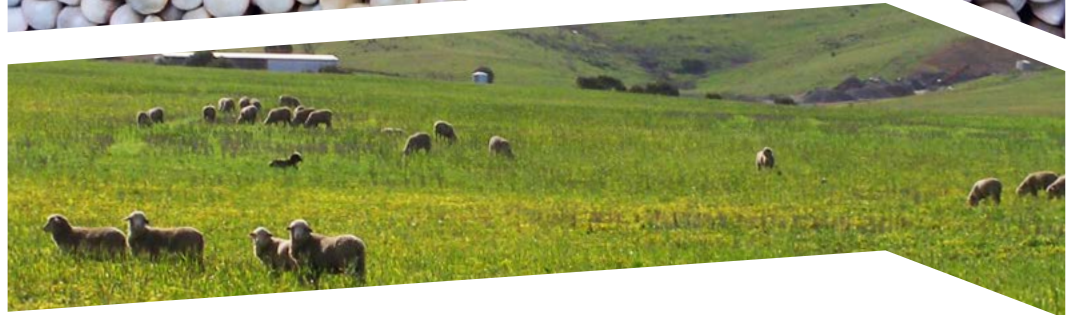


Farm Gross Margin and Enterprise Planning Guide

2017



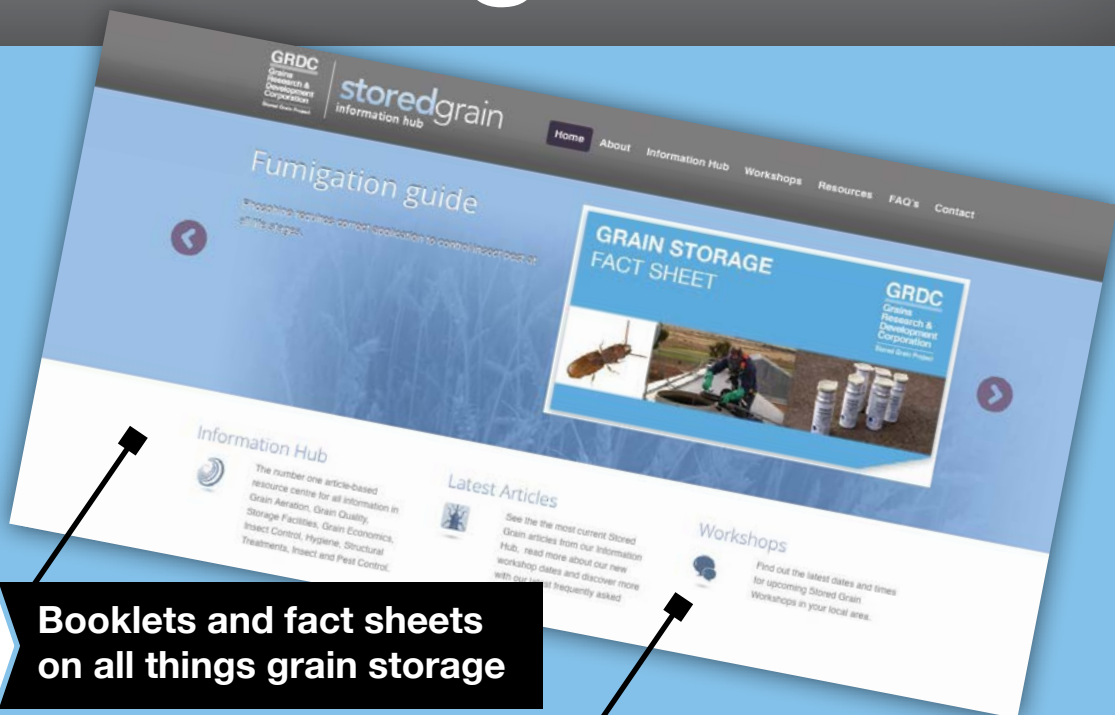
A gross margin template for
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GRDC
GRAINS RESEARCH & DEVELOPMENT CORPORATION

Farm Gross Margin and Enterprise Planning Guide 2017

A gross margin template for crop and livestock enterprises

- Provides representative gross margins for all major extensive crop and livestock enterprises across South Australia
- Compares the sensitivity of profit of enterprises to a change in production and price
- Includes a comprehensive list of major cropping and livestock input costs

A Rural Solutions SA publication

Sponsored by SAGIT and GRDC

ISSN – 2207-2349 (Print)

ISSN – 2207-2357 (Online)



DISCLAIMER

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Published February 2017

Farm Gross Margin and Enterprise Planning Guide 2017

The South Australian Grains Industry Trust, in association with Primary Industries and Regions SA (PIRSA) and the Grains Research and Development Corporation are pleased to again produce this annual publication on expected Gross Margins for broadacre cropping and livestock enterprises in South Australia. It incorporates latest information on input and output pricing to give estimates of the relative profitability of different farm enterprises, as an aid to decision making in enterprise selection.

Each year farmers are confronted with an array of challenges brought on by the vagaries of weather, production and marketing. In 2016, growing season rainfall across the state was quite reasonable culminating with some excellent spring rainfall. Good agronomy has seen production records fall across the state. At the same time, however, certain areas were severely impacted by storms and frost. A further downside was oversupplied world markets feeding back significantly lower cereal prices to growers. In the livestock area, seasonal conditions generally allowed stock enterprises to perform well, the beef industry, in particular, continuing to enjoy a long overdue price spike.

There have been subtle but significant changes in crop diversity over the past decade. Traditionally, virtually all rotations in SA were cereal based, with wheat largely king. However, recently we have seen the emergence of the concept of wheat as a break crop to more valuable alternatives. Examples of this are canola on Lower Eyre Peninsula and lentils on Yorke Peninsula. Integral to this evolution has been the adoption of new and/or cheaper technologies such as herbicide tolerant varieties and cheaper fungicides.

This reclassification of alternative crops from 'break crops' to 'rotation crops' has come from continued evidence as to their profitability, even in lower rainfall districts. This was again seen in 2016, with instances of rotation crops such as lentils returning in some cases more than the land value on which they were grown.

Under this new regime, it has become even more critical to assess the potential profitability of alternatives when making enterprise selection decisions. Clearly, while this remains an area for individual decision making for each farm business, it is also clear that tightening margins are driving the need for a more robust examination of the risks and rewards of the various alternatives.

We believe that a healthy examination of gross margins of alternative enterprises is an effective tool in assisting with the process. To this end, we are pleased to be involved in the evolution of the Excel based version of the Farm Gross Margin Guide. This tool has all the normal practices for enterprises pre-loaded into an editable version which can be quickly and easily adjusted to represent individual farmer circumstance. This allows the incorporation of individuals own beliefs and judgements in producing their relevant numbers to aid decision making.

In farm business management, the focus is on getting the most from existing land and assets. The three partners in this publication have important roles in this process. GRDC support a number of initiatives in this area including Farm Business Updates, Newsletters and Factsheets. The South Australian Grain Industry Trust (SAGIT) invested \$2.3 million in new projects in 2016/17 supporting research crucial to advancing the SA grain industry. Rural Solutions SA's purpose is to assist primary industries and regions to grow, innovate and maximise their economic growth potential.

This guide is one of few publications that provide gross margins for both crops and livestock enterprises across the range of South Australian rainfall zones.

The South Australian Grain Industry Trust and the Grains Research and Development Corporation have pleasure in partnering with PIRSA's Rural Solutions SA to produce and distribute this guide as a valuable aid in your decision making.

IMPORTANT NOTE: An editable Excel version of this guide has been produced which allows easy adjustments of these Gross Margins to individual circumstances. Please visit the SAGIT, GRDC or PIRSA websites to download the Excel version.



Michael Treloar

Chairman
SAGIT



Keith Pengilly

Chairman, GRDC
Southern Panel



Daniel Casement

Executive Director,
Rural Solutions SA





Soil pH and EC Mapping Technology

Mapping your soil pH variation across paddocks can help you reduce liming costs of acid soils and improve production.

The Veris pH and EC (electrical conductivity) mapping machine, operated by an experienced Rural Solutions SA soil consultant, can measure and map the spatial variation of pH and EC on your farm, vineyard or horticultural block. pH mapping can identify where lime is needed and EC mapping can indicate sub-soil constraints.

Mapping starts at \$12/hectare plus travel costs to and from the site.

For more information contact:

Andrew Harding, PIRSA Clare office

Mob: 0417 886 835 or Email: andrew.harding@sa.gov.au

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Introduction

"The key task of farm management is making choices between alternatives. Farm management analysis is about analysing those choices (and) encompasses considering alternative actions under risky and uncertain circumstances." Malcolm, B., Makeham, J. and Wright, V. 2005, 'The Farming Game', Cambridge University Press

The choice of enterprises within a farm system remains a complex decision with a range of possible scenarios. There is generally no best bet system - differences in climate, soil type, market access, labour and management all contribute to the need for land managers to negotiate a system which fits their individual needs. A general outcome being sort from the farming system is profit maximisation at an acceptable level of risk.

The gross margin for a farm enterprise is one measure of profitability that is a useful aid to enterprise planning. The calculation of Gross Margins can be the starting point for construction of cash flow budgets and assessment of whole farm profitability. They can also be used to assist in assessing the opportunity to develop new farm enterprises.

What are Gross Margins?

Gross margin profit is the difference between the annual gross income for that enterprise and the variable costs directly associated with the enterprise.

In constructing gross margins, fixed (overhead) costs are ignored, as it is considered that they will be incurred regardless of the level of the enterprise undertaken.

The gross margin of different enterprises should not be compared if they have different overhead costs.

The direct comparison of Gross Margins is most useful when the various alternatives fit into the same part of the rotation e.g. the cereal or legume phase. The Gross Margins in this booklet have been grouped on this basis.

The base gross margins included in this book should be adjusted as required for commodity prices, yield, input costs and input items. These items vary considerably between different locations and different farm businesses.

- **Compare the relative profitability** of current farm enterprises, paddocks or rotations
- **Estimate changes** in enterprise profit caused by changes in price, cost or yields
- **Pinpoint high cost or low income** areas in the existing farm plan
- **Evaluate the profitability** of a re-organisation of the farm enterprise mix

Treatment of machinery

It is assumed that most machinery items (tractors, seeders, sprayers, harvesters etc.) are owned by the farm business. In each gross margin in this guide, the operating costs (fuel and repairs) have been included based on the number of machinery passes specified. *No allowance is included in the gross margin for machinery ownership costs such as depreciation or opportunity cost of capital.* When calculating enterprise profitability, these ownership costs need to be included. An alternative is to include all machinery costs at full contract rates.

Limitations of Gross Margins

The gross margins prepared within this publication have been designed to represent 'average case scenarios' within the respective rainfall zones of South Australia. They should be treated strictly as a **base guide only** and adapted by users for their particular situations.

Gross margins are best used to compare enterprises that make use of the same resources on the property. They cannot be used where varying capital input is needed for an enterprise. Cropping and livestock gross margins can only be compared if all capital resources are already on the property.

Estimates of inputs and production can vary from what actually occurs. Although a crop might have the highest gross margin, it might be the most sensitive to variation. Commodity prices, seasonal conditions, pests and disease can significantly affect the eventual gross margin. Risk can be assessed by comparing gross margins calculated with varying values for an input.

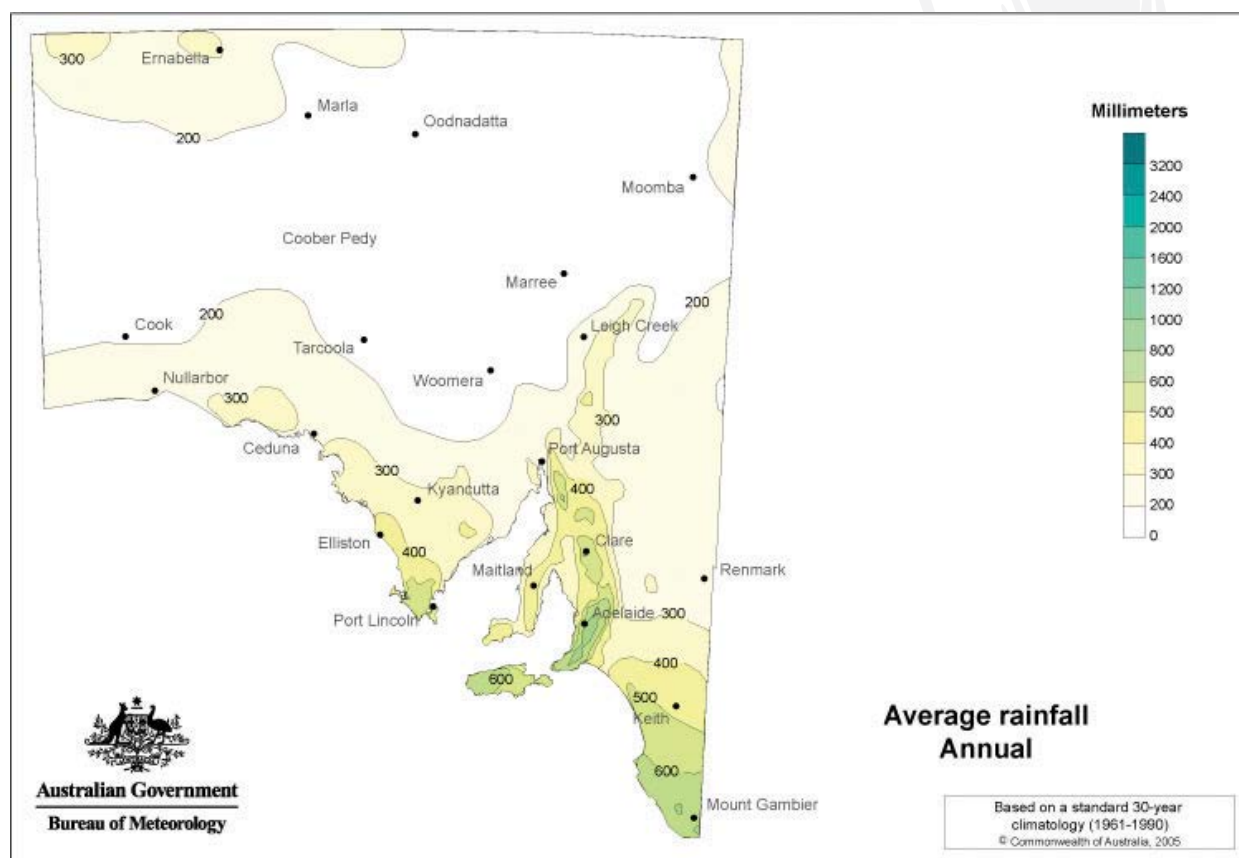
Sensitivity analysis tables are included in the guide to help determine the impact on the gross margin of significant changes in yield and price.

Agronomic information including chemical rates are provided as a guide only and exact agronomic recommendations will vary with location, soil type and a number of other factors.

Gross margins have been broadly delineated into production zones based on rainfall. Average annual rainfall zones have been classified as '*Low Rainfall*' (<350 mm), '*Medium Rainfall*' (350 – 400mm) and '*High Rainfall*' (>400mm).

KEY POINT

Make your own adjustments to the gross margins in this book using the Excel editable version



Using Gross Margins for Farm Planning

Gross margins are just one component of a whole range of factors which go into enterprise selection for paddocks and zones on a farming property. There are other core characteristics of farming systems which potentially contribute to success over time. These include:

1. Appropriate level of income diversification

Virtually all cropping systems in South Australia involve some level of diversification. The traditional approach has been to include livestock although most farm systems in more favoured cropping locations have moved away from livestock. These areas tend to have a more diversified range of crop options than lower rainfall systems.

2. Adoption of right rotations, along with attention to detail

“Right rotations pay- they don’t cost”. This catch cry from the Right Rotations initiative in the 1980’s continues to be relevant. Appropriate crop sequencing involves decisions around weed, disease and nutrition implications along with other considerations such as herbicide residues, carry-over of water from previous crops etc. There is also no substitute for good agronomy and/or livestock husbandry.

3. Understanding and acknowledging comparative advantage

This applies both to the business location and the technical and personal characteristics of business managers. Some crops are just not suitable to be grown in certain areas, and some people just should not run livestock! Understanding and working with variations in land capability across farms is important.

4. Meeting market requirements

Our mixed farming systems in SA have traditionally produced grain and livestock products which generally have had good demand and acceptance on world markets. The caveat here is that even though market acceptance is good, difficulties can arise when supply and demand get out of balance resulting in poor prices which test farm business profitability.

Gross Margins on their own do not make the decision on enterprise selection across the property. Each activity undertaken on a farming property will have an impact on other activities:

- Some may be complimentary such as cropping enterprises which provide a feed base to livestock through crop residues
- Crops planted in one year will have a rotational effect on subsequent crops (both positive (e.g. cereals on legumes) and negative (e.g. canola on canola))

For more information on the use of Gross Margin analysis, refer to the following GRDC publications:

Farm Financial Tool- Crop Gross Margin Budget

<http://www.grdc.com.au/GRDC-FS-FFT-CropGrossMarginBudget>

Farm Financial Tool- Livestock Gross Margin Budget

<http://www.grdc.com.au/GRDC-FS-FFT-LivestockGrossMarginBudget>

Calculating Your Own Gross Margins

The gross margins in this guide are designed to provide a template only, for users to adapt to their own situation, and should not be relied upon as representative of any one particular situation.

The Gross Margins shown in this publication are designed to represent a fair estimate of returns available from cropping and livestock enterprises across the cropping regions of South Australia using good management practices. However, clearly, expected outputs along with inputs (e.g. rates and types of fertiliser and weed control treatments) will vary depending on individual circumstances.

An Excel based editable version of the Gross Margins shown in this guide is available for download from the following websites:

www.grdc.com.au/FarmGrossMarginGuide

www.pir.sa.gov.au/consultancy/farm_gross_margins_and_enterprise_planning_guide

www.sagit.com.au/

Using the Excel version allows for easy adjustments of the pre-loaded information. Remember that these calculations are not meant to be an exact science - **roughly right is better than precisely wrong!** Use your own estimates when the values vary significantly from those included in the example.

Calculating the break-even yield needed to cover variable costs will give some indication of the riskiness or exposure of the particular enterprise. Remember, of course, that there are many other costs (in addition to the variable costs) which need to be covered before a profit is made. Such costs include overhead costs, depreciation, interest and labour and management. Reference to the sensitivity tables will provide further information on how the returns from the enterprise are expected to respond to a range of prices and yields.

2017 South Australian Crop Variety Sowing Guide

This guide, compiled by officers with SARDI and sponsored by SAGIT, PIRSA and GRDC provides information on appropriate varietal selection to maximise production and profitability from broadacre cropping and should be read in conjunction with this Farm Gross Margin Guide



Strategies for Maximising Returns from Individual Enterprises

This Gross Margins guide aims to cover all broadacre cropping and grazing areas in South Australia. Circumstances obviously vary significantly across different regions. However, there are some rules of thumb and other resources which can provide guidance on decision making to aid in maximising returns from individual enterprises.

Storage of Out of Season Soil Water

Provides the opportunity to significantly improve Water Use Efficiency and hence crop performance. The key to effective storage of soil moisture over the summer period is to get the soil water deep in the soil profile, below the zone subject to evaporation and then retain soil moisture through to seeding by control of summer weeds.

Lighter Mallee type soils

- Rainfall events above 40mm in December/January should result in some stored moisture with summer weed control
- Less than 40mm rainfall events may still warrant summer weed control for ease of seeding operations and nutrient retention (mainly N).
- Strong case to apply zero tolerance summer weed control policy on light soils with no sub-soil limitations

Heavier soils

- May require larger rainfall events (up to 100mm) in December/January to store soil moisture if soils are already very dry
- Smaller rainfall events from February onwards will warrant control of germinated weeds
- Control of summer weeds earlier than February may also be dependent on other considerations e.g. improved ease of sowing, low cost of control, nutrient retention

Maximising Time of Sowing Benefits

Early seeding generally provides the most reliable yield outcome, particularly in low rainfall situations. However, frost prone areas have special considerations which need to be taken into account.

Sowing Opportunity with Early Break

Frost Risk	Start Sowing
Low	After mid April
Medium	After 25th April
High	After early May

- Sow at the optimum time, even in high frost risk areas. Use appropriate varieties to manage flowering time.
- The yield loss from moisture and temperature stress during spring will usually be far greater than the damage caused by frost.
- The most severe and damaging frosts are those associated with dry conditions in mid to late spring (black frosts), which can be devastating even to crops that have completed flowering.

Ensuring Efficient Fertiliser Practices

For more information on Better Fertiliser Decisions refer to the following GRDC factsheet

www.grdc.com.au/GRDC-FS-BFDCN

Aim to maintain soil nutrient status at appropriate levels to maximise sustainable and profitable production

Phosphorous Replacement Levels

Crop	Removal	Removal plus losses #
Cereal grain	3 kg/t	4 kg/t
Pulses	4 kg/t	5 kg/t
Canola	7 kg/t	8 kg/t
Cereal hay	2 kg/t	2.5 kg/t

higher rates may be required on calcareous / ironstone soils or those with moderate to low available P.

Reduce P application on soils with sub soil constrains when:

- Moderate to low stored soil moisture
- And crop sown more than 3 weeks after the optimum sowing date.

N Fertiliser

Wide range of soil types, rotational histories and climatic conditions means that Nitrogen requirements of crops will vary considerably. Assess opening N supply (e.g. by using deep soil sampling) and then monitor yield and N requirements through models such as **Yield Prophet®** (www.yieldprophet.com.au/) or the CSIRO developed **Yield and N Calculator**.
www.clw.csiro.au/products/ncalc/index.html

Micronutrients and trace elements

Micronutrient deficiencies can be tricky to diagnose and treat. By knowing your soil type, considering crop requirements and the season, and supporting this knowledge with diagnostic tools and strategies, effective management is possible.

Refer www.grdc.com.au/GRDC-FS-CropNutrition-Micronutrients

PestFacts

PestFacts is a FREE electronic newsletter service, produced by SARDI, designed to keep growers and advisers informed about invertebrate pest-related issues and solutions as they emerge during the growing season. PestFacts issues warnings (or reminders) for a range of invertebrate pests of all broad-acre crops including pulses, oilseeds, cereals and fodder crops.

www.pir.sa.gov.au/research/services/reports_and_newsletters/pestfacts_newsletter

2017 Gross Margin Estimates

The tables below summarise the anticipated gross margins for all crops and livestock for 2017.

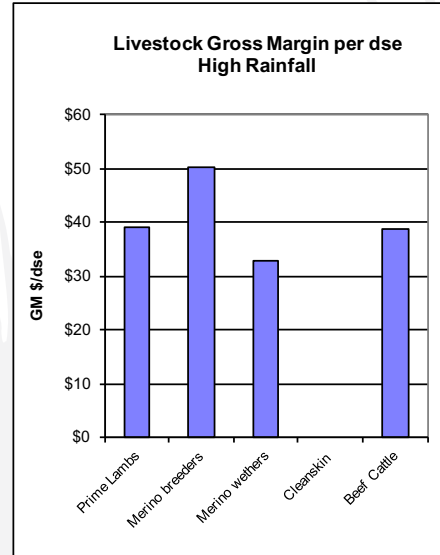
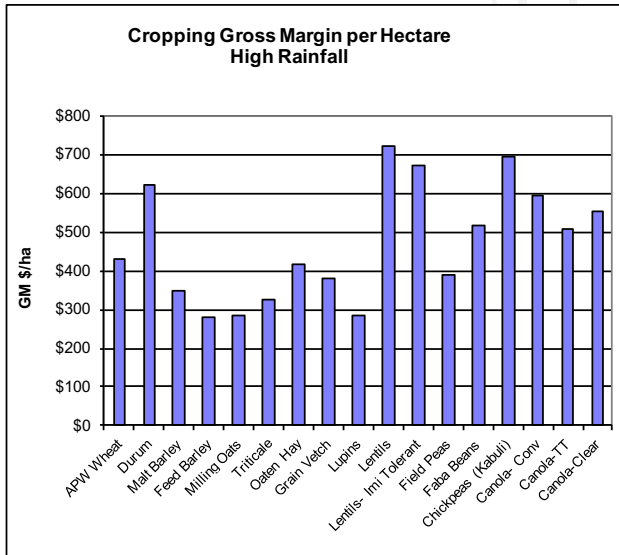
CROPPING			
Commodity \$/ha	Low	Medium	High
APW Wheat	156	283	430
Durum	157	359	621
Malt Barley	123	210	349
Feed Barley	92	143	278
Milling Oats	46	165	284
Triticale	101	198	323
Oaten Hay	259	358	414
Grain Vetch	120	259	379
Lupins	74	181	282
Lentils	237	535	721
Lentils- Imi Tolerant	193	432	669
Field Peas	119	233	390
Faba Beans	67	209	516
Chickpeas (Kabuli)	134	477	693
Canola- Conv	172	338	594
Canola-TT	119	246	508
Canola-Clear	151	295	551
Sown Pasture	114	244	389
Self Regen Pasture	140	259	390

LIVESTOCK			
Enterprise \$/dse	Pastoral Zone	Cereal Zone	High R/F Zone
Prime Lambs	26	45	39
Merino breeders	39	49	50
Merino wethers	22	32	33
Cleanskin		36	
Beef Cattle	32	36	39

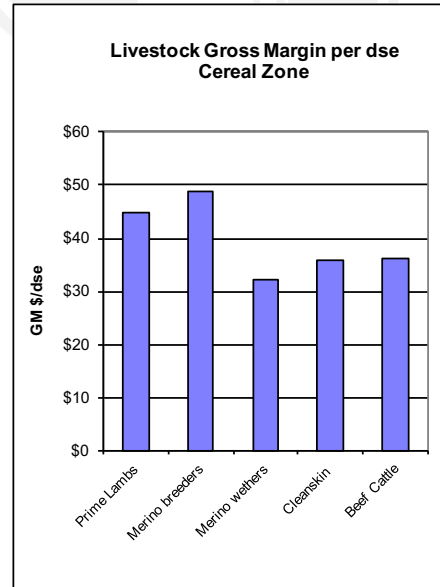
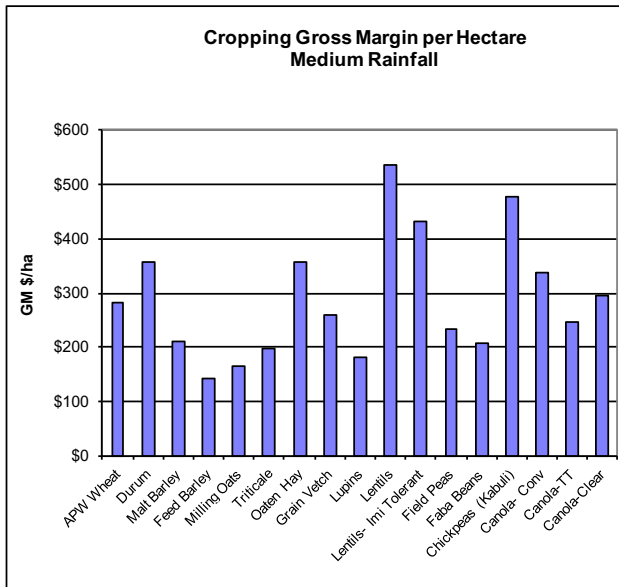
Commodity Prices Historical Data

Historical commodity price data and trends can be used as a guide in assessing average returns over time and also the variability of those returns for any given commodity. **NOTE: 17/18 Forecast Grain Prices: Forecast grain prices for 17/18 are affected by the value of the Australian Dollar, world consumption, and Australian and other major grain exporting countries production. Future pricing is uncertain and caution is needed with projections.**

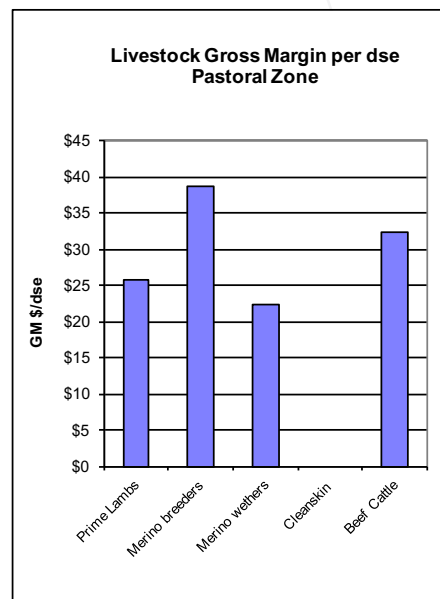
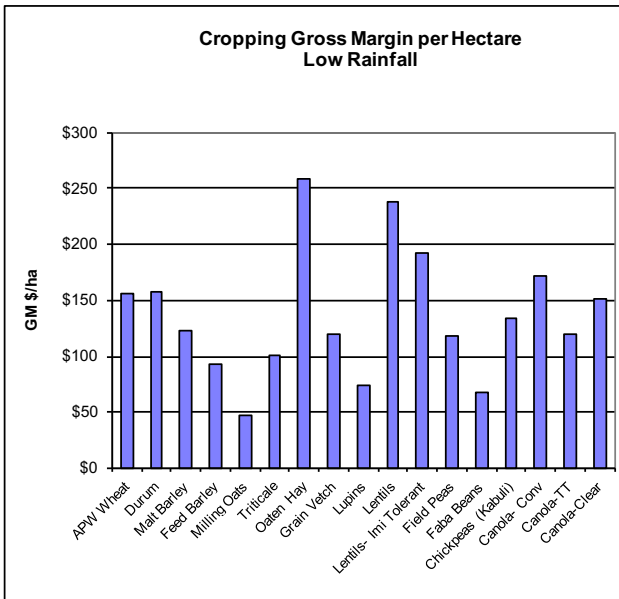
Commodity	Jan 2013	Jan 2014	Jan 2015	Jan 2016	Jan 2017	5 yr	2017
						Average	Estimate
APW Wheat (\$/t)	280	260	290	250	220	260	225
Durum (\$/t)	305	340	550	370	305	374	300
Malt Barley (\$/t)	260	255	320	290	200	265	220
Feed Barley (\$/t)	240	215	270	205	160	218	180
Milling Oats (\$/t)	215	190	240	290	160	219	180
Feed Oats (\$/t)	205	180	230	275	150	208	170
Triticale (\$/t)	220	200	240	210	180	210	190
Grain Vetch (\$/t)	500	380	650	850	300	536	400
Lupins (\$/t)	260	305	335	380	230	302	280
Lentils (\$/t)	480	630	940	1340	680	814	600
Field Peas (\$/t)	330	320	400	550	350	390	350
Faba Beans (\$/t)	470	420	490	560	270	442	330
Chickpeas 6-8mm Kabuli (\$/t)	575	440	530	1050	1450	809	700
Canola (\$/t)	540	490	480	530	520	512	520
Oaten Hay (\$/t)	160	155	160	170	170	163	170



Comparative returns between farm enterprises – High Rainfall



Comparative returns between farm enterprises – Medium Rainfall



Comparative returns between farm enterprises – Low Rainfall

APW Wheat Gross Margin

INCOME										2017 YOUR ESTIMATE
Rainfall Zone				LOW	MEDIUM	HIGH				
Price (17/18 Forecast)				\$225	\$225	\$225				
Quality APW (Change Price for other grades)										
Yield (t/ha)				1.5	2.7	4				
GROSS INCOME				\$338	\$608	\$900				
VARIABLE COSTS										
			Rate/ha		Rate/ha		Rate/ha			
Cost			Low	\$/ha	Medium	\$/ha	High	\$/ha		
Seed										
Seed	\$0.22 /kg	@	60	\$13.20	80	\$17.60	90	\$19.80		
Seed Treatment(1)	\$0.04 /kg	@	60	\$2.33	80	\$3.10	90	\$3.49		
Seed Treatment(2)	\$0.09 /kg	@	60	\$5.39	80	\$7.18	90	\$8.08		
Levies										
GRDC Levies	1.0% Gross Income			\$3.38		\$6.08		\$9.00		
EPR & state levies	\$3.50 /tonne sold			\$5.25		\$9.45		\$14.00		
Fertiliser (Bulk)										
18:20:0	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00		
Urea	\$440 /tonne	@		\$0.00	80	\$35.20	160	\$70.40		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
Trifluralin 480g/L	\$7.50 /litre	@	1.5	\$11.25		\$0.00		\$0.00		
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64		\$0.00	2.4	\$24.96		
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Sakura	\$340.00 /kg	@		\$0.00	0.118	\$40.12	0.118	\$40.12		
Post-emergents										
Topik (3)	\$37.70 /litre	@	0.065	\$4.78	0.085	\$5.53	0.085	\$5.53		
M.C.P.A. LVE	\$9.35 /litre	@	0.5	\$4.68		\$0.00		\$0.00		
Metsulfuron methyl(4)	\$0.07 /gm	@	5	\$0.80		\$0.00		\$0.00		
Clopyralid 600g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76		
Affinity®	\$125.00 /litre	@		\$0.00	0.1	\$12.50	0.1	\$12.50		
MCPA Amine (750g/L)	8.95 /litre	@		\$0.00	0.33	\$2.95	0.33	\$2.95		
Fungicides										
Epoxiconazole 125g/L	\$18.70 /litre	@			0.25	\$4.68	0.5	\$9.35		
Operations										
Fuel & Oil				\$10.11		\$12.13		\$14.15		
Repairs & Maintenance				\$14.66		\$17.60		\$20.53		
Freight										
Grain (t)	\$20.00 /tonne	@	1.5	\$30.00	2.7	\$54.00	4.0	\$80.00		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.14	\$2.80	0.24	\$4.80		
Contract Work										
Aerial spraying	\$14.00 /ha	@		\$0.00	1	\$14.00	2	\$28.00		
Urea spreading	\$8.50 /ha	@		\$0.00	1	\$8.50	2	\$17.00		
Insurance	\$8.50 /\$1000	@		\$2.87		\$5.16		\$7.7		
Other	\$0.00 /ha									
	\$0.00 /ha									
TOTAL VARIABLE COSTS				\$181		\$325		\$470		
GROSS MARGIN/hectare				\$156		\$283		\$430		
Break Even Price (to cover variable costs only)				\$121		\$120		\$117		
Break Even Yield (to cover variable costs only)				0.81		1.44		2.09		
Gross Margin based on last 5 year average price				\$209		\$377		\$570		
COMMENTS					AGRONOMIC NOTES					
(1) Smuts and Bunts					Nitrogen requirements will vary depending on individual paddocks- seek advice.					
(2) Aphid Treatment					If targeting higher protein, additional N inputs will be required.					
(3) Includes Oil @ 0.5%										
(4) Includes Surfactant at 0.1%										

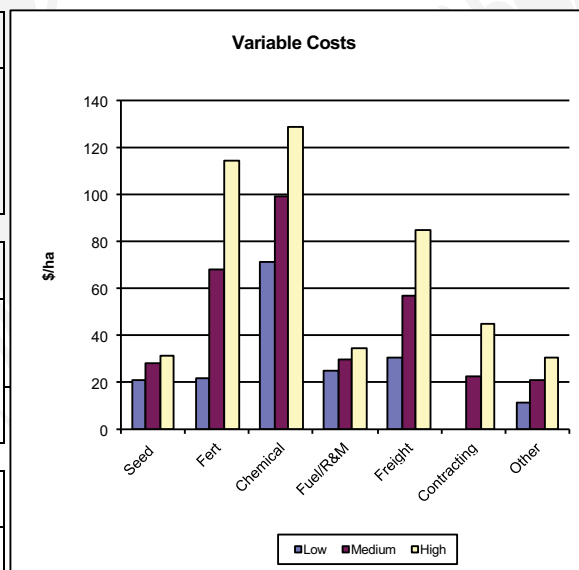
APW Wheat Gross Margin

GROSS MARGIN SENSITIVITY

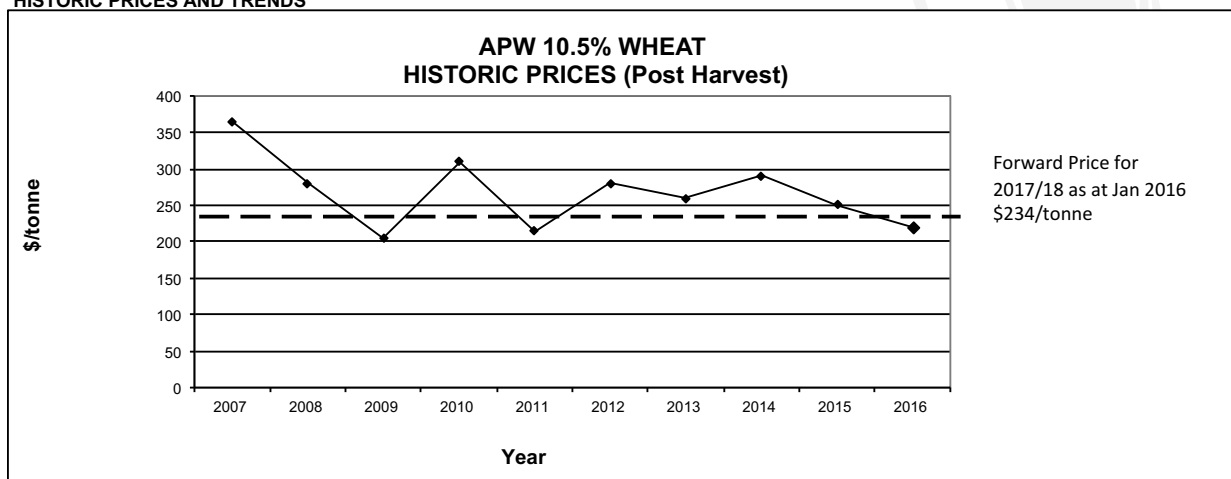
		LOW RAINFALL				
		Cash Price \$/t				
		\$175	\$200	\$225	\$250	\$275
Yield	0.5	-\$66	-\$54	-\$41	-\$29	-\$17
	1	\$8	\$33	\$57	\$82	\$106
t/ha	1.5	\$82	\$119	\$156	\$193	\$230
	2.5	\$231	\$292	\$353	\$415	\$476
	3.5	\$379	\$465	\$551	\$637	\$722

		MEDIUM RAINFALL				
		Cash Price \$/t				
		\$175	\$200	\$225	\$250	\$275
Yield	1	-\$102	-\$77	-\$53	-\$28	-\$4
	2	\$46	\$95	\$144	\$193	\$243
t/ha	2.7	\$150	\$216	\$283	\$349	\$415
	3.5	\$269	\$355	\$440	\$526	\$612
	4.5	\$417	\$527	\$638	\$748	\$859

		HIGH RAINFALL				
		Cash Price \$/t				
		\$175	\$200	\$225	\$250	\$275
Yield	2	-\$63	-\$13	\$36	\$85	\$134
	3	\$86	\$159	\$233	\$307	\$380
t/ha	4	\$234	\$332	\$430	\$528	\$627
	5	\$382	\$505	\$628	\$750	\$873
	6	\$531	\$678	\$825	\$972	\$1,119



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.976
spray	4	2.20	1.34
harvest#	1	8.57	4.7925
TOTAL		14.66	10.11

Rates are for low rainfall zone. Extra cost in higher yielding situations

Durum Gross Margin

INCOME										2017 YOUR ESTIMATE
Rainfall Zone			LOW	MEDIUM	HIGH					
Price (17/18 Forecast)			\$300	\$300.00	\$300.00					
Quality	Durum 13%									
Yield (t/ha)			1.2	2.2	3.4					
GROSS INCOME			\$360	\$660	\$1,020					
VARIABLE COSTS										
			Rate/ha Low	Rate/ha Medium	Rate/ha High					
Cost				\$/ha					\$/ha	
Seed										
Seed	\$0.31 /kg	@	80	\$24.40	90	\$27.45	110	\$33.55		
Seed Treatment(1)	\$0.04 /kg	@	80	\$3.10	90	\$3.49	110	\$4.27		
Seed Treatment(2)	\$0.09 /kg	@	80	\$7.18	90	\$8.08	110	\$9.87		
Levies										
GRDC Levies	1.0% Gross Income			\$3.60		\$6.60		\$10.20		
EPR & state levies	\$3.50 /tonne sold			\$4.20		\$7.70		\$11.90		
Fertiliser (Bulk)										
DAP Plus 2% Zn	\$610 /tonne	@	40	\$24.40	60	\$36.60	80	\$48.80		
Urea	\$440 /tonne	@	50	\$22.00	100	\$44.00	150	\$66.00		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Trifluralin 480g/L	\$7.50 /litre	@	1	\$7.50		\$0.00		\$0.00		
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64		\$0.00		\$0.00		
Boxer Gold	\$15.70 /litre	@		\$0.00	2.5	\$39.25	2.5	\$39.25		
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Post-emergents										
MCPA LVE	\$9.35 /litre	@	0.5	\$4.68	0.5	\$4.68	0.5	\$4.68		
Metsulfuron methyl(3)	\$0.07 /gram	@	5	\$0.80	5	\$0.80	5	\$0.80		
2,4-DAmine(625g/l)(4)	\$4.50 /kg	@		\$0.00		\$0.00	1.2	\$5.40		
Fungicides										
Operations										
Fuel & Oil				\$10.11		\$12.13		\$14.15		
Repairs & Maintenance				\$14.66		\$17.60		\$20.53		
Freight										
Grain (t)	\$20.00 /tonne	@	1.2	\$24.00	2.2	\$44.00	3.4	\$68.00		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.16	\$3.20	0.23	\$4.60		
Contract Work										
Aerial spraying	\$14.00 /ha	@		\$0.00		\$0.00		\$0.00		
Urea spreading	\$8.50 /ha	@		\$0.00	1	\$8.50	2	\$17.00		
Insurance	\$8.50 /\$1000	@		\$3.06		\$5.61		\$8.67		
Other										
TOTAL VARIABLE COSTS			\$203	\$301	\$399					
GROSS MARGIN/hectare			\$157	\$359	\$621					
Break Even Price (to cover variable costs only)			\$169	\$137	\$117					
Break Even Yield (to cover variable costs only)			0.68	1.00	1.33					
Gross Margin based on last 5 year average price			\$246	\$522	\$872					
COMMENTS					AGRONOMIC NOTES					
Assumes durum follows a legume crop or pasture. Price assumes Durum 13% is achieved (1) Smuts and Bunts (2) Aphid Control (3) includes surfactant at 0.1% (4) Second broadleaf spray					Some Durum varieties have a narrow safety margin with broadleaf herbicides. Seek advice. The effect is worse when the crop is under stress.					

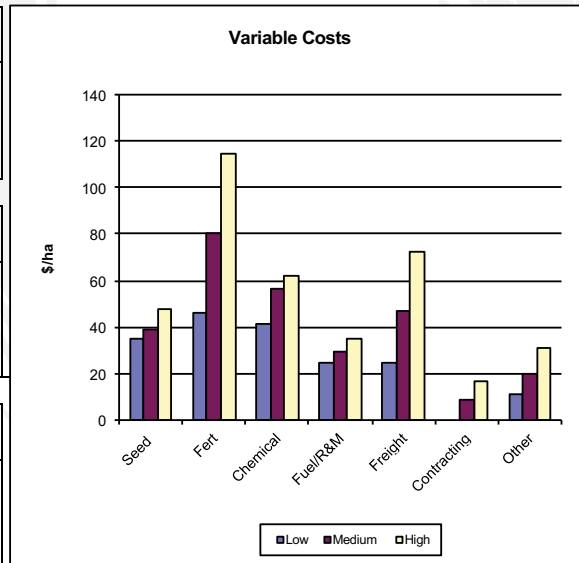
Durum Gross Margin

GROSS MARGIN SENSITIVITY

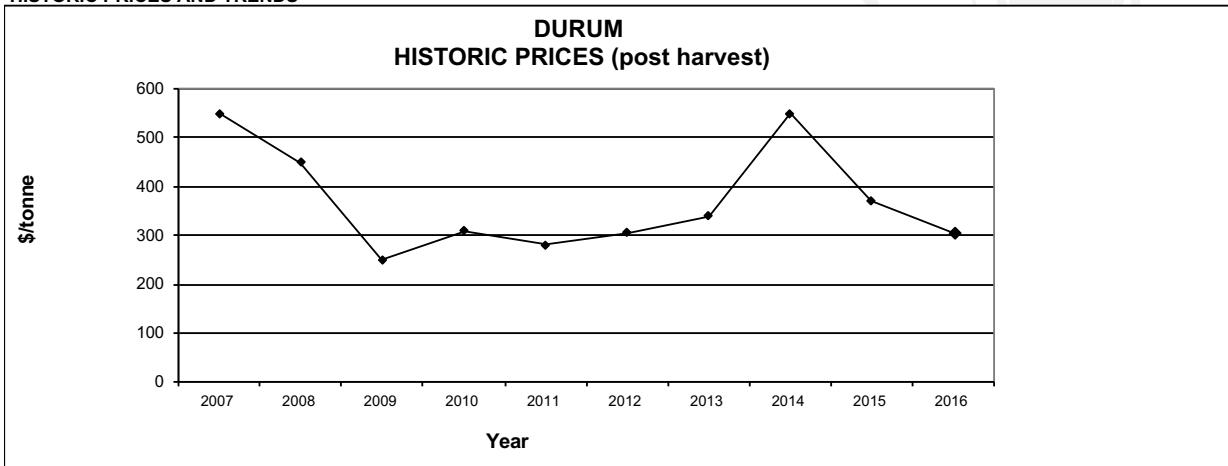
		LOW RAINFALL				
		Net Price \$/t				
		\$220	\$260	\$300	\$340	\$380
Yield t/ha	0.4	-\$91	-\$75	-\$59	-\$44	-\$28
	1.2	\$63	\$110	\$157	\$204	\$251
	2	\$217	\$296	\$374	\$453	\$531
	2.8	\$371	\$481	\$591	\$701	\$811

		MEDIUM RAINFALL				
		Net Price \$/t				
		\$220	\$260	\$300	\$340	\$380
Yield t/ha	1.5	\$51	\$110	\$169	\$228	\$287
	2.2	\$186	\$272	\$359	\$445	\$531
	3	\$340	\$458	\$575	\$693	\$811
	4	\$532	\$689	\$846	\$1,003	\$1,161

		HIGH RAINFALL				
		Net Price \$/t				
		\$220	\$260	\$300	\$340	\$380
Yield t/ha	1.5	-\$12	\$47	\$106	\$165	\$224
	2.5	\$181	\$279	\$377	\$475	\$573
	3.4	\$354	\$487	\$621	\$754	\$888
	4.5	\$565	\$742	\$919	\$1,095	\$1,272



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.976
spray	4	2.20	1.34
harvest#	1	8.57	4.7925
TOTAL		14.66	10.11

Rates are for low rainfall zone. Extra cost in higher yielding situations

Malting Barley Gross Margin

										2017 YOUR ESTIMATE
INCOME										
				Rainfall Zone						
				LOW			MEDIUM			HIGH
				\$220			\$220			\$220
Price (17/18 Forecast)										
Quality Malting										
Yield (t/ha)				1.5			2.5			3.5
GROSS INCOME				\$330			\$550			\$770
VARIABLE COSTS										
				Rate/ha			Rate/ha			Rate/ha
Cost				Low	\$/ha	Medium	\$/ha	High	\$/ha	
Seed										
Seed	\$0.20 /kg	@	60	\$12.00	70	\$14.00	80	\$16.00		
Seed Treatment(1)	\$0.32 /kg	@	60	\$19.35	70	\$22.58	80	\$25.80		
Seed Treatment(2)	\$0.09 /kg	@	60	\$5.39	75	\$6.73	80	\$7.18		
Levies										
GRDC Levies	1.0% Gross Income			\$3.30		\$5.50		\$7.70		
EPR & state levies	\$4.30 /tonne sold			\$6.45		\$10.75		\$15.05		
Fertiliser (Bulk)										
18:20:0	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00		
Urea	\$440 /tonne	@	30	\$13.20	80	\$35.20	130	\$57.20		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
Trifluralin 480g/L	\$7.50 /litre	@	1.5	\$11.25		\$0.00		\$0.00		
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64						
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Boxer Gold	\$15.70 /litre	@		\$0.00	2.5	\$39.25	2.5	\$39.25		
Post-emergents										
2,4-D Amine	\$4.50 /litre	@	1.2	\$5.40		\$0.00		\$0.00		
Metsulfuron methyl(3)	\$0.07 /gm	@	5	\$0.80		\$0.00		\$0.00		
Clopyralid 600g/L	\$44.00 /kg	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76		
Affinity®	\$125.00 /litre	@		\$0.00	0.1	\$12.50	0.1	\$12.50		
MCPA Amine (750g/L)	8.95 /litre	@		\$0.00	0.33	\$2.95	0.33	\$2.95		
Fungicides										
Amistar®	\$38.00 /litre	@		\$0.00	0.4	\$15.20	0.4	\$15.20		
Operations										
Fuel & Oil				\$9.77		\$11.73		\$13.68		
Repairs & Maintenance				\$14.11		\$16.94		\$19.76		
Freight										
Grain (t)	\$20.00 /tonne	@	1.5	\$30.00	2.5	\$50.00	3.5	\$70.00		
Fertiliser (t)	\$20.00 /tonne	@	0.07	\$1.40	0.14	\$2.80	0.21	\$4.20		
Contract Work										
Aerial spraying	\$14.00 /ha	@	0	\$0.00	1	\$14.00	1	\$14.00		
Urea Spreading	\$8.50 /ha	@		\$0.00	1	\$8.50	2	\$17.00		
Insurance	\$8.50 /\$1000	@		\$2.81		\$4.68		\$6.5		
Other										
TOTAL VARIABLE COSTS				\$207			\$340			\$421
GROSS MARGIN/hectare				\$123			\$210			\$349
Break Even Price (to cover variable costs only)				\$138			\$136			\$120
Break Even Yield (to cover variable costs only)				0.94			1.54			1.92
Gross Margin based on last 5 year average price				\$190			\$323			\$506
COMMENTS					AGRONOMIC NOTES					
Assumes barley follows wheat. Price assumes Malting grade is achieved which is high risk. Achieving feed grade would result in lower Gross Margin. Having to windrow barley will reduce GM by around 25/ha (1)Systiva seed dressing (2) Aphid control (3) Includes surfactant @ 0.1 %					Urea may not be required following a legume pasture or grain legume crop					

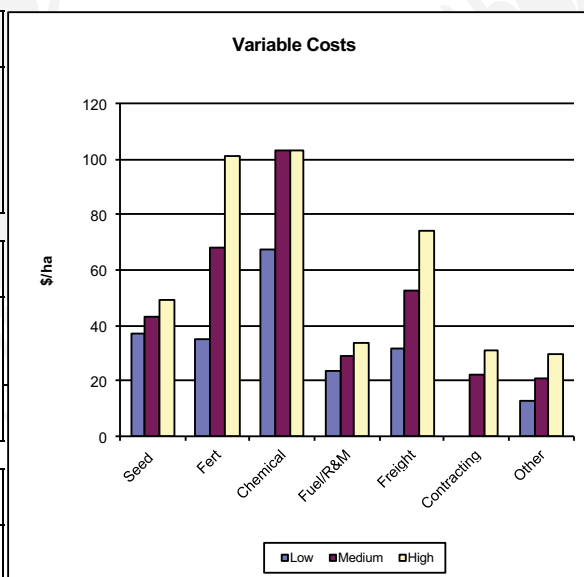
Malting Barley Gross Margin

GROSS MARGIN SENSITIVITY

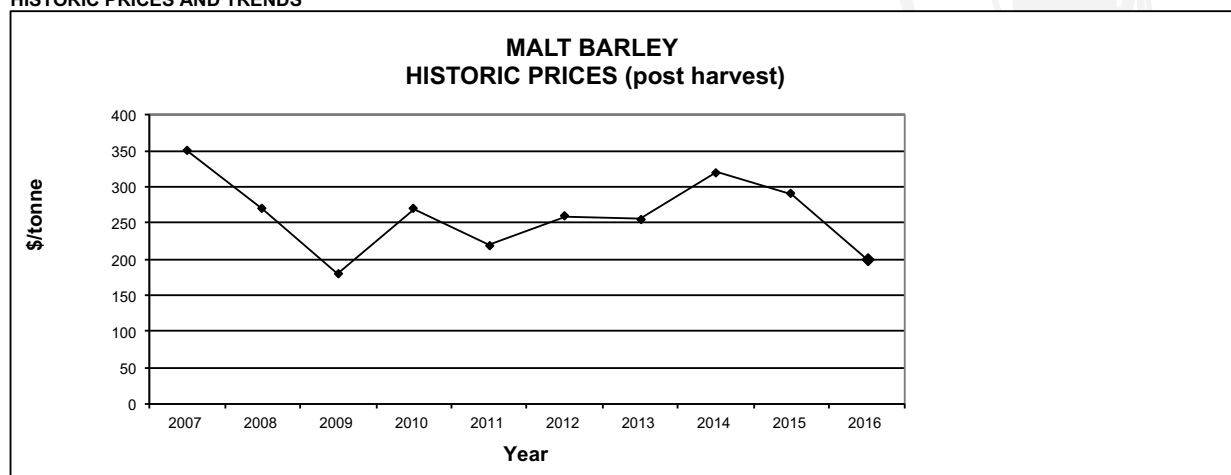
		LOW RAINFALL				
		Net Price \$/t				
		\$180	\$200	\$220	\$240	\$260
Yield	0.5	-\$88	-\$79	-\$69	-\$59	-\$49
	1	-\$12	\$7	\$27	\$47	\$66
t/ha	1.5	\$64	\$93	\$123	\$152	\$182
	2	\$140	\$179	\$219	\$258	\$297
	3	\$292	\$351	\$410	\$469	\$528

		MEDIUM RAINFALL				
		Net Price \$/t				
		\$180	\$200	\$220	\$240	\$260
Yield	0.5	-\$193	-\$183	-\$173	-\$163	-\$153
	1.5	-\$40	-\$11	\$19	\$48	\$78
t/ha	2.5	\$112	\$161	\$210	\$259	\$308
	3.5	\$265	\$333	\$402	\$471	\$539
	4	\$341	\$419	\$498	\$576	\$655

		HIGH RAINFALL				
		Net Price \$/t				
		\$180	\$200	\$220	\$240	\$260
Yield	1.5	-\$94	-\$64	-\$35	-\$5	\$24
	2.5	\$59	\$108	\$157	\$206	\$255
t/ha	3.5	\$211	\$280	\$349	\$417	\$486
	4.5	\$364	\$452	\$540	\$629	\$717
	6	\$592	\$710	\$828	\$945	\$1,063



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.976
spray	3	1.65	1.01
harvest#	1	8.57	4.7925
TOTAL		14.11	9.77

Rates are for low rainfall zone. Extra cost in higher yielding situations

Feed Barley Gross Margin

										2017 YOUR ESTIMATE			
INCOME													
Rainfall Zone													
										LOW	MEDIUM	HIGH	
Price (17/18 Forecast)										\$180	\$180	\$180	
Quality Feed 1													
Yield (t/ha)										1.7	2.8	4	
GROSS INCOME										\$306	\$504	\$720	
VARIABLE COSTS													
										Rate/ha Low	Rate/ha Medium	Rate/ha High	
Cost										\$/ha	\$/ha	\$/ha	\$/ha
Seed													
Seed	\$0.16 /kg	@	60	\$9.60	75	\$12.00	80	\$12.80					
Seed Treatment(1)	\$0.32 /kg	@	60	\$19.35	75	\$24.19	80	\$25.80					
Seed Treatment(2)	\$0.09 /kg	@	60	\$5.39	75	\$6.73	80	\$7.18					
Levies													
GRDC Levies	1.0% Gross Income			\$3.06		\$5.04		\$7.20					
EPR & state levies	\$2.50 /tonne sold			\$4.25		\$7.00		\$10.00					
Fertiliser (Bulk)													
18:20:0	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00					
Urea	\$440 /tonne	@	50	\$22.00	100	\$44.00	150	\$66.00					
Chemicals-Herbicides													
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00					
Pre-emergents													
Trifluralin 480g/L	\$7.50 /litre	@	1.5	\$11.25		\$0.00		\$0.00					
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64									
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20					
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40					
Boxer Gold	\$15.70 /litre	@		\$0.00	2.5	\$39.25	2.5	\$39.25					
Post-emergents													
2,4- D Amine	\$4.50 /litre	@	1.2	\$5.40		\$0.00		\$0.00					
Metsulfuron methyl(3)	\$0.07 /gm	@	5	\$0.80		\$0.00		\$0.00					
Affinity®	\$125.00 /litre	@		\$0.00	0.1	\$12.50	0.1	\$12.50					
MCPA Amine (750g/L)	\$8.95 /litre	@		\$0.00	0.33	\$2.95	0.33	\$2.95					
Fungicides													
Amistar®	\$70.00 /litre	@		\$0.00	0.4	\$28.00	0.4	\$28.00					
Insecticides													
Operations													
Fuel & Oil				\$9.77		\$11.73		\$13.68					
Repairs & Maintenance				\$14.11		\$16.94		\$19.76					
Freight													
Grain (t)	\$20.00 /tonne	@	1.7	\$34.00	2.8	\$56.00	4.0	\$80.00					
Fertiliser (t)	\$20.00 /tonne	@	0.09	\$1.80	0.16	\$3.20	0.23	\$4.60					
Contract Work													
Aerial spraying	\$14.00 /ha	@	0	\$0.00	1	\$14.00	1	\$14.00					
Urea spreading	\$8.50 /ha	@		\$0.00	1	\$8.50	2	\$17.00					
Insurance	\$8.50 /\$1000	@		\$2.60		\$4.28		\$6.1					
Other													
TOTAL VARIABLE COSTS										\$214	\$361	\$442	
GROSS MARGIN/hectare										\$92	\$143	\$278	
Break Even Price (to cover variable costs only)										\$126	\$129	\$111	
Break Even Yield (to cover variable costs only)										1.19	2.01	2.46	
Gross Margin based on last 5 year average price										\$157	\$249	\$430	
COMMENTS										AGRONOMIC NOTES			
Assumes barley follows wheat Having to windrow barley will reduce GM by around \$25/ha (1) Systiva seed dressing (2) Aphid control (3) Includes surfactant @ 0.1%										Urea may not be required following a legume pasture or grain legume crop			

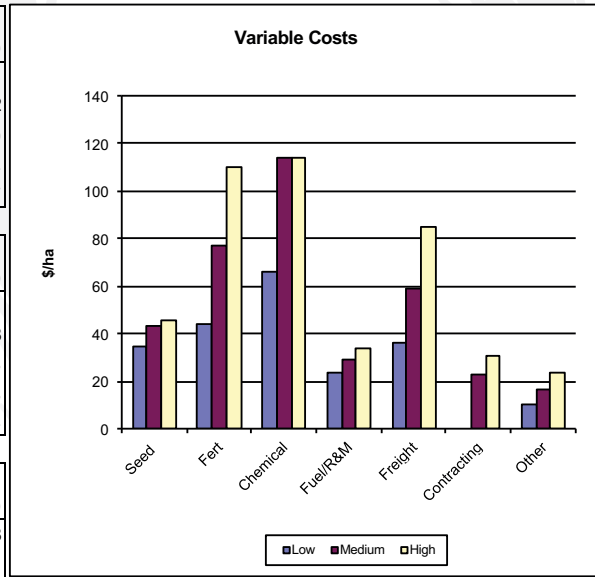
Feed Barley Gross Margin

GROSS MARGIN SENSITIVITY

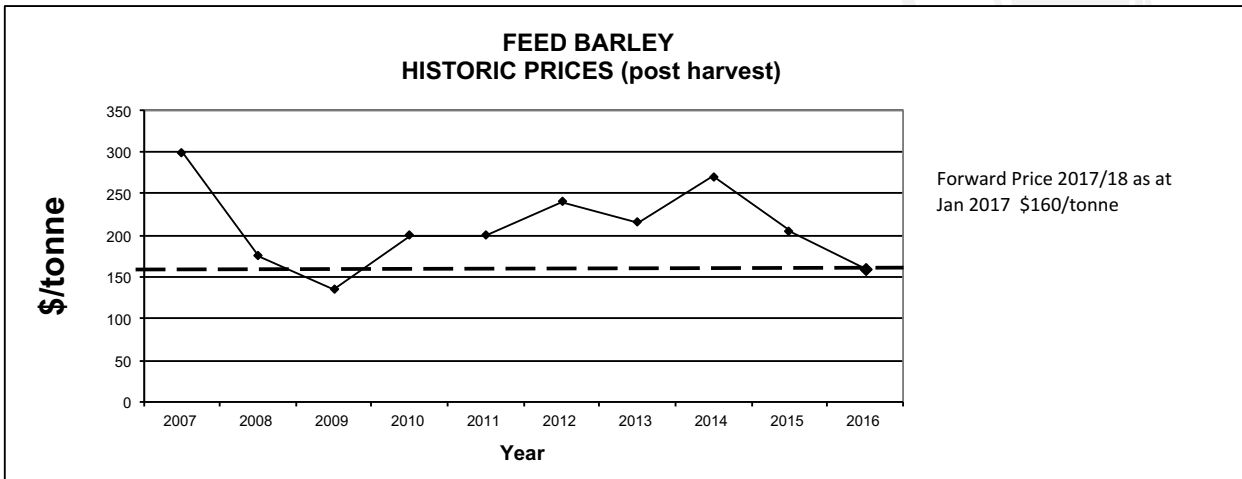
		LOW RAINFALL				
		Net Price \$/t				
		\$140	\$160	\$180	\$200	\$220
Yield	0.5	-\$112	-\$102	-\$93	-\$83	-\$73
	1.2	-\$32	-\$8	\$15	\$39	\$62
t/ha	1.7	\$26	\$59	\$92	\$126	\$159
	2.5	\$118	\$167	\$216	\$265	\$314
	3.5	\$232	\$301	\$370	\$439	\$507

		MEDIUM RAINFALL				
		Net Price \$/t				
		\$140	\$160	\$180	\$200	\$220
Yield	1.2	-\$151	-\$127	-\$104	-\$80	-\$56
	2	-\$59	-\$20	\$20	\$59	\$98
t/ha	2.8	\$33	\$88	\$143	\$198	\$253
	3.6	\$125	\$196	\$266	\$337	\$408
	4.2	\$194	\$276	\$359	\$441	\$524

		HIGH RAINFALL				
		Net Price \$/t				
		\$140	\$160	\$180	\$200	\$220
Yield	2	-\$109	-\$70	-\$31	\$8	\$48
	3	\$6	\$64	\$123	\$182	\$241
t/ha	4	\$121	\$199	\$278	\$356	\$435
	5	\$235	\$334	\$432	\$530	\$628
	6	\$350	\$468	\$586	\$704	\$821



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	3	1.65	1.01
harvest#	1	8.57	4.7925
TOTAL		14.11	9.77

Rates are for low rainfall zone. Extra cost in higher yielding situations

Milling Oats Gross Margin

INCOME										2017 YOUR ESTIMATE
Rainfall Zone				LOW		MEDIUM		HIGH		
Price (17/18 Forecast)				\$180		\$180		\$180		
Quality Milling										
Yield (t/ha)				1		2.1		3.2		
GROSS INCOME				\$180		\$378		\$576		
VARIABLE COSTS										
			Rate/ha		Rate/ha		Rate/ha			
Cost			Low	\$/ha	Medium	\$/ha	High	\$/ha		
Seed										
Seed	\$0.16	/kg @	50	\$8.00	65	\$10.40	80	\$12.80		
Seed Treatment	\$0.04	/kg @	50	\$1.94	65	\$2.52	80	\$3.10		
Levies										
GRDC Levies	1.0%	Gross Income		\$1.80		\$3.78		\$5.76		
EPR & state levies	\$2.50	/tonne sold		\$2.50		\$5.25		\$8.00		
Fertiliser (Bulk)										
18:20:0	\$550	/tonne @	40	\$22.00	60	\$33.00	80	\$44.00		
Urea	\$440	/tonne @		\$0.00	50	\$22.00	100	\$44.00		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
Glyphosate 540	\$6.00	/litre @	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00	/litre @	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Dual Gold	\$16.00	/litre @	0.5	\$8.00	0.5	\$8.00	0.5	\$8.00		
Diuron	\$11.00	/kg @	0.4	\$4.40	0.4	\$4.40	0.4	\$4.40		
Post-MCPA Amine	\$8.95	/litre @	0.5	\$4.48	0.5	\$4.48	0.5	\$4.48		
Fungicides										
Tebuconazole	\$12.00	/litre @	0.145	\$1.74	0.145	\$1.74	0.145	\$1.74		
Operations										
Fuel & Oil				\$10.11		\$12.13		\$14.15		
Repairs & Maintenance				\$14.66		\$17.60		\$20.53		
Freight										
Grain (t)	\$20.00	/tonne @	1.0	\$20.00	2.1	\$42.00	3.2	\$64.00		
Fertiliser (t)	\$20.00	/tonne @	0.04	\$0.80	0.11	\$2.20	0.18	\$3.60		
Contract Work										
Aerial spraying										
Urea spreading	\$8.50	/ha @		\$0.00	1	\$8.50	2	\$17.00		
Insurance	\$8.50	/\$1000 @		\$1.53		\$3.21		\$4.90		
Other										
TOTAL VARIABLE COSTS				\$134		\$213		\$292		
GROSS MARGIN/hectare				\$46		\$165		\$284		
Break Even Price (to cover variable costs only)				\$134		\$101		\$91		
Break Even Yield (to cover variable costs only)				0.74		1.18		1.62		
Gross Margin based on last 5 year average price				\$87		\$251		\$415		
COMMENTS					AGRONOMIC NOTES					
Assumes oats follows a cereal. If following a legume less N will be required.										

Milling Oats Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

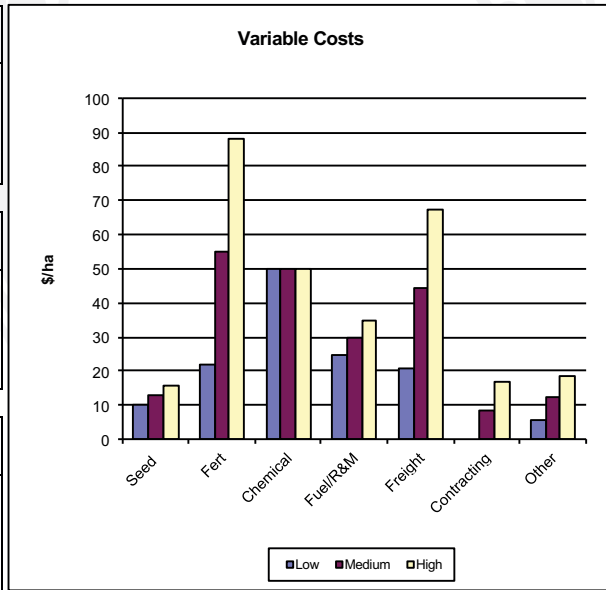
		Net Price \$/t				
		\$160	\$180	\$200	\$250	\$300
Yield	0.5	-\$40	-\$31	-\$21	\$4	\$28
	1	\$27	\$46	\$66	\$115	\$164
t/ha	1.5	\$94	\$124	\$153	\$227	\$300
	2	\$161	\$201	\$240	\$338	\$436

MEDIUM RAINFALL

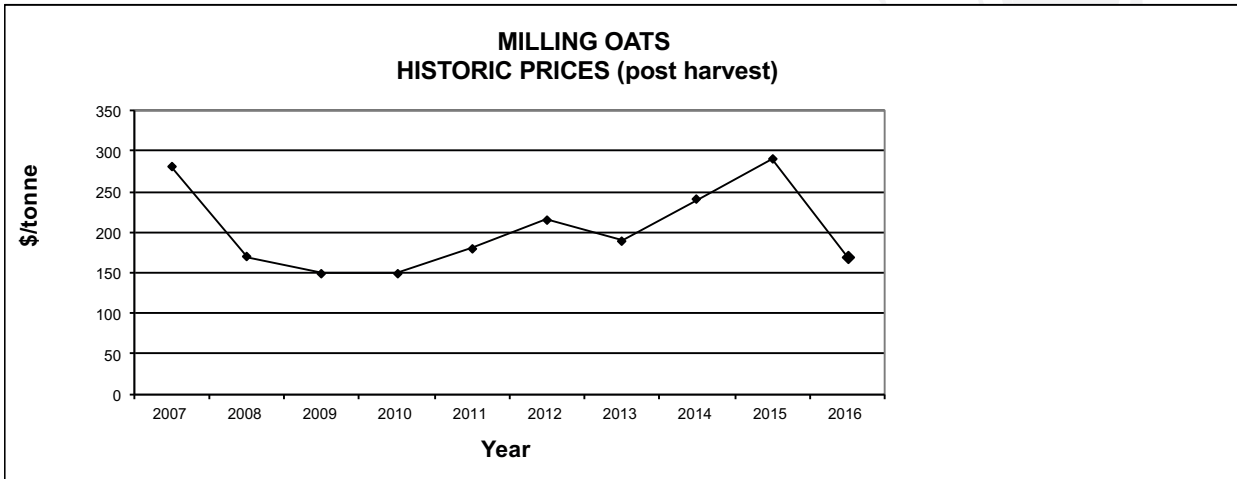
		Net Price \$/t				
		\$160	\$180	\$200	\$250	\$300
Yield	1	-\$24	-\$4	\$15	\$64	\$113
	2.1	\$124	\$165	\$206	\$309	\$413
t/ha	3	\$245	\$304	\$363	\$510	\$657
	4	\$380	\$458	\$537	\$733	\$929

HIGH RAINFALL

		Net Price \$/t				
		\$160	\$180	\$200	\$250	\$300
Yield	1	-\$75	-\$55	-\$36	\$13	\$63
	2	\$60	\$99	\$138	\$236	\$334
t/ha	3.2	\$221	\$284	\$347	\$504	\$661
	4	\$329	\$407	\$486	\$682	\$878



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint	Fuel
		\$/ha	\$/ha
seed	1	3.89	3.98
spray	4	2.20	1.34
harvest#	1	8.57	4.7925
TOTAL		14.66	10.11

Rates are for low rainfall zone. Extra cost in higher yielding situations

Triticale Gross Margin

										2017 YOUR ESTIMATE			
INCOME													
Rainfall Zone													
										LOW	MEDIUM	HIGH	
Price (17/18 Forecast)										\$190	\$190	\$190	
Quality													
Yield (t/ha)										1.3	2.4	3.5	
GROSS INCOME										\$247	\$456	\$665	
VARIABLE COSTS													
										Rate/ha	Rate/ha	Rate/ha	
Cost										Low	Medium	High	\$/ha
Seed													
Seed	\$0.18 /kg	@	60	\$10.80	80	\$14.40	85	\$15.30					
Seed Treatment	\$0.04 /kg	@	60	\$2.33	80	\$3.10	85	\$3.30					
Levies													
GRDC Levies	1.0% Gross Income			\$2.47		\$4.56		\$6.65					
EPR & state levies	\$3.00 /tonne sold			\$3.90		\$7.20		\$10.50					
Fertiliser (Bulk)													
18:20:0	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00					
Urea	\$440 /tonne	@		\$0.00	50	\$22.00	100	\$44.00					
Chemicals-Herbicides													
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00					
Pre-emergents													
Trifluralin 480g/L	\$7.50 /litre	@	1	\$7.50	1	\$7.50	1	\$7.50					
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20					
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40					
Post-emergents													
MCPA LVE	\$9.35 /litre	@	0		0.5	\$4.68	0.5	\$4.68					
MCPA amine	\$8.95 /litre	@	0.5	\$4.48		\$0.00		\$0.00					
Metsulfuron methyl(1)	\$0.07 /gm	@	5	\$0.80	5	\$0.80	5	\$0.80					
Achieve® (2)	\$52.00 /kg	@		\$0.00	0.4	\$24.81	0.4	\$24.81					
Insecticides													
Fungicides													
Operations													
Fuel & Oil				\$10.11		\$12.13		\$14.15					
Repairs & Maintenance				\$14.66		\$17.60		\$20.53					
Freight													
Grain (t)	\$25.00 /tonne	@	1.3	\$32.50	2.4	\$60.00	3.5	\$87.50					
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.11	\$2.20	0.18	\$3.60					
Contract Work													
Aerial spraying													
Urea spreading	\$8.50 /ha	@		\$0.00	1	\$8.50	2	\$17.00					
Insurance	\$8.50 /\$1000	@		\$2.10		\$3.88		\$5.65					
Other													
TOTAL VARIABLE COSTS										\$146	\$258	\$342	
GROSS MARGIN/hectare										\$101	\$198	\$323	
Break Even Price (to cover variable costs only)										\$112	\$107	\$98	
Break Even Yield (to cover variable costs only)										0.77	1.36	1.80	
Gross Margin based on last 5 year average price										\$132	\$256	\$407	
COMMENTS					AGRONOMIC NOTES								
This rate of fertiliser assumes triticale follows a cereal (1) Surfactant at 0.1% (2) Surfactant at 0.75%													

Triticale Gross Margin

GROSS MARGIN SENSITIVITY

LOW RAINFALL

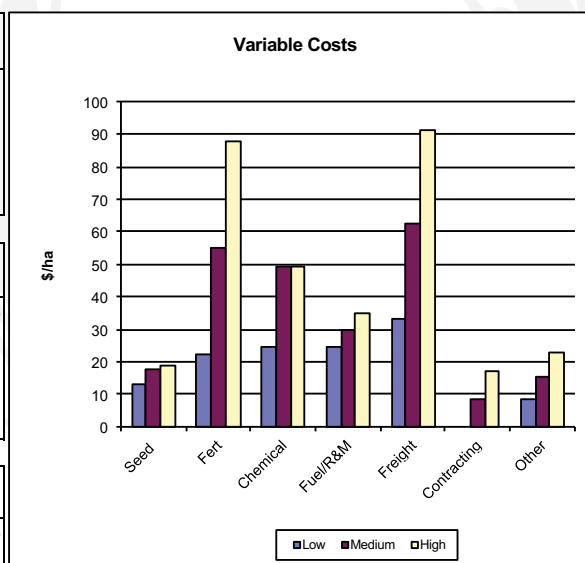
		Net Price \$/t				
		\$150	\$175	\$190	\$225	\$250
Yield	0.5	-\$45	-\$33	-\$26	-\$9	\$4
	1	\$14	\$39	\$53	\$88	\$112
t/ha	1.3	\$50	\$82	\$101	\$146	\$178
	2	\$133	\$182	\$212	\$281	\$330
	3	\$253	\$326	\$370	\$473	\$547

MEDIUM RAINFALL

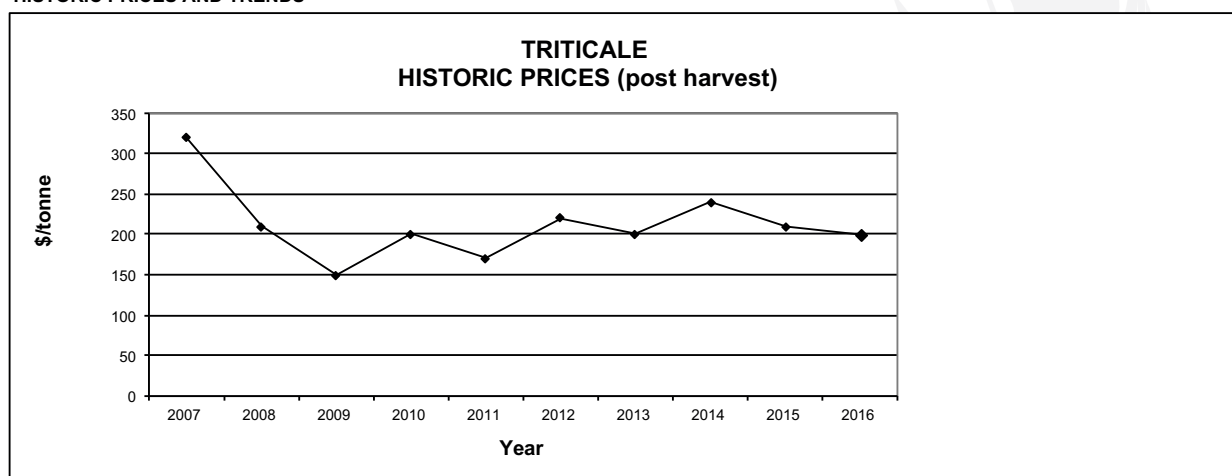
		Net Price \$/t				
		\$150	\$175	\$190	\$225	\$250
Yield	1	-\$63	-\$39	-\$24	\$11	\$35
	1.6	\$8	\$48	\$71	\$126	\$165
t/ha	2.4	\$104	\$163	\$198	\$280	\$339
	3.2	\$199	\$278	\$325	\$435	\$513
	4	\$295	\$393	\$452	\$589	\$687

HIGH RAINFALL

		Net Price \$/t				
		\$150	\$175	\$190	\$225	\$250
Yield	1.5	-\$52	-\$16	\$6	\$58	\$95
	2.5	\$67	\$128	\$165	\$251	\$312
t/ha	3.5	\$186	\$272	\$323	\$444	\$530
	4.5	\$305	\$416	\$482	\$636	\$747
	5.5	\$424	\$559	\$640	\$829	\$964



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint	Fuel
		\$/ha	\$/ha
seed	1	3.89	3.98
spray	4	2.20	1.34
harvest#	1	8.57	4.7925
TOTAL		14.66	10.11

Rates are for low rainfall zone. Extra cost in higher yielding situations

Export Oaten Hay Gross Margin

										2017 YOUR ESTIMATE			
INCOME													
Rainfall Zone													
										LOW	MEDIUM	HIGH	
Price (17/18 Forecast)										\$190	\$170	\$150	
Quality Mixed grades													
Yield (t/ha)										3.50	5.50	8	
GROSS INCOME										\$665	\$935	\$1,200	
VARIABLE COSTS													
										Rate/ha Low	Rate/ha Medium	Rate/ha High	
Cost										\$/ha	\$/ha	\$/ha	\$/ha
Seed													
Levies													
Seed	\$160.00	/tonne	@	90	\$14.40	110	\$17.60	130	\$20.80				
Seed Treatment	\$0.00	/tonne	@			0	\$0.00	0	\$0.00				
Fertiliser (Bulk)													
18:20:0	\$550	/tonne	@	60	\$33.00	80	\$44.00	110	\$60.50				
Urea	\$440	/tonne	@	30	\$13.20	75	\$33.00	150	\$66.00				
Chemicals-Herbicides													
Summer Weed Control		Various	Allow		\$20.00		\$20.00		\$20.00				
Pre-emergents													
Glyphosate 540	\$6.00	/litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20				
Carfentrazone 400g/L	\$220.00	/litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40				
Dual Gold	\$16.00	/litre	@			0.5	\$8.00	0.5	\$8.00				
Diuron	\$11.00	/Kg	@	0.4	\$4.40	0.4	\$4.40	0.4	\$4.40				
Post-MCPA Amine	\$8.95	/litre	@	0.5	\$4.48	0.5	\$4.48	0.5	\$4.48				
Pre cutting-Glypho (1)	\$6.00	/litre	@	1.4	\$8.40	2	\$12.00	2	\$12.00				
<i>Insecticides</i>													
<i>Fungicides</i>													
Operations													
Fuel & Oil										\$6.66	\$7.33	\$7.99	
Repairs & Maintenance										\$7.29	\$8.02	\$8.75	
Freight													
Hay	\$28.00	/tonne	@	3.5	\$98.00	5.5	\$154.00	8.0	\$224.00				
Fertiliser (t)	\$20.00	/tonne	@	0.09	\$1.80	0.16	\$3.10	0.26	\$5.20				
Contract Work													
Hay mowing	\$48.00	/ha	@	1.0	\$48.00	1.0	\$48.00	1.0	\$48.00				
Super Conditioner	\$25-40.00	/ha	@	1.0	\$25.00	1.0	\$30.00	1.0	\$35.00				
Hay baling	\$20.00	/bale	@	3.5	\$107.69	5.5	\$169.23	8.0	\$246.15				
Insurance	\$2.50	/\$1000	@		\$1.66		\$2.34		\$3.00				
TOTAL VARIABLE COSTS										\$406	\$577	\$786	
GROSS MARGIN/hectare										\$259	\$358	\$414	
Break Even Price (to cover variable costs only)										\$116	\$105	\$98	
Break Even Yield (to cover variable costs only)										2.13	3.39	5.24	
Gross Margin based on last 5 year average price										\$172	\$330	\$534	
COMMENTS										AGRONOMIC NOTES			
Price received is strongly related to yield. Fertiliser rate assumes hay follows a cereal. Bonuses for shedding and late delivery may apply. Additional capital costs including shedding and extra machinery may be needed.										The use of a 'super conditioner' can significantly reduce drying time and subsequently risk with less chance of a quality downgrade. No allowance has been made for cost of raking. (1) Glyphosate Weedmaster DST registered for this use			

Export Oaten Hay Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

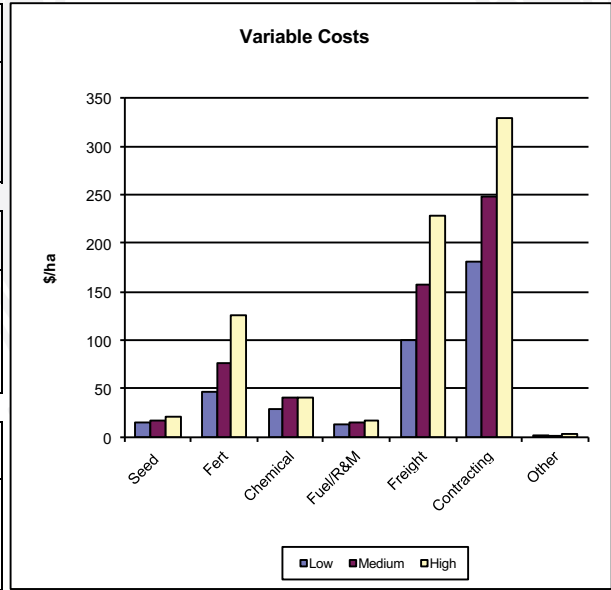
		Net Price \$/t				
		\$150	\$175	\$190	\$225	\$250
Yield	1.5	-\$62	-\$25	-\$2	\$50	\$88
	2.5	\$29	\$91	\$129	\$216	\$278
t/ha	3.5	\$120	\$207	\$259	\$382	\$469
	4.5	\$211	\$323	\$390	\$547	\$659

MEDIUM RAINFALL

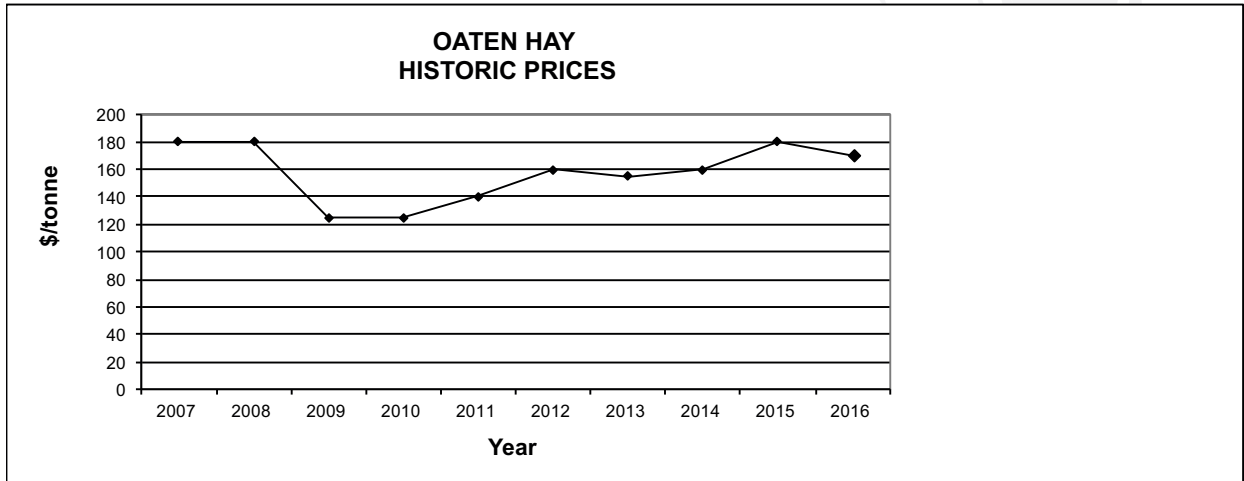
		Net Price \$/t				
		\$120	\$145	\$170	\$195	\$220
Yield	2	-\$130	-\$80	-\$30	\$20	\$70
	3.5	-\$38	\$49	\$136	\$224	\$311
t/ha	5.5	\$84	\$221	\$358	\$495	\$632
	7.5	\$205	\$392	\$580	\$767	\$954

HIGH RAINFALL

		Net Price \$/t				
		\$100	\$125	\$150	\$175	\$200
Yield	8	\$15	\$215	\$414	\$614	\$813
	6	-\$67	\$83	\$232	\$382	\$532
t/ha	8	\$15	\$215	\$414	\$614	\$813
	10	\$97	\$346	\$596	\$845	\$1,095



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint	Fuel
		\$/ha	\$/ha
seed	1	3.89	3.98
spray	4	2.20	1.34
roll	1	1.20	1.34
TOTAL		7.29	6.66

Rates are for low rainfall zone. Extra cost in higher yielding situations

Vetch Gross Margin

										2017 YOUR ESTIMATE			
INCOME													
Rainfall Zone													
										LOW	MEDIUM	HIGH	
Price (17/18 Forecast)										\$400	\$400	\$400	
Quality Morava vetch													
Yield (t/ha)										0.7	1.2	1.6	
GROSS INCOME										\$280	\$480	\$640	
VARIABLE COSTS													
										Rate/ha Low	Rate/ha Medium	Rate/ha High	
Seed													
Seed \$0.30 /kg @										25	30	35	
Seed Inoculant \$0.05 /kg @										25	30	35	
Levies													
GRDC Levies 1.0% Gross Income										\$2.80	\$4.80	\$6.40	
Fertiliser (Bulk)													
MAP \$550 /tonne @										40	60	80	
Chemicals-Herbicides													
Summer Weed Control Various Allow										\$20.00	\$20.00	\$20.00	
Pre-emergents													
Metribuzin 750 gm/kg \$25.60 /kg @										0.2	0.25	0.3	
Trifluralin 480g/L \$7.50 /litre @										1.2	1.5	1.7	
Tri-allate 500g/L \$10.40 /litre @											1.6	1.6	
Glyphosate 540 \$6.00 /litre @										1.2	1.2	1.2	
Carfentrazone 400g/L \$220.00 /litre @										0.02	0.02	0.02	
Post-emergents													
Clethodim(incl Oil) \$12.00 /litre @										0.3	0.5	0.7	
Haloxypop 520g/L \$44.00 /litre @										0.04	0.04	0.04	
Paraquat(Topping) \$4.00 /litre @										0.8	0.8	0.8	
Insecticides													
Dimethoate (1) \$8.45 /litre @										0.4	0.4	0.4	
Karate Zeon® (2) \$116.00 /litre @										0.024	0.024	0.024	
Operations													
Fuel & Oil										\$14.04	\$16.85	\$19.66	
Repairs & Maintenance										\$27.59	\$33.11	\$38.63	
Freight													
Grain (t) \$25.00 /tonne @										0.7	1.2	1.6	
Fertiliser (t) \$20.00 /tonne @										0.04	0.06	0.08	
Contract Work													
Aerial spraying													
Insurance \$12.00 /\$1000 @										\$3.36	\$5.76	\$7.68	
Other													
TOTAL VARIABLE COSTS										\$160	\$221	\$261	
GROSS MARGIN/hectare										\$120	\$259	\$379	
Break Even Price (to cover variable costs only)										\$228	\$184	\$163	
Break Even Yield (to cover variable costs only)										0.40	0.55	0.65	
Gross Margin based on last 5 year average price										\$216	\$423	\$597	
COMMENTS										AGRONOMIC NOTES			
Seed is not treated with a fungicide or graded.										Lexone (Metribuzin) not recommended on some varieties.			
(1) Cow pea aphid										Seek advice (also applies to using Diuron on vetch).			
(2) Native budworm										Harvest and marketing difficulties are common with this crop.			
Do not exceed 800 ml/Ha Paraquat 250 when crop topping to avoid possible residue issues.										Vetch is a dual purpose crop and grain production following grazing is possible. This can markedly influence Gross Margin performance.			

Vetch Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

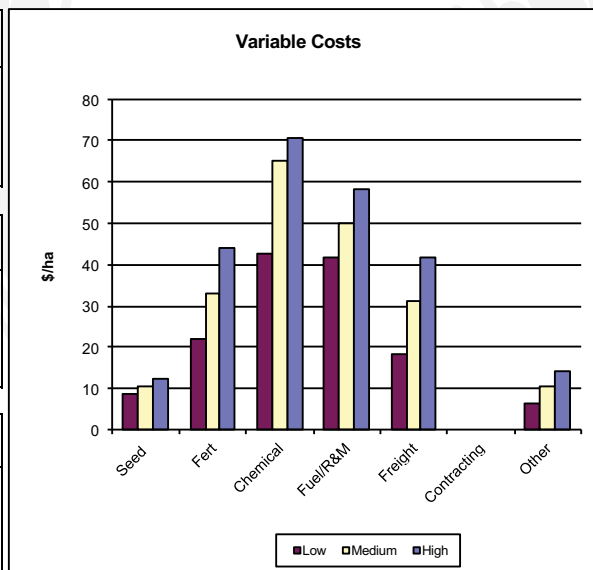
		Net Price \$/t				
		\$250	\$325	\$400	\$500	\$600
Yield	0.3	-\$70	-\$48	-\$26	\$3	\$33
	0.7	\$18	\$69	\$120	\$189	\$257
t/ha	1.1	\$105	\$186	\$267	\$374	\$482
	1.5	\$193	\$303	\$413	\$560	\$707

MEDIUM RAINFALL

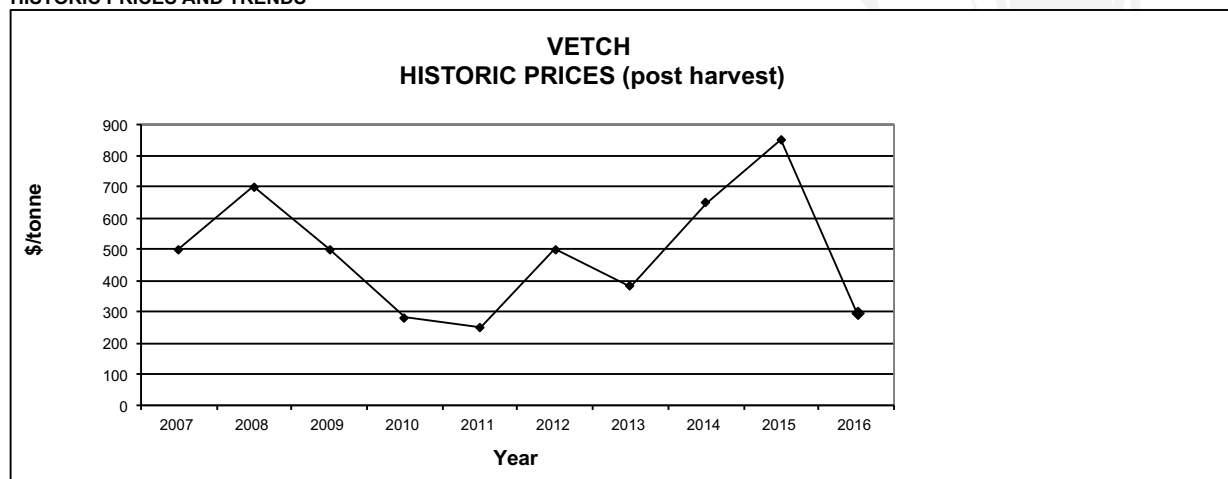
		Net Price \$/t				
		\$250	\$325	\$400	\$500	\$600
Yield	0.4	-\$92	-\$63	-\$34	\$6	\$45
	0.8	-\$4	\$54	\$113	\$191	\$269
t/ha	1.2	\$83	\$171	\$259	\$377	\$494
	1.8	\$215	\$347	\$479	\$655	\$831

HIGH RAINFALL

		Net Price \$/t				
		\$250	\$325	\$400	\$500	\$600
Yield	0.8	-\$31	\$28	\$86	\$164	\$243
	1.2	\$57	\$145	\$233	\$350	\$467
t/ha	1.6	\$144	\$262	\$379	\$536	\$692
	2.5	\$342	\$525	\$709	\$953	\$1,198



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	6	3.30	2.01
roll	1	1.20	1.34
harvest#	1	19.20	6.71
TOTAL		27.59	14.04

Rates are for low rainfall zone. Extra cost in higher yielding situations

Lupins Gross Margin

										2017 YOUR ESTIMATE
INCOME										
				Rainfall Zone						
				LOW			MEDIUM			HIGH
				\$280			\$280			\$280
Price (17/18 Forecast)										
Quality										
Yield (t/ha)				0.9			1.5			2
GROSS INCOME				\$252			\$420			\$560
VARIABLE COSTS										
			Rate/ha			Rate/ha			Rate/ha	
Cost			Low			Medium			High	
						\$/ha			\$/ha	
Seed										
Seed	\$0.23 /kg	@	90	\$20.70	90	\$20.70	90	\$20.70	\$20.70	
Seed Inoculant	\$0.05 /kg	@	90	\$4.68	90	\$4.68	90	\$4.68	\$4.68	
Seed Treatment(1)	\$0.11 /kg	@	60	\$6.73	75	\$8.42	80	\$8.98	\$8.98	
Levies										
GRDC Levies	1.0% Gross Income			\$2.52		\$4.20		\$5.60	\$5.60	
EPR &state levies	\$2.80 /tonne sold			\$2.52		\$4.20		\$5.60	\$5.60	
Fertiliser (Bulk)										
MAP	\$550 /tonne	@	40	22	60	\$33.00	80	\$44.00	\$44.00	
Foliar Trace Elem										
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00	\$20.00	
Pre-emergents										
Trifluralin 480g/L	\$7.50 /litre	@	1.2	\$9.00	1.5	\$11.25	1.7	\$12.75	\$12.75	
Tri-allate 500g/L	\$10.40 /litre	@		\$0.00	1.6	\$16.64	1.6	\$16.64	\$16.64	
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20	\$7.20	
Simazine Granules	\$7.60 /kg	@	0.83	\$6.31	0.83	\$6.31	0.83	\$6.31	\$6.31	
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40	\$4.40	
Post-emergents										
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73	\$10.73	
Haloxypop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76	\$1.76	
Paraquat(Topping)	\$4.00 /litre	@	0.8	\$3.20	0.8	\$3.20	0.8	\$3.20	\$3.20	
Insecticides										
Talstar (2)	\$48.00 /litre	@	0.04	\$1.92	0.04	\$1.92	0.04	\$1.92	\$1.92	
Karate Zeon® (3)	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78	\$2.78	
Operations										
Fuel & Oil				\$11.58		\$13.90		\$16.21	\$16.21	
Repairs & Maintenance				\$19.19		\$23.03		\$26.87	\$26.87	
Freight										
Grain (t)	\$25.00 /tonne	@	0.9	\$22.50	1.5	\$37.50	2.0	\$50.00	\$50.00	
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.06	\$1.20	0.08	\$1.60	\$1.60	
Contract Work										
Aerial spraying	\$14.00 /ha	@		\$0		\$0.00		\$0.00	\$0.00	
Insurance	\$10.00 /\$1000	@		\$2.52		\$4.20		\$5.60	\$5.60	
Other										
TOTAL VARIABLE COSTS				\$178			\$239			\$278
GROSS MARGIN/hectare				\$74			\$181			\$282
Break Even Price (to cover variable costs only)				\$198			\$159			\$139
Break Even Yield (to cover variable costs only)				0.64			0.85			0.99
Gross Margin based on last 5 year average price				\$94			\$214			\$326
AGRONOMIC NOTES					AGRONOMIC NOTES					
(1) Seed treatment for aphid control for controlling viruses										
(2) RLEM										
(3) Native budworm										
Do not exceed 800ml/Ha when crop topping with Paraquat 250 to avoid any possible residue issues.										

Lupins Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

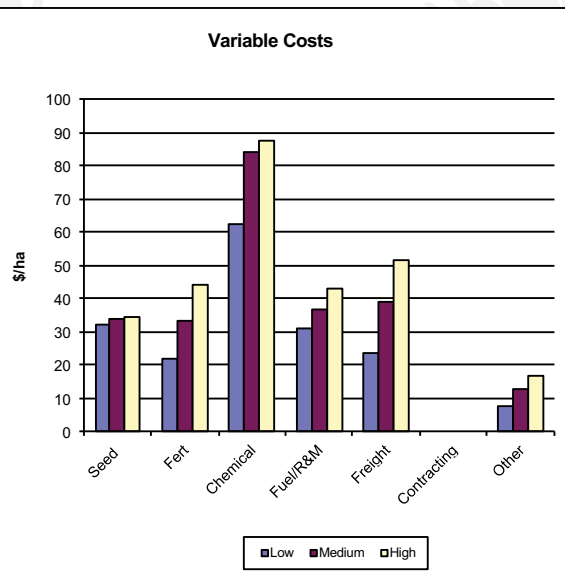
		Net Price \$/t				
		\$200	\$240	\$280	\$320	\$360
Yield	0.5	-\$64	-\$44	-\$25	-\$5	\$14
	0.9	\$3	\$38	\$74	\$109	\$144
t/ha	1.5	\$104	\$163	\$222	\$281	\$339
	2	\$188	\$267	\$345	\$423	\$502

MEDIUM RAINFALL

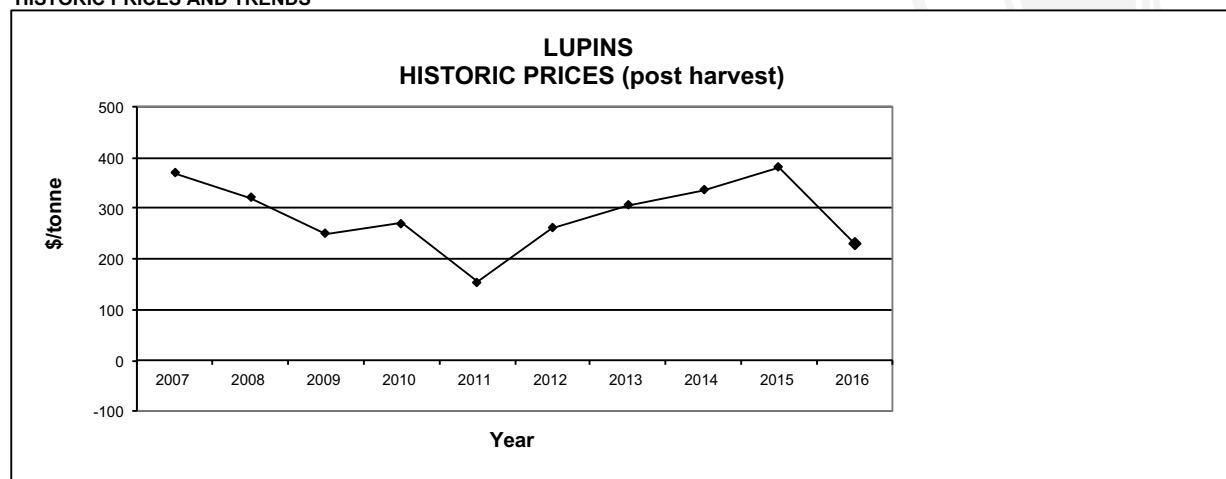
		Net Price \$/t				
		\$200	\$240	\$280	\$320	\$360
Yield	0.5	-\$105	-\$85	-\$65	-\$46	-\$26
	1	-\$21	\$19	\$58	\$97	\$136
t/ha	1.5	\$64	\$122	\$181	\$240	\$299
	2	\$148	\$226	\$304	\$383	\$461

HIGH RAINFALL

		Net Price \$/t				
		\$2,200	\$240	\$280	\$320	\$360
Yield	1	\$1,917	-\$3	\$36	\$75	\$114
	1.5	\$2,982	\$100	\$159	\$218	\$277
t/ha	2	\$4,046	\$204	\$282	\$361	\$439
	2.5	\$5,110	\$308	\$406	\$504	\$602



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	6	3.30	2.01
harvest#	1	12.00	5.59
TOTAL		19.19	11.58

Rates are for low rainfall zone. Extra cost in higher yielding situations

Red Lentils Gross Margin

INCOME										2017 YOUR ESTIMATE
Rainfall Zone				LOW		MEDIUM		HIGH		
Price (17/18 Forecast)				600		\$600		\$600		
Quality Jumbo 2										
Yield (t/ha)				0.8		1.4		1.8		
GROSS INCOME				\$480		\$840		\$1,080		
VARIABLE COSTS										
Cost			Rate/ha Low	\$/ha	Rate/ha Medium	\$/ha	Rate/ha High	\$/ha		
Seed										
Seed	\$0.68 /kg	@	50	\$34.00	50	\$34.00	50	\$34.00		
Seed Inoculant	\$0.05 /kg	@	50	\$2.60	50	\$2.60	50	\$2.60		
P-Pickel	\$75.20 /tonne		50	\$3.76	50	\$3.76	50	\$3.76		
Levies										
GRDC Levies	1.0% Gross Income			\$4.80		\$8.40		\$10.80		
EPR &state levies	\$6.00 /tonne sold			\$4.80		\$8.40		\$10.80		
Fertiliser (Bulk)										
MAP	\$550 /tonne	@	40	\$22.00	50	\$27.50	60	\$33.00		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
trifluralin 480g/L	\$7.50 /litre	@	0.8	\$6.00	0.8	\$6.00	0.8	\$6.00		
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64	1.6	\$16.64	1.6	\$16.64		
Metribuzin 750 gm/kg	\$25.60 /kg	@	0.18	\$4.61	0.24	\$6.14	0.3	\$7.68		
Diffufenican	\$38.00 /litre	@	0.15	\$5.70	0.15	\$5.70	0.15	\$5.70		
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73		
Haloxypop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76		
Paraquat(Topping)	\$4.00 /litre	@	0.8	\$3.20	0.8	\$3.20	0.8	\$3.20		
Insecticides										
Dimethoate (1)	\$8.45 /litre	@	0.4	\$3.38	0.4	\$3.38	0.4	\$3.38		
Karate Zeon® (2)	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78		
Karate Zeon® (3)	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78		
Trojan (4)	\$132.00 /litre	@	0.025	\$3.30	0.025	\$3.30	0.025	\$3.30		
Fungicides										
Chlorothalonil (5)	\$8.90 /litre	@	0.8	\$7.12	1.6	\$14.24	2.4	\$21.36		
Carbendazim (6)	\$16.40 /litre	@	0.5	\$8.20	1	\$16.40	1	\$16.40		
Procyimdone (7)	\$20.80 /litre	@		\$0.00		\$0.00	0.5	\$10.40		
Operations										
Fuel & Oil				\$15.05		\$18.06		\$21.07		
Repairs & Maintenance				\$22.04		\$26.45		\$30.86		
Freight										
Grain (t)	\$30.00 /tonne	@	0.8	\$24.00	1.4	\$42.00	1.8	\$54.00		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.05	\$1.00	0.06	\$1.20		
Contract Work										
Aerial spraying										
Windrowing										
Insurance	\$12.00 /\$1000	@		\$5.76		\$10.08		\$12.96		
Other										
TOTAL VARIABLE COSTS				\$243		\$305		\$359		
GROSS MARGIN/hectare				\$237		\$535		\$721		
Break Even Price (to cover variable costs only)				\$303		\$218		\$199		
Break Even Yield (to cover variable costs only)				0.40		0.51		0.60		
Gross Margin based on last 5 year average price				\$409		\$835		\$1,106		
COMMENTS					AGRONOMIC NOTES					
(1) Cow Pea and/or Blue Green Aphid					Some varieties more sensitive to Lexone than others					
(2) Native budworm					Check newly released varieties for suitability to your area					
(3) Etiella										
(5)Ascochyta										
(6/7) Grey mould										
Do not exceed 800ml/Ha Paraquat 250 when crop topping to avoid										

Red Lentils Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

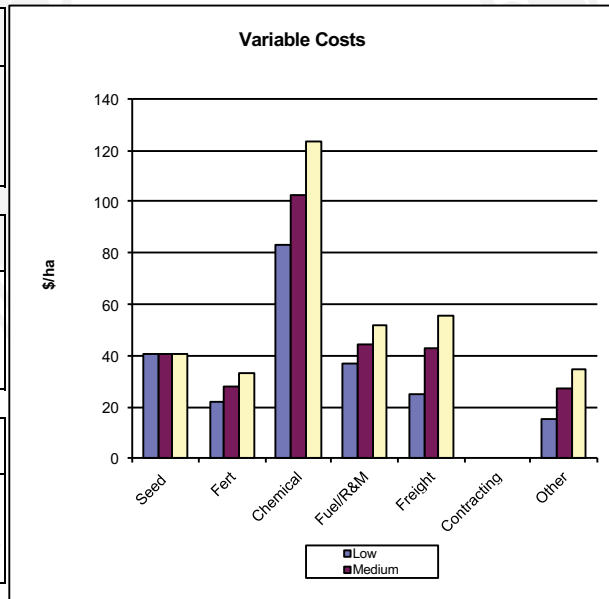
		Net Price \$/t				
		\$400	\$500	\$600	\$700	\$800
Yield	0.3	-\$97	-\$67	-\$38	-\$9	\$21
	0.8	\$81	\$159	\$237	\$316	\$394
t/ha	1.1	\$187	\$295	\$403	\$510	\$618
	1.5	\$330	\$476	\$623	\$770	\$916

MEDIUM RAINFALL

		Net Price \$/t				
		\$400	\$500	\$600	\$700	\$800
Yield	0.8	\$49	\$127	\$205	\$283	\$361
	1.4	\$262	\$399	\$535	\$672	\$809
t/ha	1.8	\$404	\$580	\$756	\$932	\$1,108
	2.4	\$617	\$852	\$1,086	\$1,321	\$1,556

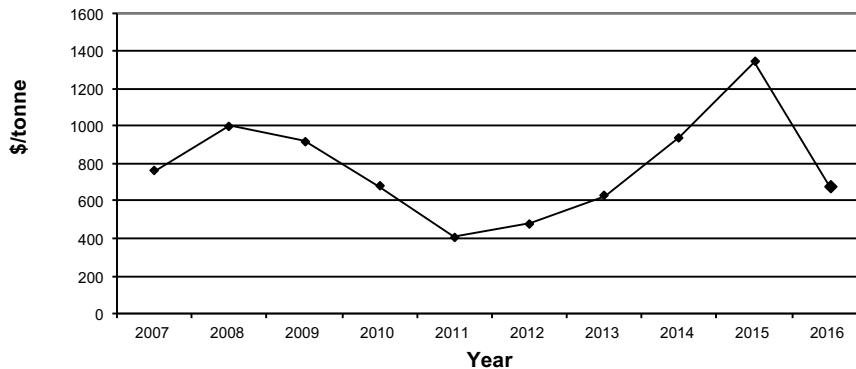
HIGH RAINFALL

		Net Price \$/t				
		\$400	\$500	\$600	\$700	\$800
Yield	0.8	\$14	\$92	\$170	\$249	\$327
	1.3	\$192	\$319	\$446	\$573	\$700
t/ha	1.8	\$369	\$545	\$721	\$897	\$1,073
	2.5	\$618	\$862	\$1,107	\$1,351	\$1,596



HISTORIC PRICES AND TRENDS

RED LENTILS HISTORIC PRICES (post harvest)



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	9	4.95	3.02
roll	1	1.20	1.34
harvest#	1	12.00	6.71
TOTAL		22.04	15.05

Rates are for low rainfall zone. Extra cost in higher yielding situations

Lentils Imi Tolerant

INCOME										2017 YOUR ESTIMATE
Rainfall Zone				LOW	MEDIUM	HIGH				
Price (17/18 Forecast)				600	\$600	\$600				
Quality Jumbo 2										
Yield (t/ha)				0.7	1.2	1.7				
GROSS INCOME				\$420	\$720	\$1,020				
VARIABLE COSTS										
Cost			Rate/ha		Rate/ha		Rate/ha			
			Low	\$/ha	Medium	\$/ha	High	\$/ha		
Seed										
Seed	\$0.68 /kg	@	35	\$23.80	40	\$27.20	45	\$30.60		
Seed Inoculant	\$0.05 /kg	@	35	\$1.82	40	\$2.08	45	\$2.34		
P-Pickel	\$75.20 /tonne		35	\$2.63	40	\$3.01	45	\$3.38		
Levies										
GRDC Levies	1.0% Gross Income			\$4.20		\$7.20		\$10.20		
EPR &state levies	\$6.00 /tonne sold			\$4.20		\$7.20		\$10.20		
Fertiliser (Bulk)										
MAP	\$550 /tonne	@	40	\$22.00	50	\$27.50	60	\$33.00		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
trifluralin 480g/L	\$7.50 /litre	@	0.8	\$6.00	0.8	\$6.00	0.8	\$6.00		
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64	1.6	\$16.64	1.6	\$16.64		
Metribuzin 750 gm/kg	\$25.60 /kg	@	0.18	\$4.61	0.24	\$6.14	0.3	\$7.68		
Imazethapyr 700g/kg	\$99.50 /kg	@	0.07	\$6.97	0.07	\$6.97	0.07	\$6.97		
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73		
Haloxypop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76		
Paraquat(Topping)	\$4.00 /litre	@	0.8	\$3.20	0.8	\$3.20	0.8	\$3.20		
Insecticides										
Dimethoate (1)	\$8.45 /litre	@	0.4	\$3.38	0.4	\$3.38	0.4	\$3.38		
Karate Zeon® (2)	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78		
Karate Zeon® (3)	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78		
Trojan (4)	\$132.00 /litre	@	0.025	\$3.30	0.025	\$3.30	0.025	\$3.30		
Fungicides										
Chlorothalonil (5)	\$8.90 /litre	@	0.8	\$7.12	1.6	\$14.24	2.4	\$21.36		
Carbendazim (6)	\$16.40 /litre	@	0.5	\$8.20	1	\$16.40	1	\$16.40		
Procydione (7)	\$20.80 /litre	@		\$0.00		\$0.00	0.5	\$10.40		
Operations										
Fuel & Oil				\$15.05		\$18.06		\$21.07		
Repairs & Maintenance				\$22.04		\$26.45		\$30.86		
Freight										
Grain (t)	\$30.00 /tonne	@	0.7	\$21.00	1.2	\$36.00	1.7	\$51.00		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.05	\$1.00	0.06	\$1.20		
Contract Work										
Aerial spraying										
Windrowing										
Insurance	\$12.00 /\$1000	@		\$5.04		\$8.64		\$12.24		
Other										
TOTAL VARIABLE COSTS				\$227		\$288		\$351		
GROSS MARGIN/hectare				\$193		\$432		\$669		
Break Even Price (to cover variable costs only)				\$324		\$240		\$207		
Break Even Yield (to cover variable costs only)				0.38		0.48		0.59		
Gross Margin based on last 5 year average price				\$343		\$689		\$1,033		
COMMENT				AGRONOMIC NOTES						
(1) Cow Pea and/or Blue Green Aphid(2) Native budworm control (3) Etiella (4) Etiella (5) Ascochyta (6,7) Grey mould Do not exceed 800ml/Ha Paraquat 250 when crop topping to avoid possible residues				Imazethapyr is a permit use						

Lentils Imi Tolerant

GROSS MARGIN SENSITIVITY LOW RAINFALL

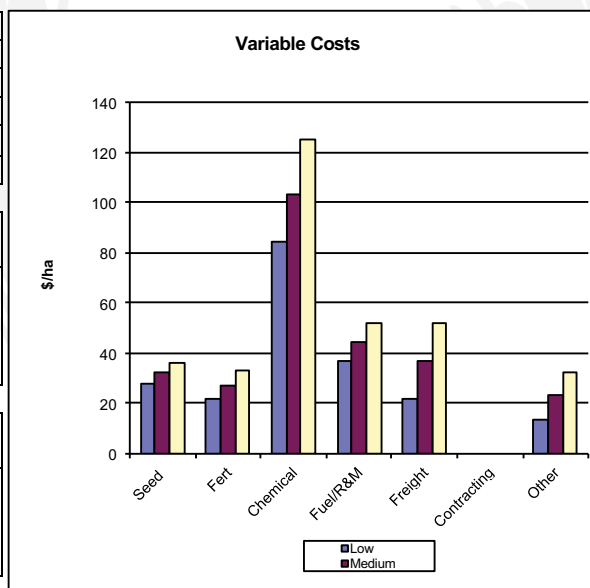
		Net Price \$/t				
		\$400	\$500	\$600	\$700	\$800
	0.3	-\$86	-\$57	-\$27	\$2	\$32
Yield	0.7	\$56	\$125	\$193	\$262	\$330
t/ha	1.1	\$198	\$306	\$413	\$521	\$629
	1.5	\$340	\$487	\$634	\$780	\$927

MEDIUM RAINFALL

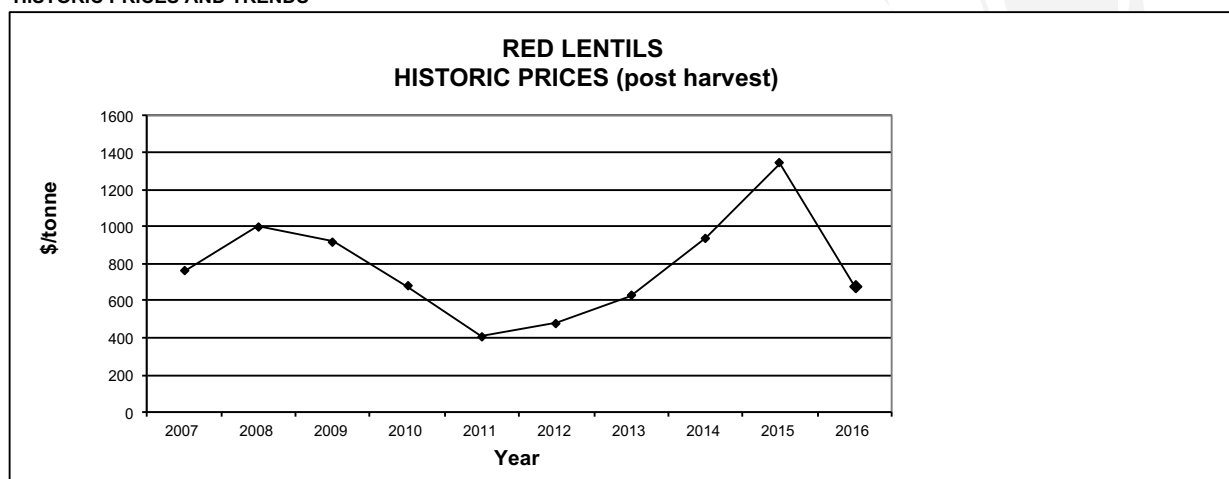
		Net Price \$/t				
		\$400	\$500	\$600	\$700	\$800
	0.8	\$55	\$134	\$212	\$290	\$368
Yield	1.2	\$197	\$315	\$432	\$550	\$667
t/ha	1.8	\$411	\$587	\$763	\$939	\$1,115
	2.4	\$624	\$858	\$1,093	\$1,328	\$1,563

HIGH RAINFALL

		Net Price \$/t				
		\$400	\$500	\$600	\$700	\$800
	0.8	\$17	\$95	\$173	\$251	\$330
Yield	1.3	\$194	\$321	\$449	\$576	\$703
t/ha	1.7	\$336	\$503	\$669	\$835	\$1,001
	2.5	\$621	\$865	\$1,110	\$1,354	\$1,599



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint	Fuel
		\$/ha	\$/ha
seed	1	3.89	3.98
spray	9	4.95	3.02
roll	1	1.20	1.34
harvest#	1	12.00	6.71
TOTAL		22.04	15.05

Rates are for low rainfall zone. Extra cost in higher yielding situations

Field Peas Gross Margin

INCOME										2017 YOUR ESTIMATE
Rainfall Zone				LOW		MEDIUM		HIGH		
Price (17/18 Forecast)				\$350		\$350		\$350		
Quality Kaspa										
Yield (t/ha)				1		1.5		2.2		
GROSS INCOME				\$350		\$525		\$770		
VARIABLE COSTS										
Cost			Rate/ha		Rate/ha		Rate/ha			
			Low	\$/ha	Medium	\$/ha	High	\$/ha		
Seed										
Seed	\$0.35	/kg	@	90	\$31.50	100	\$35.00	110	\$38.50	
Seed Grading	\$25.40	/tonne	@	90	\$2.29	100	\$2.54	110	\$2.79	
P-Pickel	\$75.20	/tonne	@		\$0.00	100	\$7.52	110	\$8.27	
Apron® XL	\$262.50	/tonne	@		\$0.00		\$0.00	110	\$28.88	
Levies										
GRDC Levies	1.0%	Gross Income			\$3.50		\$5.25		\$7.70	
EPR &state levies	\$3.00	/tonne sold			\$3.00		\$4.50		\$6.60	
Fertiliser (Bulk)										
MAP	\$550	/tonne	@	40	\$22.00	60	\$33.00	80	\$44.00	
Chemicals-Herbicides										
Summer Weed Control		Various	Allow		\$20.00		\$20.00		\$20.00	
Pre-emergents										
Trifluralin 480g/L	\$7.50	/litre	@	1.2	\$9.00	1.5	\$11.25	1.7	\$12.75	
Tri-allate 500g/L	\$10.40	/litre	@	1.6	\$16.64	1.6	\$16.64	1.6	\$16.64	
Glyphosate 540	\$6.00	/litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20	
Carfentrazone 400g/L	\$220.00	/litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40	
Post-emergents										
Terbyne	\$26.50	/kg	@	0.86	\$22.79	1	\$26.50	1.2	\$31.80	
Clethodim(incl Oil)	\$12.00	/litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73	
Haloxypop 520g/L	\$44.00	/litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76	
Paraquat(Topping)	\$4.00	/litre	@	0.8	\$3.20	0.8	\$3.20	0.8	\$3.20	
Insecticides										
Karate Zeon® (1)	\$116.00	/litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78	
Karate Zeon® (2)	\$116.00	/litre	@		\$0.00	0.024	\$0.93	0.024	\$0.93	
Omethoate (3)	\$26.00	/litre	@	0.05	\$1.30	0.05	\$1.30	0.05	\$1.30	
Fungicides										
Tebuconazole (4)	\$12.00	/litre	@		\$0.00	0.145	\$1.74	0.145	\$1.74	
Operations										
Fuel & Oil					\$14.38		\$17.25		\$20.13	
Repairs & Maintenance					\$28.14		\$33.77		\$39.40	
Freight										
Grain (t)	\$25.00	/tonne	@	1.0	\$25.00	1.5	\$37.50	2.2	\$55.00	
Fertiliser (t)	\$20.00	/tonne	@	0.04	\$0.80	0.06	\$1.20	0.08	\$1.60	
Contract Work										
		/ha	@		\$0.00		\$0.00		\$0.00	
		/ha	@		\$0.00		\$0.00		\$0.00	
Insurance	\$16.00	/\$1000	@		\$5.60		\$8.40		\$12.32	
Other	\$0.00	/ha	@		\$0.00		\$0.00		\$0.00	
	\$0.00	/ha	@		\$0.00		\$0.00		\$0.00	
TOTAL VARIABLE COSTS					\$231		\$292		\$380	
GROSS MARGIN/hectare					\$119		\$233		\$390	
Break Even Price (to cover variable costs only)					\$231		\$195		\$173	
Break Even Yield (to cover variable costs only)					0.66		0.83		1.09	
Gross Margin based on last 5 year average price					\$159		\$293		\$478	
COMMENTS					AGRONOMIC NOTES					
(1) Native budworm control					Recently released varieties are more suited to lower rainfall situations					
(2) Pea weevil border spray										
(3) RLEM										

Field Peas Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

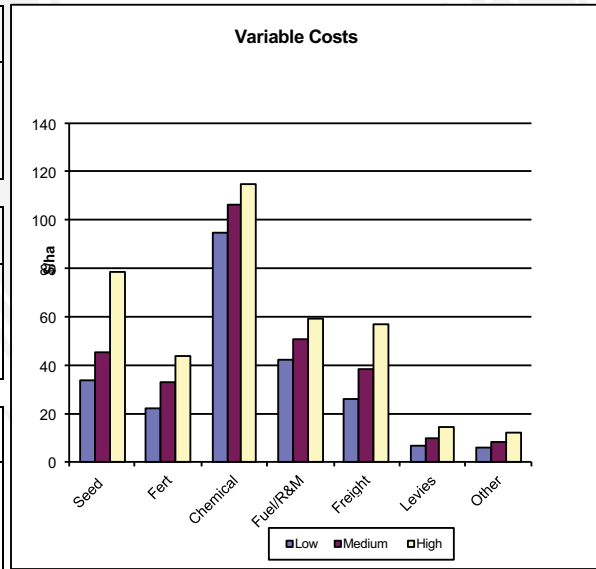
		Net Price \$/t				
		\$250	\$300	\$350	\$400	\$450
Yield	0.75	-\$32	\$4	\$41	\$77	\$114
	1	\$21	\$70	\$119	\$167	\$216
	1.25	\$75	\$136	\$197	\$258	\$319
	1.5	\$129	\$202	\$275	\$348	\$421

MEDIUM RAINFALL

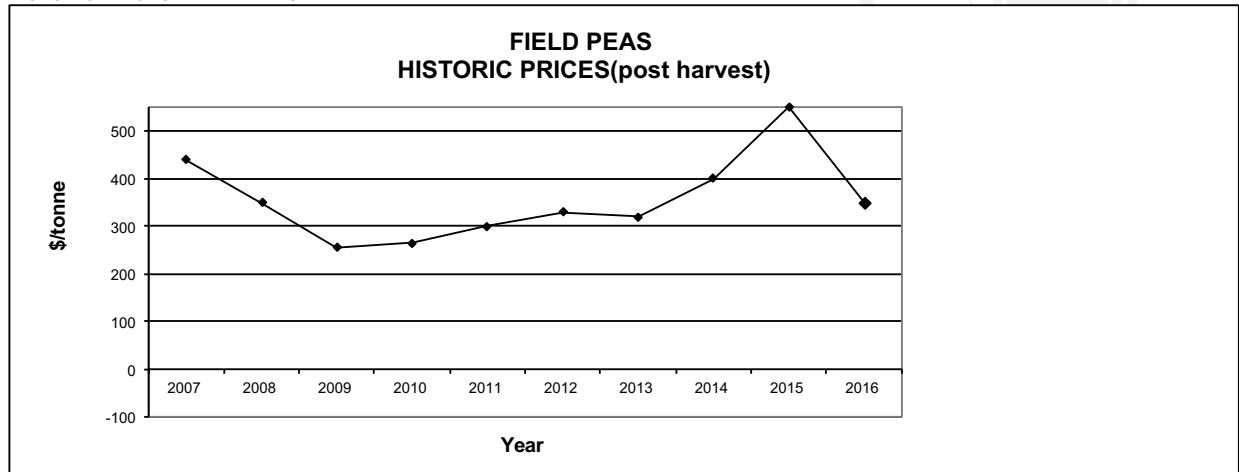
		Net Price \$/t				
		\$250	\$300	\$350	\$400	\$450
Yield	1	-\$21	\$28	\$77	\$125	\$174
	1.5	\$87	\$160	\$233	\$306	\$379
	2	\$195	\$292	\$389	\$487	\$584
	2.5	\$302	\$424	\$546	\$668	\$789

HIGH RAINFALL

		Net Price \$/t				
		\$250	\$300	\$350	\$400	\$450
Yield	1.5	\$24	\$98	\$171	\$244	\$317
	2	\$132	\$230	\$327	\$424	\$522
	2.2	\$175	\$282	\$390	\$497	\$604
	3	\$348	\$494	\$640	\$786	\$932



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	7	3.85	2.35
roll	1	1.20	1.34
harvest#	1	19.20	6.71
TOTAL		28.14	14.38

Rates are for low rainfall zone. Extra cost in higher yielding situations

Faba Bean Gross Margin

INCOME										2017 YOUR ESTIMATE
Rainfall Zone			LOW	MEDIUM	HIGH					
Price (17/18 Forecast)			\$330	\$330	\$330					
Quality Fie Grade 1										
Yield (t/ha)			0.8	1.6	2.8					
GROSS INCOME			\$264	\$528	\$924					
VARIABLE COSTS										
Cost			Rate/ha Low	Rate/ha Medium	Rate/ha High					
Seed										
Seed	\$0.27 /kg	@	100	\$27.00	110	\$29.70	130	\$35.10		
Seed Inoculant	\$0.05 /kg	@	100	\$5.20	110	\$5.72	130	\$6.76		
Levies										
GRDC Levies	1.0% Gross Income			\$2.64		\$5.28		\$9.24		
EPR & state levies	\$4.00 /tonne sold			\$3.20		\$6.40		\$11.20		
Fertiliser (Bulk)										
MAP	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Trifluralin 480g/L	\$7.50 /litre	@	0.8	\$6.00	0.8	\$6.00	0.8	\$6.00		
Simazine 900g/kg	\$7.60 /kg	@	0.83	\$6.31	0.83	\$6.31	0.83	\$6.31		
Post-emergents										
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73		
Haloxyfop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76		
Paraquat(Desiccant)	\$4.00 /litre	@	0.8	\$3.65	0.8	\$3.65	0.8	\$3.65		
Insecticides										
omethoate (1)	\$26.00 /litre	@	0.1	\$2.60	0.1	\$2.60	0.1	\$2.60		
Karate Zeon® (2)	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78		
Dimethoate (3)	\$8.45 /litre	@	0.5	\$4.23	0.5	\$4.23	0.5	\$4.23		
Fungicides										
Tebuconazole(4)	\$12.00 /litre	@		\$0.00	0.3	\$3.60	0.3	\$3.60		
Mancozeb-low r/f	\$8.90 /kg	@	1.7	\$15.13	0	\$0.00	0	\$0.00		
Mancozeb-Med/high	\$8.90 /kg	@	0	\$0.00	5.1	\$45.39	5.1	\$45.39		
Procyimidone	\$20.80 /litre	@		\$0.00		\$0.00	0.5	\$10.40		
Carbendazim 2 applic	\$16.40 /litre	@			0.5	\$8.20	1	\$16.40		
Operations										
Fuel & Oil				\$12.25		\$14.70		\$17.15		
Repairs & Maintenance				\$20.29		\$24.35		\$28.41		
Freight										
Grain (t)	\$25.00 /tonne	@	0.8	\$20.00	1.6	\$40.00	2.8	\$70.00		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.06	\$1.20	0.08	\$1.60		
Contract Work										
Aerial spraying	\$14.00 /ha	@		\$0.00	2	\$28.00	2	\$28.00		
Insurance	\$12.00 /\$1000	@		\$3.17		\$6.34		\$11.09		
TOTAL VARIABLE COSTS				\$197		\$319		\$408		
GROSS MARGIN/hectare				\$67		\$209		\$516		
Break Even Price (to cover variable costs only)				\$246		\$199		\$146		
Break Even Yield (to cover variable costs only)				0.60		0.97		1.24		
Gross Margin based on last 5 year average price				\$157		\$388		\$830		
COMMENTS					AGRONOMIC NOTES					
(1) RLEM control					No allowance is made in this gross margin as to the economic benefit of bean stubble to livestock.					
(2) Native Budworm control										
(3) Cow pea aphid										
(4) Cercospora Mancozeb for Ascochyta. Procyimidone and Carbendazim for chocolate spot										

Faba Bean Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

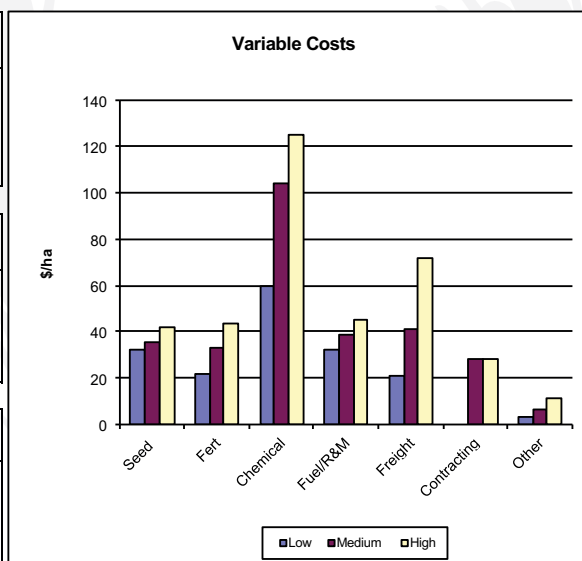
		Net Price \$/t				
		\$250	\$300	\$350	\$400	\$450
Yield	0.4	-\$81	-\$62	-\$42	-\$23	-\$3
	0.8	\$5	\$44	\$83	\$122	\$161
t/ha	1.5	\$156	\$229	\$302	\$376	\$449
	2	\$263	\$361	\$459	\$557	\$655

MEDIUM RAINFALL

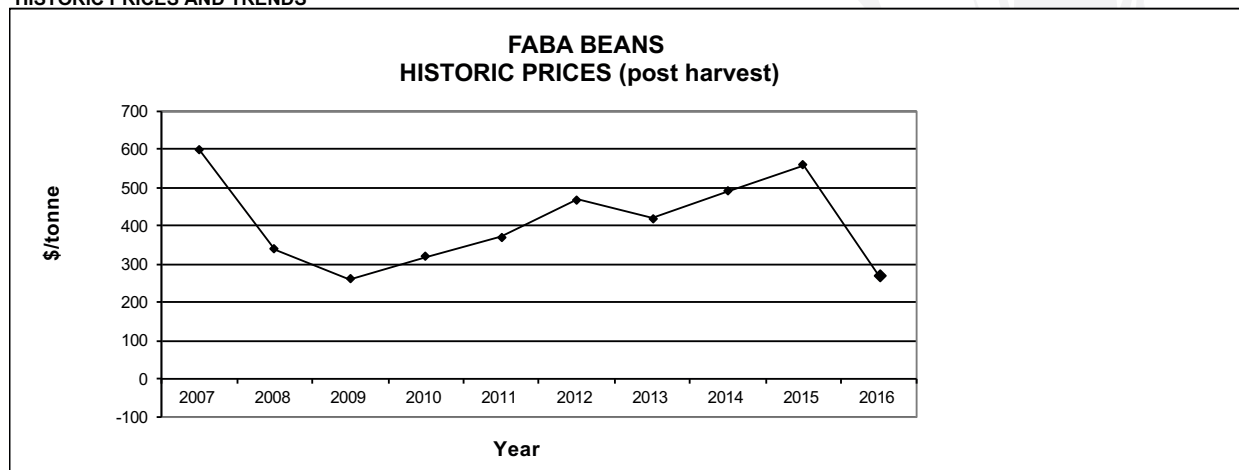
		Net Price \$/t				
		\$250	\$300	\$350	\$400	\$450
Yield	1	-\$46	\$3	\$52	\$101	\$150
	1.6	\$84	\$162	\$240	\$318	\$397
t/ha	2	\$170	\$268	\$365	\$463	\$561
	2.5	\$278	\$400	\$522	\$644	\$767

HIGH RAINFALL

		Net Price \$/t				
		\$250	\$300	\$350	\$400	\$450
Yield	1	-\$91	-\$42	\$7	\$56	\$105
	2	\$125	\$222	\$320	\$418	\$516
t/ha	2.8	\$297	\$434	\$571	\$708	\$845
	4	\$556	\$751	\$947	\$1,142	\$1,338



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	8	4.40	2.68
harvest#	1	12.00	5.59
TOTAL		20.29	12.25

Rates are for low rainfall zone. Extra cost in higher yielding situations

Chickpeas (6-8mm Kabuli) Gross Margin

INCOME										2017 YOUR ESTIMATE
		Rainfall Zone			LOW		MEDIUM		HIGH	
Price (17/18 Forecast)					\$700		\$700		\$700	
Quality		6-8 mm Kabuli								
Yield (t/ha)					0.7		1.3		1.7	
GROSS INCOME					\$490		\$910		\$1,190	
VARIABLE COSTS										
				Rate/ha		Rate/ha		Rate/ha		
Seed		Cost		Low	\$/ha	Medium	\$/ha	High	\$/ha	
Seed	\$1.45 /kg	@	90	\$130.50	100	\$145.00	110	\$159.50		
Seed Inoculant	\$52.00 /tonne	@	90	\$4.68	100	\$5.20	110	\$5.72		
P-Pickel	\$75.20 /tonne	@	90	\$6.77	100	\$7.52	110	\$8.27		
Levies										
GRDC Levies	1.0% Gross Income			\$4.90		\$9.10		\$11.90		
EPR & state levies	\$5.50 /tonne sold			\$3.85		\$7.15		\$9.35		
Fertiliser (Bulk)										
MAP	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00		
Chemicals-Herbicides										
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00		
Pre-emergents										
trifluralin 480g/L	\$7.50 /litre	@	1.25	\$9.38	1.25	\$9.38	1.25	\$9.38		
Tri-allate 500g/L	\$10.40 /litre	@	1.6	\$16.64	1.6	\$16.64	1.6	\$16.64		
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Balance®	\$0.16 /gram	@	75	\$12.00	100	\$16.00	100	\$16.00		
Post-emergents										
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73		
Haloxypop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76		
Insecticides										
Omethoate	\$26.00 /litre	@	0.05	\$1.30	0.05	\$1.30	0.05	\$1.30		
Karate Zeon®	\$116.00 /litre	@	0.024	\$2.78	0.024	\$2.78	0.024	\$2.78		
Fungicides										
Chlorothalonil	\$12.80 /litre	@	2	\$30.72	3.2	\$40.96	4	\$51.20		
Desiccation										
Paraquat(Desiccant)	\$4.00 /litre	@	0.8	\$12.20	0.8	\$12.20	0.8	\$12.20		
Operations										
Fuel & Oil				\$12.25		\$14.70		\$17.15		
Repairs & Maintenance				\$20.29		\$24.35		\$28.41		
Freight										
Grain (t)	\$25.00 /tonne	@	0.7	\$17.50	1.3	\$32.50	1.7	\$42.50		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.06	\$1.20	0.08	\$1.60		
Contract Work										
Aerial spraying	\$14.00 /ha	@		\$0.00		\$0.00		\$0.00		
Windrowing	\$35.00 /ha	@		\$0.00	0	\$0.00	0	\$0.00		
Insurance	\$10.00 /\$1000	@		\$4.90		\$9.10		\$11.90		
Other	\$0.00 /ha									
	\$0.00 /ha									
TOTAL VARIABLE COSTS					\$356		\$433		\$497	
GROSS MARGIN/hectare					\$134		\$477		\$693	
Break Even Price (to cover variable costs only)					\$508		\$333		\$292	
Break Even Yield (to cover variable costs only)					0.51		0.62		0.71	
Gross Margin based on last 5 year average price					\$210		\$619		\$878	
COMMENTS					AGRONOMIC NOTES					
Seed is inoculated with a Group N inoculant. Do not exceed 800ml/Ha Paraquat 250 when desiccating to avoid possible residue					Price is heavily dependant on grade and quality. Seek advice. May need to store product for up to 12 months before marketing					

Chickpeas (6-8mm Kabuli) Gross Margin

GROSS MARGIN SENSITIVITY LOW RAINFALL

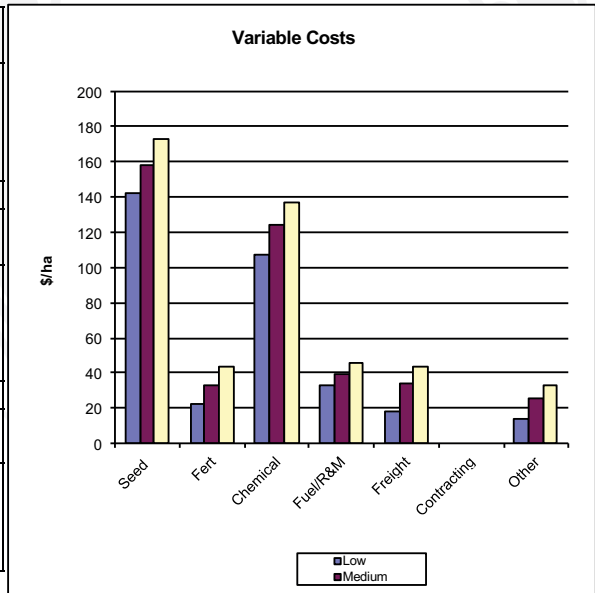
		Net Price \$/t				
		\$500	\$600	\$700	\$800	\$1,000
Yield	0.4	-\$141	-\$102	-\$63	-\$23	\$55
	0.7	-\$3	\$65	\$134	\$203	\$340
t/ha	1.2	\$227	\$344	\$462	\$579	\$815
	1.8	\$502	\$679	\$855	\$1,032	\$1,384

MEDIUM RAINFALL

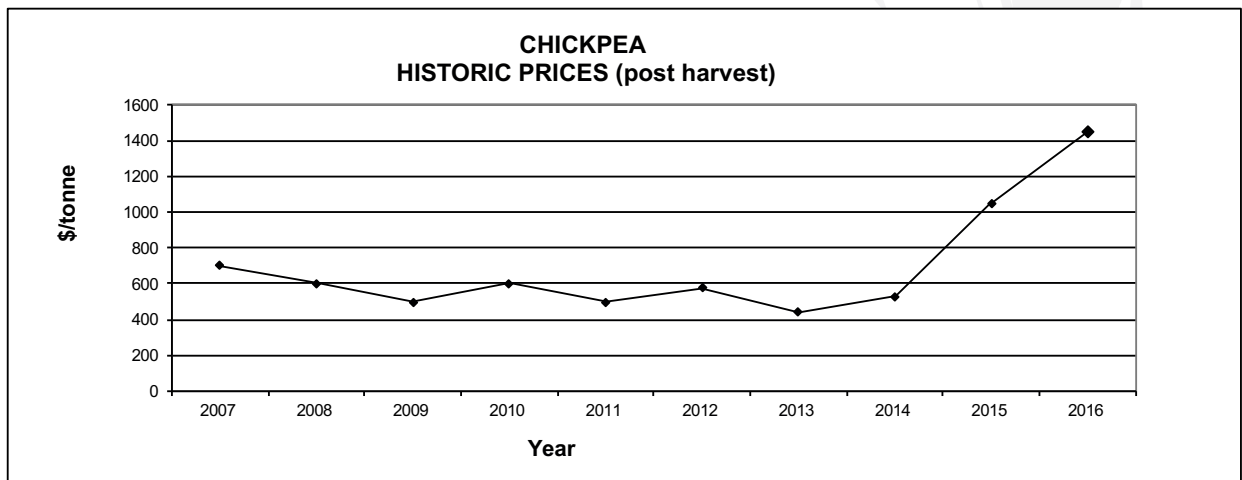
		Net Price \$/t				
		\$500	\$600	\$700	\$800	\$1,000
Yield	0.5	-\$145	-\$96	-\$47	\$2	\$100
	1.3	\$222	\$350	\$477	\$604	\$859
t/ha	1.8	\$452	\$628	\$805	\$981	\$1,334
	2.3	\$682	\$907	\$1,133	\$1,358	\$1,809

HIGH RAINFALL

		Net Price \$/t				
		\$500	\$600	\$700	\$800	\$1,000
Yield	1	\$38	\$136	\$234	\$332	\$528
	1.5	\$268	\$415	\$562	\$709	\$1,003
t/ha	1.7	\$360	\$526	\$693	\$860	\$1,193
	2.5	\$727	\$972	\$1,217	\$1,462	\$1,952



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	8	4.40	2.68
harvest#	1	12.00	5.59
TOTAL		20.29	12.25

Rates are for low rainfall zone. Extra cost in higher yielding situations

Canola Gross Margin Conventional Hybrid

										2017 YOUR ESTIMATE		
INCOME												
Rainfall Zone												
										LOW	MEDIUM	HIGH
Price (17/18 Forecast)										\$520	\$520	\$520
Quality												
Yield (t/ha)										0.8	1.5	2.2
GROSS INCOME										\$416	\$780	\$1,144
VARIABLE COSTS												
										Rate/ha Low	Rate/ha Medium	Rate/ha High
Cost										\$/ha	\$/ha	\$/ha
Seed												
Seed	\$27.00 /kg	@	1	\$27.00	1.5	\$40.50	2	\$54.00				
Levies												
GRDC Levies	1.0% Gross Income			\$4.16		\$7.80		\$11.44				
State levies	\$0.50 /tonne sold			\$0.40		\$0.75		\$1.10				
Fertiliser (Bulk)												
18:20:0	\$550 /tonne	@	35	\$19.25	55	\$30.25	75	\$41.25				
Urea	\$440 /tonne	@	50	\$22.00	100	\$44.00	150	\$66.00				
SOA	\$460 /tonne	@		\$0.00	50	\$23.00	100	\$46.00				
Chemicals-Herbicides												
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00				
Pre-emergents												
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20				
Carfentrazone 400g/L	\$220.00 /litre	@	0.1	\$22.00	0.1	\$22.00	0.1	\$22.00				
Rustler (Propyzamide)	\$24.20 /litre	@	0	\$0.00	1	\$24.20	1	\$24.20				
Trifluralin 480g/L	\$7.50 /litre	@	1.2	\$9.00	1.5	\$11.25	1.7	\$12.75				
Post-emergents												
Haloxypop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76				
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73				
Clopyralid 600g/L	\$44.00 /litre	@	0.075	\$3.30	0.075	\$3.30	0.075	\$3.30				
Insecticides												
Chlorpyrifos 500g/L	\$9.00 /litre	@	0.5	\$4.50	0.5	\$4.50	0.5	\$4.50				
Talstar	\$48.00 /litre	@	0.04	\$1.92	0.04	\$1.92	0.04	\$1.92				
Transform (1)	\$155.00 /litre	@	0.1	\$15.50	0.1	\$15.50	0.1	\$15.50				
Karate Zeon®(2)	\$116.00 /litre	@	0.024	\$2.78		\$0.00		\$0.00				
Affirm (3)	\$84.00 /litre	@	0	\$0.00	0.3	\$25.20	0.3	\$25.20				
Operations												
Fuel & Oil				\$11.45		\$13.74		\$16.03				
Repairs & Maintenance				\$16.86		\$20.24		\$23.61				
Freight												
Grain (t)	\$25.00 /tonne	@	0.8	\$20.00	1.5	\$37.50	2.2	\$55.00				
Fertiliser (t)	\$20.00 /tonne	@	0.085	\$1.70	0.205	\$4.10	0.325	\$6.50				
Contract Work												
Aerial spraying	\$14.00 /ha	@	1	\$14.00	1	\$14.00	1	\$14.00				
Windrowing	\$35.00 /ha	@		\$0.00	1	\$35.00	1	\$35.00				
Insurance	\$12.00 /\$1000	@		\$4.99		\$9.36		\$13.73				
Urea spreading	\$8.50 /ha	@	1	\$8.50	2	\$17.00	2	\$17.00				
TOTAL VARIABLE COSTS										\$244	\$442	\$550
GROSS MARGIN/hectare										\$172	\$338	\$594
Break Even Price (to cover variable costs only)										\$305	\$295	\$250
Break Even Yield (to cover variable costs only)										0.47	0.85	1.06
Gross Margin based on last 5 year average price										\$165	\$326	\$577
COMMENTS					AGRONOMIC NOTES							
(1) Green Peach Aphid					A maximum of 15 units of nitrogen and 10 units of phosphorus should be applied with seed.							
(2) Native Budworm-Low rainfall					Nitrogen rate dependent on target yield. Sulphur required on sandy, neutral/acid soils and intensive cropping systems. Ensure insect control and good seed/soil contact when sowing.							
(3) DBM and Native Budworm. In low rainfall situations, oil penalties may apply conversely oil bonuses may be expected in high rainfall areas.					Assumes direct heading in low rainfall/yielding situations. Direct heading is becoming more widely used in all zones							

Canola Gross Margin Conventional Hybrid

GROSS MARGIN SENSITIVITY LOW RAINFALL

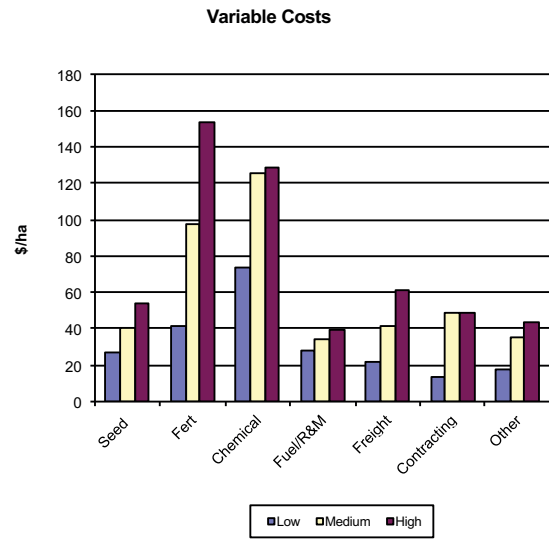
		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	0.3	-\$105	-\$87	-\$70	-\$52	-\$35
	0.8	\$78	\$125	\$172	\$219	\$266
t/ha	1.1	\$188	\$252	\$317	\$381	\$446
	1.5	\$334	\$422	\$510	\$598	\$686

MEDIUM RAINFALL

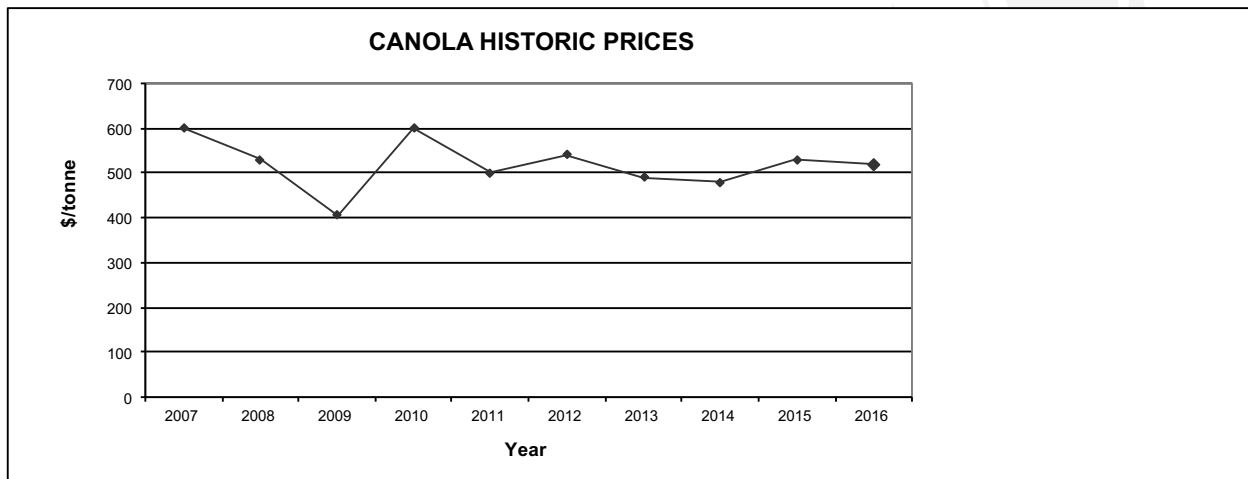
		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	0.7	-\$131	-\$90	-\$49	-\$8	\$33
	1.5	\$162	\$250	\$338	\$426	\$514
t/ha	2	\$344	\$462	\$579	\$696	\$814
	2.5	\$527	\$674	\$821	\$967	\$1,114

HIGH RAINFALL

		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	1	-\$103	-\$44	\$15	\$73	\$132
	1.5	\$80	\$168	\$256	\$344	\$432
t/ha	2.2	\$336	\$465	\$594	\$723	\$852
	3	\$629	\$805	\$981	\$1,157	\$1,333



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	8	4.40	2.68
harvest#	1	8.57	4.79
TOTAL		16.86	11.45

Canola Gross Margin Triazine Tolerant

										2017 YOUR ESTIMATE		
INCOME												
Rainfall Zone												
										LOW	MEDIUM	HIGH
Price (17/18 Forecast)										\$520	\$520	\$520
Quality												
Yield (t/ha)										0.7	1.3	2
GROSS INCOME										\$364	\$676	\$1,040
VARIABLE COSTS												
										Rate/ha Low	Rate/ha Medium	Rate/ha High
Cost										\$/ha	\$/ha	\$/ha
Seed												
Seed	\$18.00 /kg	@	2.5	\$45.00	3	\$54.00	3.5	\$63.00				
Levies												
GRDC Levies	1.0% Gross Income			\$3.64		\$6.76		\$10.40				
State levies	\$0.50 /tonne sold			\$0.35		\$0.65		\$1.00				
Fertiliser (Bulk)												
18:20:0	\$550 /tonne	@	35	\$19.25	55	\$30.25	75	\$41.25				
Urea	\$440 /tonne	@	40	\$17.60	80	\$35.20	120	\$52.80				
SOA	\$460 /tonne	@	0	\$0.00	50	\$23.00	100	\$46.00				
Chemicals-Herbicides												
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00				
Pre-emergents												
Simazine 900g/kg	\$7.60 /kg	@	1.1	\$8.36	1.5	\$11.40	2	\$15.20				
Trifluralin 480g/L	\$7.50 /litre	@	1.2	\$9.00	1.5	\$11.25	1.7	\$12.75				
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20				
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40				
Rustler (Propyzamide)	\$21.00 /litre	@	0	\$0.00	1	\$21.00	1	\$21.00				
Post-emergents												
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73				
Haloxypop 520g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76				
Clopyralid 600g/L	\$44.00 /litre	@	0.075	\$3.30	0.075	\$3.30	0.075	\$3.30				
Insecticides												
Chlorpyrifos 500g/L	\$9.00 /litre	@	0.5	\$4.50	0.5	\$4.50	0.5	\$4.50				
Talstar	\$48.00 /litre	@	0.04	\$1.92	0.04	\$1.92	0.04	\$1.92				
Transform	\$155.00 /litre	@	0.1	\$15.50	0.1	\$15.50	0.1	\$15.50				
Karate Zeon®(1)	\$116.00 /litre	@	0.024	\$2.78		\$0.00		\$0.00				
Affirm	\$84.00 /litre	@	0	\$0.00	0.3	\$25.20	0.3	\$25.20				
Operations												
Fuel & Oil				\$11.45		\$13.74		\$16.03				
Repairs & Maintenance				\$16.86		\$20.24		\$23.61				
Freight												
Grain (t)	\$25.00 /tonne	@	0.7	\$17.50	1.3	\$32.50	2	\$50.00				
Fertiliser (t)	\$20.00 /tonne	@	0.075	\$1.50	0.185	\$3.70	0.295	\$5.90				
Contract Work												
Aerial spraying	\$14.00 /ha	@	1	\$14.00	1	\$14.00	1	\$14.00				
Windrowing	\$35.00 /ha	@		\$0.00	1	\$35.00	1	\$35.00				
Insurance	\$12.00 /\$1000	@		\$4.37		\$8.11		\$12.48				
Urea spreading	\$8.50 /ha	@	1	\$8.50	2	\$17.00	2	\$17.00				
TOTAL VARIABLE COSTS										\$245	\$430	\$532
GROSS MARGIN/hectare										\$119	\$246	\$508
Break Even Price (to cover variable costs only)										\$350	\$331	\$266
Break Even Yield (to cover variable costs only)										0.47	0.83	1.02
Gross Margin based on last 5 year average price										\$114	\$236	\$492
COMMENTS					AGRONOMIC NOTES							
(1) Green Peach Aphid (2) Native Budworm-Low rainfall (3) DBM and Native Budworm. In low rainfall situations, oil penalties may apply conversely oil bonuses may be expected in high rainfall areas.					A maximum of 15 units of nitrogen and 10 units of phosphorus should be applied with seed. Nitrogen rate dependent on target yield. Sulphur required on sandy, neutral/acid soils and intensive cropping systems. Ensure insect control and good seed/soil contact when sowing. Assumes direct heading in low rainfall/ yielding situations. Direct heading is becoming more widely used in all zones							

Canola Gross Margin Triazine Tolerant

GROSS MARGIN SENSITIVITY

LOW RAINFALL

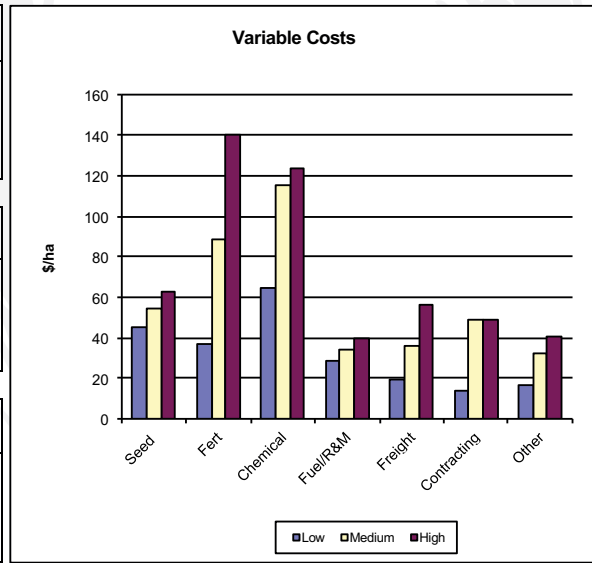
		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	0.3	-\$109	-\$92	-\$74	-\$56	-\$39
	0.7	\$37	\$78	\$119	\$160	\$201
	1.1	\$183	\$248	\$313	\$377	\$442
	1.5	\$330	\$418	\$506	\$594	\$682

MEDIUM RAINFALL

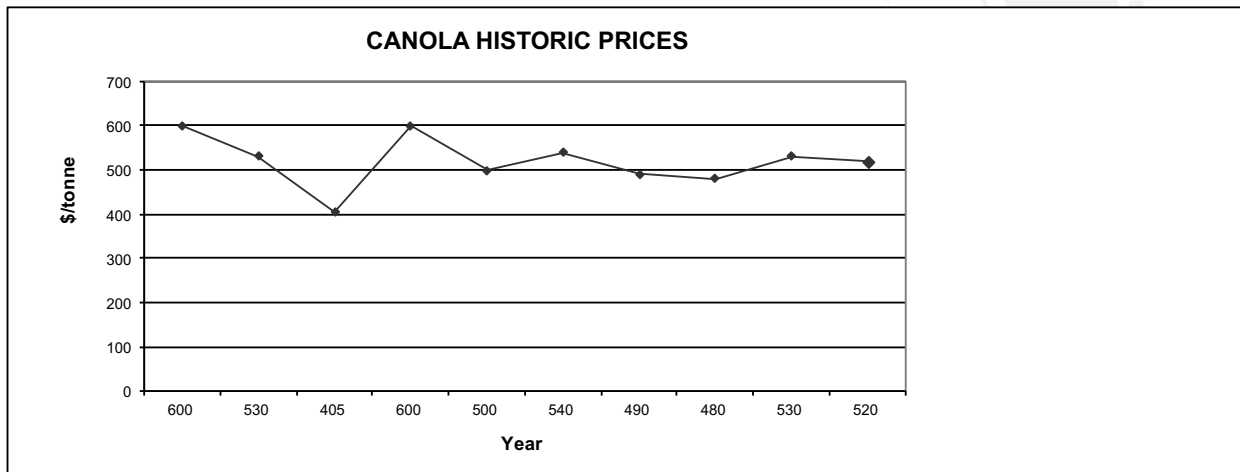
		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	0.7	-\$126	-\$85	-\$44	-\$3	\$38
	1.3	\$94	\$170	\$246	\$322	\$399
	2	\$350	\$467	\$584	\$702	\$819
	2.5	\$532	\$679	\$826	\$972	\$1,119

HIGH RAINFALL

		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	1	-\$92	-\$34	\$25	\$84	\$142
	1.5	\$91	\$179	\$267	\$355	\$443
	2	\$273	\$391	\$508	\$625	\$743
	2.5	\$456	\$603	\$750	\$896	\$1,043



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	8	4.40	2.68
harvest#	1	8.57	4.79
TOTAL		16.86	11.45

Rates are for low rainfall zone. Extra cost in higher yielding situations

Canola Gross Margin Clearfield Hybrid

										2017 YOUR ESTIMATE			
INCOME													
Rainfall Zone													
										LOW	MEDIUM	HIGH	
Price (17/18 Forecast)										\$520	\$520	\$520	
Quality													
Yield (t/ha)										0.75	1.4	2.1	
GROSS INCOME										\$390	\$728	\$1,092	
VARIABLE COSTS													
										Rate/ha Low	Rate/ha Medium	Rate/ha High	
Cost										\$/ha	\$/ha	\$/ha	\$/ha
Seed													
Seed	\$29.00 /kg	@	1	\$29.00	1.5	\$43.50	2	\$58.00					
Levies													
GRDC Levies	1.0% Gross Income			\$3.90		\$7.28		\$10.92					
State levies	\$0.30 /tonne sold			\$0.23		\$0.42		\$0.63					
Fertiliser (Bulk)													
18:20:0	\$550 /tonne	@	35	\$19.25	55	\$30.25	75	\$41.25					
Urea	\$440 /tonne	@	50	\$22.00	100	\$44.00	150	\$66.00					
SOA	\$460 /tonne	@	0	\$0.00	50	\$23.00	100	\$46.00					
Chemicals-Herbicides													
Summer Weed Control	Various	Allow		\$20.00		\$20.00		\$20.00					
Pre-emergents													
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20					
Trifluralin 480g/L	\$7.50 /litre	@	1.2	\$9.00	1.5	\$11.25	1.7	\$12.75					
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40					
Rustler (Propyzamide)	\$21.00 /litre	@	0	\$0.00	1	\$21.00	1	\$21.00					
Post-emergents													
Intervix	\$28.00 /litre	@	0.6	\$16.80	0.6	\$16.80	0.6	\$16.80					
Adjuvant	\$4.70 /litre	@	0.375	\$1.76	0.375	\$1.76	0.375	\$1.76					
Clethodim(incl Oil)	\$12.00 /litre	@	0.3	\$5.93	0.5	\$8.33	0.7	\$10.73					
Clopyralid 600g/L	\$44.00 /litre	@	0.04	\$1.76	0.04	\$1.76	0.04	\$1.76					
Insecticides													
Chlorpyrifos 500g/L	\$9.00 /litre	@	0.2	\$1.80	0.2	\$1.80	0.2	\$1.80					
Talstar	\$48.00 /litre	@	0.04	\$1.92	0.04	\$1.92	0.04	\$1.92					
Transform	\$155.00 /litre	@	0.1	\$15.50	0.1	\$15.50	0.1	\$15.50					
Karate Zeon®(1)	\$116.00 /litre	@	0.024	\$2.78		\$0.00		\$0.00					
Affirm	\$84.00 /litre	@	0	\$0.00	0.3	\$25.20	0.3	\$25.20					
Operations													
Fuel & Oil				\$11.45		\$13.74		\$16.03					
Repairs & Maintenance				\$16.86		\$20.24		\$23.61					
Freight													
Grain (t)	\$25.00 /tonne	@	0.8	\$18.75	1.4	\$35.00	2.1	\$52.50					
Fertiliser (t)	\$20.00 /tonne	@	0.085	\$1.70	0.205	\$4.10	0.325	\$6.50					
Contract Work													
Aerial spraying	\$14.00 /ha	@	1	\$14.00	1	\$14.00	1	\$14.00					
Windrowing	\$35.00 /ha	@		\$0.00	1	\$35.00	1	\$35.00					
Insurance	\$12.00 /\$1000	@		\$4.68		\$8.74		\$13.10					
Urea spreading	\$8.50 /ha	@	1	\$8.50	2	\$17.00	2	\$17.00					
TOTAL VARIABLE COSTS										\$239	\$433	\$541	
GROSS MARGIN/hectare										\$151	\$295	\$551	
Break Even Price (to cover variable costs only)										\$319	\$309	\$258	
Break Even Yield (to cover variable costs only)										0.46	0.83	1.04	
Gross Margin based on last 5 year average price										\$145	\$284	\$534	
COMMENTS					AGRONOMIC NOTES								
(1) Green Peach Aphid					A maximum of 15 units of nitrogen and 10 units of phosphorus should be applied with seed.								
(2) Native Budworm-Low rainfall					Nitrogen rate dependent on target yield. Sulphur required on sandy, neutral/acid soils and								
(3) DBM and NativeBudworm. In low rainfall situations, oil penalties may apply					intensive cropping systems. Ensure insect control and good seed/soil contact when sowing.								
conversely oil bonuses may be expected in high rainfall areas.					Assumes direct heading in low rainfall/yielding situations. Direct heading is becoming more widely used in all zones								

Canola Gross Margin Clearfield Hybrid

GROSS MARGIN SENSITIVITY

LOW RAINFALL

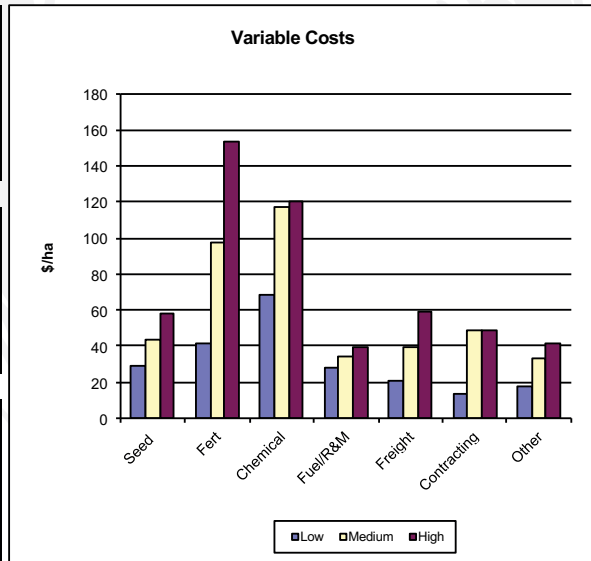
		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	0.3	-\$102	-\$84	-\$67	-\$49	-\$31
	0.75	\$63	\$107	\$151	\$195	\$239
	1.1	\$191	\$255	\$320	\$385	\$449
	1.5	\$337	\$425	\$513	\$601	\$689

MEDIUM RAINFALL

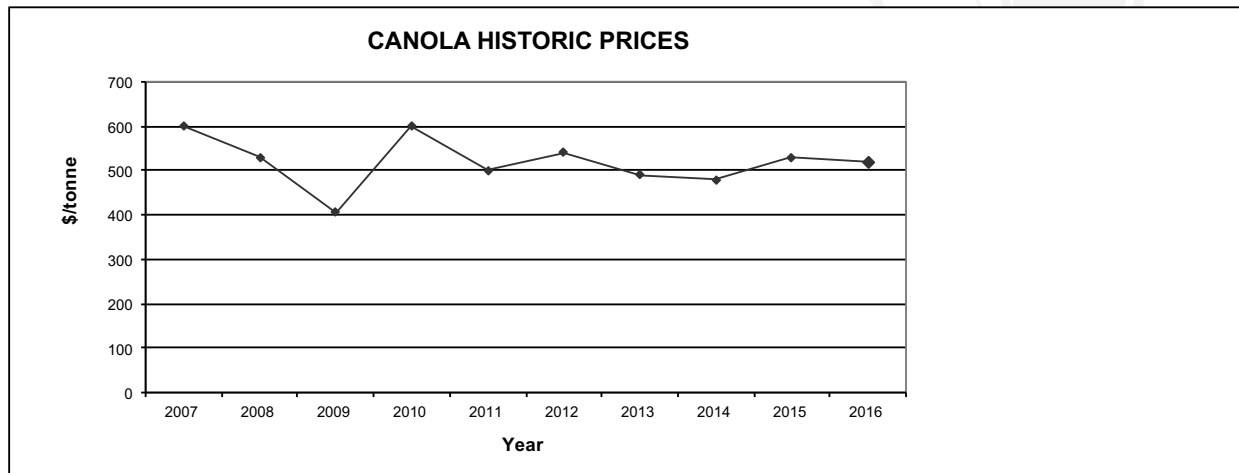
		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	0.7	-\$126	-\$85	-\$43	-\$2	\$39
	1.4	\$131	\$213	\$295	\$377	\$459
	2	\$350	\$467	\$585	\$702	\$819
	2.5	\$533	\$680	\$826	\$973	\$1,120

HIGH RAINFALL

		Net Price \$/t				
		\$400	\$460	\$520	\$580	\$640
Yield	1	-\$98	-\$40	\$19	\$78	\$136
	1.5	\$85	\$173	\$261	\$349	\$437
	2.1	\$304	\$427	\$551	\$674	\$797
	2.7	\$524	\$682	\$841	\$999	\$1,157



HISTORIC PRICES AND TRENDS



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint \$/ha	Fuel \$/ha
seed	1	3.89	3.98
spray	8	4.40	2.68
harvest#	1	8.57	4.79
TOTAL		16.86	11.45

Rates are for low rainfall zone. Extra cost in higher yielding situations

Sown Pasture (Vetch) Gross Margin

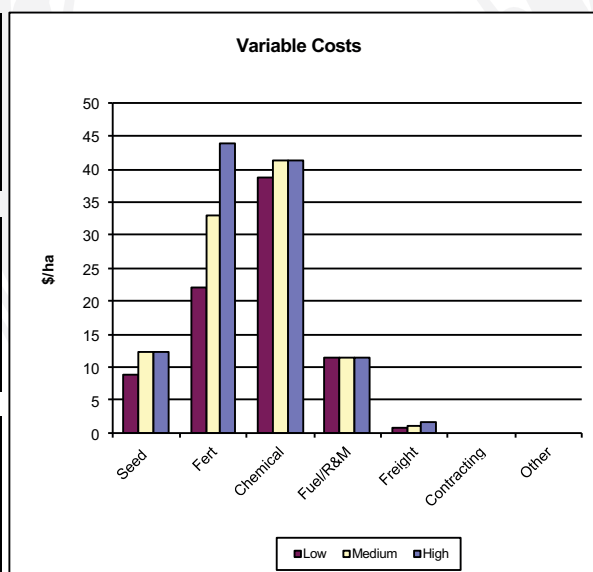
										2017 YOUR ESTIMATE
INCOME										
		Rainfall Zone		LOW		MEDIUM		HIGH		
Carrying Capacity (dry sheep equivalents)				4		7		10		
Estimated return per dse based on self replacing Merino Ewe flock				\$49.00		\$49.00		\$50.00		
GROSS INCOME				\$196		\$343		\$500		
VARIABLE COSTS										
			Rate/ha		Rate/ha		Rate/ha			
Cost			Low	\$/ha	Medium	\$/ha	High			
Seed										
Seed	\$0.30 /kg	@	25	\$7.50	35	\$10.50	35	\$10.50		
Seed Inoculant	\$0.05 /kg	@	25	\$1.30	35	\$1.82	35	\$1.82		
Levies										
				\$0.00		\$0.00		\$0.00		
Fertiliser (Bulk)										
MAP	\$550 /tonne	@	40	\$22.00	60	\$33.00	80	\$44.00		
Chemicals-Herbicides										
Pre-emergents										
Glyphosate 540	\$6.00 /litre	@	1.2	\$7.20	1.2	\$7.20	1.2	\$7.20		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Post-emergents										
Clethodim(incl Oil)	\$12.00 /litre	@	0.4	\$7.13	0.5	\$8.33	0.5	\$8.33		
Haloxypop 520g/L	\$44.00 /litre	@	0.075	\$3.30	0.075	\$3.30	0.075	\$3.30		
Glypho 540 (desiccant)	\$6.00 /litre	@	1.5	\$9.00	1.5	\$9.00	1.5	\$9.00		
Carfentrazone 400g/L	\$220.00 /litre	@	0.02	\$4.40	0.02	\$4.40	0.02	\$4.40		
Insecticides										
Dimethoate (1)	\$8.45 /litre	@	0.4	\$3.38	0.4	\$3.38	0.4	\$3.38		
omethoate (2)	\$26.00 /litre	@			0.05	\$1.30	0.05	\$1.30		
Operations										
Fuel & Oil				\$5.32		\$5.32		\$5.32		
Repairs & Maintenance				\$6.09		\$6.09		\$6.09		
Freight										
Grain (t)				\$0.00		\$0.00		\$0.00		
Fertiliser (t)	\$20.00 /tonne	@	0.04	\$0.80	0.06	\$1.20	0.08	\$1.60		
Contract Work										
Aerial spraying										
Insurance	/\$1000	@		\$0.00		\$0.00		\$0.00		
Other										
TOTAL VARIABLE COSTS				\$82		\$99		\$111		
GROSS MARGIN/hectare				\$114		\$244		\$389		
COMMENTS					AGRONOMIC NOTES					
Seed is not treated with a fungicide or graded. (1) Cow pea aphid (2) RLEM										

Sown Pasture (Vetch) Gross Margin

GROSS MARGIN SENSITIVITY		LOW RAINFALL				
GM/dse		\$30	\$35	\$40	\$45	\$50
	2	-\$22	-\$12	-\$2	\$8	\$18
Carrying	4	\$38	\$58	\$78	\$98	\$118
Capacity	6	\$98	\$128	\$158	\$188	\$218
(dse)	8	\$158	\$198	\$238	\$278	\$318

GROSS MARGIN SENSITIVITY		MEDIUM RAINFALL				
GM/dse		\$30	\$35	\$40	\$45	\$50
	3	-\$9	\$6	\$21	\$36	\$51
Carrying	5	\$51	\$76	\$101	\$126	\$151
Capacity	7	\$111	\$146	\$181	\$216	\$251
(dse)	9	\$171	\$216	\$261	\$306	\$351

GROSS MARGIN SENSITIVITY		HIGH RAINFALL				
GM/dse		\$30	\$35	\$40	\$45	\$50
	4	\$9	\$29	\$49	\$69	\$89
Carrying	7	\$99	\$134	\$169	\$204	\$239
Capacity	10	\$189	\$239	\$289	\$339	\$389
(dse)	12	\$249	\$309	\$369	\$429	\$489



Machinery Costs- Assuming full ownership of machinery

(Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint	Fuel
		\$/ha	\$/ha
seed	1	3.89	3.98
spray	4	2.20	1.34
roll		0.00	0.00
harvest#		0.00	0.00
TOTAL		6.09	5.32

Self-Regenerating Pasture Gross Margin

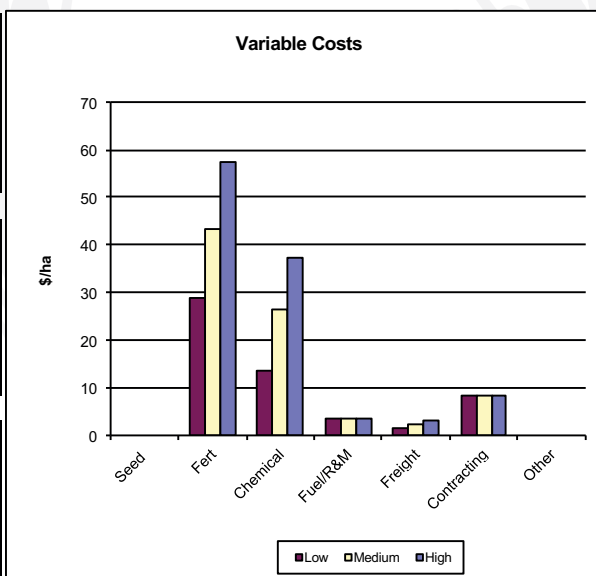
										2017 YOUR ESTIMATE
INCOME										
			Rainfall Zone			LOW	MEDIUM	HIGH		
Carrying Capacity (dry sheep equivalents)						4	7	10		
Estimated return per dse based on self replacing Merino Ewe flock						\$49.00	\$49.00	\$50.00		
GROSS INCOME						\$196	\$343	\$500		
VARIABLE COSTS										
Cost			Rate/ha Low	\$/ha	Rate/ha Medium	\$/ha	Rate/ha High			
Seed										
Seed	/kg	@		\$0.00		\$0.00		\$0.00		
Seed Inoculant	/kg	@		\$0.00		\$0.00		\$0.00		
Levies										
				\$0.00		\$0.00		\$0.00		
Fertiliser (Bulk)										
Superphosphate	\$360 /tonne	@	80	\$28.80	120	\$43.20	160	\$57.60		
Chemicals-Herbicides										
Pre-emergents										
	/litre	@		\$0.00		\$0.00		\$0.00		
	/litre	@		\$0.00		\$0.00		\$0.00		
Post-emergents										
Clethodim(incl Oil)	\$12.00 /litre	@	0.4	\$7.13	0.5	\$8.33	0.5	\$8.33		
Haloxypop 520g/L	\$44.00 /litre	@	0.075	\$3.30	0.075	\$3.30	0.075	\$3.30		
Broadstrike®	\$0.42 /gram	@		\$0.00	25	\$10.50	50	\$21.00		
Paraquat(Topping)	\$4.00 /litre	@	0.8	\$3.20	0.8	\$3.20	0.8	\$3.20		
Insecticides										
				\$0.00		\$0.00		\$0.00		
omethoate (1)	\$26.00 /litre	@		\$0.00	0.05	\$1.30	0.05	\$1.30		
Operations										
Fuel & Oil				\$1.34		\$1.34		\$1.34		
Repairs & Maintenance				\$2.20		\$2.20		\$2.20		
Freight										
Grain (t)				\$0.00		\$0.00		\$0.00		
Fertiliser (t)	\$20.00 /tonne	@	0.08	\$1.60	0.12	\$2.40	0.16	\$3.20		
Contract Work										
Fert Spreading	\$8.50 /ha	@	1	\$8.50	1	\$8.50	1	\$8.50		
Insurance	/ \$1000	@		\$0.00		\$0.00		\$0.00		
Other										
TOTAL VARIABLE COSTS						\$56	\$84	\$110		
GROSS MARGIN/hectare						\$140	\$259	\$390		
COMMENTS						AGRONOMIC NOTES				
(1) RLEM										

Self-Regenerating Pasture Gross Margin

GROSS MARGIN SENSITIVITY		LOW RAINFALL				
		GM/dse				
		\$30	\$35	\$40	\$45	\$50
	2	\$4	\$14	\$24	\$34	\$44
Carrying	4	\$64	\$84	\$104	\$124	\$144
Capacity	6	\$124	\$154	\$184	\$214	\$244
(dse)	8	\$184	\$224	\$264	\$304	\$344

		MEDIUM RAINFALL				
		GM/dse				
		\$30	\$35	\$40	\$45	\$50
	3	\$6	\$21	\$36	\$51	\$66
Carrying	5	\$66	\$91	\$116	\$141	\$166
Capacity	7	\$126	\$161	\$196	\$231	\$266
(dse)	9	\$186	\$231	\$276	\$321	\$366

		HIGH RAINFALL				
		GM/dse				
		\$30	\$35	\$40	\$45	\$50
	4	\$10	\$30	\$50	\$70	\$90
Carrying	7	\$100	\$135	\$170	\$205	\$240
Capacity	10	\$190	\$240	\$290	\$340	\$390
(dse)	12	\$250	\$310	\$370	\$430	\$490



Machinery Costs- Assuming full ownership of machinery (Fuel and repairs only- excludes depreciation and other ownership costs)

Operation	No.	Repairs & Maint	Fuel
		\$/ha	\$/ha
seed	0	0.00	0.00
spray	4	2.20	1.34
roll		0.00	0.00
harvest#		0.00	0.00
TOTAL		2.20	1.34

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PREMIUM
FOOD AND WINE FROM OUR
CLEAN
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Prime Lamb Gross Margin – High Rainfall (450mm+)

Assumptions			
Ave Breeding Ewe Fibre Diameter	28	Total DSE's	1840
Number of breeding ewes (First Cross)	1000	Stocking rate (DSE/Ha)	12.0
First cross ewe - Terminal meat sire			

INCOME					2017 YOUR ESTIMATE
				\$	
Wool (kg greasy)	4423.2 Kg	[ave price	408 c/kg]	\$18,032	
Sales	1339 animals	[ave price	\$119.85 per hd]	\$160,430	
GROSS INCOME				\$178,462	
VARIABLE COSTS					
Shearing					
Shearing	970 sheep	@	\$293.31 /100	\$2,845	
(Federal awards)	19 rams	@	\$586.62 /100	\$111	
Shed labour	5 days	@	\$221.12 /day	\$1,106	
Woolclasser	2.50 days	@	\$265.89 /day	\$665	
Superannuation (on ordinary wages only)		@	9.5% wages	\$449	
Work Cover (includes super + o'time etc)		@	4.0% total	\$189	
Wool packs	26 packs	@	\$10.00 /pack	\$260	
Shed sundries	989 sheep	@	\$0.15 /head	\$148	
Lice control	989 sheep	@	\$1.49 /head	\$1,476	
Crutch & Wig	990 ewes	@	\$85.06 /100	\$842	
	19 rams	@	\$170.12 /100	\$32	
Marking					
Lamb marking	1150 lambs	@	\$1.00 /head	\$1,150	
Ear tags	1150 lambs	@	\$0.40 /head	\$460	
Animal Health					
drench	3190 sheep	@	\$0.45 /head	\$1,436	
vaccinate	3320 sheep	@	\$0.47 /head	\$1,554	
blowfly control	1000 sheep	@	\$1.29 /head	\$1,290	
Stock purchases					
Purchases				\$57,838	
Sale Costs					
<i>Freight</i>					
livestock	189 culls	@	\$4.00 /head	\$756	
	212 ewes	@	\$4.00 /head	\$849	
	1150 prime lambs	@	\$4.00 /head	\$4,600	
wool	26 bales	@	\$10.00 /bale	\$260	
<i>Stock selling charges</i>					
commission/insurance		@	5.5% gross \$	\$8,824	
yard fees	1339 head	@	\$0.70 /head	\$937	
levy-sheep	189 head	@	\$0.20 /head	\$38	
levy-lambs	1150 head	@	\$1.50 /head	\$1,725	
SA sheep industr	1339 head	@	\$0.35 /head	\$469	
<i>Wool selling charges</i>					
brokerage/testing/insurance		@	\$0.22 /kg	\$973	
wool levy		@	2.0% gross	\$361	
Feed and Other Costs					
hay	20.4 tonne	@	\$180.00 /tonne	\$3,672	
grain	24.6 tonnes	@	\$200.00 /tonne	\$4,920	
Insurance	\$211,438 value	@	\$2.00 /\$'000	\$423	
Water	1840 DSE's	@	\$1.50 /DSE	\$2,760	
Veh Fuel, R&M	1840 DSE's	@	\$1.20 /DSE	\$2,208	
Other	1840 DSE's	@	\$0.50 /DSE	\$920	
TOTAL VARIABLE COSTS				\$106,545	
GROSS MARGIN TOTAL				\$71,916	
GROSS MARGIN/hectare				\$469	
GROSS MARGIN/DSE				\$39	

COMMENTS

The wool price is 90% the price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2. No allowance has been made for pasture expenses such as seed, fertiliser and chemicals. These need to be separately accounted for.

Prime Lamb Gross Margin – High Rainfall (450mm+)

PRODUCTION DATA

Stocking rate (DSE/Ha)	12.0
Total DSE's	1840
SHEEP GRAZING AREA	153
Number of ewes mated	1000
Ram percentage	2%
Age ewes bought (yrs)	1.5
Age ewes culled	6.5
Years rams kept	3
Flock death rate	3%
Average weaning rate	115%
% Lambs carried over	0%

Culling Rate (% from each group)		
Age group	Ewes	Wethers
0.5	0%	
1.5	0%	
2.5	0%	
3.5	0%	
4.5	0%	
5.5	0%	
6.5	100%	

SALES	Number	Price/hd	Age	Total
c.f.a ewes	182	\$90.00	6.5	\$16,380
c.f.a rams	6	\$50.00	4.5	\$300
lambs	1150	\$125.00	20 weeks	\$143,750
TOTAL	1339	\$119.85		\$160,430
PURCHASES	Number	Price/hd	Age yrs	Total
ewes	212	\$240	1.5	\$50,968
rams	7	\$1,000	1.5	\$6,871

STOCK HEALTH REQUIREMENTS

	Number of times				DSE
	Number	Drench	Vacc.	Blowfly	
ewes	1000	2	1	1	1.8
rams	20	2	1	0	2
lambs	1150	1	2	0	
TOTAL	2170	3190	3320	1000	1840

SHEARING

	Number	Wool cut kg/hd	price	Total
ewes	970	4.50	\$4.10	\$17,875
crossbred rams	19	3.00	\$2.70	\$157
TOTAL	989	4423		\$18,032

FEEDING

	Number	Hay	Kgs Fed	No weeks	Total cost (\$)
		Cost (\$/T)	per week	of Feeding	
ewes	1000	\$180	2.5	8	\$3,600
rams	20	\$180	2.5	8	\$72
	Number	Grain Cost (\$/T)	Kgs Fed per week	No weeks of Feeding	Total cost (\$)
ewes	1000	\$200	3.0	8	\$4,800
rams	20	\$200	3.0	10	\$120

G.M. SENSITIVITY

GROSS MARGIN/DSE	Average Weaning Rate (%)					
	95%	105%	115%	125%	135%	145%
\$100	\$15	\$20	\$24	\$29	\$34	\$38
\$105	\$18	\$22	\$27	\$32	\$37	\$42
\$110	\$20	\$25	\$30	\$35	\$41	\$46
\$115	\$22	\$28	\$33	\$39	\$44	\$49
Average	\$120	\$25	\$30	\$36	\$42	\$53
Lamb Sale	\$125	\$27	\$33	\$39	\$45	\$57
Price (\$/hd)	\$130	\$30	\$36	\$42	\$48	\$61
	\$135	\$32	\$39	\$45	\$51	\$64
	\$140	\$35	\$41	\$48	\$55	\$68
	\$145	\$37	\$44	\$51	\$58	\$72
	\$150	\$39	\$47	\$54	\$61	\$75

Self Replacing Merino Flock - High Rainfall (450mm+)

Assumptions			
Ave Breeding Ewe Fibre Diameter	19.5	Total DSE's	2390
Number of breeding ewes	1000	Stocking rate (DSE/Ha)	12.0

						2017 YOUR ESTIMATE
INCOME						\$
Wool (kg greasy)	9134 Kg	[ave price	920 c/kg]			\$84,012
Sales	862 animals	[ave price	\$116.74 per hd]			\$100,660
GROSS INCOME						\$184,672
VARIABLE COSTS						
Shearing						
Shearing	2324 sheep	@	\$293.31 /100			\$6,817
(Federal Awards)	25 rams	@	\$586.62 /100			\$147
Shed labour	12 days	@	\$221.12 /day			\$2,653
Woolclasser	6 days	@	\$265.89 /day			\$1,595
Superannuation (on ordinary wages only)		@	9.5% wages			\$1,065
Work Cover (includes super + o'time etc)		@	4.0% total			\$491
Wool packs	54 packs	@	\$10.00 /pack			\$540
Shed sundries	2349 sheep	@	\$0.15 /head			\$352
Lice Control	2349 sheep	@	\$1.49 /head			\$3,505
Crutch & wig	1424 sheep	@	\$85.06 /100			\$1,211
	25 rams	@	\$170.12 /100			\$43
Marking						
Lamb marking	900 lambs	@	\$1.30 /head			\$1,170
Pain relief	900 lambs	@	\$0.45 /head			\$405
Ear tags	900 lambs	@	\$0.40 /head			\$360
Animal Health						
drench	3900 sheep	@	\$0.45 /head			\$1,755
vaccinate	3275 sheep	@	\$0.47 /head			\$1,533
blowfly control	1500 sheep	@	\$1.29 /head			\$1,935
Sale and Purchase Costs						
Purchases	7 Merino rams	@	\$1,500.00 /head			\$10,500
Freight	862 sheep	@	\$4.00 /head			\$3,448
	54 bales	@	\$10.00 /bale			\$540
<i>Stock selling charges</i>						
commission/insurance		@	5.5% gross			\$5,536
yard fees	862 head	@	\$0.70 /head			\$603
Sheep trans levy	412 head	@	\$0.20 /head			\$82
Lamb trans levy	450 head	@	\$1.50 /head			\$675
SA sheep industr	862 head	@	\$0.35 /head			\$302
<i>Wool selling charges</i>						
brokerage/testing/insurance		@	\$0.22 /kg			\$2,009
Industry levy		@	2.0% gross			\$1,680
Feed and other Costs						
Hand Feeding						\$5,290
Insurance	\$277,248 value	@	\$2.00 /\$'000			\$554
Water	2390 DSE's	@	\$1.50 /DSE			\$3,585
Veh Fuel, R&M	2390 DSE's	@	\$1.20 /DSE			\$2,868
Other	2390 DSE's	@	\$0.50 /DSE			\$1,195
TOTAL VARIABLE COSTS						\$64,446
GROSS MARGIN TOTAL						\$120,226
GROSS MARGIN/hectare						\$604
GROSS MARGIN /DSE						\$50
COMMENTS						
The wool price is 90% the wool price for that micron. This takes into account the lower value of bellies, skirtings,locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2. No allowance has been made for pasture expenses such as seed, fertiliser and chemicals. These need to be separately accounted for.						

Self Replacing Merino Flock - High Rainfall (450mm+)

PRODUCTION DATA

Stocking rate (DSE/Ha)	12.0
Total DSE's	2390
SHEEP GRAZING AREA	285
Number of ewes mated	1000
Ram percentage	2.5%
Age wethers sold (yrs)	0.5
Years rams kept	4
Flock death rate	3%
Average weaning rate	90%

Culling Rate (% per each group)		
Age group	Ewes	Wethers
0.5	0%	100%
1.5	51%	0%
2.5	0%	0%
3.5	0%	0%
4.5	0%	0%
5.5	0%	0%
6.5	100%	0%

SALES	Number	Price/hd	Total
c.f.a ewes	182	\$95.00	\$17,290
c.f.a merino rams	6	\$50.00	\$300
ewe hoggets	224	\$180.00	\$40,320
wether lambs	450	\$95.00	\$42,750
TOTAL	862	\$116.74	\$100,660

STOCK HEALTH

	Number	DSE	Number of times		
			Drench	Vacc.	Blowfly
ewes	1000	1.8	2	1	1
ewe hoggets	450	1.2	2	1	1
wether weaners	0	0.8	1	1	0
merino lambs	900	0.0	1	2	0
merino rams	25	2.0	4	1	2
TOTAL	2375	2390	3900	3275	1500
Total Value	\$277,248				

FEEDING

Feed	Number of Animals	Hay Cost (\$/T)	kg/ animal	Total cost (\$)
Oats/barley	833	\$200	10 /ewe	\$1,666
Lupins	833	\$300	10 /ewe	\$2,499
Lupins	375	\$300	10 /weaner	\$1,125
Total				\$5,290

SHEARING

	Number	Wool cut kg/hd	Total Greasy kg	Yield (%)	Total Clean kg
ewes	981	5.70	5592	70%	3914
ewe hoggets	443	4.50	1995	70%	1396
wether weaners	0	4.50	0	70%	0
lambs	900	1.50	1350	70%	945
merino rams	25	8.00	197	70%	138
Adults	1449	5.68	7784		
Total	2349		9134		6394

FLOCK STRUCTURE This table shows the number of merino sheep in each age group at mating

Class of Sheep	Age Group						
	0.5 y.o.	1.5 y.o.	2.5 y.o.	3.5 y.o.	4.5 y.o.	5.5 y.o.	6.5 y.o.
Ewes	450	212	206	200	194	188	0
Wethers	0	0	0	0	0	0	0
Rams		7	6	6	6	0	0

SENSITIVITY ANALYSIS

GROSS MARGIN/DSE	Average Greasy Wool Price (c/Kg)						
	800	900	920	950	1000	1100	
	\$85	\$35	\$39	\$39	\$41	\$42	\$46
	\$90	\$37	\$40	\$41	\$42	\$44	\$48
	\$95	\$38	\$42	\$43	\$44	\$46	\$50
	\$100	\$40	\$44	\$45	\$46	\$48	\$51
Average Sale Price	\$105	\$42	\$46	\$46	\$47	\$49	\$53
All Sheep (\$/hd)	\$116	\$46	\$49	\$50	\$51	\$53	\$57
	\$120	\$47	\$51	\$51	\$53	\$54	\$58
	\$125	\$49	\$52	\$53	\$54	\$56	\$60
	\$130	\$50	\$54	\$55	\$56	\$58	\$62
	\$135	\$52	\$56	\$57	\$58	\$60	\$63

Merino Wethers - High Rainfall (450mm+)

Assumptions:			
Average Wether Fibre Diametre	19.5	Gross Margin per Ha	\$395
Number of adult wethers	1000	Gross Margin per DSE	\$33
Total DSE's	1200	Gross Margin/Wether	\$40
Stocking rate (DSE/Ha)	12.0		

						2017 YOUR ESTIMATE
INCOME						\$
Wool (kg greasy)	6790	Kg	[ave price	920	c/kg]	\$62,454
Sales	182	animals	[ave price	\$110.00	per hd]	\$20,060
GROSS INCOME						\$82,515
EXPENSES						
Shearing						
Shearing	970	sheep	@	\$293.31	/100	\$2,845
Shed labour	5	days	@	\$221.12	/day	\$1,106
Woolclasser	3	days	@	\$265.89	/day	\$665
Superannuation (on ordinary wages only)			@	9.5%	wages	\$438
Work Cover (on wages+super+o'time etc)			@	4.0%	total	\$202
Wool packs	40	packs	@	\$10.00	/pack	\$400
Shed sundries	970	sheep	@	\$0.15	/head	\$146
Lice control	970	sheep	@	\$1.49	/head	\$1,447
Crutching	1000	sheep	@	\$85.06	/100	\$851
Animal Health						
drench	1000	sheep	@	\$0.45	/head	\$450
vaccinate	1000	sheep	@	\$0.47	/head	\$468
blowfly control	1000	sheep	@	\$1.29	/head	\$1,290
Other Expenses	0	sheep	@	\$0.00	/head	\$0
Stock Purchases						
Purchases	212	wethers	@	\$95.00	/head	\$20,140
Sale costs and other						
Freight						
livestock	395		@	\$4.00	/head	\$1,580
wool	40	bales	@	\$10.00	/bale	\$400
Stock selling charges						
commission/insurance			@	5.5%	gross	\$1,103
yard fees	182	head	@	\$0.70	/head	\$127
transaction levy	182	head	@	\$0.20	/head	\$36
SA sheep industr	182	head	@	\$0.35	/head	\$64
Wool selling charges						
brokerage/testing/insurance			@	\$0.22	/kg	\$1,494
Industry levy			@	2.00%	gross	\$1,249
Other Expenses						
Hand Feeding						\$2,700
Insurance	102500	value	@	\$2.00	/\$'000	\$205
Water	1200	DSE's	@	\$1.50	/DSE	\$1,800
Veh Fuel, R&M	1200	DSE's	@	\$1.00	/DSE	\$1,200
Other Expenses	1200	DSE's	@	\$0.50	/DSE	\$600
TOTAL VARIABLE COSTS						\$43,006
GROSS MARGIN						\$39,508
GROSS MARGIN/hectare						\$395
GROSS MARGIN/DSE						\$33
COMMENTS						
<p>The wool price is 90% the wool price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2. No allowance has been made for pasture expenses such as seed, fertiliser and chemicals. These need to be separately accounted for.</p>						

Merino Wethers - High Rainfall (450mm+)

PRODUCTION DATA

Stocking rate (DSE/Ha)	12.0
Total DSE's	1200
SHEEP GRAZING AREA	100
Number of wethers	1000
Flock death rate	3%
Age wethers bought (yrs)	0.5
Age wethers culled	5.5

Age group	Culling Rate (% from each group)		Stock No's
	Ewes	Wethers	
0.5		0%	212
1.5		0%	206
2.5		0%	200
3.5		0%	194
4.5		0%	188
5.5		100%	

SALES	Number	Price/hd	Age	Total
c.f.a wethers	182	\$110.00	5.5	\$20,020
TOTAL	182			\$20,020
PURCHASES	Number	Price/hd	Age yrs	Total
wethers	212	\$95	0.5	\$20,175

STOCK VALUE AND D.S.E REQUIREMENT

	Number	Value \$/head	Ave Live Wt (Kgs)	DSE rating
wethers	1000	\$103	55	1.2
TOTAL	1000			

STOCK HEALTH REQUIREMENTS

	Number of times			DSE rating
	Number	Drench	Vacc.	
wethers	1000	1	1	1.2
TOTAL	1000	1000	1000	1200

SHEARING

	Number	Wool cut kg/hd	Total Greasy kg	Yield (%)	Total Clean kg
wethers	970	7.00	6790	70%	4753
TOTAL	970		6790		4753

HAND FEEDING

	kg fed	/animal	\$/tonne	Total
Oats/barley		kg/wether	200	\$0
Hay	15	kg/wether	180	\$2,700
Lupins		kg/wether	300	\$0
Total				\$2,700

SENSITIVITY TABLE

GROSS MARGIN/DSE	Average Greasy Wool Price (c/Kg)					
	850	900	920	950	1000	1050
\$85	\$25	\$28	\$29	\$31	\$34	\$37
\$90	\$26	\$29	\$30	\$32	\$34	\$37
\$95	\$27	\$30	\$31	\$32	\$35	\$38
\$100	\$28	\$30	\$31	\$33	\$36	\$39
Average	\$105	\$28	\$31	\$32	\$34	\$37
Sale Price	\$110	\$29	\$32	\$33	\$35	\$37
of wethers	\$115	\$30	\$33	\$34	\$35	\$38
(\$/hd)	\$120	\$30	\$33	\$34	\$36	\$39
	\$125	\$31	\$34	\$35	\$37	\$40
	\$130	\$32	\$35	\$36	\$37	\$40
	\$135	\$33	\$35	\$37	\$38	\$41
					\$41	\$44

Prime Lamb Gross Margin - Cereal Zone (250 - 450mm)

Assumptions			
Ave Breeding Ewe Fibre Diameter	21	Total DSE's	1850
Number of breeding ewes (Merino)	1000	Stocking rate (DSE/Ha)	6.0
Merino ewe - Terminal meat sire			

					2017
					YOUR
					ESTIMATE
					\$
INCOME					
Wool (kg greasy)	6378 Kg	[ave price	850 c/kg]		\$54,218
Sales	1189 animals	[ave price	\$110.68 per hd]		\$131,690
GROSS INCOME					\$185,908
VARIABLE COSTS					
Shearing					
Shearing	970 sheep	@	\$293.31 /100		\$2,845
(Federal awards)	24 rams	@	\$586.62 /100		\$141
Shed labour	5 days	@	\$221.12 /day		\$1,106
Woolclasser	2.5 days	@	\$265.89 /day		\$665
Work Cover (includes super + o'time etc)		@	9.50% total		\$452
Superannuation (on ordinary wages only)		@	4.00% wages		\$190
Wool packs	38 packs	@	\$10.00 /pack		\$380
Shed sundries	994 sheep	@	\$0.15 /head		\$149
Lice control	994 sheep	@	\$0.46 /head		\$456
Crutch & Wig	0 lambs	@	\$85.06 /100		\$0
	1019 ewes	@	\$85.06 /100		\$867
Marking					
Lamb marking	950 lambs	@	\$1.00 /head		\$950
Ear tags	950 lambs	@	\$0.40 /head		\$380
Animal Health					
drench	2000 sheep	@	\$0.45 /head		\$900
vaccinate	2925 sheep	@	\$0.37 /head		\$1,088
blowfly control	1000 sheep	@	\$1.29 /head		\$1,290
Stock purchases					
Purchases					\$55,665
Sale Costs					
<i>Freight</i>					
livestock	239 culls	@	\$4.00 /head		\$956
	262 ewes	@	\$4.00 /head		\$1,046
	950 prime lambs	@	\$4.00 /head		\$3,800
wool	38 bales	@	\$10.00 /bale		\$380
<i>Stock selling charges</i>					
commission/insurance		@	5.5% gross		\$7,243
yard fees	1189 head	@	\$0.70 /head		\$832
levy-sheep	239 head	@	\$0.20 /head		\$48
levy-lambs	950 head	@	\$1.50 /head		\$1,425
SA sheep industry lev	1189 head	@	\$0.35 /head		\$416
<i>Wool selling charges</i>					
brokerage/testing/insurance		@	\$0.22 kg		\$1,403
Industry levy		@	2.0% gross		\$1,084
Feed and Other Costs					
Water	1850 DSE's	@	\$2.50 /DSE		\$4,625
Veh Fuel, R&M	1850 DSE's	@	\$1.20 /DSE		\$2,220
Other	1850 DSE's	@	\$0.50 /DSE		\$925
hay	20.5 tonne	@	\$180.00 /tonne		\$3,690
grain	24.8 tonnes	@	\$200.00 /tonne		\$4,950
Insurance	\$177,938 value	@	\$2.00 /\$'000		\$356
TOTAL VARIABLE COSTS					\$102,923
GROSS MARGIN TOTAL					\$82,984
GROSS MARGIN/hectare					\$269
GROSS MARGIN/DSE					\$45

COMMENTS

The wool price is 90% the price for that micron. This takes into account the lower value of bellies, skirtings, locks etc.
 Super/workover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2.
 No allowance has been made for pasture expenses such as seed, fertiliser and weed control. These need to be separately accounted for.

Prime Lamb Gross Margin - Cereal Zone (250 - 450mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	6.0
Total DSE's	1850
SHEEP GRAZING AREA	308
Number of ewes mated	1000
Ram percentage	2.5%
Age ewes bought (yrs)	1.5
Age ewes culled	5.5
Years rams kept	3
Flock death rate	3%
Average weaning rate	95%
% Lambs carried over	0%

Culling Rate (% from each group)		
Age group	Ewes	Wethers
0.5	0%	
1.5	0%	
2.5	0%	
3.5	0%	
4.5	0%	
5.5	100%	
6.5	0%	

SALES	Number	Price/hd	Age	Total
c.f.a ewes	232	\$95.00	5.5	\$22,040
c.f.a rams	8	\$50.00	4.5	\$400
lambs	950	\$115.00	20 weeks	\$109,250
TOTAL	1189	110.68		\$131,690
PURCHASES	Number	Price/hd	Age yrs	Total
ewes	262	\$180	1.5	\$47,076
rams	9	\$1,000	1.5	\$8,588

STOCK HEALTH REQUIREMENTS

	Number	Number of times			DSE
		Drench	Vacc.	Blowfly	
ewes	1000	1	1	1	1.8
rams	25	2	1	0	2
lambs	950	1	2	0	
TOTAL	1975	2000	2925	1000	1850

SHEARING

	Number	Wool cut kg/hd	price	Total \$
ewes	970	6.50	\$8.57	54021
crossbred rams	24	3.00	\$2.70	196
TOTAL	994	6378		54218

FEEDING

	Number	Hay Cost (\$/T)	Kgs Fed per week	No weeks of Feeding	Total cost (\$)
ewes	1000	\$180	2.5	8	\$3,600
rams	25	\$180	2.5	8	\$90
	Number	Grain Cost (\$/T)	Kgs Fed per week	No weeks of Feeding	Total cost (\$)
ewes	1000	\$200	3.0	8	\$4,800
rams	25	\$200	3.0	10	\$150

G.M. SENSITIVITY

GROSS MARGIN/DSE		Average Weaning Rate (%)					
		75%	85%	95%	105%	115%	125%
	\$90	\$25	\$29	\$33	\$37	\$41	\$45
	\$95	\$26	\$31	\$35	\$40	\$44	\$48
	\$100	\$28	\$33	\$38	\$42	\$47	\$51
	\$105	\$30	\$35	\$40	\$45	\$50	\$55
Average	\$110	\$32	\$37	\$42	\$48	\$53	\$58
Lamb Sale	\$115	\$34	\$39	\$45	\$50	\$56	\$61
Price (\$/hd)	\$120	\$36	\$42	\$47	\$53	\$59	\$64
	\$125	\$38	\$44	\$50	\$56	\$61	\$67
	\$130	\$40	\$46	\$52	\$58	\$64	\$71
	\$135	\$42	\$48	\$55	\$61	\$67	\$74
	\$140	\$44	\$50	\$57	\$64	\$70	\$77

Self Replacing Merino Flock - Cereal Zone (250 - 450mm)

Assumptions			
Ave Breeding Ewe Fibre Diameter	21	Total DSE's	2360
Number of breeding ewes	1000	Stocking rate (DSE/Ha)	6.0

						2017 YOUR ESTIMATE
						\$
Wool (kg greasy)	10614	Kg	[ave price	857	c/kg]	\$90,940
Sales	813	animals	[ave price	\$113.27	per hd]	\$92,095
GROSS INCOME						\$183,035
VARIABLE COSTS						
Shearing						
Shearing	2250	sheep	@	\$293.31	/100	\$6,599
(Federal Awards)	25	rams	@	\$586.62	/100	\$147
Shed labour	8	days	@	\$221.12	/day	\$1,769
Woolclasser	4.0	days	@	\$265.89	/day	\$1,064
Superannuation (on ordinary wages only)			@	9.5%	wages	\$910
Work Cover (includes super + o'time etc)			@	4.0%	total	\$420
Wool packs	62	packs	@	\$10.00	/pack	\$620
Shed sundries	2274	sheep	@	\$0.15	/head	\$341
Lice control	2274	sheep	@	\$1.49	/head	\$3,393
Crutch & wig	1400	sheep	@	\$85.06	/100	\$1,191
	25	rams	@	\$170.12	/100	\$43
Marking						
Lamb marking	850	lambs	@	\$1.30	/head	\$1,105
Pain relief	900	lambs	@	\$0.45	/head	\$405
Ear tags	850	lambs	@	\$0.40	/head	\$340
Animal Health						
drench	2325	sheep	@	\$0.45	/head	\$1,046
vaccinate	3150	sheep	@	\$0.37	/head	\$1,172
blowfly control	1450	sheep	@	\$1.29	/head	\$1,871
Sale and Purchase Costs						
Purchases	7	Merino rams	@	\$1,500.00	/head	\$10,500
Freight	813	sheep	@	\$4.00	/head	\$3,252
	62	bales	@	\$10.00	/bale	\$620
<i>Stock selling charges</i>						
commission/insurance			@	5.5%	gross	\$5,065
yard fees	813	head	@	\$0.70	/head	\$569
sheep tran levy	388	head	@	\$0.20	/head	\$78
lamb trans levy	425	head	@	\$1.50	/head	\$638
SA Sheep industr	813	head	@	\$0.35	/head	\$285
<i>wool selling charges</i>						
brokerage/testing/insurance			@	\$0.22	/kg	\$2,335
Industry levy			@	2.0%	gross	\$1,819
Feed and other Costs						
Hand Feeding						\$9,675
Insurance	\$260,527	value	@	\$2.00	/\$'000	\$521
Water	2360	DSE's	@	\$2.50	/DSE	\$5,900
Veh Fuel, R&M	2360	DSE's	@	\$1.20	/DSE	\$2,832
Other	2360	DSE's	@	\$0.50	/DSE	\$1,180
TOTAL VARIABLE COSTS						\$67,702
GROSS MARGIN TOTAL						\$115,333
GROSS MARGIN/hectare						\$293
GROSS MARGIN /DSE						\$49

COMMENTS

The wool price is 90% the wool price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2.

No allowance has been made for pasture expenses such as seed, fertiliser and weed control. These need to be separately accounted for.

Self Replacing Merino Flock - Cereal Zone (250 - 450mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	6.0
Total DSE's	2360
SHEEP GRAZING AREA	285
Number of ewes mated	1000
Ram percentage	2.5%
Age wethers sold (yrs)	0.5
Years rams kept	4
Flock death rate	3%
Average weaning rate	85%
Prime lamb weaning %	0%
% mated for prime lms	0%

Culling Rate (% per each group)		
Age group	Ewes	Wethers
0.5	0%	100%
1.5	43%	0%
2.5	5%	0%
3.5	5%	0%
4.5	5%	0%
5.5	5%	0%
6.5	100%	0%

SALES	Number	Price/hd	Total
c.f.a ewes	204	\$95.00	\$19,380
c.f.a merino rams	6	\$50.00	\$300
ewe hoggets	178	\$180.00	\$32,040
wether lambs	425	\$95.00	\$40,375
TOTAL	813	\$113.27	\$92,095

STOCK HEALTH

	Number of times				
	Number	DSE	Drench	Vacc.	Blowfly
ewes	1000	1.8	1	1	1
ewe hoggets	425	1.2	1	1	1
wether weaners	0	0.8	1	1	1
merino lambs	850	0.0	1	2	0
merino rams	25	2.0	2	1	1
TOTAL	2300	2360	2325	3150	1450
Total Value	\$260,527				

FEEDING

Feed	Number of Animals	Fodder Cost (\$/T)	kg/ animal	Total cost (\$)
Oats/barley	1000	\$200	24 /ewe	\$4,800
Hay	1000	\$180	20 /ewe	\$3,600
Lupins	425	\$300	10 /weaner	\$1,275
Total				\$9,675

SHEARING

	Number	Wool cut kg/hd	Total Greasy kg	Yield (%)	Total Clean kg
ewes	981	6.50	6378	68%	4337
ewe hoggets	419	5.50	2302	68%	1566
wether weaners	0	5.00	0	68%	0
lambs	850	2.00	1700	68%	1156
merino rams	25	9.50	234	68%	159
Adults	1424	6.63	8914		
Total	2274		10614		7217

G.M. SENSITIVITY

GROSS MARGIN/DSE		Average Weaning Rate (%)					
		75%	85%	95%	105%	115%	125%
	\$90	\$25	\$29	\$33	\$37	\$41	\$45
	\$95	\$26	\$31	\$35	\$40	\$44	\$48
	\$100	\$28	\$33	\$38	\$42	\$47	\$51
	\$105	\$30	\$35	\$40	\$45	\$50	\$55
Average	\$110	\$32	\$37	\$42	\$48	\$53	\$58
Lamb Sale	\$115	\$34	\$39	\$45	\$50	\$56	\$61
Price (\$/hd)	\$120	\$36	\$42	\$47	\$53	\$59	\$64
	\$125	\$38	\$44	\$50	\$56	\$61	\$67
	\$130	\$40	\$46	\$52	\$58	\$64	\$71
	\$135	\$42	\$48	\$55	\$61	\$67	\$74
	\$140	\$44	\$50	\$57	\$64	\$70	\$77

Merino Wethers - Cereal Zone (250 - 450mm)

Assumptions:			
Average Wether Fibre Diameter	21	Gross Margin per Ha	\$193
Number of adult wethers	1000	Gross Margin per DSE	\$32
Total DSE's	1200	Gross Margin/Wether	\$39
Stocking rate (DSE/Ha)	6.0		

						2017
						YOUR
						ESTIMATE
INCOME						\$
Wool (kg greasy)	7275	Kg	[ave price	857	c/kg]	\$62,332
Sales	182	animals	[ave price	\$110.00	per hd]	\$20,060
GROSS INCOME						\$82,392
EXPENSES						
Shearing						
Shearing	970	sheep	@	\$293.31	/100	\$2,845
Shed labour	4	days	@	\$221.12	/day	\$884
Woolclasser	2	days	@	\$265.89	/day	\$532
Superannuation (on ordinary wages only)			@	9.5%	wages	\$354
Work Cover (on wages+super+o'time etc)			@	4.0%	total	\$163
Wool packs	43	packs	@	\$10.00	/pack	\$430
Shed sundries	970	sheep	@	\$0.15	/head	\$146
Lice control	970	sheep	@	\$1.49	/head	\$1,447
Crutching	1000	sheep	@	\$85.06	/100	\$851
Animal Health						
drench	1000	sheep	@	\$0.45	/head	\$450
vaccinate	1000	sheep	@	\$0.37	/head	\$372
blowfly control	1000	sheep	@	\$1.29	/head	\$1,290
Other Expenses	0	sheep	@	\$0.00	/head	\$0
Stock Purchases						
Purchases	212	wethers	@	\$95.00	/head	\$20,140
Sale costs and other						
Freight						
livestock	395		@	\$4.00	/head	\$1,580
wool	43	bales	@	\$10.00	/bale	\$430
Stock selling charges						
commission/insurance			@	5.5%	gross	\$1,103
yard fees	182	head	@	\$0.70	/head	\$127
transaction levy	182	head	@	\$0.20	/head	\$36
SA sheep industr	182	head	@	\$0.35	/head	\$64
Wool selling charges						
brokerage/testing/insurance			@	\$0.22	/kg	\$1,601
Industry levy			@	2.0%	gross	\$1,247
Other Expenses						
Hand Feeding						\$2,700
Insurance	102500	value	@	\$2.00	/'000	\$205
Water	1200	DSE's	@	\$2.50	/DSE	\$3,000
Veh Fuel, R&M	1200	DSE's	@	\$1.00	/DSE	\$1,200
Other Expenses	1200	DSE's	@	\$0.50	/DSE	\$600
TOTAL VARIABLE COSTS						\$43,798
GROSS MARGIN						\$38,595
GROSS MARGIN/hectare						\$193
GROSS MARGIN/DSE						\$32

COMMENTS

The wool price is 90% the wool price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 kg liveweight Merino wether with a body condition score of 2. No allowance has been made for pasture expenses such as seed, fertiliser and weed control. These need to be separately accounted for.

Merino Wethers - Cereal Zone (250 - 450mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	6.0
Total DSE's	1200
SHEEP GRAZING AREA	200
Number of wethers	1000
Flock death rate	3%
Age wethers bought (yrs)	0.5
Age wethers culled	5.5

Culling Rate (% from each group)			Stock No's
Age group	Ewes	Wethers	
0.5		0%	212
1.5		0%	206
2.5		0%	200
3.5		0%	194
4.5		0%	188
5.5		100%	

SALES	Number	Price/hd	Age	Total
c.f.a wethers	182	\$110.00	5.5	\$20,020
TOTAL	182			\$20,020
PURCHASES	Number	Price/hd	Age yrs	Total
wethers	212	\$95	0.5	\$20,175

STOCK VALUE AND D.S.E REQUIREMENT

	Number	Value \$/head	Ave Live Wt (Kgs)	DSE rating
wethers	1000	\$103	55	1.2
TOTAL	1000			

STOCK HEALTH REQUIREMENTS

	Number of times			DSE rating	
	Number	Drench	Vacc.		Blowfly
wethers	1000	1	1	1	1.2
TOTAL	1000	1000	1000	1000	1200

SHEARING

	Number	Wool cut kg/hd	Total Greasy kg	Yield (%)	Total Clean kg
wethers	970	7.50	7275	68%	4947
TOTAL	970		7275		4947

HAND FEEDING

	kg fed	/animal	\$/tonne	Total
Oats/barley	0	kg/wether	200	\$0
Hay	15	kg/wether	180	\$2,700
Lupins		kg/wether	300	\$0
Total				\$2,700

Prime Lamb Gross Margin - Pastoral Zone (<250mm)

Assumptions (Lambs sold to specialist finisher)			
Ave Breeding Ewe Fibre Diameter	22	Total DSE's	1858
Number of breeding ewes	1000	Stocking rate (DSE/Ha)	0.14
Merino ewes - Terminal meat sire			

						2017 YOUR ESTIMATE
INCOME						\$
Wool (kg greasy)	5771	Kg	[ave price	741	c/kg]	\$42,771
Sales	1020	animals	[ave price	\$96.77	per hd]	\$98,662
GROSS INCOME						\$141,433
VARIABLE COSTS						
Shearing						
Shearing	950	sheep	@	\$293.31	/100	\$2,786
(Federal awards)	24	rams	@	\$586.62	/100	\$141
Shed labour	5	days	@	\$221.12	/day	\$1,106
Woolclasser	2.50	days	@	\$265.89	/day	\$665
Superannuation (on ordinary wages only)			@	9.5%	wages	\$446
Work Cover (on wages+super+o'time etc)			@	4.0%	total	\$188
Wool packs	34	packs	@	\$10.00	/pack	\$340
Shed sundries	974	sheep	@	\$0.15	/head	\$146
Lice control	974	sheep	@	\$1.49	/head	\$1,453
Crutch & Wig	800	lambs	@	\$85.06	/100	\$680
	998	adults	@	\$85.06	/100	\$849
Marking						
Lamb marking	800	lambs	@	\$1.00	/head	\$800
Ear tags	800	lambs	@	\$0.40	/head	\$320
Animal Health						
drench	0	sheep	@	\$0.45	/head	\$0
vaccinate	1825	sheep	@	\$0.37	/head	\$679
blowfly control	1000	sheep	@	\$1.29	/head	\$1,290
Stock purchases						
Purchases						\$55,258
Sale Costs						
<i>Freight</i>						
livestock	220	culls	@	\$7.00	/head	\$1,540
	270	ewes	@	\$7.00	/head	\$1,887
	800	prime lambs	@	\$7.00	/head	\$5,600
wool	34	bales	@	\$12.00	/bale	\$408
<i>Stock selling charges</i>						
commission/insurance			@	5.5%	gross	\$5,426
yard fees	1020	head	@	\$0.70	/head	\$714
levy-sheep	220	head	@	\$0.20	/head	\$44
levy-lambs	800	head	@	\$1.50	/head	\$1,200
SA sheep industr	1020	head	@	\$0.35	/head	\$357
<i>wool selling charges</i>						
Industry levy			@	2.0%	gross	\$855
brokerage/testing/insurance			@	\$0.22	/kg	\$1,270
Feed and Other Costs						
Water	1858	DSE's	@	\$1.50	/DSE	\$2,786
Veh Fuel, R&M	1858	DSE's	@	\$1.70	/DSE	\$3,158
Other	1858	DSE's	@	\$0.50	/DSE	\$929
hay	0.0	tonne	@	\$180.00	/tonne	\$0
grain	0.0	tonnes	@	\$200.00	/tonne	\$0
Insurance	\$165,563	value	@	\$2.00	/-\$'000	\$331
TOTAL VARIABLE COSTS						\$93,652
GROSS MARGIN TOTAL						\$47,781
GROSS MARGIN/hectare						\$3.60
GROSS MARGIN/DSE						\$26
COMMENTS						
The wool price is 90% the wool price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body conditionscore of 2.						

Prime Lamb Gross Margin - Pastoral Zone (<250mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	6.0
Total DSE's	1850
SHEEP GRAZING AREA	308
Number of ewes mated	1000
Ram percentage	2.5%
Age ewes bought (yrs)	1.5
Age ewes culled	5.5
Years rams kept	3
Flock death rate	3%
Average weaning rate	95%
% Lambs carried over	0%

Culling Rate (% from each group)		
Age group	Ewes	Wethers
0.5	0%	
1.5	0%	
2.5	0%	
3.5	0%	
4.5	0%	
5.5	100%	
6.5	0%	

SALES	Number	Price/hd	Age	Total
c.f.a ewes	232	\$95.00	5.5	\$22,040
c.f.a rams	8	\$50.00	4.5	\$400
lambs	950	\$115.00	20 weeks	\$109,250
TOTAL	1189	110.68		\$131,690
PURCHASES	Number	Price/hd	Age yrs	Total
ewes	262	\$180	1.5	\$47,076
rams	9	\$1,000	1.5	\$8,588

STOCK HEALTH REQUIREMENTS

	Number	Number of times			DSE
		Drench	Vacc.	Blowfly	
ewes	1000	1	1	1	1.8
rams	25	2	1	0	2
lambs	950	1	2	0	
TOTAL	1975	2000	2925	1000	1850

SHEARING

	Number	Wool cut kg/hd	price	Total \$
ewes	970	6.50	\$8.57	54021
crossbred rams	24	3.00	\$2.70	196
TOTAL	994	6378		54218

FEEDING

	Number	Hay Cost (\$/T)	Kgs Fed per week	No weeks of Feeding	Total cost (\$)
ewes	1000	\$180	2.5	8	\$3,600
rams	25	\$180	2.5	8	\$90
	Number	Grain Cost (\$/T)	Kgs Fed per week	No weeks of Feeding	Total cost (\$)
ewes	1000	\$200	3.0	8	\$4,800
rams	25	\$200	3.0	10	\$150

G.M. SENSITIVITY

GROSS MARGIN/DSE		Average Weaning Rate (%)					
		75%	85%	95%	105%	115%	125%
	\$90	\$25	\$29	\$33	\$37	\$41	\$45
	\$95	\$26	\$31	\$35	\$40	\$44	\$48
	\$100	\$28	\$33	\$38	\$42	\$47	\$51
	\$105	\$30	\$35	\$40	\$45	\$50	\$55
Average	\$110	\$32	\$37	\$42	\$48	\$53	\$58
Lamb Sale	\$115	\$34	\$39	\$45	\$50	\$56	\$61
Price (\$/hd)	\$120	\$36	\$42	\$47	\$53	\$59	\$64
	\$125	\$38	\$44	\$50	\$56	\$61	\$67
	\$130	\$40	\$46	\$52	\$58	\$64	\$71
	\$135	\$42	\$48	\$55	\$61	\$67	\$74
	\$140	\$44	\$50	\$57	\$64	\$70	\$77

Self Replacing Merino Flock - Pastoral Zone (<250mm)

Assumptions			
Ave Breeding Ewe Fibre Diameter	22	Total DSE's	2660
Number of breeding ewes	1000	Stocking rate (DSE/Ha)	0.14

INCOME						2017 YOUR ESTIMATE
					\$	
Wool (kg greasy)	11580	Kg	[ave price	747	c/kg]	\$86,504
Sales	717	animals	[ave price	\$104.38	per hd]	\$74,800
GROSS INCOME						\$161,304
VARIABLE COSTS						
Shearing						
Shearing	2550	sheep	@	\$293.31	/100	\$7,479
(Federal Awards)	29	rams	@	\$586.62	/100	\$170
Shed labour	10	days	@	\$221.12	/day	\$2,211
Woolclasser	5	days	@	\$265.89	/day	\$1,329
Superannuation (on ordinary wages only)			@	9.5%	wages	\$1,063
Work Cover (includes super + o'time etc)			@	4.0%	total	\$490
Wool packs	68	packs	@	\$10.00	/pack	\$680
Shed sundries	2579	sheep	@	\$0.15	/head	\$387
Lice control	2579	sheep	@	\$1.49	/head	\$3,848
Crutch & wig	1750	sheep	@	\$85.06	/100	\$1,489
Marking						
Lamb marking	800	lambs	@	\$1.30	/head	\$1,040
Pain relief	900	lambs	@	\$0.45	/head	\$405
Ear tags	800	lambs	@	\$0.40	/head	\$320
Animal Health						
drench	0	sheep	@	\$0.45	/head	\$0
vaccinate	3030	sheep	@	\$0.37	/head	\$1,127
blowfly control	1000	sheep	@	\$1.29	/head	\$1,290
other	0	sheep	@	\$0.00	/head	\$0
Sale and Purchase Costs						
Purchases	8	Merino rams	@	\$1,200.00	/head	\$9,600
Freight	717	sheep	@	\$7.00	/head	\$5,019
	68	bales	@	\$12.00	/bale	\$816
<i>Stock selling charges</i>						
commission/insurance			@	5.5%	gross	\$4,114
yard fees	717	head	@	\$0.70	/head	\$502
transaction levy	717	head	@	\$0.20	/head	\$143
SA sheep industr.	717	head	@	\$0.35	/head	\$251
<i>Wool selling charges</i>						
brokerage/testing/insurance			@	\$0.22	/kg	\$2,548
Industry levy			@	2.0%	gross	\$1,730
Feed and other Costs						
Hand Feeding						\$0
Insurance	\$274,529	value	@	\$2.00	/\$'000	\$549
Water	2660	DSE's	@	\$1.50	/DSE	\$3,990
Veh Fuel, R&M	2660	DSE's	@	\$1.70	/DSE	\$4,522
Other	2660	DSE's	@	\$0.50	/DSE	\$1,330
TOTAL VARIABLE COSTS						\$58,443
GROSS MARGIN TOTAL						\$102,862
GROSS MARGIN/hectare						\$5.41
GROSS MARGIN /DSE						\$39

COMMENTS

The wool price is 90% the wool price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2.

Self Replacing Merino Flock - Pastoral Zone (<250mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	0.14
Total DSE's	2660
SHEEP GRAZING AREA	19000
Number of ewes mated	1000
Ram percentage	3.0%
Age wethers sold (yrs)	1
Years rams kept	4
Flock death rate	5%
Average weaning rate	80%
Prime lamb weaning %	0%
% mated for prime lms	0%

Culling Rate (% per each group)		
Age group	Ewes	Wethers
0.5	0%	0%
1.5	42%	100%
2.5	0%	0%
3.5	0%	0%
4.5	0%	0%
5.5	0%	0%
6.5	100%	0%

SALES	Number	Price/hd	Total
c.f.a ewes	171	\$85.00	\$14,535
c.f.a merino rams	7	\$45.00	\$315
ewe hoggets	159	\$150.00	\$23,850
wether hoggets	380	\$95.00	\$36,100
TOTAL	717	\$104.38	\$74,800

STOCK HEALTH

	Number of times				
	Number	DSE	Drench	Vacc.	Jet
ewes	1000	1.8	0	1	1
ewe hoggets	400	1.2	0	1	0
wether weaners	400	0.8	0	0	0
merino lambs	800	0.0	0	2	0
merino rams	30	2.0	0	1	0
TOTAL	2630	2660	0	3030	1000
Total Value	\$274,529				

FEEDING

Feed	Number of Animals	Hay Cost (\$/T)	kg/ animal fed	Total cost (\$)
Oats/barley	1000	\$200	0.0 /ewe	\$0
Hay	1000	\$180	0.0 /ewe	\$0
Lupins	800	\$300	0.0 /weaner	\$0
Total				\$0

SHEARING

	Number	Wool cut kg/hd	Total Greasy kg	Yield (%)	Total Clean kg
ewes	970	6.00	5817	63%	3665
ewe hoggets	390	5.00	1950	63%	1229
wether weaners	390	5.00	1950	63%	1229
lambs	800	2.00	1600	63%	1008
merino rams	29	9.00	263	63%	166
Adults	1779	6.25	9980		
Total	2579		11580		7296

FLOCK STRUCTURE

This table shows the number of merino sheep in each age group at mating

Class of Sheep	Age Group						
	0.5 y.o.	1.5 y.o.	2.5 y.o.	3.5 y.o.	4.5 y.o.	5.5 y.o.	6.5 y.o.
Ewes	400	221	210	199	190	180	0
Wethers	400	0	0	0	0	0	0
Rams		8	8	7	7	0	0

SENSITIVITY ANALYSIS

GROSS MARGIN/HA	Average Greasy Wool Price (c/Kg)						
	600	650	700	747	800	850	
\$80	\$26	\$28	\$30	\$32	\$35	\$37	
\$85	\$27	\$30	\$32	\$34	\$36	\$38	
\$90	\$29	\$31	\$33	\$35	\$37	\$39	
\$95	\$30	\$32	\$34	\$36	\$39	\$41	
Average	\$31	\$33	\$36	\$38	\$40	\$42	
Sale	\$104	\$32	\$34	\$37	\$39	\$41	
Price (\$/hd)	\$110	\$34	\$36	\$38	\$40	\$42	
	\$115	\$35	\$37	\$39	\$41	\$44	
	\$120	\$36	\$39	\$41	\$43	\$45	
	\$125	\$38	\$40	\$42	\$44	\$46	
	\$130	\$39	\$41	\$43	\$45	\$47	

Merino Wethers - Pastoral Zone (<250mm)

Assumptions:			
Average Wether Fibre Diameter	22	Gross Margin per Ha	\$3.1
Number of adult wethers	1000	Gross Margin per DSE	\$22
Total DSE's	1200	Gross Margin/Wether	\$27
Stocking rate (DSE/Ha)	0.14		

						2017
						YOUR
						ESTIMATE
INCOME						\$
Wool (kg greasy)	6720	Kg	[ave price	747	c/kg]	\$50,198
Sales	226	animals	[ave price	\$105.00	per hd]	\$23,679
GROSS INCOME						\$73,877
EXPENSES						
Shearing						
Shearing	960	sheep	@	\$293.31	/100	\$2,816
Shed labour	4	days	@	\$221.12	/day	\$884
Woolclasser	2	days	@	\$265.89	/day	\$532
Superannuation (on ordinary wages only)			@	9.5%	wages	\$402
Work Cover (on wages+super+o'time etc)			@	4.0%	total	\$164
Wool packs	40	packs	@	\$10.00	/pack	\$400
Shed sundries	960	sheep	@	\$0.15	/head	\$144
Lice control	960	sheep	@	\$1.49	/head	\$1,432
Crutching	1000	sheep	@	\$85.06	/100	\$851
Animal Health						
drench	0	sheep	@	\$0.45	/head	\$0
vaccinate	1000	sheep	@	\$0.37	/head	\$372
blowfly control	1000	sheep	@	\$1.29	/head	\$1,290
Other Expenses	0	sheep	@	\$0.00	/head	\$0
Stock Purchases						
Purchases	266	wethers	@	\$95.00	/head	\$25,270
Sale costs and other						
Freight						
livestock	491		@	\$7.00	/head	\$3,437
wool	40	bales	@	\$12.00	/bale	\$480
Stock selling charges						
commission/insurance			@	5.5%	gross	\$1,302
yard fees	226	head	@	\$0.70	/head	\$158
transaction levy	226	head	@	\$0.20	/head	\$45
SA sheep industr	226	head	@	\$0.35	/head	\$79
Wool selling charges						
brokerage/testing/insurance			@	\$0.22	/kg	\$1,478
Industry levy			@	2.0%	gross	\$1,004
Other Expenses						
Hand Feeding						\$0
Insurance	100000	value	@	\$2.00	/ '\$000	\$200
Water	1200	DSE's	@	\$1.50	/DSE	\$1,800
Veh Fuel, R&M	1200	DSE's	@	\$1.50	/DSE	\$1,800
Other Expenses	1200	DSE's	@	\$0.50	/DSE	\$600
TOTAL VARIABLE COSTS						\$46,941
GROSS MARGIN						\$26,936
GROSS MARGIN/hectare						\$3.14
GROSS MARGIN/DSE						\$22
COMMENTS						
The wool price is 90% the price for that micron. This takes into account the lower value of bellies, skirtings, locks etc. Super/workcover expenses relate only to shearing. DSE ratings are based on the maintenance feed requirements of a 2 year old, 50 Kg liveweight Merino Wether with a body condition score of 2.						

Merino Wethers - Pastoral Zone (<250mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	0.14
Total DSE's	1200
SHEEP GRAZING AREA	8571
Number of wethers	1000
Flock death rate	4%
Age wethers bought (yrs)	1.5
Age wethers culled	5.5

Culling Rate (% from each group)			Stock No's
Age group	Ewes	Wethers	
0.5		0%	0
1.5		0%	266
2.5		0%	255
3.5		0%	245
4.5		0%	235
5.5		100%	

SALES	Number	Price/hd	Age	Total
c.f.a wethers	226	\$105.00	5.5	\$23,730
TOTAL	226			\$23,730
PURCHASES	Number	Price/hd	Age yrs	Total
wethers	266	\$95	1.5	\$25,223

STOCK VALUE AND D.S.E REQUIREMENT

	Number	Value \$/head	Ave Live Wt (Kgs)	DSE rating
wethers	1000	\$100	55	1.20
TOTAL	1000			

STOCK HEALTH REQUIREMENTS

	Number of times			DSE rating	
	Number	Drench	Vacc.		Blowfly
wethers	1000	0	1	1	1.2
TOTAL	1000	0	1000	1000	1200

SHEARING

	Number	Wool cut kg/hd	Total Greasy kg	Yield (%)	Total Clean kg
wethers	960	7.00	6720	63%	4234
TOTAL	960		6720		4234

HAND FEEDING

	kg fed	/animal	\$/tonne	Total
Oats/barley	0	kg/wether	200	\$0
Hay	0	kg/wether	180	\$0
Lupins	0	kg/wether	300	\$0
Total				\$0

SENSITIVITY TABLE

GROSS MARGIN/DSE	Average Greasy Wool Price (c/Kg)					
	600	650	700	747	800	850
\$80	\$10	\$13	\$15	\$18	\$21	\$24
\$85	\$11	\$14	\$16	\$19	\$22	\$25
\$90	\$12	\$14	\$17	\$20	\$23	\$25
\$95	\$13	\$15	\$18	\$21	\$24	\$26
Average	\$100	\$13	\$16	\$19	\$22	\$27
Sale	\$105	\$14	\$17	\$20	\$22	\$28
Price (\$/hd)	\$110	\$15	\$18	\$21	\$23	\$29
	\$115	\$16	\$19	\$22	\$24	\$30
	\$120	\$17	\$20	\$23	\$25	\$31
	\$125	\$18	\$21	\$23	\$26	\$32
	\$130	\$19	\$22	\$24	\$27	\$33

Cleanskin Sheep - Cereal Zone (250 - 450mm)

Assumptions			
Number of breeding ewes	1000	Total DSE's	2570
		Stocking rate (DSE/Ha)	6.0

INCOME						2017 YOUR ESTIMATE
Sales	1158 animals	[ave price	\$120.80	per hd]		\$0
						\$139,860
GROSS INCOME						\$139,860
VARIABLE COSTS						\$0
Marking						
Lamb marking	1200 lambs	@	\$1.00	/head		\$1,200
Ear tags	1200 lambs	@	\$0.40	/head		\$480
Animal Health						
drench	2850 sheep	@	\$0.45	/head		\$1,283
vaccinate	4025 sheep	@	\$0.37	/head		\$1,497
blowfly control	0 sheep	@	\$1.29	/head		\$0
Lice control	0 sheep	@	\$1.49	/head		\$0
Sale and Purchase Costs						
Purchases	7 rams	@	\$1,100.00	/head		\$7,700
Freight	204 ewes	@	\$4.00	/head		\$816
	6 rams	@	\$4.00	/head		\$24
	348 hoggets	@	\$4.00	/head		\$1,392
	600 lambs	@	\$4.00	/head		\$2,400
<i>Stock selling charges</i>						
commission/insurance		@	5.5%	gross		\$7,692
yard fees	1158 head	@	\$0.70	/head		\$811
sheep tran levy	558 head	@	\$0.20	/head		\$112
lamb trans levy	600 head	@	\$1.50	/head		\$900
SA Sheep industr	1158 head	@	\$0.35	/head		\$405
						\$0
						\$0
Feed and other Costs						
Hand Feeding						\$10,200
Insurance	\$341,258 value	@	\$2.00	/\$'000		\$683
Water	2570 DSE's	@	\$2.50	/DSE		\$6,425
Veh Fuel, R&M	2570 DSE's	@	\$0.80	/DSE		\$2,056
Other	2570 DSE's	@	\$0.50	/DSE		\$1,285
TOTAL VARIABLE COSTS						\$47,360
GROSS MARGIN TOTAL						\$92,500
GROSS MARGIN/hectare						\$216
GROSS MARGIN /DSE						\$36

COMMENTS

Assumes flock is fully wool shedding and therefore no shearing, crutching or lice control costs are included.
 Assumes only one lambing per year.
 No allowance has been made for pasture expenses such as seed, fertiliser and weed control. These need to be separately accounted for.

Cleanskin Sheep - Cereal Zone (250 - 450mm)

PRODUCTION DATA

Stocking rate (DSE/Ha)	6.0
Total DSE's	2570
SHEEP GRAZING AREA	428
Number of ewes mated	1000
Ram percentage	2.5%
Age wethers sold (yrs)	0.5
Years rams kept	4
Flock death rate	3%
Average weaning rate	120%

Culling Rate (% per each group)		
Age group	Ewes	Wethers
0.5	0%	100%
1.5	60%	0%
2.5	5%	0%
3.5	5%	0%
4.5	5%	0%
5.5	5%	0%
6.5	100%	0%

SALES	Number	Price/hd	Total
c.f.a ewes	204	\$90.00	\$18,360
c.f.a rams	6	\$50.00	\$300
ewe hoggets	348	\$150.00	\$52,200
wether lambs	600	\$115.00	\$69,000
TOTAL	1158	\$120.80	\$139,860

STOCK HEALTH

	Number of times					
	Number	DSE	Drench	Vacc.	Blowfly	Lice
ewes	1000	1.8	1	1	0	0
ewe hoggets	600	1.2	1	1	0	0
wether weaners	0	0.8	1	1	0	0
lambs	1200	0.0	1	2	0	0
rams	25	2.0	2	1	0	0
TOTAL	2825	2570	2850	4025	0	0
Total Value	\$341,258					

FEEDING

Feed	Number of Animals	Fodder Cost (\$/T)	kg/ animal	Total cost (\$)
Oats/barley	1000	\$200	24 /ewe	\$4,800
Hay	1000	\$180	20 /ewe	\$3,600
Lupins	600	\$300	10 /weaner	\$1,800
Total				\$10,200

FLOCK STRUCTURE

This table shows the number of sheep in each age group at mating

Class of Sheep	Age Group						
	0.5 y.o.	1.5 y.o.	2.5 y.o.	3.5 y.o.	4.5 y.o.	5.5 y.o.	6.5 y.o.
Ewes	600	234	216	199	183	169	0
Wethers	0	0	0	0	0	0	0
Rams		7	6	6	6	0	0

SENSITIVITY ANALYSIS

GROSS MARGIN/DSE	Average Weaning Percentage						
	100	110	120	130	140	150	
\$95	\$23	\$28	\$32	\$36	\$40	\$44	
\$100	\$24	\$29	\$33	\$37	\$41	\$45	
\$105	\$25	\$30	\$34	\$38	\$42	\$47	
\$110	\$26	\$31	\$35	\$39	\$44	\$48	
\$115	\$27	\$32	\$36	\$40	\$45	\$49	
Sale Price	\$120	\$28	\$33	\$37	\$42	\$46	\$51
Lambs (\$/hd)	\$125	\$29	\$34	\$38	\$43	\$48	\$52
	\$130	\$30	\$35	\$39	\$44	\$49	\$54
	\$135	\$31	\$36	\$40	\$45	\$50	\$55
	\$140	\$32	\$37	\$42	\$46	\$51	\$56
	\$145	\$33	\$38	\$43	\$48	\$53	\$58

Beef Cattle - High Rainfall

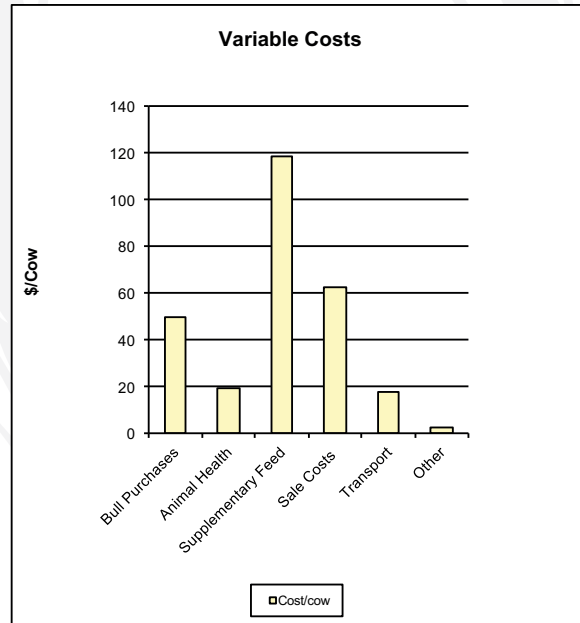
Assumptions:		<i>(Breeding young cattle for local trade, grass fattened)</i>	
Breeding Cow	15 DSE	100	Cow breeding herd
Calf Weaning	90%	13	cows replaced per year
Herd Deaths	3%	3%	Bulls bought for \$5,000
Cows c.f.a	10 years old		sold for \$1,500
Uses	13 heifers as replacements		after 3 years
Carry over calf	8 DSE	40%	carryover to heavier weights
Weaned @	8 months	6	months extra carry over
Heifers mated @	15 months	1888	Herd DSE
Stocking rate	10 DSE/ha		Drench cows 2 x
Area required	189 hectares		Drench calves 1 x
Feeds	35 kg/DSE hay equivalent supplement		

					2017 YOUR ESTIMATE
INCOME					
Stock sales	54 vealers @	280 kg liveweight@	\$3.80 /kg L/W		\$57,456
	22 yearlings	420 kg liveweight@	\$3.80 /kg L/W		\$35,112
Culls	10 Cows @	550 kg liveweight@	\$2.30 /kg L/W		\$12,127
	1 bull@				\$1,500
GROSS INCOME					\$106,195
VARIABLE COSTS					
Bull Purchases					
No. of bulls		1	\$5,000.00 total		\$5,000
Veterinary & Medicines					
Drench - cows 2x calves 1x		290 @	\$3.10 /head		\$899
Ear Tags NLIS		90 @	\$4.75 /tag		\$428
Lice Treatments		100 @	\$3.10 /dose		\$310
Vaccine (5 in 1)		180 @	\$1.82 /dose		\$328
Supplementary Feed					
Hay	66 tonne	@	\$180.00 /tonne		\$11,880
Grain	0.00 t/head	@	\$200.00 /tonne		\$0
Blocks/ Mineral Mix	100	@	\$5.00 /head		\$500
Sale costs and other					
Insurance		\$119,000 @	\$2.00 /\$1000		\$238
Water	1888 dse's	@	\$1.50		\$2,832
Veh Fuel, R&M	1888 dse's	@	\$1.00		\$1,888
Other	1888 dse's	@	\$0.50		\$944
Transport: Lvstk	87 head	@	\$20.00 /head		\$1,732
Commission		@	5.5%		\$5,841
Levies		@	\$5.00 /head		\$433
TOTAL VARIABLE COSTS					\$33,252
GROSS MARGIN TOTAL					\$72,943
GROSS MARGIN PER COW					\$729
GROSS MARGIN/DSE					\$38.63
GROSS MARGIN/hectare					\$386.34
COMMENTS					
Livestock weight will vary between cattle breed, feed type and age					
No allowance has been made for pasture expenses such as seed, fertiliser and weed control. These need to be separately accounted for.					

Beef Cattle - High Rainfall

GROSS MARGIN SENSITIVITY		PER COW				
		\$/kg Liveweight(yearlings/steers)				
		\$3.00	\$3.50	\$3.80	\$4.00	\$4.50
Weaning %	60%	\$232	\$304	\$346	\$375	\$446
	65%	\$283	\$362	\$410	\$442	\$522
	70%	\$333	\$421	\$474	\$509	\$598
	75%	\$383	\$480	\$538	\$577	\$673
	80%	\$434	\$539	\$602	\$644	\$749
	85%	\$484	\$598	\$666	\$711	\$824
	90%	\$535	\$656	\$729	\$778	\$900
	95%	\$585	\$715	\$793	\$845	\$976
100%	\$635	\$774	\$857	\$913	\$1,051	

		PER DSE				
		\$/kg Liveweight(yearlings/steers)				
		\$2.00	\$2.50	\$3.80	\$3.50	\$4.00
Weaning %	60%	\$5	\$9	\$18	\$16	\$20
	65%	\$7	\$11	\$22	\$19	\$23
	70%	\$8	\$13	\$25	\$22	\$27
	75%	\$10	\$15	\$28	\$25	\$31
	80%	\$12	\$17	\$32	\$29	\$34
	85%	\$14	\$20	\$35	\$32	\$38
	90%	\$15	\$22	\$39	\$35	\$41
	95%	\$17	\$24	\$42	\$38	\$45
	100%	\$19	\$26	\$45	\$41	\$48



Beef Cattle - Cereal Zone

Assumptions:		<i>(Breeding young cattle for local trade, grass fattened)</i>	
Breeding Cow	14.5 DSE	100	Cow breeding herd
Calf Weaning	90%	13	cows replaced per year
Herd Deaths	3%	3%	Bulls bought for \$5,000
Cows c.f.a	10 years old		sold for \$1,500
Uses	13 heifers as replacements		after 3 years
Carry over calf	8 DSE	50%	carryover to heavier weights
Weaned @	8 months	6	months extra carry over
Heifers mated @	15 months	1960	Herd DSE
Stocking rate	5.00 DSE/ha		Drench cows 2 x
Area required	392 hectares		Drench calves 1 x
Feeds	35 kg/DSE hay equivalent supplement		

					2017 YOUR ESTIMATE	
INCOME						
Stock sales	45 vealers @	270 kg liveweight @	\$3.80 /kg L/W		\$46,170	
	31 yearlings	400 kg liveweight @	\$3.80 /kg L/W		\$47,120	
Culls	10 Cows @	550 kg liveweight @	\$2.30 /kg L/W		\$12,127	
	1 bull@				\$1,500	
GROSS INCOME					\$106,917	
VARIABLE COSTS						
Bull Purchases						
No. of bulls		1 @	\$5,000 total		\$5,000	
Veterinary & Medicines						
Drench - cows 2x calves 1x		290 @	\$3.10 /head		\$899	
Ear Tags		90 @	\$4.75 /tag		\$428	
Lice Treatments		100 @	\$3.10 /dose		\$310	
Vaccine (5 in 1)		180 @	\$1.82 /dose		\$328	
Supplementary Feed						
Hay	68 tonne	@	\$180.00 /tonne		\$12,240	
Grain	0.00 t/head	@	\$200.00 /tonne		\$0	
Blocks/ Mineral Mix	100	@	\$5.00 /head		\$500	
Sale costs and other						
Insurance	\$119,000	@	\$2.00 /\$1000		\$238	
Water	1960 dse's	@	\$2.50		\$4,900	
Veh Fuel, R&M	1960 dse's	@	\$1.00		\$1,960	
Other	1960 dse's	@	\$0.50		\$980	
Transport: Lvstk	87 head	@	\$20.00 /head		\$1,732	
Commission		@	5.5%		\$5,880	
Levies		@	\$5.00 /head		\$433	
TOTAL VARIABLE COSTS					\$35,827	
GROSS MARGIN TOTAL					\$71,090	
GROSS MARGIN PER COW					\$711	
GROSS MARGIN/DSE					\$36.27	
GROSS MARGIN/hectare					\$181.35	
COMMENTS						
No allowance has been made for pasture expenses such as seed, fertiliser and weed control. These need to be separately accounted for.						

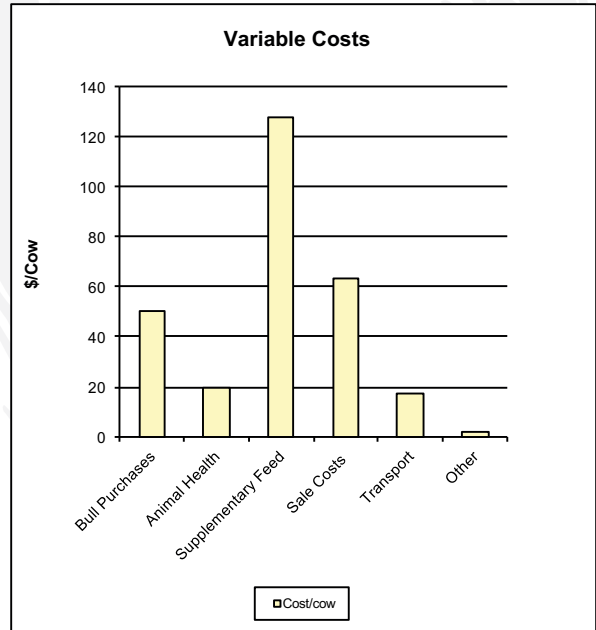
Beef Cattle - Cereal Zone

GROSS MARGIN SENSITIVITY PER COW

		\$/kg Liveweight(yearlings/steers)				
		\$3.00	\$3.50	\$3.80	\$4.00	\$4.50
Weaning %	60%	\$213	\$285	\$329	\$358	\$430
	65%	\$263	\$344	\$393	\$425	\$506
	70%	\$313	\$403	\$456	\$492	\$581
	75%	\$364	\$461	\$520	\$559	\$657
	80%	\$414	\$520	\$584	\$626	\$732
	85%	\$464	\$579	\$647	\$693	\$807
	90%	\$514	\$637	\$711	\$760	\$883
	95%	\$565	\$696	\$775	\$827	\$958
	100%	\$615	\$754	\$838	\$894	\$1,033

PER DSE

		\$/kg Liveweight(yearlings/steers)				
		\$3.00	\$3.50	\$3.80	\$4.00	\$4.50
Weaning %	60%	\$11	\$15	\$17	\$18	\$22
	65%	\$13	\$18	\$20	\$22	\$26
	70%	\$16	\$21	\$23	\$25	\$30
	75%	\$19	\$24	\$27	\$29	\$34
	80%	\$21	\$27	\$30	\$32	\$37
	85%	\$24	\$30	\$33	\$35	\$41
	90%	\$26	\$33	\$36	\$39	\$45
	95%	\$29	\$36	\$40	\$42	\$49
	100%	\$31	\$38	\$43	\$46	\$53



Beef Cattle - Pastoral

Assumptions:		<i>(Breeding young cattle for store trade)</i>	
Breeding Cow	15 DSE	100	Cow breeding herd
Calf Weaning	80%	13	cows replaced per year
Herd Deaths	3%	3%	Bulls bought for \$3,000
Cows c.f.a	10 years old		sold for \$1,500
Uses	13 heifers as replacements		after 3 years
Carry over calf	8 DSE	100%	carryover to heavier weights
Weaned @	8 months	6	months extra carry over
Heifers mated @	15 months	2248	Herd DSE
Stocking rate	2.5 DSE/ha		Drench cows 0 x
Area required	899 hectares		Drench calves 0 x
Feeds	20 kg/DSE hay equivalent supplement		

						2017 YOUR ESTIMATE
INCOME						
Stock sales	67 yearlings	360 kg liveweight (\$3.60 /kg		\$86,832	
Culls	10 Cows @	550 kg lwt @	\$2.50 /kg		\$13,750	
	1 bull@				\$1,500	
GROSS INCOME						\$102,082
VARIABLE COSTS						
Bull Depreciation						
Bull purchase		1 @	\$3,000 total		\$3,000	
Veterinary & Medicines						
Drench		0 @	\$3.10 /head		\$0	
Ear Tags		80 @	\$4.75 /tag		\$380	
Lice Treatments		196 @	\$3.10 /dose		\$608	
Vaccine (5 in 1)		160 @	\$1.82 /dose		\$291	
Supplementary Feed						
Hay	45 tonne	@	\$180.00 /tonne		\$8,100	
Grain	0.00 t/head	@	\$200.00 /tonne		\$0	
Sale costs and other						
Insurance	\$111,500	@	\$2.00 /\$1000		\$223	
Water	2248 dse's	@	\$2.50		\$5,620	
Veh Fuel, R&M	2248 dse's	@	\$1.00		\$2,248	
Other	2248 dse's	@	\$0.50		\$1,124	
Transport:	Lvstk 78 head	@	\$20.00 /head		\$1,560	
Commission		@	5.5%		\$5,615	
Levies		@	\$5.00 /head		\$390	
TOTAL VARIABLE COSTS						\$29,158
GROSS MARGIN TOTAL						\$72,924
GROSS MARGIN PER COW						\$729
GROSS MARGIN/DSE						\$32.44
GROSS MARGIN/hectare						\$81.10
COMMENTS						
Feed costs include an allowance for drought fodder.						
Livestock weight will vary between cattle breed, feed type and age.						

Beef Cattle - Pastoral

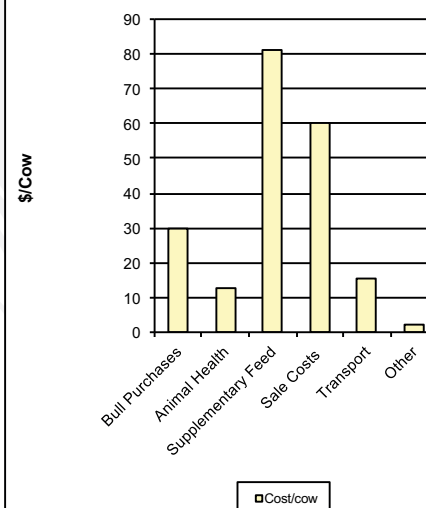
GROSS MARGIN SENSITIVITY PER COW

		\$/kg LWT yearlings/steers)				
		\$2.50	\$3.00	\$3.60	\$4.00	\$4.50
Weaning %	60%	\$284	\$369	\$470	\$538	\$622
	65%	\$329	\$423	\$535	\$610	\$703
	70%	\$374	\$477	\$600	\$682	\$784
	75%	\$419	\$531	\$664	\$754	\$865
	80%	\$464	\$585	\$729	\$826	\$946
	85%	\$509	\$639	\$794	\$898	\$1,027
	90%	\$554	\$693	\$859	\$970	\$1,108
	95%	\$599	\$747	\$924	\$1,042	\$1,189
	100%	\$644	\$801	\$988	\$1,114	\$1,270

PER DSE

		\$/kg LWT (yearlings/steers)				
		\$2.50	\$3.00	\$3.60	\$4.00	\$4.50
Weaning %	60%	\$13	\$16	\$21	\$24	\$28
	65%	\$15	\$19	\$24	\$27	\$31
	70%	\$17	\$21	\$27	\$30	\$35
	75%	\$19	\$24	\$30	\$34	\$38
	80%	\$21	\$26	\$32	\$37	\$42
	85%	\$23	\$28	\$35	\$40	\$46
	90%	\$25	\$31	\$38	\$43	\$49
	95%	\$27	\$33	\$41	\$46	\$53
	100%	\$29	\$36	\$44	\$50	\$57

Variable Costs



Farm Costs 2016

Note: The following costs have been collected from a number of regional sources and should be seen as an approximate guide only. Costs will vary depending on situation. Users of this publication should ascertain the relevance of these costs to their particular situation and make adjustments to gross margin budgets if required.

SHEEP

Lice Control	Avenge	\$18.65 /litre
		\$1.49 /80ml dose
Drench	Hat-trick	\$45.00 /litre
		\$0.45 /10ml dose
Vaccine	3 in 1	\$93.00 250ml
		\$0.37 /1ml dose
	6 in 1	\$117.00 250ml
		\$0.47 /1ml dose
Blowfly Control	Clik	\$53.75 /litre
		\$1.29 /24 ml dose
Wool packs	Nylon	\$10.00 ea
Shearing	Sheep	\$293.31 /100
	Rams	\$586.62 /100
	Shed labour	\$221.12 /day
	Wool classer	\$265.89 day
	Superannuation	9.50% wages
	Work Cover-Allow	4.00% total
	Shed sundries	\$0.15 /head
Crutching	Sheep	\$85.06 /100
	Rams	\$170.12 /100
Lamb marking	Mulesing / materials	\$1.30 /head
	Marking only	\$1.00 /head
	Ear tags	\$0.40 /head
Stock selling	Commission/insurance	5.5%
	Yard fees	\$0.70 /head
	Sheep transaction levy	\$0.20 /head
	Lamb transaction levy	\$1.50 /head
	SA sheep industry levy	\$0.35 /head
	Wool brokerage / testing / insur	\$0.22 /kg
	Wool levy	2.0%

BEEF

Drench (backline)	Genesis Pour-on	\$124.00 /litre
		\$3.10 /25ml dose
7 in 1 vaccine		\$182.00 /250 ml
		\$1.82 /2.5ml dose
NLIS Breeder Tags (incl levy)		\$4.75 each
Indicative freight costs for GM purposes	Freight cattle in	\$15.00 /head
	Freight cattle out	\$20.00 /head
	Cattle levy	\$5.00 /head

FEED & OTHER COSTS

	Water	\$2.50 /DSE
	Veh fuel, R&M	\$1.00 /DSE
	Other	\$0.50 /DSE
	Hay	\$180.00 /tonne incl freight
	Feed Cereal grain	\$200.00 /tonne incl freight
	Lupins	\$300.00 /tonne incl freight

STOCK RETURNS	2014 Average (Clean)	2015		Budget Base (Clean)	Budget Base (Greasy)
		Average (Clean)	2016 Average (Clean)		
WOOL - High Rainfall 28 mic 70%Yield	675	865	774	650	455
- High Rainfall 19.5 mic 70% Yld	1178	1305	1455	1460	1022
- Med Rainfall 21 mic 68% Yield	1160	1274	1397	1400	952
- Low Rainfall 22 mic 63% Yield	1150	1254	1380	1350	830
- Crossbred Ram 32 mic					300

Farm Costs 2016

CHEMICAL COSTS - HERBICIDES

2,4-D Amine (625g/l)	\$4.50 /litre
2,4-D LV Ester (680g/l)	\$6.30 /litre
Achieve® WG	\$52.00 /kg
Affinity®	\$125.00 /litre
Aptitude®	\$64.00 /kg
Atlantis® (mesosulfuron 30g/L)	\$88.00 /litre
Atrazine (600 gm/litre)	\$7.00 /litre
Axial®	\$147.00 /litre
Balance ®	\$0.16 /gram
Boxer Gold®	\$15.70 /litre
Broadstrike®	\$0.42 /gram
Diflufenican (Brodal)	\$38.00 /litre
Bromoxynil /MCPA	\$14.00 /litre
Cadence® (700gm/Kg Dicamba)	\$31.70 /kg
Chlorsulfuron 750g/kg (Glean)	\$0.06 /gram
Clopyralid 600g/L (Lontrel® Advanced)	\$44.00 /litre
Crusader®	\$68.00 /litre
Dicamba 500g/L	\$29.30 /litre
Diuron 900 gm a.i. granules	\$11.00 /kg
Factor® (butroxydim 250g/kg)	\$0.13 /gram
Flight®	\$31.24 /litre
Triclopyr 755g/L	\$20.45 /litre
Triclopyr 600g/L	\$14.80 /litre
Glyphosate 540g/L	\$6.00 /litre
Glyphosate 450g/L	\$4.00 /litre
Carfentrazone 400g/L (Hammer)	\$220.00 /litre
Intervix®	\$28.00 /litre
Metribuzin 750 gm/kg	\$25.60 /kg
M.C.P.A. LVE	\$9.35 /litre
MCPA Amine (750g/L)	\$8.95 /litre
Metsulfuron methyl	\$0.07 /gram
Oxyfluorfen 240g/L	\$15.00 /litre
Paradigm®	\$0.47 /gram
Paraquat	\$4.00 /litre
Precept®	\$16.00 /litre
Propyzamide (500 g/L)	\$24.20 /litre
Quizalofop 200g/L	\$20.45 /litre
Reglone®	\$20.00 /litre
Sakura®	\$340.00 /kg
Sentry®	\$0.28 /gram
Clethodim	\$12.00 /litre
Sharpen®	\$0.50 /gram
Simazine Granules 900g/kg	\$7.60 /kg
S-metolachlor 960g/L (Dual®Gold)	\$16.00 /litre
Imazethapyr 700g/kg	\$99.50 /kg
Sprayseed®	\$9.25 /litre
Starane® Advanced (fluroxypyr 333g/L)	\$21.90 /litre
Terbyne® 875	\$26.50 /kg
Tigrex®	\$15.00 /litre
Topik® EC	\$37.70 /litre
Tri-allate 500g/L	\$10.40 /litre
Triasulfuron 750g/kg (Logran)	\$0.08 /gm
Valor®	\$166.00 /kg
Velocity®	\$31.50 /litre
Trifluralin 480g/L	\$7.50 /litre
Haloxypop 520g/L (Verdict)	\$44.00 /litre

CHEMICAL COSTS - ADJUVANTS

Uptake (Oil)	\$6.20 /litre
BS-1000 (WETTER)	\$6.00 /litre
Supercharge®	\$7.13 /litre
Hasten®	\$4.70 /litre
Banjo®	\$4.95 /litre
Adigor®	\$8.40 /litre
Hot-up®	\$5.00 /litre
LI-700	\$5.00 /litre
Surfactant cost (with Achieve) Per Ha	\$4.01 Assume 75l/ha @ 0.75% surf.
Oil Cost	\$2.33 Assume 75l/ha @0.5% oil
Wetter Cost per Ha	\$0.45 Assume 75l/ha @ 0.1% surf.

Farm Costs 2016

CHEMICAL COSTS - INSECTICIDES

Dimethoate 400g/L	\$8.45 /litre
Omethoate 400g/L	\$26.00 /litre
Alpha-cypermethrin 16g/L	\$6.90 /litre
Lambda-cyhalothrin (Karate Zeon®)	\$116.00 /litre
Trojan®	\$132.00 /litre
Sumi-Alpha® Flex	\$9.84 /litre
Pyrinex® Super	\$10.20 /litre
Imidan®	\$13.20 /litre
Pirimicarb 500g/kg	\$35.76 /kg
Chlorpyrifos 500g/L	\$9.00 /litre
Bifenthrin 250g/L (Talstar®)	\$48.00 /litre
Imidacloprid 600 g/L	\$37.40 /litre
Transform	\$155.00 /litre
Affirm	\$84.00 /litre

CHEMICAL COSTS - FUNGICIDES

Apron® XL 350 ES	\$350.00 /litre
Mancozeb 750g/kg	\$8.90 /kg
Veto® 25C Flowable	\$14.80 /litre
Vibrance®	\$34.70 /litre
Baytan® T Flowable	\$30.00 /kg
Armour® C	\$30.00 /kg
P-Pickel T	\$37.60 /litre
Carbendazim 500g/kg	\$16.40 /kg
Tebuconazole 430	\$12.00 /litre
Propiconazole 250g/L	\$12.00 /litre
Chlorothalonil 720g/L	\$12.80 /litre
Prosaro®	\$70.00 /litre
Amistar®	\$38.00 /litre
Tazer® Xpert	\$19.20 /litre
Systiva®	\$199.00 /litre
Procymidone 500g/L	\$20.80 /litre
Cogito®	\$26.00 /litre
Veritas®	\$31.60 /litre
Epoxiconazole 125g/L	\$18.70 /litre
Flutriafol (250g/l)	\$18.70 /litre
Uniform®	\$63.30 /litre

CHEMICAL COSTS - TRACE ELEMENTS

Zincsulphate	\$1.75 /litre
Coppersulphate	\$3.60 /litre
Mangasulphate	\$1.45 /litre

FUEL COSTS

Total price - Diesel (GST Exc)	\$1.10 /litre
Rebate	\$0.39 /litre
Net Price Diesel - \$/litre	\$0.71 /l bulk includes rebate

FERTILISER COSTS

MAP 10:22	\$550 /tonne
DAP 18:20	\$550 /tonne
Urea	\$440 /tonne
Superphosphate	\$360 /tonne
DAP/MAP Plus 2% Zn	\$610 /tonne
DAP + Urea 24:16	\$543 /tonne
DAP + Urea 28:13	\$527 /tonne
DAP + Urea 32:10	\$510 /tonne
Sulphate of Ammonia	\$460 /tonne

GRAIN GRADING & PICKLING

		Cost /Tonne
Grading	cereals	\$22.00
	other crops	\$24.00
Pickling	cereals	\$1.30
	other crops	\$1.40
Cleaning	wheat	\$24.00
	barley	\$25.00
	peas	\$30.00
Grain Pickling- <i>Wheat</i>	Veto® 25C Flowable	\$14.80
	- <i>Barley</i> Systiva®	\$298.50
Note- Assumes minimum standard of application for smuts and bunts. More expensive		
Aphid Control - Cereals	Imidacloprid (240ml/100Kg)	\$89.76
	- Lupins Imidacloprid (300ml/100Kg)	\$112.20
Inoculant	Legumes	\$52.00 /tonne treated seed
Seed Treatment	Apron® XL 350 ES	\$262.50 /tonne treated seed
	P-Pickle T	\$75.20 /tonne treated seed

Farm Costs 2016

FREIGHT COSTS (as included in Gross Margins)	Cost /Tonne	
CANOLA	\$25.00	
FERTILIZER	\$20.00	
LENTILS	\$30.00	
OTHER LEGUME GRAINS	\$25.00	
CEREAL GRAINS	\$20.00	
TRITICALE	\$25.00	
HAY-OATEN	\$28.00	
CONTRACT RATES (indicative only- will be highly variable depending on situation)		
Ground Spraying	\$10.00 /hectare	
Aerial spraying	\$14.00 /hectare	
Contract harvesting cereals, low rainfall	\$45.00 /hectare	
Contract harvesting cereals, high rainfall	\$65.00 /hectare	
Contract harvesting pulse/canola, low rainfall	\$72.00 /hectare	
Contract harvesting pulse/canola, high rainfall	\$95.00 /hectare	
Windrowing	\$35.00 /hectare	
Contract spreading	\$8.50 /hectare	excludes cartage
Contract sowing	\$45.00 /hectare	
<i>Haymaking</i>		
Contract mowing	\$48.00 /hectare	
Hire of rake(supply own tractor and labour)	\$6.00 /hectare	
Contract baling (650kg square bales)	\$20.00 /bale	
Super conditioner (oaten hay)	\$25-40.00 /hectare	
INSURANCE COSTS		
Livestock		
Sheep and cattle	\$2.00 /\$1,000 insured	
Crops		
Cereals	\$8.50 /\$1,000 insured	
Chickpeas, lupins, safflower	\$10.00 /\$1,000 insured	
Faba beans, vetch, lentils, canola	\$12.00 /\$1,000 insured	
Field Peas	\$16.00 /\$1,000 insured	

Gross Margin Pro forma

INCOME

\$/ha

Average yield (estimated silo return)	t/ha	@	\$	/tonne	
TOTAL INCOME					

EXPENSES

Pool Charges					
& Interest	t/ha	@	\$	/tonne	

Seed	kg/ha	@	\$	/tonne	
Seed treatment	kg/ha	@	\$	/tonne	

Fertiliser					
	kg/ha	@	\$	/tonne	
	kg/ha	@	\$	/tonne	
	kg/ha	@	\$	/tonne	

Chemicals					
Herbicides					
Insecticides					
Fungicides					

Machinery					
Fuel & Oil					
Repairs & Maintenance					

Freight					
Grain	kg/ha	@	\$	/tonne	
Fertiliser	kg/ha	@	\$	/tonne	

Contract Work					
	kg/ha	@	\$	/tonne	
	kg/ha	@	\$	/tonne	

Insurance					
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Other	kg/ha	@	\$	/tonne	
	kg/ha	@	\$	/tonne	
TOTAL EXPENSES					
GROSS MARGIN /HECTARE					

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- ✓ Market and value chain development

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SA GRAIN GROWERS FUNDING RESEARCH SOLUTIONS FOR 25 YEARS

SAGIT has invested \$2.3 million in new projects in 2016-17 supporting research crucial to the advancement of the SA grain industry with funds coming from the 30c a tonne contribution on all grain delivered by SA grain growers.

In 2016-17, SAGIT is supporting 47 projects including:

- Adopting profitable crop sequences in the SA Mallee - Mallee Sustainable Farming
- AgEx Forum - Ag Excellence Alliance
- Agronomic evaluation of durumms for crown rot resistance - Southern Australia Durum Growers Association
- Burning weed seeds in low rainfall cropping systems - SARDI
- Common vetch as a break crop for marginal cropping systems - SARDI
- Communicating innovations in Precision Agriculture: Factsheet series - SPAA
- Crown rot resistance in durumms - SARDI
- Dual-purpose canola for SA's high rainfall zone - SARDI
- Efficiency of various fertiliser N products on sandy soil types - Agronomy Solutions
- Extension and outreach of SAGIT-funded projects - AgCommunicators
- EP Farming Systems Summary 2016-2018 - EPARF
- Genetic characterisation and exploitation of heat stress tolerant barley germplasm - AGT
- Genetic characterisation and exploitation of heat stress tolerant durum germplasm - AGT
- Getting crop management right for maximum 2016 profits - Agriculture Kangaroo Island
- Grain research internships - SARDI
- Growing durum demand in SA: gross margin sensitivity analysis trials - University of Adelaide
- Hi-tech crop monitoring stations - Agbyte
- Identification of sodicity tolerant oat varieties - University of Adelaide
- Identifying the causes of unreliable N fixation by medic based pastures - SARDI
- Improving fertiliser efficiency and reducing disease impacts using fluid delivery systems - SARDI
- Improving nitrogen use efficiency via legumes in high rainfall cropping - Ag KI
- Improving pre-emergent herbicide efficacy in stubble retention systems - Hart Field-site Group
- Improving soil health to maximise water use efficiency in the Upper North - Upper North Farming Systems
- Improving weed control in new herbicide tolerant lentils - SARDI
- Increasing lentil productivity on dune and swale soils - Trengove Consulting
- Long-term cropping systems trial: Effect on soil biology and nitrogen mineralisation - Hart Field-site Group
- New field-based tools to rapidly assess crop nitrogen and stress status - University of Adelaide
- Novel genes for improved P efficiency and yield in barley - University of Adelaide
- Optimising legume inoculation for dry sowing - SARDI
- Publication of the 2017 Farm Gross Margin Guide for SA - Rural Solutions SA
- Reassessing the value of phosphorus replacement strategies on fixing soils - University of Adelaide
- Regional internship in applied grains research - Hart Field-site Group
- SA Crop Variety Sowing Guides - SARDI
- SANTFA 18th Annual Conference 2016 - SANTFA
- Seed to Store YouTube clip competition - AgCommunicators
- Sharing knowledge of agricultural innovations: Precision Ag expos and symposiums - SPAA
- Silverleaf nightshade - long-term management effects of annual herbicide applications - PIRSA
- SOILS - getting the most out of your sands - EPARF
- Sulphur deficiency research in lentils and wheat on dune swale soils - Northern Sustainable Soils
- Support for workshop on data presentation and interpretation - Ag Institute Australia
- The application of bent-leg technologies to higher speed, tyned seeding of cereal grains - University of SA
- The H sensor: a weed ID and mapping system - SPAA
- The Peter Waite Centenary Scholarship - University of Adelaide
- Time of sowing influence on phosphorus requirements and soil testing - Agronomy Solutions
- Upper North time of sowing and yield loss from frost/heat stress - UNFS
- Upskilling women of the Upper North in sustainable and productive farming principles - UNFS
- Using soil water information to make better decisions on Eyre Peninsula - EPARF

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