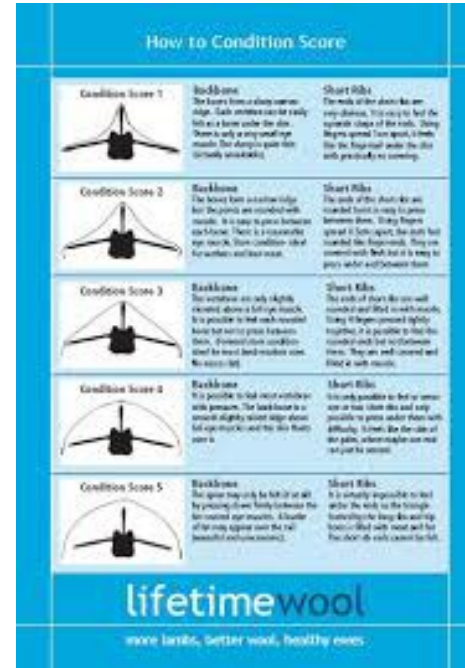**For the latest in red meat R&D**

Introduction

- *Sheep Data Management* established 2014
- Servicing stud and commercial sheep producers across the country
  - Data collection on-farm
  - EID data collation and analysis
  - Sheep Genetics service provision
  - Breeding program design and animal selection
  - Software help and support
  - EID equipment hire

Value of condition scoring

- <u>WHY? Productivity and welfare benefits</u>
  - Higher scanning rates
  - Higher lamb survival
  - Lower ewe mortality
  - Increased weaning percentages
  - Higher lamb weaning weights
  - Better reproductive rates next year

Better ewe condition = more lambs

Source: Lifetime Wool

Better ewe condition = heavier lambs

Source: Lifetime Wool

Heavier lambs = higher survival*

*This data is based on Merino research
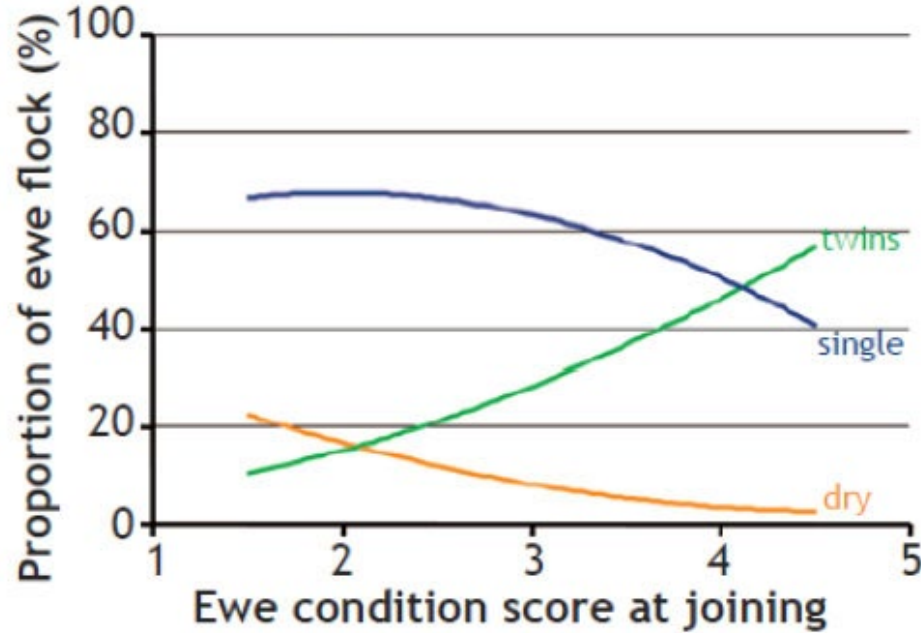
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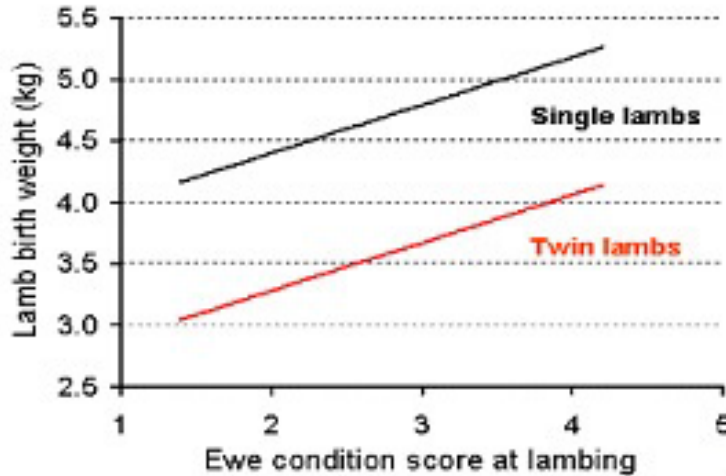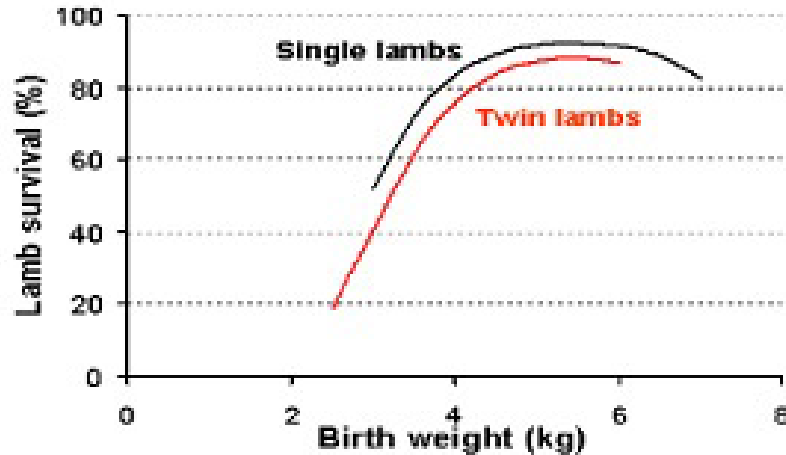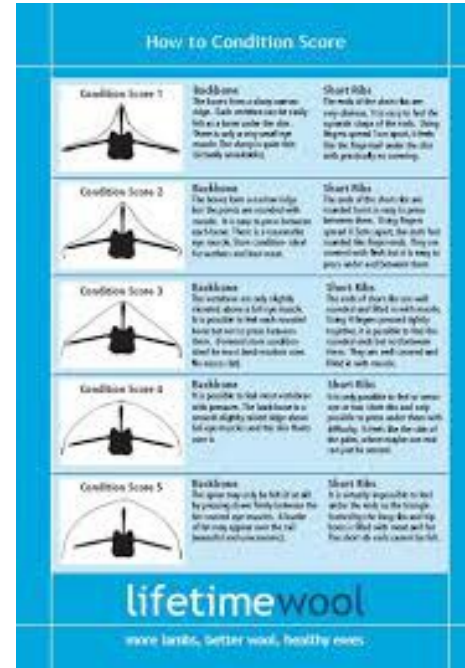 - Better reproductive rates next year

- HOW? Targeted nutritional management

Condition score (CS) targets

- Condition scoring at key timepoints in the reproductive cycle enables you to more effectively manage the nutrition of your ewes to achieve higher reproductive rates and reduce ewe mortality

	Merino*	Maternal*
Joining	3	3.2
Lambing - singles	3	2.7-3
Lambing - twins	3.3	3.2-3.5

Note that individual flock targets may differ slightly depending on your genetics

Key timepoints for condition scoring

1. Post-weaning
   - Prioritise available paddock feed to lighter condition ewes

2. Pre-joining
   - Final opportunity to intervene and supplementary feed ewes in lighter condition to achieve their joining CS targets

3. Mid-pregnancy
   - Option to separately manage single and twin-bearing ewes to achieve their lambing CS targets

Value of pregnancy scanning

- Targeted nutritional management of single- and twin-bearing ewes
  - Improve your chances of meeting condition score targets for lambing
  - Prioritise paddock feed or supplements to twin-bearing ewes

Lifetime Wool feed budget tables

Table 1a.	Energy required by Ewes @ Condition Score 3 to maintain weight							
	Maintenance energy (MJ/d) for ewes under drought paddock conditions						Confinement Fed	
Day of pregnancy	small frame (45 kg) maintain @ CS 3		medium frame (50 kg) maintain @ CS 3		large frame (60 kg) maintain @ CS 3		medium frame maintain @ CS 3	
	Single	Twin	Single	Twin	Single	Twin	Single	Twin
dry	7.4	7.4	8.0	8.0	9.3	9.3	6.7	6.7
50	7.6	7.8	8.4	8.6	9.7	9.9	7.0	7.2
70	8.0	8.4	8.7	9.1	10.1	10.7	7.4	7.9
100	9.0	10.2	9.9	11.1	11.5	12.9	8.6	9.8
130	11.3	14.1	12.3	15.4	14.4	17.7	10.9	14.1
Days lactating	maintain @ CS 3		maintain @ CS 3		maintain @ CS 3		Ewes and lambs	
	Single	Twin	Single	Twin	Single	Twin		
10	17.3	21.7	18.7	23.4	21.5	26.9	ask for advice on confinement feeding ewes and lambs	
30	18.7	23.9	20.2	25.8	23.2	29.6		
50	15.5	19.1	16.7	20.6	19.2	23.7		

Source: Lifetime Wool

Value of pregnancy scanning

- Targeted nutritional management of single- and twin-bearing ewes
  - Improve your chances of meeting CS targets for lambing
  - Prioritise paddock feed or supplements to twin-bearing ewes
- Appropriate lambing paddock allocation and mob size for twin-bearing ewes
  - Improve privacy and shelter, reduce lambing density and increase pasture availability
- Improved marketing opportunities
  - Known pregnancy status on AuctionsPlus may attract a premium
- Selection/classing opportunities
  - Keep the ewes that consistently scan/raise multiple lambs
  - Don't cull the skinny ewes without knowing how many lambs they raised!

Cost:benefit of scoring and scanning

- Something that comes up frequently but is largely unquantified
  - I haven't done any work on this in my business, as I am not an economist
  - Cost-benefit feedback from clients has been anecdotal in nature with comments such as "I saved $5000 on my feed bill as I was only feeding the twin-bearing ewes"

Producer case study: 2020 scanning results

- Pre-joining drafted off Maternal ewes under CS 3.2 and gave them another two weeks recovery/supplementation (a lot of these girls would have raised twins)

Mob	Count	Fertility	Repro rate	Increase
2017 heavy	777	97.9%	184.0%	
2017 light	239	99.6%	201.7%	17.6%*
2018 heavy	344	95.1%	174.7%	
2018 light	267	97.4%	186.9%	12.2%*

Imagine the lost opportunity if we had joined the lights with the main group… more dries and less multiples (likely among the more fertile ewes)

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- There are so many ways that eID can be utilised in a flock, and this adds to the complexity of trying to work out a return on investment

- See the link under "Tools and resources" to one recent (2019) report that was commissioned by MLA to quantify the cost-benefit of EID
  - It also incorporates pregnancy scanning into the enterprise models

Take home messages

1. Condition scoring and pregnancy scanning are two key tools that enable you to "measure to manage" – without knowing where your animals sit you cannot improve the outcome

2. Managing ewes to achieve target joining condition scores will drive a higher reproductive rate in your flock

3. Pregnancy scanning for multiple foetuses enables refined nutritional and lambing management to improve lamb survival and achieve high weaning percentages

Tools and resources

- Lifetime Wool
  - Resources for condition score targets for Merinos
  - http://www.lifetimewool.com.au/index.aspx
- Lifetime Maternals
  - Improved guidelines for managing non-Merino ewes
  - https://agriculture.vic.gov.au/support-and-resources/newsletters/sheep-notes-newsletter/sheep-notes-autumn-2020/targets-for-maternals
- Lifetime Ewe Management
  - Small group course over 12 months delivered by a professional facilitator
  - https://www.wool.com/people/education-and-leadership/lifetime-ewe-management/

Tools and resources

- Lifting Lamb Survival
  - MLA's Profitable Grazing Systems supported learning program
  - https://www.liftinglambsurvival.com.au/
- Maximising the value of eID technology for sheep producers
  - Results of a report for MLA modelling the cost-benefit of investing in eID to aid management and selection decisions across a range of commercial Merino and Maternal production systems
  - Average cost-benefit of implementing eID was $4.12 return per dollar invested
  - https://www.mla.com.au/research-and-development/reports/2019/maximising-the-value-of-eid-technology-for-sheep-producers/