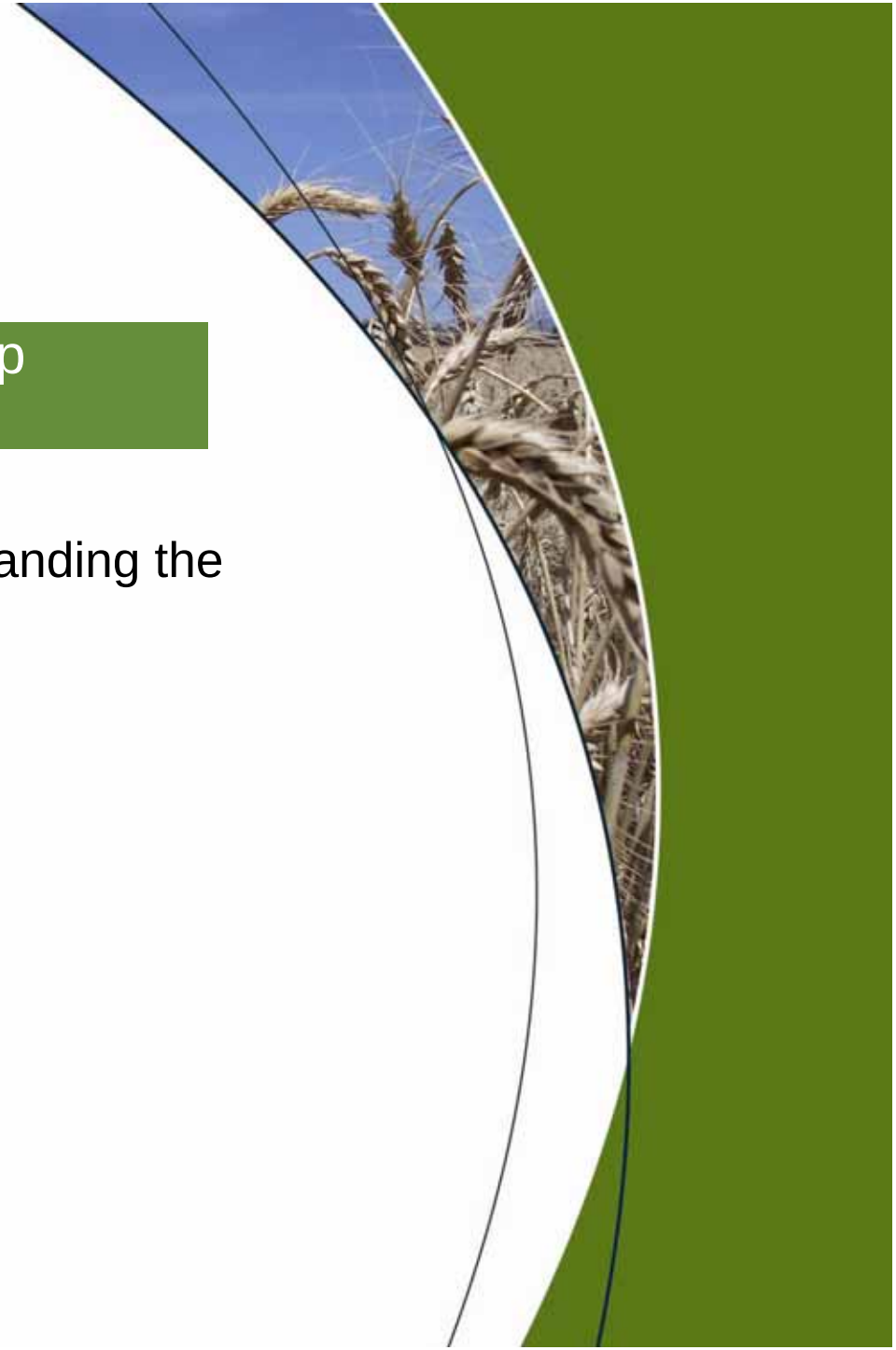
Profitability of a Merino Sheep Enterprise

Doing the numbers and understanding the levers



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Learning outcomes

- Understand some techniques to use to determine the best enterprise mix for your property
- Understand the profit drivers of a sheep enterprise
- Gain an understanding of business models and their components
- Identify the key tools and resources available

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Challenges with Farm Management Economics

- Volatility in seasons and markets mean an enterprise that performed well one year may not the next

- There is a direct relationship between the financial performance and the depth and quality of management

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Challenges with Farm Management Economics (cont)

- Just because the numbers pencil out in NSW, does not mean the same result will occur in QLD or SA
- Gross margins are great for assessing the relative gross profit of an enterprise, but they do not include overhead costs
- Gross margin as a percentage of total income is also a good key performance indicator – The greater the percentage, the more money you have left to cover overheads, finance, drawings and profit

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Farm Management Principles

- Have clear and simple business objectives that are formalised and agreed to by all business members
- Match enterprise types with land classes / systems
- Adopt management practices that will increase the probability of maximising a gross margin
- Stick to a production strategy for at least 5 years
- Measure and benchmark enterprise production, costs and time

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Clear and Simple Business Objectives

- Practice follows planning
- Management will intuitively adjust to objectives that have been set
- Develop some simple KPI’s and continuously measure them
- Written objectives will gain more clarity
- Keep the production system simple

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Match Enterprise types with land class / systems

- Production plans need to achieve the principle of highest gross margin ($/dse) and best fit for the capability of the land
- Develop a matrix of land use options for each land class
- Identify property development projects that will increase
  - carrying capacity,
  - enterprise viability and
  - overall robustness of the business model

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Key performance indicators for a sheep enterprise

- Stocking rate (DSE / ha or ha / DSE)
- Reproduction (Lambing %)
- Profit from livestock trading
- Cost structure – Variable cost and overhead costs
- Gross margin – The first level of profitability
- Cost of production – Calculated on a per unit basis

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Stocking rate

- Influenced by land class, pasture base, fertility, grazing management and rainfall
- Needs to be responsive to seasonal conditions
- Body condition score, soil cover and enterprise performance are all good indicators of suitable stocking rates
- nbbb

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Profit from livestock trading

- Measures the difference between the opening inventory and the closing inventory
  - Opening inventory includes number and value of stock at the start of the period
  - Purchases and natural increases are added to the opening inventory
  - Sales, deaths and rations are deducted from the inventory
  - Closing inventory includes the number and value of stock at the end of the period.

- Trading profit is influenced by prices received, cost of replacement stock, weaning rates and losses (death or theft)

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Cost structure

- Sheep enterprises should be a low cost enterprise:
  - Variable costs as a percentage of income should ideally be less than 30%
  - Overhead costs (rates and taxes, administration, accountancy, etc) should ideally not exceed 20% of income.
  - Finance costs as percentage of income should not exceed 15%
  - Debt to income ratio should be 1 : 1

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Gross Margins

- **Gross margins are good for broad comparisons and to assess enterprise performance**.

- **Gross margin** = Income – Variable costs

  Income consists of stock sales and wool sales

  Variable costs are costs that are directly linked to the enterprise and increase or decrease due to changes in stock numbers – eg shearing, crutching, marking, grain and hay, dips, drench

- A gross margin can be based on:
  - Dry sheep equivalents (DSE)
  - Hectares allocated to grazing

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Management that drives income and increases gross margin

- Sound nutrition:
  - High lambing percentage
  - High weaning percentage
  - Low ewe mortality
- Good pasture base:
  - Optimal stocking rates for land class
- Quality genetics:
  - Wool cut
  - Growth rates
  - Reproductive performance
- Pest control:
  - Flies, lice, worms
  - Wild dogs, foxes and other predators, rabbits
- Your passion and attention to detail

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Example Gross Margin

Assumptions	
Property size	320ha
Lambing %	85%
Mortality – Breeding ewes	5%
Weaner Mortality	5%
Wether Lamb Turn-off weights	27kg (live weight)
Dressing %	46%
Lamb price per kg (dressed)	$4.50
Skin value	$8.00
No. of breeding ewes	1000
Ewe lambs retained	300
Ram joining percentage	2%

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Gross Margin = Income – Variable Costs

Total Income

Sheep sales

Wool

$110,708

Total Variable Costs

Eg shearing, crutching, wool packs, health costs, supplementary feed costs, freight, selling costs etc

$42,004

Gross Margin **$68,703 (62% of income)**

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Sensitivity – pulling some levers

	Gross Margin	GM/Ha	Impact on Profitability
Standard Return	$ 68,703	$214.70	
Increase turn-off weights from 27kg to 30kg	$ 71,135	$222.30	3.54%
Increase in lambing % by 5% to 90%	$ 72,725	$227.27	5.85%
Increase in lambing % by 10% to 95%	$ 76,746	$239.83	11.71%
Increase in Ewe Mortality from 5% to 10%	$ 60,676	$189.61	-11.68%
Increase in wool price of 10% at 85% lambing	$ 74,045	$231.39	7.77%
Increase in meat price by 10% at 85% lambing	$ 74,127	$231.65	7.89%
Increase in wool price of 10% at 100% lambing	$ 86,762	$271.13	19.30%

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Cost of production (COP)

- COP can be useful for comparing business performance between years or with other businesses
- COP is determined by dividing the specified costs by the specified output (kilograms, numbers of units)
- COP can be calculated based on:
  - Variable costs (Gross Margin level)
  - Variable and overhead costs
  - All business costs – variable, overhead, finance, lease, labour

- When comparing COP, it is important that the same cost categories have been included

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Key messages from this example

- Production/enterprise management is just one of the many components of your business model.
- Business models reflect the unique character and needs of the people in the business.
- Each business model will result in different income, cost and profit outcomes.

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- Concentrate on the process, not the numbers given today

- Questions for you to consider:
  - How much does your sheep enterprise/s contribute to overall business profitability?
  - What is your sheep cost of production?
  - What are your major losses and what is their impact on profitability?
    - Poor lambing percentages
    - Not matching feed supply and demand
    - Missing genetic opportunities
    - Poor timing

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- Regular enterprise analysis should be part of sound business management for all producers and link directly with business cash flow development and review.

You can not manage what you do not measure

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Information and tools to help with decision making

- Wool cheque
- Gross margin budgets – NSW DPI website
- Lifetime Ewe Management courses
- Bredwell Fedwell workshops
- Sheep – The simple guide to making more money with less work
- Making More from Sheep
  - Participation in Making More From Sheep activities
  - Making More from Sheep Manual
    - Cost of Production tool
    - Module 1: Plan for success

    www.makingmorefromsheep.com.au
- Leading Sheep
- Bestprac www.bestrac.info

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