Wean more lambs

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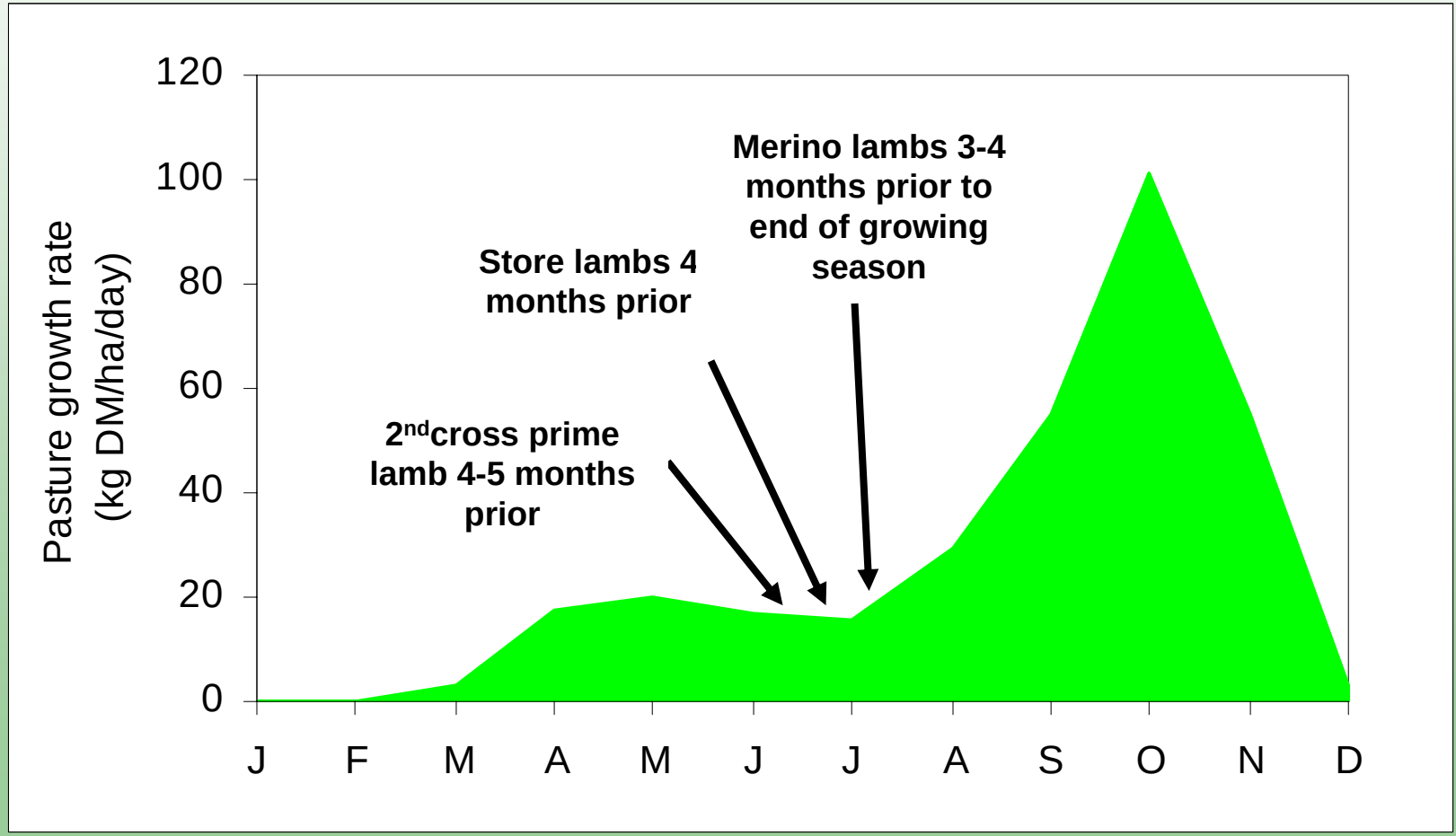
Management before reproductive performance

- **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

- Time before return on investment
- Management skill and risk
- Penalties of increasing fertility
  - Lower lamb wt
  - Lower wool production (singles less 12.5%, twins 16.5%)
  - Metabolic issues
- Consider alternative use of funds
  - Stock, pasture, fertiliser……

Opportunity: Lifetime reproductive performance

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

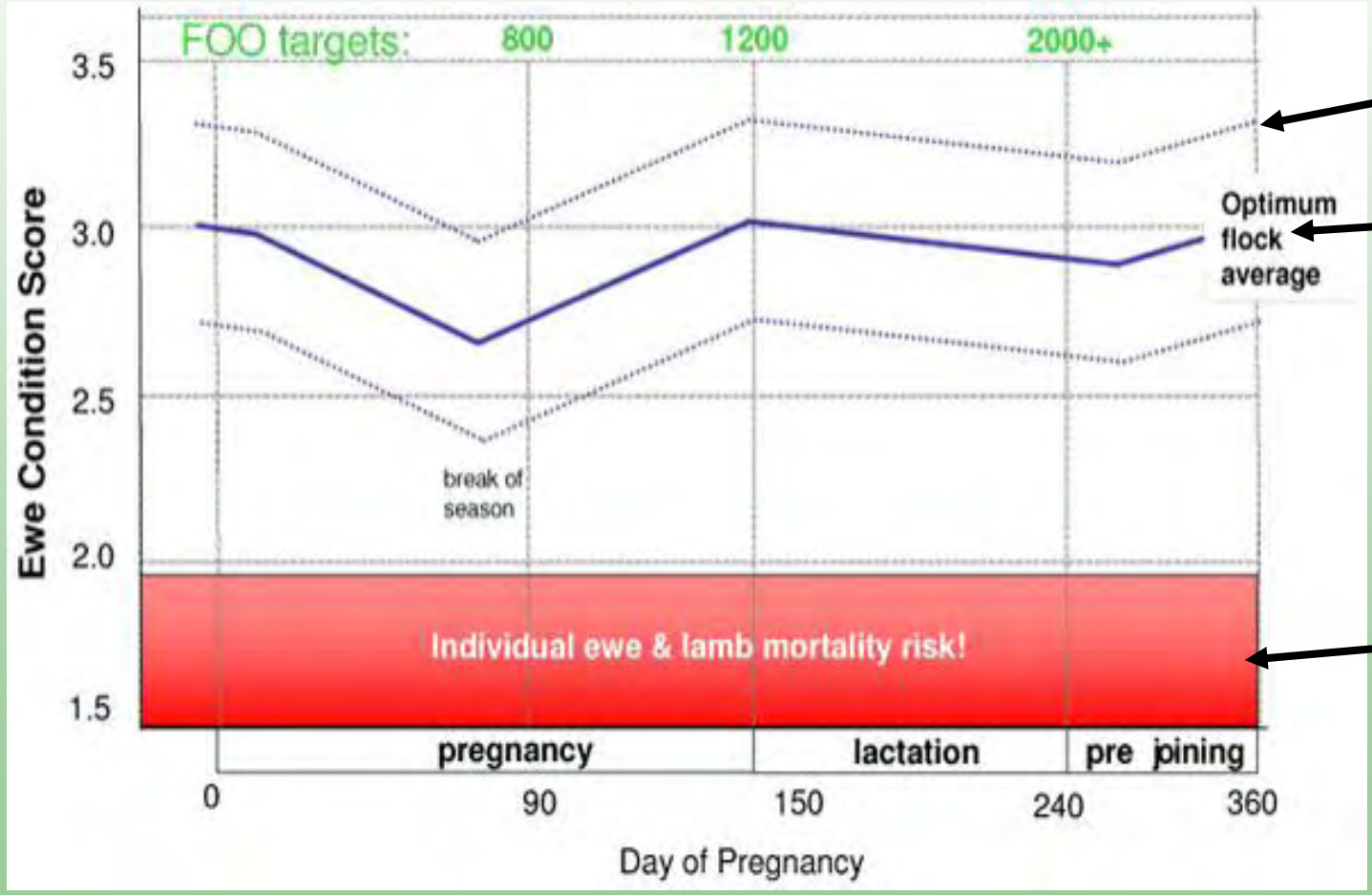
Source: Chris Shands NSW I&I

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

What can you do to wean more lambs?

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

Ewe 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 with drugs**

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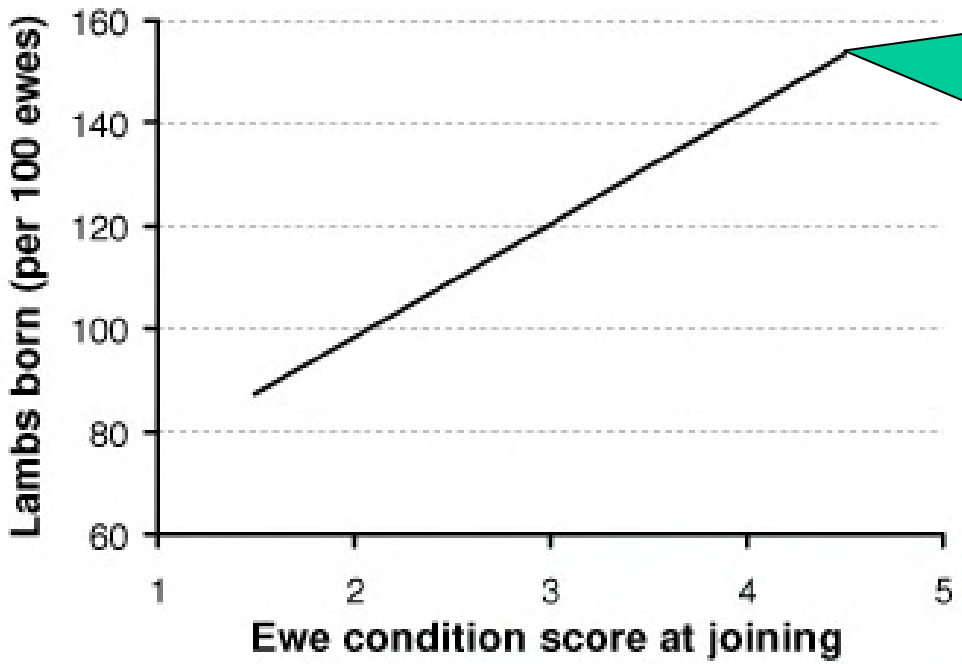
more lambs, better wool, healthy ewes

LTEM 2.1

Ewe condition score at joining and number of lambs born



20 extra lambs born for 1 CS

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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

- Genetic diffierence are enormous ASBV's for NLW

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

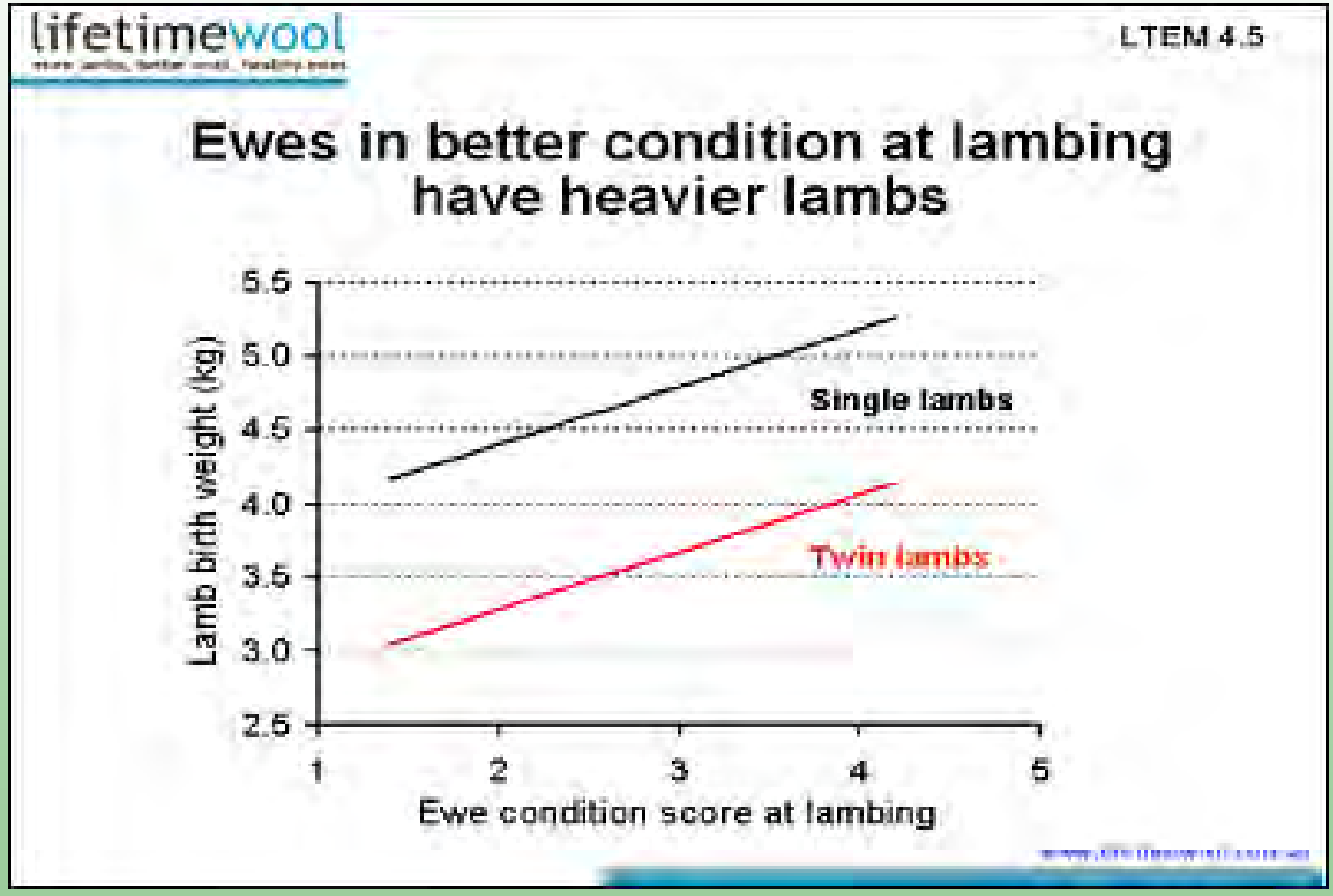
Flushing

- **Highly variable response (-ve to +50%)**
  - Ovulation rate doesn't translate to extra lambs
- **Quality green feed**
  - (3 weeks in period prior to mating)

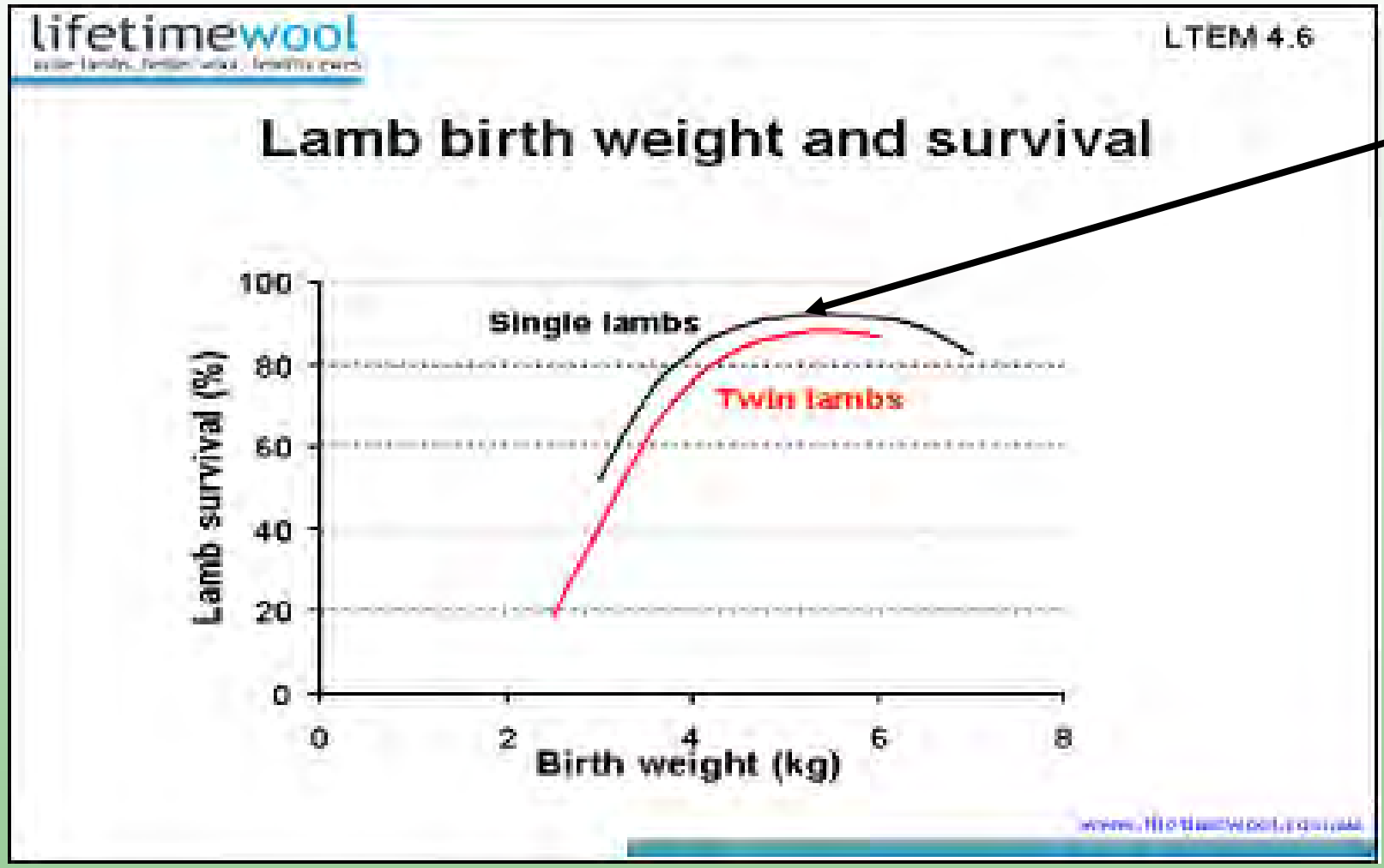
OR

- **High protein** (Lupins 0.5kg/day for 6 days)
  - Timing critical 5-8 days before ovulation
  - Better for synchronisation?
- **Use common sense**
  - If you have it use it!

1 Condition score in ewes ~ 0.5 kg birth weight



Optimum birth weight 4.5-5.5 kg



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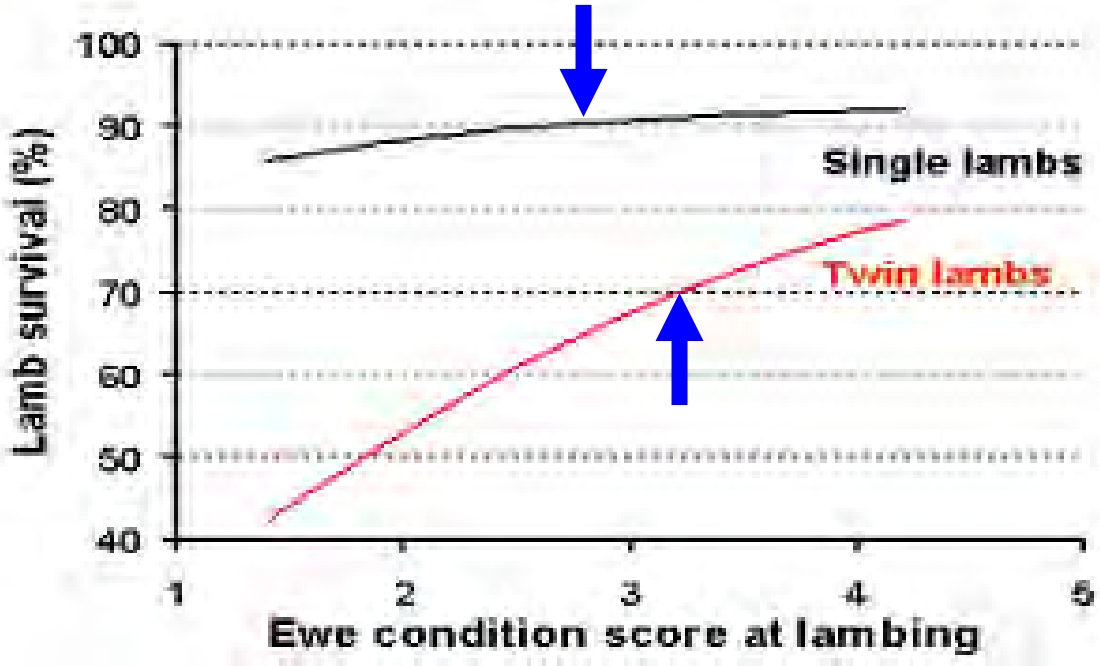
LTEM 4.7

Ewe condition score at lambing and lamb survival



Most lamb deaths within 48 hours of birth

- Starvation, mismothering, hypothermia majority
- Predation generally less than 10% of total
- Dystocia can be important

- Aim for
  - 90% survival of singles
  - 70% survival of twins

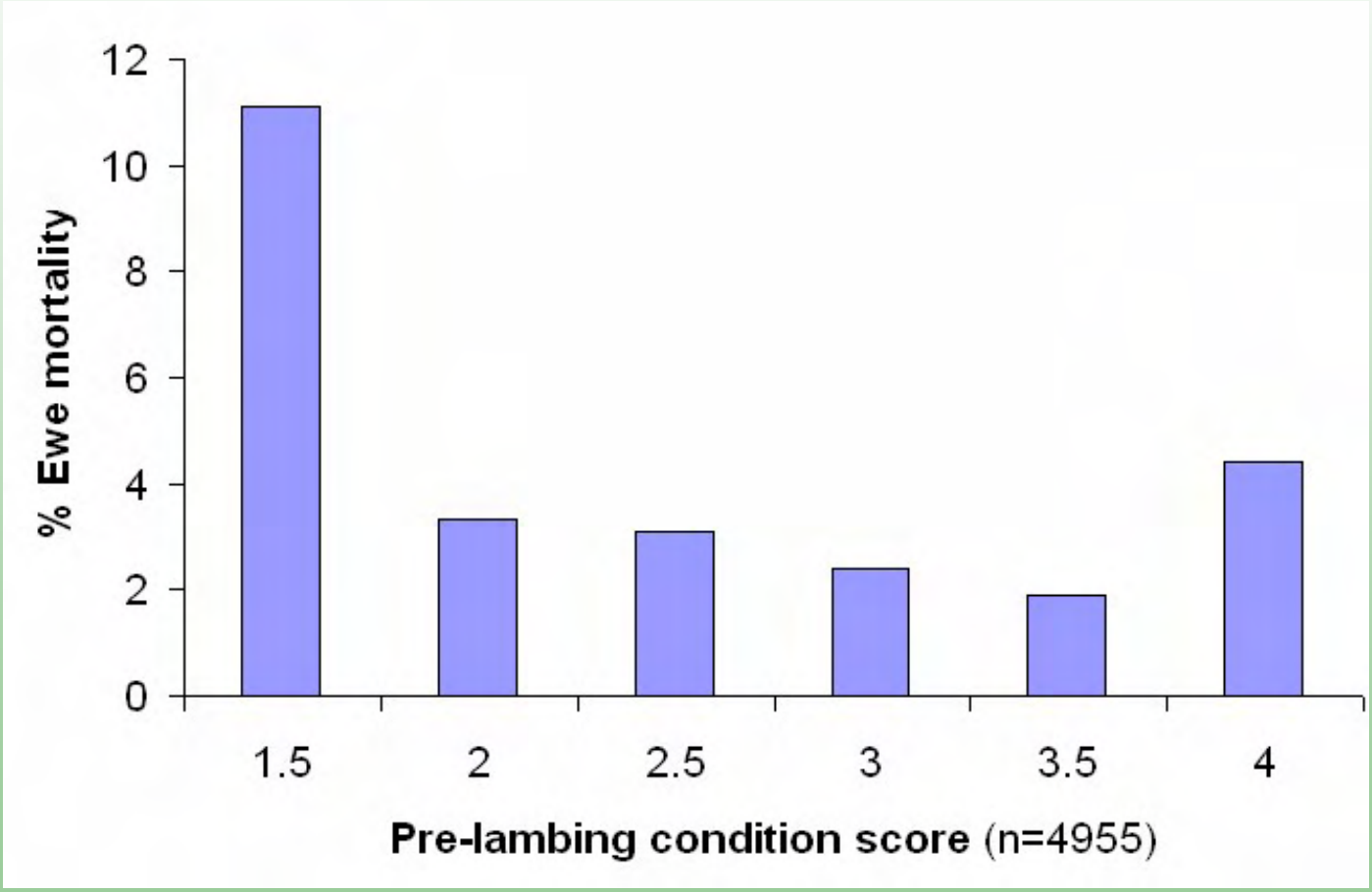
Managing ewes during pregnancy

- **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 900 kg DM/ha (FOO 1200 kg DM/ha)
  - Twin bearing ewes 1400 kg DM/ha (FOO 1800 kg DM/ha)

- **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
- Manage twin lambing ewes separately!

Manage twin lambing ewes separately

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

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After lambing

- Short joining 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
  - Weaners that grow over 1 kg/month survive

Sign Posts

- Making More From Sheep
  - Module 10 Wean More Lambs
- Sheep CRC
  - Managing Scanned Ewes Workshops
  - Lifetime Ewe Management
  - High Performance Weaners'
- NSW I&I Profarm courses
  - Wean More Lambs
- Websites: MLA, NSW I&I, lifetimewool

Summary

- Get the enterprise and management system right first before trying to boost 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