

AN INITIATIVE OF

Making More From Sheep



Department of
Primary Industries and
Regional Development



Australian Wool
Innovation Limited



What's the potential – Stocking rate and sheep profitability

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MANAGEMENT

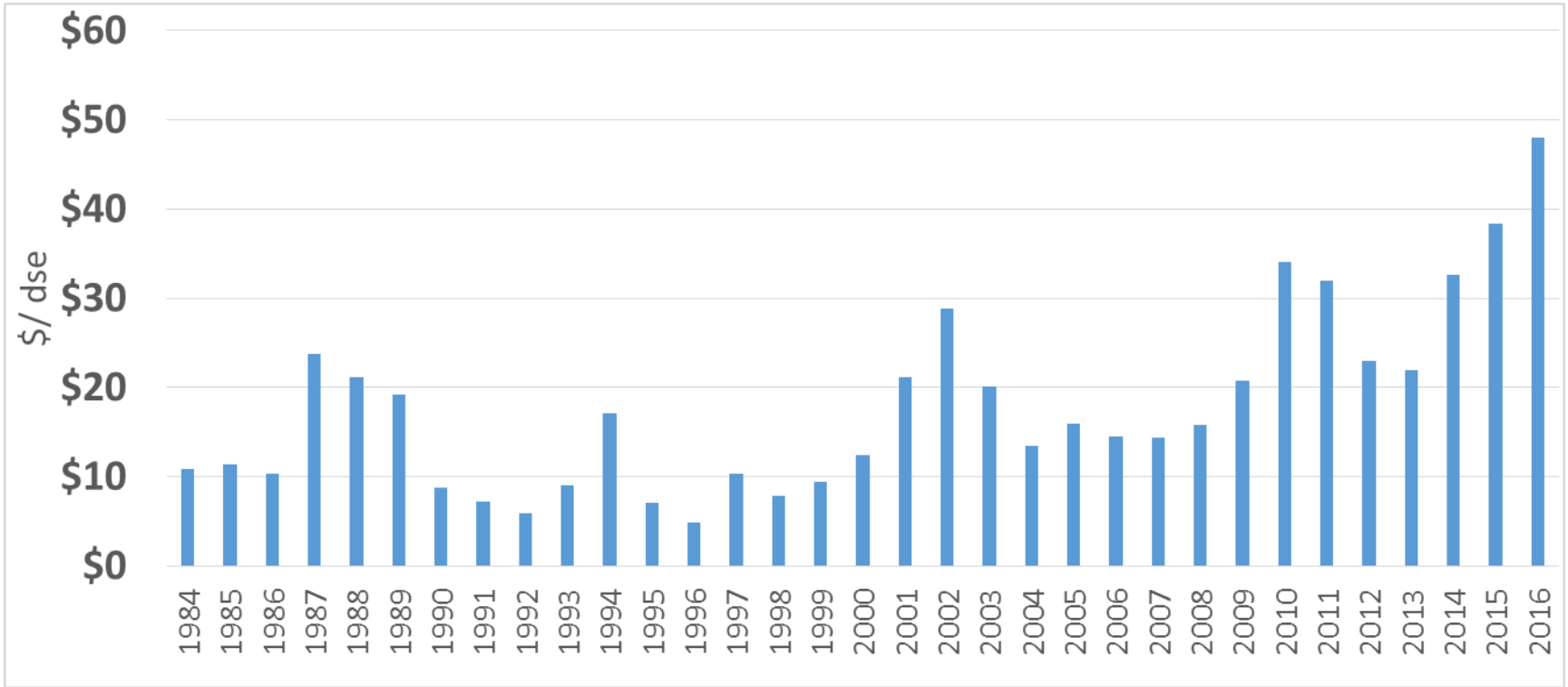


EVENT SUPPORTERS:



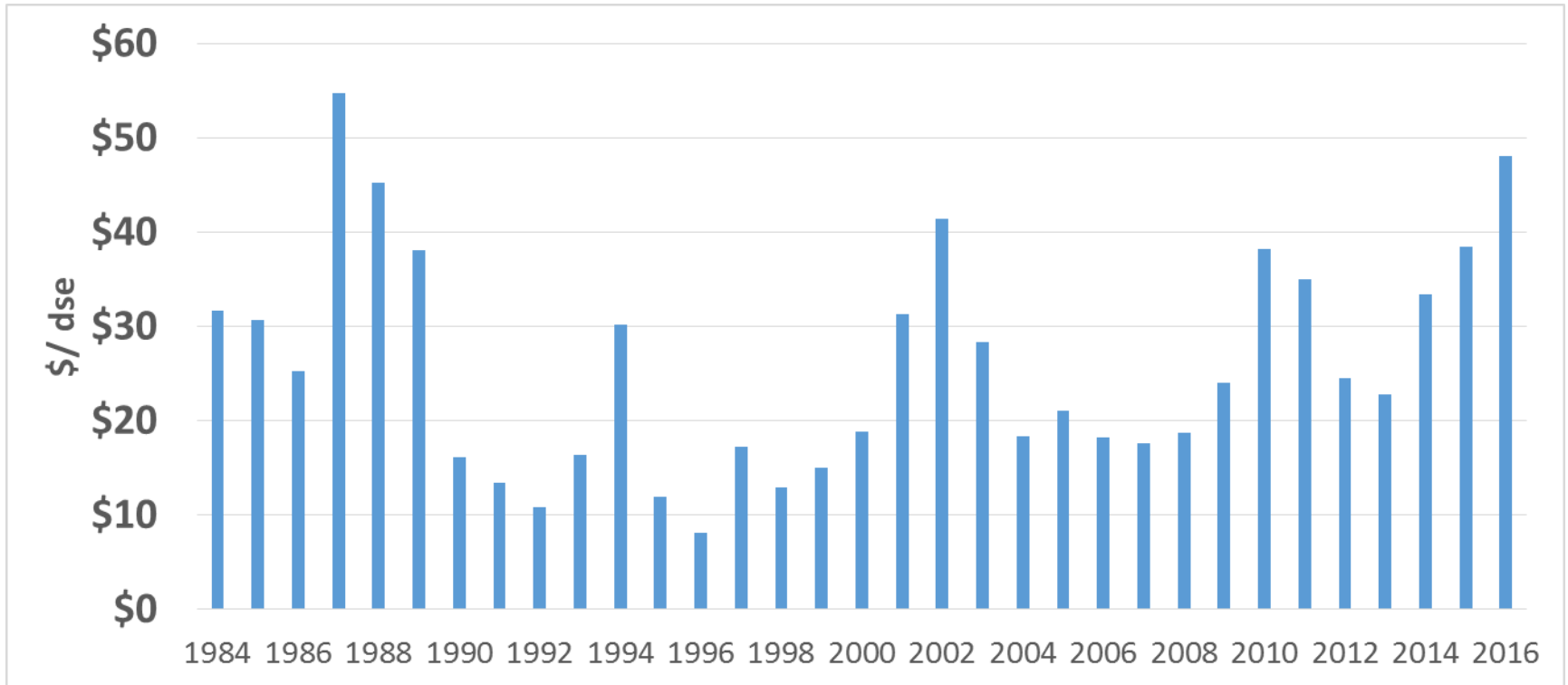
Sheep Gross Margin/ dse

Kojonup 1984 - 2016



Sheep Gross Margin CPI Adjusted

Kojonup 1984 - 2016



The language

DSE – Dry Sheep Equivalent

- Base unit of a grazing enterprise.
- Allows for a meaningful comparison of different flocks and grazing systems.
- Estimate of the average nutritional demand for a season.

The language

DSE – Dry Sheep Equivalent

- Lambing ewe – 1.5 dse
- Hogget – 1.0 dse
- Wether – 1.0 dse
- Rams – 1.5 dse

- Cow – 12 dse
- Yearlings – 8 dse
- Steer/ Heifer – 10 dse
- Bull – 14 dse

Flock Structure

Typical Merino

	Sell Weth Hgts		Sell Weth Lambs	
	Number	Dse	Number	Dse
Ewes	1,000	1,500	1,207	1,811
Ewe Hgt	404	404	493	493
Weth Hgt	404	404		
Rams	15	22	18	27
TOTAL	1,822	2,330	1,718	2,330
SR 330ha		7.0 dse/ha		7.0 dse/ha
Head/ha	5.5		5.2	

Flock Structure

Prime Lamb

	30% joined to XB		100% joined to XB	
	Number	Dse	Number	Dse
Ewes	1,293	1,940	1,530	2,295
Ewe Hgt	362	362		
Weth Hgt				
Rams	19	29	23	34
TOTAL	1,674	2,330	1,553	2,330
SR 330ha		7.0 dse/ha		7.0 dse/ha
Head/ha	5.1		4.7	

The language

Gross margin

$$\text{GM} = \text{Enterprise Income} - \text{Costs}$$

The language

Sheep Gross margin

Wool income

+ Livestock trading profit

(Closing value + sales-purchases – Opening value)

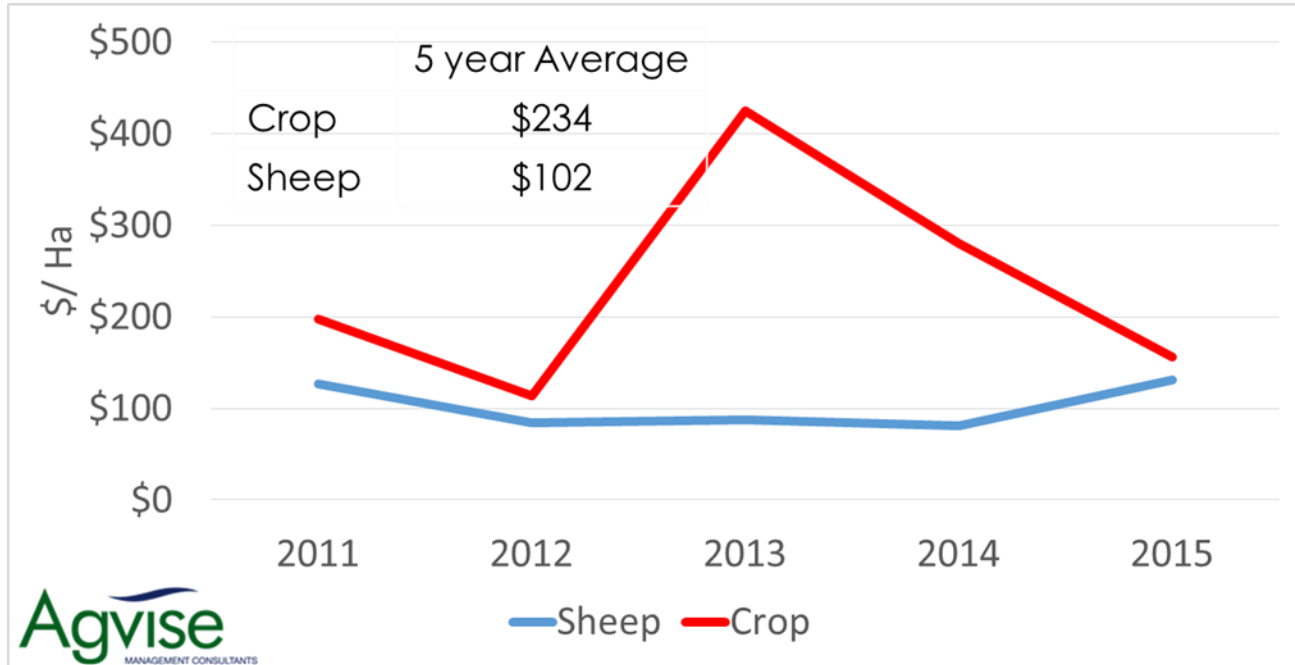
MINUS

- Shearing, Crutch, scanning, marking
- Fertiliser
- Drench, dips, vaccines, dog costs
- Freight
- Supplementary feed
- Fuel, R&M
- Seasonal labour
- Depreciation
- Selling costs

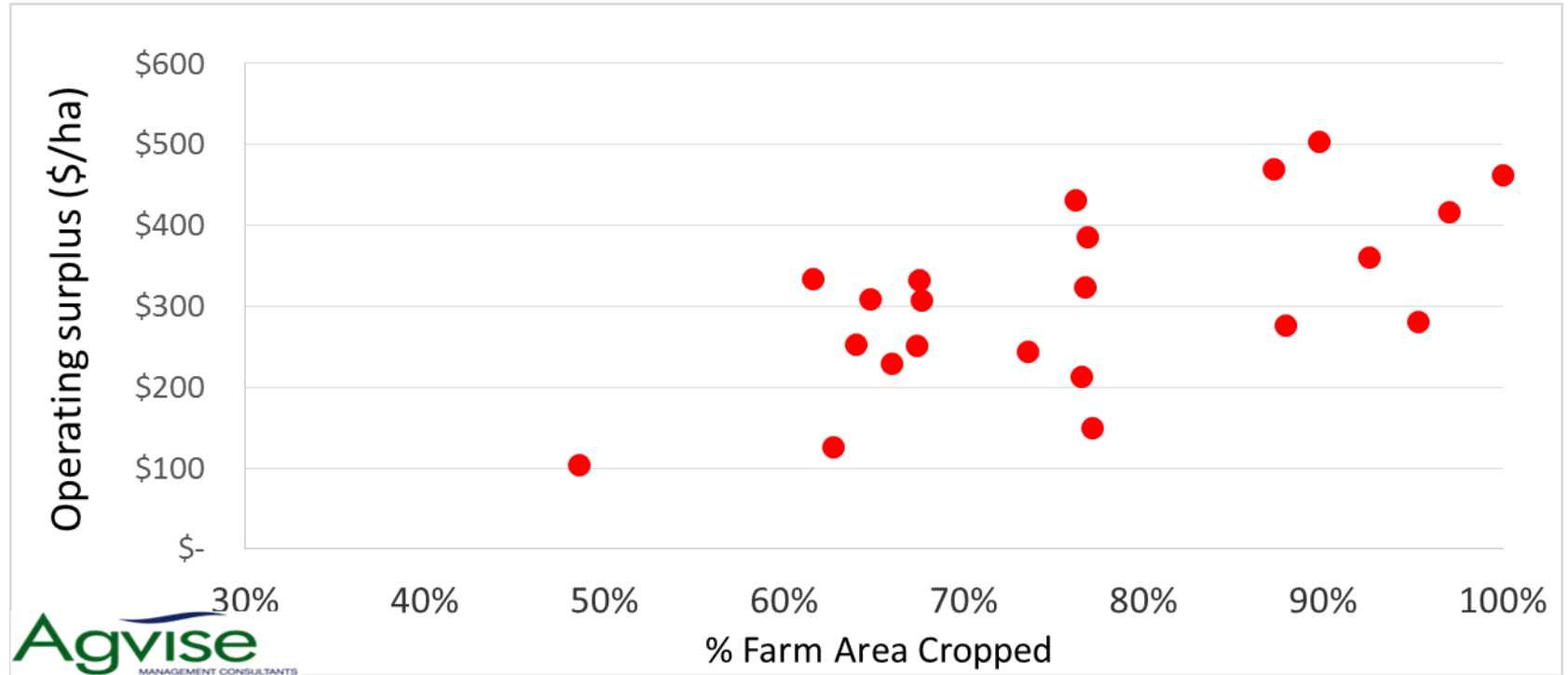
Crop vs Sheep – It's not a competition.



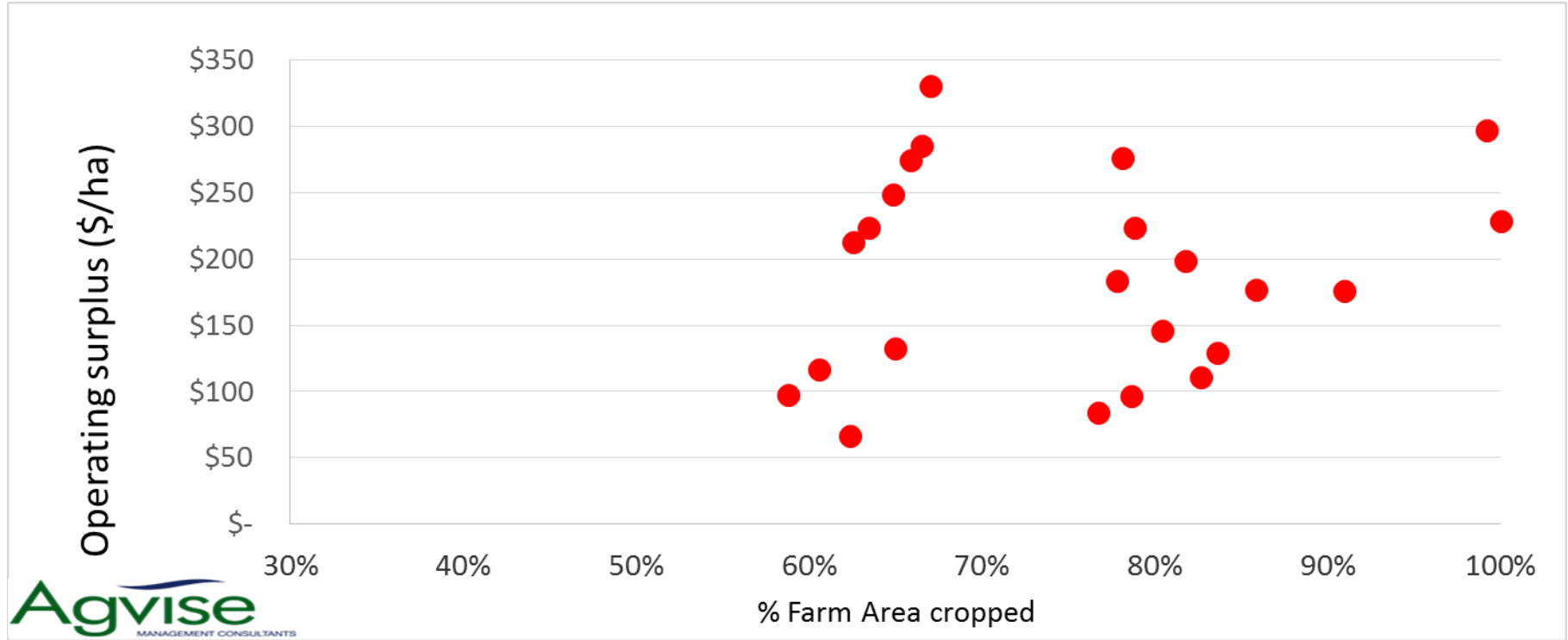
Cereal Sheep Zone Enterprise margins



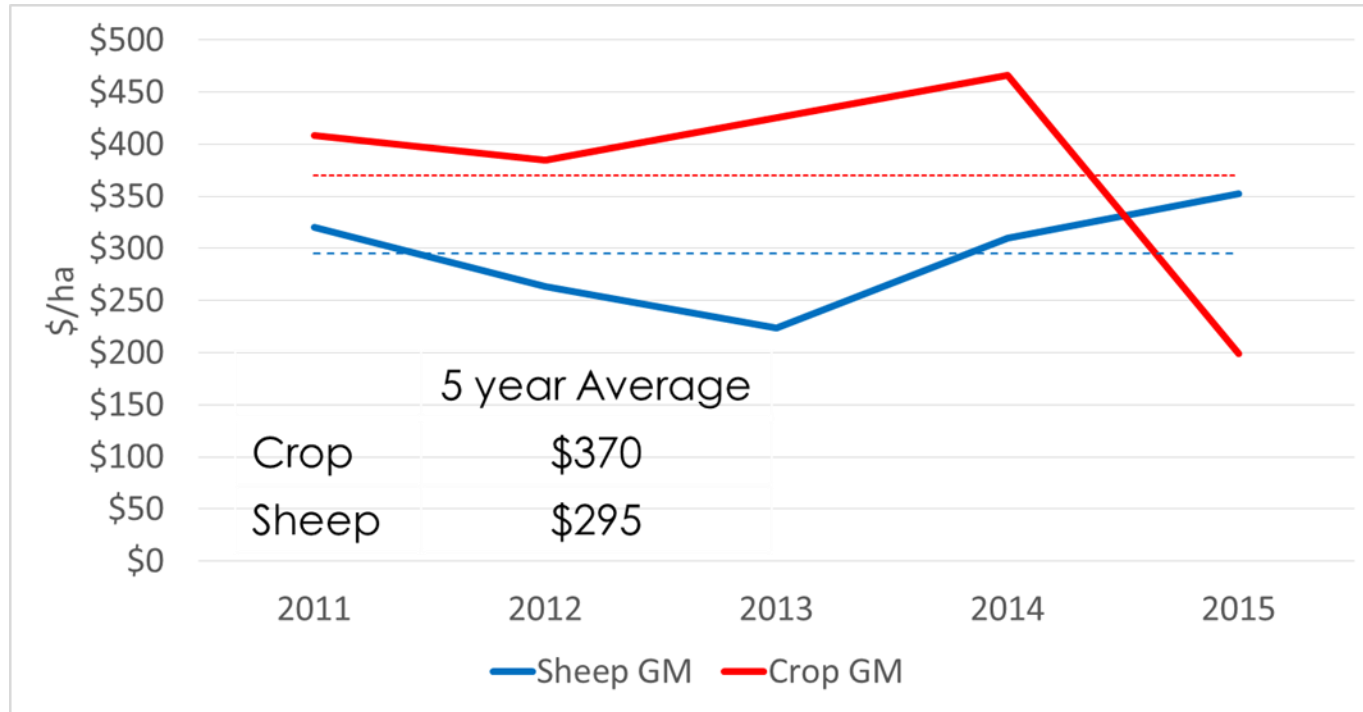
Cereal Sheep Zone Enterprise Mix - 2013



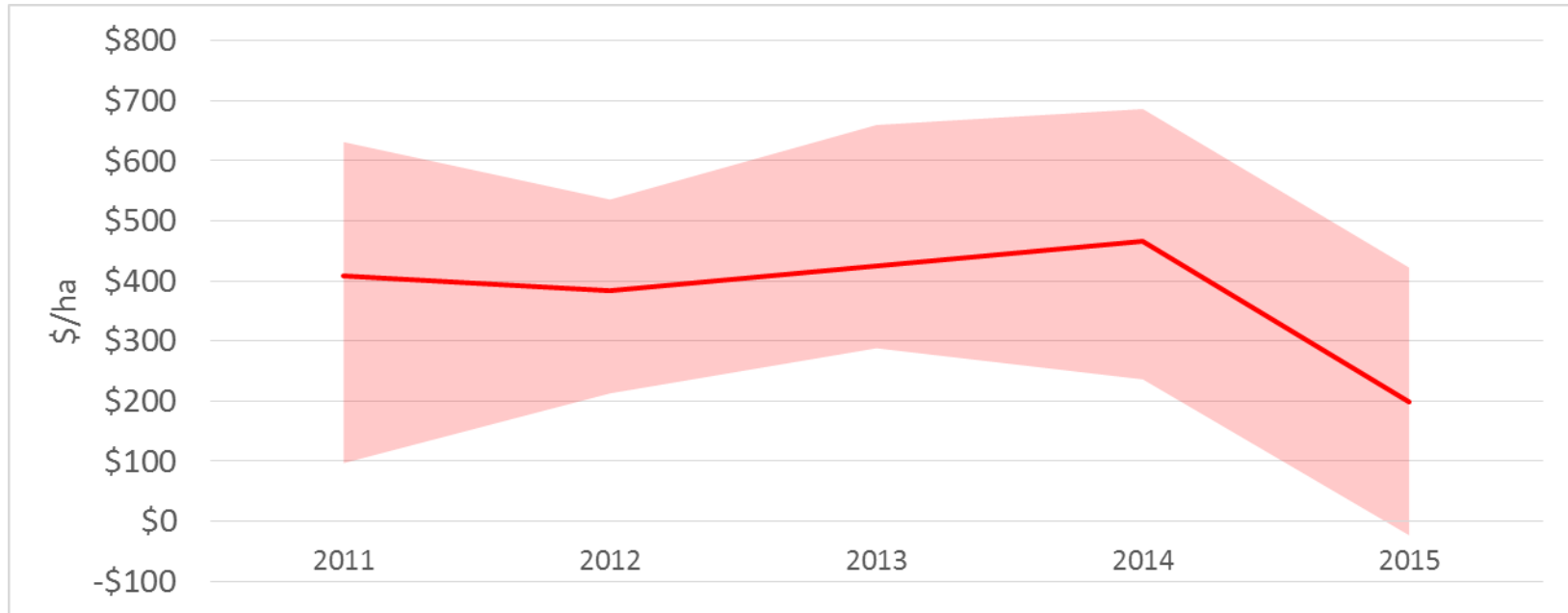
Cereal Sheep Zone Enterprise Mix - 2014



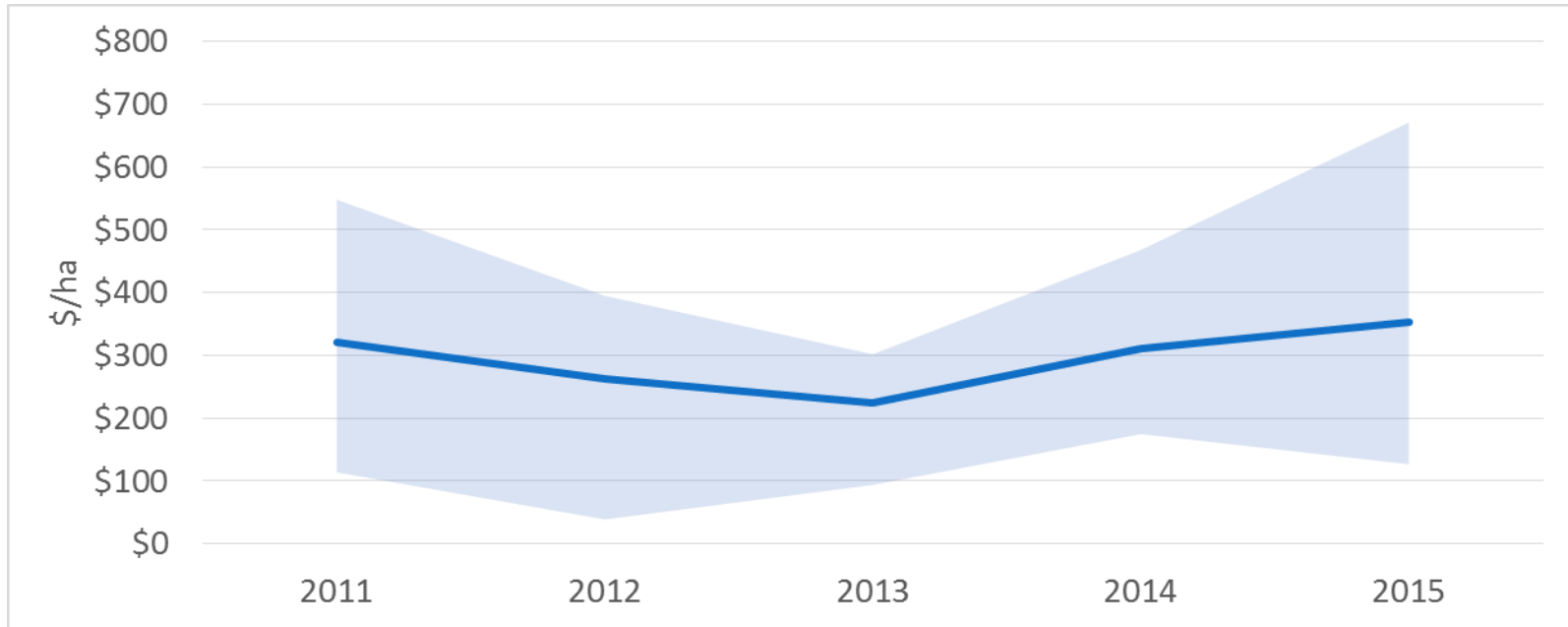
High Rainfall Zone Enterprise Margins



High Rainfall Zone Variation in Crop Margins



High Rainfall Zone Variation in Sheep Margins



The Business of Livestock Production

□ The Enterprise Profit Drivers

- Profit /ha
- Income /ha
- Cost efficiency

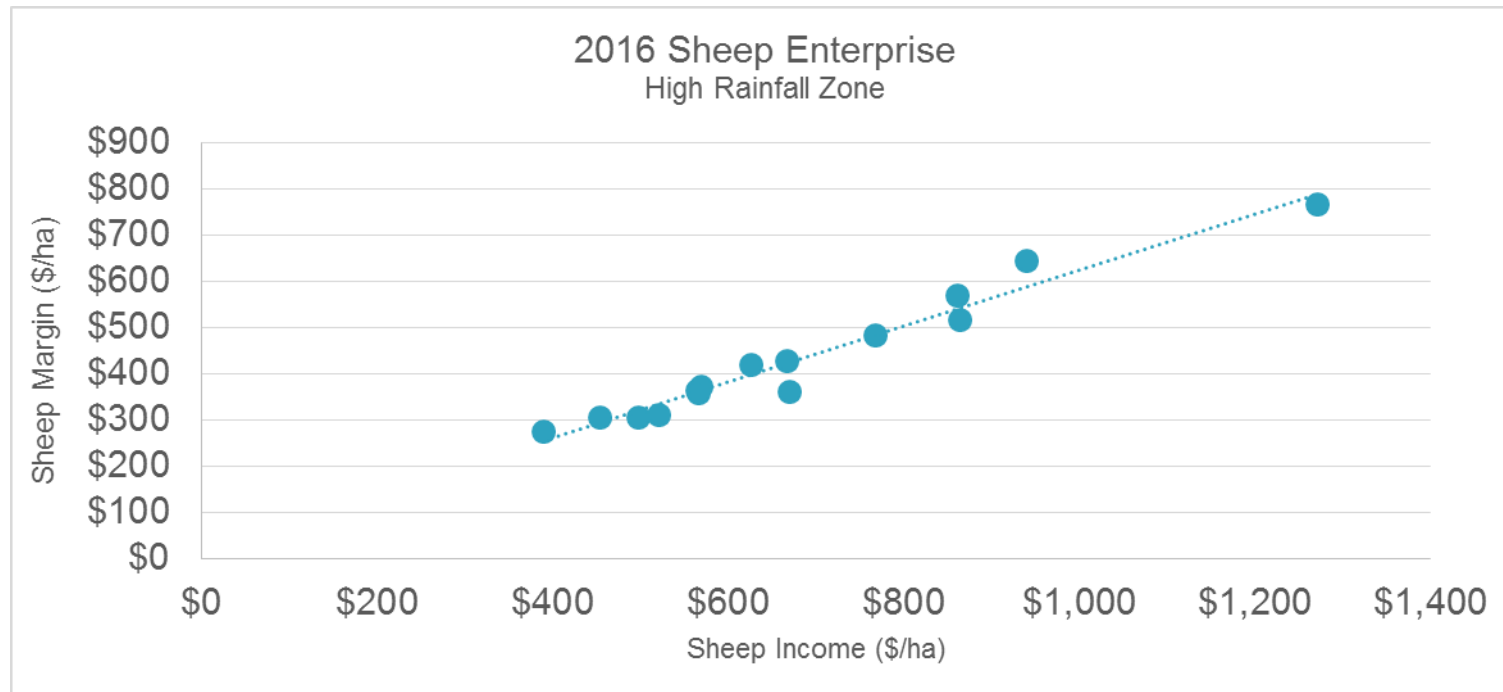
□ Major Production Drivers

- kg Wool /ha
- Lamb and sheep sales /ha
- Lambs weaned /ha
- Ewes /ha

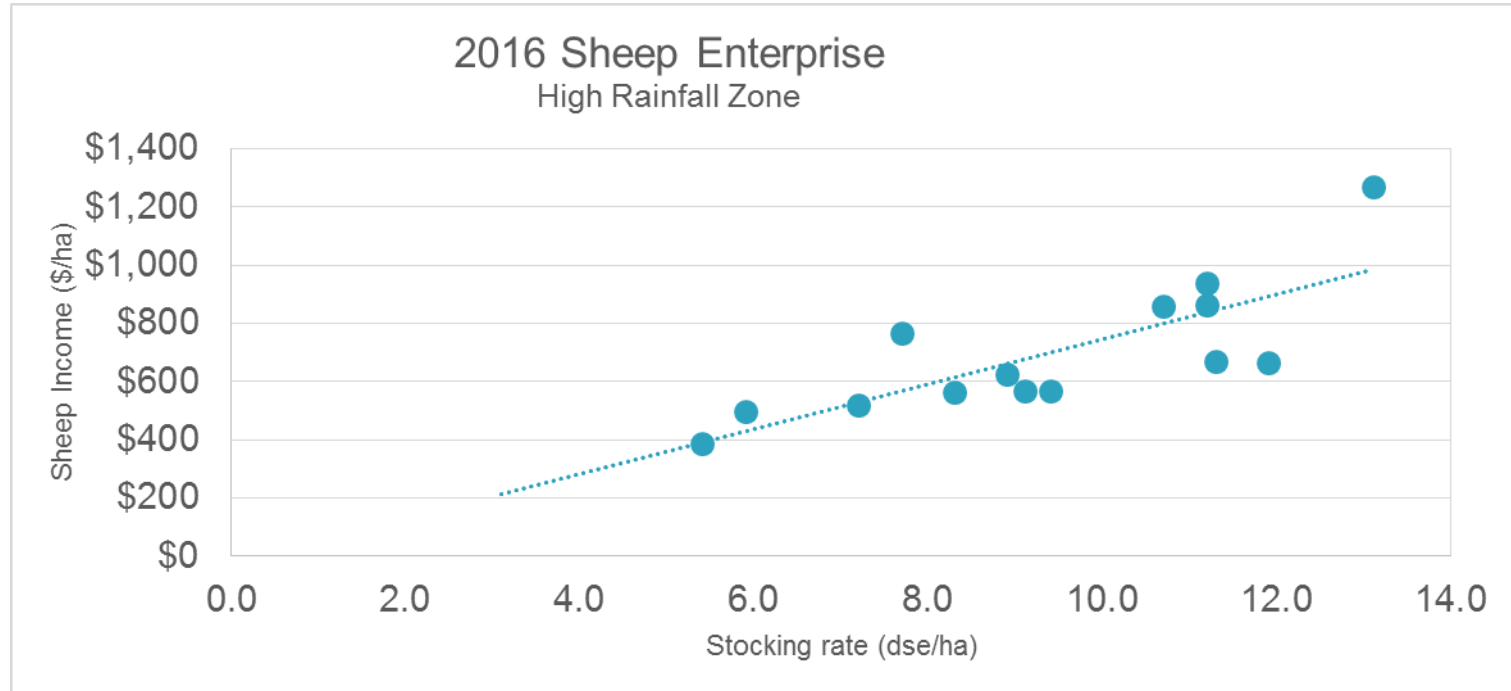
□ Minor Production Drivers

- Wool cut /hd
- Lamb %
- kg /carcass
- \$ /hd sold

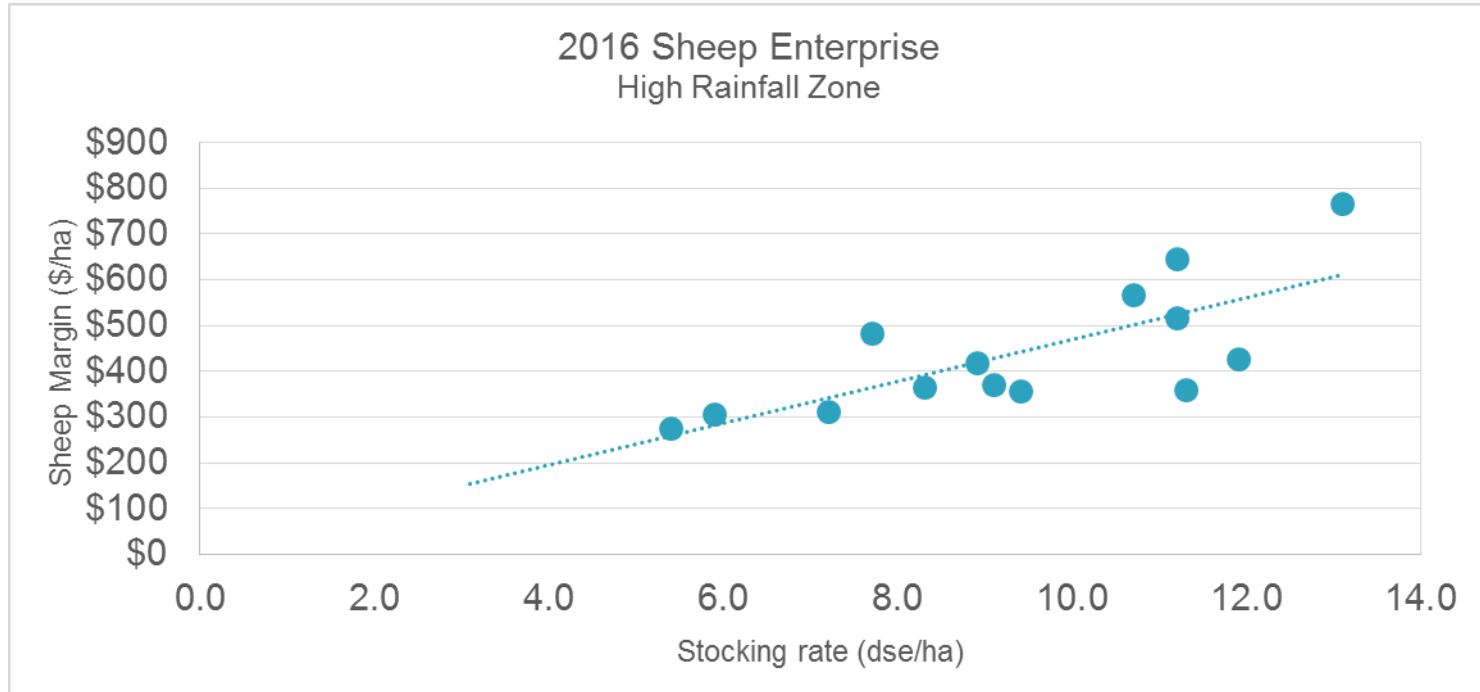
Sheep Income is King



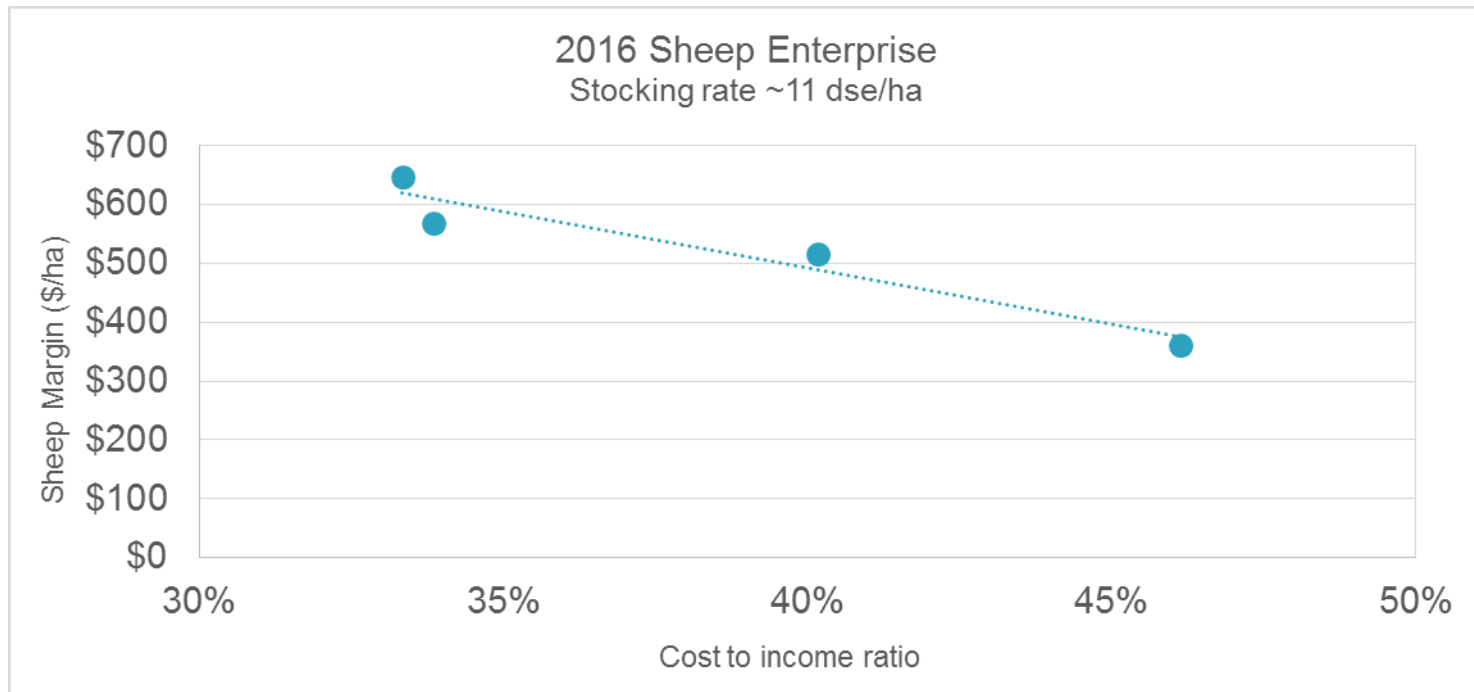
Stocking rate drives income



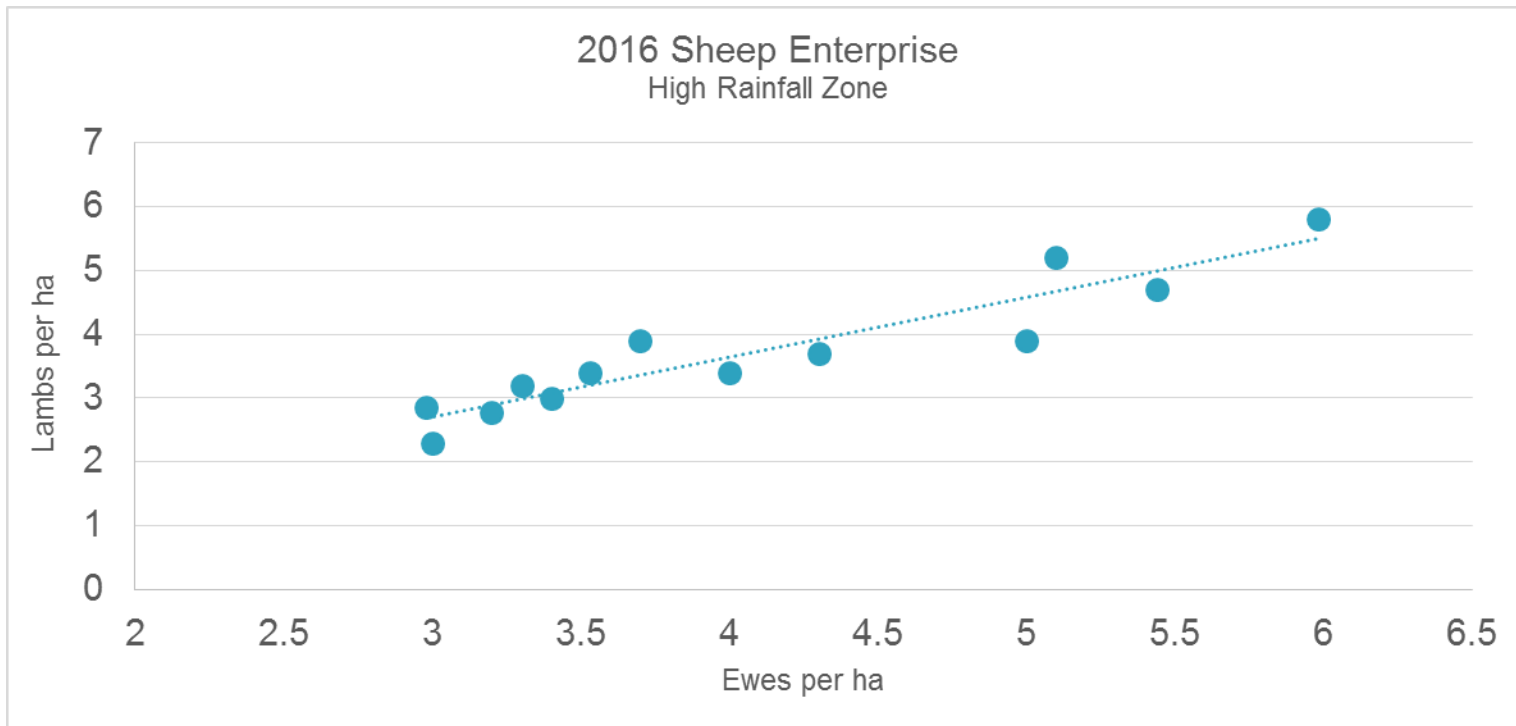
Stocking rate drives the margin



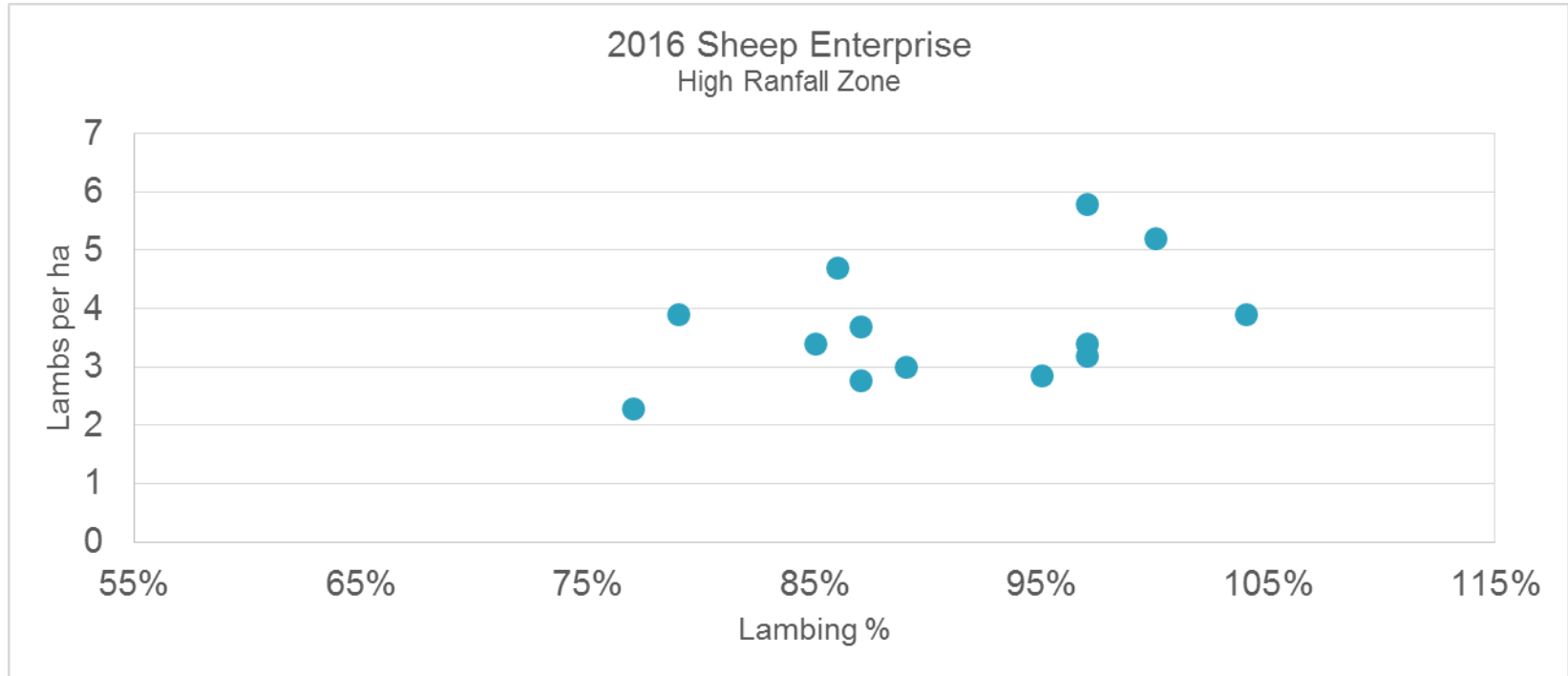
Cost efficiency drives profitability



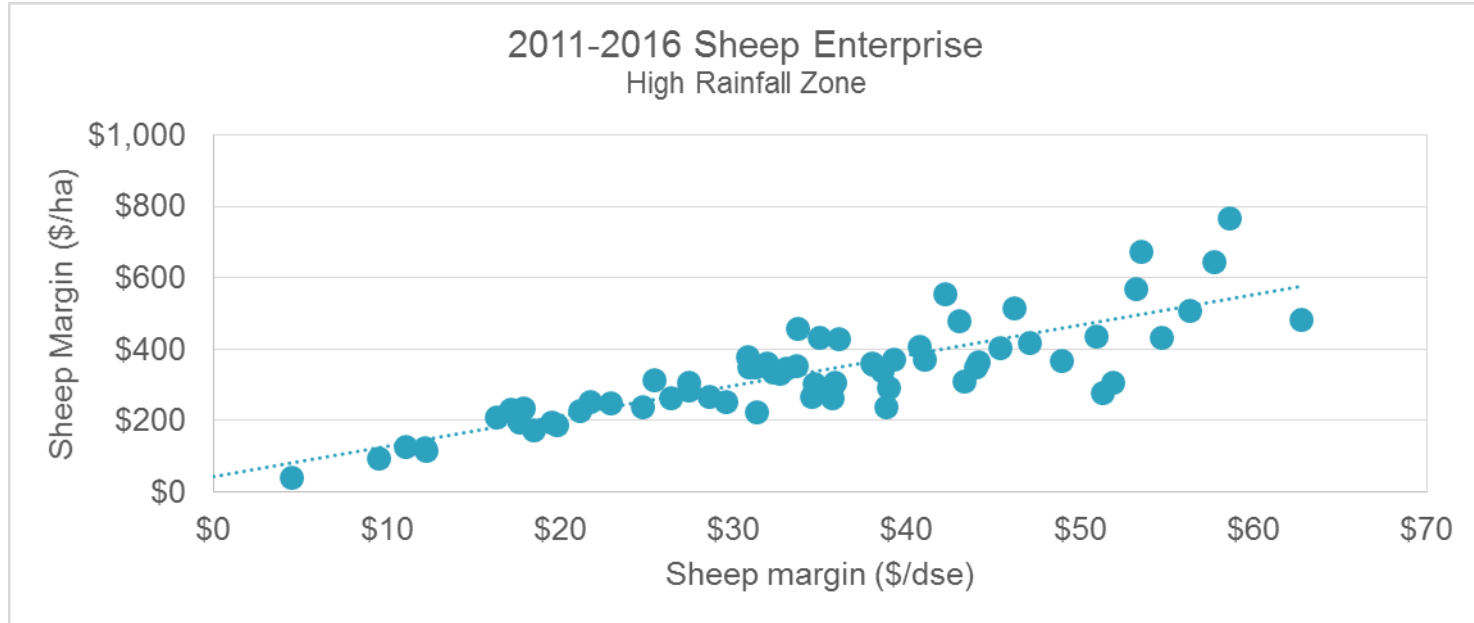
More ewes = More Lambs



Lambing % is not a driver of lamb production

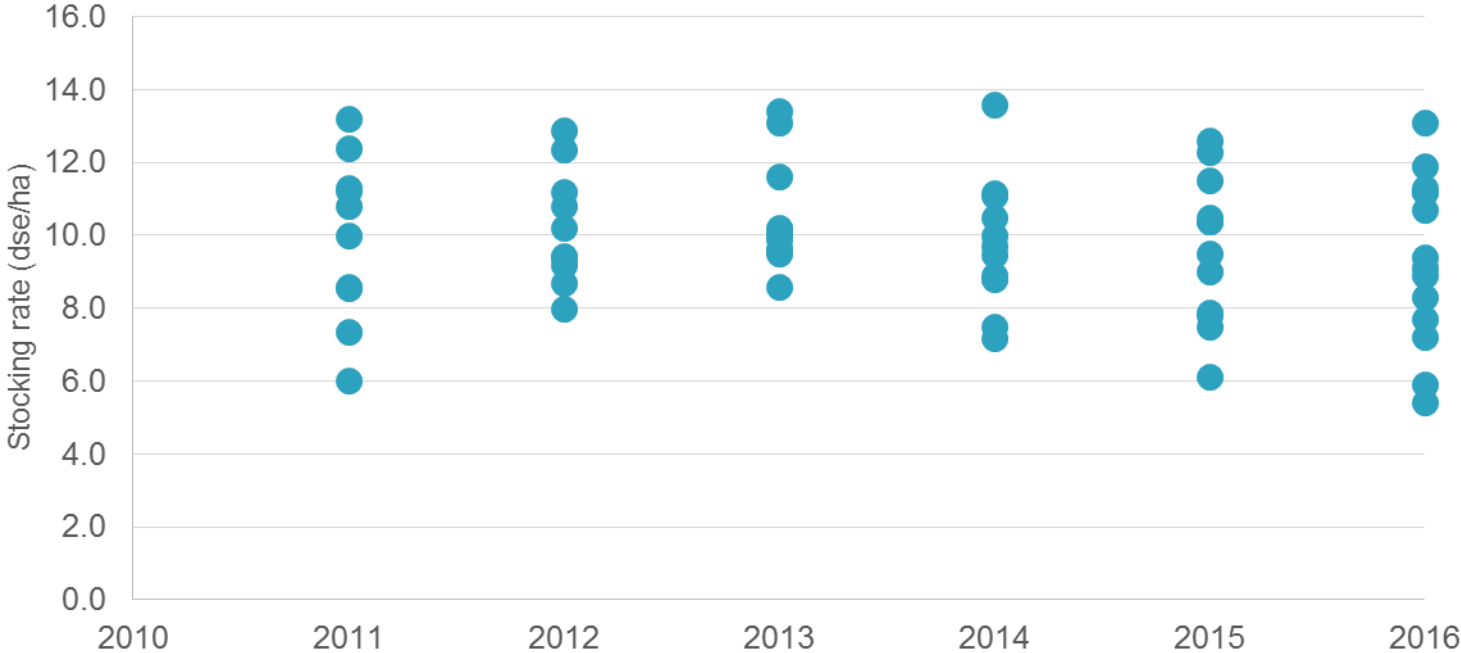


Reward for effort



What's possible?

450mm - 550 Rainfall Zone



Drivers of pasture production

1. Soil type
2. Rainfall
3. Plant density
4. Season length
5. Composition
6. Nutrition

Drivers of pasture production

1. Crop rotation.
2. Frequency cropped – length of pasture phase.
3. Insect and weed control
4. Fertiliser rates
5. Paddock size

Grazing management

1. Set stocking
2. Deferment + 10 – 15%
3. Rotational grazing + 15 – 20%
4. Strip grazing. + 20 – 35%

Estimating Potential Stocking Rate

French & Schultz

Potential SR = (Annual rainfall - 250mm) x 1.5 / 25mm

Estimating Stocking rate potential

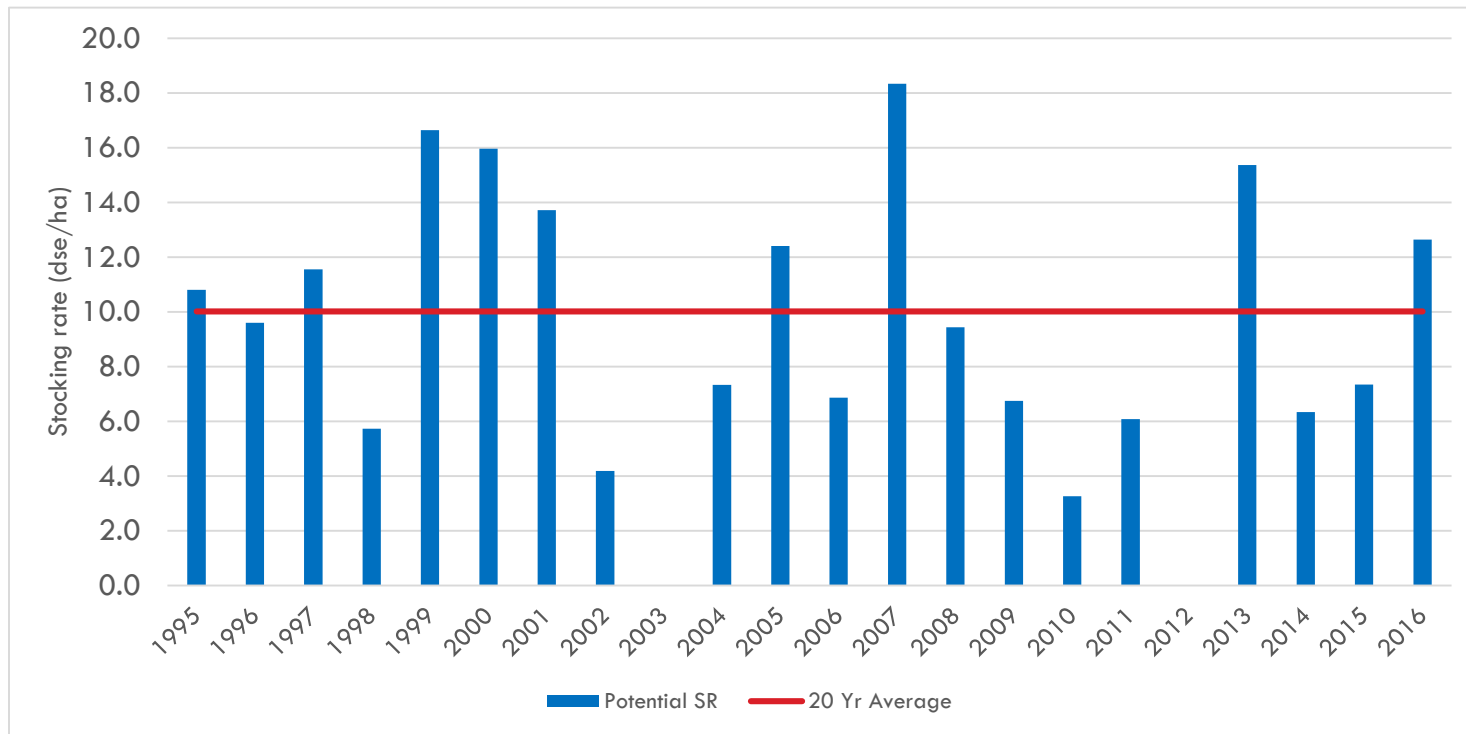
Annual Rainfall (mm)	French & Schultz	
300	3.0	
350	6.0	
400	9.0	
450	12.0	
500	15.0	
600	21.0	

Estimating Stocking rate potential

Annual Rainfall (mm)	French & Schultz	75% F & S
300	3.0	2.3
350	6.0	4.5
400	9.0	6.8
450	12.0	9.0
500	15.0	11.3
600	21.0	15.8

Potential stocking rate across 20 seasons

470 mm annual rainfall



Example Exit Strategy

Date of break	Potential SR (DSE/wgha)	Planned SR (DSE/wgha)	Tactic	Change in CP or SR	Actions
1 st May	11	8			
7 th May	10	8			
14 th May	9	8			Scan ewes - 227 dry ewes
21 st May	8	8			
28 th May	7	8	Increase grain feeding by 100g Lupins/d	+500 dse	Buy 50t lupins
4 th June	6	7	Sell dry ewes Increase feeding by another 50g lupins/d	-500 dse	Sell 227 dry ewes
11 th June	5	5	Sell top line wether hoggets feedlot remainder	-844 dse	Sell 281 wethers Buy 50t lupins & 50t hay
18 th June	4	5	Increase feed another 50g Lupins/d		Buy 50t lupins

Tactics;

That increase carrying capacity

Increase supplementary feeding

Reduced crop- increase pasture

Deferred grazing.

Growth promotants on pastures

Control pasture insects

Graze crops

Strip grazing

Rotational grazing

Early weaning

That reduce feed demand

Selling dry stock

Agistment off-farm

Early stock sales

Time of lambing

Take Home Messages

1. Stocking rate is a primary profit driver of the sheep enterprise
2. Stocking rate sets the potential, cost efficiency drives the profitability.
3. Stocking rate potential is a function of pasture production.
4. Think per hectare, not per head

Take Home Messages

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