



DAIRY FARM SURVEY

For the 2018/2019 Season



GRAHAM BROWN & CO
CHARTERED ACCOUNTANTS

**Great with numbers.
Even better with people.**

AN ECONOMIC SURVEY OF

FACTORY SUPPLY DAIRY FARMERS

FOR THE 2018/2019 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 2018/2019 season for Farm Owners in Waikato, Canterbury and Southland and Sharemilkers in Waikato, Canterbury and the South Island regions. We have also provided from Dairybase a comparison of the profitability of the various production systems for the 2018/2019 season.

We encourage you to compare your results with these benchmarks.

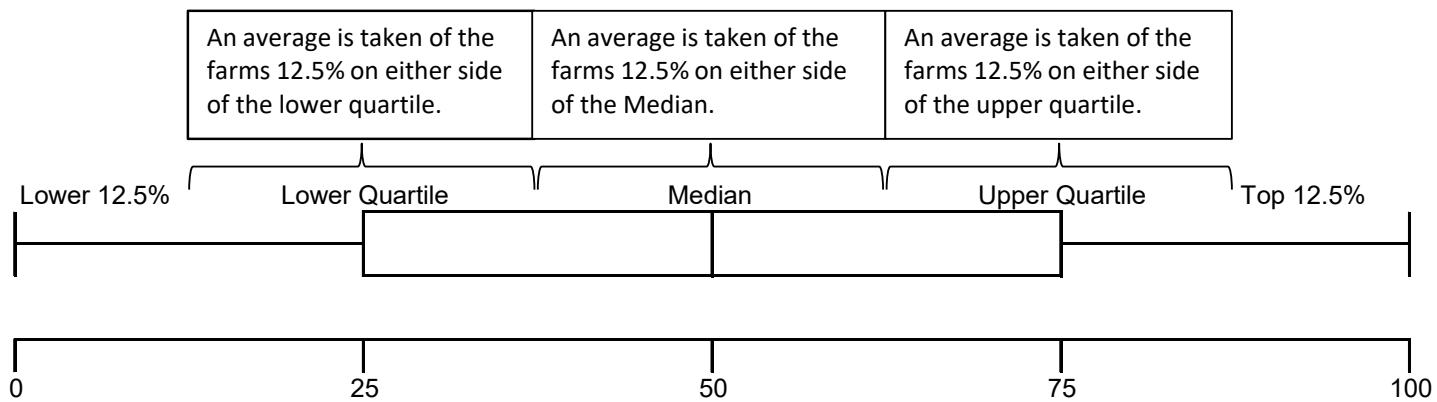
If you want more detail regarding Dairy Base reporting please contact us.

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 2018-2019 YEAR

FARM OWNERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE	AVERAGE OF TOP 10%
BASIC DATA				
EFFECTIVE HA's	158	165	211	224
COWS AS AT 31st October	447	478	694	802
PRODUCTION				
TOTAL MILK SOLIDS				
KG's/HA	1127	1157	1484	1743
KG's/COW	396	409	470	491
INCOME/HA				
TOTAL SOLIDS	6753.95	7211.95	9046.77	11470.13
OTHER INCOME	104.42	191.93	200.00	160.38
LIVESTOCK INCOME				
- CASH	539.95	437.07	751.68	664.54
- NUMBER CHANGE	-12.50	113.46	44.16	203.45
TOTAL INCOME/HA	7385.82	7954.41	10042.61	12498.51
COSTS/HA				
FARM WORKING	3998.00	3765.78	4695.10	5440.26
LABOUR	625.43	634.95	1075.94	1081.24
FINANCIAL EXPENSES	1378.48	1706.07	1589.39	2105.55
ADMINISTRATION	360.11	330.62	326.24	391.12
EXPENSES/HA	6362.02	6437.43	7686.68	9018.17
FARM SURPLUS/HA	1023.79	1516.98	2355.93	3480.34
ECONOMIC FARM SURPLUS				
ADJUSTMENT/HA				
INTEREST & LEASE CHARGES	1375.27	1705.46	1589.37	2104.30
INCREASE IN FEED ON HAND	0.00	2.93	0.00	0.00
EXTRAORDINARY EXPENSES	0.14	0.00	0.00	50.00
Less				
Managerial Salary & Unpaid Labour/Ha	336.00	390.67	239.88	176.03
Decrease in Feed on Hand	0.00	0.00	0.00	0.00
Depreciation	432.39	373.20	435.61	686.44
Runoff Rental	26.92	12.64	11.85	41.87
ECONOMIC FARM SURPLUS/HA	1603.90	2448.86	3257.96	4730.31
Return on Dairy Assets (Plant at Opening Book, Stock at Opening MV, Land, Building & Shares at MV)	3.09%	4.98%	5.24%	5.79%
RATIOS				
Term Debt & OD/Total Assets	0.53	0.51	0.53	0.56
Interest Cover (Farm Cash Surplus <i>before</i> Interest, Lease & Long-term grazing <i>less</i> Tax & Drawings/Interest, Lease & Long Term Grazing)	1.26	1.24	1.66	1.98

STATISTICS 2018-2019 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	3.52	3.21	3.16	3.08
LABOUR	0.55	0.53	0.71	0.62
ADMINISTRATION	0.10	0.08	0.07	0.08
STANDING CHARGES	0.22	0.22	0.15	0.15
	4.39	4.02	4.09	3.93
Less				
OTHER INCOME	0.12	0.25	0.16	0.19
LIVESTOCK CASH INCOME	0.48	0.39	0.50	0.36
	3.78	3.39	3.42	3.39
Plus				
INTEREST & LEASE CHARGES	1.24	1.50	1.12	1.23
PRINCIPAL	0.52	0.24	0.43	0.22
DRAWINGS	0.61	0.69	0.54	0.35
TAX	0.04	0.14	0.22	0.36
NET CAPITAL REPLACEMENT	0.63	0.19	0.13	0.20
<u>NET FARM COSTS</u>	6.81	6.15	5.86	5.75
BREAKDOWN OF FARM WORKING COSTS:				
<u>VARIABLE COSTS:</u>				
FERTILISER & SPREADING/HA	475.18	448.30	512.62	466.79
REPAIRS & MAINTENANCE/HA	495.62	404.63	508.34	463.40
NITROGEN/HA	94.08	70.70	99.01	123.24
<u>SEMI-VARIABLE COSTS:</u>				
ANIMAL HEALTH/COW	126.67	98.74	105.03	120.07
BREEDING/COW	56.09	47.01	48.30	53.20
CALF REARING/COW	23.80	25.54	23.53	22.17
HERD TESTING/COW	4.84	4.21	3.88	3.58
BROUGHT IN FEED/COW	552.32	564.41	717.11	793.90
CONCENTRATES/COW	86.64	64.78	179.73	122.58
CROPPING EXPENSES/COW	44.44	25.02	47.44	41.70
GRASS SILAGE/COW	41.77	37.52	18.02	28.53
GRAZING CALVES/COW	11.28	8.27	18.75	30.60
GRAZING HEIFERS/COW	76.76	81.76	89.41	94.61
GRAZING COWS/COW	15.52	18.78	25.92	42.48
GRAZING LAND/COW	4.46	7.62	9.80	0.02
HAY/COW	6.33	18.89	11.02	8.00
MAIZE/COW	62.33	76.39	79.03	98.25
NITROGEN/COW	32.78	25.68	30.78	33.86
MEAL/PALM KERNEL/GRAIN ETC	202.21	224.23	225.22	300.91
HARVESTING/COW	46.29	34.47	45.51	34.87
PASTURE RENOVATION	75.38	54.84	74.23	42.61
WEED & PEST CONTROL/HA	38.04	32.42	27.68	21.39
VEHICLE EXPENSES/HA	256.09	232.21	231.63	215.90
WAGES/CONTRACT MILKING/COW	219.00	217.18	336.34	299.30
WAGES/CONTRACT MILKING & MANAGERIAL	337.64	357.85	415.69	351.90
SALARY/COW	0.00	0.00	0.00	0.00
<u>FIXED COSTS:</u>				
FARM POWER/COW	35.92	44.29	30.29	37.54
SHED EXPENSES/COW	23.17	30.95	28.60	23.86
DRAWINGS	88495	128208	140314	105396

STATISTICS 2018-2019 YEAR

SHAREMILKERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE	AVERAGE OF Top 10%
<u>BASIC DATA</u>				
EFFECTIVE HA's COWS AS AT 31st October	194 537	145 397	202 626	148 477
<u>PRODUCTION</u>				
TOTAL MILK SOLIDS KG's/HA KG's/COW	1197 436	1008 351	1307 410	1520 478
<u>INCOME/HA</u>				
TOTAL SOLIDS	3341.40	3308.71	4205.64	4522.11
OTHER INCOME	66.65	59.80	43.71	210.85
LIVESTOCK INCOME - CASH - NUMBER CHANGE	396.10 -22.71	436.29 116.65	555.65 27.96	851.70 119.35
<u>TOTAL INCOME/HA</u>	3781.44	3921.44	4832.96	5704.02
<u>COSTS/HA</u>				
FARM WORKING	1840.65	1821.55	2262.52	2624.56
LABOUR	770.32	531.93	696.03	412.12
FINANCIAL EXPENSES	168.41	192.41	204.07	224.63
ADMINISTRATION	117.05	152.81	120.77	114.49
<u>EXPENSES/HA</u>	2896.43	2698.70	3283.39	3375.80
<u>FARM SURPLUS/HA</u>	885.02	1222.74	1549.56	2328.22
<u>ECONOMIC FARM SURPLUS</u>				
<u>ADJUSTMENT/HA</u>				
INTEREST & LEASE CHARGES	167.89	191.68	203.57	224.63
INCREASE IN FEED ON HAND	0.00	0.00	0.00	0.00
EXTRAORDINARY EXPENSES	0.00	0.00	79.61	0.00
<u>Less</u>				
Managerial Salary & Unpaid Labour/Ha	371.98	421.89	314.07	385.03
Decrease in Feed	0.00	0.00	0.00	0.00
Depreciation	183.33	199.38	146.39	167.09
Runoff Rental	0.00	0.00	0.00	0.00
<u>ECONOMIC FARM SURPLUS/HA</u>	497.59	793.15	1372.28	2000.74
Return on Dairy Assets (Plant at Opening Book, Stock at Opening MV, Shares at MV)	10.15%	12.68%	19.63%	26.13%
<u>RATIOS</u>				
Term Debt & OD/Total Assets	0.43	0.39	0.34	0.36
Interest Cover (Farm Cash Surplus <i>before</i> Interest, Lease & Long-term Grazing <i>less</i> Tax & Drawings/Interest, Lease & Long Term Grazing)	2.21	2.03	2.49	3.08

STATISTICS 2018-2019 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	1.63	1.80	1.70	1.72
LABOUR	0.62	0.51	0.51	0.27
ADMINISTRATION	0.06	0.11	0.07	0.05
STANDING CHARGES	0.03	0.04	0.03	0.03
	2.34	2.46	2.31	2.08
Less				
OTHER INCOME	0.05	0.07	0.04	0.23
LIVESTOCK CASH INCOME	0.35	0.43	0.45	0.59
	1.94	1.95	1.81	1.25
Plus				
INTEREST & LEASE CHARGES	0.16	0.21	0.16	0.14
PRINCIPAL	0.33	0.21	0.43	0.15
DRAWINGS	0.38	0.62	0.45	0.45
TAX	0.03	0.02	0.19	0.25
NET CAPITAL REPLACEMENT	0.16	0.18	-0.03	1.18
<u>NET FARM COSTS</u>	3.01	3.20	3.01	3.42
BREAKDOWN OF FARM WORKING COSTS:				
<u>VARIABLE COSTS:</u>				
FERTILISER & SPREADING/HA	80.62	63.61	37.15	78.39
REPAIRS & MAINTENANCE/HA	74.87	80.18	70.51	79.15
NITROGEN/HA	43.73	53.72	85.42	114.78
<u>SEMI-VARIABLE COSTS:</u>				
ANIMAL HEALTH/COW	105.60	91.66	79.49	123.67
BREEDING/COW	48.60	51.39	44.85	58.99
CALF REARING/COW	13.80	18.41	22.81	26.91
HERD TESTING/COW	4.94	8.44	6.91	6.09
BROUGHT IN FEED/COW	231.19	205.70	273.54	376.78
CONCENTRATES/COW	0.49	5.69	27.99	23.14
CROPPING EXPENSES/COW	14.43	7.37	9.36	35.86
GRASS SILAGE/COW	15.35	22.58	13.32	38.11
GRAZING CALVES/COW	13.43	13.39	14.31	32.83
GRAZING HEIFERS/COW	40.93	55.96	42.76	69.11
GRAZING COWS/COW	12.16	28.48	20.20	0.00
GRAZING LAND/COW	0.00	0.80	0.67	1.71
HAY/COW	12.40	2.00	6.83	5.28
MAIZE/COW	22.47	16.80	24.43	11.12
NITROGEN/COW	15.21	18.88	25.29	36.68
OTHER BROUGHT IN FEED/SQUASH ETC	99.54	48.48	113.65	159.61
HARVESTING/COW	10.97	34.78	27.16	26.80
PASTURE RENOVATION	14.81	20.03	15.77	1.61
WEED & PEST CONTROL/HA	5.79	6.15	6.78	15.50
VEHICLE EXPENSES/HA	204.61	215.01	194.79	201.79
WAGES/CONTRACT MILKING/COW	282.02	185.07	218.03	126.02
WAGES/CONTRACT MILKING & MANAGERIAL SALARY/COW	415.87	331.40	314.23	246.03
<u>FIXED COSTS:</u>				
FARM POWER/COW	53.99	35.73	33.20	31.12
SHED EXPENSES/COW	19.86	15.64	14.07	11.04
DRAWINGS	68772	58006	101022	71937

STATISTICS 2018-2019 YEAR

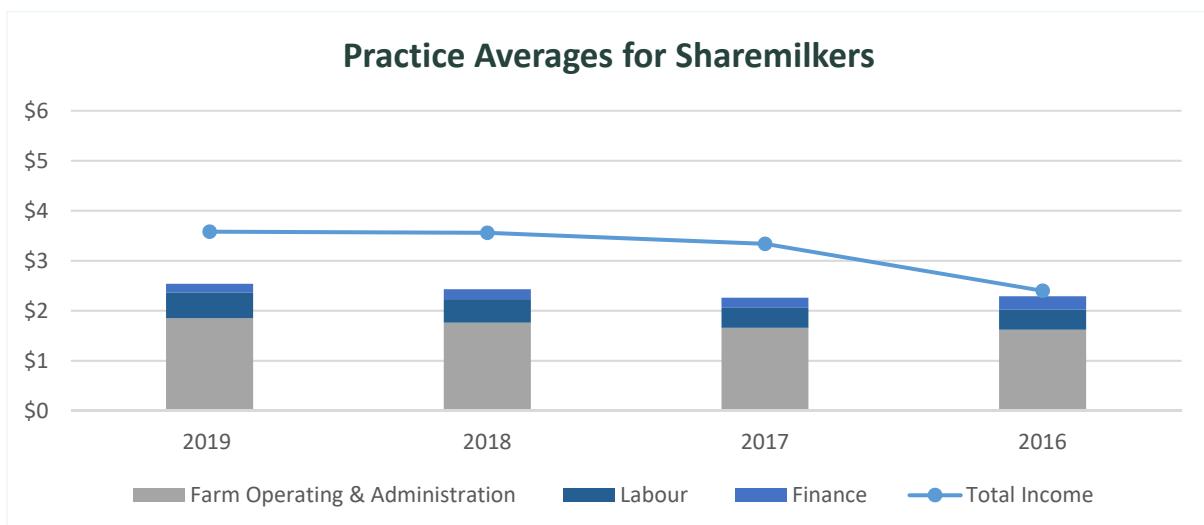
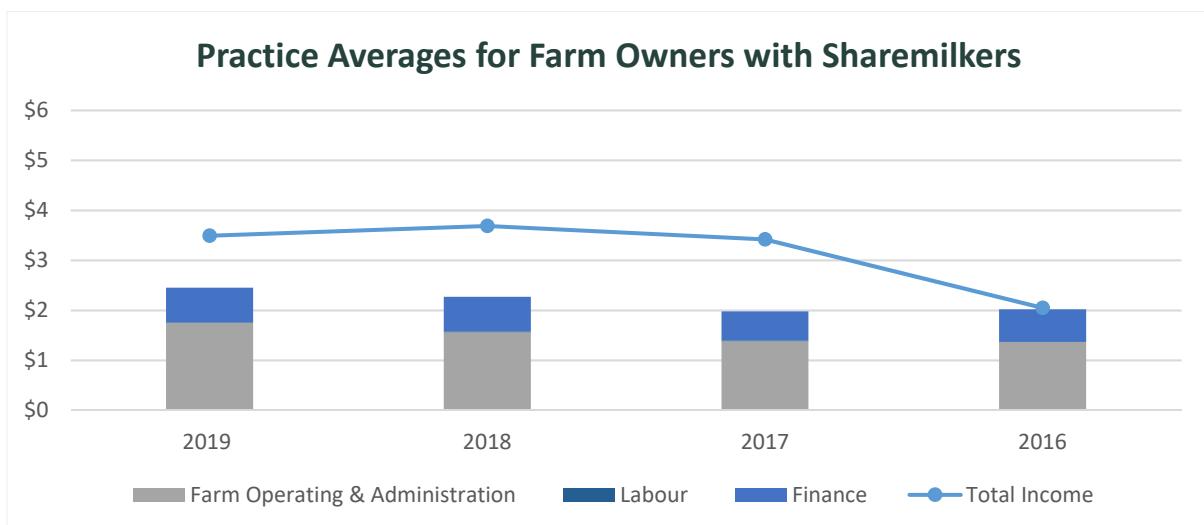
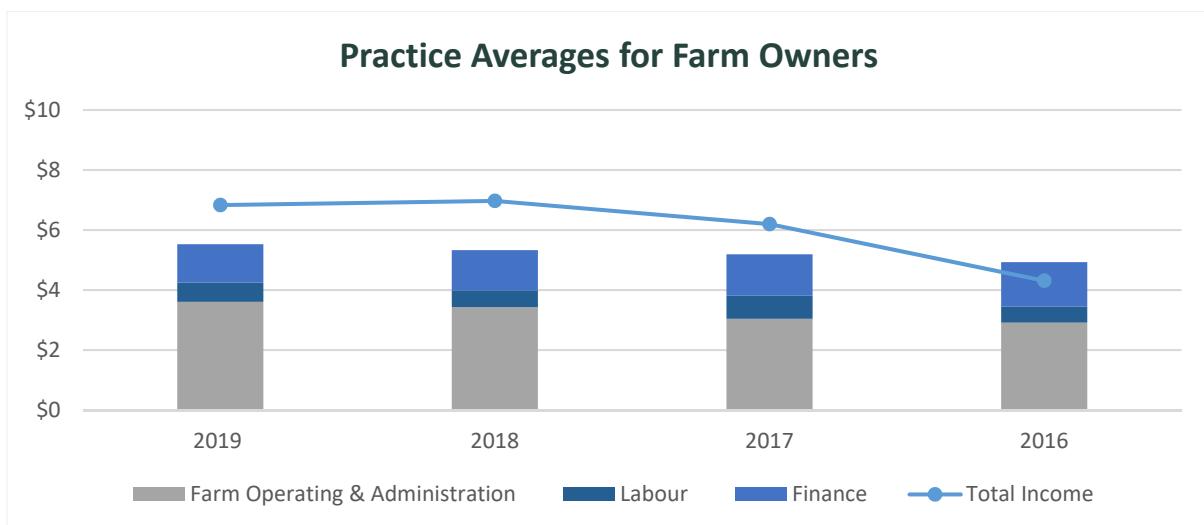
FARM OWNERS WITH SHAREMILKERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE
BASIC DATA			
EFFECTIVE HA's	218.67	188.50	114.67
COWS AS AT 31st October	603	543	366
PRODUCTION			
TOTAL MILK SOLIDS			
KG's/HA	1057.71	996.74	1201.34
KG's/COW	385	348	375
INCOME/HA			
TOTAL SOLIDS	3475.04	3213.60	3845.08
OTHER INCOME	55.07	374.80	149.64
LIVESTOCK INCOME			
- CASH	0.00	22.09	0.00
- NUMBER CHANGE	0.00	-24.77	0.00
TOTAL INCOME/HA	3530.11	3585.73	3994.72
COSTS/HA			
FARM WORKING	1623.80	1300.37	1491.63
LABOUR	0.00	0.00	9.01
FINANCIAL EXPENSES	405.17	806.82	667.19
ADMINISTRATION	276.61	279.30	290.64
EXPENSES/HA	2305.58	2386.49	2458.47
FARM SURPLUS/HA	1224.53	1199.24	1536.24
ECONOMIC FARM SURPLUS/HA			
ADJUSTMENT/HA			
INTEREST & LEASE CHARGES	404.71	807.18	667.19
INCREASE IN FEED ON HAND	0.00	0.00	0.00
EXTRAORDINARY EXPENSES	0.00	0.00	0.00
Less			
Decrease in Feed	0.00	0.00	0.00
Depreciation	338.53	280.59	154.53
Runoff Rental	0.00	0.00	26.01
ECONOMIC FARM SURPLUS/HA	1290.70	1725.83	2022.90
Return on Dairy Assets (Plant at Opening Book, Land, Building & Shares at MV)	1.85%	3.53%	3.77%
RATIOS			
Term Debt & OD/Total Assets	0.20	0.36	0.19
Interest Cover (Farm Cash Surplus <i>before</i> Interest, Lease & Long-term Grazing <i>less</i> Tax & Drawings/Interest, Lease & Long Term Grazing)	0.98	0.91	2.39

STATISTICS 2018-2019 YEAR

FARM OWNERS WITH SHAREMILKERS

	AVERAGE Around LOWER QUARTILE	AVERAGE Around MEDIAN	AVERAGE Around UPPER QUARTILE
ANALYSIS/KG OF MILKSOLIDS			
EXPENSES:			
FARM WORKING	1.50	1.29	1.23
LABOUR	0.00	0.00	0.01
ADMINISTRATION	0.09	0.06	0.07
STANDING CHARGES	0.16	0.24	0.17
	1.76	1.58	1.47
Less			
OTHER INCOME	0.09	0.62	0.17
LIVESTOCK CASH INCOME	0.00	0.04	0.00
	1.67	0.94	1.30
Plus			
INTEREST & LEASE CHARGES	0.37	0.84	0.53
PRINCIPAL	0.42	0.66	0.25
DRAWINGS	0.26	0.42	0.42
TAX	0.17	0.24	0.14
NET CAPITAL REPLACEMENT	0.21	0.16	0.11
NET FARM COSTS	3.10	3.25	2.74
BREAKDOWN OF FARM WORKING COSTS:			
VARIABLE COSTS:			
FERTILISER & SPREADING/HA	344.69	374.70	212.77
REPAIRS & MAINTENANCE/HA	364.67	329.88	317.05
NITROGEN/HA	26.15	26.02	74.60
SEMI-VARIABLE COSTS:			
ANIMAL HEALTH/COW	0.30	0.49	0.40
BREEDING/COW	0.00	0.00	0.00
CALF REARING/COW	3.40	1.91	0.21
HERD TESTING/COW	0.00	0.00	0.00
BROUGHT IN FEED/COW	244.57	138.11	217.52
CONCENTRATES/COW	0.00	0.00	32.55
CROPPING EXPENSES/COW	4.05	1.83	18.13
GRASS SILAGE/COW	10.69	6.90	11.31
GRAZING CALVES/COW	1.93	5.09	8.19
GRAZING HEIFERS/COW	30.65	19.96	39.44
GRAZING COWS/COW	0.00	18.92	0.00
GRAZING LAND/COW	24.65	8.73	0.00
HAY/COW	6.83	0.83	4.29
MAIZE/COW	31.41	15.44	13.63
NITROGEN/COW	9.63	9.33	22.44
OTHER BROUGHT IN FEED/SQUASH ETC	134.39	60.42	88.40
HARVESTING/COW	4.36	19.67	5.81
PASTURE RENOVATION	48.50	25.87	12.13
WEED & PEST CONTROL/HA	30.65	12.48	13.51
VEHICLE EXPENSES/HA	39.07	32.19	57.01
WAGES/CONTRACT MILKING/COW	15.28	0.00	3.19
FIXED COSTS:			
FARM POWER/COW	0.51	1.30	0.00
SHED EXPENSES/COW	0.77	3.88	16.00
DRAWINGS	37609.00	73057.83	69339.00



DAIRY BASE EFS BENCHMARKS

(for the 2018/2019 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	\$5.14	\$2,247
Waikato	\$5.30	\$2,141
Canterbury	\$4.89	\$3,204
Southland	\$4.96	\$2510

FARM OWNERS – Operating Costs based on production system

	Operating Costs/Kg MS	EFS/Ha
System 1	\$5.26	\$1,290
System 2	\$5.18	\$1,541
System 3	\$5.04	\$2,204
System 4	\$5.10	\$2,702
System 5	\$5.49	\$2,433

SHAREMILKERS – Operating Costs based on region

	Operating Costs/Kg MS	EFS/Ha
New Zealand Average	\$3.05	\$748
Waikato	\$3.08	\$645
Canterbury	\$3.00	\$1,198
Southland	\$2.97	\$778

Regions

Central North Island	South Waikato, Rotorua, Taupo
Bay of Plenty	Western BOP, Kawerau, Opotiki, Rotorua, Tauranga, Whakatane, Gisborne, Wairoa
Waikato	South of Auckland to Taupo incl. Waipa, Waitomo & Otorahanga
Canterbury	Timaru, Ashburton, Kaiapoi, Culverden
Southland	Southland, Invercargill, Gore, Balclutha
South Island	All South Island Council Regions