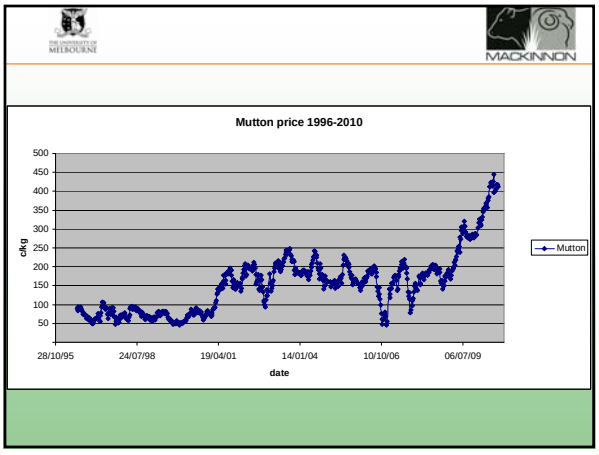
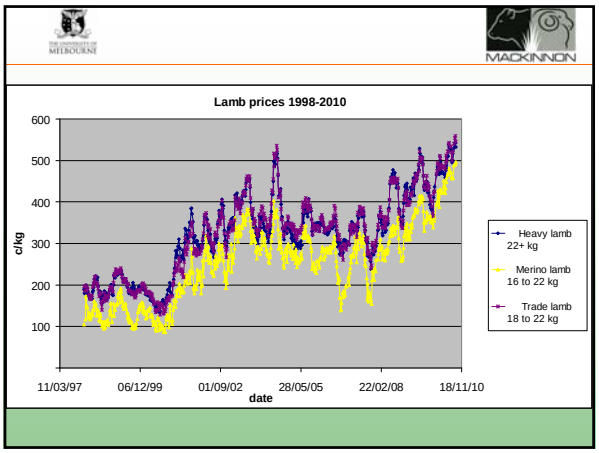
Should high meat prices change your business?

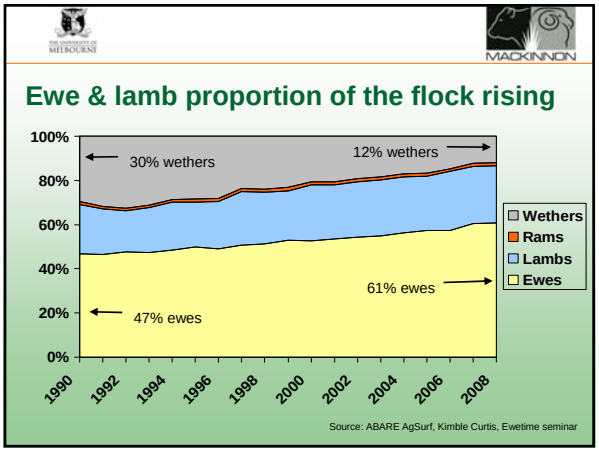
John Webb Ware
The Mackinnon Project
University of Melbourne

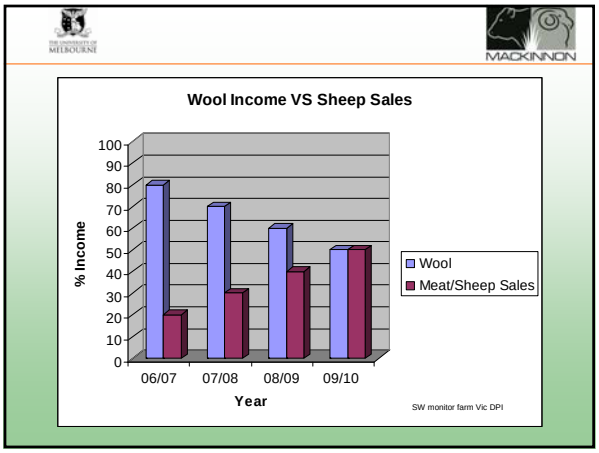
Agenda

- Impact of high meat prices on profitability
- Should you change your management system?
- What about composites?

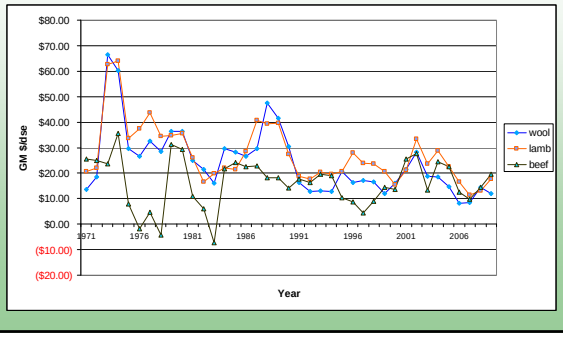



Lamb prices 1998-2010
600
500
400
300
200
100
c/kg
11/03/97
06/12/99
01/09/02
28/05/05
22/02/08
18/11/10
date
Heavy lamb 22+ kg
Merino lamb 16 to 22 kg
Trade lamb 18 to 22 kg


Ewe & lamb proportion of the flock rising
100%
80%
60%
40%
20%
0%
30% wethers
12% wethers
61% ewes
47% ewes
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Wethers
Rams
Lambs
Ewes
Source: ABARE AgSurf, Kimble Curtis, Ewetime seminar


Wool Income VS Sheep Sales
100
90
80
70
60
50
40
30
20
10
0
% Income
06/07
07/08
08/09
09/10
Year
Wool
Meat/Sheep Sales
SW monitor farm Vic DPI

Enterprise performance (SW Vic)



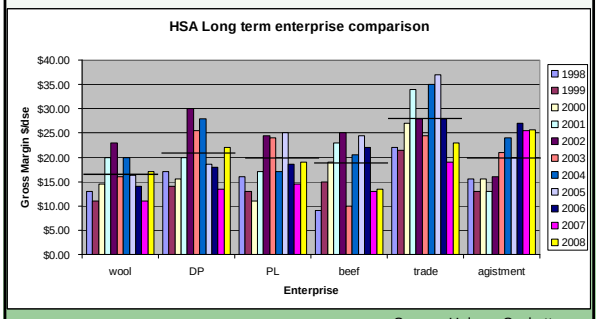
Historical gross margins ($/dse)*

	37 years	10 years	5 years
• Beef	$15	$16	$16
• Prime lamb	$26	$20	$19
• Wool	$23	$15	$13

Enormous variation within year, between years and between farms in farm income

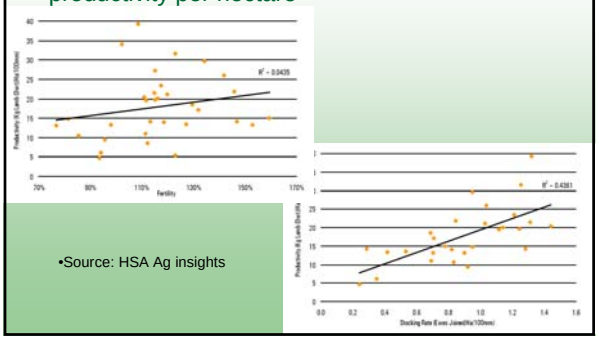
* 2009 dollars SW farm monitor

Ag insights



Source: Holmes Sackett

Individual animal performance does not explain productivity per hectare

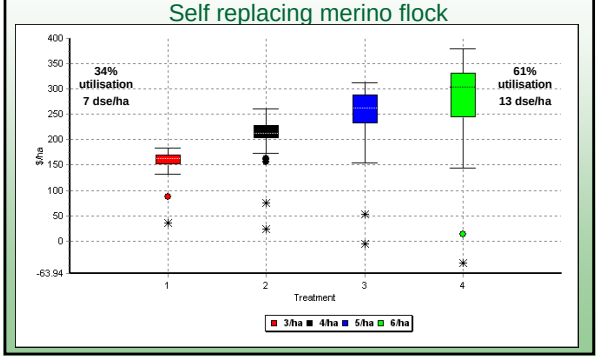


•Source: HSA Ag insights

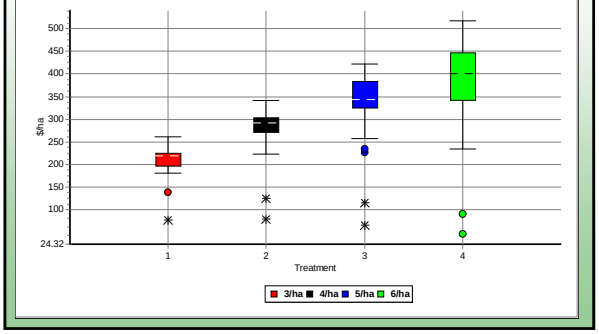
What is driving change

- High meat prices and good outlook
- Low confidence in wool
- Post mulesing and management of daggy sheep

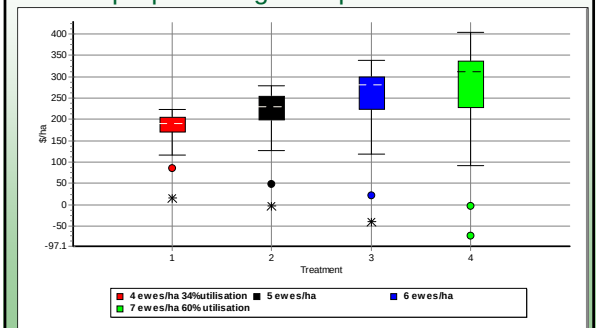
Long term mutton prices v's Stocking rate Self replacing merino flock



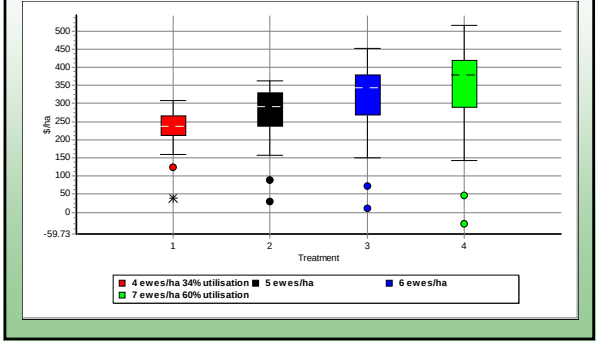
1 yr mutton prices v's Stocking rate



Dual purpose long term prices



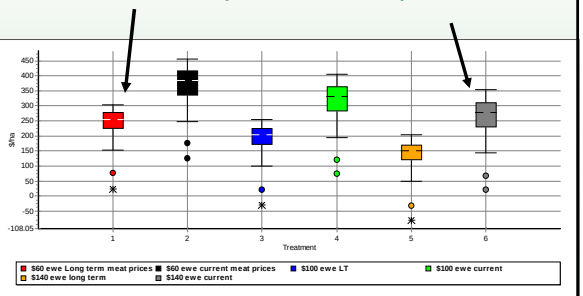
Dual purpose 1 year prices



Impact of stocking rate with higher mutton prices

- If understocked benefit of increasing fertility will be greatest
- Higher mutton price will result in higher income
  - Bigger variation but higher profit with higher mutton prices
  - Greater opportunity for **tactical** strategies with high prices
- Highest sale price dictates when wethers should be sold
  - Higher fleece values help to keep them longer
  - We struggle to sell merino wether lambs in wormy regions

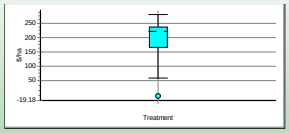
DP GM/ha ewe price v's meat price



- high replacement prices erode high lamb prices!

Composites: Lambing at 1yo v 2yo

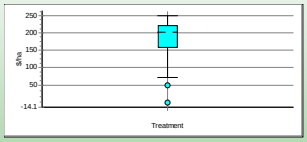
Total income	$/ha	335
Net wool income - main flock	$/ha	43
Net wool income - young stock	$/ha	4
Sale income - young stock	$/ha	259
Sale income - cast-for-age	$/ha	29
Sale income - sold at foot	$/ha	0
Total expenses	$/ha	139
Maintenance supplement	$/ha	17
Production supplement	$/ha	0
Shearing costs	$/ha	29
Animal husbandry	$/ha	32
Replacements purchased	$/ha	0
Rams purchased	$/ha	11
Sale costs	$/ha	30
Pasture costs	$/ha	20
Gross margin	$/ha	197



- 1 year lambing
- Higher production
- Higher profit

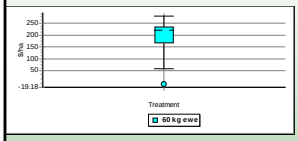
Lambing at 2yo

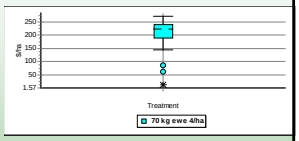
Total income	$/ha	313
Net wool income - main flock	$/ha	43
Net wool income - young stock	$/ha	4
Sale income - young stock	$/ha	237
Sale income - cast-for-age	$/ha	29
Sale income - sold at foot	$/ha	0
Total expenses	$/ha	133
Maintenance supplement	$/ha	15
Production supplement	$/ha	0
Shearing costs	$/ha	29
Animal husbandry	$/ha	31
Replacements purchased	$/ha	0
Rams purchased	$/ha	11
Sale costs	$/ha	27
Pasture costs	$/ha	20
Gross margin	$/ha	179



- Higher lambing %
- Lower profit
- Dry sheep mean less production
- Aim for > 45kg at mating

Which is better; big or small ewes?





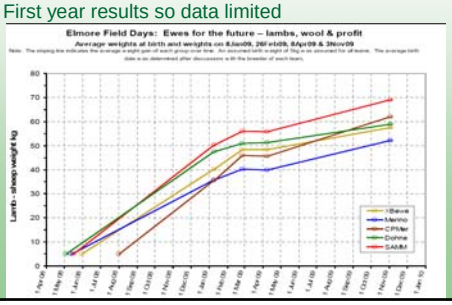
- Base 4.3 ewe/ha
- GM $197/ha
- Higher costs
- Similar income
- Depreciation $103/ha

- Base 4 ewes/ha
- GM $203/ha
- Lower costs
- Similar income
- Depreciation $95/ha
- Same depreciation can pay +$13/ewe

Enterprise	Meat price	GM/ha	GM variability
Merino SR	Long term	201	49
Merino SR	1 year	275	57
Merino DP	Long term	211	67
Merino DP	1 year	272	80
Comp 60 kg	Long term	197	66
Comp 60 kg	1 year	248	76
Comp 60 kg lamb 2yo	Long term	170	60
Comp 60 kg lamb 2yo	1 year	229	67
Comp 70 kg	Long term	203	62
Comp 70 kg	1 year	318	77
Comp 70 kg +15% -wool	Long term	201	67
Comp 70 kg +15% -wool	1 year	314	83
Comp 70 kg +15% +wool	Long term	223	67
Comp 70 kg +15% +wool	1 year	345	86

XB v Mer v SAMM v Dohne

- Elmore trial
- First year results so data limited



Reproduction

breed	Lamb marking % to ewes joined and present at lambing
XB	105
Peppin	44
CP merino	52
Dohne	83
SAMM	74

Lamb growth rates

Breed	Weight at marking on Sept 2009 kg	Weight at weaning on 3 Nov 2009 kg	Average lamb weight gain grams/day
XBewe	14.4	30.1	286
Merino	14.1	28.4	260
CP Merino	13.4	27.4	255
Dohne	14.4	28.4	255
SAMM	12.3	28.6	296
Average	**13.7**	**28.6**	**270**

Wool traits

Breed	CFW kg	FD	Fleece value
XB	2.88	28.7	$12.40
Peppin	3.23	19.2	$29.38
CP merino	2.94	18	$31.67
Dohne	2.45	19.8	$21.88
SAMM	2.12	23.4	$15.15

Are SA merinos better?

- Too early to make any conclusion from this trial
- SAMM no better than XB especially with lower skin and carcase value?
- Dohne ahead of SAMM
- Dohne fleece values means unlikely to be better than high fertility merino
- Dorpers?

Sustaining flock structure in merino/dual purpose flocks

- Age structure of the national sheep flock has increased by 1.5 years in recent years
- Cause:
  - Mating too many merinos to terminal sires
  - Not replacing due to high cost of replacements
  - Has been good for cash flow but the issue is at crisis point for many
  - Problems will persist with ongoing low sheep numbers and high sheep prices

How many merino ewes can you mate to terminals?

- Depends on
  - Lambing %
  - ewe hogget culling %
  - weaner death rate %
  - Adult death rate %
  - Age ewes are kept
- Issues
  - Profitability of each enterprise
  - Increasing complexity
  - Mulesing/Flystrike in merinos

How many merino ewes can you mate to terminals?

- Model flock
  - Assumptions
    - Keep ewes for 5 lambing periods
    - 10% weaner DR
    - 5% ewe hoggets culled
    - 3% adult DR
- Results

lambing % in merinos	70%	75%	80%	85%	90%
Max % ewes to terminals	29%	33%	37%	41%	44%

Alternative (to increase exposure for prime lamb production)

- Retain first cross ewe lambs to produce first cross ewes
  - 75% lambing merinos 33% mated to terminals
    - 28% DSE mated (merino ewes to terminal)
  - If first cross ewe lambs retained for 2nd cross lamb production
    - 14% DSE (merino ewes to terminal)
    - 46% DSE (first cross ewes)
- Set up specialist SR composite flock
  - Much greater amplification of numbers possible
    - Enable bigger exposure quickly
  - Control genetic improvement

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

Summary

- Management first
  - Balance number of ewes per ha, Tof L
  - Reproductive rate
  - Lamb growth rate
  - Sale prices and timing
  - Genetics
- Stocking rate still drives profit
  - Benefit of increasing lambing % greatest if understocked
  - If fully stocked may need to reduce number of sheep run
- High meat prices favour lamb production
  - But merinos benefit too
  - High meat prices provide more short term opportunities such as finishing
  - Understand the impact of changing enterprise
    - Production and price