

Land values – creating us wealth but making return targets difficult?

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Heaven or hell?



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Gross profit

Less

Operating costs

=

EBIT/Operating profit




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EBIT/Operating profit

÷

Total farm asset value

=

Return on assets managed


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Is it harder to make your asset base work now relative to before?

Land value (\$/DSE)	\$900
Livestock value (\$/DSE)	\$185
Other (\$/DSE)	\$20
Total asset value (\$/DSE)	\$1,105
Target return	4%
Target EBIT/Profit	\$44



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It's plausible in 2021 but beyond?

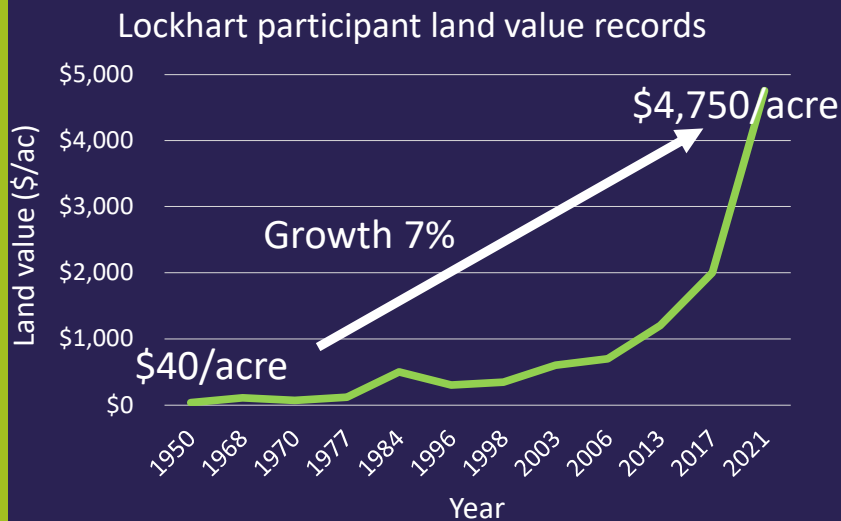
	Wool	Beef	Lamb
EBIT (\$/DSE)	\$39	\$44	\$35
ROAM	3.5%	4%	3.2%



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Capital gain – what has occurred?



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Things change over time

	2005-10	2015-20
EBIT/Profit (\$/DSE)	\$3	\$18
Land value (\$/DSE)	\$325	\$635
Total asset value (\$/DSE)	\$385	\$763
Operating return	0.7%	2.4%

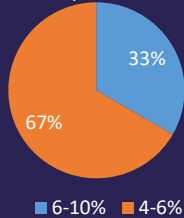


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Reasons for land price variation

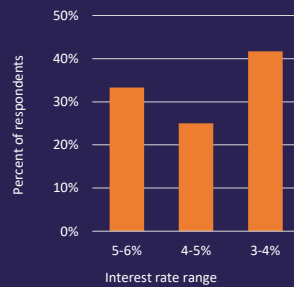
Views on capital growth

Expectation of future capital gain - percent respondents



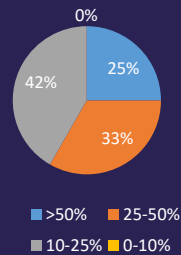
Views on interest rates

Expected future interest rates



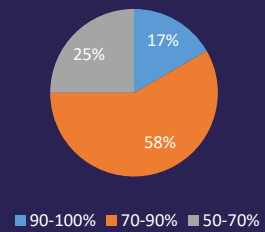
Ideal scale increase

Ideal production increase - percent respondents



Readiness/Risk profile

Current equity level - Percent respondents



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Timing is everything – (luck?)

	2010-14	2015-20
Capital gain received	\$105,127	\$1,441,723
Relative cash position	-\$140,948	-\$151,741
Net benefit	-\$35,821	\$1,289,983
Capital gain	2.6%	15.3%
Average interest rate	6%	3.8%
Average operating return	2.9%	2.4%



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Is it a good time to buy? It depends on your view

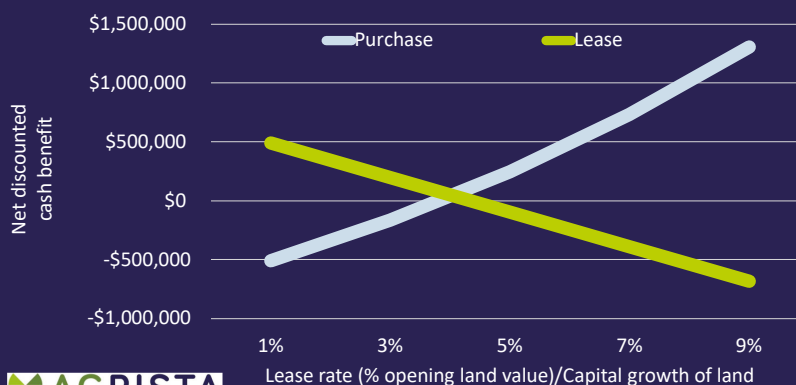
- Expectations of future returns
- Views on capital growth
- Views on commodity pricing
- Views on interest rates
- Relative production level
- Existing farm profitability
- Appetite for risk
- Level of financial literacy
- Extent of scale benefits
- Ability to assess value & productivity



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Lease or buy – how do you compare?

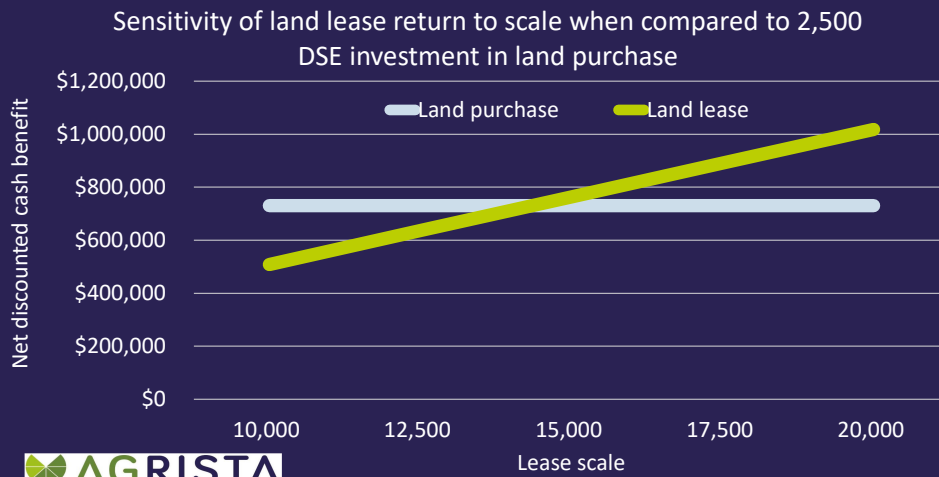
Sensitivity of lease return to lease rate and purchase return to capital growth at comparative scale (2,500 DSE)



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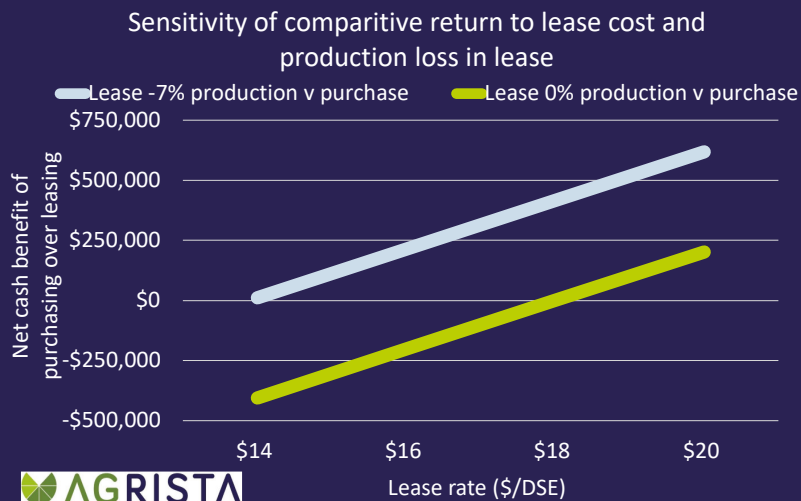
If you lease – you need scale



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Returns are sensitive to prices and production



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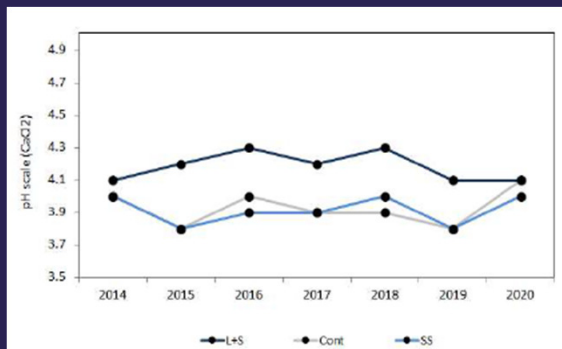
Where are the opportunities?

	Existing	Lift
Production increase		30%
Stocking rate (DSE/ha)	10	3
Land & investment value (\$/ha)	\$9,000	\$400
Livestock capital (\$/ha)	\$1,850	\$555
Land value (\$/DSE)	\$900	
Total asset value (\$/DSE)	\$1,085	\$318



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Opportunities for lift in production



Source: Lieschke 2021 Laggan Grazing
Demonstration Results: 2015-2020

Depth (cm)	2014	2016	2017	2018	2019	2020	2021
0 - 2.5	4.2	5.0	5.1	4.9	4.7	4.7	
2.5 - 5	4.1	3.9	4.2	4.1	4.0	4.0	
5 - 7.5	4.0	3.8	4.0	4.0	4.0	4.0	
7.5 - 10	4.0	3.8	4.0	4.0	3.9	3.9	
10 - 15	4.0	3.8	4.0	4.0	4.0	4.0	
15 - 20	4.1	3.8	4.0	4.1	4.0	4.0	

Figure 7: Impact of lime on soil pH (CaCl₂) in the L+S paddock

Depth (cm)	2014	2016	2017	2018	2019	2020	2021
0 - 2.5	16	0	0	1	3	3	
2.5 - 5	34	29	23	29	25	25	
5 - 7.5	42	41	36	40	39	39	
7.5 - 10	50	48	44	46	42	42	
10 - 15	52	50	50	50	46	46	
15 - 20	55	55	59	52	50	50	

Figure 8: Impact of lime on soil aluminium (% of CEC) in the L+S paddock



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The profitability of wool production after surface application of lime and superphosphate on acid soils

Salahadin Ali Khairo¹, MR Norton², D Garden², P Graham³, C Langford⁴, P Armstrong⁵ and T Brassil⁶

Figure 3. The sensitivity of NPV for L₁P₁ to changes in the price of lime and super

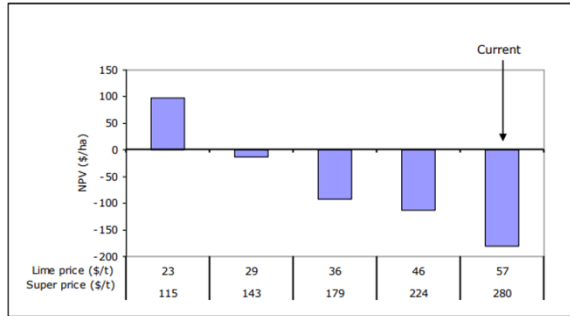
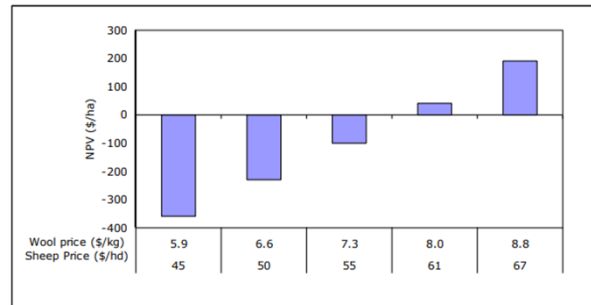


Figure 4. The sensitivity of NPV for L₁P₁ to changes in the price of wool and sheep



https://www.csu.edu.au/_data/assets/pdf_file/0011/109469/AFBM_Journal_v07_n02_01_Khairo_et_al.pdf
1999-2008 Near Sutton, NSW



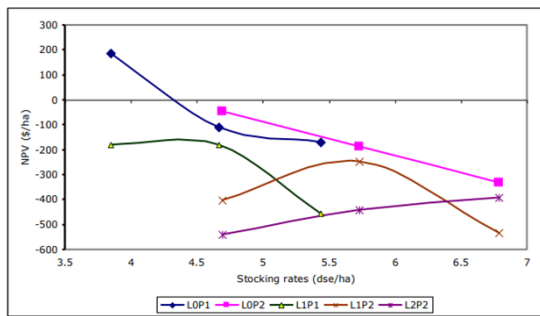
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The profitability of wool production after surface application of lime and superphosphate on acid soils

Salahadin Ali Khairo¹, MR Norton², D Garden², P Graham³, C Langford⁴, P Armstrong⁵ and T Brassil⁶

Figure 2. The effect of stocking rate on NPV



AFBM Journal vol 7 - no 1

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Table 3. Assumptions used in the analysis

Items	Units	Values used
Price of wool (greasy)	\$/kg	6.8
Price (Superphosphate)	\$/t	280
Price (Lime)	\$/t	57
Application cost (Super)	\$/t	40
Application cost (Lime)	\$/t	15
Sheep price (sold)	\$/hd	60
Sheep price (purchase)	\$/hd	30
Other variable cost	\$/head	15
Land area	ha	1
Discount rate	%	7
Interest on loan	%	8

https://www.csu.edu.au/_data/assets/pdf_file/0011/109469/AFBM_Journal_v07_n02_01_Khairo_et_al.pdf
1999-2008 Near Sutton, NSW



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What's exiting about Matts numbers?

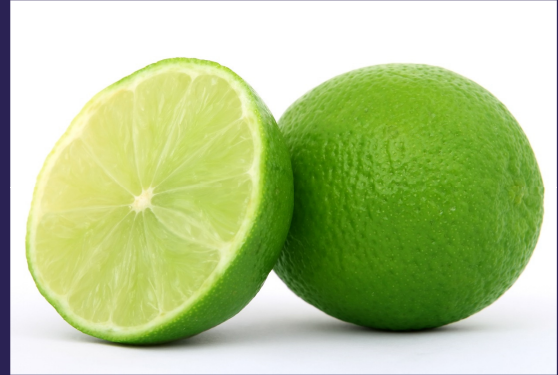
+13% production increase

+25% profit increase

Informs about change

17% return

\$136 profit (NPV)



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There is some questions?

Lime													
Rate (t/ha)	2.5						4						
Lime cost (\$/t spread)	\$80						\$80						
Cost (\$/ha)	\$200						\$320						
Marginal stocking rate (DSE/ha)	0.9	+13%					1.98	+30%					
Livestock capital (\$/DSE)	\$185						\$185						
Gross margin (\$/DSE)	\$60						\$60						
IRR	17%						17%						
Net present value	\$136						\$249						
Year		2015	2016	2017	2018	2019		2015	2016	2017	2018	2019	
Lime+ super		\$251	\$401	\$763	\$204	\$938		\$289	\$461	\$877	\$235	\$1,079	
Super		\$234	\$341	\$654	\$152	\$647		\$234	\$341	\$654	\$152	\$647	
Year		0	1	2	3	4	5	0	1	2	3	4	5
Cashflow		-\$367	\$17	\$60	\$109	\$52	\$457	-\$686	\$55	\$120	\$223	\$83	\$798



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Binalong Landcare
Topdressing Lime/Grazing Demonstration
SEPTEMBER Update, 2004
Binalong Landcare Group ASA Site Layout

ECONOMIC ANALYSIS

AVERAGES FOR THE PERIOD - JANUARY 1999 TO JANUARY 2004

	Paddock 1	Paddock 2	Paddock 3
Stocking rate / ha	14.4	11.2	8.8
Total Clean Wool kg/ha	59.9	43.4	34.8
Total Wool Income \$/ha	507.79	394.60	327.92
Total Cost \$/ha	351.78	288.68	217.54
Profit \$/ha	156.01	105.93	110.38
Difference to Paddock 3	45.63	-4.46	0
Cost of Production c/kg	5.91	6.68	<u>6.33</u>
Fleece Fibre Diameter	20.5	19.9	19.8
Fleece Yield % age	70.0	69.0	68.6
Fleece Length mm			
Strength N/Klex			
Clean Wool kg/hd	4.18	3.87	3.94

SUMMARY
We hope to continue the trial for at least another three years to fully assess the impact of lime over time but it is safe to say that if lime was to give a major production advantage it should have been obvious by now. There has been a change in soil pH in the lime paddocks but the major production improvement has come from the yearly super application. There appears to be some advantage from lime but of a much lower magnitude. The effect of the lime application applied 6 years ago appears to be now diminishing. Remember this trial is on a native perennial grass/annual legume/grass based pasture.

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Phil Graham, Livestock Officer, NSW Agriculture, Yass


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Key points?

- Land prices are up so are profits
- Maintaining profitability will be harder
- Land pricing reflects personal circumstance
- The economics of liming have changed


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