

AN INITIATIVE OF  
*Making More From Sheep*



## Wean More Lambs

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EVENT  
PARTNERS:



EVENT  
SUPPORTERS:



STATE  
PRIMARY  
INDUSTRY  
AGENCIES

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## The most profitable systems

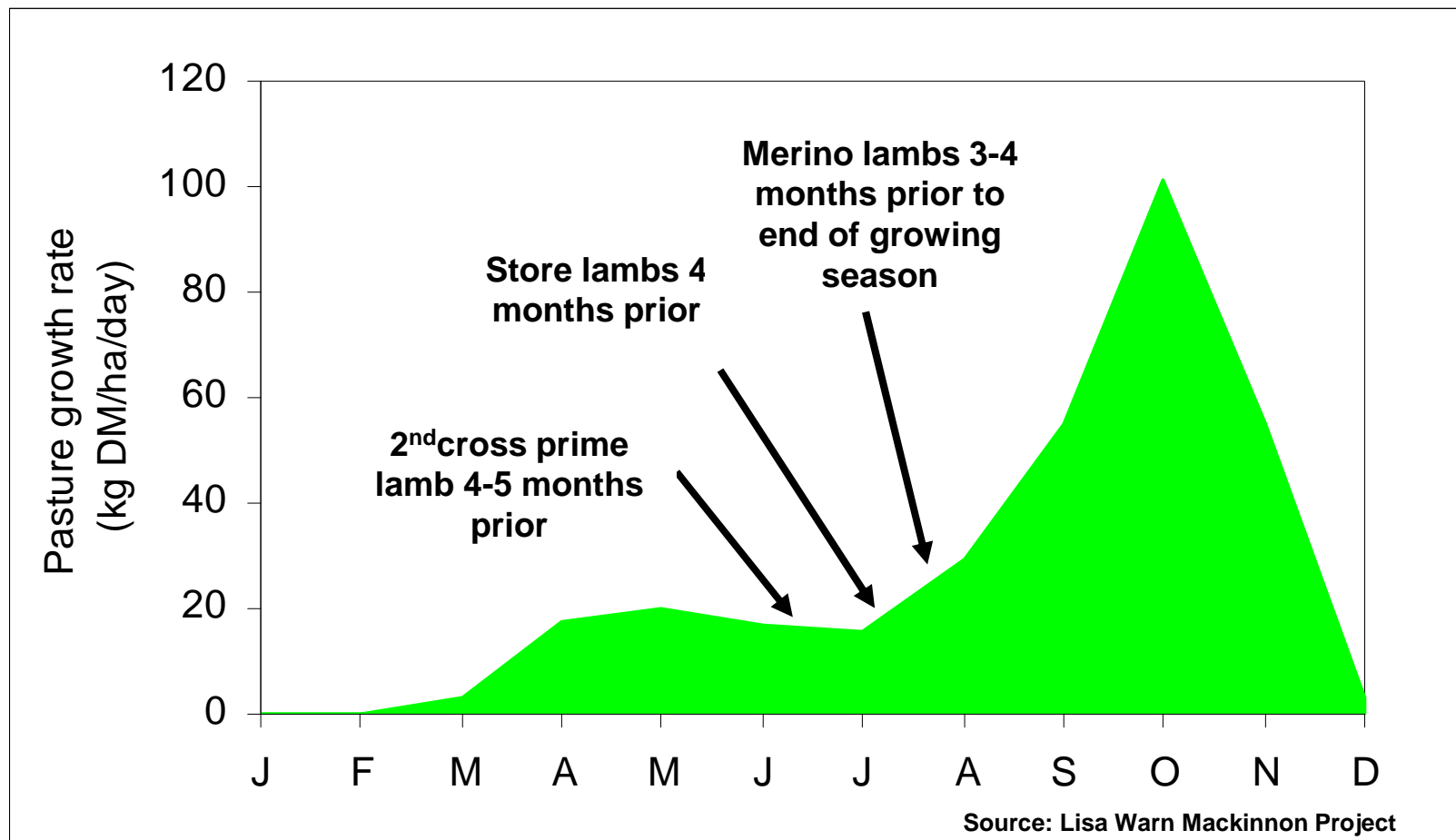
- Match feed supply and feed demand
  - Allow higher stocking rates but minimise supplementary feeding
  - Focus on profit drivers
    - Meat and wool per hectare not just price premiums
-

# Management first!

- **Stocking rate is most important**
  - Benefit of increasing lambing % greatest if understocked
  - If fully stocked may need to reduce number of sheep run
- **Management system is a combination of factors**
  - Balance number of ewes per ha
  - Reproductive rate
  - Lamb growth rate
  - Sale prices
  - Age structure

# Get the enterprise right

- Time of lambing



# Issues to consider when increasing reproductive performance

- Management skill and risk
- Investment timeframe
- Penalties of increasing fertility
  - Lower lamb wt
  - Wool production
  - Metabolic issues
- Alternative use of funds
  - Stock, pasture, fertiliser.....



## Opportunity: Lifetime reproductive performance

Component of reproduction	Ewes ranked on lifetime reproduction rate			
	Lowest 25%	2 <sup>nd</sup> quartile	3 <sup>rd</sup> quartile	Highest 25%
Ewe fertility	55%	78%	88%	95%
Litter size	1.28	1.34	1.42	1.64
<b>Lamb survival</b>	<b>47%</b>	<b>74%</b>	<b>83%</b>	<b>90%</b>
<b>Lambs weaned per ewe joined</b>	<b>0.30</b>	<b>0.72</b>	<b>1.00</b>	<b>1.39</b>

Source: Chris Shands NSW PI

- Highest 25%            - 400 kg lw/ha
- Lowest 25%            - 104 kg lw/ha

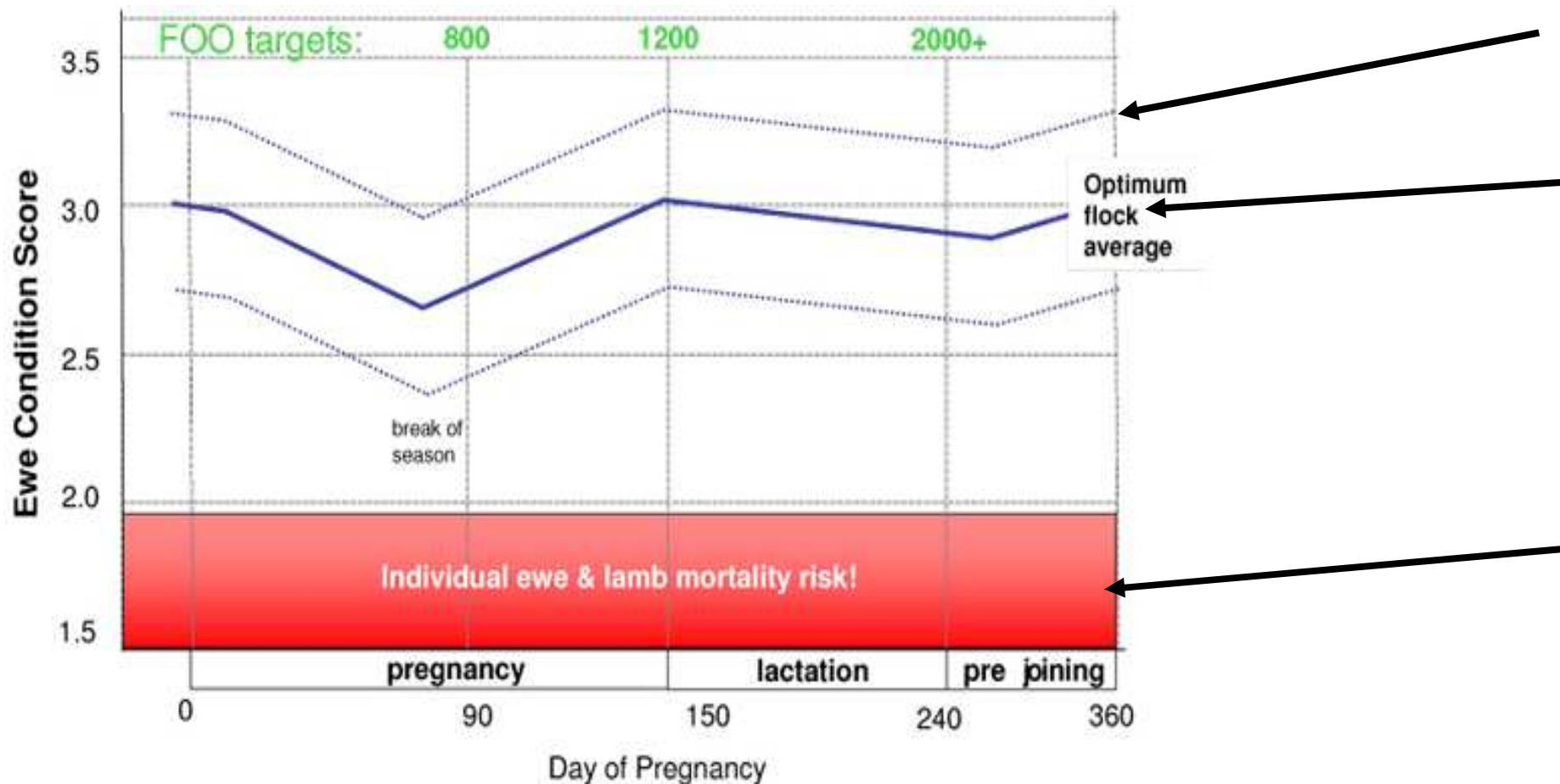


## What can you do to wean more lambs?

- Improve pregnancy rates ✓
- Improve conception rates ✓
- Reduce foetal loss?
- Improve lamb survival ✓
- Increase weaner survival ✓



# Nutrition – Management starts at weaning!



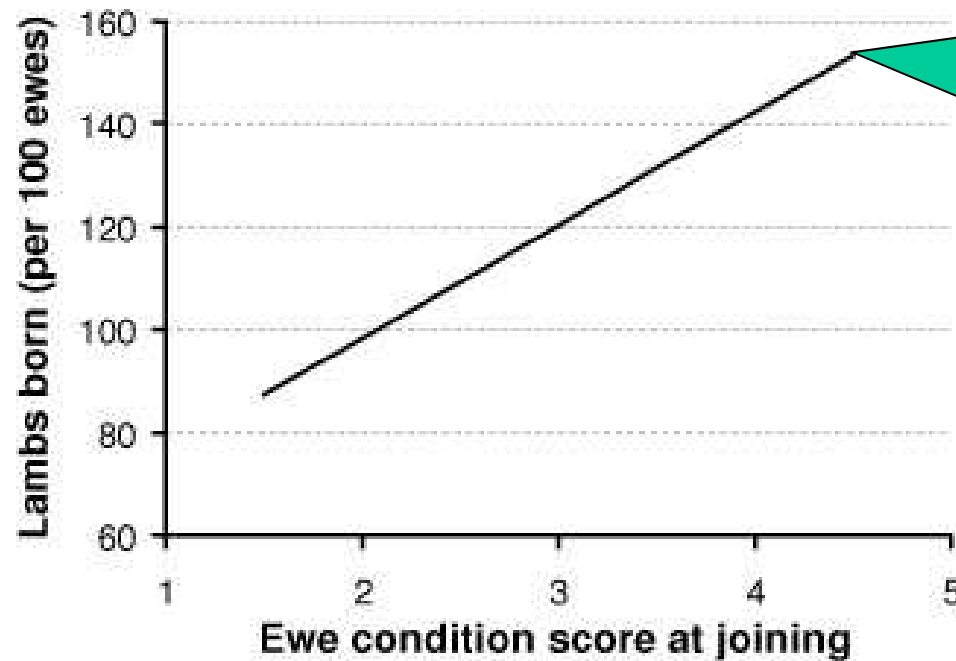


# Improving conception rates

- **All about nutrition**
  - “Static” ewe body weight
  - “Dynamic” short term flushing
- **Genetics**
  - Breed & genotype
- **Time of mating**
- **Manipulation of reproduction**



## Ewe condition score at joining and number of lambs born



20 extra lambs born for 1 CS

## Variable response of reproduction rate (foetus/100 ewes) to ewe condition score at different locations

Location	Low CS <2.7	High CS >3.3	Extra foetuses
Skipton	112	164	+52
Ararat	124	149	+25
Edenhope	78	106	+28
Edenhope	110	130	+20
Ararat	132	147	+15
Dunkeld	92	103	+11

Source: [www.lifetimewool.com.au](http://www.lifetimewool.com.au)

- Differences due to genetics and environment

# Ewe nutrition

- To prevent 1 kg wt loss ~ 3 kg grain
- To increase 1 kg bodyweight ~ 7 kg grain
- Response to ewe body weight at joining
  - 1 kg ewe weight change = CR by 2.5% (1.5% live lambs)
- Response to ewe body weight at lambing
  - 1 kg ewe weight change = 1.1% singles 1.6% twins



## Feeding to maintain weight will pay Feeding to increase weight will not pay

Management	Margin/ 100 ewes	Return on investment
Maintain 1 kg LW at joining	\$43.50	73%
Increase 1 kg LW at joining	-\$24.50	-ve
Maintain 1 kg LW in pregnancy	\$23.50	42%
Increase 1 kg LW in pregnancy	-\$44.50	-ve

Source: Mackinnon Project



# Flushing

- **Highly variable response (-ve to +50%)**
- **Quality green feed**
  - 3 weeks in period prior to mating

**OR**

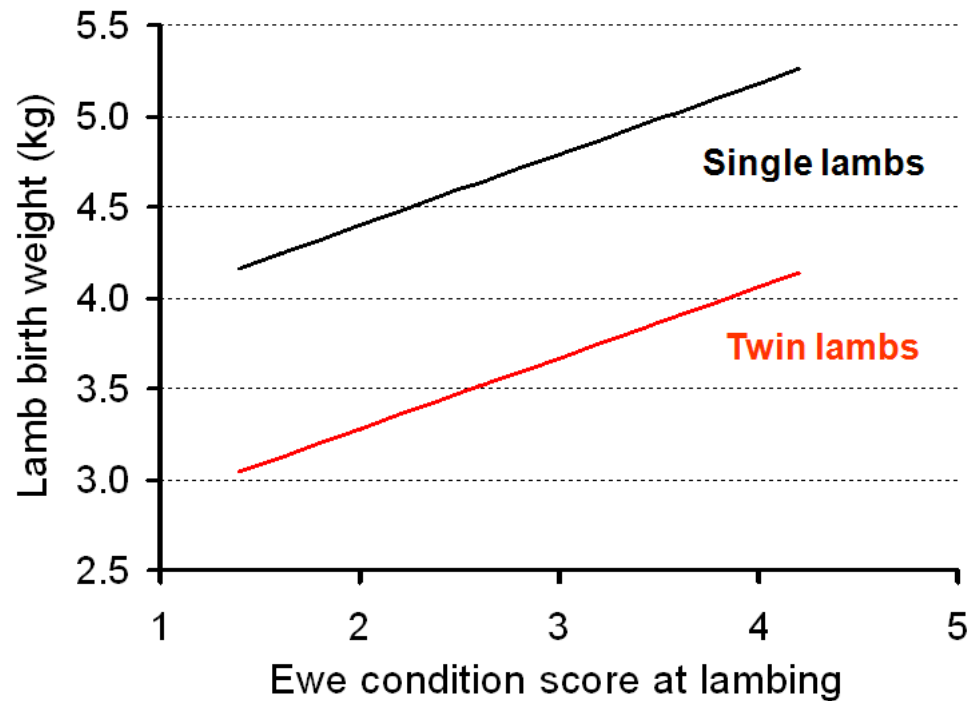
- **High protein (Lupins 0.5kg/day for 6 days)**
- **Use common sense**



# 1 Condition score in ewes ~ 0.5 kg birth weight

**lifetimewool**  
more lambs, better wool, healthy ewes

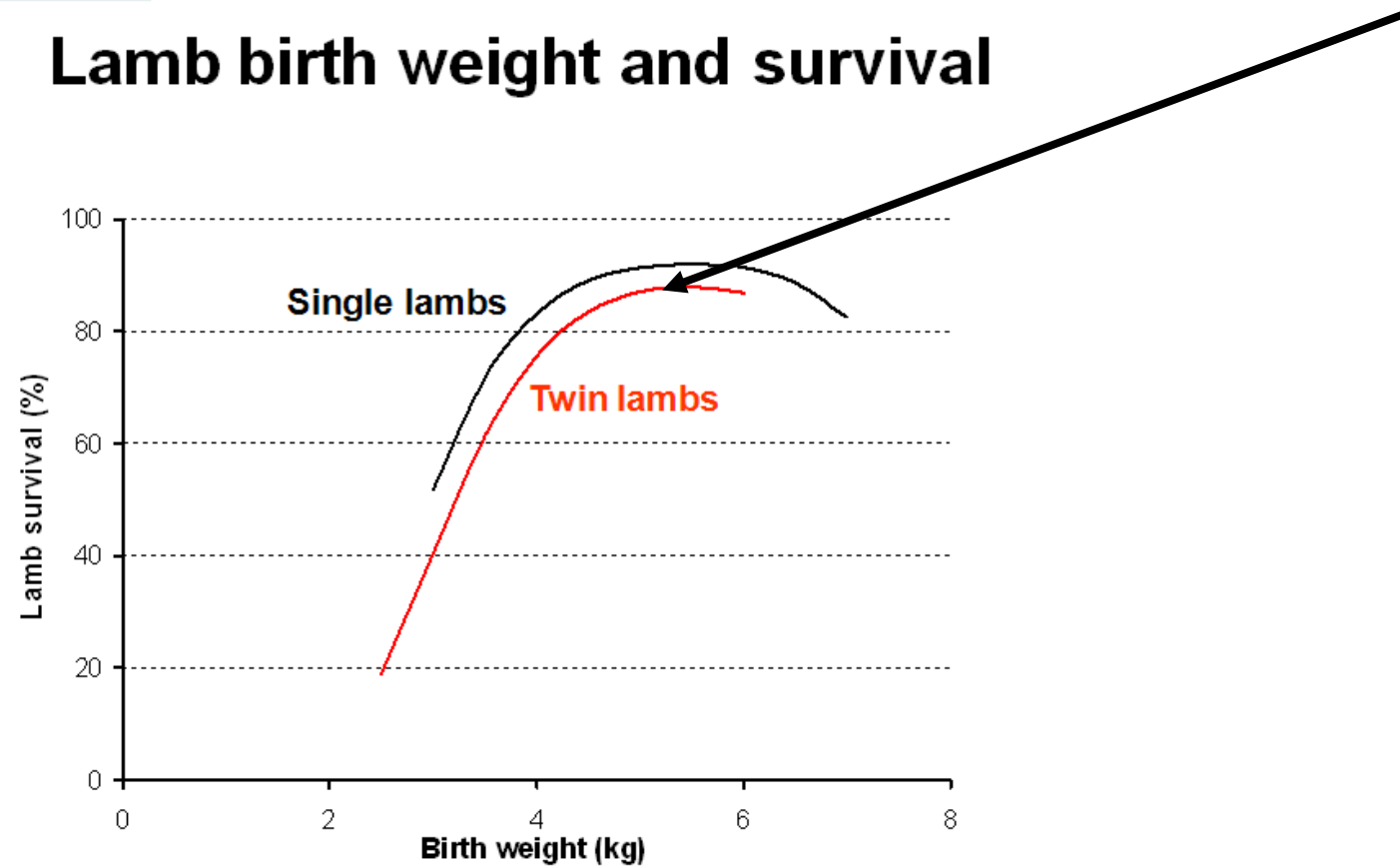
## Ewes in better condition at lambing have heavier lambs



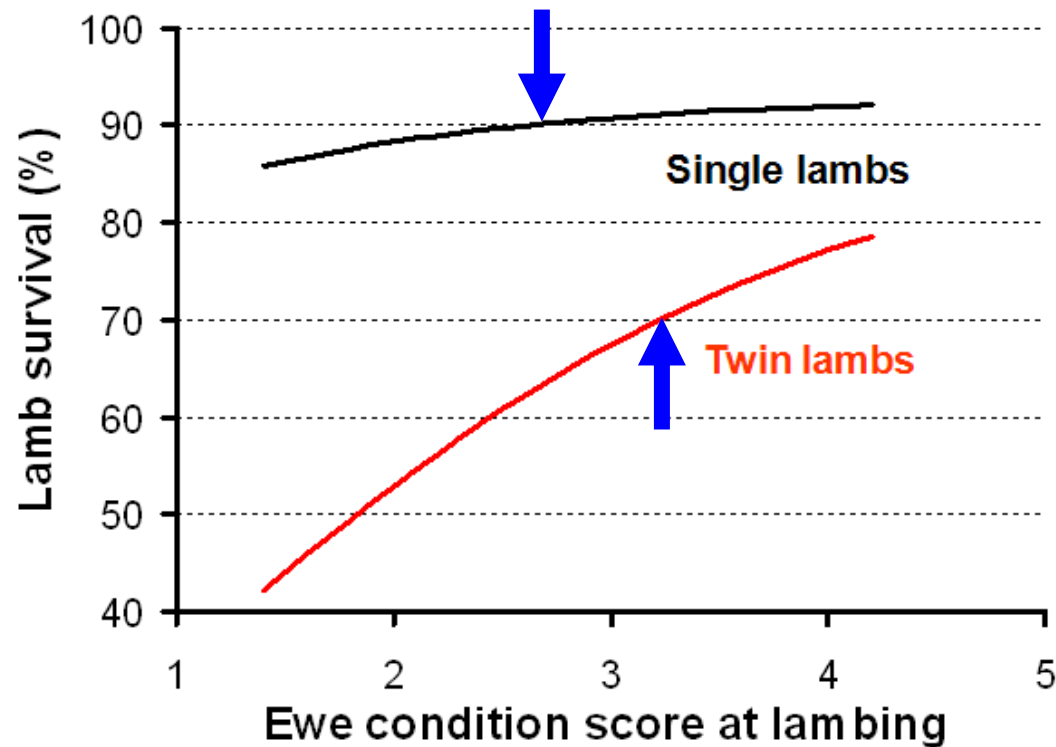
# Optimum birth weight 4.5-5.5 kg

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more lambs, better wool, healthy ewes

## Lamb birth weight and survival



## Ewe condition score at lambing and lamb survival



## Increasing lamb survival within 48 hours of birth

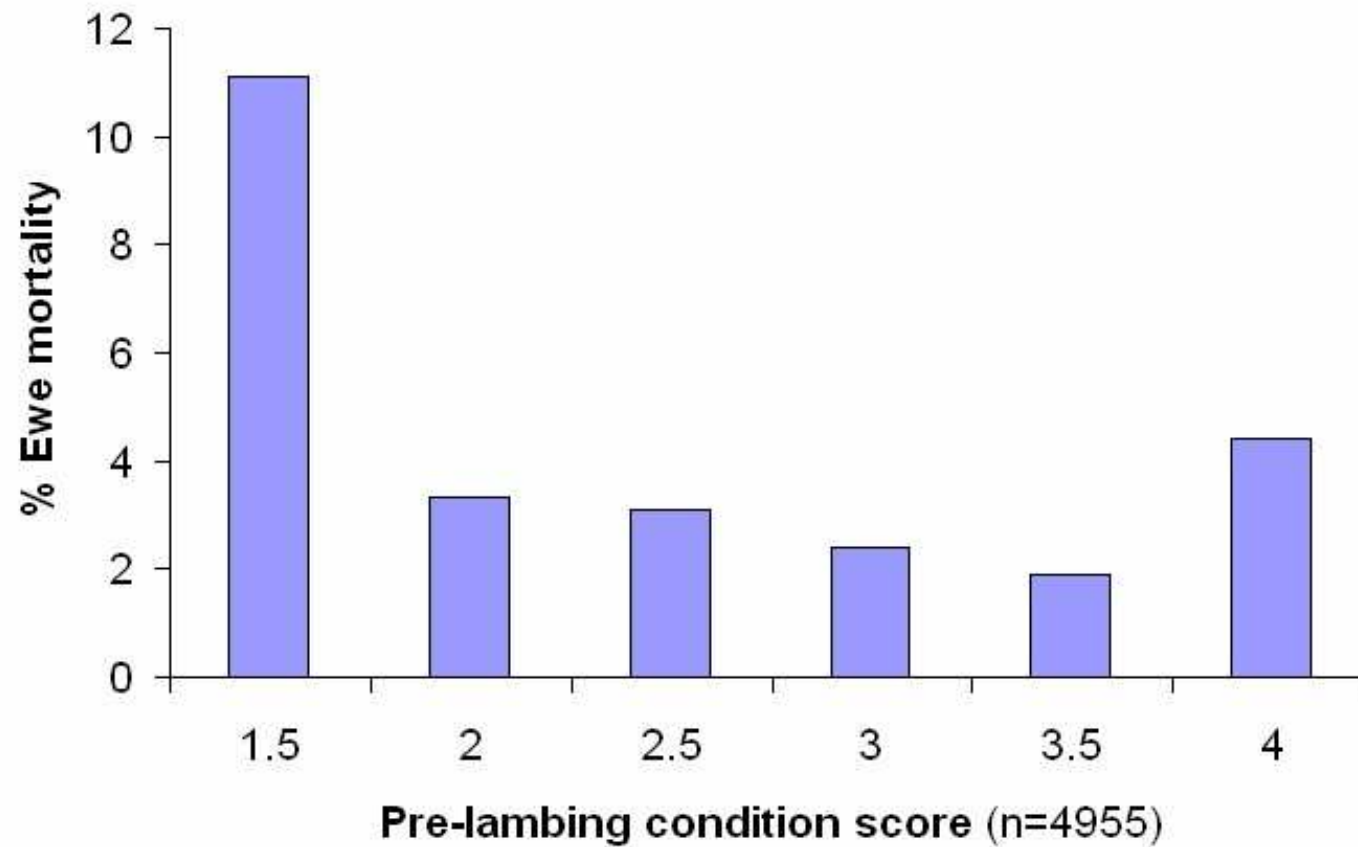
- Most losses due to starvation, mismothering, hypothermia
- Predation generally less than 10% of total
- Dystocia can be important
- Aim for
  - 90% survival of singles
  - 70% survival of twins



# Managing ewes during pregnancy

- **Set condition score targets and monitor**
  - Single bearing ewes CS 2.8-3.0 at lambing
  - Twin bearing ewes CS 3.0-3.3 at lambing
- **Allocate appropriate pasture and monitor**
  - Single bearing ewes FOO 800 kg DM/ha day 90
  - Single bearing ewes FOO 1200 kg DM/ha at lambing
  - Twin bearing ewes FOO 1800 kg DM/ha at lambing
- **High risk ewes**
  - Singles ewes < CS 2.0 or > CS 4.0 @ lambing
  - Twin ewes < CS 2.5 @ lambing

# Light and heavy ewes at risk



## If scanning - Use the information!

- Dry ewes: rejoin?, sell or retain
- Retain best performers for longer and run less maidens – depends on flock structure
- Manage twin lambing ewes separately!



# Manage twin lambing ewes separately

- Allocate feed resources
- Mob size: < **250/mob** smaller better
- Predation control
- Shelter
  - Twins 8.5% and singles 3.5% increase in survival
  - Benefit exists for 10 times the height from plantation
  - Avoid high risk paddocks



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## After lambing

- Short lambing period (35 days) is essential for effective management
- Weaning time
  - 12-14 weeks for merinos ALWAYS
  - Crossbreds depends on allocation of feed resources
  - Early weaning locks in high conception rates next year
- Weaner management
  - Weaning paddocks
  - Merino weaners that grow over 1 kg/month survive



## Sign Posts

- Making More From Sheep
  - Module 10 Wean More Lambs
- Websites
  - MLA, Lifetimewool, Evergraze, AWI, Sheep CRC

- Workshops
  - RIST & Sheep CRC



## Sign Posts

- **High performance weaner workshops**
- **Lifetime ewe management workshops**
  - Improve ewe reproductive performance and profitability
  - Six sessions: small groups (5) on farm
  - Hands on training to improve skills; condition scoring, pasture assessment and managing ewes
- **Managing scanned ewe workshops**
- **Using eID for sheep management and breeding**
- **Contact RIST/Sheep CRC for more information**

## Summary

- Get the enterprise and management system right
  - Then improve reproductive performance
- Know nutritional targets and monitor
  - Pasture availability and Condition Score targets
- Allocate resources to twins and singles
- Most important decisions require management and minimal extra investment