

AN INITIATIVE OF

*Making More From Sheep*



# Effective Integration of Livestock & Cropping

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EVENT SUPPORTERS:



# Background

- MLA Profitable Integration of Cropping and Livestock project
- Currently collecting and analysing 100 x multi-year benchmarking datasets across Southern Australia
- Project specifically targeting mixed enterprise (cropping and sheep)
- Goal is to identify the key profit drivers in mixed enterprise and understand what it takes to execute mixed enterprise really well
- Builds on a recent GRDC project where we collected 300 x multi-year benchmarking datasets across all of the major grain growing regions nationally

# Mixed enterprise

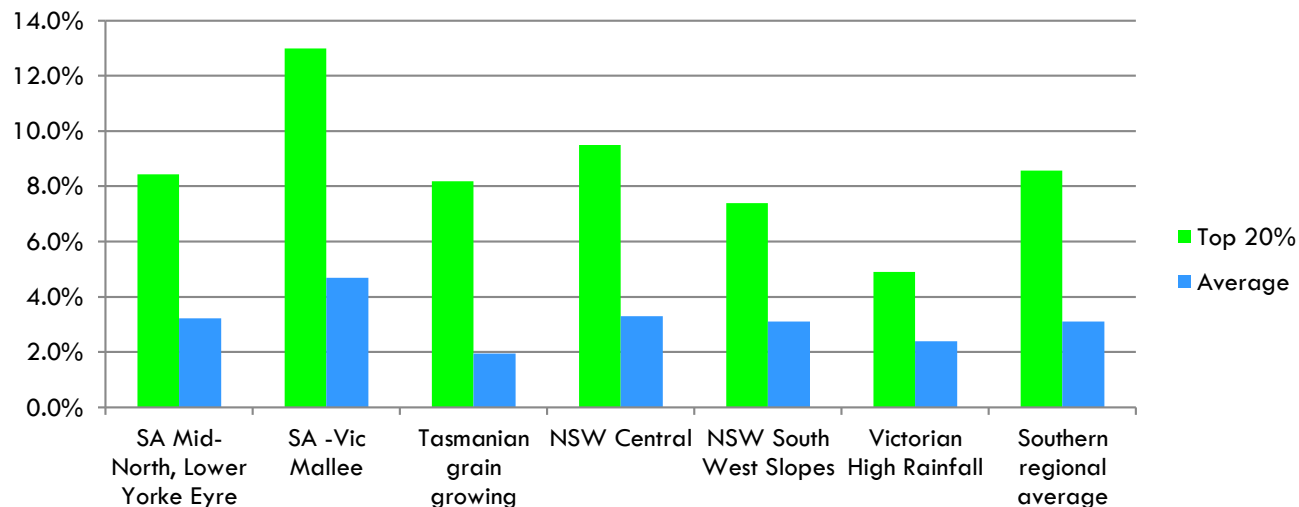
- Common production system in Southern Australia
- Often promoted on the principle of diversification being beneficial
- Has a stronger fit in some regions than others
- In the Lower EP 40% of high performing businesses were mixed
- In the Upper EP 75% of high performing businesses were mixed

# 1. Challenges with multi-enterprise

- Internal dilution of scale
- Duplication of capital
- Potentially creates enterprise conflict that will quietly erode margins in one or more enterprises
- Diversion of focus and management attention
- Compromises simplicity

## 2. Farm profitability across Southern Australia

### Southern Region - Return on Equity



GRDC project RDP00013 'The integration of technical data and profit drivers for more informed decisions'

# Labour productivity

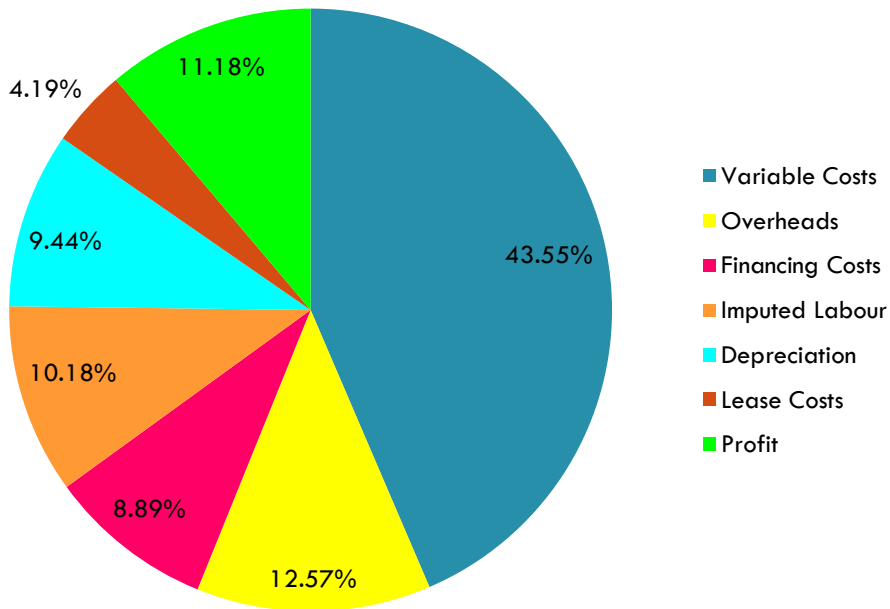
Enterprise type	Cropping Only	Mixed Enterprise	Difference
Group	<b>Turnover per Full Time Equivalent (FTE)</b>		
Average	\$521,340	\$381,693	+\$139,647
Top 20%	\$846,009	\$534,510	+\$311,499

Enterprise type	Cropping Only	Mixed Enterprise	Difference
Group	<b>FTE's per \$1 m in turnover</b>		
Average	1.9 employees	2.6 employees	0.7 employees
Top 20%	1.2 employees	1.9 employees	0.7 employees

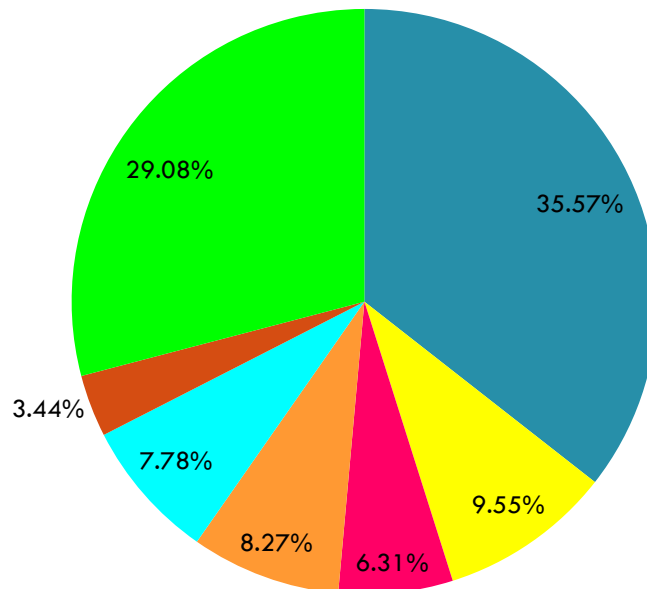
GRDC project RDP00013 'The integration of technical data and profit drivers for more informed decisions'

# Are you doing mixed enterprise really well?

## Average



## Top 20%



GRDC project RDP00013 'The integration of technical data and profit drivers for more informed decisions'

**30%** (of turnover retained as net profit)

What are these businesses  
doing differently?



### 3. Primary Profit Drivers

There are four primary profit drivers in a business

1. Gross margin optimisation (*Operational*)
  2. Low cost business model (*Structural*)
  3. People and management
  4. Risk management
- It is the interaction of these that results in very different profit outcomes
  - If one of these is overlooked it will compromise long term profit potential at some point

# **Key Profit Drivers**

# Key cropping enterprise profit drivers

- Operational timeliness
  - Across the full calendar year
  - Leverages 10% to 15% more yield
- Agronomy
  - Robust crop rotation and crop management
  - Disciplined approach to variable costs (less than 40% of turnover)
- Machinery utilisation
  - 0.7 : 1 Machinery Investment : Income ratio
- Labour utilisation
  - > \$600,000 turnover per FTE

# Key sheep (dual purpose) enterprise profit drivers

- Labour productivity
- Stocking rate
  - if >400mm rainfall, improved pasture species, and fertilisation possible
- Fertility and lamb survival
- Adult fleece value (target > \$60 per ewe per annum long term)
  - A grass free trait!
- Turn-off weight (target >48kg LWT lambs in a Decile 5 season)

## 4. The business case for multi-enterprise

There are a number of situations where the inclusion of livestock into a cropping enterprise has a strong fit:

- Making use of non-arable land classes
- Making beneficial use of a by product (bean stubbles)
- Livestock gross margins being stronger than alternative break crop choices
- Livestock enterprises representing highest and best land use
  - Frost prone landscapes
  - Soils prone to waterlogging
  - Paddocks with low arability (native vegetation, slope, soil depth)

# Effective integration between livestock and cropping enterprises

- Effective integration requires a high level of implementation skill
- Consideration to the cross over between enterprises is required
- The risk of enterprise conflict quietly eroding profit margins in one or more enterprises needs to be managed
- Do you have the available skill sets within the business to get the best out of both enterprises?

# True Win : Win

# True win : win scenarios

- When a livestock enterprise offers the most profitable legume (or break crop) available to the crop rotation
  - Legume based pastures can add \$30 to \$100 worth of soil nitrogen per ha

Long term crop yield	0.5t/ha	1.0t/ha	1.5t/ha	2.0t/ha
Break crop type	Gross Margin \$/Ha			
Canola @ \$530/t	-\$56.43	\$171.00	\$346.00	\$572.00
Beans @ \$355/t +N +G	-\$5.00	\$159.00	\$242.00	\$391.00
Lentils @ \$720/t + N	\$139.00	\$482.50	\$788.00	\$1,138.00
Sheep \$35/DSE + N	\$137.50	\$225.00	\$312.50	\$400.00
Stocking rate/Ha	2.5 DSE	5.0 DSE	7.5 DSE	10 DSE



# True win : win scenarios

- Lamb finishing making very effective use of grain legume stubbles
  - Can add \$50 to \$100 per hectare to faba bean gross margins
  - Can assist lamb enterprise with achieving heavier turn-off into favourable market conditions
- The availability of legume stubbles enhancing a producers ability to Spring lamb in dryland production systems



# True win : win scenarios

- Integration of Lucerne and livestock
  - Lucerne seed and livestock
  - Hay and livestock
  - Productive use of summer rainfall
- Wheat/Medic or Cereal/Medic systems



# True win : win scenarios

- Using a pasture phase to build organic carbon / soil health
  - However it is a long journey in dryland systems
- Utilisation of cereal stubbles as a maintenance diet for breeding stock also assisting with stubble management and mice control



# True win : win scenarios

- Ability to utilise livestock for canopy management in early sown cereal crops...provided the crops have low ryegrass pressure
- Using the opportunity to sow feed paddocks to test equipment and operators



# Potential Win : Lose

# Potential win : lose scenarios

- Grazing livestock on volunteer cereals or summer weeds
  - The cost to the cropping enterprise is too great
  - Moisture, nutrients, disease
  - Preferably not at all...and never past 15<sup>th</sup> March!



# Potential win : lose scenarios

- Shearing in April
  - April is a “Golden” month for cropping businesses...don't interfere with it!
  - February and March are very close to being 'Golden' months too
  - Being late with 10% of your seeding program can reduce total farm profit by 20%
- Large paddock size
  - Great for cropping enterprise
- Influence of diversification on implementation

## Potential win : lose scenarios

- Delaying grass freeing a medic, clover, or vetch pasture
- Cereal or grassy based pastures
- Grain & Graze on a cereal crop with ryegrass present
- Grazing stock on paddocks to be windrow burnt





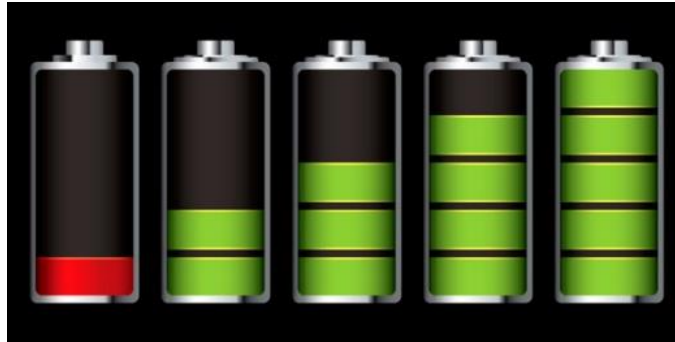
**Likely Lose : Lose**

# Likely lose : lose scenarios

- Sowing feed or fodder crops in late April, May, or June
  - Late April is interfering with the 'Golden' window for Canola and other break crops
  - May is well and truly interfering with the 'Golden' window for all crop types
  - May or June sown feed or fodder crops are also compromising the ability of these feed paddocks to productively accumulate dry matter before winter sets in with
    - Reduced day light hours
    - Colder temperatures (soil and air)
    - Frost
    - Slow leaf emergence rate
    - All reducing pasture growth rates in kg of dry matter per hectare per day

# Likely lose : lose scenarios

- Unnecessary complexity
- Inability to have effective recharge
  - Weekly
  - Monthly
  - Quarterly
  - Yearly



## 5. The principle of simplification regularly pays in agriculture

- Greater focus
- Greater labour productivity
- Enhanced mind set and well being
- Less enterprise conflict



# We may need to integrate livestock and cropping enterprises

- But do we need...
  - 4 different wheat varieties
  - 3 different grain legume crop types
  - 4 different livestock enterprises (Prime lamb, SR Merino, cattle and sheep trading)
  - 2 different lambings in both breeding enterprises
  - 4 major shearings every year
  - Involvement in confinement feeding large numbers of stock during seeding with cheap by products in a Decile 5 type year?

# Summary of key messages

- The business case for multi-enterprise must be strong
- Internal management risk must be managed to overcome any enterprise conflict that can quietly erode margins
- Optimise the win : win's
- Make sure you are hitting the key profit drivers
- Simplicity pays!

# Best practice indicators

- Retaining 30% of turnover as net profit
- All fodder crops sown by the end of March
- Seeding consistently completed by 20<sup>th</sup> May
- Legume based pasture phase
- Adult fleece value > \$60
- Average turn-off weight > 48kg LWT
- Variable costs less than 40% of turnover
- TPML costs ideally at 25% of turnover