

AN INITIATIVE OF
Making More From Sheep



Lifting Flock Reproduction and Survival

Tamworth NSW

Chris Shands PI NSW Glen Innes



Primary
Industries

EVENT
PARTNERS:



Ruralco
HOLDINGS LIMITED



EVENT
SUPPORTERS:



STATE
PRIMARY
INDUSTRY
AGENCIES

What are the issues?

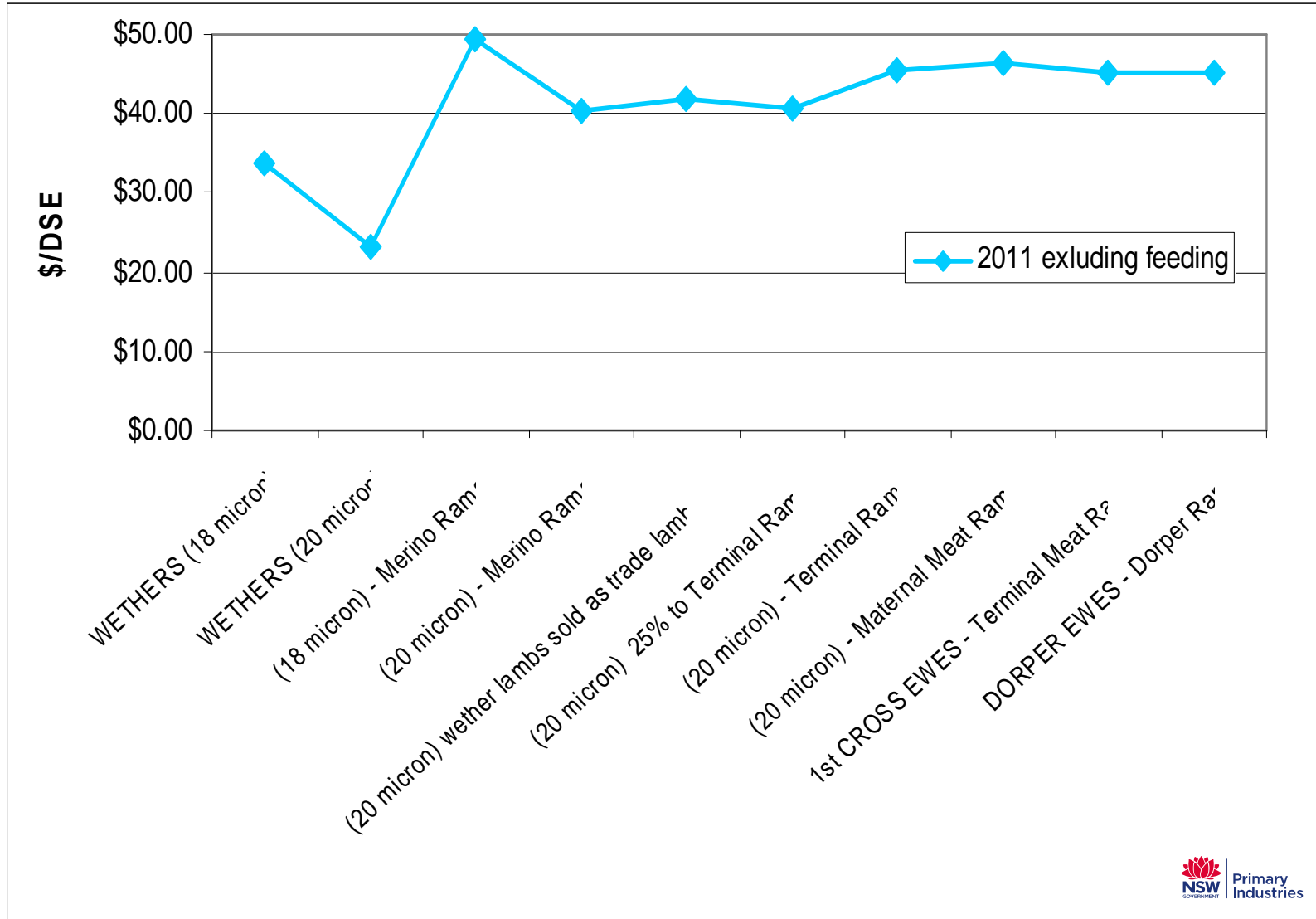
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- **Declining numbers of sheep available for breeding, slaughter and export**
 - **Maintain a 'critical flock size' for the industry to function**
 - **Declining pasture base due to drought**
-

Gross Margin Budgets: NSW Sheep Enterprises 2011

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What can you do?

- **Increase conception rates**

- Targeted nutrition and condition score-weaning to joining
- Genetics

- **Increase lamb survival**

- Targeted nutrition and CS* during late pregnancy
- Improved pasture utilisation
- ***Pregnancy scanning***
- Select the best performing ewes

- **Increase weaner survival**

- Increase weaner weight
- Target a post weaning Growth rate e.g 1kg gain/ month
- Weaner health

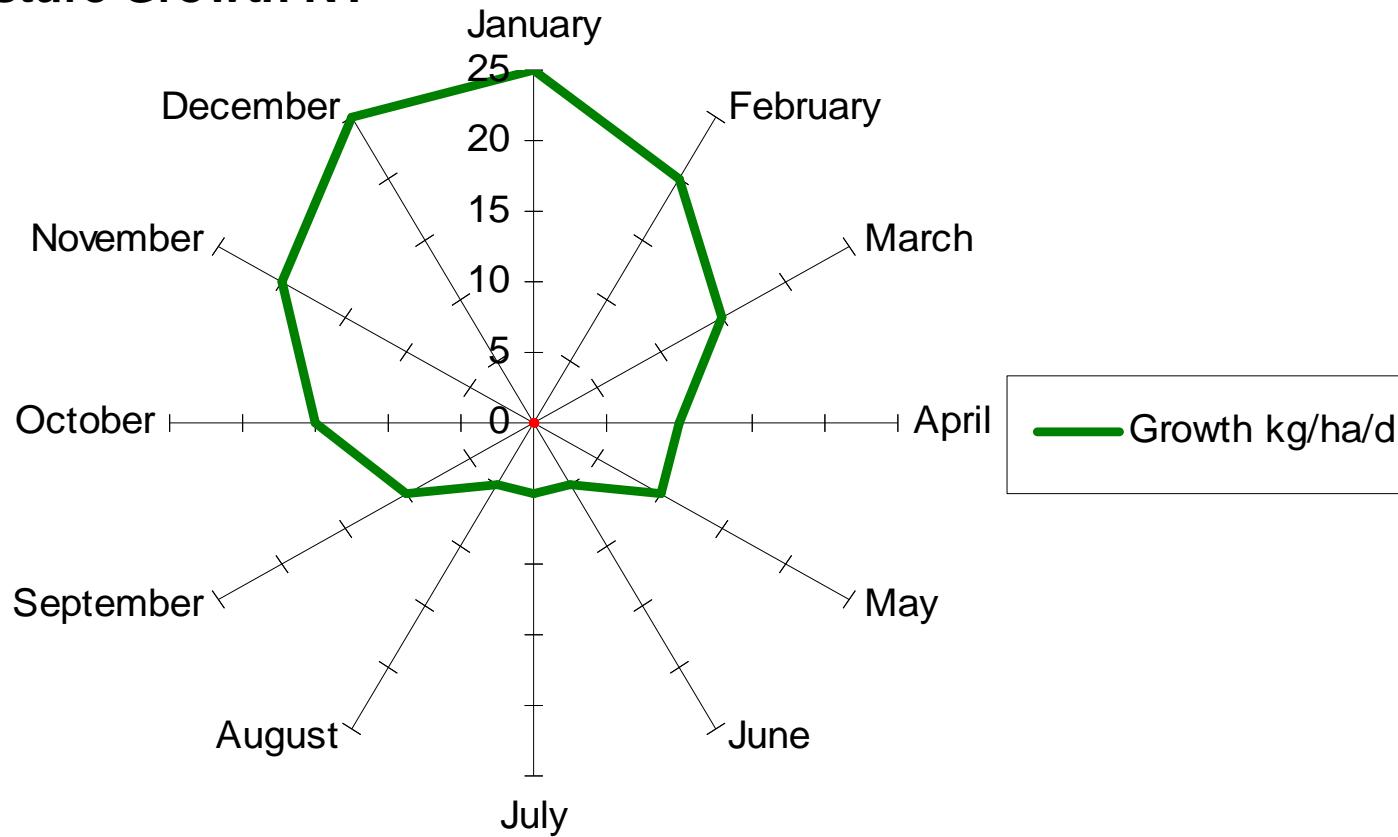


Lamb Birth weight

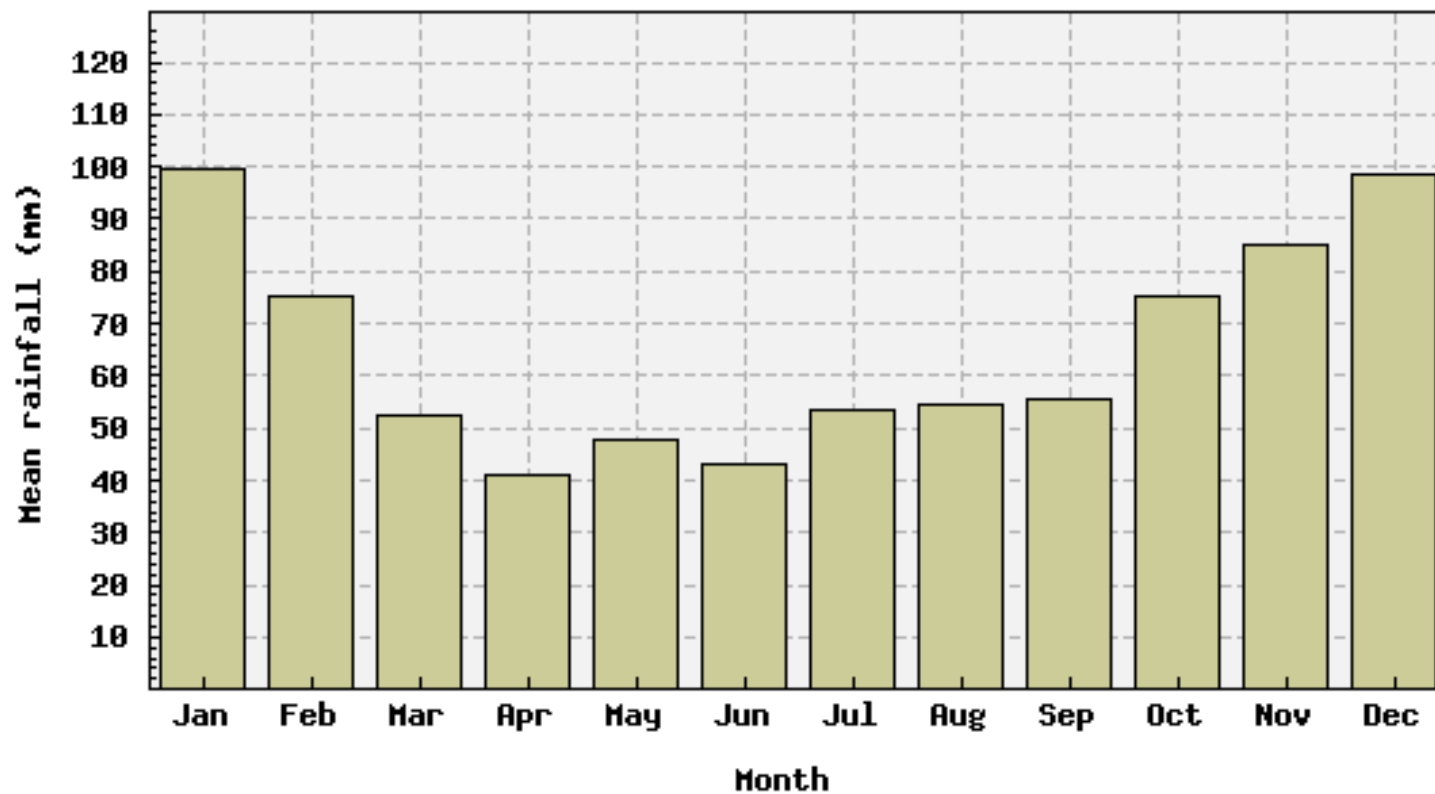
Lifetime reproductive performance

Component of reproduction	Ewes ranked on lifetime reproduction rate			
	Lowest 25%	2 nd quartile	3 rd 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

Pasture Growth NT



Location: 055136 WOOLBROOK (DANGLEMAH ROAD)



Mean rainfall 780mm

055136 Mean rainfall (mm)



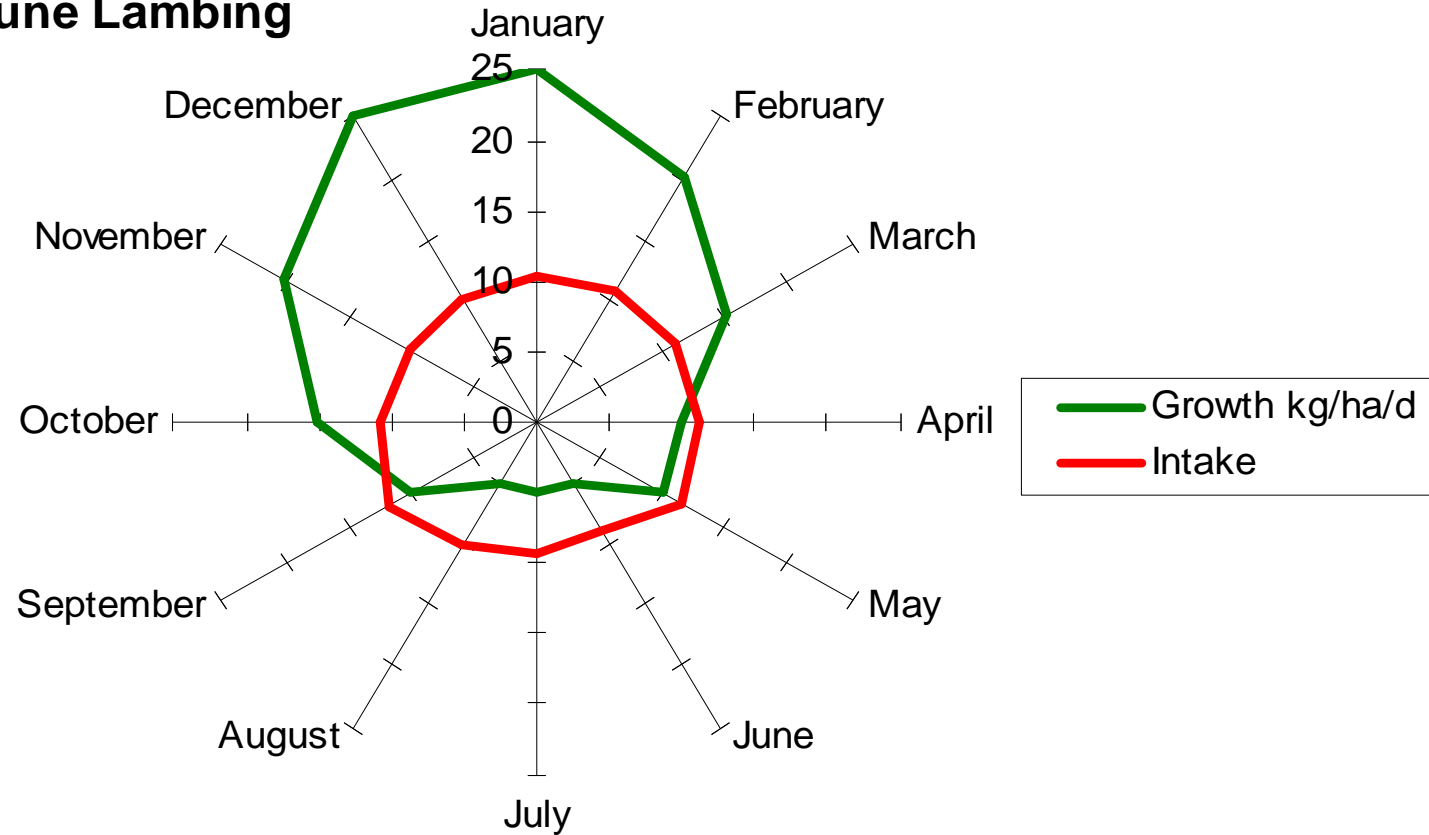
Australian Government
Bureau of Meteorology

Selecting a lambing date

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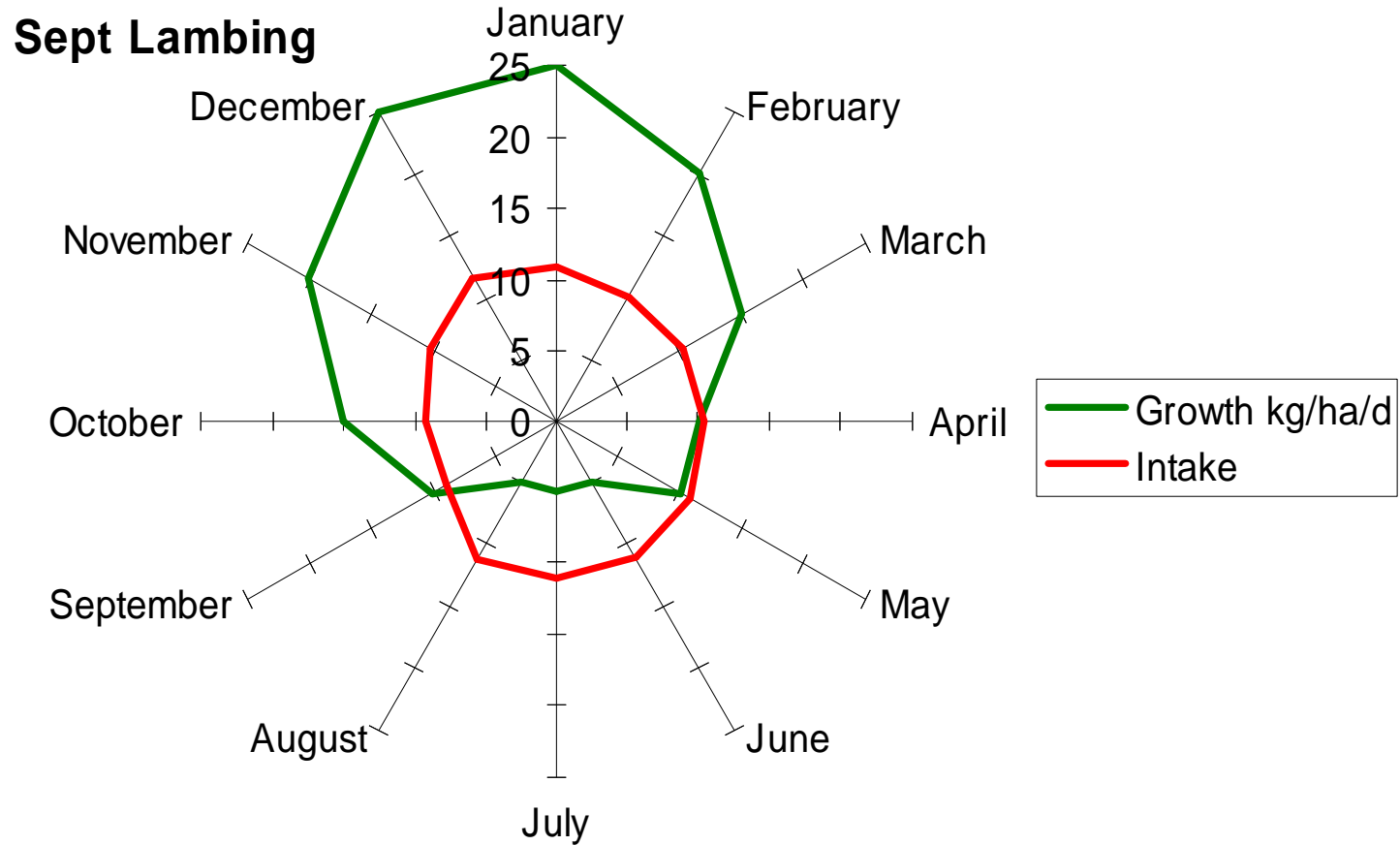


June Lambing



Selecting a lambing date

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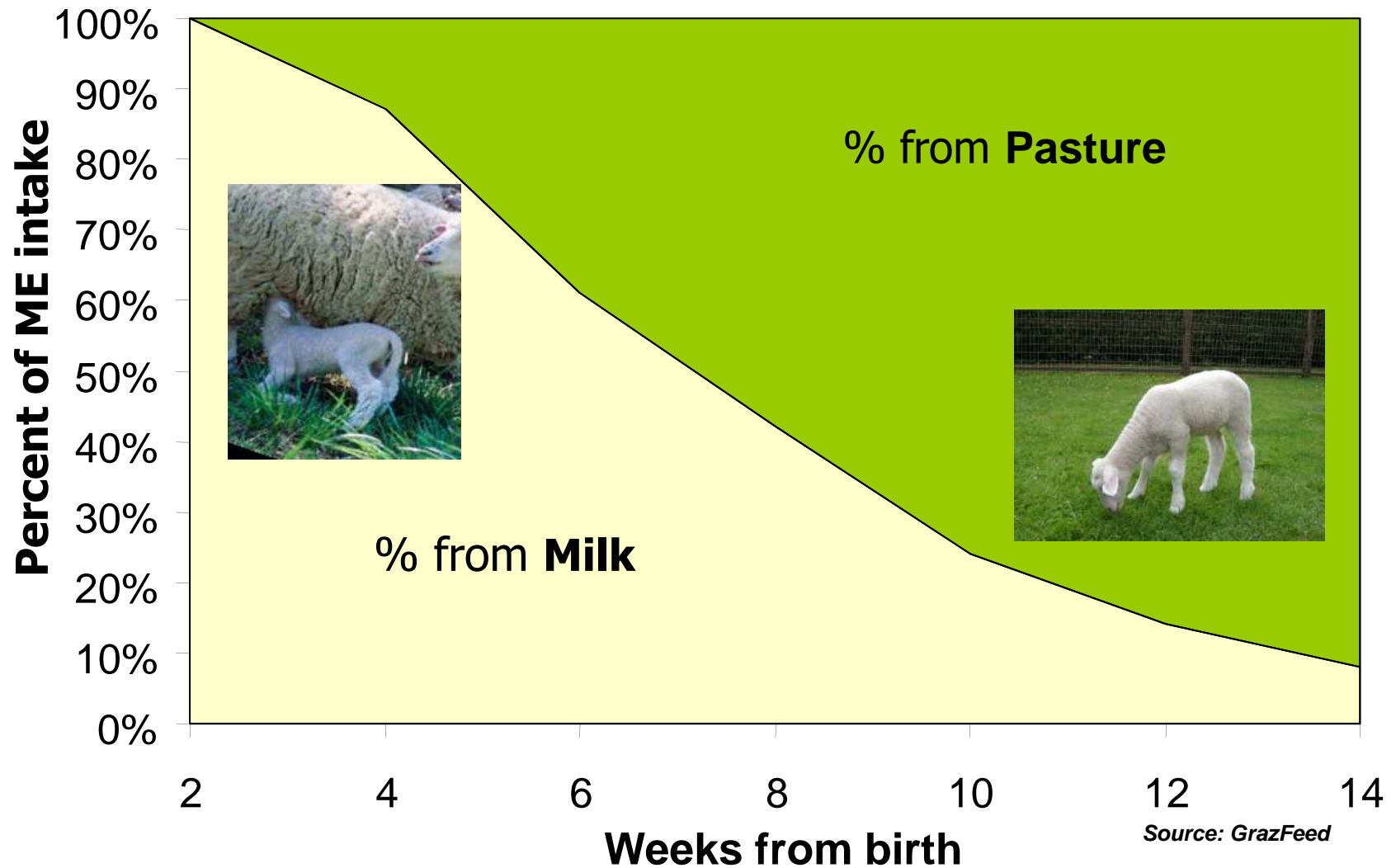
How many lambs will you get? (90% lamb marking) Merino

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	Ewes	Lambs	Lambs lost
Ewes joined	100		
Ovulation rate 1.4		140	
Ewes mating	96	134	6
Embryo loss			17
Scan – Single	62	62	
– Twin	28	56	
Scan error			3
Ewe death – preg tox			3
Ewes lambing – Single	60	60	
– Twin	26	52	
Lambs born		112	
Lambs lost birth to marking (11% single / 21% twins)			18
Lamb marking % – Of ewes joined		94%	
– Of ewes lambing		109%	
			34% loss

Intake of milk and pasture



Weaning to joining – Question 2.

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How long does it take for sperm to develop that are capable of fertilisation?

A. 1 week

B. 4 weeks

C. 7 weeks

D. 10 weeks

Pre-joining - check your rams!

- Pre joining – target condition score 4
- Check ram health – 4Ts



Teeth



Toes



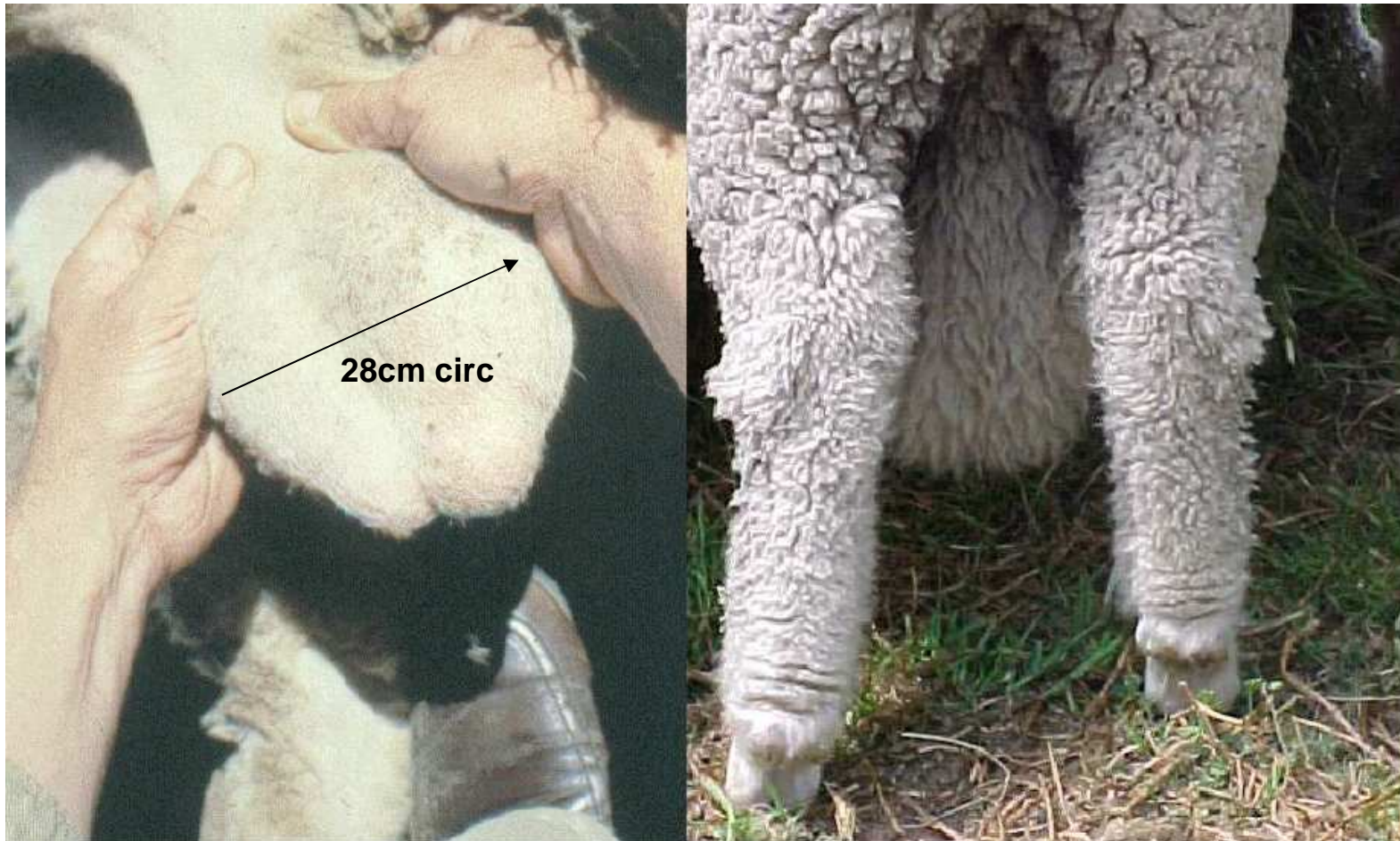
Tossle



Testicles

Improving Ram fertility

- Aim for min 28cm scrotal circumference (two stubbies)
- Feed 2kg lupins per week for 6 to 8 weeks prior to joining



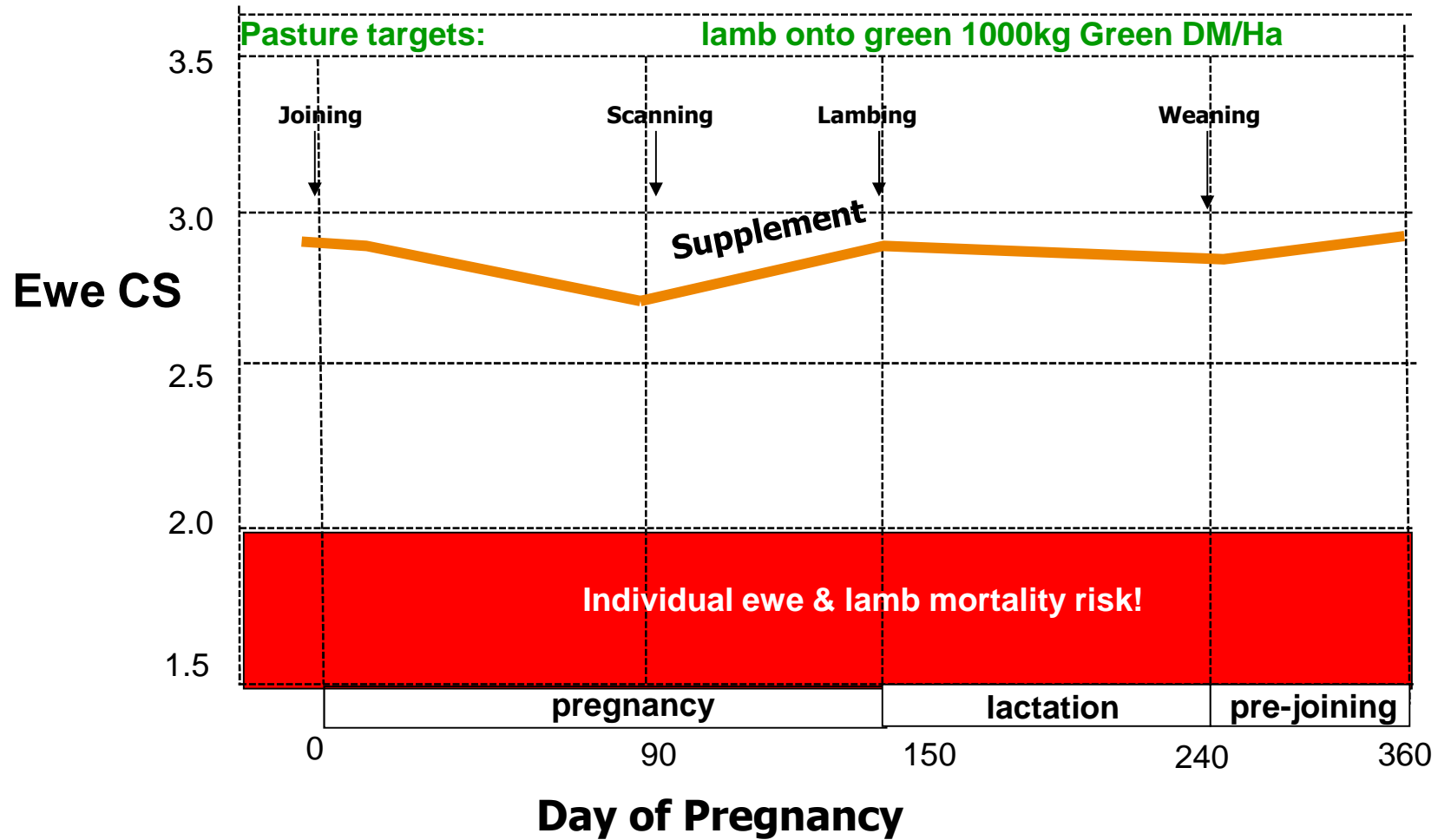
Active management is needed!

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Set some ewe condition score targets

for late winter lambing



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

How does Scanning help?

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- **Scan for pregnant (wet) or non-pregnant (dry)**
 - options: re-join, run as dry or sell

- **Scan for litter size- single or twin bearing**

- Scan for twins if more than 10%

Options: manage each group differently

- *feed twinners in late pregnancy to optimise lamb birth weight

- *lamb twinners together in mobs of **250**

- ***control predators**

Best use of pregnancy scanning information

- **Remove worst performers**
 - Dry ewes & those that fail to rear a lamb
- **Retain the best performers for longer**
 - Above average reproduction rate
 - Fewer maidens in the flock
- **Allows you to manage flock segments differently**

Lamb Survival Indicator Worksheet

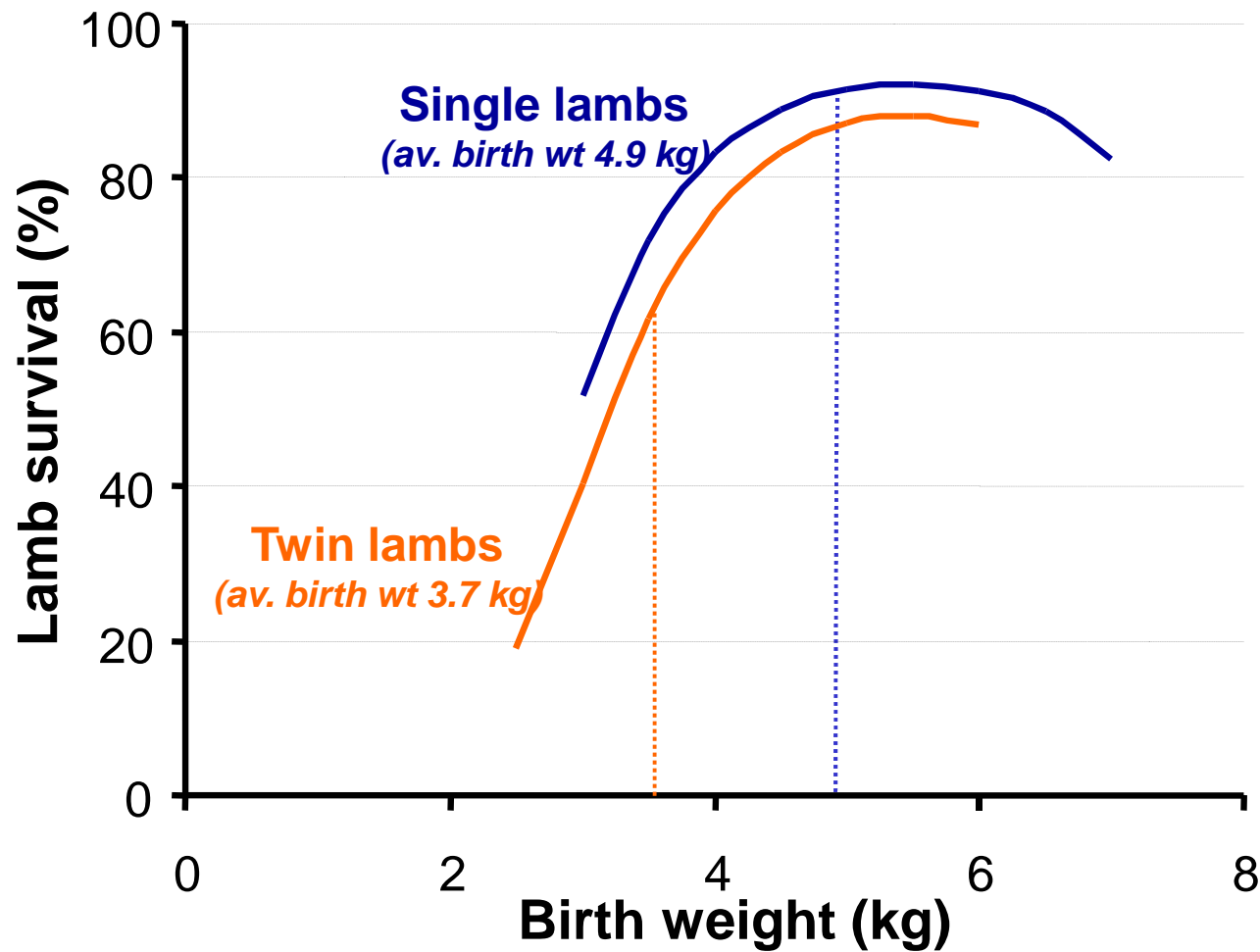
Number of ewes joined.....	<input type="text"/>	A
Number of lambs scanned.....	<input type="text"/>	B
Scanning percentage ($B \div A \times 100$) =	<input type="text"/>	
Number of lambs marked.....	<input type="text"/>	C
Marking percentage ($C \div A \times 100$) =	<input type="text"/>	
Survival % scanning to marking ($C \div B \times 100$) =	<input type="text"/>	

Lamb Survival Indicator Worksheet

Number of ewes joined.....	350	A
Number of lambs scanned.....	465	B
Scanning percentage (B ÷ A x 100) =	133	
Number of lambs marked.....	332	C
Marking percentage (C ÷ A x 100) =	95%	
Survival % scanning to marking (C ÷ B x 100) =	71%	

Lamb birth weight drives survival

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Benefits of better ewe nutrition

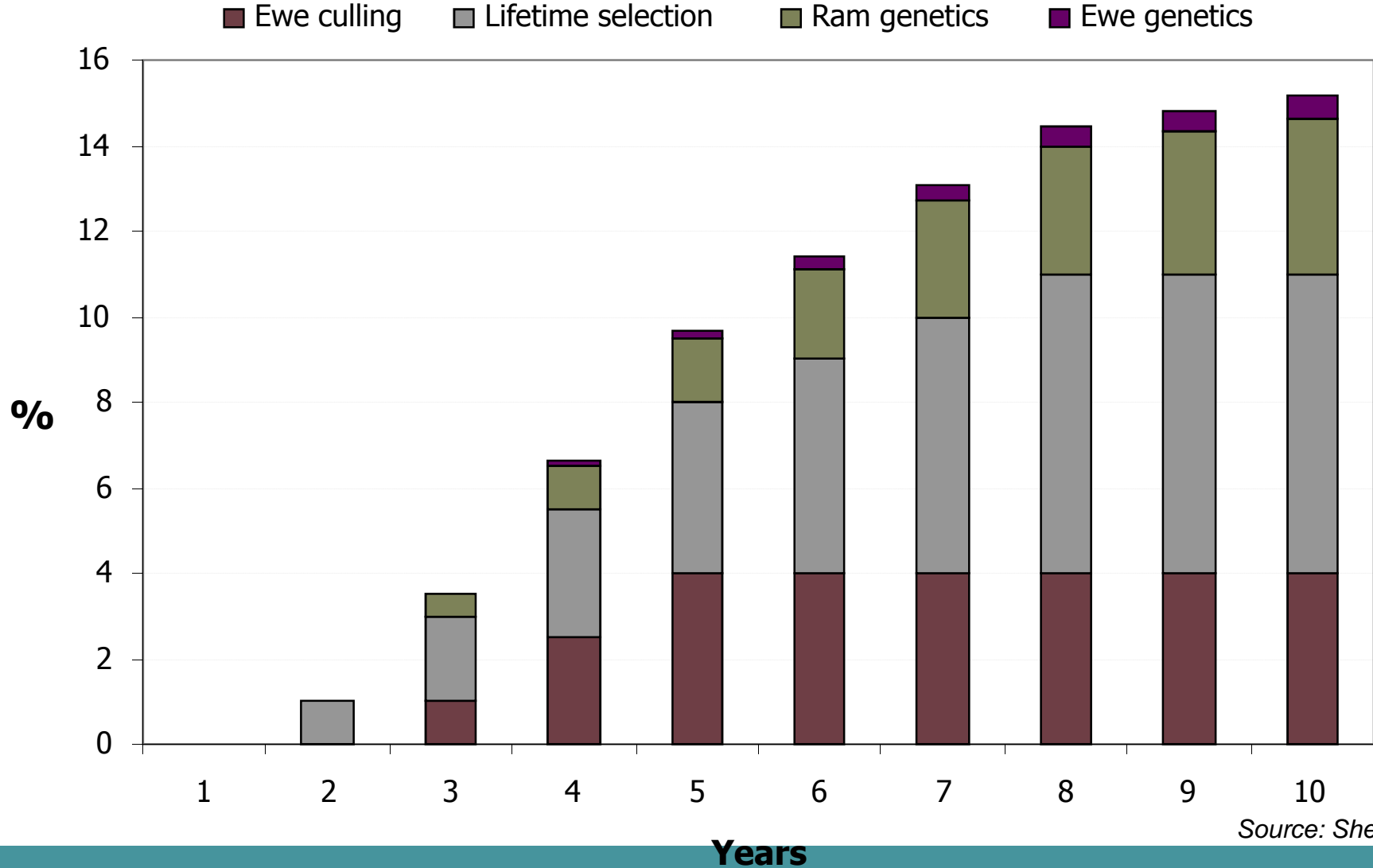
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- **Maintain ewe production**
 - wool production and quality
- **Reduce ewe mortality**
 - fewer lambing difficulties
 - reduce the risk of pregnancy toxaemia
- **Optimise progeny production**
 - increase lamb birth weights and survival
 - improve wool production and wool quality
- **Save feed**
 - only feed those ewes that require it
 - provide flexibility if the season collapses



Gains in NRR from within flock selection



Source: Sheep CRC

Why manage weaners?

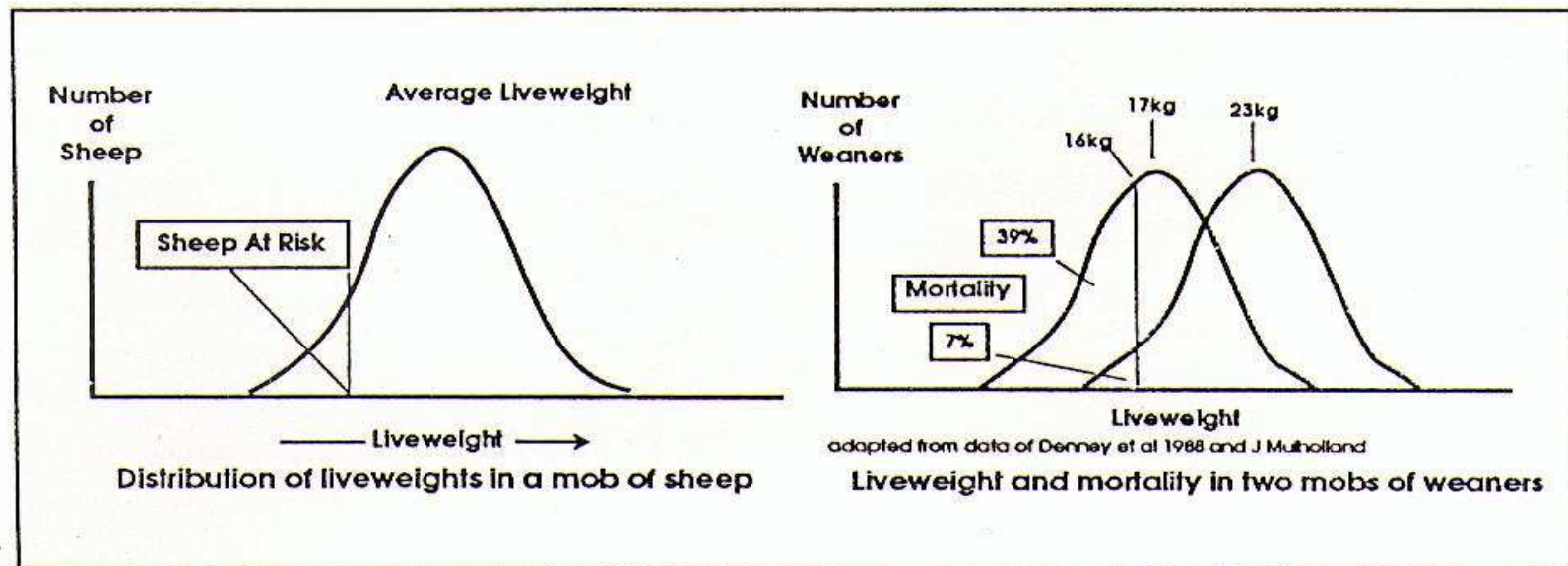
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- **More surplus sheep to \$ell.**
- **More replacements– genetically more productive.**
- **Opportunity cost- a dead weaner costs you a lot.**
- **Better maiden ewe performance.**
- **Welfare - is it acceptable to the consumer?**
- **Less susceptible to a range of health issues.**

What can be done?

- Try to keep pasture digestibility high
- Teach them to feed with their mothers before weaning and use the ration they are likely to be fed in future
- Aim to get weaners to grow at .5 to 1kg/month until above 25 kg
- Manage internal parasites-use effective drenches!
- Don't forget water quality.



RFID?

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Uses:

- **Weighing**- Live weight, fleece weight
- **Key records**- breed, sex, origin, birth yr, CS, flystrike, udder soundness, wool characters
- **Preg scanning**- dry, singles/ twinnings, lambed and lost
- **WOW**- walk over weighing

“Identifying the more productive ewes and breeding with their progeny”



NRR and Gross Margins

+ 9 to 13.5% GM/ha *From Sheep*


	Weaning	GM/ha	GM/ha	
	%	\$/ha	+ 10% weaning	+ 20% weaning
Merino: 18µm self replacing (SR)	83	47.38	51.64	55.89
Merino: 20µm SR	86	37.99	41.78	45.54
Merino: 20 µm SR - finished wether lambs	86	38.77	42.74	46.63
Merino: 20 µm SR - finished wether lambs 25% T	87	40.83	44.92	49.08
Merino: 20 µm SR - all joined to terminals	90	42.05	46.71	51.39
Merino: 20 µm SR - breeding 1st X ewes	90	43.03	47.81	52.56
1st X ewes: ewes joined to terminals - prime lambs	118	41.66	47.31	52.96

+ 13.5 to 27% GM/ha

Source: Casburn 2011 = I&I NSW Livestock Gross Margin Budgets

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Need to get the basics right first!

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Australian Wool
Innovation Limited



- Time of weaning- ewe CS recovery
- CS and live weight of ewes at joining
- Length of joining
- Ram health and soundness
- Matching ewe feed req's with available pasture
- Using scanning information
- Optimising lamb birth weight.....lifting lamb survival



What else is happening?

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- Working with pregnancy scanning industry –
Managing Scanned Ewes Workshops
- Training courses for producers
 - ‘Lifetime Ewe Management’-- Deb Maxwell
 - Sponsored by CRC and RIST

Darren Gordon at RIST 03 55730943
