



Llwyddo mewn Amgylchedd sy'n Newid

Succeeding in a Changing Environment

**Profitable production:
Lessons from New Zealand
Alan Gardner
HCC Scholar 2015**

**Glynllifion
12th January 2017**





WALES / NZ / UK

	WALES	NEW ZEALAND	UK
SIZE	2.1 m ha	26.8 m ha	24.3 m ha
HUMAN POPULATION	3,108 Million	4,656 Million	64,597 Million
SHEEP POPULATION	9.8 Million	29.5 Million	23.1 Million

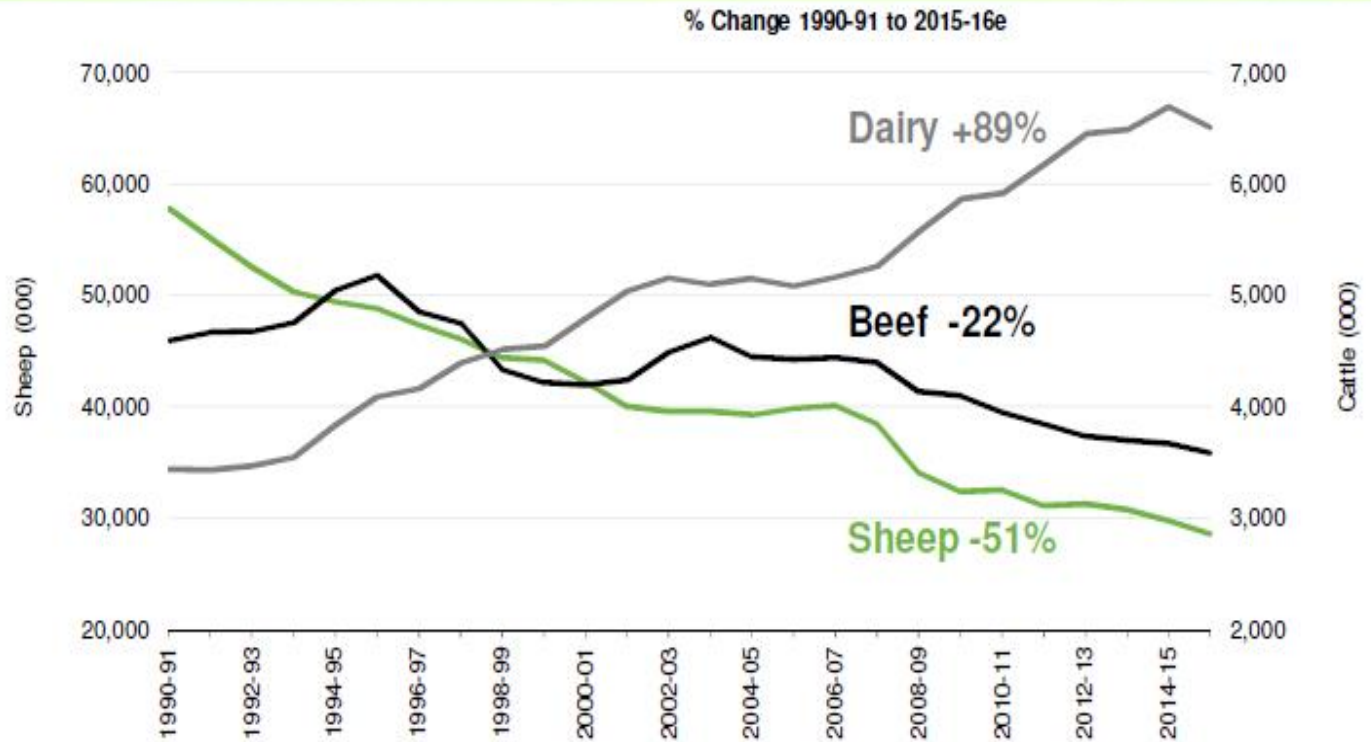
Farming Land in Wales 1.5m Ha

Farming Land in NZ 14.1m Ha





Sheep and Cattle Numbers New Zealand



Source: Beef + Lamb New Zealand Economic Service | Statistics New Zealand

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Year	Sheep and Beef Farms ¹	Sheep & Beef Stock Units wintered ²	Dairy Farms	Peak Cows in-milk ³	
1970-71	23,300	2,940	21,875	112	
1980-81	22,000	3,460	16,089	126	Subsidies, sheep and beef minimum guaranteed prices
1985-86	22,000	3,370	15,753	147	Overnight subsidy-support removed or fast track phase-out
1990-91	19,600	3,420	14,685	164	NZ market driven Ag Sector, all subsidy affects dissipated
1995-96	17,700	3,770	14,736	199	1990s tough decade to farm-in, low global prices
2000-01	15,750	3,890	13,892	251	Good prices + weak NZD positive for NZ Ag
2010-11	12,600	4,050	11,735	386	Post Aug 2008 Global Financial Crisis (GFC)
2015-16	11,300	4,070	11,918	419	GFC correction in progress, QE and high asset prices Brexit 23 June 2016
1985 to 1990	-11%	1%	-7%	12%	
1990 to 2015	-42%	19%	-19%	155%	1 million ha best sheep & beef farmland converted to dairy

1 Commercial Sheep and Beef farms (commercial = farm provides the predominant farm-family income)
 2 Average number of livestock units wintered per farm
 3 Average number of peak season cows milked per farm

Source: Beef + Lamb New Zealand Economic Service
 DairyNZ



Sheep Outlook for 2015-16



- New Zealand
 - Breeding ewes down (-4.5%)
 - Lamb crop (fewer ewes, -2.6% lambing%) (-7.2%)
 - Lambs processed down (-8.8%)
 - Sheep processed down (-15.5%)
 - At 30 June 2015
 - Sheep flock down 4.1% to 28.6 million
 - Outlook to 30 June 2016 – Flock Stabilises with nil(?) dairy conversions - at 28.8 million
 - “Sluggish” international markets for sheepmeat

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MEAT PROMOTION WALES



Previous rough grazing land is heavy disced, paddock fenced and water installed then sown to forage crops before putting down to grass



NEW ZEALAND



Richard and Trudy Slee, Wairaki Station, Blackmount, Southland

1,400 acres cultivated





Quintile Analysis for Otago and Southland, South Island.

**Sample Size. Approx.
1250 Farms**

Class 7 S.I. Intensive Finishing	Unit	Q1 low 2013-14	Q2 2013-14	Q3 2013-14	Q4 2013-14	Q5 high 2013-14	Mean 2013-14
Wages and Salaries	\$/ha	64.54	12.64	60.4	61.37	55.55	50.1
Animal Health	\$/ha	58.15	81.84	64.31	70.8	94.45	74.9
Weed and Pest	\$/ha	27.89	13.45	21.65	23.49	16.2	20.21
Shearing	\$/ha	82.42	84.35	65.45	95.03	86.75	82.81
Fertiliser	\$/ha	180.52	132.93	137.66	156.46	139.63	148.97
Lime	\$/ha	24.63	8.74	14.85	13.23	15.17	15.35
Seeds	\$/ha	19.42	20.53	21.58	18.35	18.52	19.67
Vehicle & Fuel	\$/ha	83.42	82.11	93.74	107.27	77.21	87.54
Electricity	\$/ha	10.71	9.33	8.78	13.22	9.76	10.25
Feed & Grazing	\$/ha	71.02	53.12	61.25	56.3	78.4	64.7
Cultivation/Sowing	\$/ha	9.57	11.08	22.24	19.52	5.1	12.82
Cash Crop	\$/ha			7.62		6.57	2.93
R & M	\$/ha	114.49	76.13	112.89	106.74	100.66	101.51
Cartage	\$/ha	13.94	8.98	23.33	7.72	11.27	12.96
Administration	\$/ha	40.81	47.36	37.57	51.23	50.01	45.49
Insurance & ACC	\$/ha	31.46	43.2	41.9	45.34	39.85	40.14
Rates	\$/ha	33.46	25.89	29.7	41.07	37.99	33.47
Interest	\$/ha	116.31	180.32	112.91	105.15	272.63	163.98
Rent	\$/ha		62.89	19.38		23.37	22.42
Depreciation	\$/ha	73.99	69.06	74.13	74.23	106.55	80.61
Wages and Salaries	\$/SU	5.55	1.16	5.14	4.85	4.4	4.21
Animal Health	\$/SU	5	7.52	5.48	5.59	7.48	6.3
Weed and Pest	\$/SU	2.4	1.24	1.84	1.86	1.28	1.7
Shearing	\$/SU	7.09	7.75	5.57	7.51	6.87	6.96
Fertiliser	\$/SU	15.53	12.22	11.72	12.36	11.06	12.52
Lime	\$/SU	2.12	0.8	1.26	1.05	1.2	1.29
Seeds	\$/SU	1.67	1.89	1.84	1.45	1.47	1.65
Vehicle & Fuel	\$/SU	7.18	7.55	7.98	8.47	6.11	7.36
Electricity	\$/SU	0.92	0.86	0.75	1.04	0.77	0.86
Feed & Grazing	\$/SU	6.11	4.88	5.21	4.45	6.21	5.44
Cultivation/Sowing	\$/SU	0.82	1.02	1.89	1.54	0.4	1.08
Cash Crop	\$/SU			0.65		0.52	0.25
R & M	\$/SU	9.85	7	9.61	8.43	7.97	8.53
Cartage	\$/SU	1.2	0.82	1.99	0.61	0.89	1.09
Administration	\$/SU	3.51	4.35	3.2	4.05	3.96	3.82
Insurance & ACC	\$/SU	2.71	3.97	3.57	3.58	3.16	3.37
Rates	\$/SU	2.88	2.38	2.53	3.24	3.01	2.81
Interest	\$/SU	10.01	16.57	9.61	8.31	21.59	13.79
Rent	\$/SU		5.78	1.65		1.85	1.88
Depreciation	\$/SU	6.36	6.35	6.31	5.86	8.44	6.78
Farm Profit Before TX	\$	46,761	84,041	114,782	147,277	183,467	115,242
Farm Profit Before TX	\$/HA	211.18	311.46	574.73	701.88	723.53	500.33
Farm Profit Before TX	\$/SU	18.17	28.62	48.93	55.44	57.29	42.06



UPLAND CATTLE AND SHEEP FARMS

2015/16

WHOLE FARM DATA

NUMBER OF FARMS: 94

OUTPUTS	All farms £/farm	All farms £/eff.ha.	Top third £/eff.ha.
Beef	38,945	372	495
Sheep	35,126	335	445
Crops and forage	4,915	47	51
Basic Payment Scheme	17,687	169	189
Indirect subsidies	3,301	32	28
Income from energy generation	1,011	10	8
Miscellaneous income	6,605	63	75
TOTAL OUTPUTS	107,590	1,028	1,291
INPUTS			
Feed	12,848	123	141
Tack and grass keep	2,898	28	39
Veterinary and medicines	4,032	39	43
Other livestock costs	6,768	65	78
Fertilisers	7,601	73	74
Other crop costs	2,116	20	21
Allocatable contracting	3,953	38	39
TOTAL VARIABLE COSTS	40,216	386	435
Paid labour	3,445	33	28
Other contracting / machinery hire	851	8	9
Fuel and repairs	8,353	80	85
Machinery depreciation	10,616	101	102
General farming costs	8,721	83	85
Land expenses	4,590	44	39
Buildings depreciation	2,882	28	18
TOTAL OVERHEAD COSTS	39,458	377	366
TOTAL INPUTS	79,674	763	801
PROFIT BEFORE RENT AND FINANCE	27,916	265	490
Rent	3,996	38	32
Finance	3,578	34	35
PROFIT AFTER RENT AND FINANCE	20,342	193	423
Unpaid labour	4,646	44	54



\$ Per Hectare Analysis

For All New Zealand Regions, All
Classes

Source Beef + Lamb New Zealand

	2014-2015	2015-2016 (PROVISIONAL)	2016-2017 (FORECAST)
REVENUE PER HECTARE			
Wool	81.97	85.33	75.60
Sheep	334.42	292.66	285.96
Cattle	199.52	187.56	186.60
Dairy Grazing	37.88	47.85	42.42
Deer + Velvet	5.42	6.98	6.81
Goat + Fibre	0.08	0.07	0.07
Cash Crop	79.92	72.89	68.10
Other	40.40	25.81	26.46
Total Gross Farm Revenue	779.60	719.14	692.03
EXPENDITURE PER HECTARE			
Wages	42.14	42.38	42.92
Animal Health	30.57	31.45	30.95
Weed & Pest Control	21.71	22.09	22.26
Shearing	31.06	31.51	30.77
Fertiliser	86.45	80.92	77.41
Lime	7.75	6.24	6.92
Seeds	11.74	11.88	11.90
Vehicle Expenses	20.93	21.26	21.42
Fuel	18.24	17.35	17.40
Electricity	5.54	5.69	5.91
Feed & Grazing	29.13	30.78	29.07
Irrigation Charges	6.85	7.43	7.11
Cultivation & Sowing	11.18	10.75	10.97
Cash Crop Expenses	6.72	6.80	6.90
Repairs & Maintenance	51.67	50.92	50.25
Cartage	9.36	9.74	9.74
Administration	21.70	21.76	22.03
Total Working Expenses	412.72	408.96	403.94
Insurance	11.53	11.91	12.10
ACC Levies	4.40	4.76	4.74
Rates	18.42	18.92	19.37
Managerial Salaries	6.16	5.88	6.01
Interest	84.11	79.89	73.03
Rent	20.87	20.51	20.88
Total Standing Charges	145.50	141.88	136.13
Total Cash Expenditure	558.22	550.84	540.07
Depreciation	46.01	45.66	45.11
Total Farm Expenditure	604.23	596.49	585.17
Farm Profit Before Tax	175.37	122.65	106.86



Beef + Lamb New Zealand Economic Service										05-Sep-16	
Sheep and Beef Farm Survey - \$ Per Farm Analysis										Notes tab	
Class 7 S.I. Intensive Finishing - New Zealand											
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Provisional 2015-16	Forecast 2016-17	
Revenue Per Farm											
1	Wool	34,182	27,774	30,630	49,215	51,695	36,825	45,729	44,612	46,000	39,000
2	Sheep	165,537	231,585	223,389	258,965	290,237	199,420	266,367	219,338	193,500	193,300
3	Cattle	17,755	13,461	11,769	12,686	11,361	10,606	10,979	19,858	16,000	16,600
4	Dairy Grazing	12,729	35,398	19,567	19,437	16,319	13,138	17,873	16,763	14,300	19,600
5	Deer + Velvet	1,913	2,420	2,380	2,067	1,740		1,199	1,186	1,400	1,500
6	Goat + Fibre	10	7	6	2	30	-14	-12	79	100	100
7	Cash Crop	5,401	4,664	3,715	2,406	4,322	5,683	9,856	8,224	7,600	6,500
8	Other	22,113	18,849	39,153	52,506	76,719	18,606	14,504	17,670	14,900	15,500
9	Total Gross Revenue	259,640	334,158	330,609	397,284	452,423	284,264	366,495	327,730	293,800	292,100
Expenditure Per Farm											
10	Wages	12,431	11,599	10,510	11,805	16,780	9,085	11,540	11,214	11,300	11,400
11	Animal Health	11,741	12,276	14,091	14,001	14,323	15,475	17,252	16,677	16,200	16,900
12	Weed & Pest Control	2,775	3,942	4,504	4,344	5,748	4,019	4,655	4,913	4,900	5,050
13	Shearing Expenses	15,493	15,390	15,930	17,276	16,536	15,753	19,075	18,193	18,800	18,200
14	Fertiliser	24,986	30,656	28,690	35,942	42,530	29,362	34,312	35,736	37,450	33,600
15	Lime	2,429	4,540	4,770	2,996	4,602	4,501	3,536	3,795	4,000	4,300
16	Seeds	2,823	3,855	4,389	4,804	5,257	3,785	4,530	4,990	5,050	5,100
17	Vehicle Expenses	8,486	9,613	8,850	9,204	11,614	9,350	8,922	8,350	8,600	8,800
18	Fuel	10,716	12,128	9,756	12,254	12,789	11,816	11,242	9,474	8,500	8,600
19	Electricity	2,613	2,866	2,247	2,406	2,499	2,250	2,362	2,343	2,500	2,600
20	Feed & Grazing	12,729	15,685	14,573	12,719	14,705	13,627	14,902	13,805	14,000	15,900
21	Irrigation Charges			402							
22	Cultivation & Sowing	3,345	2,408	1,658	2,489	2,717	2,114	2,954	2,825	2,900	3,000
23	Cash Crop Expenses	60	212	186	3		55	676	1,203	1,200	1,200
24	Repairs & Maintenance	12,727	18,011	19,367	19,778	25,682	22,430	23,381	21,160	22,000	22,000
25	Cartage	2,876	2,764	2,505	1,951	3,269	2,865	2,984	3,172	3,100	3,200
26	Administration Expenses	7,873	8,515	9,085	9,504	10,911	9,213	10,477	10,676	10,600	10,700
27	Total Working Expenses	134,103	154,460	151,513	161,476	189,962	155,700	172,800	168,526	171,100	170,550
28	Insurance	4,049	4,722	5,153	5,102	5,582	6,027	6,041	5,876	6,100	6,200
29	ACC Levies	2,819	2,107	3,319	3,377	3,912	4,092	3,205	2,742	2,800	2,900
30	Rates	6,462	6,669	7,231	7,402	7,872	7,171	7,710	7,931	8,200	8,450
31	Managerial Salaries				112	1,000					
32	Interest	47,205	40,784	35,028	36,243	39,435	30,115	37,769	34,126	33,700	31,200
33	Rent	3,444	3,959	2,584	3,051	5,046	5,264	5,164	4,014	4,500	4,600
34	Total Standing Charges	63,979	58,241	53,315	55,287	62,847	52,669	59,889	54,689	55,300	53,350
35	Total Cash Expenditure	198,082	212,701	204,828	216,763	252,809	208,369	232,689	223,215	226,400	223,900
36	Depreciation	21,331	22,936	24,994	22,767	20,967	17,424	18,567	20,434	18,500	18,000
37	Total Farm Expenditure	219,413	235,637	229,822	239,530	273,776	225,793	251,256	243,649	244,900	241,900
38	Farm Profit before Tax	40,227	98,521	100,787	157,754	178,647	58,471	115,239	84,081	48,900	50,200
For more information:		econ@beeflambnz.com			Notes tab		© Beef + Lamb New Zealand Economic Service 2016				



DID YOU KNOW?

Choice Chicory
Did you know?
Did you know chicory leaves are high in fibre and protein, making them a great choice for your sheep's diet? Chicory is also a natural dewormer, helping to keep your sheep healthy and happy.

How can we help?
We can help you choose the best quality chicory for your sheep. We offer a range of chicory varieties, from early maturing to late maturing, so you can choose the one that best suits your needs.

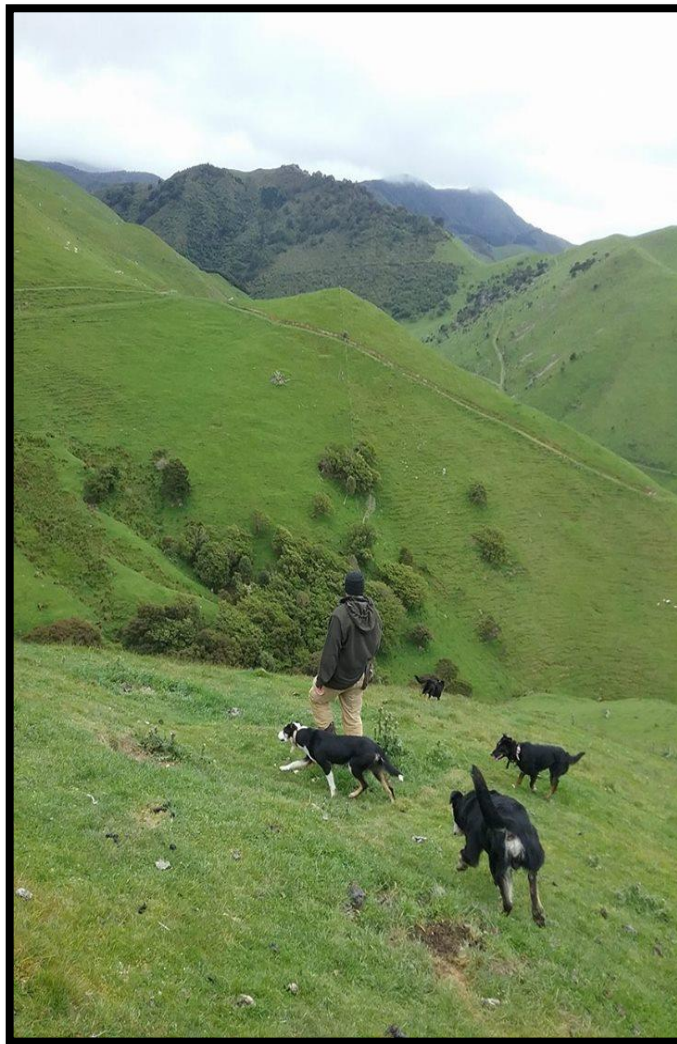


DID YOU KNOW?

Relish Red Clover
Did you know?
Did you know red clover is a natural dewormer, helping to keep your sheep healthy and happy? Red clover is also high in protein and fibre, making it a great choice for your sheep's diet.

How can we help?
We can help you choose the best quality red clover for your sheep. We offer a range of red clover varieties, from early maturing to late maturing, so you can choose the one that best suits your needs.





Improved hill land is maintained with the use of aircraft to apply lime and phosphates





Weaning at 50-60 days





Lambs are routinely shorn





NZ Export Dominance 2014-15 – June Year



	% Exported	Exports \$m
Wool	91%	\$805
Lamb*	92%	\$2,753
Mutton*	94%	\$568
Beef and Veal*	80%	\$3,555
Dairy	94%	\$13,181
Deer [\$244m] + Other	96%	\$877
Pastoral Sector		\$21,739

* Includes co-products

Source: Beef + Lamb New Zealand Economic Service | Statistics New Zealand

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HUMAN POPULATION	3,108 Million	4,656 Million	64,597 Million
SHEEP POPULATION	9.8 Million	29.5 Million	23.1 Million



ALL INFORMATION IS STRICTLY CONFIDENTIAL AND ANONYMOUS (Please Tick)

Farm Size: 5% 75% 10% 10%
<100acres 100 - 250ac 251 - 500ac 501 - 1,000ac >1,000ac

Main Enterprise: 80% 10% 10%
Sheep/Beef Sheep only Dairy Mixed Diversification

Average Annual Turnover: 50% 45% 5%
>£100k £100k - £250k £251k - £500k < £500k

Are you the Principle Business Decision Maker: 70% 30%
Yes No Shared

Are you responsible for completing: VAT Return Tax Return Annual Accounts

Family Member:	<input type="checkbox"/> 70%	<input type="checkbox"/> 10%	<input type="checkbox"/> 15%
Accountant:	<input type="checkbox"/> 30%	<input type="checkbox"/> 90%	<input type="checkbox"/> 85%

Do you consider the Financial Management of the Business to be:

<input type="checkbox"/> 5%	<input type="checkbox"/> 20%	<input type="checkbox"/> 25%	<input type="checkbox"/> 45%	<input type="checkbox"/> 5%
Excellent	Good	Average	Could be better	Poor

How much time do you spend analysing the Annual Accounts:

<input type="checkbox"/> 35%	<input type="checkbox"/> 40%	<input type="checkbox"/> 25%
<1hr	1 - 2hr	2hr +

How long do you spend with your accountant discussing the financial performance of your business:

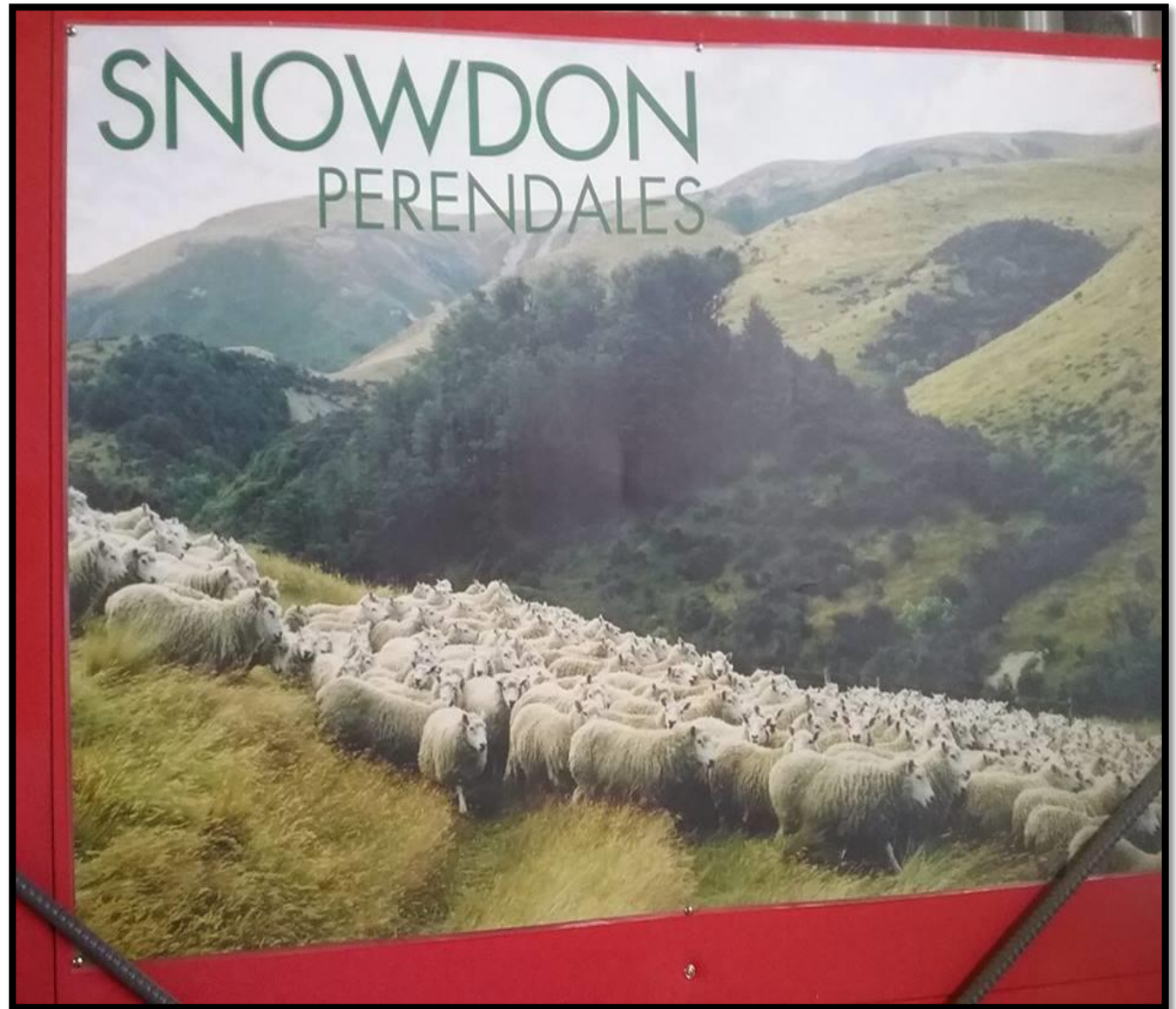
<input type="checkbox"/> 30%	<input type="checkbox"/> 40%	<input type="checkbox"/> 30%
<1hr	1 - 2hr	2hr +

On average, for the last 3 years is the Business Profit more than the Single Farm Payment/Basic Payment Scheme:

<input type="checkbox"/> 35%	<input type="checkbox"/> 65%	<input type="checkbox"/>
Yes	No	Don't Know

Thank you for your assistance,
Alan Gardner

HYBU CIG
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MEAT PROMOTION WALES



NEW ZEALAND



D. A. Neal

Taki Taki
1791 Whangahu Valley Rd
RD 6
Masterton 5886

Mobile Phone 0274 435 793
Home Phone 06 372 5872
Email daneal@farmside.co.nz

Wai Knotz Business Focus Group

Otago trip report

7-10 May 2013

Some of the hosts we visited asked that we keep their detailed information confidential.

Beef and Lamb contributed \$1200 to the trip expenses.

Observations

A diverse group of hosts but with some common themes to their management philosophy and business practices

Human Capital

- Human capacity at ownership and management level, coupled with the ability to form and maintain relationships, drives the vision and success of all businesses visited. None of the success seen fell into their laps, it was made to happen.

Water

- Profound opportunities for gain on easy topography land with 450ml rainfall and high sunshine hours
- Scarce resource and becoming harder to attain the resource. Get in quick.
- Requires significant capital investment but once in place reduces risk with more guaranteed cash flow plus the opportunity to take up forward contracts with certainty

Investments

- Good investment will guarantee future prosperity but sums need to be done carefully first and this is aided by in depth knowledge of enterprise profitability within the business

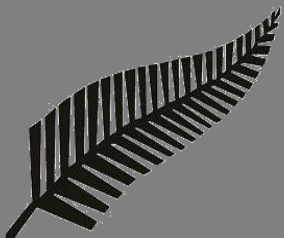
Diversification

- A common theme of success but only on the basis that each enterprise paid its way

Precision Farming

- The way of the future optimizing cost structures and minimizing environmental effects. This will be the icing on many of these investments

The best farmers are striving to improve. They are utilising the skills of their counterparts by engaging in peer review.





Tailing is a big date in the diary



HYBU CIG
CYMRU
MEAT PROMOTION WALES



NEW ZEALAND



Selling 2,400
rams in 2015

Down from 5,000
in 2012

Unsold rams are
culled



Recording from
birth

Less focus on
wool quality

Now improving
stay ability = lower
cull rates

HYBU CIG
CYMRU
MEAT PROMOTION WALES





Financial Results for South Island Family Famers

Statistical Data for the Six Years Ended 30 June 2014						
	2009	2010	2011	2012	2013	2014
Profitability & Other Data						
Net Farm Profit (before adjustment)	\$200,094	\$288,880	\$462,990	\$532,607	\$298,744	\$178,772
Net Farm Profit (after adjustment & before Directors Salaries)	\$119,280	\$265,163	\$384,078	\$407,753	\$404,971	\$244,615
Overall Surplus (Deficit) in Working Capital	\$169,742	(\$122,138)	(\$49,131)	(\$92,993)	\$165,077	\$211,120
Net Profit as a % of GFI	19%	25%	36%	37%	25%	14%
Estimated Total Farm capital (TFC) (5)	\$9,200,000	\$9,200,000	\$9,750,000	\$10,500,000	\$10,500,000	\$10,500,000
Interest Earned on TFC	3%	3.60%	4.50%	4.80%	3%	2.70%
Capital turnover ratio	11.40%	12.50%	13.20%	13.90%	11.30%	12.10%
GFI to Book Value of Plant	2.8	3.3	3.6	3.6	1.9	2
Net Plant Purchase (Sales)	(\$4,908)	\$36,055	\$86,646	\$124,721	\$287,183	\$172,474
Economic Farm Surplus (EFS) (1)	\$427,614	\$499,562	\$645,126	\$673,925	\$457,445	\$432,270
EFS per Stock Unit	\$40.02	\$43.36	\$57.19	\$65.05	\$46.28	\$40.55
EFS per Effective ha	\$351	\$410	\$530	\$492	\$334	\$316
EFS as a % of GFI	41%	44%	50%	46%	39%	34%
EFS as a % of Total Term Debt	24%	27%	42%	40%	25%	8%
Total Term Debt at year end (2)	\$1,803,290	\$1,829,734	\$1,522,619	\$1,696,691	\$1,833,906	\$5,408,907
Total Term Debt as a % of Total Assets	19.60%	19.90%	15.60%	16.20%	17.50%	39.20%
Net Term Reduction (Increase) (2)	(\$59,545)	(\$26,444)	\$307,115	(\$157,709)	(\$137,215)	(\$3,575,001)
Personal Drawings (excl allowances)	\$16,078	\$11,603	\$71,921	\$53,979	\$76,284	\$93,955
Misery Index (4)	75%	69%	59.30%	58.60%	66.20%	77.70%

- 1) From 1996 year onwards Economic Farm Surplus figure equals Net Profit (Loss) plus interest & rent
- 2) Excludes any family non interest bearing debt but assets include Kaka Road property
- 3) From the 2000 year onwards the Farm Working Expenses include ACC Levies, Insurance & Rates
- 4) Combination of the Farm Working Expenses to GFI Ratio and the Interest & Rent paid to GFI Ratio
- 5) Additional 842 ha from 17 February 2014 with Kaka Road Property Purchased NOT included in 2014

HYBU CIG
CYMRU
MEAT PROMOTION WALES



NEW ZEALAND



Conclusions

- New Zealand Sheep Farmers are very focused financially.
- Benchmarking is standard practice.
- The financial organisations (Banks & Accountants) are more involved in the decision making.
- The leading farmers share business information and decisions.
- The sheep industry is more market aware.
- Most breeding sheep are cross bred, hybrid vigour is maximised.
- Fertility in both animals and land are key drivers.



The only non farming payments available are
for QEII land

