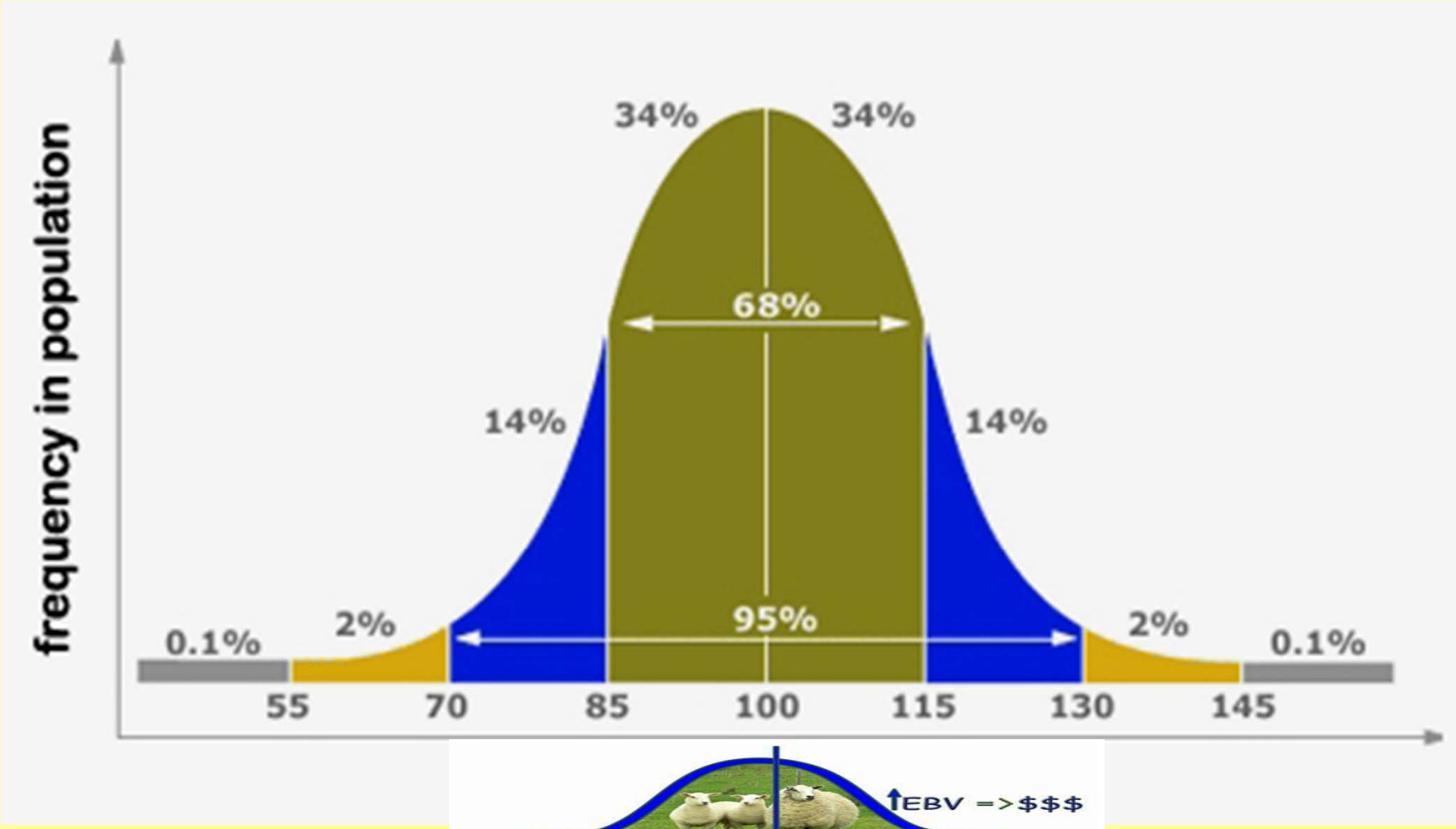
Don Pegler and John Keiller

Our Sheep Flock is above 130



Cashmore Oaklea Stud Flock

- Commercially run hard and tested in big mobs
- Classed structurally and phenotype annually
- 2000 Mature ewes
- 1500 ewe lambs
- 50 Sires used per year
- Full performance recording, $2.40 per ewe mated per year
- Computer matings
- Genomics
- New easy care traits, breech and dag score
- Ewe lamb joinings
- Sales TOP 10 % Band 800 rams / ram lambs per year
- 6000 Commercial ewes own and clients flocks

Cashmore Oaklea Aims

- Market and Economic Driven
- Industry Leading Levels of Performance
- Transparency
- Growth, fertility, carcass , parasite resistance and skins
- Easy care and hardy on farm
- Self Replacing
- Stand by our product
- Vision for future

Modern low cost and easy care

- Faster Growth
- Earlier puberty
- More Lambs
- Parasite Tolerant, less chemical use
- More Carcass
- Intramuscular fat
- Eating Quality
- Better feed conversion
- Less labour

Performance Recording

- Tag 4000 new born lambs a year
- Measure everything
- Use LAMBPLAN to document genetic changes
- Increase returns $2.20 per ewe mated / year
- Open breed system
- Hybrid vigour

Below is a comparison of the top 300
2014 drop males in all studs.
271 of them 300 are Cashmore Oaklea.

BWT	PWT	YWT	AWT	PFAT	PEMD	YGFW	PWEC	PSC	YNLW	NLW	MWWT	INBREEDING	MAT$
0.6	12.7	14.2	15.3	-0.5	1	3	-42	4.2	18%	16%	0.9	3%	140

150099 – 2012 - 122402
Top of the List 146 Index

Cashmore Oaklea
Performance Maternals

2015 Lambs Expected EBVs
4000 head

Our average inbreeding for all lambs born in 2014 is 2.1%

Trait	Progeny Mean
Bwt	0.47
Wwt	7.1
PWwt	12.3
Awt	14.3
Pfat	-0.1
Pemd	1.1
Nlw	16%
YNlw	16%
Pfec	-38.5
Mwwt	0.8
LE_dir	-0.2
Maternal	138.5

Basics

- Growth
- It defines your system / impacts 3 variables
- Sets your time of lambing
- ^ lambing %
- ^ Stocking rate
- ^ pasture utilisation rate
- More lamb per Ha

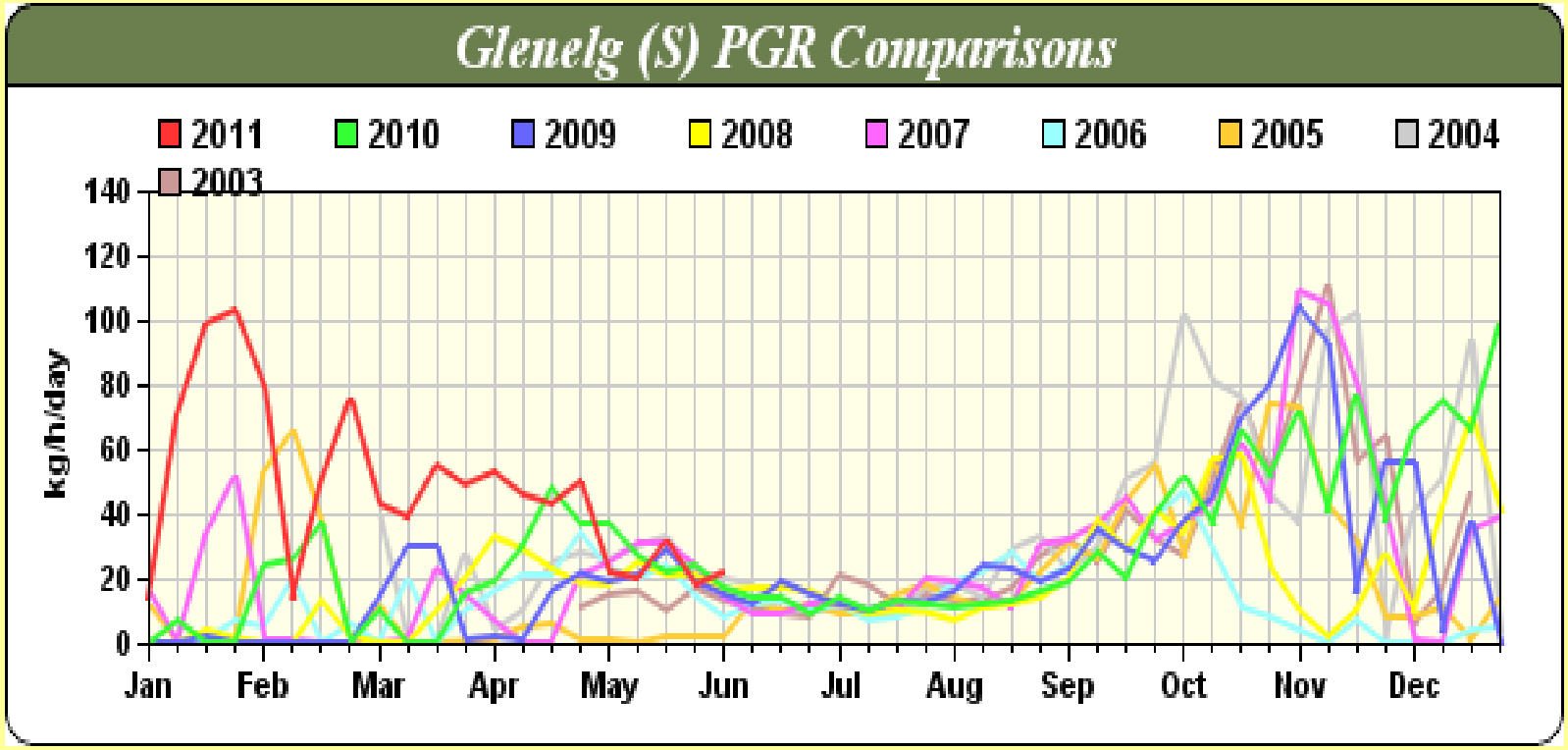
Utelisation

- Growth Curve
- Utilisation % 45, 50, 55 , 60, 65, 70 STOP
- Grass costs money
- Winter stocking Rate
- Mid pregnancy1.3 dse,
- Last month 1.4 dse
- Lambing BANG 2.5 TO 4
- Can you push the peak demand back a few days

Cashmore Oaklea
Performance Maternals

Stocking Rate

- Time of lambing
- Pasture growth curve, spring peak

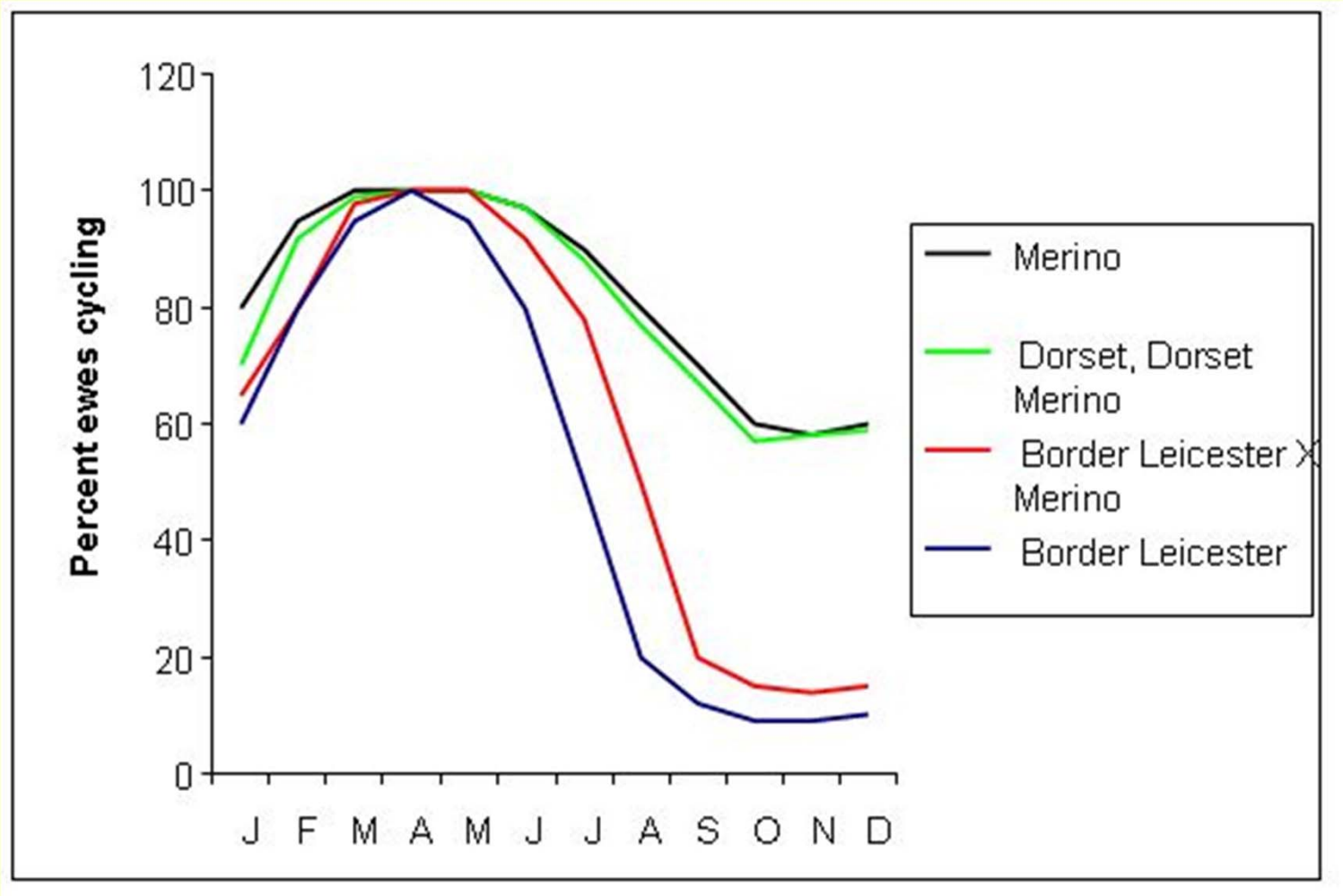


Ovulation Rate as day length shortens

- November joined ewes give 100% lambs
- May joined ewes give 200% lambs
- 17 % ovulation rate per month
- 4.2 % ovulation rate per week
- 75% survival
- 3% lambs per week, across this time period

Cashmore Oaklea
Performance Maternals

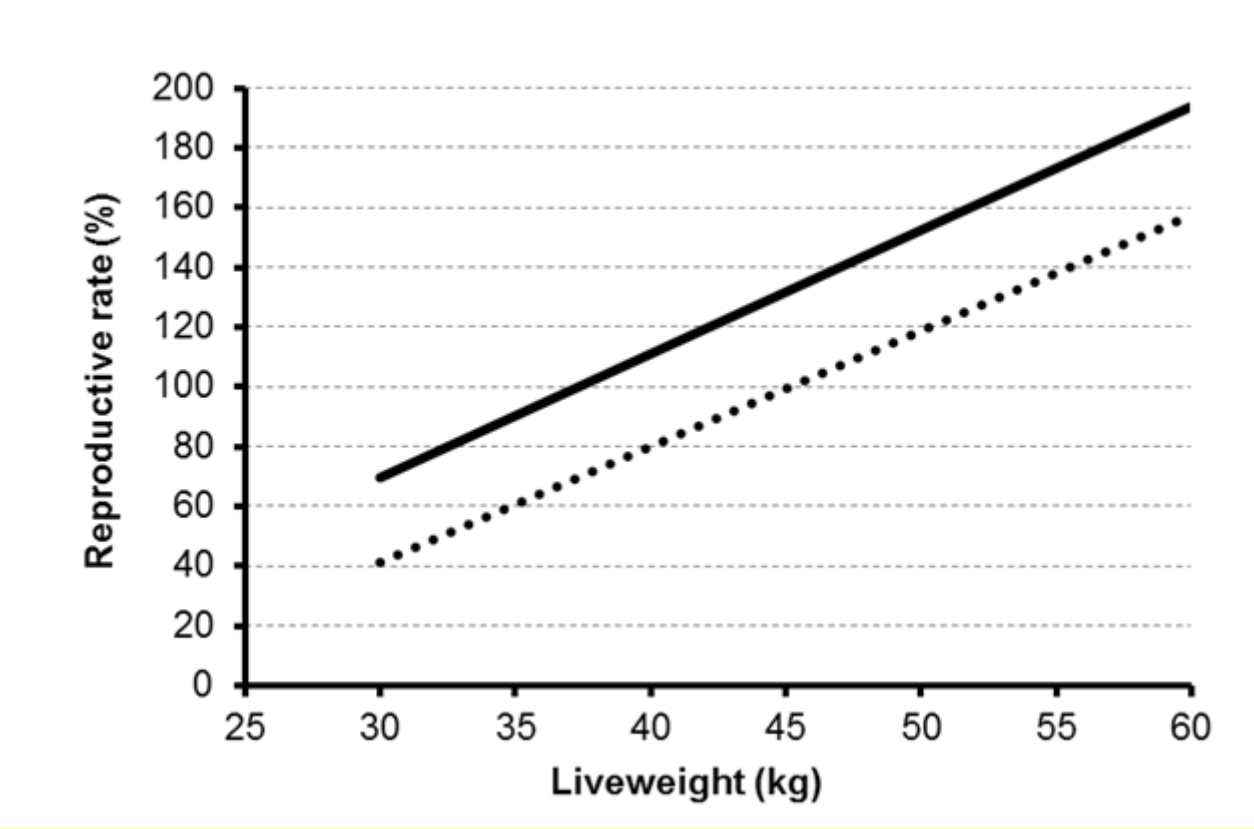
Ewes's natural breeding season.



NZ 3% scanned per 1 kg

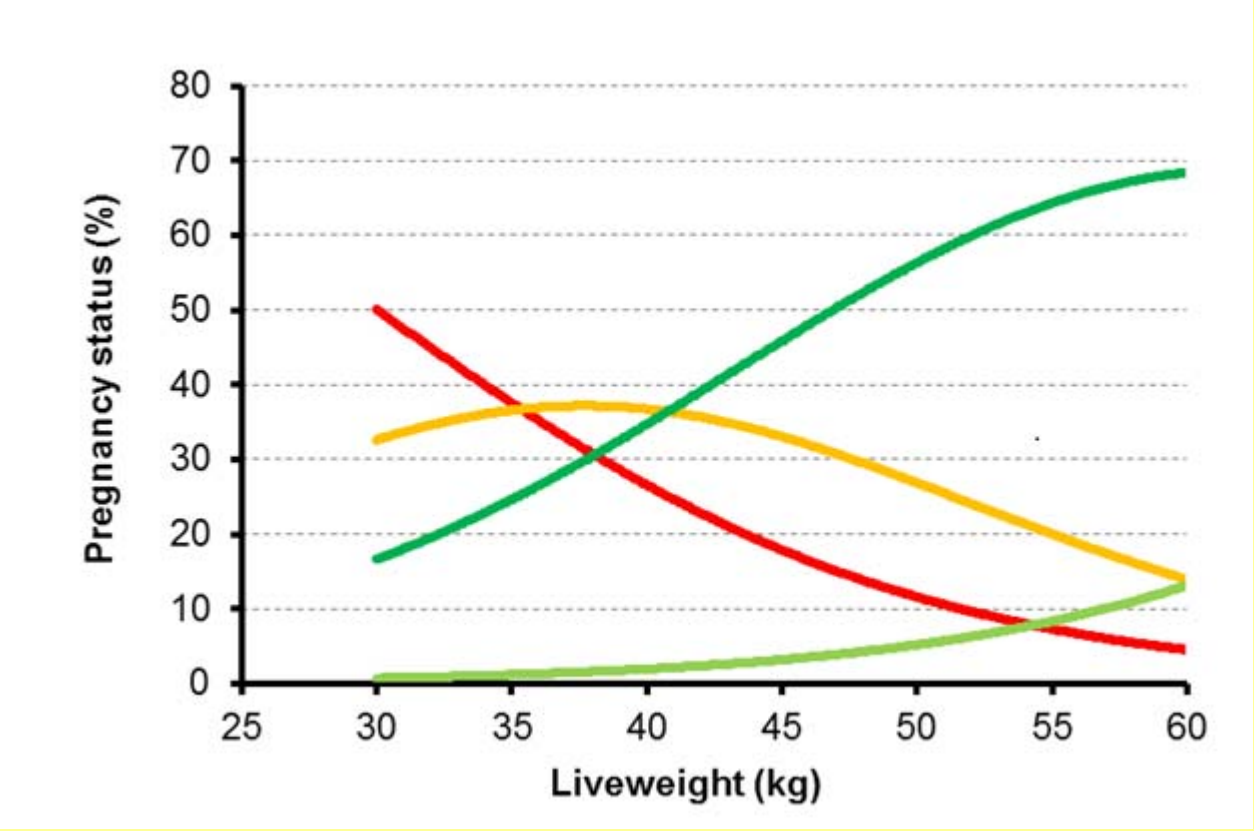
Weight at mating (kg)	**Scanning %**
Less than 36	84
36 to 38	110
38.5 to 40	119
40.5 to 42	125
42.5 to 44	133
44.5 to 46	130
46.5 to 48	143
48 and above	157

Effects of liveweight at joining on NLB (solid) and NLW (dashed) for ewe lambs 4 % NLB per kg

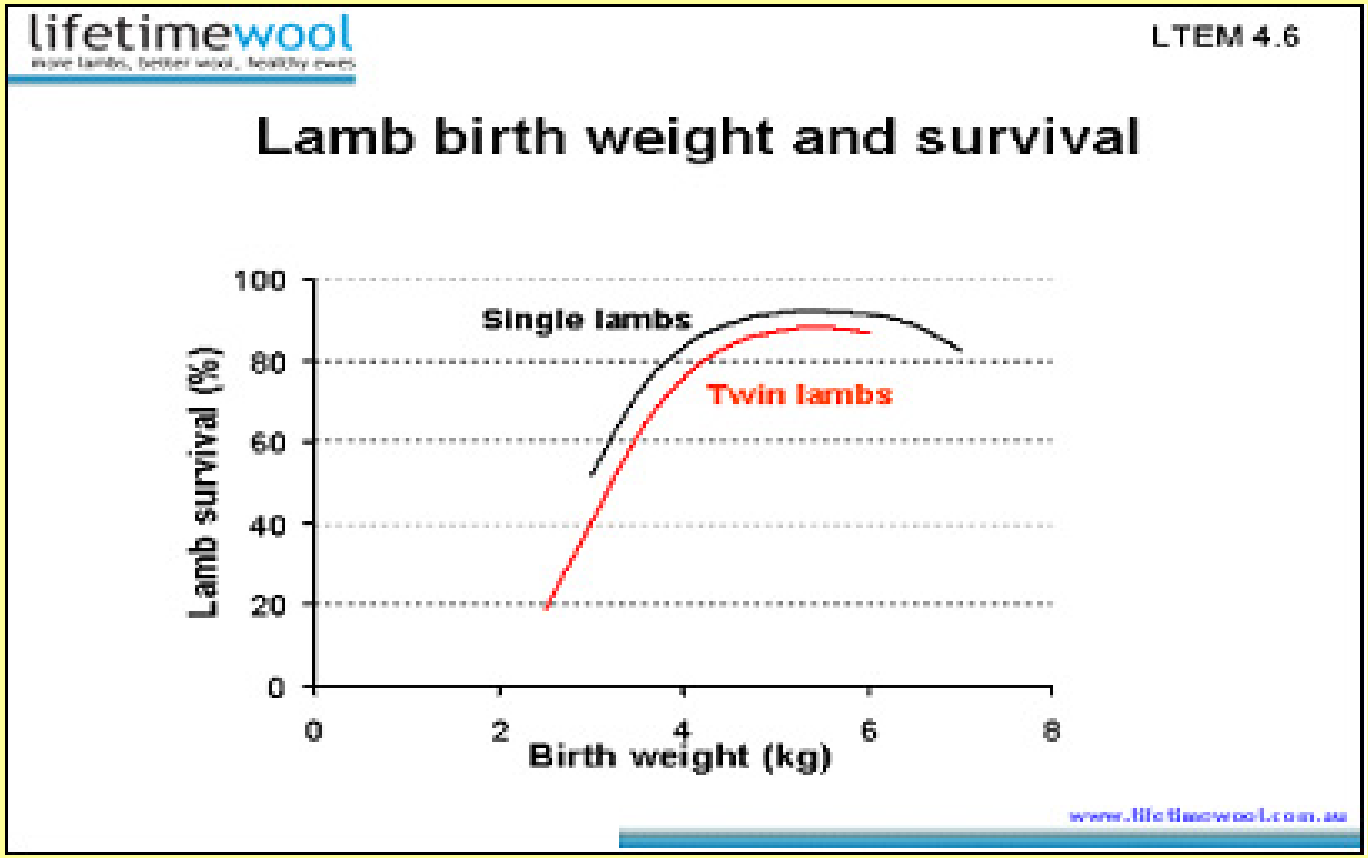


Effects of birth weight versus survival of single (green), twin (orange) and triple (red) born lambs from ewe lambs.

Fig 1. Effects of liveweight at joining on proportion of dry (red), single (orange), twin (dark green) and triple (light green) bearing ewe lambs



Lamb survival adult ewes



Current Research

- 1.Predictable impacts of manipulating live weight profile on birth weights of single and multiple lambs
- 2.Minimal effects of low CS at lambing (2.5 to 2.7) on survival of singles, but possible negative effect of CS > 3.5
- 3.Improving CS at lambing increased survival of twins at all sites and ‘near-maximum’ at CS 3.2 treatment (3.1 to 3.4)
- 4.Scope to reallocate feed to improve survival of singles by 5-8% and twins by 10-30%, and effects on whole flock weaning rate depends on scanning performance

The age old story of conception versus survival-which is more important and where should I invest my time/money

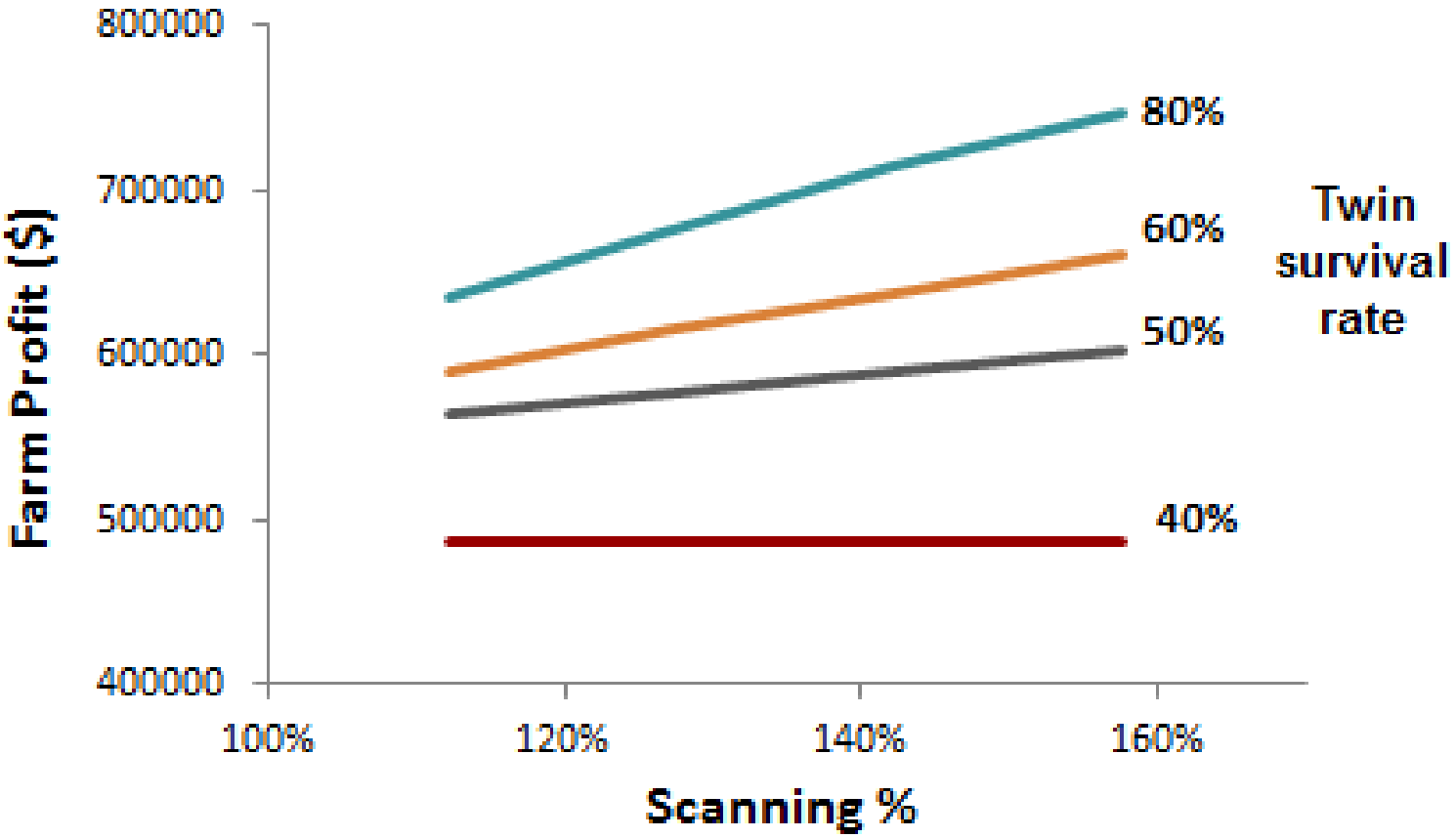
Increasing conception versus twin lamb survival

Value of increasing twin lamb survival by 10%	$/ twin ewe
- + 20 lambs per 100 ewes or 0.2 lambs/ewe @ $73/lamb	$14.60

Value of increasing scanning rate by 10%	$/ewe
- at 55% twin survival (+2.5 lambs/100 ewes)	$2.20
- at 66% twin survival (+4.7 lambs/100 ewes)	$3.60
- at 77% twin survival (+6.9 lambs/100 ewes)	$5.00
- at 89% twin survival (+9.3 lambs/100 ewes)	$6.30

Making More From Sheep

Scanning x Twin survival



If you have the wrong sire you won’t have many lambs

number of ewes by sire	pregnancy scan result	sire of ewe lambs	age at mating
No	**PT%**	**SIRE**	**AGE**
57	182%	**1500392005050756**	242
55	171%	**1500992011110667**	243
30	157%	**1500992011111376**	244
36	156%	**1500992011111378**	240
61	161%	**1500992011112187**	242
28	143%	**1500992011112506**	243
49	133%	**1500992011112928**	243
42	157%	**1500992011113023**	243
48	127%	**1500992011114017**	242
406	**155%**	**AVERAGE**	**242**

Confirmation of EBV's

	pregnancy scan result	sires asbv	sires asbv
SIRE	**PT%**	**YNLB**	**YNLW**
756	182%	44%	32%
667	171%	38%	31%
2187	161%	31%	28%
3023	157%	23%	21%
1376	157%	12%	10%
1378	156%	13%	9%
2506	143%	11%	9%
2928	133%	14%	12%
4017	127%	-6%	-7%

110667 , 41% YNLW

Cashmore Oaklea
Performance Maternals

Replacement ewes

- Who should we keep them from?

- Adults
- Best young genetics
- Twins / Triplets / Multiples
- Ewe Lambs

- ??????????

Self Replacing Maternal Flock

- Ewe Focus
- Long term genetic investment
- 80 % of grass consumed goes into ewe rumens
- Design sheep that suit our system

Opportunities

- Control DNA
- Farm expansion via purchase or lease
- Drought or fire destock / restock quickly
- Lower cost of production
- Health Status
- Value add by supply of breeding stock
- Cashmore Oaklea ewe sale and QELPA sale
- Rebuild National flock

Conversion to Self Replacing

- Buy Performance recorded Maternal Rams
- Mate to
  - Maternal Ewes
  - Border X Merino
  - Merino
- Most people get tired of grading up so make a ewe capital purchase
- Clients never go back to BLM self replacing

Genomics

- Maternal Sheep have very good eating Quality
- But have a range
- DNA Testing all sires
- When we have a choice we will NOT use lower eating quality as sires
- Industry will develop indexes for maternal sheep

Cashmore Oaklea
Performance Maternals