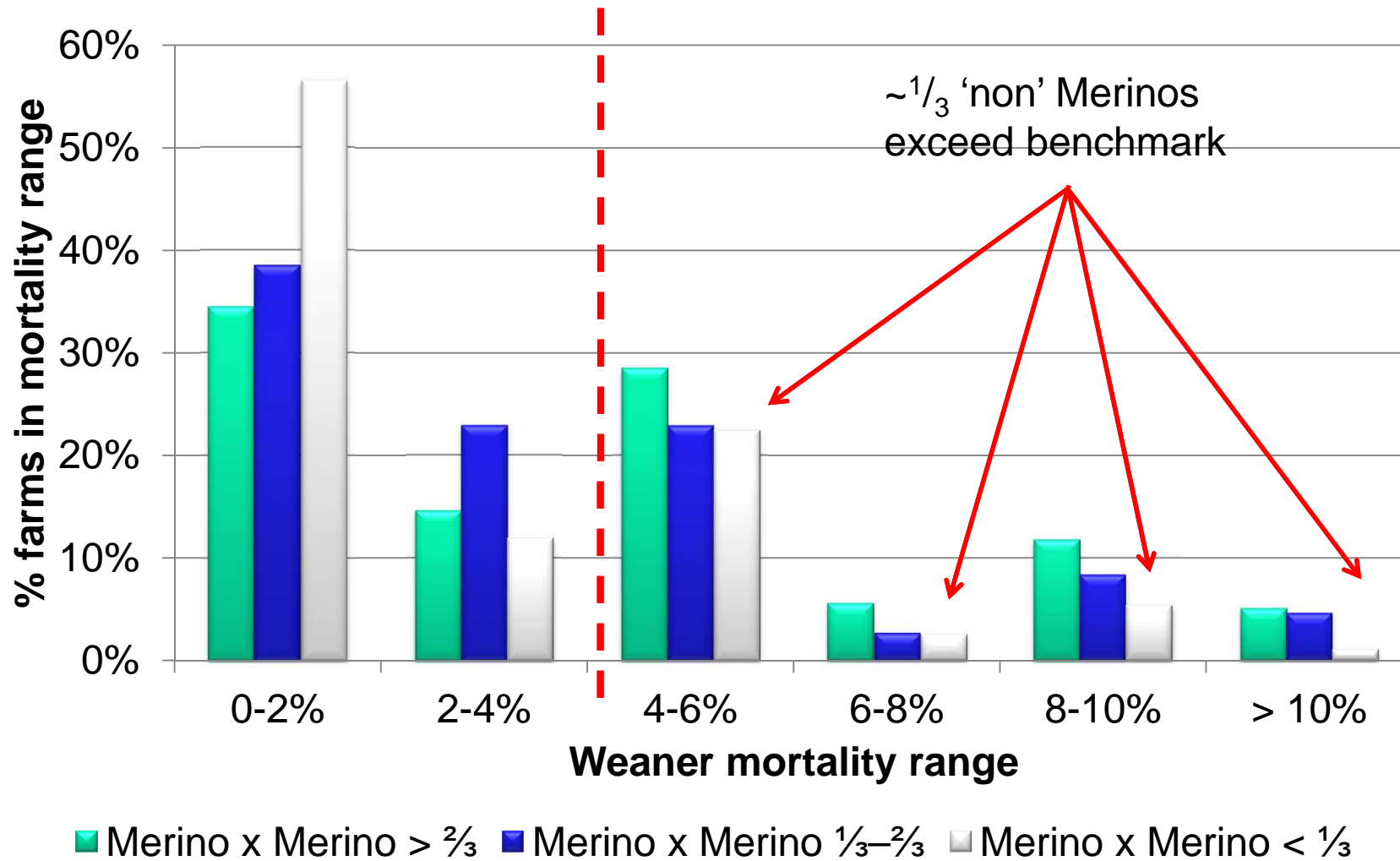
Weaner illthrift



↑'d susceptibility
to other disease

- Target survival >96%





Weaner mortality

- Poor ewe nutrition
- Over growth of summer feed – poor quality
- Grass seed infestations
- Extra attention needed



Targets for weaner survival

- Wean lambs at 12-14 weeks
- Bodyweight at weaning (**45% of adult weight**)
- Growth rate after weaning more important than Bwt per se*
 - **Aim for a growth rate of 1 kg/month**

* Campbell et al (2009)

Biosecurity – keep diseases out

- Drench resistant worms
- Lice
- OJD
- Footrot
- Ovine brucellosis

- Request an animal health statement
- Examine sheep and get history
- Drench with a triple combination drench or Zolvix
- Quarantine/footbath new arrivals until after spring

NATIONAL SHEEP HEALTH STATEMENT

(Version 2 - May 2009)

Attached to accompanying NVD/Waybill No.

SECTION 1 – CONSIGNMENT INFORMATION

Owner of sheep:

Property/place where the journey commenced (full address): State:

Property Identification Code (PIC) of this property:

Number	Year born (month, if known)	Description (ie. Breed, sex and type)	Identification (eg. PIC/brand or ear tag if different to above)

Please attach a list if more information is required.

SECTION 2 – OVINE JOHNE'S DISEASE (OJD)

1. This consignment has an ABC score of. (refer and complete overleaf)

Category A - Category B - Category C - Category D = TOTAL ABC SCORE
(Attr. flock credits) (Test credits) (Vaccine credits) (Cred. low risk credits)

2. Were all these consigned sheep born on the above property? Yes No
 If no, date introduced: ABC score at time of introduction: (if known)

3. Have sheep of a lower ABC score than the consigned sheep been introduced into the flock in the last 2 years? Yes No
 If yes, what is the lowest ABC score of introductions?

4. How many different sources of sheep have been introduced to the consignee's property in last 2 years? None 1-5 6- Rams only

5. Are any of the sheep in this consignment terminal 'T' tag lambs? Yes No

6. Are these consigned sheep from a SheepMAP flock? Yes No
 Status: Expiry date:

SECTION 3 – FOOTROT

7. Have the sheep in this consignment been observed for, and any suspect sheep examined for, signs of FOOTROT during the past 14 days? Yes No

8. To the best of your knowledge, are the sheep in this consignment free of VIRULENT FOOTROT? Yes No

9. To the best of your knowledge, are all sheep and goats on the consignee's property free from VIRULENT FOOTROT? Yes No

SECTION 4 – OTHER HEALTH INFORMATION

10. Is the flock accredited under a government administered OVINE BRUCELLOSIS accreditation scheme? Yes No
 Flock Accreditation No.:
 Expiry Date:

11. Has there been any evidence of sheep LICE at, or since, the last shearing? Yes No
 Date of last shearing (if known):

12. Treatments:

Product	Date of last treatment
External Parasite Treatment
Drench
Vaccination other than OJD
Other

SECTION 5 - DECLARATION

As the owner and/or person responsible for the husbandry of the sheep in this consignment, I declare that the information in this statement is true and correct.

Signed: Date:

Name (print):

Contact phone:

Persons making false statements may be liable under fair trading and other relevant state legislation.

Current health issues

- High worm burdens
- Facial eczema
 - Occurs Feb to May – major outbreak this year
 - Lingering effects now



Image courtesy of Angus Campbell

Further information

- Making More From Sheep
 - Module 11 Healthy and contented sheep

- Wormboss
- Flyboss
- Liceboss
- MLA and AWI websites
- Your network of advisers



Take home messages

- Worms – don't rely on chemicals alone and do a WECRT
- Flies – management plus genetics
- Lice - effective chemical/application
- Weaner survival – know your targets
- Biosecurity – Quarantine

