

AN INITIATIVE OF

Making More From Sheep



Effective Integration of Livestock & Cropping

Simon Vogt – Rural Directions Pty Ltd



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

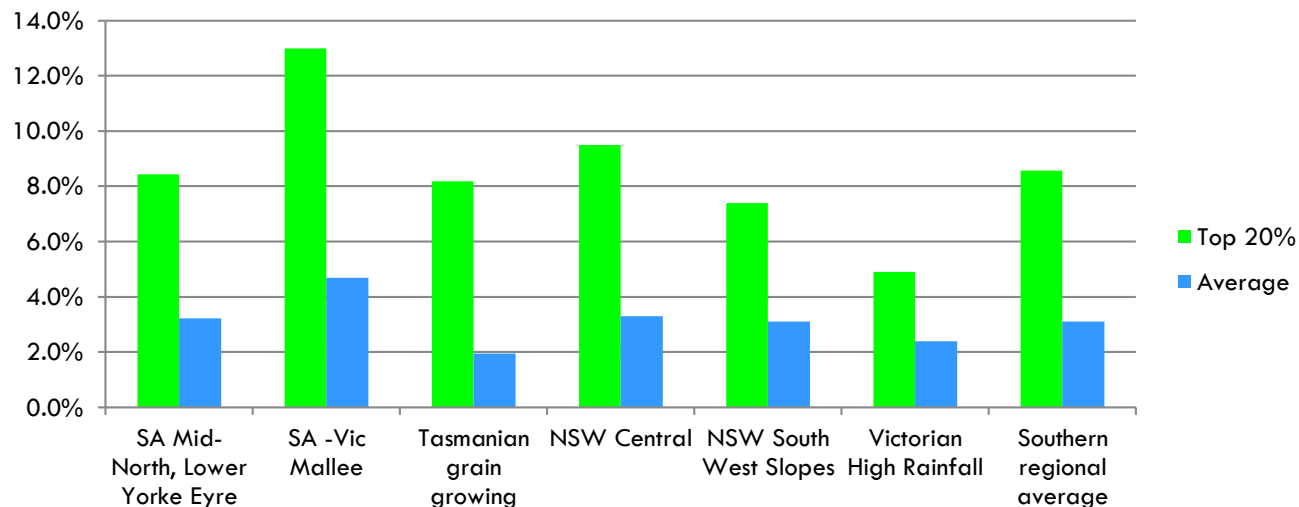
- Common production system in Southern Australia
- Often promoted on the principle of diversification being beneficial
- Has a stronger fit in some regions than others
- In the Lower EP 40% of high performing businesses were mixed
- In the Upper EP 75% of high performing businesses were mixed

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

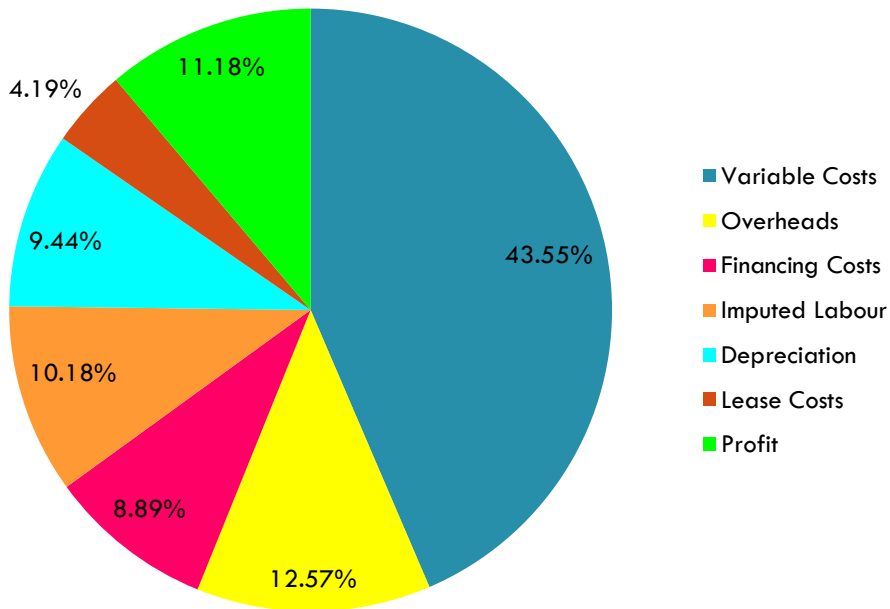
Enterprise type	Cropping Only	Mixed Enterprise	Difference
Group	Turnover per Full Time Equivalent (FTE)		
Average	\$521,340	\$381,693	+\$139,647
Top 20%	\$846,009	\$534,510	+\$311,499

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

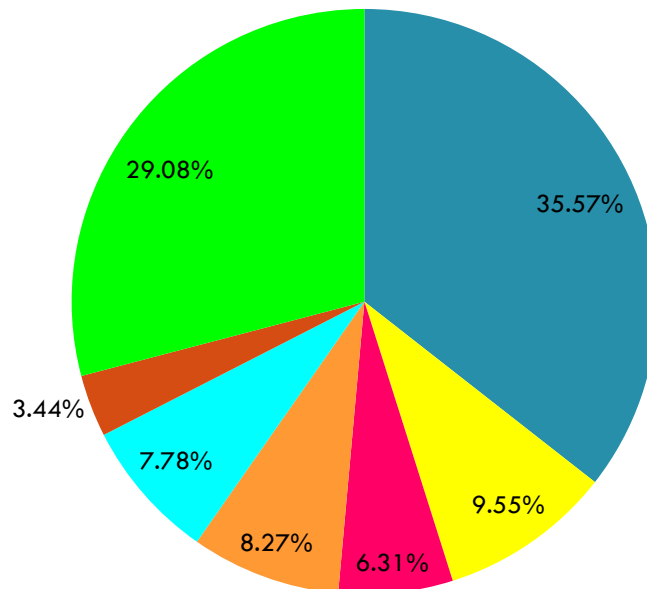
GRDC project RDP00013 'The integration of technical data and profit drivers for more informed decisions'

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 15th 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



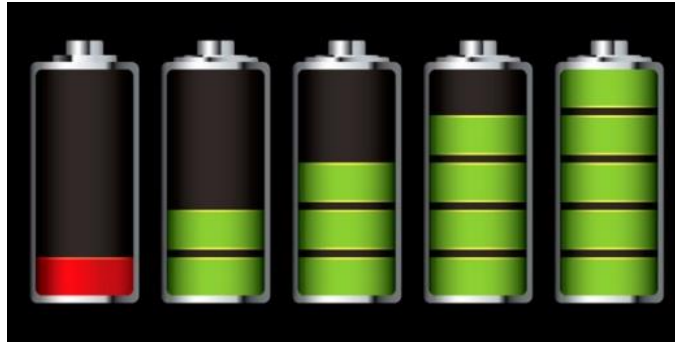
Likely Lose : Lose

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 20th 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