

Farm statistical survey 2020

Dairy Owner/Operator – Non Irrigated

2020 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 2020 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 31/3/2020, 31/5/2020 or 30/6/2020.
- The averages referred to are per farm and as per that farm's actual Financial Statements for the 2020 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 2016	Overall Average 2017	Overall Average 2018	Overall Average 2019	Overall Average 2020	Benchmark Group 2020	Your Figures
Average Cows Milked (ACM)	510	506	480	473	490	497	
Average Value of Milk Solid Sales (Kg)	\$3.83	\$5.12	\$6.23	\$5.86	\$6.95	\$6.96	
Milk Solids/ ACM (kg)	391	389	395	395	402	399	
Milk Solids/ EGA (kg)	923	921	950	920	1155	1190	
FWE per kg of Milk Solids	\$3.33	\$3.76	\$4.01	\$4.18	\$4.66	\$4.17	
Interest & Rent Paid/KG MS	\$1.22	\$1.24	\$1.11	\$1.04	\$0.92	\$0.81	
Net Farm Profit (Loss)	(\$126,472)	\$50,576	\$212,249	\$182,402	\$322,907	\$373,301	
Total Term Debt	\$4,055,210	\$3,959,073	\$3,829,608	\$3,510,589	\$3,570,112	\$1,901,916	
Total Cost of Production/Kg	\$4.80	\$5.34	\$5.38	\$5.52	\$5.88	\$5.09	

Key features

1. Average cows milked (ACM) over the five years – 492.
2. Average milk solids production over the five years – 194,264 kg.
3. Average milk solids payout over the five years – \$5.60/kg.
4. Average milk solids production for average cows milked over the five years – 394 kg.
5. Average milk solids production for effective grazing area over the five years – 974 kg.
6. Average gross farm income (GFI) over the five years – \$1,190,267.
7. Average farm working expenses (FWE) over the five years – \$782,597.
8. Average farm working expenses for kg/ms over the five years – \$3.99/kg.
9. Average interest and rent paid over the five years – \$226,113.
10. Average interest and rent paid for kg/ms over the five years – \$1.11/kg.
11. Average net farm profit over the five years – \$128,332 (Note 1).
12. Average net capital plant purchases over the five years – \$57,014.
13. Average total farm capital employed over the five years – \$7,885,773.
14. Average total term debt over the five years – \$3,784,918.
15. Average total cost of production over the five years – \$5.38/kg/ms.

Note:

1. The average (loss) in the 2016 year was (\$126,472) – if this loss is excluded the average net profit for the four following years was \$192,034.

Key features

When does the benchmark group differ from the 2020 year averages?

1. Slightly higher average cows milked per effective grazing area – 7% higher.
2. Slightly higher production for effective grazing area by 35 kg – 3% higher.
3. Lower farm working expenses for kg/ms by 49 cents/kg – 10.5% lower.
4. Lower interest and rent payments per kg/ms by 11 cents/kg – 12% lower.
5. Lower TFC by \$1,772,703 – 23% lower.
6. Lower total farm debt by \$1,668,196 – 46.7% lower.
7. Higher net farm profit by \$50,394 – 15.6% higher.
8. Lower total cost of production per kg/ms by 79 cents – 13.4% lower.

What would an economist say about the 2020 year average net farm profit of \$322,907?

Net farm profit	\$322,907
Plus interest and rent paid	\$195,483
	<hr/>
	\$518,390
Less wages of management (say)	(\$80,000)
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Interest surplus return	\$438,390
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Interest return: $\$438,390 \div \$7,707,370 =$	5.69%

Suggested key issues arising from 2020 year

1. Milk solids production similar over the five years regarding per average cows milked, per effective grazing area and total kilograms of milk solids.
2. Hard to get the farm working expenses to gross farm income below 60%.
3. Well controlled interest and rent paid per kilogram of milk solids at 92 cents.
4. 2020 year net profit much higher than previous four years.
5. Term debt as a percentage of total farm capital at 42.3% – at top end for banking industry.
6. Term debt represents \$18.02 per kilogram of milk solids – comfortable.

Four key ratios for the 2020 year

Average value of milk solids sales (kg)

\$6.95

overall

\$6.96

top 10%

Cost of production per kg/ms

\$5.88

overall

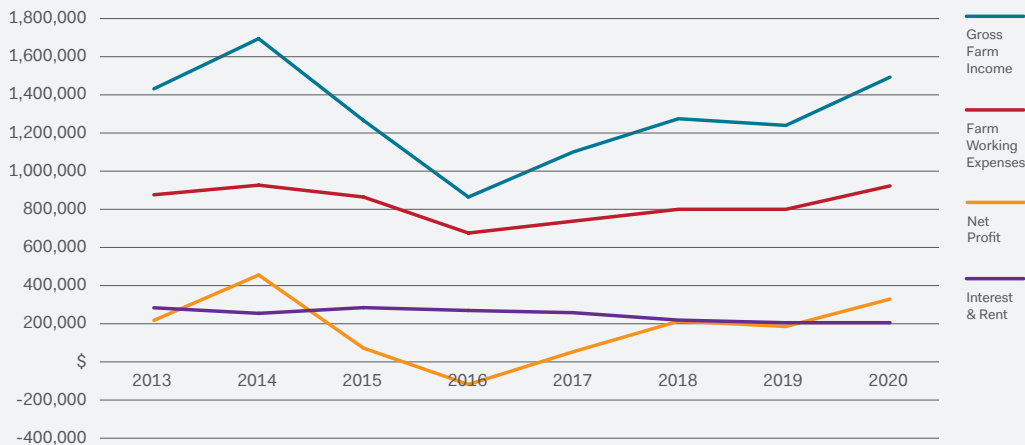
\$5.09

top 10%

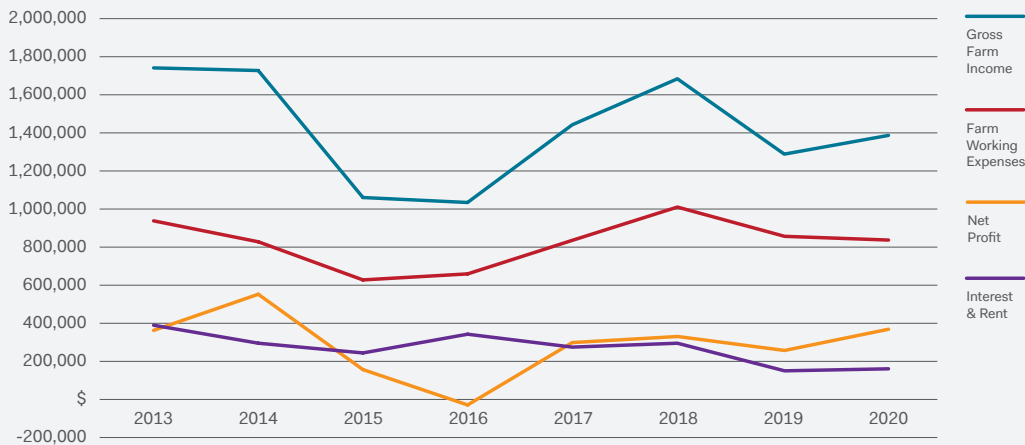
Survey

	Overall Average 2016	Overall Average 2017	Overall Average 2018	Overall Average 2019	Overall Average 2020	Benchmark Group 2020	Your Figures
Effective Grazing Area (ha) (EGA)	216	215	200	207	206	170	
Average Cows Milked (ACM)	510	506	480	473	490	497	
ACM/EGA	2.4	2.4	2.4	2.3	2.8	3.0	
Milk Solids Revenue	\$758,037	\$994,993	\$1,163,919	\$1,100,721	\$1,370,153	\$1,336,101	
Milk Solids Production (kg)	199,632	196,119	190,017	187,408	198,146	190,628	
Average Value of Milk Solid Sales (Kg)	\$3.83	\$5.12	\$6.23	\$5.86	\$6.95	\$6.96	
Milk Solid Revenue/ACM	\$1,505	\$1,960	\$2,384	\$2,316	\$2,790	\$2,777	
Milk Solid Revenue/EGA	\$3,545	\$4,728	\$6,237	\$5,449	\$8,071	\$8,273	
Milk Solids/ACM (kg)	391	389	395	395	402	399	
Milk Solids/EGA (kg)	923	921	950	920	1155	1,190	
Milk Solids as a % of GFI	89.6%	90.1%	91.6%	89.9%	92.0%	95.7%	
Gross Farm Income (GFI)	\$855,770	\$1,099,848	\$1,271,612	\$1,233,136	\$1,490,971	\$1,388,783	
Farm Working Expenses (FWE)	\$667,290	\$736,464	\$796,604	\$793,418	\$918,908	\$833,613	
FWE as a % of GFI	78.0%	67.5%	60.6%	63.5%	61.0%	57.2%	
FWE/ACM	\$1,298	\$1,457	\$1,585	\$1,660	\$1,881	\$1,653	
FWE per kg of Milk Solids	\$3.33	\$3.76	\$4.01	\$4.18	\$4.66	\$4.17	
Wages/ACM	\$241	\$239	\$247	\$231	\$272	\$348	
Animal Health/ACM	\$68	\$78	\$79	\$89	\$95	\$71	
Livestock Improvement/ACM	\$42	\$45	\$48	\$57	\$56	\$59	
Stockfood/ACM	\$359	\$394	\$428	\$432	\$518	\$653	
Fertiliser/ACM	\$241	\$282	\$274	\$292	\$356	\$95	
R & M/ACM	\$88	\$105	\$117	\$122	\$139	\$77	
Vehicle Expenses & Fuel/ACM	\$74	\$98	\$88	\$102	\$101	\$30	
Dairy Shed Expenses/ACM	\$16	\$16	\$21	\$16	\$40	\$202	
Interest & Rent Paid	\$262,934	\$253,537	\$215,297	\$203,309	\$195,483	\$160,775	
Interest & Rent Paid as a % of GFI	28.7%	22.7%	16.9%	15.8%	12.3%	11.1%	
Interest & Rent Paid/KG MS	\$1.22	\$1.24	\$1.11	\$1.04	\$0.92	\$0.81	
Cost of Prodn per KG MS (excl Interest & Rent)	\$3.58	\$3.95	\$4.27	\$4.48	\$4.96	\$4.29	
Net Farm Profit	(\$126,472)	\$50,576	\$212,249	\$182,402	\$322,907	\$373,301	
Net Farm Profit as a % of GFI	(12.7%)	3.9%	18.6%	16.2%	22.9%	30.0%	
Net Plant Purchases	\$33,854	\$41,579	\$49,486	\$54,135	\$106,013	-	
Personal Drawings (excl Allowances)	\$49,100	\$59,078	\$58,615	\$49,679	\$51,735	-	
Est Total Farm Capital (TFC)	\$7,792,038	\$8,554,551	\$7,934,348	\$7,440,556	\$7,707,370	\$5,934,667	
Est TFC per kg Milk Solids	\$40.33	\$45.15	\$43.61	\$41.81	\$41.53	\$32.95	
Est TFC per Ha	\$36,637	\$39,934	\$40,452	\$37,694	\$54,743	\$39,977	
Est Interest on TFC	1.1%	2.2%	4.3%	4.3%	5.6%	8.3%	
Total Term Debt	\$4,055,210	\$3,959,073	\$3,829,608	\$3,510,589	\$3,570,112	\$1,901,916	
Total Term Debt as % TFC	45.4%	44.4%	47.7%	44.0%	42.3%	31.2%	
GFI to Plant Ownership Ratio	3.2	3.1	5.7	5.3	6.9	11.8	
Earnings Before Interest, Rent & Tax (EBIT)	\$136,461	\$304,113	\$427,545	\$385,711	\$518,391	\$534,076	
EBIT/ACM	\$290	\$594	\$919	\$1,056	\$1,084	\$1,209	
EBIT/EGA	\$654	\$1,502	\$2,220	\$1,974	\$3,691	\$3,640	
EBIT/kg Milk Solids	\$0.71	\$1.53	\$2.33	\$2.11	\$2.68	\$2.99	
Total Cost of Production/Kg	\$4.80	\$5.34	\$5.38	\$5.52	\$5.88	\$5.09	
Margin/Kg MS	(\$0.97)	(\$0.81)	\$0.04	\$0.34	\$1.07	\$1.87	
"Misery Index"	107%	90%	77%	79%	73%	68%	

Average GFI, FWE, Interest + Rent & Net Profit 2013–2020



Benchmark GFI, FWE, Interest + Rent & Net Profit 2013–2020



Interest/Rent paid per kg/ms

\$0.92 overall
\$0.81 top 10%

Farm working expenses per kg/ms

\$4.66 overall
\$4.17 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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