



The value of a ewe

A presentation for the DPIRD Sheep Team

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If the ewe survives:

- Ewe feed requirement from lambing to sale time
- Wool income at shearing
- Extra sale income from surplus young ewes (or CFA ewes)
- Lambs born get the chance to survive
 - Extra feeding post weaning
 - Extra income associated with the progeny

Scenarios tested

- 2 regions (Great Southern, Cereal Sheep zone)
- 2 times of lambing
- Dry, Single & Twin bearing ewes
- Merino mated to either merino or terminal
- Price sensitivity
 - Lamb \$6.50/kg, CFA Ewes \$4.20/kg DW, Wethers \$1.20/kg LW
 - Wool \$21/kg clean for fleece

Show me the money

	Mer-Mer	Mer-TS
Unscanned	236	298
Dry	156	
Single	214	
Twin	280	320
Export hogget	276	
Airfreight lamb	284	

Central Wheatbelt +12.50
Great Southern -12.50
Autumn lambing +11
Spring lambing -11
Meat $\pm 25\%$ $\pm 20\%$
Wool $\pm 25\%$ $\pm 5\%$

Back of the envelope calculation

	Twins	Singles	
Ewe Sale value	100		26kg @ \$4.20/kg – costs
Wool value	54	56	5kg greasy @ \$11.50/kg net
Lamb Value ¹	154	93	
Husbandry	-11		Shear, crutch, scan, drench, vaccinate
Income - Cash Costs	297	238	
Ewe Value	257	207	
Cost of feed	40	31	

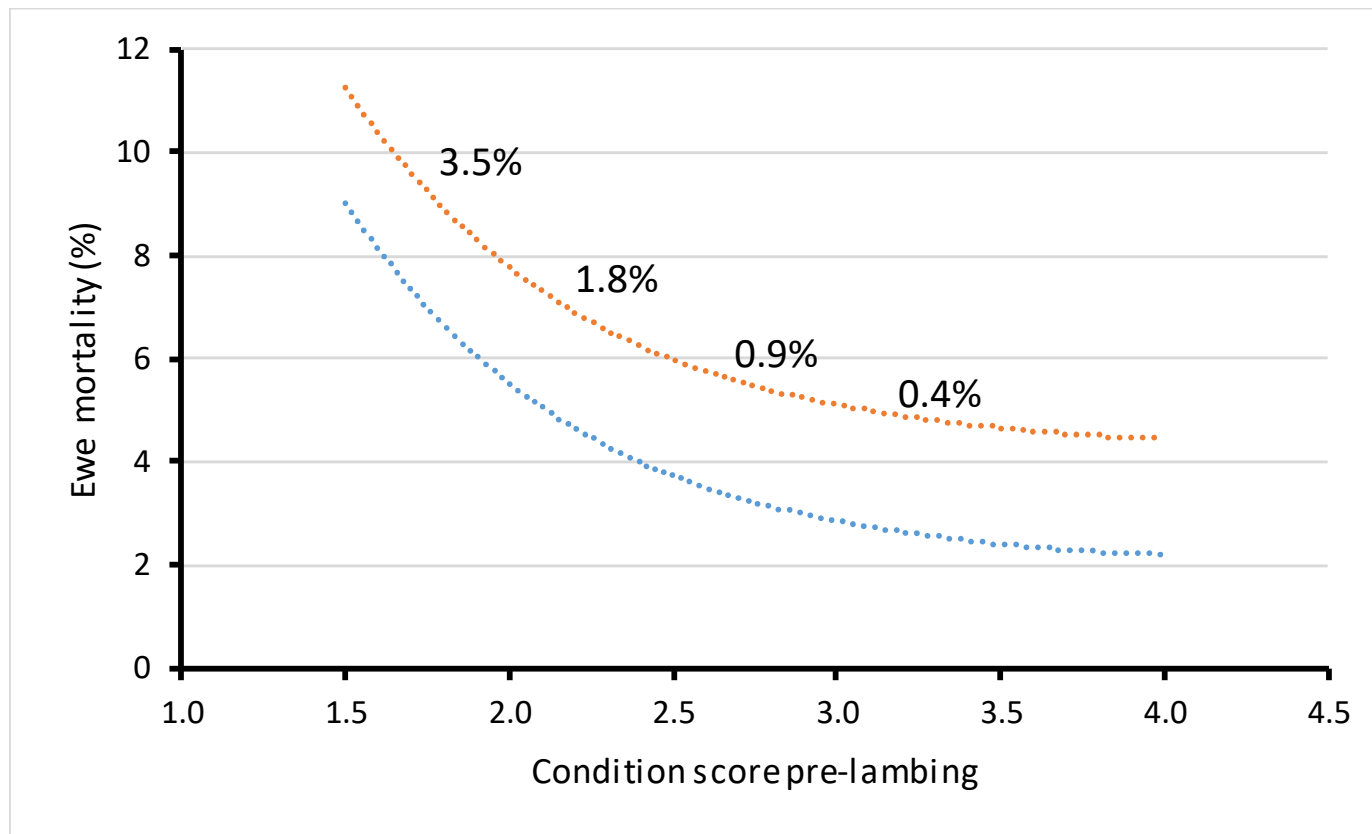
¹ Source Young *et al* 2014. Twin Lamb \$76/lamb, Single lamb \$93/lamb
includes cost of feeding the lamb during lactation and post weaning, and the husbandry cost of raising the lamb

Putting it in context of 2020

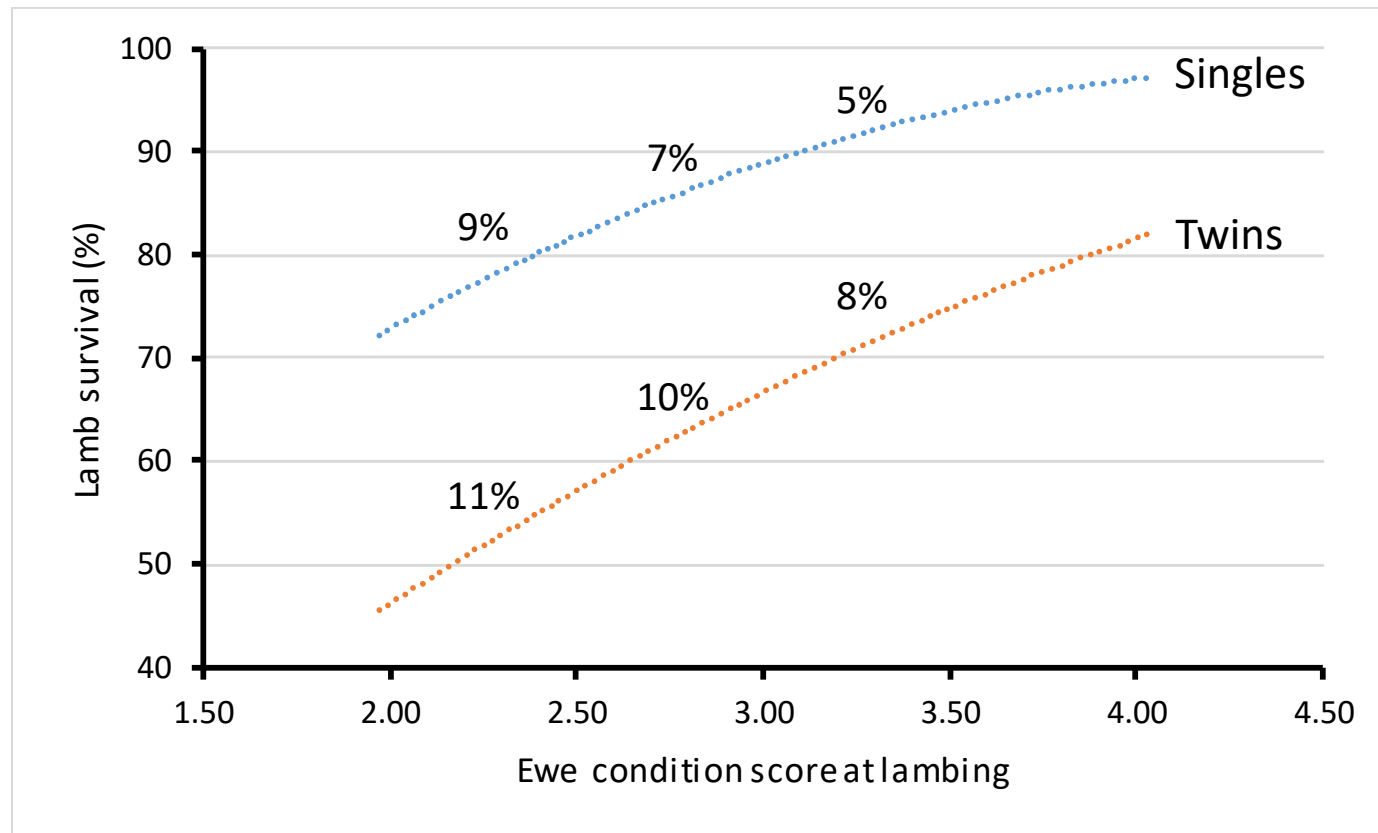
How much can you afford to spend in 2020 to reduce mortality

- The value of the ewe
 - Meat price is +25%, Wool price -25% so value of ewe +15%
 - Twin \$322/hd, Single \$246/hd
- Plus the increased production from the feed
 - Feeding grain increases value of wool produced
 - With a low premium for fine wool there is an increase in wool income
 - With 1.5%/μ premium 30% of the cost of supplement is paid by the extra wool grown
- Lupins \$500/t consumed

Ewe mortality at lambing



Lamb survival & ewe CS



Rules of thumb

- It takes 3 kg of grain to stop a kg of LW loss
- It takes 8 – 9 kg of grain to put on a kg of LW (in a paddock)
- 1 MJ of feed grows 1.3g of greasy wool
- The extra wool pays for 20% to 30% of your supplement

Show me the money

- Feeding to maintain weight (compared with losing 0.5 CS)

	Singles		Twins	
CS at joining	CS 3	CS 2.5	CS 3	CS 2.5
Cost of grain	\$8	\$8	\$8	\$8
Extra Income	\$14	\$18	\$25	\$30
Profit	\$6	\$10	\$17	\$22
ROI	75%	125%	212%	275%

- Feed for maintenance with confidence that it pays

Show me the money

- Feeding to gain 0.5 CS (compared with maintenance)

	Singles		Twins	
CS at joining	CS 2.5	CS 2	CS 2.5	CS 2
Cost of grain	\$23	\$23	\$23	\$23
Extra Income	\$18	\$23	\$29	\$35
Profit	-\$5	\$0	\$6	\$12
ROI			26%	52%

- Financially it is OK for twins to be gaining condition over pregnancy
- Singles can be fed up to CS 2.5

Purchase price of ewes

Also needs to consider:

- **Costs & deaths incurred from purchase to lambing** (interest, feeding, mating, husbandry)
- **Multi-year considerations** (Productive life of the ewe, Price changes over time)
- **Alternative landuse** (cropping or pasture renovation)
- **Alternative use of feed** (cattle, more wethers, reduce SR)
- **Alternative management** (Young ewes or older ewes)

Buying ewes: Costs & Cashflow

Need to allow for:

- Ewe is unmated & work on longer term prices
\$236/hd
- Supplement required
~30kg \$15/ewe
- Mating costs
Rams @ \$1000/hd at 1.5% = \$15/ewe
- Husbandry from purchase to lambing
- Deaths at lambing
5% = \$12
- Interest that will be paid on the purchase price
Approx \$15/ewe (7%)
- Potential ewe purchase price **\$180** (if prices as per analysis, no opportunity value of the feed and retain the ewe for one year)

Multi-year considerations

- Productive life of the ewe
- Price change over the life time.

$$BE \text{ price} = \sum_i^n \left(\left(\frac{1 - DR}{1 + r} \right)^i (Ewe \text{ Value} - \text{cash costs} - \text{assumed sale value}) \right) + \left(\frac{1 - DR}{1 + r} \right)^n \text{Actual Sale Value}$$



Alternative landuse or feeduse

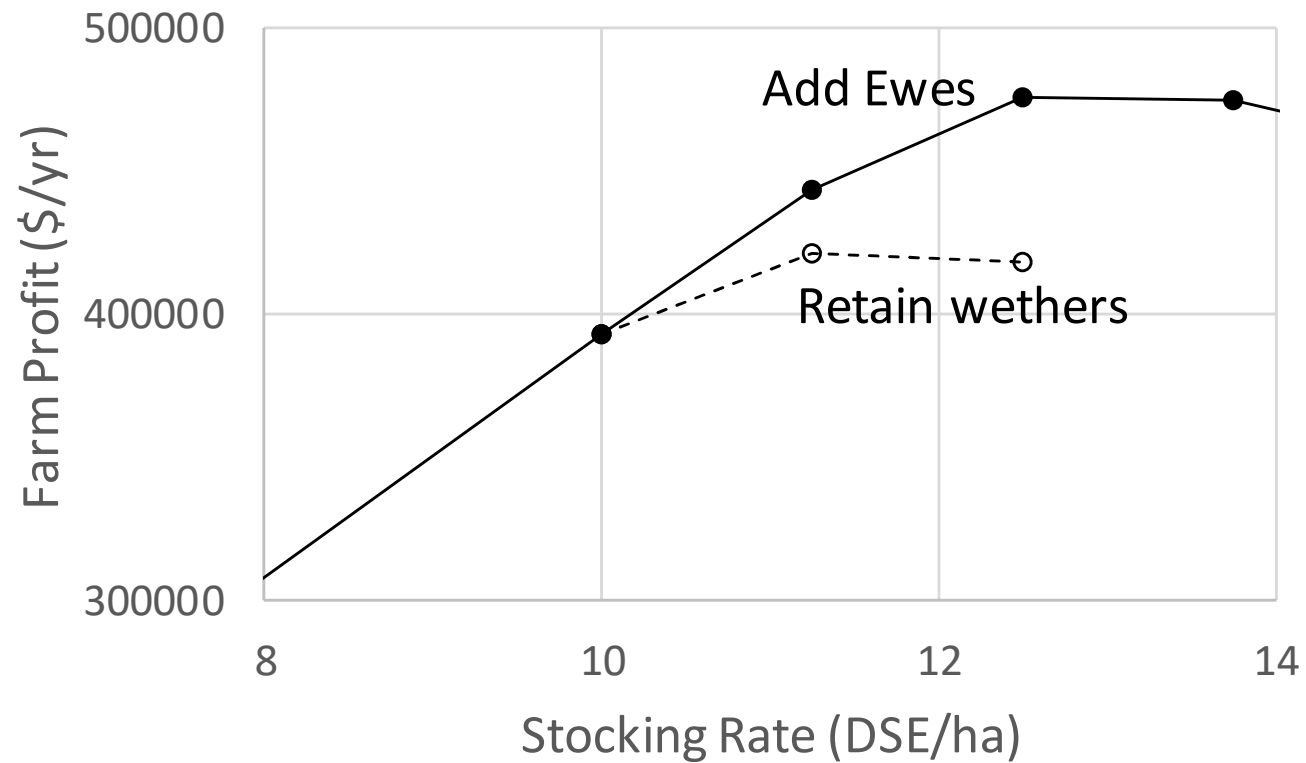
- An opportunity value for the area grazed from the brought in sheep reduces the breakeven price of the ewes

$$BE \text{ price} = BE \text{ price no opp cost} - \sum_i^n \left(\frac{1}{1+r}\right)^i \frac{GM \text{ of alternative } \times DSE/hd}{SR \times \% \text{ of DSE that are ewes}}$$

Buy ewes as hoggets and sell at 5.5yo



Ewes are higher profit than wethers



Conclusions

- The ewe is the power-house of the flock
- Twin bearing merino-merino ewes are worth \$280
- Twin bearing merino-terminal ewes are worth \$320
- Feed twin bearing ewes to gain condition if less than CS3
- Feed single bearing ewes for maintenance
- The BE purchase price for ewes is dependant on
 - The opportunity cost of the area grazed
 - The expected sale price