

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

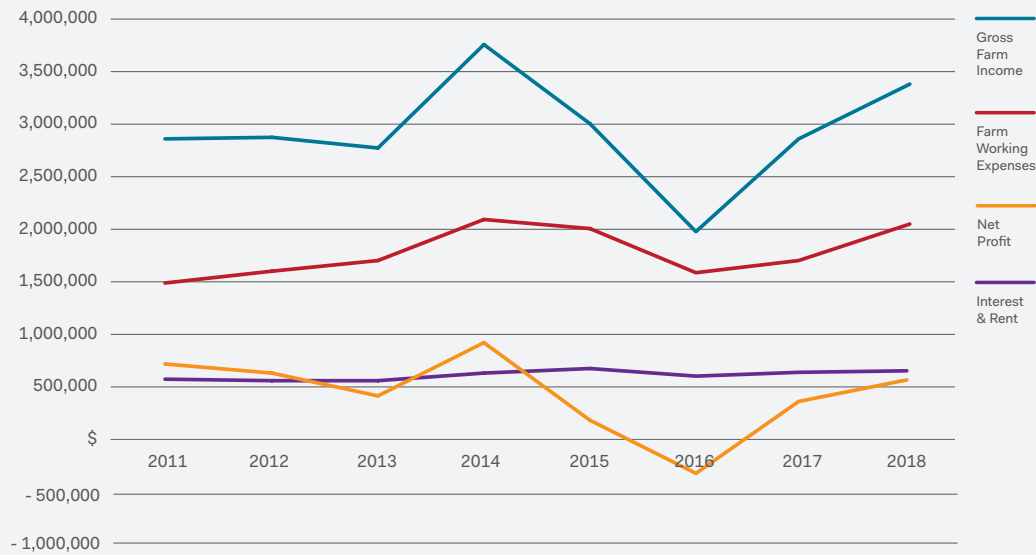
\$5.12

top 10%

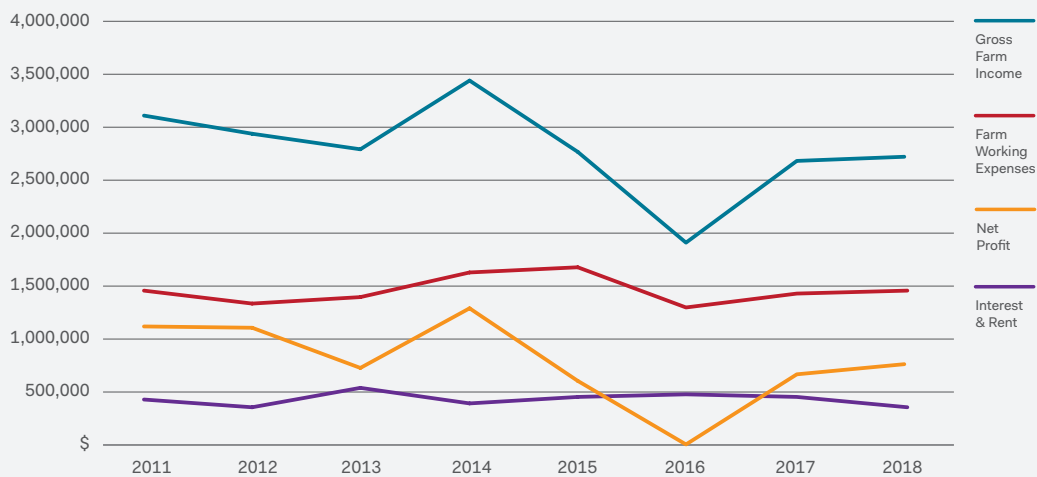
Survey

	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 overall
\$1.06 top 10%

Farm working expenses per kg/ms

\$4.24 overall
\$3.81 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.

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