



DAIRY FARM SURVEY

For the 2019/2020 Season

AN ECONOMIC SURVEY OF

FACTORY SUPPLY DAIRY FARMERS

FOR THE 2019/2020 SEASON
FROM THE PRACTICE OF
GRAHAM BROWN & CO LTD

A. THOSE SURVEYED

1. The population includes categories for Farm Owners, Sharemilkers and Farm Owners with Sharemilkers, of the practice of Graham Brown & Co Ltd, who:
 - (i) are factory supply, and
 - (ii) derive at least 95% of their gross income from dairying
2. The area represented by this survey is predominantly that of the South Waikato.
3. We are accredited to input data into Dairy Base so have enclosed a snap shot of the Economic Farm Surplus results from Dairy Base for the 2019/2020 season for Farm Owners in Waikato, Canterbury and Southland and Sharemilkers in Waikato. We have also provided from Dairybase a comparison of the profitability of the various production systems for the 2019/2020 season.

We encourage you to compare your results with these benchmarks.

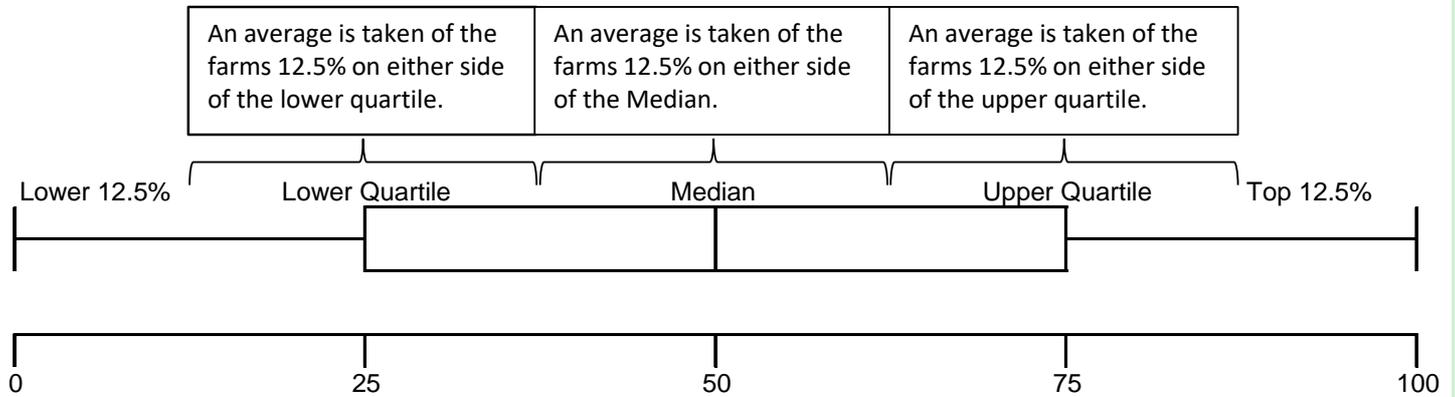
If you want more detail regarding Dairy Base reporting please contact us.

B. ECONOMIC FARM SURPLUS (EFS)

The surplus remaining after expenditure on farming operations (ie. repairs and maintenance, vehicle and standing charges) is called EFS. It measures relative profitability per hectare without being influenced by such items as levels of indebtedness, capital expenditure, taxation and personal drawings. For this reason we are firstly taking the farm surplus from the farm working account. This is prior to book entries for building depreciation, off farm income such as interest received and taxation provisions. It includes any increase or decrease in stock numbers at market values. Secondly, we are adding back interest and lease payments for stock and for land which is milked on. We are leaving in lease payments for land which is used as a run-off. Thirdly, we are deducting a management salary based on "unpaid" labour utilised in the farming operation. This primarily gives the proprietor a return for their labour. It also eliminates any anomalies which may exist where there are more or less than one full time proprietor.

C. FORMAT OF COMPARISONS

We have collated the data as averages of the Lower, Median and Upper Quartile. ie. If 100 farms were in the survey, we would first order them from smallest to largest by their EFS and the average of the quartiles would be calculated as per the following



D. OTHER POINTS

1. Separate statistics are prepared for the three distinct areas of:
 - Farm Owners
 - Sharemilkers
 - Farm Owners Employing Sharemilkers
2. No adjustment is made for interim and deferred final payments when calculating EFS which may in isolated circumstances cause some distortions.
3. Where a farmer utilises a run-off the effective hectares used for these calculations are those that are milked upon.
4. Effective hectares only excludes from total hectares unfarmable areas, (by way of contour for example) and does not exclude areas for tanker tracks, houses etc.
5. In some instances the figures will not add vertically. This is due to rounding when the figures are averaged.

STATISTICS 2019-2020 YEAR FARM OWNERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE	AVERAGE OF TOP 10%
<u>BASIC DATA</u>				
EFFECTIVE HA's	162	182	168	187
COWS AS AT 31st October	464	525	558	643
<u>PRODUCTION</u>				
TOTAL MILK SOLIDS				
KG's/HA	1069	1235	1470	1641
KG's/COW	385	427	456	474
<u>INCOME/HA</u>				
TOTAL SOLIDS	7300.78	8545.37	9908.80	12230.66
OTHER INCOME	132.50	152.64	295.40	187.26
LIVESTOCK INCOME				
- CASH	463.99	615.77	515.05	818.47
- NUMBER CHANGE	11.77	-9.78	104.34	82.67
<u>TOTAL INCOME/HA</u>	7909.04	9304.00	10823.60	13319.06
<u>COSTS/HA</u>				
FARM WORKING	3723.79	4319.38	4595.36	5294.30
LABOUR	681.82	783.49	1063.65	1053.12
FINANCIAL EXPENSES	1516.44	1457.64	1714.85	1959.55
ADMINISTRATION	336.63	332.16	328.90	429.17
<u>EXPENSES/HA</u>	6258.68	6892.67	7702.77	8736.15
<u>FARM SURPLUS/HA</u>	1650.36	2411.33	3120.83	4582.91
<u>ECONOMIC FARM SURPLUS ADJUSTMENT/HA</u>				
INTEREST & LEASE CHARGES	1515.70	1456.85	1714.45	1959.43
INCREASE IN FEED ON HAND	0.00	0.00	3.02	0.00
EXTRAORDINARY EXPENSES	0.14	41.89	24.30	103.43
<u>Less</u>				
Managerial Salary & Unpaid Labour/Ha	372.79	322.14	286.07	342.78
Decrease in Feed on Hand	0.00	0.00	0.00	0.00
Depreciation	450.36	443.98	449.80	663.43
Runoff Rental	44.34	24.36	24.22	15.75
<u>ECONOMIC FARM SURPLUS/HA</u>	2298.71	3119.58	4103.27	5623.82
Return on Dairy Assets (Plant at Opening Book, Stock at Opening MV, Land, Building & Shares at MV)	5.23%	5.72%	6.20%	7.73%
<u>RATIOS</u>				
Term Debt & OD/Total Assets	0.54	0.50	0.49	0.53
Interest Cover (Farm Cash Surplus <i>before</i> Interest, Lease & Long-term grazing <i>less</i> Tax & Drawings/Interest, Lease & Long Term Grazing)	1.84	2.11	2.09	2.41

STATISTICS 2019-2020 YEAR

FARM OWNERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE	AVERAGE OF TOP 10%
<u>ANALYSIS/KG OF MILKSOLIDS</u>				
EXPENSES:				
FARM WORKING	3.44	3.42	3.08	3.16
LABOUR	0.62	0.62	0.73	0.63
ADMINISTRATION	0.08	0.08	0.07	0.09
STANDING CHARGES	0.23	0.19	0.16	0.17
	<hr/> 4.37	<hr/> 4.31	<hr/> 4.04	<hr/> 4.04
Less				
OTHER INCOME	0.17	0.15	0.28	0.19
LIVESTOCK CASH INCOME	0.43	0.50	0.34	0.56
	<hr/> 3.77	<hr/> 3.67	<hr/> 3.41	<hr/> 3.29
Plus				
INTEREST & LEASE CHARGES	1.48	1.21	1.22	1.35
PRINCIPAL	0.49	0.55	0.41	0.39
DRAWINGS	0.47	0.38	0.36	0.44
TAX	0.11	0.26	0.37	0.56
NET CAPITAL REPLACEMENT	0.20	0.23	0.17	0.04
<u>NET FARM COSTS</u>	<hr/> 6.53	<hr/> 6.30	<hr/> 5.93	<hr/> 6.08
BREAKDOWN OF FARM WORKING COSTS:				
<u>VARIABLE COSTS:</u>				
FERTILISER & SPREADING/HA	447.16	451.86	477.42	391.08
REPAIRS & MAINTENANCE/HA	405.06	480.50	484.86	461.38
NITROGEN/HA	69.04	106.29	82.17	158.74
<u>SEMI-VARIABLE COSTS:</u>				
ANIMAL HEALTH/COW	116.94	128.88	102.00	129.36
BREEDING/COW	53.29	50.03	47.62	53.99
CALF REARING/COW	23.20	29.75	23.33	31.96
HERD TESTING/COW	5.58	3.79	7.38	5.27
BROUGHT IN FEED/COW	564.93	665.51	673.26	737.51
CONCENTRATES/COW	96.99	108.74	132.62	90.36
CROPPING EXPENSES/COW	31.08	34.61	24.77	43.44
GRASS SILAGE/COW	43.23	39.34	18.10	40.89
GRAZING CALVES/COW	14.61	10.75	9.13	25.44
GRAZING HEIFERS/COW	92.55	81.26	79.40	107.11
GRAZING COWS/COW	18.29	21.20	14.95	33.50
GRAZING LAND/COW	5.34	3.16	9.70	0.00
HAY/COW	10.71	13.04	9.43	17.74
MAIZE/COW	33.01	55.40	106.96	84.15
NITROGEN/COW	24.82	36.07	25.63	45.60
MEAL/PALM KERNEL/GRAIN ETC	219.12	316.49	261.73	286.58
HARVESTING/COW	29.54	41.45	59.55	37.33
PASTURE RENOVATION	66.23	76.01	56.71	45.12
WEED & PEST CONTROL/HA	24.36	36.34	34.87	23.96
VEHICLE EXPENSES/HA	222.58	209.17	178.70	292.79
WAGES/CONTRACT MILKING/COW	243.09	265.79	322.99	299.59
WAGES/CONTRACT MILKING & MANAGERIAL SALARY/COW	381.94	377.06	413.65	404.70
<u>FIXED COSTS:</u>				
FARM POWER/COW	39.21	35.64	37.09	41.57
SHED EXPENSES/COW	26.60	26.82	21.88	28.61
DRAWINGS	67342	72043	95524	85628

STATISTICS 2019-2020 YEAR SHAREMILKERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE	AVERAGE OF Top 10%
<u>BASIC DATA</u>				
EFFECTIVE HA's	217	170	163	102
COWS AS AT 31st October	607	490	530	330
<u>PRODUCTION</u>				
TOTAL MILK SOLIDS				
KG's/HA	1175	1160	1512	1530
KG's/COW	407	403	483	474
<u>INCOME/HA</u>				
TOTAL SOLIDS	4064.28	4107.90	5212.65	5014.05
OTHER INCOME	36.65	53.09	205.04	71.81
LIVESTOCK INCOME				
- CASH	465.78	222.06	642.94	799.02
- NUMBER CHANGE	-27.87	310.80	65.68	409.89
<u>TOTAL INCOME/HA</u>	4538.84	4693.85	6126.31	6294.77
<u>COSTS/HA</u>				
FARM WORKING	2008.51	2092.27	2704.82	2551.34
LABOUR	1028.63	559.01	803.78	304.93
FINANCIAL EXPENSES	141.87	200.28	340.53	229.20
ADMINISTRATION	141.42	125.16	158.39	157.58
<u>EXPENSES/HA</u>	3320.42	2976.71	4007.52	3243.05
<u>FARM SURPLUS/HA</u>	1218.42	1717.14	2118.78	3051.72
<u>ECONOMIC FARM SURPLUS ADJUSTMENT/HA</u>				
INTEREST & LEASE CHARGES	141.79	199.07	338.76	227.95
INCREASE IN FEED ON HAND	0.00	0.00	0.00	0.00
EXTRAORDINARY EXPENSES	0.00	0.00	84.91	0.00
<u>Less</u>				
Managerial Salary & Unpaid Labour/Ha	313.21	336.26	392.86	422.65
Decrease in Feed	0.00	0.00	0.00	0.00
Depreciation	152.27	172.98	259.50	211.86
Runoff Rental	0.00	0.00	0.00	0.00
<u>ECONOMIC FARM SURPLUS/HA</u>	894.73	1406.96	1890.10	2645.16
Return on Dairy Assets (Plant at Opening Book, Stock at Opening MV, Shares at MV)	21.21%	22.17%	21.47%	37.11%
<u>RATIOS</u>				
Term Debt & OD/Total Assets	0.40	0.42	0.41	0.30
Interest Cover (Farm Cash Surplus <i>before</i> Interest, Lease & Long-term Grazing <i>less</i> Tax & Drawings/Interest, Lease & Long Term Grazing)	4.12	2.52	4.41	2.91

STATISTICS 2019-2020 YEAR

SHAREMILKERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE	AVERAGE OF TOP 10%
<u>ANALYSIS/KG OF MILKSOLIDS</u>				
EXPENSES:				
FARM WORKING	1.74	1.81	1.80	1.68
LABOUR	0.85	0.45	0.52	0.22
ADMINISTRATION	0.09	0.07	0.06	0.07
STANDING CHARGES	0.04	0.05	0.05	0.04
	<hr/> 2.71	<hr/> 2.38	<hr/> 2.43	<hr/> 2.00
Less				
OTHER INCOME	0.05	0.07	0.20	0.07
LIVESTOCK CASH INCOME	0.40	0.21	0.43	0.52
	<hr/> 2.26	<hr/> 2.10	<hr/> 1.80	<hr/> 1.42
Plus				
INTEREST & LEASE CHARGES	0.14	0.19	0.24	0.18
PRINCIPAL	0.26	0.21	0.38	0.37
DRAWINGS	0.24	0.46	0.32	0.53
TAX	0.11	0.12	0.16	0.26
NET CAPITAL REPLACEMENT	0.04	0.14	0.28	0.11
<u>NET FARM COSTS</u>	<hr/> 3.05	<hr/> 3.22	<hr/> 3.18	<hr/> 2.87
BREAKDOWN OF FARM WORKING COSTS:				
<u>VARIABLE COSTS:</u>				
FERTILISER & SPREADING/HA	55.27	58.25	134.78	31.94
REPAIRS & MAINTENANCE/HA	89.64	77.97	131.85	56.06
NITROGEN/HA	63.69	65.64	70.79	117.69
<u>SEMI-VARIABLE COSTS:</u>				
ANIMAL HEALTH/COW	97.30	109.62	118.44	129.76
BREEDING/COW	54.73	42.12	52.57	62.83
CALF REARING/COW	14.41	21.30	25.59	46.87
HERD TESTING/COW	7.31	7.92	4.96	2.48
BROUGHT IN FEED/COW	288.58	312.10	275.00	315.78
CONCENTRATES/COW	0.80	14.53	15.50	0.00
CROPPING EXPENSES/COW	16.93	5.67	18.37	69.49
GRASS SILAGE/COW	14.19	11.56	25.92	6.89
GRAZING CALVES/COW	16.40	17.34	16.20	27.39
GRAZING HEIFERS/COW	47.36	77.25	23.76	75.54
GRAZING COWS/COW	20.01	10.55	19.50	1.79
GRAZING LAND/COW	0.44	0.00	14.22	4.29
HAY/COW	8.62	1.49	5.92	0.17
MAIZE/COW	36.57	38.26	12.65	0.00
NITROGEN/COW	21.53	22.45	21.20	36.37
OTHER BROUGHT IN FEED/SQUASH ETC	126.30	135.45	122.95	130.23
HARVESTING/COW	23.99	19.46	28.47	41.44
PASTURE RENOVATION	8.00	5.82	7.83	0.00
WEED & PEST CONTROL/HA	8.27	6.56	14.76	2.55
VEHICLE EXPENSES/HA	145.23	188.80	250.63	210.27
WAGES/CONTRACT MILKING/COW	356.57	195.43	249.85	90.33
WAGES/CONTRACT MILKING & MANAGERIAL SALARY/COW	463.54	310.46	379.13	229.81
<u>FIXED COSTS:</u>				
FARM POWER/COW	34.29	38.37	45.02	33.15
SHED EXPENSES/COW	12.77	18.62	18.33	11.25
DRAWINGS	69164	96514	80347	72695

STATISTICS 2019-2020 YEAR

FARM OWNERS WITH SHAREMILKERS

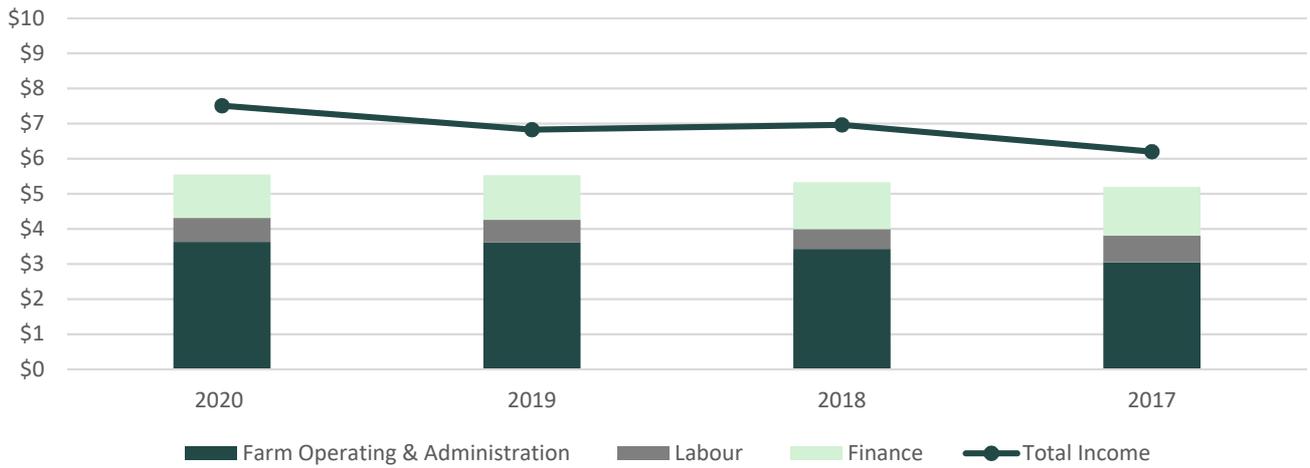
	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE
<u>BASIC DATA</u>			
EFFECTIVE HA's	154	140	190
COWS AS AT 31st October	441	387	589
<u>PRODUCTION</u>			
TOTAL MILK SOLIDS			
KG's/HA	1188.80	1145.45	1414.71
KG's/COW	409	408	452
<u>INCOME/HA</u>			
TOTAL SOLIDS	4168.35	4117.21	4928.51
OTHER INCOME	207.94	80.97	118.50
LIVESTOCK INCOME			
- CASH	-0.75	0.00	0.00
- NUMBER CHANGE	11.46	0.00	0.00
<u>TOTAL INCOME/HA</u>	4387.00	4198.18	5047.00
<u>COSTS/HA</u>			
FARM WORKING	2446.76	1538.65	1869.38
LABOUR	46.33	1.45	27.75
FINANCIAL EXPENSES	880.05	705.16	920.09
ADMINISTRATION	298.84	233.17	304.54
<u>EXPENSES/HA</u>	3671.98	2478.43	3121.75
<u>FARM SURPLUS/HA</u>	715.02	1719.75	1925.25
<u>ECONOMIC FARM SURPLUS/HA</u>			
<u>ADJUSTMENT/HA</u>			
INTEREST & LEASE CHARGES	879.95	705.20	919.20
INCREASE IN FEED ON HAND	0.00	0.00	0.00
EXTRAORDINARY EXPENSES	0.00	0.00	0.00
<u>Less</u>			
Decrease in Feed	0.00	0.00	0.00
Depreciation	350.96	326.41	217.02
Runoff Rental	0.00	31.21	0.00
<u>ECONOMIC FARM SURPLUS/HA</u>	1244.00	2067.33	2627.43
Return on Dairy Assets (Plant at Opening Book, Land, Building & Shares at MV)	2.26%	4.50%	4.43%
<u>RATIOS</u>			
Term Debt & OD/Total Assets	0.34	0.20	0.32
Interest Cover (Farm Cash Surplus <i>before</i> Interest, Lease & Long-term Grazing <i>less</i> Tax & Drawings/Interest, Lease & Long Term Grazing)	1.40	2.40	4.46

STATISTICS 2019-2020 YEAR

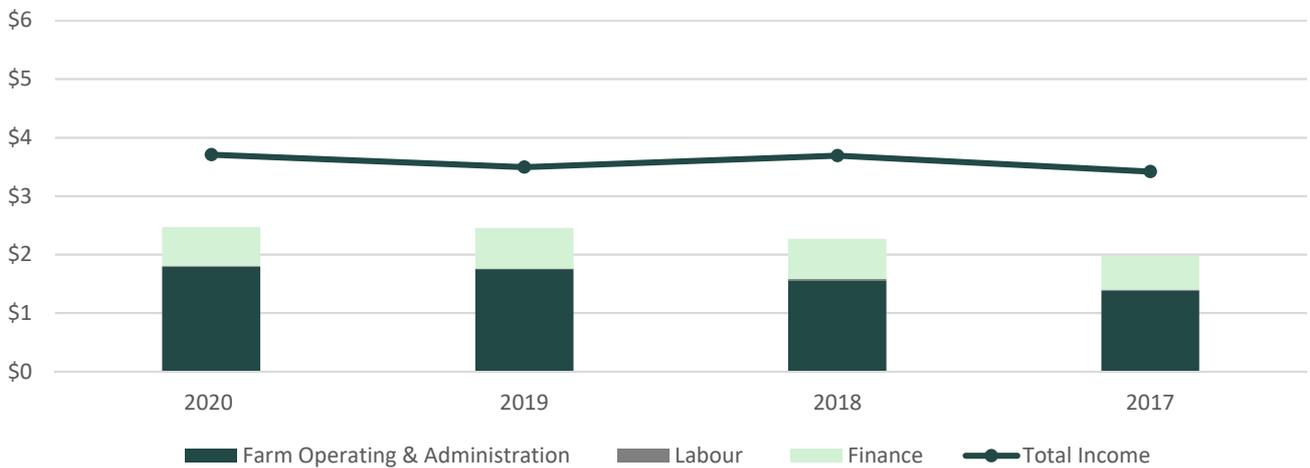
FARM OWNERS WITH SHAREMILKERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE
<u>ANALYSIS/KG OF MILKSOLIDS</u>			
EXPENSES:			
FARM WORKING	1.93	1.33	1.30
LABOUR	0.04	0.00	0.01
ADMINISTRATION	0.04	0.04	0.06
STANDING CHARGES	0.24	0.15	0.16
	<hr/>		
	2.24	1.52	1.53
Less			
OTHER INCOME	0.23	0.07	0.09
LIVESTOCK CASH INCOME	0.00	0.00	0.00
	<hr/>		
	2.02	1.46	1.44
Plus			
INTEREST & LEASE CHARGES	0.78	0.64	0.60
PRINCIPAL	0.17	0.27	0.02
DRAWINGS	0.28	0.28	0.68
TAX	0.07	0.24	0.22
NET CAPITAL REPLACEMENT	0.10	0.08	0.04
	<hr/>		
<u>NET FARM COSTS</u>	3.43	2.97	3.00
BREAKDOWN OF FARM WORKING COSTS:			
<u>VARIABLE COSTS:</u>			
FERTILISER & SPREADING/HA	299.92	282.13	367.88
REPAIRS & MAINTENANCE/HA	501.05	323.59	388.38
NITROGEN/HA	54.53	50.20	44.98
<u>SEMI-VARIABLE COSTS:</u>			
ANIMAL HEALTH/COW	0.76	0.02	0.12
BREEDING/COW	0.00	0.00	0.00
CALF REARING/COW	1.77	1.36	0.21
HERD TESTING/COW	0.00	0.00	0.00
BROUGHT IN FEED/COW	218.18	244.59	283.17
CONCENTRATES/COW	30.15	0.00	38.93
CROPPING EXPENSES/COW	40.81	17.50	9.44
GRASS SILAGE/COW	28.62	4.48	42.61
GRAZING CALVES/COW	8.33	3.70	10.48
GRAZING HEIFERS/COW	25.17	53.27	44.06
GRAZING COWS/COW	18.87	0.00	26.14
GRAZING LAND/COW	7.68	0.00	0.00
HAY/COW	1.29	3.64	6.97
MAIZE/COW	22.05	27.17	7.03
NITROGEN/COW	22.47	17.40	14.12
OTHER BROUGHT IN FEED/SQUASH ETC	35.20	133.84	94.66
HARVESTING/COW	6.51	4.03	19.01
PASTURE RENOVATION	38.88	26.98	18.59
WEED & PEST CONTROL/HA	7.23	29.14	11.73
VEHICLE EXPENSES/HA	38.74	75.20	23.79
WAGES/CONTRACT MILKING/COW	17.70	0.49	9.03
<u>FIXED COSTS:</u>			
FARM POWER/COW	1.23	0.50	0.03
SHED EXPENSES/COW	4.98	4.18	14.29
DRAWINGS			
	24542	47299	58376

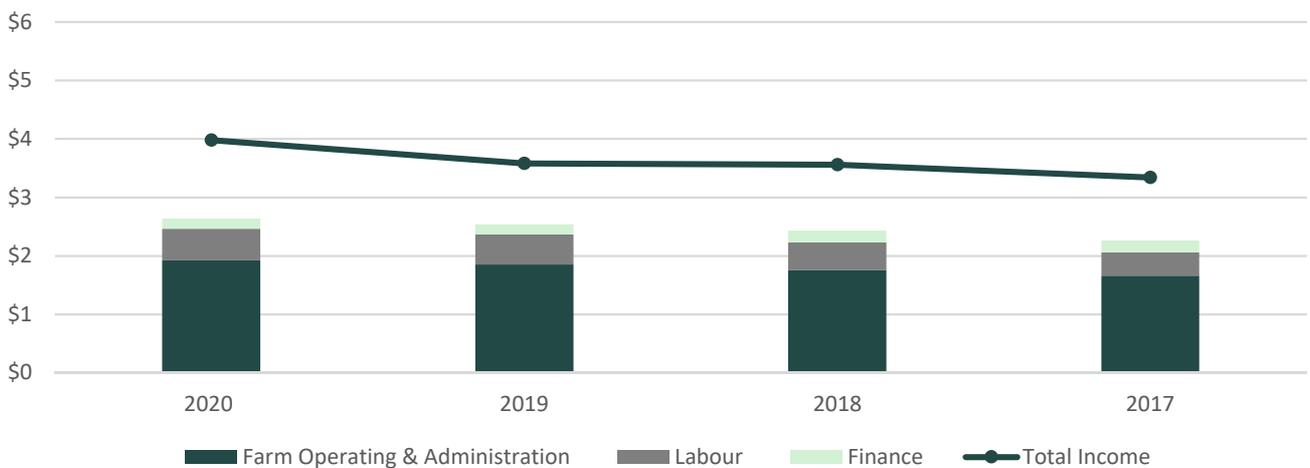
Practice Averages for Farm Owners



Practice Averages for Farm Owners with Sharemilkers



Practice Averages for Sharemilkers



DAIRY BASE EFS BENCHMARKS

(for the 2019/2020 season)

When comparing your results to Dairy Base please be aware there are different assumptions made and calculations used to arrive at the EFS and Operating Costs/Kg MS.

The key difference in the EFS calculation reported in our statistics and those calculated by Dairy Base is the treatment of livestock. In our statistics we make an allowance for changes in market value and numbers whereas Dairy Base only calculate the change in the value of the stock.

When calculating the Operating Costs/Kg MS Dairy Base includes the management salary expense (based on "unpaid" labour utilised in the farming operation) and the depreciation expense.

FARM OWNERS – Operating Costs based on region

	Operating Costs/Kg MS	EFS/Ha
New Zealand Average	\$5.35	\$2,819
Waikato	\$5.46	\$2,669
Canterbury	\$5.06	\$4,068
Southland	\$5.26	\$2,939

FARM OWNERS – Operating Costs based on production system

	Operating Costs/Kg MS	EFS/Ha
System 1	\$5.35	\$2,037
System 2	\$5.48	\$1,944
System 3	\$5.31	\$2,579
System 4	\$5.31	\$3,313
System 5	\$5.48	\$3,810

SHAREMILKERS – Operating Costs based on region

	Operating Costs/Kg MS	EFS/Ha
New Zealand Average	\$3.11	\$1,166
Waikato	\$3.13	\$978

Regions

Waikato
Canterbury
Southland

South of Auckland to Taupo incl. Waipa, Waitomo & Otorahanga
Timaru, Ashburton, Kaiapoi, Culverden
Southland, Invercargill, Gore, Balclutha