

Farm statistical survey 2018

Dairy Owner/Operator – Irrigated

2018 Farm statistical survey

Produced by [Alexanders](#) in association
with [Brown Glassford](#)

Background

- The survey data has been taken from the two Practices' clients' actual Financial Statements for the 2018 year. As in previous years, we have combined the survey so that all farm sector groups have a reasonably sound sample size.
- All financial data is GST exclusive.
- Most of the balance dates are 31/3/2018, 31/5/2018 or 30/6/2018.
- The averages referred to are per farm and as per that farm's actual Financial Statements for the 2018 year - the averages are not weighted averages which would produce slightly different data again – as a result of this there is some rounding of data.
- Benchmark. On the right hand side of each survey summary for each sector, we have shown the average figures for the top 10% based on the interest return on total farm capital employed. Figures in the right column are the average of those top farms for each statistic. We could have chosen other benchmarks or several benchmarks but the interest return on total farm capital employed means we can compare farmers with differing levels of debt, scale and production and also make a comparison between sectors. This approach also means we are looking at both the income and expense side of the equation, and the net farm profit, whereas some benchmarks and ratios look at specific areas and issues very well but many are only looking at one side of the equation. We readily acknowledge though that there could be other benchmark approaches equally meaningful.

Key statistics

| | Overall Average 2014 | Overall Average 2015 | Overall Average 2016 | Overall Average 2017 | Overall Average 2018 | Benchmark Group 2018 | Your Figures |
|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------|
| Average Cows Milked (ACM) | 1,072 | 1,092 | 978 | 1,019 | 1,061 | 820 | |
| Average Value of MS per Kg | \$7.68 | \$5.63 | \$3.85 | \$5.80 | \$6.65 | \$6.69 | |
| Milk Solids/ ACM (Kg) | 437 | 443 | 448 | 444 | 441 | 462 | |
| Milk Solids/ EGA (Kg) | 1545 | 1560 | 1557 | 1486 | 1,528 | 1,592 | |
| FWE per kg of MS | \$4.33 | \$4.19 | \$3.59 | \$3.78 | \$4.24 | \$3.81 | |
| Interest & Rent Paid per Kg MS | \$1.28 | \$1.36 | \$1.29 | \$1.35 | \$1.34 | \$1.06 | |
| Net Farm Profit (Loss) | \$910,833 | \$169,247 | (\$337,890) | \$365,146 | \$555,676 | \$768,804 | |
| Total Term Debt | \$8,984,329 | \$9,855,664 | \$9,583,996 | \$10,818,876 | \$10,280,128 | \$7,743,414 | |
| Total Cost of Production per Kg MS | \$6.04 | \$5.93 | \$5.18 | \$5.47 | \$5.85 | \$5.12 | |

Key features

1. Average cows milked - five year average at 1,044 head.
2. Milk solids production - five year average at 461,772 kg.
3. Milk solids per ACM - five year average at 443 kg.
4. Milk solids per EGA - five year average at 1,535 kg.
5. Animal health per ACM - five year average at \$97 ACM.
6. Repairs and maintenance per ACM - five year average at \$132 ACM.
7. Vehicle expenses and fuel - five year average at \$65 per ACM.
8. Personal drawings - five year average at \$81,099.
9. ACM per EGA - five year average at 3.48.
10. Average milk solids receipt - \$5.92, but enormous variation over the five years - \$7.68 per kg in 2014 and \$3.85 in 2016 - a variation of almost 100%.
11. FWE to GFI - a key figure with a five year average of 64.6% - it is difficult to get this figure now below 60%.
12. Interest and rent paid - five year average \$629,774 - interest and rent paid per kg/ms over the five years has averaged \$1.32 kg - big effect here with historically low interest rates over the last 10 years.
13. Net Farm Profit - a big farm to farm variation - five year average of \$332,602 - loss of (\$337,890) in 2016 year.
14. Net capital plant purchases - again a big farm to farm variation - the five year average has been \$164,997 which represents on average the equivalent of 27,871 kg of ms.
15. Term debt - five year average of \$9,904,598 - as a percentage of the total farm capital, this figure over the five years has averaged 49.4%.
16. GFI to plant ownership - five year average of 4.74% - again, a big variation from farm to farm.
17. Economic farm surplus per ha - five year average of \$3,189 - high in 2014 year, low in 2016 year - figure to head for is around \$4,500 per ha.
18. Total cost of production per kg/ms - five year average \$5.69 - this includes FWE, interest, rent and vehicles and plant depreciation, but no owner operator salaries - if you include the salaries, this figure would increase to around \$5.87 over the five years.

Areas the 10% group differ to the overall average group

This benchmark group has had better financial results in the main over the last five years due to:

1. Seemingly 800 cows being an optimal herd-size from the point of view of efficiency.
2. MS production per ACM and per EGA being slightly higher.
3. FWE per ACM and as a percentage of GFI always being lower - in the 2018 year lower by 43 cents per kg/ms and in the 2017 year by 36 cents.
4. The only individual expenses where this group is higher than the overall group is stock food where in the 2018 year it was higher by 9% and personal drawings higher by 10%.
5. Lower interest cost per kg/ms at \$1.06 - lower by 28%.
6. Much lower capital expenditure on plant - less scale is part of the answer but even per kg/ms they are much lower.
7. Much lower overall net equity than the average group - by some \$3,500,000 - surprisingly lower.
8. Overall a more efficient use of Total Farm Capital employed.
9. A higher economic farm surplus per kg/ms of around 74 cents over kg - 48 cents per kg in the 2017 year.
10. A higher interest return on Total Farm Capital employed at 7.2% but the overall group average of 5.4% is quite acceptable also in today's environment.

Average value of milk solids receipt was almost the same

\$6.65

overall

\$6.69

top 10%

Cost of production per kg/ms

\$5.85

overall

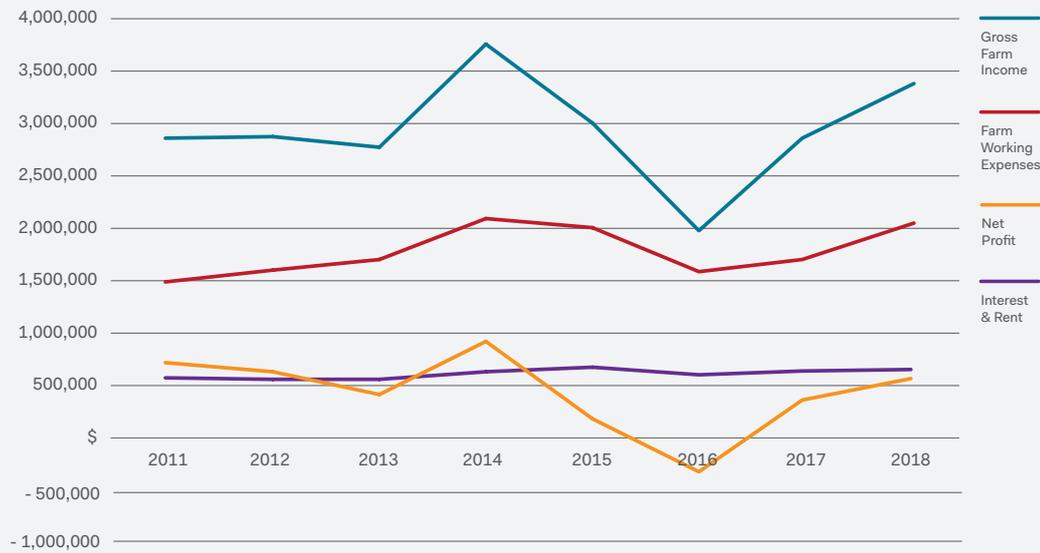
\$5.12

top 10%

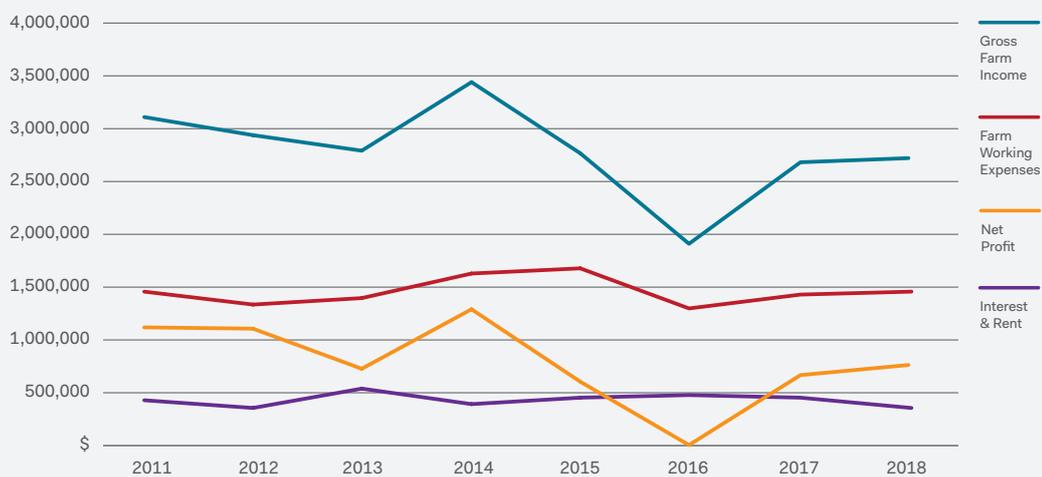
Survey

| | Overall Average 2014 | Overall Average 2015 | Overall Average 2016 | Overall Average 2017 | Overall Average 2018 | Benchmark Group 2018 | Your Figures |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------|
| Effective Grazing Area (Ha) (EGA) | 297 | 306 | 276 | 300 | 301 | 237 | |
| Average Cows Milked (ACM) | 1,072 | 1,092 | 978 | 1,019 | 1,061 | 820 | |
| ACM/EGA | 3.5 | 3.5 | 3.5 | 3.4 | 3.5 | 3.4 | |
| Milk Revenue | \$3,574,839 | \$2,773,556 | \$1,718,698 | \$2,617,946 | \$3,079,589 | \$2,532,118 | |
| Milk Solids Production (Kg) | 466,490 | 484,243 | 436,474 | 453,118 | 468,536 | 378,637 | |
| Average Value of Milk Solid Sales/Kg | \$7.68 | \$5.63 | \$3.85 | \$5.80 | \$6.65 | \$6.69 | |
| Milk Solid Revenue/ACM | \$3,358 | \$2,487 | \$1,727 | \$2,576 | \$2,903 | \$3,090 | |
| Milk Solid Revenue/EGA | \$11,849 | \$8,726 | \$5,978 | \$8,688 | \$10,047 | \$10,672 | |
| Milk Solids/ACM (Kg) | 437 | 443 | 448 | 444 | 441 | 462 | |
| Milk Solids/EGA (Kg) | 1,545 | 1,560 | 1,557 | 1,486 | 1,528 | 1,592 | |
| Milk Solids as a % of GFI | 94.2% | 91.4% | 87.7% | 91.5% | 92.1% | 93.2% | |
| Gross Farm Income (GFI) | \$3,776,554 | \$3,019,471 | \$1,972,820 | \$2,856,235 | \$3,353,269 | \$2,714,001 | |
| Farm Working Expenses (FWE) | \$2,098,981 | \$2,004,222 | \$1,592,845 | \$1,718,323 | \$2,006,183 | \$1,451,511 | |
| FWE as a % of GFI | 54.1% | 68.0% | 81.6% | 60.0% | 59.3% | 53.2% | |
| FWE/ACM | \$1,935 | \$1,845 | \$1,609 | \$1,682 | \$1,868 | \$1,771 | |
| FWE/Kg of Milk Solids | \$4.33 | \$4.19 | \$3.59 | \$3.78 | \$4.24 | \$3.81 | |
| Wages/ACM | \$272 | \$291 | \$300 | \$288 | \$307 | \$296 | |
| Animal Health/ACM | \$106 | \$96 | \$85 | \$95 | \$102 | \$84 | |
| Livestock Improvement/ACM | \$55 | \$54 | \$48 | \$51 | \$59 | \$60 | |
| Stockfood/ACM | \$670 | \$615 | \$497 | \$470 | \$586 | \$639 | |
| Fertiliser/ACM | \$235 | \$219 | \$188 | \$194 | \$190 | \$152 | |
| R & M/ACM | \$149 | \$138 | \$102 | \$118 | \$154 | \$145 | |
| Vehicle Expenses & Fuel/ACM | \$75 | \$62 | \$58 | \$66 | \$64 | \$46 | |
| Dairy Shed Expenses/ACM | \$21 | \$17 | \$18 | \$23 | \$23 | \$17 | |
| Interest & Rent Paid | \$624,795 | \$660,916 | \$590,603 | \$627,270 | \$645,285 | \$391,280 | |
| Interest & Rent Paid as a % of GFI | 15.7% | 22.0% | 29.4% | 21.4% | 18.6% | 14.7% | |
| Interest & Rent Paid/Kg MS | \$1.28 | \$1.36 | \$1.29 | \$1.35 | \$1.34 | \$1.06 | |
| Cost of Prodn/Kg MS (excl Interest & Rent) | \$4.76 | \$4.59 | \$3.89 | \$4.12 | \$4.51 | \$4.06 | |
| Net Farm Profit | \$910,833 | \$169,247 | (\$337,890) | \$365,146 | \$555,676 | \$768,804 | |
| Net Farm Profit as a % of GFI | 26.2% | 6.3% | (17.9%) | 13.3% | 18.3% | 28.7% | |
| Net Plant Purchases | \$219,788 | \$187,996 | \$124,232 | \$131,730 | \$161,241 | \$81,883 | |
| Personal Drawings/Family (excl Allowances) | \$87,358 | \$68,617 | \$72,980 | \$90,475 | \$86,067 | \$94,297 | |
| Est Total Farm Capital (TFC) | \$19,738,243 | \$19,625,817 | \$17,732,007 | \$20,229,820 | \$20,656,430 | \$14,578,774 | |
| Est TFC/Kg Milk Solids | \$43.87 | \$42.02 | \$41.72 | \$45.84 | \$43.70 | \$39.41 | |
| Est TFC/Ha | \$66,045 | \$63,367 | \$63,200 | \$64,108 | \$66,719 | \$61,929 | |
| Est Interest on TFC | 7.3% | 3.5% | 3.5% | 4.1% | 5.4% | 7.2% | |
| Total Term Debt | \$8,984,329 | \$9,855,664 | \$9,583,996 | \$10,818,876 | \$10,280,128 | \$7,743,414 | |
| Term Debt as % TFC | 42.0% | 46.7% | 52.3% | 52.7% | 53.5% | 53.9% | |
| GFI to Plant Ownership Ratio | 6.2 | 4.7 | 3.1 | 4.4 | 5.3 | 7.8 | |
| Earnings Before Interest, Rent & Tax (EBIT) | \$1,535,072 | \$827,483 | \$250,345 | \$991,272 | \$1,200,960 | \$1,160,084 | |
| EBIT/ACM | \$1,494 | \$710 | \$241 | \$976 | \$1,170 | \$1,428 | |
| EBIT/EGA | \$5,294 | \$2,526 | \$827 | \$3,262 | \$4,035 | \$4,919 | |
| EBIT/Kg Milk Solids | \$3.41 | \$1.59 | \$0.53 | \$2.19 | \$2.66 | \$3.11 | |
| Net Profit/Kg Milk Solids | \$2.14 | \$0.25 | (\$0.75) | \$0.85 | \$1.32 | \$2.06 | |
| Total Cost of Production/Kg MS | \$6.04 | \$5.93 | \$5.18 | \$5.47 | \$5.85 | \$5.12 | |
| MS Margin over and above MS Payout /Kg MS | \$1.65 | \$0.71 | (\$1.33) | \$0.33 | \$0.55 | \$1.57 | |
| "Misery Index" | 70% | 80% | 111% | 81% | 78% | 68% | |

Average GFI, FWE, Interest + Rent & Net Profit 2011-2018



Benchmark GFI, FWE, Interest + Rent & Net Profit 2011-2018



Interest/Rent paid per kg/ms

\$1.34 **\$1.06**

overall

top 10%

Farm working expenses per kg/ms

\$4.24 **\$3.81**

overall

top 10%

Glossary

| | |
|---|---|
| SU | Stock Units (or Ewe Equivalents). |
| GFI | Gross Farm Income. |
| FWE | Farm Working Expenses. |
| Personal Drawings (excluding allowances) | Personal Drawings but excluding: <ul style="list-style-type: none">Life AssurancePersonal InsurancesSuperannuationTaxationPersonal Insurance, Electricity & Car AllowancesSchool FeesHealth & Sickness InsurancePersonal ACC Levies. |
| Net Plant Purchases | Gross Capital Plant Purchases less Capital Plant Sales/Trade-ins. |
| TFC | Estimated Total Farm Capital Employed in the farming operation in the form of Land, Stock & All Plant (+ Dairy Shares where relevant). |
| EGA | Effective Grazing or Milking Area (in hectares). |
| ACM | Average Cows Milked (usually taken at or around early to mid January each year). |
| MS (kg) | Milk Solids (kg) . |
| EBIT | Gross Earnings before interest and tax = Gross Farm Income less all expenses except Interest and/or Rent and Income Tax. |
| Net Farm Profit | True Net Farm Profit (calculated after allowing for and adjusting for any livestock number and class number changes and being reflected at the current year's Herd Scheme Values and after deducting FWE, interest, rent and depreciation). |
| GFI to Plant Ownership | The relationship of the Gross Farm Income to the book value of plant at year's end. The lower the number the more the exercise has excess plant or insufficient GFI or a combination of the two. |
| Total Term Debt | Includes all external debt and family debt. Some family debt may involve a low to nil interest cost. |
| Interest Earned on Total Farm Capital Employed (TFC) | The net farm profit plus added back interest and/or rent paid less a wages of management figure for one or both spouses as is appropriate, divided by the estimated value of the total assets employed re land, buildings, stock and plant. Where land is rented from external parties its value in general is not included in the TFC. |
| Farm Sector Groups | It is fair comment that some farms could fit either in whole or in part into several different farm sector groups but this would generally only apply to about 5% of the total. The comment applies to several downlands and several hill country farms. |
| 'Misery Index' | The sum of the FWE to GFI ratio and the interest and/or rent paid to GFI ratio. Where the sum is above 80% unless the scale is significant it almost invariably means trouble because it could well mean that more than one key benchmark is being broken at any one point in time. |
| BG | Benchmark Group. |

Alexanders

Accountancy & Advice for Agribusiness

Pita Alexander

pita@alexanders.net.nz
021 465 426
03 364 9330

Paul Alexander

paul@alexanders.net.nz
021 364 933

Alister Stevenson

alister@alexanders.net.nz
021 843 820
03 364 9332

Karen Prue

karen@alexanders.net.nz
027 535 3191
03 364 9344

03 365 8400
admin@alexanders.net.nz

PO Box 5394
Papanui,
Christchurch, 8542

alexanders.net.nz