

AGRICULTURE VICTORIA

Dairy Farm Monitor Project

**Victoria | Annual Report
2021-22**



Acknowledgements

Participants

The participant farmers are thanked for their efforts in supplying data for the Dairy Farm Monitor Project in 2022. A hybrid of face-to-face and remote data collection required additional efforts this year and is greatly appreciated. For continuing participants and those new to the project, thank you for your participation.

Project participants were selected based on a distribution of farm size, feeding system, herd size and geographical location within each region and results should not be viewed as a representation of Victoria's entire dairy farm population.

Report

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Industry Partners

The Dairy Farm Monitor Project is a collaboration between Agriculture Victoria and Dairy Australia. Now in its sixteenth year, the project provides industry and government with farm-level data to inform targeted strategy and decision making.

Appendix Tables

The appendices at the end of this report provide detailed metrics on the physical and financial performance and efficiency for individual participants.

Further information

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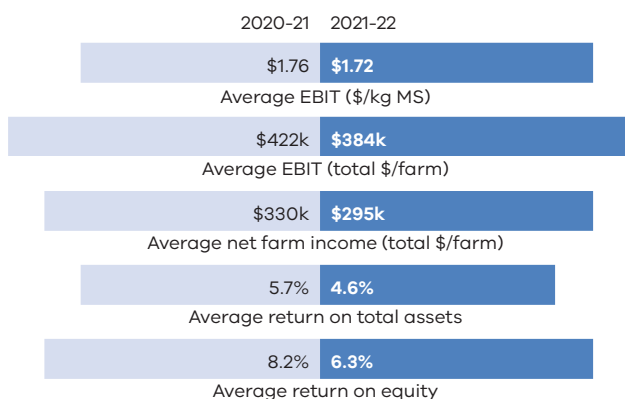
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Executive Summary

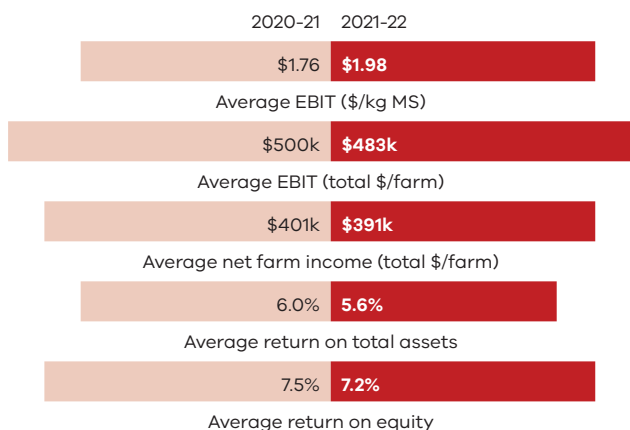
- The Victorian average profitability in 2021-22 was the fourth highest in the 16 years of DFM (accounting for inflation), reflecting the strong performance of DFM participants and was lower than the previous year's high.
- The milk price increased to \$7.37 per kilograms of milk solids (\$/kg MS), however higher input costs and supply constraints, including for labour, feed and fertiliser impacted on farm business margins in 2021-22.
- Average equity increased as participants used the favourable conditions and cashflows to expand and improve their business, by purchasing land, investing in infrastructure and machinery.

Victoria



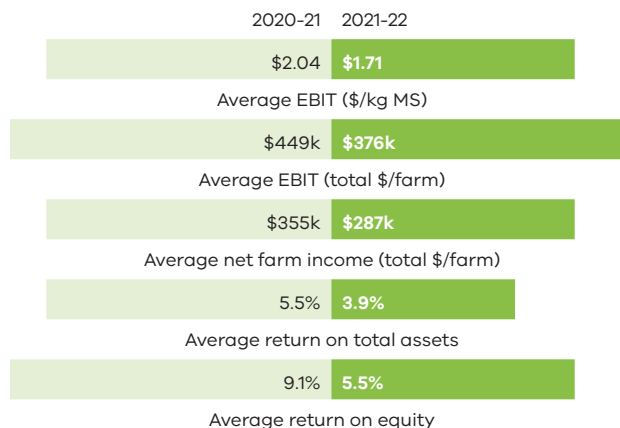
Many participants used the favourable conditions and cashflows to expand and improve their business, by purchasing land, investing in infrastructure and machinery, and increasing business equity (66 of the 80 farm businesses improved their equity position in the last 12 months).

Northern Victoria



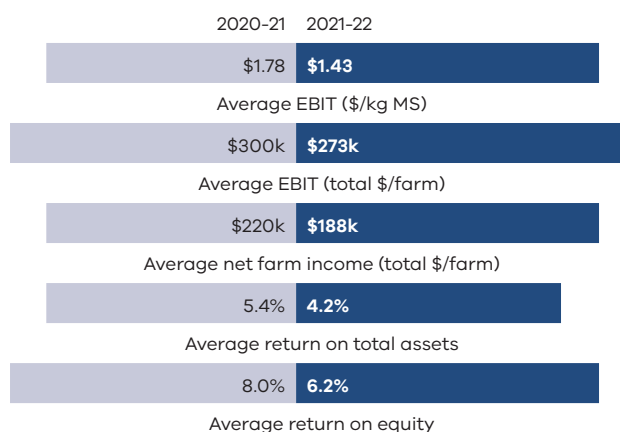
Favourable seasonal conditions, higher milk income, good livestock trading conditions, lower irrigation costs and low interest rates largely offset higher costs (concentrates, fertiliser, fuel and labour). Gross farm income was the second highest over the 16 years and profitability (average EBIT per kilogram of milk solids) was third highest (accounting for inflation).

South West Victoria



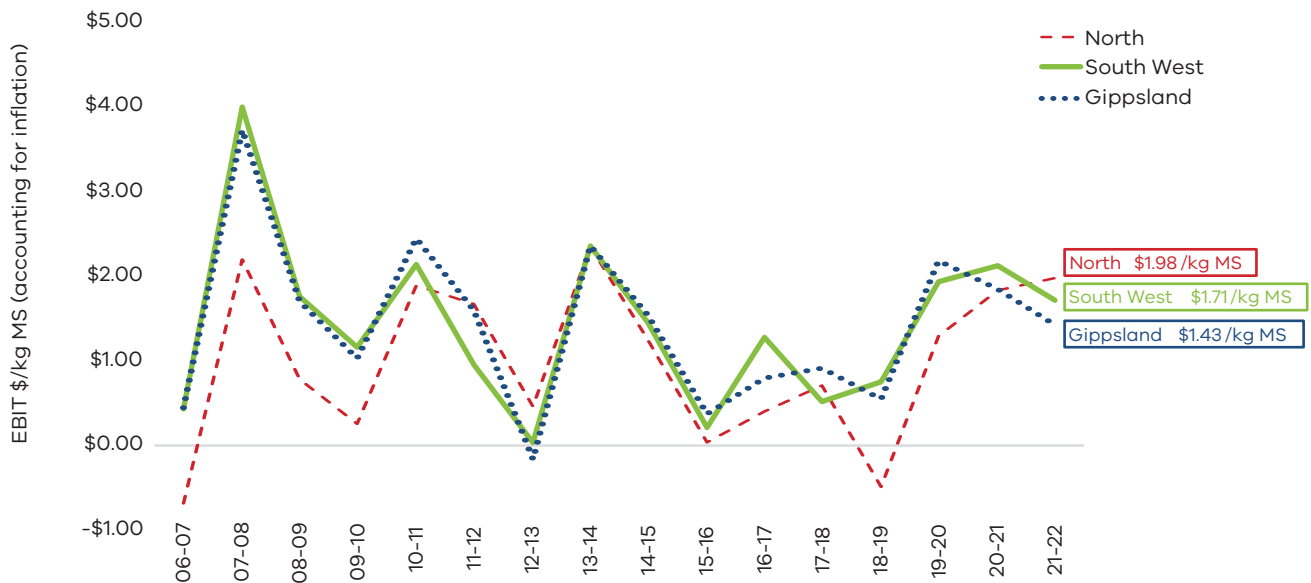
Increased use of supplements at higher per unit price (concentrates, silage and hay) were used to manage challenging seasonal conditions and lower homegrown feed production. These costs combined with greater expenditure on employed labour and repairs and maintenance saw the highest total costs in 16 years, which were not covered by higher incomes in 2021-22. Farm profitability (average EBIT per kg/MS) was seventh highest in 16 years of DFM (accounting for inflation).

Gippsland



Favourable conditions and lower irrigation costs in the Macalister Irrigation District provided stronger profits (average EBIT \$2.25/kg MS) than the average for Gippsland. In the dryland areas of south and west Gippsland wet seasonal conditions constrained milk and pasture production, adding further to elevated costs. Farm profitability (average EBIT per kg/MS) was sixth highest in 16 years of DFM (accounting for inflation).





How does 2021-22 compare?



- Average profit (per kg milk solids) for each region in 2021-22 was above the long-term average for the respective region.
- Strong profit results per farm (average \$384,000) across the state, well above the 16 year long-term average of \$264,000.

Milk price

Milk price increased nine per cent on average from 2021-22. Milk income contributed approximately 85 per cent of gross farm income due to the strong influence of livestock trading conditions.

Victoria		↑ 9% to \$7.37/kg MS
Northern Victoria		↑ 7% to \$7.54/kg MS
South West Victoria		↑ 11% to \$7.39/kg MS
Gippsland		↑ 9% to \$7.15/kg MS

Expectations for profit in 2022-23

Participant farmers were optimistic in their outlook for farm business returns in the coming 12 months but remain cautious for the longer-term. Participants in Northern Victoria were the most optimistic about better returns in 2022-23 (87 per cent), followed by those in South West Victoria (76 per cent) and Gippsland (60 per cent). Maintaining margins was identified by participants as a key risk to their business amid high (and rising) input costs. Labour shortages, succession planning and managing climatic conditions were other concerns identified by participants.

Greenhouse gas emissions

The average carbon footprint for Victorian dairy farm participants was 3,000 tonnes of carbon dioxide equivalents per farm in 2021-22. Over the last five years, larger herd sizes and greater milk production per farm have contributed to increasing average greenhouse gas emissions while emissions intensity has decreased since 2018-19.

Part One: Victorian Overview

Statewide average profitability in Victoria was well above the 16-year long-term average. Strong prices received for milk and livestock enabled farm businesses to manage the impact of higher costs.

Profitability in Northern Victoria was buoyed by excellent seasonal conditions and reduced requirements for irrigation water, while South West Victoria and Gippsland profits were constrained by managing the challenging climatic conditions.

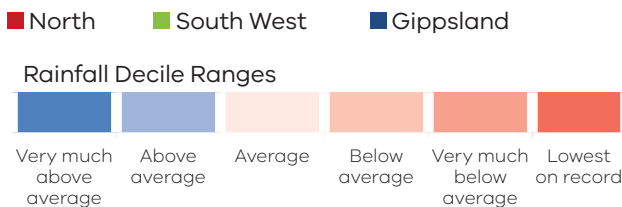
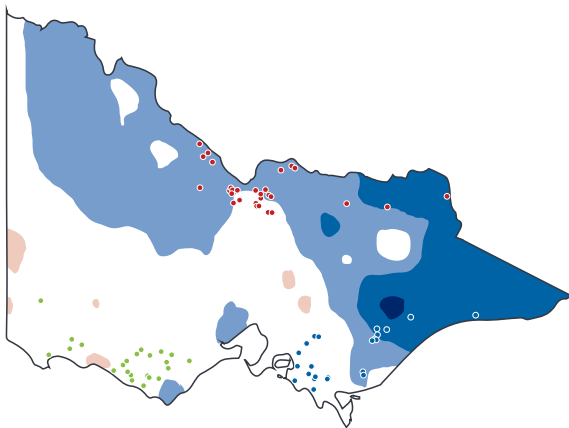
There were significant increases in costs, especially feed – accentuated in South West Victoria, west and south Gippsland, where conditions were much wetter than normal in winter and spring 2021. The amount of feed that could be harvested by direct grazing was reduced and farmers replaced this with greater quantities of higher priced concentrates.

Dairying in Victoria



There were approximately **2,985** dairy farm businesses in Victoria that produced 5.42 billion litres or **67 per cent** of Australia’s national milk production in 2021-22.

Dairy Farm Monitor Project farm locations and rainfall in 2021-22



In 2021-22 farm profitability for the state has been influenced by:



9% increase in average milk price to **\$7.36/kg MS**

20% ↑ in herd costs to **\$0.39/kg MS**

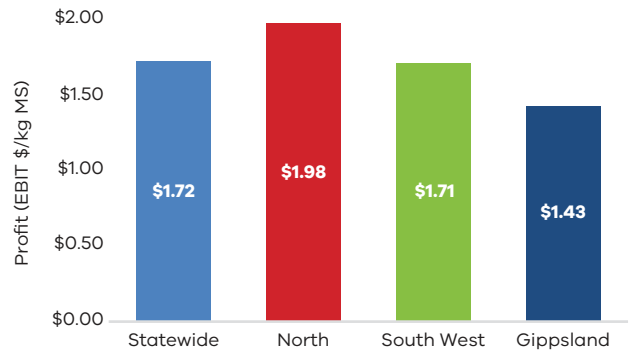
6% ↑ in shed costs to **\$0.25/kg MS**

21% ↑ in total feed costs to **\$3.45/kg MS**

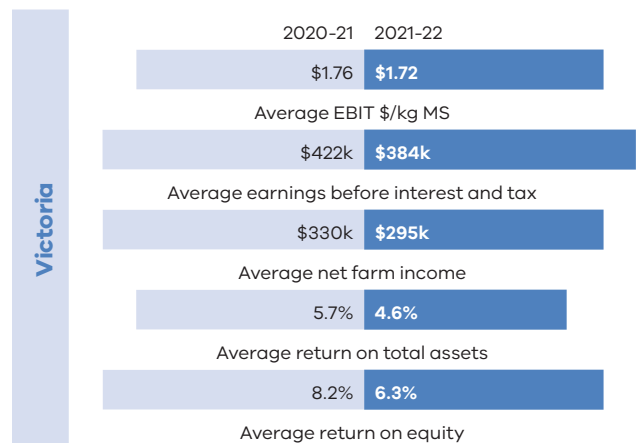
12% ↑ in overhead costs to **\$2.68/kg MS**

Profitability

Increased costs across the state in all areas of the business reduced the benefit of positive livestock trading conditions and a higher milk price for the season. Northern Victoria had ideal growing conditions, while less favourable seasonal conditions in the South West Victoria and Gippsland further impacted profitability. The statewide average EBIT per farm was the fourth highest on record, accounting for inflation.



In 2021-22, 96 per cent of all Victorian participants had a positive profit (77 out of 80)



Physical parameters and seasonal conditions

- While most farms received above average rainfall in 2021-22, the timing of the rainfall challenged those in the high rainfall zones to graze and conserve pasture and apply nutrients at optimum times of plant growth.
- Seasonal conditions in the Goulburn Murray Irrigation District (Northern Victoria) and Macalister Irrigation District (Gippsland) provided ideal growing conditions. This was reflected well in their farm profitability.
- Farm systems have intensified on average across all regions (herd size and feeding systems).

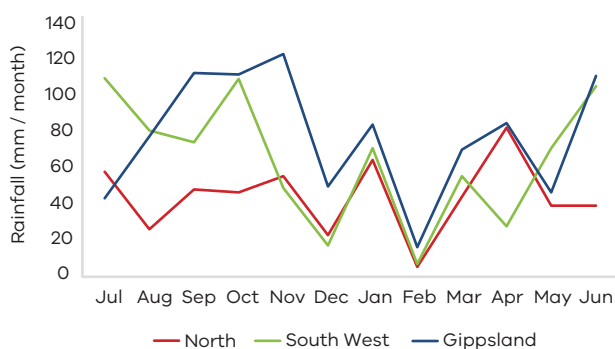
Victorian pasture-based dairy production

Dairying in Victoria is predominantly pasture-based, with 60 per cent of all consumed metabolisable energy home grown (across participant farms). Spring and autumn rainfall is important, as is adequate irrigation water availability in the irrigation districts of Northern Victoria and Gippsland.

Rainfall

Monthly variation to seasonal conditions has influenced physical and financial performance in each of the regions. The preceding conditions as well as the conditions prevalent in a particular month influence feed availability and conditions to harvest pastures and crops.

FIGURE 1. MONTHLY RAINFALL 2021-22



Notably the large storm events between June and December 2021 (Figure 1) provided challenges for harvesting pasture either by direct grazing or for conservation in South West Victoria and Gippsland.

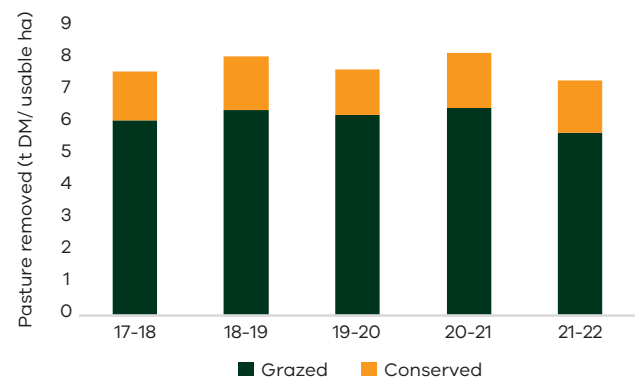
With average to 'very much above average' annual rainfall across the state, and less homegrown feed availability, water use efficiency (rainfall and irrigation) in 2021-22 was lower 0.77t DM/ha, relative to 0.81 t DM/ha/100 mm in 2020-21.

Feed consumption and harvest

With lower homegrown feed availability in each region, the average tonnes of homegrown feed reduced by 0.9 t DM/ha on average across the state (Figure 2). Many farms supplemented dairy herds with additional concentrates and fodder (at relatively higher prices) to maintain milk production.

The ability to grow and harvest feed may have also been due to lower fertiliser applications due to cost and ability to utilise feed if it was grown (wet soils, potentially poorer quality and pasture damage).

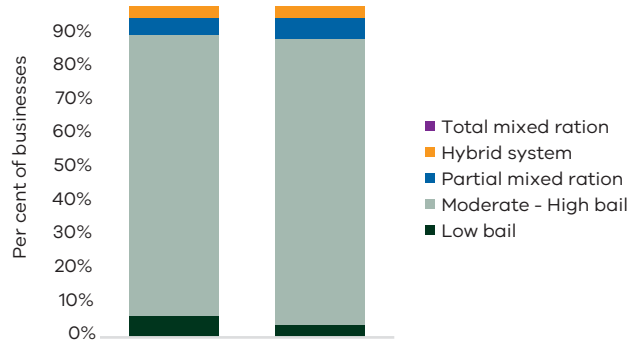
FIGURE 2. ESTIMATED TONNES OF HOMEGROWN FEED REMOVED



Feeding system

Moderate to high bail feeding systems were the most popular feeding system in 2021-22 (Figure 3). There is an increasing trend in Northern Victoria to look towards more intensive feeding systems. The Gippsland region is the most reliant on low to moderate bail feeding systems. South West Victoria have a few hybrid systems but was predominantly moderate to high bail feeding.

FIGURE 3. TYPE OF FEEDING SYSTEMS



Information on feeding systems was first collected in 2020-21 and the purpose is to capture the intensification of dairy feeding systems in Victoria over time. The type of feeding system employed reflects a longer-term decision made by the business operator to manage a certain type of feeding system, rather than one to manage adverse seasonal conditions in a given year, i.e., wet soils management.

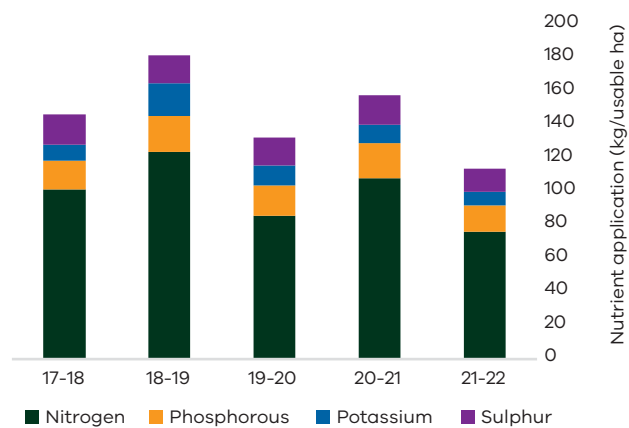
Fertiliser application

Nutrient application on the milking area was reduced considerably in 2021-22. The substantial increase in fertiliser prices and adverse (wet) seasonal conditions saw farmers decide to apply lower quantities of fertiliser.

In comparison to the previous year, Figure 4 shows that in 2021-22:

- Nitrogen applied was 137 kg/ha, an 18 per cent reduction
- Phosphorous applied was 13 kg/ha, a 32 per cent reduction
- Potassium applied was 23 kg/ha, a 31 per cent reduction
- Sulphur applied was 16 kg/ha, a 23 per cent reduction.

FIGURE 4. NUTRIENT APPLICATION

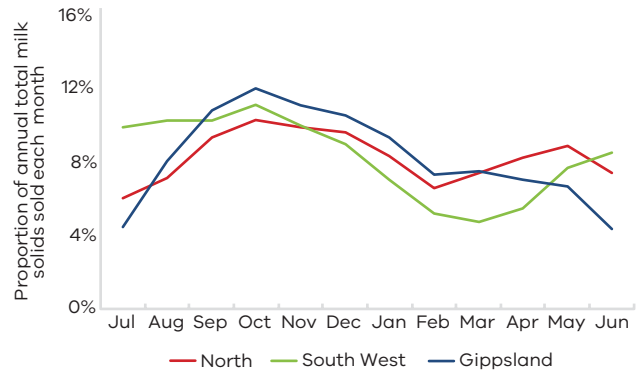


Milk solids sold

Milk production reflects the seasonal nature of calving in the respective regions. Calving pattern determines milk production and is therefore reflective of participants' decision to seek milk payment systems that suits their management (Figure 5).

Victorian participants on average increased the level of milk production due to increased herd size. Milk production on average remained stable per cow.

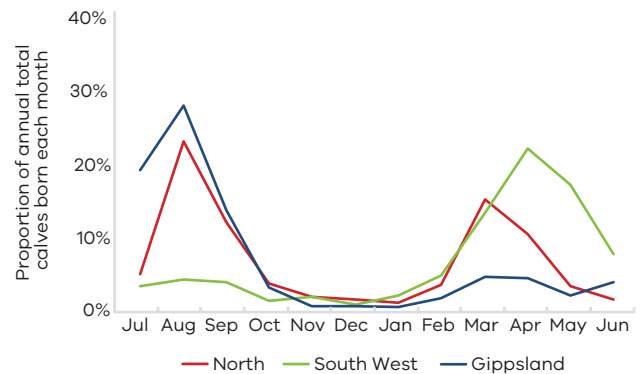
FIGURE 5. MONTHLY DISTRIBUTION OF MILK SOLD



Calving pattern

Calving pattern for participant farms will determine feed requirements. Northern Victorian participants were characterised by split calving (spring and autumn), South West Victorian participants are predominantly autumn calving and Gippsland predominantly spring calving (Figure 6).

FIGURE 6. MONTHLY DISTRIBUTION OF CALVING



Whole farm analysis

- On average, farm profitability at a statewide level decreased in 2021-22, with distinct variation among the regions. Earnings before Interest and Tax (EBIT) was positive on 77 out of the 80 participating farms (96 per cent).
- High milk price did not necessarily lead to increased profitability across all Victorian participants. Statewide, milk income and gross farm income was higher.
- Variable costs increased by 20 per cent (primarily due to feed costs), with overhead costs higher by 11 per cent.

Physical parameters

2020-21 2021-22

427	428
373	390
308	320

Number of milkers (hd)

0.9	0.8
0.7	0.7
0.7	0.8

WUE (t DM/100mm/ha)

307	335
335	341
186	187

Usable area (ha)

1.7	1.4
1.1	1.2
1.9	1.9

Milking cows per usable ha

572	578
526	527
485	471

Milk solids sold (kg MS/cow)

923	830
602	636
924	920

Milk solids sold (kg MS/ha)

55%	56%
68%	62%
66%	63%

Homegrown feed as % of ME consumed

103	100
99	103
122	119

Labour efficiency (cows / FTE)

58,041	57,300
51,787	54,054
59,174	55,929

Labour efficiency (kg MS / FTE)

Financial parameters

2020-21 2021-22

Income (\$/kg MS)

\$7.02	\$7.54
\$6.68	\$7.39
\$6.54	\$7.15

Milk income (net)

\$0.91	\$1.07
\$1.12	\$1.35
\$0.70	\$0.86

Livestock trading profit and other income

\$7.93	\$8.72
\$7.79	\$8.74
\$7.24	\$8.00

Gross farm income

Costs (\$/kg MS)

\$3.86	\$4.20
\$3.06	\$4.12
\$3.23	\$3.99

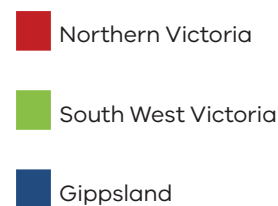
Variable Costs

\$2.30	\$2.54
\$2.70	\$2.90
\$2.24	\$2.59

Overhead costs

\$1.76	\$1.98
\$2.04	\$1.71
\$1.78	\$1.43

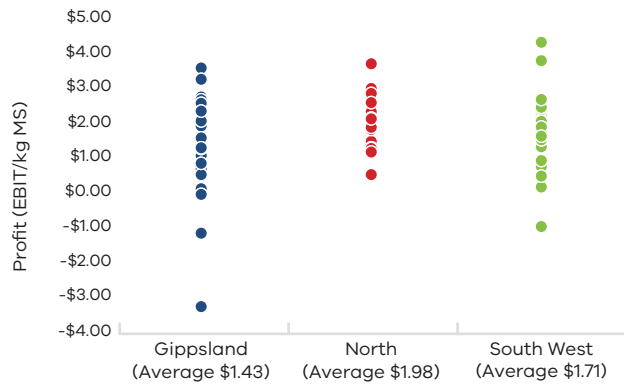
Earnings before interest and tax



Earnings before interest and tax

Higher costs and variable seasonal conditions contributed to the lower average farm profitability (measured by earnings before interest and tax, EBIT) in 2021-22, compared to the previous year. In Northern Victoria labour constrained some farmers' ability to take advantage of the high milk price. In Gippsland and South West Victoria it was the challenging seasonal conditions leading to increased feed costs that had the greatest influence on profitability (Figure 7).

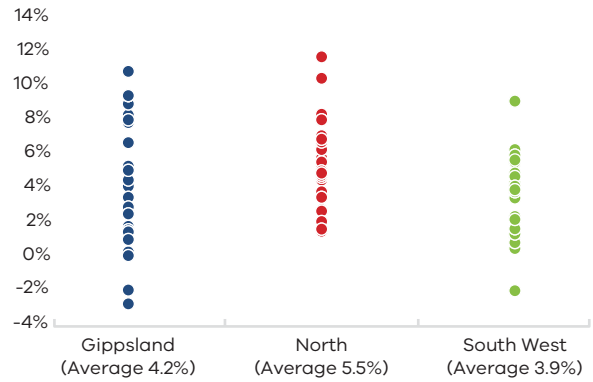
FIGURE 7. DISTRIBUTION OF FARMS BY EBIT



Return on total assets

A positive return on total assets (ROTA) was recorded for 77 of the 80 participants. In 2021-22 ROTA reduced to 4.6 per cent (Figure 8) mainly due to a lower EBIT over a greater asset value. Land values increased considerably across the state. This change in land value has in some part reduced the ROTA.

FIGURE 8. DISTRIBUTION OF FARMS BY ROTA

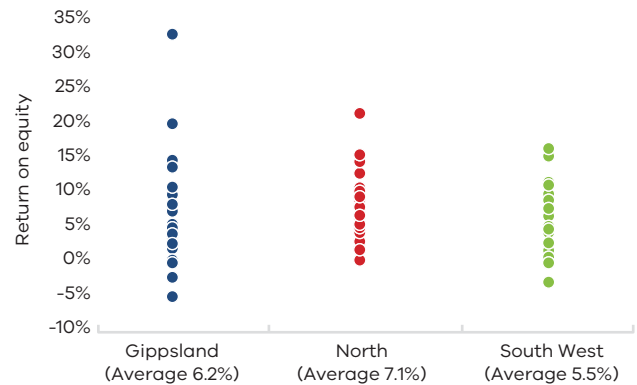


Return on equity

Strong return on equity (ROE) performance was observed across all three regions (Figure 9), with 70 of the 80 participants achieving a positive ROE. Average ROE was 6.3 per cent in 2021-22, down from the 8.2 per cent high in 2020-21.

On average, dairy businesses improved their equity levels in 2021-22 (75 per cent on average, up from 71 per cent equity).

FIGURE 9. DISTRIBUTION OF FARMS BY ROE



Part Two: Northern Victoria

Northern Victoria - performance

Dairying in Northern Victoria



Approximately **874** dairy farm businesses in Northern Victoria produced 1.59 billion litres of milk in 2021-22, accounting for **29 per cent** of Victoria's milk production output and **19 per cent** of Australia's milk production.

Physical farm characteristics

Stable herd size at slightly higher production per cow delivered an increase in total milk production compared to last year in Northern Victoria.

Northern Victoria typically has larger herds and irrigation infrastructure that supports more intensive production systems. Non irrigated farms in Northern Victoria tend to be larger scale but are reliant on rainfall. While perennial pastures dominate in the other regions, annual pastures dominate in Northern Victoria and on average the milking cows consume less homegrown pasture.

Stable



Average herd size
428 cows

1% ↑



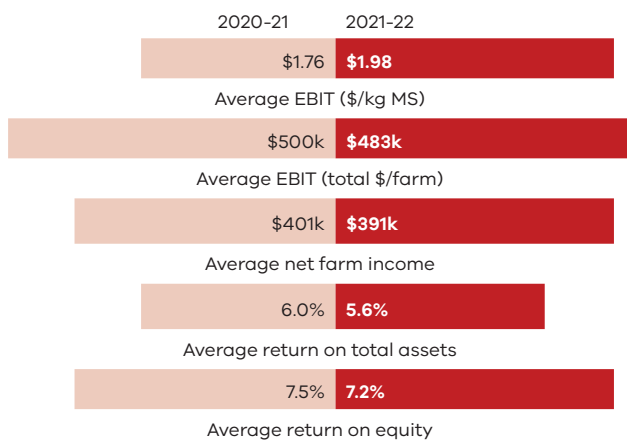
Milk solids sold
578 kg MS/cow

2% ↑



Homegrown feed
56% of metabolisable energy consumed

In 2021-22 all 30 participants recorded a positive return on total assets



In 2021-22 farm profitability has been influenced by:



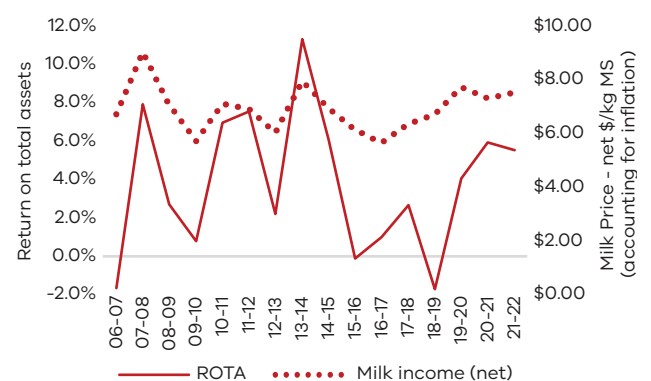
7% ↑ increase in average milk price to **\$7.54/kg MS**

16% ↑ in herd and shed costs to **\$0.61/kg MS**

9% ↑ in total feed costs to **\$3.59/kg MS**

10% ↑ in overhead costs to **\$2.54/kg MS**

Return on total assets and milk price



Future expectations 2022-23



Northern Victorian participants are optimistic with 87 per cent expecting business returns to improve and 10 per cent expecting business returns to remain stable.

Concerns as reported by farm businesses



Input Costs

19%



Labour

16%



Climate/seasonal conditions

15%



Pasture/fodder

15%

Whole farm analysis

- Gross farm income increased from the previous year with higher milk income (increased milk production at a higher milk price) and increased livestock trading income.
- Favourable seasonal and economic conditions, including higher milk income, good livestock trading conditions, lower irrigation costs and low interest rates helped offset higher input costs.
- Participants used the favourable conditions to expand and improve their business – by purchasing land, investing in infrastructure and machinery – resulting in increased business equity.

Physical parameters

2020-21 2021-22

Rainfall, area and cows

435 **536**

Annual rainfall (mm)

427 **428**

Herd size

0.9 **0.8**

WUE (t DM/100mm/ha)

307 **335**

Usable area (ha)

1.7 **1.4**

Milking cows per usable ha

Milk production

572 **578**

Milk solids sold (kg MS/cow)

923 **830**

Milk solids sold (kg MS/ha)

55% **56%**

Homegrown feed as % of ME consumed

Pasture production

8.3 **7.5**

Homegrown feed removed (t DM/ milking ha)

Labour use and efficiency

4.2 **4.3**

Total FTE

103 **100**

Labour efficiency (cows / FTE)

58,041 **57,300**

Labour efficiency (kg MS / FTE)

Financial parameters

2020-21 2021-22

Income (\$/kg MS)

\$7.02 **\$7.54**

Milk income (net)

\$0.79 **\$1.07**

Livestock trading profit

\$0.13 **\$0.12**

Other farm income

\$7.93 **\$8.72**

Gross farm income

Costs (\$/kg MS)

Variable costs

\$0.32 **\$0.40**

Herd costs

\$0.20 **\$0.22**

Shed costs

\$1.49 **\$1.46**

Home grown feed cost

\$2.20 **\$2.27**

Purchased feed and agistment

-\$0.23 **-\$0.17**

Feed inventory change

-\$0.13 **\$0.03**

Water inventory change

\$3.34 **\$3.59**

Total feed costs

Overhead costs

\$0.64 **\$0.70**

Employed labour

\$0.38 **\$0.45**

Repairs and maintenance

\$0.29 **\$0.31**

All other overheads

\$0.75 **\$0.77**

Imputed labour

\$0.24 **\$0.32**

Depreciation

\$2.30 **\$2.54**

Total overhead costs

Profit (\$/kg MS)

\$1.76 **\$1.98**

Earnings before interest and tax

Gross farm income

Higher income was recorded in 2021-22 than the previous year and was the second highest for Northern Victoria over the 16 years of the DFMP, accounting for inflation. The key drivers were increased milk production (sold at a higher milk price) and increased livestock trading income.

Variable costs

Variable costs increased by \$0.34/kg MS, with higher feed costs being the largest component.

Feed costs increased by \$0.25/kg MS. While the cost of purchased fodder was lower, there was an increase in the cost of concentrates. Although fertiliser use reduced significantly (by 25 per cent), the total money spent on fertiliser increased by around 25 per cent – reflecting the historically high prices for fertilisers per unit of product.

Herd and shed costs accounted for the remaining \$0.09/kg MS increase in variable costs. Higher herd costs included increased spending in calf rearing and herd genomics. Shed costs increased due to increased power use and costs. Energy efficient technology (mostly solar) was adopted on some farms to mitigate increasing grid energy costs.

The annual median price for allocation water was \$60-\$75/ML for the major trading zones (1A, 6, and 7). Irrigation costs declined (by around 40 per cent) and there was a positive increase in the value of water inventories.

Overhead costs

Overhead costs increased on average by 10 per cent in Northern Victoria in 2021-22. Repairs and maintenance, labour and depreciation were the largest factors in this increase.

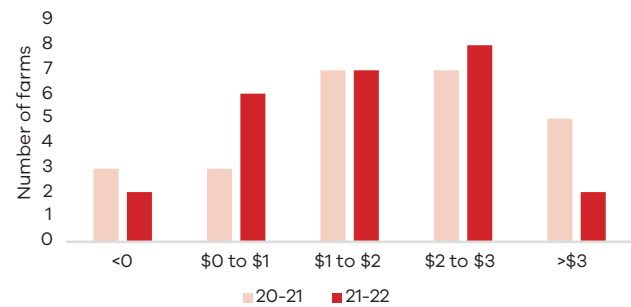
Increased spending on repairs and maintenance and on employed labour were the two largest components of the increase in cash costs. Almost all farms increased the hourly rate for employed labour. The strong milk price signals (and good seasonal conditions) saw a general trend to invest in repairs and maintenance.

The high value of assets on some farms has seen an increase in the non-cash cost of depreciation.

Earnings before interest and tax

In 2021-22, all participants in Northern Victoria had a positive EBIT (Figure 10). Average EBIT per farm was the second highest in the 16 years of the DFMP, accounting for inflation. Average EBIT (\$/kg MS) was higher year-on-year, and was the third highest on record, accounting for inflation.

FIGURE 10. AVERAGE EBIT PER KG MS – NORTHERN VICTORIA



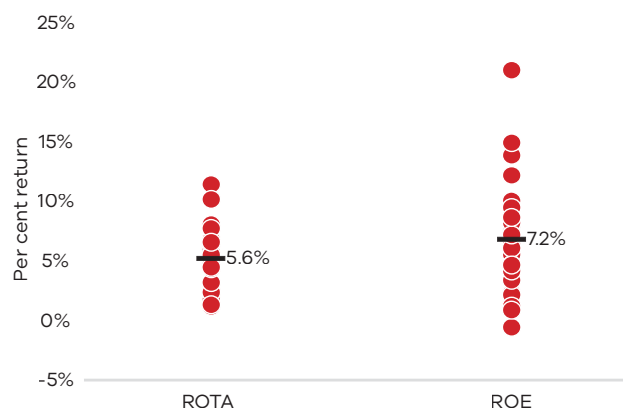
Return on total assets and equity

Average ROTA decreased slightly to 5.6 per cent in 2021-22 from 6.0 per cent 2020-21. The lower returns were a function of slightly lower total EBIT and an increase in the value of assets under management. Asset values increased due to growth in the value of land and building assets; farmers holding on to more livestock and increased capital expenditure on infrastructure and machinery.

Average ROE in 2021-22 also decreased relative to the previous year. Equity levels increased on most farms during the last 12 months.

With the cost of financing lower than the returns from accessing additional assets (e.g., land, dairy upgrades, and major infrastructure), 24 of the 30 participants recorded higher ROE than ROTA (Figure 11). These farmers have been able to grow their business.

FIGURE 11. 2021-22 AVERAGE RETURNS – NORTHERN VICTORIA



Feed consumption and fertiliser

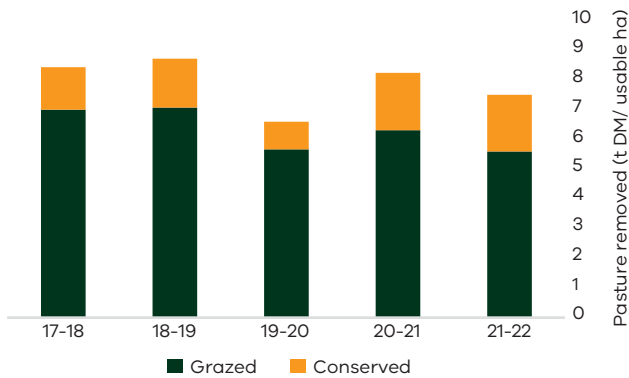
Feed consumption, pasture harvested and water use efficiency

Direct grazing on the milking area (on average) reduced by around 0.7 t DM/milking ha. This reflects that the size (ha) of the milking area increased. The amount of pasture conserved was similar to the previous year, as was the total tonnes of dry matter (Figure 12).

With above average rainfall, and similar total t DM harvested, water use efficiency (irrigation plus rainfall) per hectare was lower than 2020-21. Efficiency for targeted water use (irrigation) remained stable.

Favourable seasonal conditions saw a decrease in the use of purchased hay and silage. As a proportion of the diet, homegrown feed (grazed and conserved pasture) accounted for 56 per cent of the metabolisable energy consumed, slightly higher than last year's average.

FIGURE 12. AVERAGE HOMEGROWN FEED REMOVED – NORTHERN VICTORIA

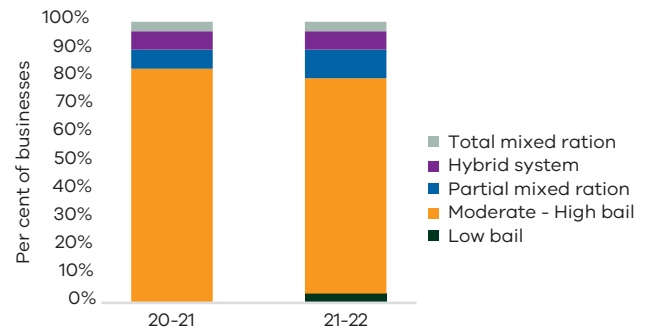


Feeding system

Twenty-three farms (77 per cent) in Northern Victoria employed a moderate to high bail feeding system. The remaining seven farms were comprised of total mixed ration, hybrid, partial mixed ration or low bail feeding systems in 2021-22 (Figure 13).

Annual pasture constituted 74 per cent of the feedbase on average, with the remaining made up of perennials. There was a range of 15 to 100 per cent for annual pasture across farms.

FIGURE 13. FEEDING SYSTEM TYPES – NORTHERN VICTORIA

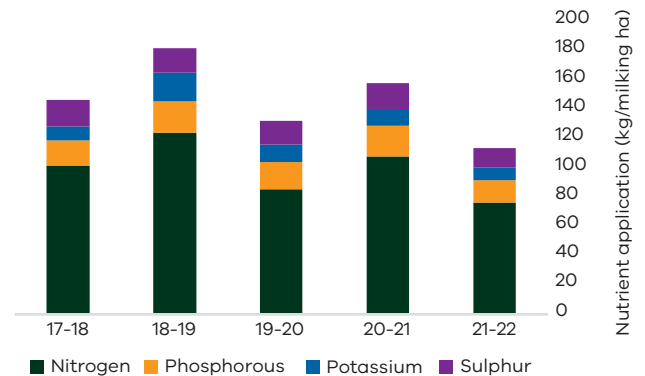


Fertiliser

While seasonal conditions were good in Northern Victoria, the amount of fertiliser applied (Figure 14) was the lowest in the past five years in this region. This reflected the higher cost of fertiliser (per unit of nutrient) and farmers assessment on the returns from fertiliser applications.

The amount of money spent on fertiliser in 2021-22 increased by 26 per cent despite applying 26 per cent less of each nutrient on average per hectare.

FIGURE 14. AVERAGE NUTRIENT APPLICATION – NORTHERN VICTORIA



Part Three: South West Victoria

South West Victoria - performance

Dairying in South West Victoria



Approximately **1,030** dairy farm businesses in South West Victoria produced 1.91 billion litres of milk in 2021-22, accounting for **35 per cent** of Victorian milk production output and **22 per cent** of Australia's milk production.

Physical farm characteristics

More cows were milked at similar production per cow leading to an increase in average total milk production. Greater quantities of supplements were fed as lower quantities of homegrown feed were harvested.

4% ↑



Average herd size
390 cows

Stable ↑



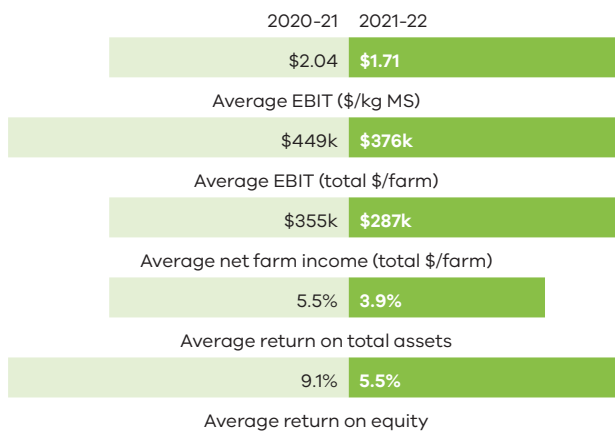
Milk solids sold
527 kg MS/cow

8% ↓



Homegrown feed
62% of metabolisable energy consumed

In 2021-22, nearly all participants (24 of the 25) recorded a positive return on total assets



In 2021-22 farm profitability has been influenced by:



11% ↑ increase in average milk price to **\$7.39/kg MS**

13% ↑ in herd and shed costs to **\$0.65/kg MS**

40% ↑ in total feed costs to **\$3.47/kg MS**

8% ↑ in overhead costs to **\$2.90/kg MS**



14% decrease in homegrown pasture and conserved feed due to adverse (wet) seasonable conditions

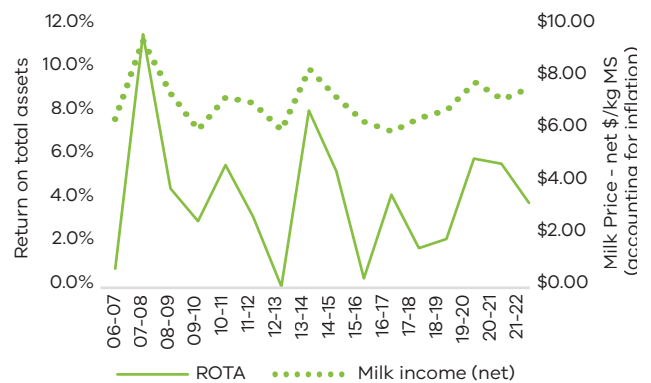


0.7 t DM/cow increase in average supplements fed (total 4.4 t DM/cow)



Highest total costs (variable and overhead) in 16 years of DFMP

Return on total assets and milk price



Future expectations 2022-23



Two-thirds of farmers expect business returns to improve

Concerns as reported by farm businesses:



Input Costs
18%



Pasture/Fodder
17%



Succession planning
16%

Whole farm analysis

- Gross farm income increased in South West Victoria from the previous year with a higher milk price and increased livestock trading income.
- Highest total costs in 16 years were not fully offset by higher (average) income in 2021-22.
- Increased use of supplements (concentrates, silage and hay) at higher per unit prices to manage challenging (wet) seasonal conditions and lower homegrown feed production, especially between July and December.
- South West Victorian participants still took the opportunity to expand and improve their businesses through land purchases and undertaking significant capital works.

Physical parameters

2020-21	2021-22
Rainfall, area and cows	
878	783
Annual rainfall (mm)	
373	390
Herd size	
0.7	0.7
WUE (t DM/100mm/ha)	
335	341
Usable area (ha)	
1.1	1.2
Milking cows per usable ha	
Milk production	
526	527
Milk solids sold (kg MS/cow)	
602	636
Milk solids sold (kg MS/ha)	
68%	62%
Homegrown feed as % of ME consumed	
Pasture production	
7.1	6.0
Homegrown feed removed (t DM/ milking ha)	
Labour use and efficiency	
3.8	3.9
Total FTE	
98.7	103
Labour efficiency (cows / FTE)	
51,786.7	54,054
Labour efficiency (kg MS / FTE)	

Financial parameters

2020-21	2021-22
Income (\$/kg MS)	
\$6.68	\$7.39
Milk income (net)	
\$1.04	\$1.27
Livestock trading profit	
\$0.08	\$0.08
Other farm income	
\$7.79	\$8.74
Gross farm income	
Costs (\$/kg MS)	
Variable costs	
\$0.31	\$0.37
Herd costs	
\$0.26	\$0.28
Shed costs	
\$1.02	\$1.23
Home grown feed cost	
\$1.65	\$2.25
Purchased feed and agistment	
-\$0.19	-\$0.01
Feed inventory change	
\$2.48	\$3.47
Total feed costs	
Overhead costs	
\$0.63	\$0.71
Employed labour	
\$0.49	\$0.59
Repairs and maintenance	
\$0.33	\$0.38
All other overheads	
\$0.90	\$0.86
Imputed labour	
\$0.35	\$0.38
Depreciation	
\$2.70	\$2.90
Total overhead costs	
Profit (\$/kg MS)	
\$2.04	\$1.71
Earnings before interest and tax	

Gross farm income

Higher income was recorded in 2021-22 than the previous year and was the third highest on record in the 16-year history of DFMP (\$/kg MS), accounting for inflation. This was due to increased milk income and livestock trading profit. Increased income did not fully offset higher costs.

Variable costs

Higher purchased feed costs was the key reason for the increased variable costs in 2021-22 (a \$0.61/kg MS increase from 2020-21). On average, greater quantities of concentrates, silage and fodder (at a higher per unit price) were fed to supplement lower homegrown feed.

While the amount of fertiliser applied decreased, high fertiliser prices meant the per unit cost of homegrown feed increased. There were also general increases in costs across pasture improvements, fuel and oil, and irrigation (on those farms with irrigation).

Fodder conservation and use was mixed in South West Victoria in 2021-22. Half of the farms used their fodder reserves to manage the challenging seasonal conditions, while others took advantage of timely rain to build reserves.

There were higher costs for calf rearing and for using herd genomics. Shed power also increased on average. Energy efficient technology (mostly solar) was adopted on some farms to mitigate increasing grid energy costs.

Overhead costs

Increased spending on employed labour and repairs and maintenance contributed to \$0.21/kg MS increase in overhead costs. Labour issues were often raised, with some farmers opting to reduce their production while others invested in labour productivity technologies. Almost all farms increased the hourly rate for employed labour. The strong milk price signals and cashflows resulted in most attending to repairs and maintenance.

Earnings before interest and tax

In 2021-22, average EBIT (per farm) was lower on South West Victorian farms than the previous year, but nearly all (24 of the 25) were positive (Figure 15).

The average South West Victorian EBIT/kg MS remains above the long-term average and ranks seventh in the 16 years of the DFMP, accounting for inflation.

FIGURE 15. AVERAGE EBIT PER KG MS – SOUTH WEST VICTORIA



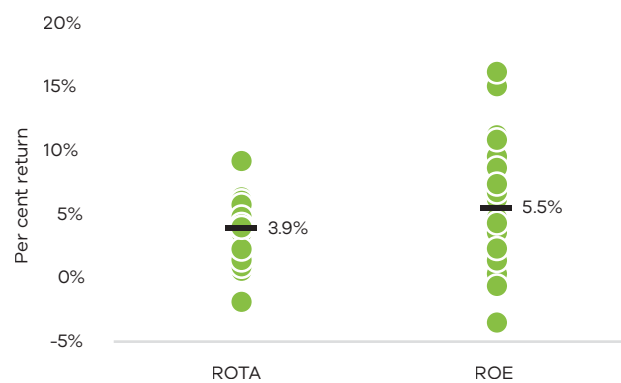
Return on total assets and equity

The lower EBIT performance, combined with the higher asset values observed on all farms, contributed to the lower ROTA in 2021-22. Asset values increased due to growth in the value of land and building assets; farmers holding onto more livestock and increased capital expenditure on infrastructure and machinery.

Equity levels also increased on all farms during the last 12 months. The higher asset valuations were greater than the increased liabilities resulting in higher equity levels (total \$ and per centage terms).

The cost of financing was lower than the returns from accessing the additional assets (e.g., land), and 17 of the 25 participants recorded higher ROE than ROTA (Figure 16). These farmers have been able to grow their business.

FIGURE 16. 2021-22 AVERAGE RETURNS – SOUTH WEST VICTORIA



Feed consumption and fertiliser

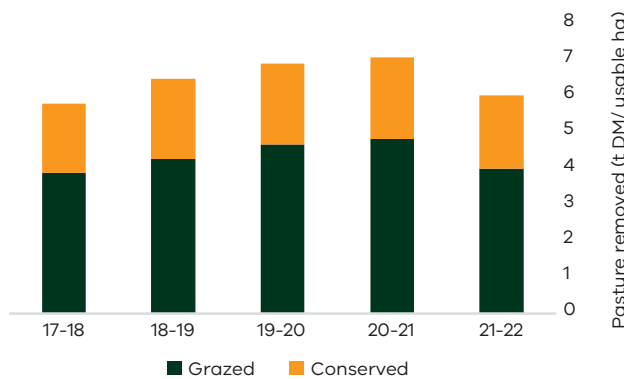
Feed consumption and pasture harvested

The challenging seasonal conditions for the majority of farms across South West Victoria saw reduced pasture harvested and increased use of supplements.

Most farms had lower pasture removed on the milking area (19 of the same 22 participants between years), as both the directly grazed and conserved feed were lower. On average, pasture removed decreased by 1 t DM/ hectare (Figure 17).

As a proportion of the diet, homegrown feed (grazed and conserved pasture) accounted for 62 per cent of the metabolisable energy consumed, compared to 68 per cent in the previous year.

FIGURE 17. AVERAGE HOMEGROWN FEED REMOVED – SOUTH WEST VICTORIA



The region experienced very wet conditions during winter 2021. The usual period for silage harvest in October was delayed to November, resulting in a lower silage yield and quality, and for some farmers lowering their milk production due to poorer quality pasture and lower availability.

Farmers utilised their feed reserves and increased fodder purchases due to a dry summer and extended dry period into autumn. Some farms also increased the quantity of concentrates purchased to maintain milk production during this period.

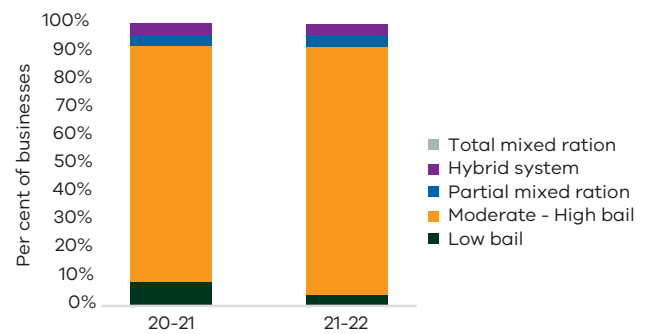
Some farmers chose to maintain milk production during the wet and dry periods experienced in South West Victoria, through purchasing additional concentrates or fodder at higher prices, but felt it was justified while milk was attracting a higher price than last year.

Feeding system

Moderate to high bail was the dominant feeding system (22 farms) of surveyed South West Victorian farms. The remaining three farms were hybrid, partial mixed ration and a low bail feeding system (Figure 18).

South West Victoria is predominantly reliant on perennial pasture species however comprising approximately 85 per cent of pastures on average, with the remaining made up of annuals.

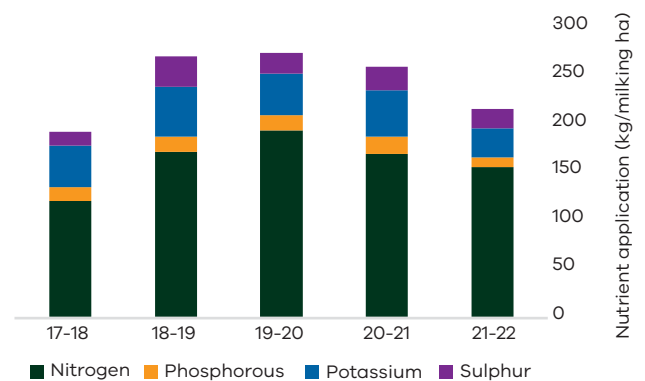
FIGURE 18. FEEDING SYSTEM TYPES – SOUTH WEST VICTORIA



Fertiliser

The amount of fertiliser applied per hectare (Figure 19) was 27 per cent lower than the previous year as the drier spring 2021 and autumn 2022. The cost of fertiliser per unit of nutrient increased, and participants responded by using less fertiliser but the amount spent still increased by 29 per cent compared to the previous year.

FIGURE 19. AVERAGE NUTRIENT APPLICATION – SOUTH WEST VICTORIA



Part Four: Gippsland

Gippsland - performance

Dairying in Gippsland



Approximately **1,085 dairy** farm businesses in Gippsland produced 1.92 billion litres of milk in 2021-22 accounting for **35 per cent** of Victoria's milk production output and **23 per cent** of Australia's milk production.

Physical farm characteristics

On average, herd size increased and per farm milk production increased, despite milk production decreasing per cow as participants were challenged to manage adverse seasonal conditions (predominantly in south and west Gippsland). Wet conditions resulted in decreased homegrown grazed pasture and poorer quality conserved feed, resulting in lower profitability in 2021-22. Irrigation water use in the Macalister Irrigation District was significantly lower (59 per cent) than the previous year due to adequate rainfall.

3% ↑



Average herd size

320 cows

3% ↓



Milk solids sold

471 kg MS/cow

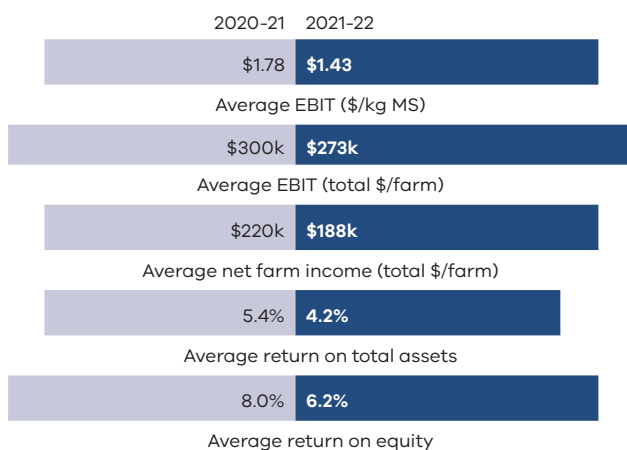
5% ↓



Homegrown feed

63% of metabolisable energy consumed

In 2021-22, 21 of the 25 Gippsland participants (84 per cent) had a positive return on total assets



In 2021-22 farm profitability has been influenced by:



9% ↑ increase in average milk price to **\$7.15/kg MS**

20% ↑ in Herd Costs to **\$0.40/kg MS**

2% ↑ in Shed costs to **\$0.24/kg MS**

26% ↑ in total Feed costs to **\$3.34/kg MS**

16% ↑ in Overhead costs to **\$2.59/kg MS**



10% decrease in homegrown pasture while homegrown conserved feed was around the same.

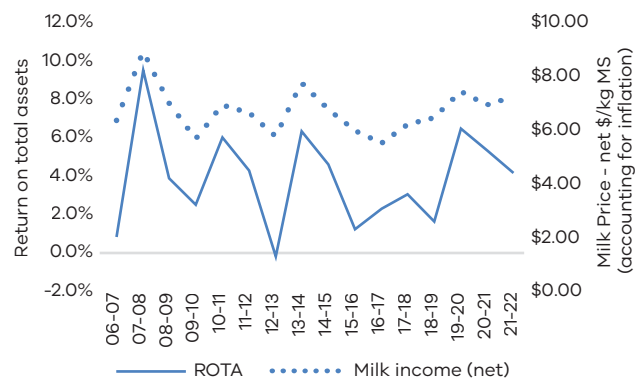


0.3 t DM/cow increase in average supplements fed (total 3.1 t DM/cow)



Highest total costs (variable and overhead) in 16 years of DFMP

Return on total assets and milk price



Future expectations 2022-23



Of the farmers who responded, 80 per cent of farmers expect business returns to improve or remain stable

Concerns as reported by farm businesses:



Input cost

20%



Milk price

15%



Pasture/
fodder

15%



Climate/
seasonal
conditions

15%

Whole farm performance

- Gross farm income increased from the previous year with a higher milk price and increased livestock trading income.
- Highest total costs in 16 years were not fully offset by higher incomes in 2021-22.
- Increased use of supplements at higher per unit price (concentrates, silage and hay) to manage challenging seasonal conditions and lower homegrown feed production.
- Despite lower returns, Gippsland participants focussed on using embryo transfer and sexed semen, investing in their future herds.

Physical parameters

2020-21	2021-22
Rainfall, area and cows	
936	937
Annual rainfall (mm)	
308	320
Herd size	
0.7	0.8
WUE (t DM/100mm/ha)	
186	187
Usable area (ha)	
1.9	1.9
Milking cows per usable ha	
Milk production	
485	471
Milk solids sold (kg MS/cow)	
924	920
Milk solids sold (kg MS/ha)	
66%	63%
Homegrown feed as % of ME consumed	
Pasture production	
9.3	8.4
Homegrown feed removed / milking ha	
Labour use and efficiency	
2.6	2.8
Total FTE	
122	119
Labour efficiency (cows / FTE)	
59,174	55,929
Labour efficiency (kg MS / FTE)	

Financial parameters

2020-21	2021-22
Income (\$/kg MS)	
\$6.54	\$7.15
Milk income (net)	
\$0.67	\$0.83
Livestock trading profit	
\$0.03	\$0.02
Other farm income	
\$7.24	\$8.00
Gross farm income	
Costs (\$/kg MS)	
Variable costs	
\$0.33	\$0.40
Herd costs	
\$0.24	\$0.24
Shed costs	
\$0.95	\$1.09
Home grown feed cost	
\$1.76	\$2.19
Purchased feed and agistment	
-\$0.05	\$0.06
Feed inventory change	
\$2.66	\$3.34
Total feed costs	
Overhead costs	
\$0.57	\$0.63
Employed labour	
\$0.33	\$0.42
Repairs and maintenance	
\$0.29	\$0.36
All other overheads	
\$0.87	\$0.97
Imputed labour	
\$0.17	\$0.21
Depreciation	
\$2.24	\$2.59
Total overhead costs	
Profit (\$/kg MS)	
\$1.78	\$1.43
Earnings before interest and tax	

Gross farm income

Higher income (11 per cent increase) was recorded in 2021-22 than the previous year. Increased milk income (9 per cent) and livestock trading profit (24 per cent) contributed to higher income. Increased income did not (on average) fully offset higher costs for Gippsland farms.

Variable costs

Feed costs increased by 26 per cent with the largest contributor being an increase of \$0.43/kg MS in purchased feed and agistment. Greater quantities of concentrates, silage and fodder were fed to supplement lower homegrown feed, at higher per unit price.

Homegrown feed costs increased by 15 per cent which was related to high fertiliser prices. There were also increases in costs for fuel and oil, hay and silage making.

Just over half of the farms used their feed inventory reserves to manage the challenging seasonal conditions, however overall conserved volumes remained similar.

Herd and shed costs increased with a strong focus on herd genetics this year – with investment in sexed semen and embryo transfer – showing evidence of farm investment in their future herds. Shed power costs were slightly lower, reflecting investments in energy efficient technology (mostly solar).

Overhead costs

Rates and farm insurance increased significantly since last year with a 17 per cent and 31 per cent increase respectively. Increased spending on repairs and maintenance was primarily a catch up to delayed repairs or in response to storm damage on farm.

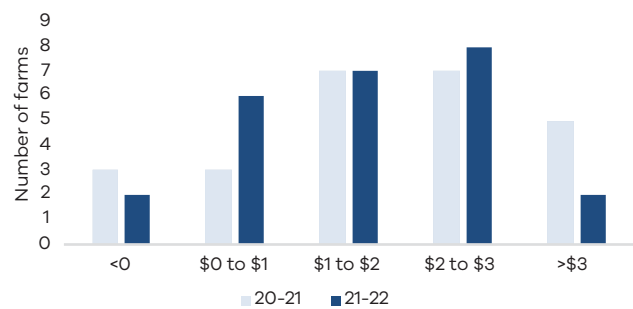
Suitable labour availability was a great challenge to farmers in Gippsland during the second year of COVID operating environments. Some farmers purchased housing to attract labour and/or invested in technologies to ease labour pressures (such as automatic calf feeders, dairy upgrades and cow collars). Employed labour costs increased by 11 per cent as well as imputed labour (owner/operator/family/sharefarmer).

Earnings before interest and tax

In 2021-22, 23 of the Gippsland participants recorded a positive EBIT (Figure 20). Average EBIT per farm was the sixth highest in the 16 years of the DFMP, accounting for inflation.

Gippsland recorded a significant (22 per cent) decline in average EBIT (\$/kg MS) performance in 2021-22. Profitability for the Gippsland DFMP participants was strongly influenced by wet seasonal conditions from July to December. The inability to direct graze pasture and harvesting of lower quantities of poorer quality forage impacted on cow performance. Lower milk production with high costs strongly impacted profitability despite a strong milk price.

FIGURE 20. AVERAGE EBIT PER KG MS – GIPPSLAND



Return on total assets and equity

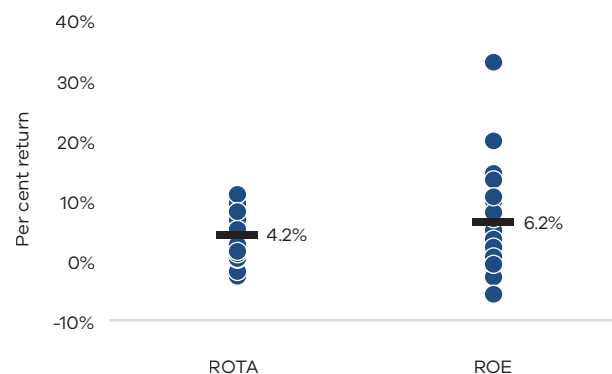
The lower EBIT performance, combined with the higher asset values observed on all farms, contributed to the lower returns in 2021-22.

The average ROTA was 4.2 per cent and was the eighth highest in the 16-year history of DFMP. Higher land values and other assets contributed to the reduction in ROTA, with the decline in EBIT being the major contributor.

The average return on equity for Gippsland participants was 6.2 per cent (Figure 21). While down from 8.0 per cent last year, this was the sixth highest performance over the history of the DFMP in Gippsland.

Equity levels increased on 18 of the 25 farms during 2021-22. Decreases in equity were generally where there were land purchases and increased borrowings for substantive improvements such as dairy upgrades and major infrastructure.

FIGURE 21. 2021-22 AVERAGE RETURNS – GIPPSLAND



Feed consumption and fertiliser

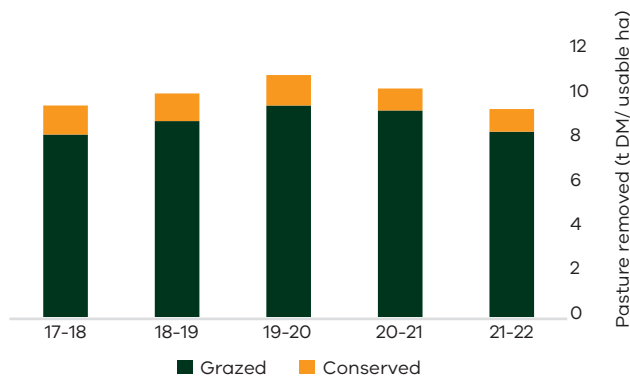
Feed consumption and pasture harvested

The region experienced very wet conditions during 2021, with two major storm events in June and September 2021. The wet conditions reduced the ability of farmers in west and south Gippsland to directly graze pasture with some reduction in pasture quality.

Less pasture was grown and consumed due to waterlogged soils from July to December, followed by very dry soils from January to May, which saw increased use of supplements.

Most farms had lower pasture removed on the milking area. The exception was the Macalister Irrigation District where water was not limiting, having next to ideal growing conditions – and the ability to graze or conserve pasture was optimal. On average, pasture removed decreased by 0.9 t DM/ha to 8.4 t DM/ha, with conservation quantities remaining stable at 0.9 t DM/ha on average (Figure 22).

FIGURE 22. AVERAGE HOMEGROWN FEED REMOVED – GIPPSLAND



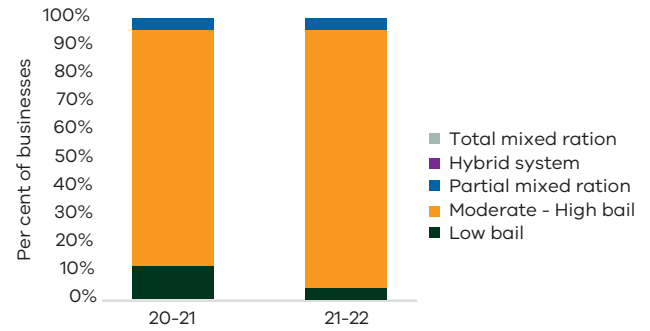
Feed reserves were used to reduce the impact of grazing on pastures. This supplementary feeding continued through the remainder of summer and autumn 2022 with drier conditions, and no ideal autumn break. Increased quantities of concentrates were purchased to maintain milk production on some farms during summer and autumn 2022.

On average, greater quantities of concentrates, silage and fodder were fed to supplement lower homegrown feed. These supplements were sourced from either purchased feed (some purchasing fodder for the first time in recent years) fed out during the year, or fodder reserves were utilised.

Feeding system

Gippsland farms are characterised by a high reliance on direct grazed pasture systems with moderate-high bail feeding (Figure 23).

FIGURE 23. FEEDING SYSTEM TYPES -GIPPSLAND



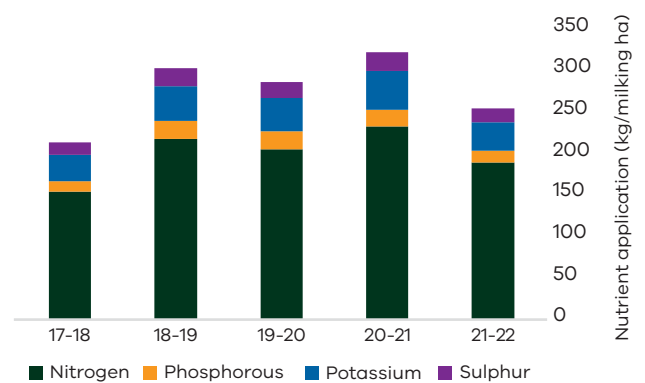
Fertiliser

Fertiliser application was significantly reduced by Gippsland participants in 2021-22 (Figure 24).

All macro nutrients declined; nitrogen (by 22 per cent), phosphorous (by 46 per cent), potassium (by 39 per cent) and sulphur (by 40 per cent).

Despite fertiliser quantities being reduced in response to fertiliser prices climbing sharply, the cost increased by 10 per cent. The seasonal conditions also did not allow spreading at optimal times (too wet or too dry).

FIGURE 24. AVERAGE NUTRIENT APPLICATION – GIPPSLAND



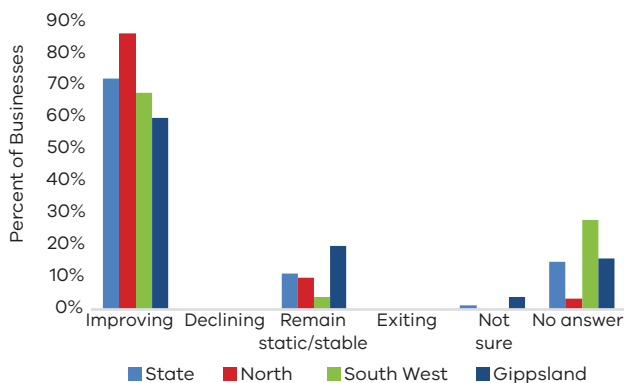
Part Five: Business Confidence

- Participant farmers were confident in their outlook for farm business returns in the coming 12 months (2022-23).
- Milk price was expected to increase or remain stable on all Victorian participant farms.
- About 80 per cent of Victorian participants were expecting to increase or keep milk production at the same level.
- In 2022-23 costs were expected to increase or remain at the same elevated level, especially for fertiliser and labour.

Expectations for business profit 2022-23

The participant survey considers different aspects of farming, from climate outlook to expectations about market conditions for dairy products. While expectations for business profit in the coming year were generally positive, there were slight regional differences (Figure 25). Northern Victorian participants were the most optimistic, likely to be underpinned by a favourable outlook for irrigation water availability and allocation price.

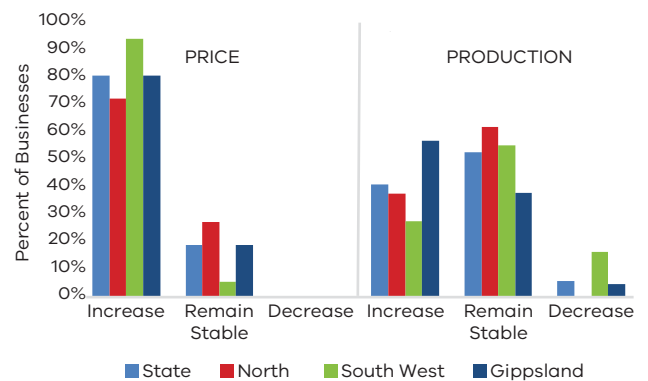
FIGURE 25. EXPECTED CHANGE TO FARM BUSINESS PROFIT IN 2022-23



Price and production expectations – milk

Participants were confident in their outlook for milk price, and milk production for 2022-23. This is mainly due to the timing of milk price announcements (1 June), with farmers having more informed choices on their milk factory at the time of the DFMP survey (July 2022). Around 85 per cent of respondents were expecting milk price to increase or to remain the same in 2022-23 (Figure 26). None were expecting a decrease. About 80 per cent were expecting to increase or keep milk production at the same level.

FIGURE 26. PRODUCER EXPECTATIONS OF MILK PRICES AND PRODUCTION IN 2022-23

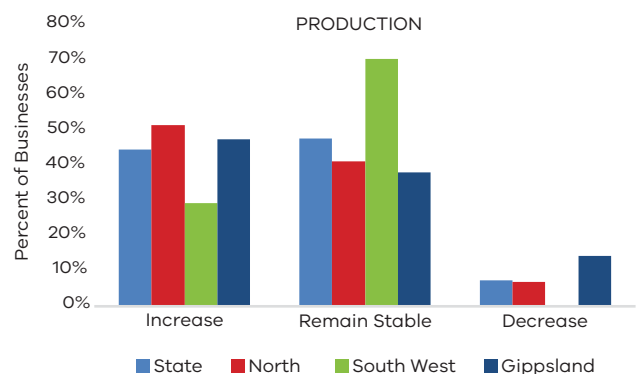


Production expectations – fodder

The expectations for fodder production in 2022-23 were positive. Over one third (37 per cent) of participants expected fodder production to increase while 40 per cent were expected to maintain production (Figure 27).

Despite farmer intentions, as was seen in 2021-22, the ability for farmers to reach their goals of increasing fodder is highly seasonal dependent.

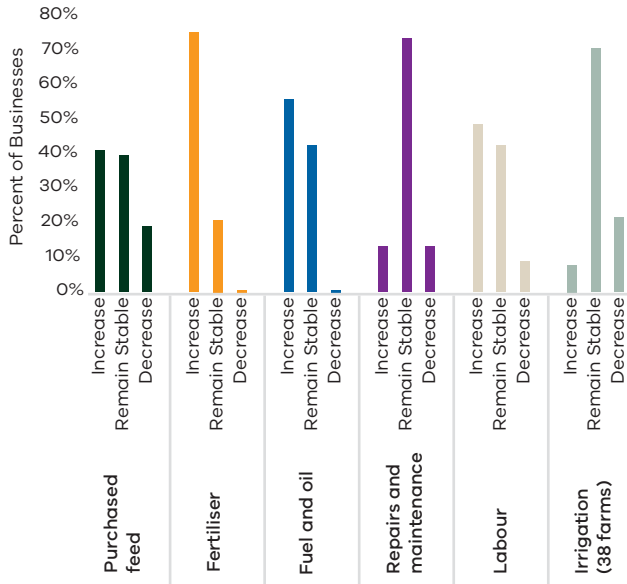
FIGURE 27. PRODUCER EXPECTATIONS OF FODDER PRODUCTION IN 22-23



Cost expectations

The cost category that was expected to be the most likely to increase in 2022-23 was fertiliser (Figure 28), on the back of increases seen last year. There was a strong sentiment that costs will either increase or remain stable for the majority of farm cost categories.

FIGURE 28. PRODUCER EXPECTATIONS OF COSTS FOR THE DAIRY INDUSTRY IN 2021-22



Comments from participants

There appeared to be considerable concern for biosecurity in 2022-23. This was prompted by Indonesia's confirmed cases of Foot and Mouth Disease and Lumpy Skin Disease around the time of data collection. Farmers indicated they were unsure of the impacts on their individual business.

A key concern was the availability of labour and farmers not being able to attract and retain labour on farm. Farmers had indicated they would be investing in accommodation to reduce the barrier for appropriately skilled workers.

An emerging issue of concern was the impact of rising borrowing costs, with recent interest rate rises – and concern over managing increased financing costs.

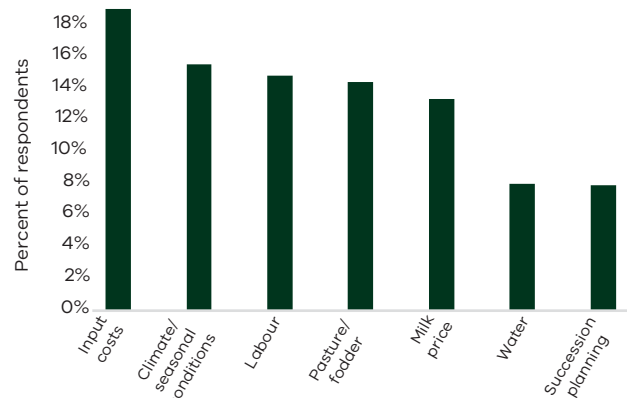
Issues of importance to dairy businesses

Participants were asked to rank issues based on the level of importance to their business – with a ranking of (1) being most important and (7) being least important. The results are shown in Figure 29 for the short-term issues and Figure 30 for medium term issues.

Short term issues – next 12 months

The most important issue in the coming 12 months was input costs, with 18 per cent of respondents ranking this as number 1, which was very similar to last year's results. Managing climatic conditions (ranked number 2 by 16 per cent) was only marginally ahead of labour (at 15 per cent) as being a major issue.

FIGURE 29. MAJOR ISSUES FOR INDIVIDUAL BUSINESSES – 12-MONTH OUTLOOK

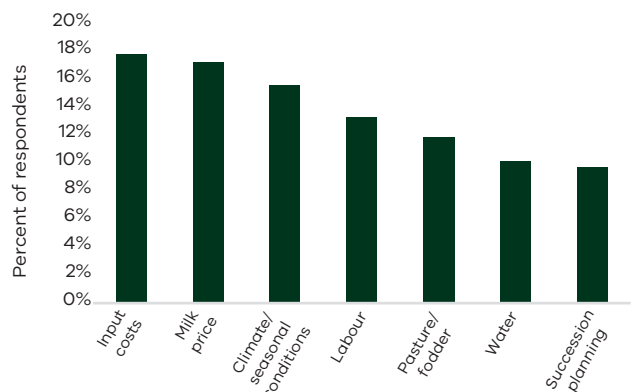


Medium to long term issues – next five years

The ranking order for concerns over the medium term (five years) has changed between 2021-22 and 2022-23 with rising costs and the sustainability of milk price escalating in importance.

Input costs were ranked as the greatest concern with 18 per cent ranking this number 1, followed closely by milk price (17 per cent) and climate/seasonal conditions (16 per cent). Input costs being ranked as number 1 was consistent at the state and regional level. There were variances at the regional level for the second most important issue; with labour in Northern Victoria and climate for participants in South West Victoria. Whereas Gippsland had milk price, pasture and climate all sitting equal second.

FIGURE 30. MAJOR ISSUES FOR INDIVIDUAL BUSINESSES – 5-YEAR OUTLOOK



Part Six: 2021-22 Greenhouse Gas Emissions

- The average carbon footprint for Victorian dairy farms was 3,000 tonnes of carbon dioxide equivalents (t CO₂-e) per farm in 2021-22.
- Methane from cow rumination (enteric) accounted for an average of 62 per cent of on-farm emissions.
- Larger herd sizes and greater milk production have contributed to the trend of increased greenhouse gas (GHG) emitted per farm over the last 5-years.

Total emissions

Over the last five years, average GHG emissions have been increasing, mostly due to larger herd sizes and greater milk production per farm. In 2021-22, the average carbon footprint (net GHG emissions) was estimated at about 3,000 t CO₂-e/farm in 2021-22 (Figure 31).

In 2021-22, the slight increase in GHG emissions compared to the previous year was mostly due to an increase in methane from cow rumination (enteric methane). Enteric methane accounted for approximately 62 per cent of emissions and is sensitive to changes in livestock weights and numbers on individual farms.

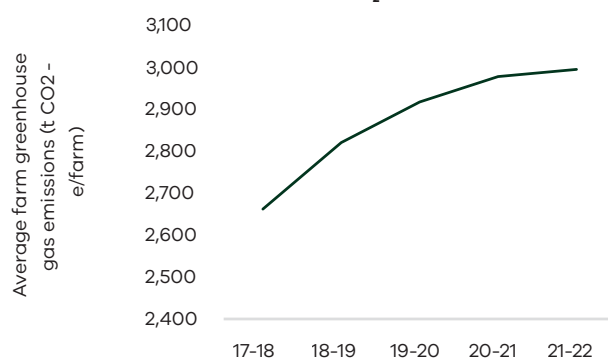
The other sources of farm GHG emissions (fertiliser and energy) decreased between the last two years. Decreased use of fertiliser and energy sourced from the grid, as well as increased carbon captured and stored from trees contributed to lower emissions. However, this was not enough to offset the higher emissions from methane sources, leading to an overall increase in 2021-22 emissions per farm compared to the previous year.

Emissions intensity

The emissions intensity allocated to milk production (once meat production is considered), has decreased since 2018-19 (Table 1). Although GHG emissions have increased over this period, emissions intensity has declined as average milk production has increased. Regional and farm variation was also observed over

this period. These averages reflect the profiles of the participating farms and should not be taken as representative of the dairy industry.

FIGURE 31. ESTIMATED AVERAGE GHG EMISSIONS BETWEEN 2017-18 AND 2021-22 (CO₂ EQUIVALENT)



NOTE: Greenhouse gas emission estimates are calculated using the [Australian Dairy Carbon Calculator](#) embedded within DairyBase.

Changes to the emission accounting framework in 2021-22 include new factors for methane, nitrous oxide, fertiliser, purchased feeds, electricity and fuel, the scope considered other livestock on dairy farms (dairy beef) and the allocated proportion of GHG to meat production. Carbon capture and storage from trees was recorded. Data from all five years was analysed using the 2021-22 accounting framework.

TABLE 1. ESTIMATED AVERAGE GHG EMISSIONS AND INTENSITY BETWEEN 2017-18 AND 2021-22 (CO₂ EQUIVALENT)

Emission sources	17-18	18-19	19-20	20-21	21-22
Sample size	75	75	80	80	80
Methane (t CO ₂ -e/farm)	1,865	1,929	1,990	2,019	2,110
Pre-farm gate (t CO ₂ -e/farm)	312	328	362	377	367
Nitrous oxide (t CO ₂ -e/farm)	302	325	327	340	328
Carbon dioxide (t CO ₂ -e/farm)	219	243	242	257	231
Carbon from trees (t CO ₂ -e/farm)	-37	-4	-4	-15	-41
Net emissions (t CO ₂ -e/farm)	2,661	2,820	2,917	2,978	2,995
Emissions intensity (t CO ₂ -e/t MS)	12.7	13.3	12.7	12.5	12.3
Emissions intensity (t CO ₂ -e/FPCM)	0.91	0.95	0.92	0.90	0.88
Emissions intensity (t CO ₂ -e/kg live weight)	4.3	4.4	4.3	4.2	4.3

Part Seven: How does 2021-22 compare?

- Higher milk price in 2020-21 and favourable livestock trading conditions helped buffer the impact of higher costs.
- Strong profit results per farm (average \$384,000) across the state was well above the 16-year long-term average of \$264,000.
- The comparatively lower EBIT (compared to 2020-21) over a larger asset base decreased the resulting return on total assets in all three regions.
- Return on equity performing strongly across the regions for DFMP participants; well above the negative returns on investment in Australian Shares for 2021-22 and long-term average for Australian Bonds.

Northern Victoria

Farm profit (EBIT) in Northern Victoria in 2021-22 was the second highest (accounting for inflation) since the start of the DFMP in 2006-07 (Figure 32). Average EBIT was \$483,000 in 2021-22, compared to the long-term average of \$235,000. Net farm income was \$391,000 in 2021-22, compared to the long-term average of \$127,000.

Average ROTA was 5.6 per cent in 2021-22, decreasing from 6 per cent the previous year (Figure 33), remaining considerably higher than the long-term average of 3.8 per cent. The average ROE in Northern Victoria decreased to 7.2 per cent in 2021-22 from 7.5 per cent in 2020-21; compared to the long-term average of 2.3 per cent.

FIGURE 32. FARM PROFITABILITY BETWEEN 2006-07 AND 2021-22 – NORTHERN VICTORIA

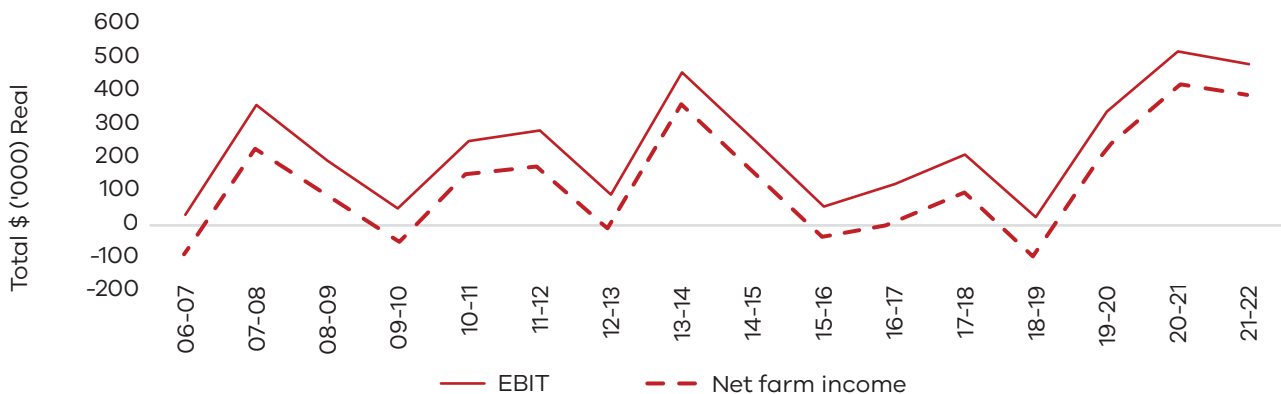
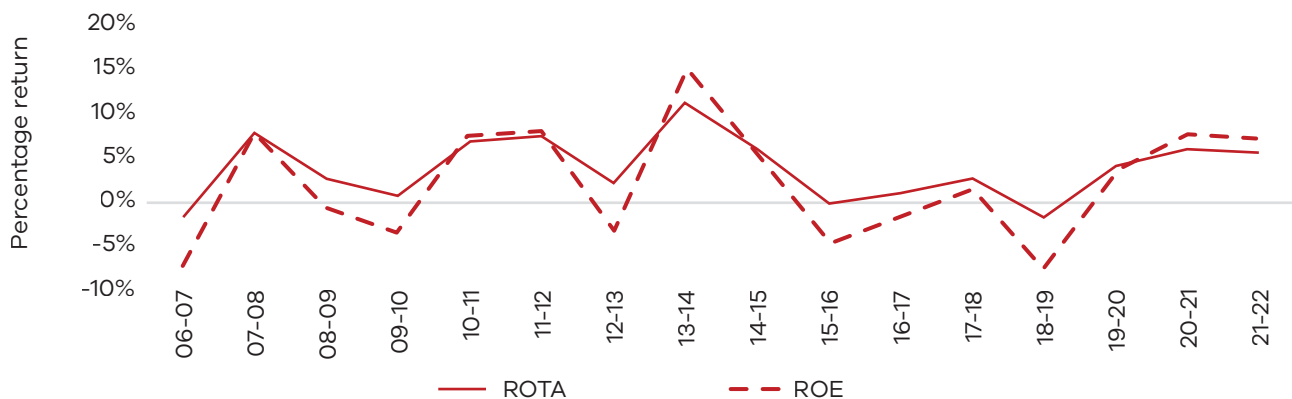


FIGURE 33. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2021-22 – NORTHERN VICTORIA



South West Victoria

Farm profit (EBIT) in South West Victoria in 2021-22 was the seventh highest (accounting for inflation) since the start of the DFMP in 2006-07 (Figure 34). Average EBIT was \$376,000 in 2021-22, compared to the long-term average of \$326,000. Net farm income was \$287,000 in 2021-22, compared to the long-term average of \$161,000.

Average ROTA was 3.9 per cent in 2021-22, decreasing from 5.5 per cent the previous year (Figure 35), compared to the long-term average of 4.1 per cent. The average ROE in South West Victoria decreased to 5.5 per cent in 2021-22 from 9.1 per cent in 2020-21, compared to the long-term average of 3.1 per cent.

FIGURE 34. FARM PROFITABILITY BETWEEN 2006-07 AND 2021-22 – SOUTH WEST VICTORIA

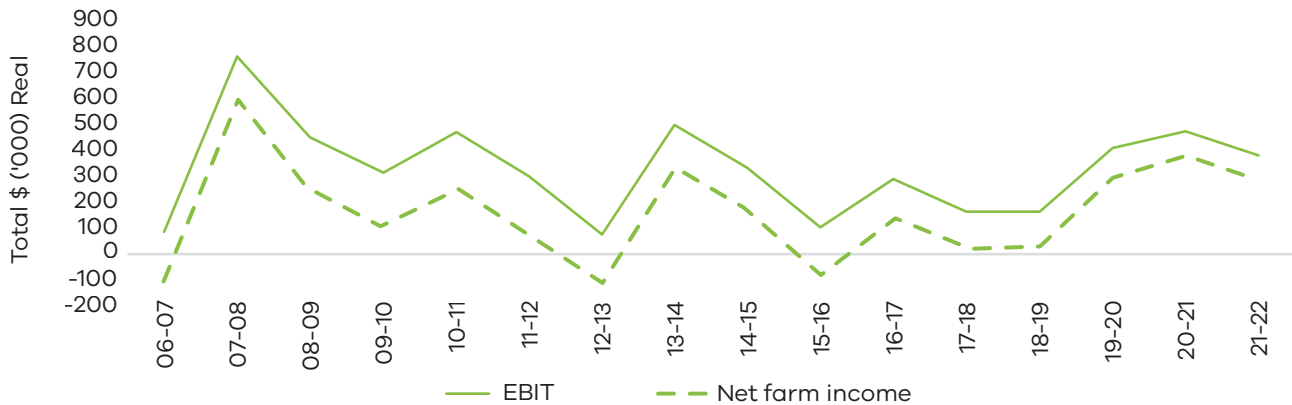
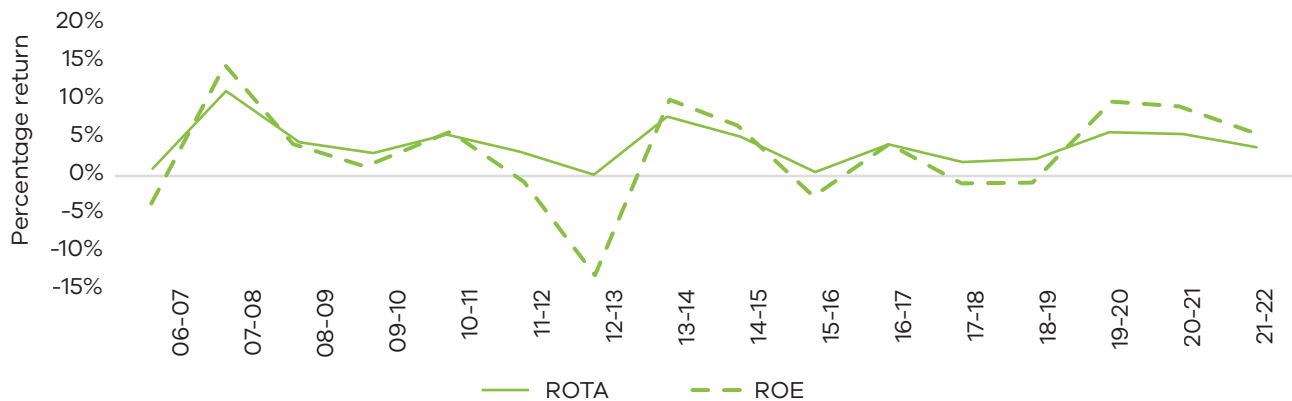


FIGURE 35. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2021-22 – SOUTH WEST VICTORIA



Gippsland

Farm profit (EBIT) in Gippsland in 2021-22 was the sixth highest (accounting for inflation) since the start of the project in 2006-07 (Figure 36). Average EBIT was \$273,000 in 2021-22, compared to the long-term average of \$227,000. Net farm income was \$188,000 in 2021-22, compared to the long-term average of \$121,000.

Average ROTA was 4.2 per cent in 2021-22, decreasing from 5.4 per cent the previous year (Figure 37), compared to the long-term average of 3.9 per cent. The average ROE in Gippsland decreased to 6.2 per cent in 2021-22 from 8 per cent in 2020-21, compared to the long-term average of 4 per cent.

FIGURE 36. FARM PROFITABILITY BETWEEN 2006-07 AND 2021-22 – GIPPSLAND

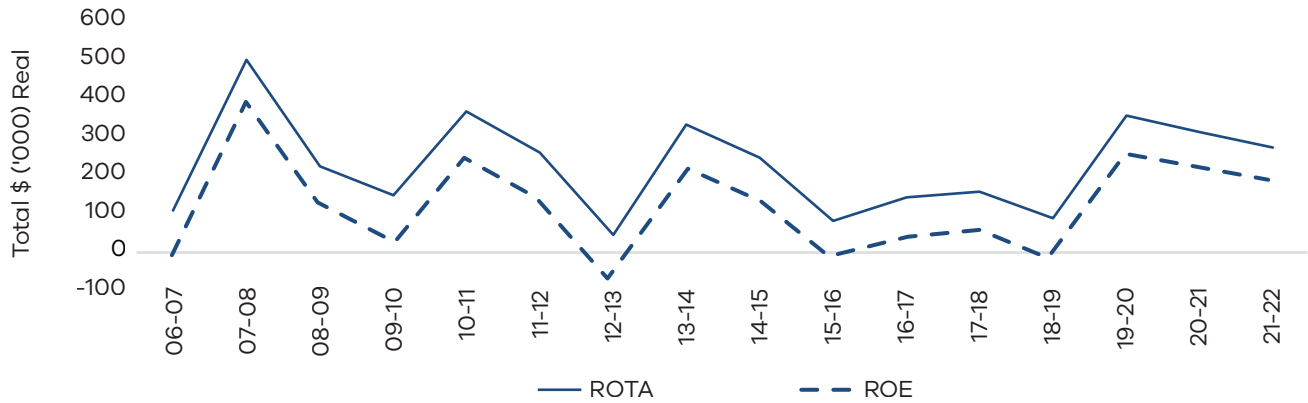
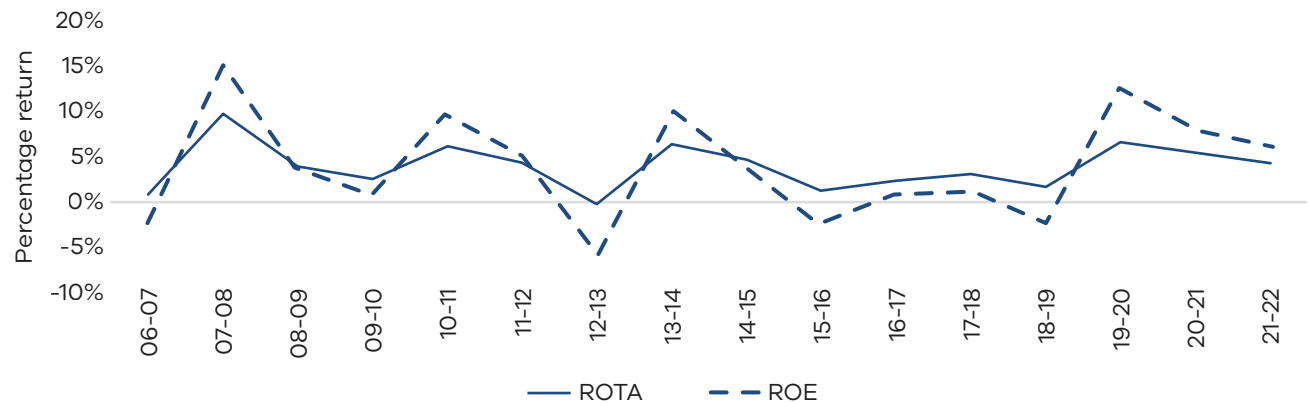


FIGURE 37. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2021-22 – GIPPSLAND



Appendices

Appendix A: Statewide summary tables

Table A1

Main financial indicators – Statewide

	Milk income (net)	All other farm income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings before interest and tax	Return on total assets	Interest and lease charges	Debt servicing ratio	Net farm income	Return on equity
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(%)	(\$/ kg MS)	(%)	(\$/ kg MS)	(% of income)	(\$/ kg MS)	(%)
Average	\$7.37	\$1.13	\$8.50	\$4.11	\$2.67	61%	\$1.72	4.6%	\$0.46	5.4%	\$1.27	6.3%
Top 25%	\$7.46	\$1.04	\$8.50	\$3.61	\$2.17	62%	\$2.72	8.5%	\$0.33	3.9%	\$2.39	12.4%

Table A2

Physical information – Statewide

	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	(ha)	(ha)	(t DM/100mm)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)	(%)	(%)
Average	290	183	0.8	382	1.5	529	798	4.3%	3.5%
Top 25%	246	173	1.0	399	2.0	566	1,071	4.3%	3.5%

Table A2

Physical information – Statewide (continued)

	Estimated grazed pasture**	Estimated conserved feed**	Homegrown feed as % of ME consumed	Nitrogen application**	Phosphorous application**	Potassium application**	Sulphur application**	Labour efficiency	Labour efficiency
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(cows/ FTE)	(kg MS/ FTE)
Average	5.7	1.7	60%	138.3	13.5	23.4	16.6	107	55,857
Top 25%	7.7	1.9	58%	142.8	16.6	26.2	19.1	117	64,343

**on milking area

Table A3

Purchased feed – Statewide

	Purchased feed per milker**	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Purchased feed as % of ME consumed
	(t DM/ cow)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(% of ME)
Average	2.8	\$483	\$261	\$247	\$163	\$419	40%
Top 25%	3.0	\$457				\$396	42%

** All purchased feed including concentrates, hay, silage, and other feed fed on the usable area to all classes of livestock divided by the number of cows
Calculation of average price of silage, hay and other feed excludes zero values

Table A4

Variable costs – Statewide

	AI and herd test	Animal health	Calf rearing	Shed power	Dairy supplies	Total herd and shed costs	Fertiliser	Irrigation **	Hay and silage making
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
Average	\$0.16	\$0.15	\$0.08	\$0.13	\$0.11	\$0.63	\$0.55	\$0.25	\$0.24
Top 25%	\$0.14	\$0.13	\$0.06	\$0.10	\$0.10	\$0.53	\$0.43	\$0.26	\$0.23

** Calculation of average cost of irrigation excludes zero values

Table A4

Variable costs – Statewide (continued)

	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Feed and water inventory change	Total feed costs	Total variable costs
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
Average	\$0.12	\$0.21	\$0.02	\$0.35	\$1.79	\$0.08	-\$0.03	\$3.48	\$4.11
Top 25%	\$0.08	\$0.19	\$0.01	\$0.35	\$1.61	\$0.09	-\$0.15	\$3.07	\$3.61

Table A5

Overhead costs – Statewide

	Rates	Farm insurance	Motor vehicle expenses	Repairs and maintenance	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed labour cost	Total overheads
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
Average	\$0.06	\$0.10	\$0.04	\$0.48	\$0.15	\$0.68	\$1.51	\$0.31	\$0.86	\$2.67
Top 25%	\$0.05	\$0.08	\$0.03	\$0.38	\$0.14	\$0.65	\$1.32	\$0.26	\$0.59	\$2.17

Table A6

Capital structure – Statewide

	Farm Assets				Other Farm Assets (per usable hectare)				
	Land value	Land value	Permanent water value	Permanent water value	Plant and equipment	Livestock	Hay and grain	Other assets	Total assets
	(\$/ha)	(\$/cow)	(\$/ha)	(\$/cow)	(\$/ha)	(\$/ha)	(\$/ha)	(\$/ha)	(\$/ha)
Average	\$16,326	\$12,308	\$6,474	\$3,887	\$1,645	\$4,373	\$455	\$699	\$25,779
Top 25%	\$15,658	\$8,599	\$5,631	\$3,110	\$1,902	\$5,547	\$525	\$749	\$30,012

*Calculation of average values of land, water asset and equity exclude zero values.

Table A6

Capital structure – Statewide (continued)

	Liabilities		Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	(\$/ha)	(\$/cow)	(\$/ha)	(%)
Average	\$6,316	\$4,751	\$19,463	75%
Top 25%	\$7,791	\$3,960	\$22,221	74%

Table A7

Historical data – Statewide Main financial indicators

Year	Income				Variable Costs							
	Milk income (net)		Gross farm income		Herd costs		Shed costs		Feed costs		Total costs	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$4.46	\$6.48	\$5.23	\$7.58	\$0.21	\$0.30	\$0.15	\$0.22	\$2.83	\$4.11	\$3.23	\$4.69
2007-08	\$6.57	\$9.09	\$7.80	\$10.80	\$0.24	\$0.33	\$0.14	\$0.20	\$3.39	\$4.69	\$3.79	\$5.25
2008-09	\$5.35	\$7.11	\$6.08	\$8.08	\$0.23	\$0.30	\$0.15	\$0.20	\$2.85	\$3.79	\$3.23	\$4.29
2009-10	\$4.46	\$5.75	\$5.17	\$6.65	\$0.22	\$0.28	\$0.16	\$0.21	\$2.20	\$2.83	\$2.58	\$3.32
2010-11	\$5.64	\$7.05	\$6.47	\$8.09	\$0.26	\$0.33	\$0.18	\$0.23	\$2.27	\$2.84	\$2.71	\$3.40
2011-12	\$5.52	\$6.78	\$5.97	\$7.34	\$0.26	\$0.32	\$0.19	\$0.23	\$2.33	\$2.86	\$2.78	\$3.41
2012-13	\$4.90	\$5.86	\$5.25	\$6.28	\$0.27	\$0.32	\$0.22	\$0.27	\$2.59	\$3.09	\$3.08	\$3.68
2013-14	\$6.79	\$7.91	\$7.44	\$8.68	\$0.28	\$0.32	\$0.22	\$0.25	\$2.90	\$3.38	\$3.39	\$3.95
2014-15	\$6.04	\$6.89	\$6.61	\$7.53	\$0.29	\$0.33	\$0.20	\$0.23	\$2.90	\$3.31	\$3.39	\$3.86
2015-16	\$5.40	\$6.08	\$5.90	\$6.64	\$0.28	\$0.32	\$0.19	\$0.21	\$3.15	\$3.55	\$3.62	\$4.07
2016-17	\$5.07	\$5.60	\$5.80	\$6.41	\$0.29	\$0.32	\$0.20	\$0.22	\$2.40	\$2.66	\$2.89	\$3.20
2017-18	\$5.81	\$6.30	\$6.41	\$6.95	\$0.31	\$0.34	\$0.22	\$0.24	\$2.93	\$3.18	\$3.46	\$3.76
2018-19	\$6.13	\$6.56	\$6.76	\$7.23	\$0.32	\$0.34	\$0.23	\$0.24	\$3.62	\$3.88	\$4.17	\$4.46
2019-20	\$7.15	\$7.56	\$7.87	\$8.32	\$0.32	\$0.34	\$0.23	\$0.24	\$3.33	\$3.53	\$3.88	\$4.10
2020-21	\$6.76	\$7.05	\$7.67	\$7.99	\$0.32	\$0.34	\$0.23	\$0.24	\$2.86	\$2.98	\$3.41	\$3.55
2021-22	\$7.37	\$7.37	\$8.50	\$8.50	\$0.39	\$0.39	\$0.24	\$0.24	\$3.48	\$3.48	\$4.11	\$4.11
Average		\$6.84		\$7.69		\$0.33		\$0.23		\$3.38		\$3.94

Notes: 'Real' dollar values are the nominal values converted to 2021-22-dollar equivalents by the consumer price index (CPI) to allow for inflation

From 2016-17 Gross farm income does not include feed inventory changes and changes to the value of carry-over water. These are included in feed costs.

Table A7

Historical data – Statewide Main financial indicators (continued)

Year	Overhead Costs					
	Cash		Non-cash		Total	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$0.77	\$1.11	\$1.17	\$1.70	\$1.94	\$2.81
2007-08	\$0.84	\$1.16	\$0.88	\$1.22	\$1.62	\$2.25
2008-09	\$0.82	\$1.09	\$0.88	\$1.17	\$1.70	\$2.26
2009-10	\$0.84	\$1.08	\$1.05	\$1.35	\$1.89	\$2.43
2010-11	\$1.00	\$1.25	\$1.02	\$1.27	\$2.02	\$2.53
2011-12	\$0.99	\$1.21	\$1.07	\$1.31	\$2.06	\$2.53
2012-13	\$0.99	\$1.19	\$1.09	\$1.30	\$2.08	\$2.48
2013-14	\$1.05	\$1.23	\$0.97	\$1.14	\$2.03	\$2.36
2014-15	\$1.08	\$1.23	\$0.90	\$1.02	\$1.97	\$2.25
2015-16	\$1.07	\$1.20	\$1.03	\$1.16	\$2.10	\$2.36
2016-17	\$1.09	\$1.21	\$1.06	\$1.17	\$2.16	\$2.38
2017-18	\$1.18	\$1.28	\$1.11	\$1.20	\$2.29	\$2.48
2018-19	\$1.22	\$1.30	\$1.12	\$1.20	\$2.34	\$2.50
2019-20	\$1.24	\$1.32	\$1.07	\$1.13	\$2.31	\$2.45
2020-21	\$1.32	\$1.37	\$1.09	\$1.13	\$2.40	\$2.51
2021-22	\$1.51	\$1.51	\$1.16	\$1.16	\$2.67	\$2.67
Average		\$1.23		\$1.23		\$2.45

Table A7

Historical data – Statewide Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	%	%
2006-07	\$0.06	\$0.08	\$0.58	\$0.84	-\$0.52	-\$0.76	0.1%	-4.1%
2007-08	\$2.39	\$3.30	\$0.63	\$0.88	\$1.75	\$2.43	9.8%	12.4%
2008-09	\$1.08	\$1.44	\$0.59	\$0.78	\$0.49	\$0.66	3.8%	2.2%
2009-10	\$0.65	\$0.84	\$0.68	\$0.87	-\$0.03	-\$0.04	2.2%	-0.3%
2010-11	\$1.73	\$2.17	\$0.76	\$0.95	\$0.98	\$1.22	6.2%	7.8%
2011-12	\$1.14	\$1.40	\$0.71	\$0.87	\$0.43	\$0.53	5.0%	4.4%
2012-13	\$0.09	\$0.11	\$0.70	\$0.83	-\$0.60	-\$0.72	0.7%	-7.3%
2013-14	\$2.02	\$2.36	\$0.65	\$0.75	\$1.38	\$1.60	8.5%	11.6%
2014-15	\$1.25	\$1.42	\$0.60	\$0.69	\$0.64	\$0.73	5.3%	5.2%
2015-16	\$0.18	\$0.21	\$0.59	\$0.67	-\$0.41	-\$0.46	0.6%	-3.2%
2016-17	\$0.75	\$0.83	\$0.63	\$0.70	\$0.12	\$0.13	2.5%	1.0%
2017-18	\$0.66	\$0.71	\$0.61	\$0.67	\$0.05	\$0.05	2.5%	0.4%
2018-19	\$0.25	\$0.27	\$0.64	\$0.69	-\$0.39	-\$0.41	0.7%	-3.5%
2019-20	\$1.68	\$1.77	\$0.54	\$0.57	\$1.14	\$1.20	5.4%	8.3%
2020-21	\$1.86	\$1.93	\$0.46	\$0.48	\$1.39	\$1.45	5.7%	8.2%
2021-22	\$1.72	\$1.72	\$0.46	\$0.46	\$1.27	\$1.27	4.6%	6.3%
Average		\$1.29		\$0.73		\$0.56	4.0%	3.1%

Table A8

Historical data – Statewide Average farm physical information

Year	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold
	(ha)	(ha)	(t DM/100mm/ha)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)
2006-07	271	268	0.8	345	1.4	447	636
2007-08	265	250	0.8	332	1.3	489	612
2008-09	256	237	0.8	330	1.5	498	741
2009-10	232	219	0.8	307	1.5	496	752
2010-11	236	227	0.7	305	1.4	493	719
2011-12	237	160	0.7	328	1.6	508	800
2012-13	232	154	0.8	323	1.6	495	781
2013-14	242	157	0.8	335	1.6	498	810
2014-15	248	160	0.9	350	1.6	514	845
2015-16	252	162	0.7	345	1.6	511	818
2016-17	268	166	0.7	342	1.5	503	748
2017-18	264	166	0.7	352	1.5	503	752
2018-19	261	162	0.9	357	1.6	495	757
2019-20	277	161	0.8	369	1.5	525	794
2020-21	278	170	0.8	373	1.6	530	823
2021-22	290	183	0.8	382	1.5	529	798
Average	257	188	0.8	342	1.5	502	762

Table A8

Historical data – Statewide Average farm physical information (continued)

Year	Estimated grazed pasture*	Estimated conserved feed*	Homegrown feed as % of ME consumed	Concentrate price Nominal	Concentrate price Real
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(\$/T DM)	(\$/T DM)
2006-07	4.9	1.0	60%	\$329	\$477
2007-08	4.8	1.0	64%	\$425	\$589
2008-09	5.6	0.9	62%	\$375	\$498
2009-10	6.2	0.8	66%	\$273	\$352
2010-11	5.8	1.9	65%	\$301	\$377
2011-12	6.2	1.0	57%	\$296	\$364
2012-13	6.2	1.2	58%	\$336	\$402
2013-14	6.6	1.4	62%	\$388	\$452
2014-15	6.5	1.2	59%	\$405	\$461
2015-16	5.8	1.2	53%	\$402	\$452
2016-17	6.5	1.6	65%	\$335	\$371
2017-18	6.1	1.5	62%	\$373	\$405
2018-19	6.4	1.7	65%	\$514	\$550
2019-20	6.3	1.4	61%	\$495	\$523
2020-21	6.5	1.7	62%	\$430	\$448
2021-22	5.7	1.7	60%	\$483	\$483
Average	6.0	1.3	61%	\$450	\$450

* From 2006-07 to 2010-11 estimated grazed pasture and conserved feed was calculated per usable hectare

From 2011-12 estimated grazed pasture and conserved feed was calculated per hectare of milking area

Appendix B: Northern Victoria summary tables

Table B1

Main financial indicators – Northern Victoria

Farm number	Milk income (net)	All other farm income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest and Tax	Return on total assets	Interest and lease charges	Debt servicing ratio	Net farm income	Return on equity
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(%)	(\$/ kg MS)	(%)	(\$/ kg MS)	(% of income)	(\$/ kg MS)	(%)
NO0012	\$7.04	\$1.19	\$8.23	\$4.73	\$2.00	70%	\$1.50	4.6%	\$0.05	0.6%	\$1.45	4.9%
NO0014	\$7.39	\$2.07	\$9.46	\$4.22	\$3.05	58%	\$2.19	2.8%	\$0.56	5.9%	\$1.63	2.7%
NO0015	\$7.84	\$1.36	\$9.20	\$4.11	\$2.05	67%	\$3.04	8.4%	\$0.41	4.5%	\$2.63	10.4%
NO0022	\$7.73	\$1.03	\$8.75	\$3.06	\$1.96	61%	\$3.74	8.0%	\$0.07	0.8%	\$3.67	9.0%
NO0023	\$7.60	\$0.65	\$8.25	\$4.64	\$2.13	69%	\$1.48	5.3%	\$0.29	3.5%	\$1.19	5.9%
NO0027	\$7.22	\$6.09	\$13.31	\$6.91	\$3.92	64%	\$2.49	6.4%	\$0.28	2.1%	\$2.21	8.9%
NO0035	\$7.56	\$0.25	\$7.80	\$3.63	\$2.66	58%	\$1.52	2.7%	\$0.24	3.1%	\$1.28	2.5%
NO0041	\$7.56	\$1.22	\$8.77	\$4.46	\$1.91	70%	\$2.41	6.5%	\$0.29	3.4%	\$2.12	9.8%
NO0043	\$8.55	\$0.18	\$8.73	\$3.41	\$3.98	46%	\$1.33	2.1%	\$1.41	16.1%	-\$0.07	-0.2%
NO0054	\$7.87	\$1.17	\$9.04	\$5.50	\$2.29	71%	\$1.25	5.2%	\$0.34	3.8%	\$0.91	6.7%
NO0056	\$7.36	\$0.67	\$8.03	\$3.84	\$2.30	63%	\$1.89	3.9%	\$0.69	8.7%	\$1.19	4.6%
NO0059	\$8.33	\$0.55	\$8.87	\$4.71	\$1.94	71%	\$2.23	6.3%	\$0.71	7.9%	\$1.52	8.2%
NO0064	\$7.74	\$0.89	\$8.63	\$5.27	\$2.80	65%	\$0.56	1.7%	\$0.29	3.4%	\$0.27	1.2%
NO0065	\$7.77	\$2.42	\$10.19	\$5.39	\$2.50	68%	\$2.30	7.1%	\$0.94	9.2%	\$1.36	12.5%
NO0069	\$8.56	\$0.58	\$9.14	\$3.18	\$3.15	50%	\$2.82	4.8%	\$0.39	4.3%	\$2.43	5.0%
NO0072	\$7.15	\$1.41	\$8.56	\$3.31	\$4.09	45%	\$1.16	1.5%	\$0.00	0.0%	\$1.16	1.6%
NO0073	\$6.82	\$1.82	\$8.64	\$3.87	\$2.58	60%	\$2.18	3.5%	\$0.32	3.7%	\$1.86	3.7%
NO0075	\$6.81	\$0.90	\$7.71	\$3.23	\$2.29	59%	\$2.18	7.0%	\$0.33	4.2%	\$1.86	8.2%
NO0078	\$7.61	\$1.32	\$8.93	\$4.11	\$1.92	68%	\$2.90	7.1%	\$0.36	4.0%	\$2.54	8.5%
NO0079	\$6.90	\$1.25	\$8.15	\$3.56	\$2.73	57%	\$1.85	5.6%	\$0.39	4.8%	\$1.46	7.4%
NO0080	\$7.59	\$0.70	\$8.28	\$4.41	\$1.78	71%	\$2.10	11.8%	\$0.16	1.9%	\$1.94	14.2%
NO0081	\$7.51	\$0.69	\$8.21	\$4.01	\$1.83	69%	\$2.36	8.1%	\$0.06	0.8%	\$2.30	8.6%
NO0082	\$7.48	\$1.14	\$8.62	\$5.07	\$2.24	69%	\$1.32	4.7%	\$0.51	5.9%	\$0.81	6.4%
NO0083	\$7.33	\$1.38	\$8.71	\$3.86	\$2.87	57%	\$1.98	5.1%	\$1.43	16.4%	\$0.56	4.5%
NO0085	\$7.34	\$0.61	\$7.95	\$4.48	\$2.90	61%	\$0.56	1.7%	\$0.21	2.6%	\$0.36	1.2%
NO0086	\$8.10	\$0.75	\$8.85	\$4.59	\$2.08	69%	\$2.18	6.8%	\$0.27	3.1%	\$1.91	7.5%
NO0087	\$7.47	\$0.82	\$8.30	\$2.79	\$2.89	49%	\$2.62	10.5%	\$0.44	5.3%	\$2.18	21.4%
NO0088	\$7.18	\$1.08	\$8.26	\$3.08	\$3.02	51%	\$2.16	5.9%	\$0.59	7.1%	\$1.57	15.3%
NO0089	\$7.25	\$0.87	\$8.12	\$3.90	\$2.30	63%	\$1.91	6.9%	\$0.22	2.7%	\$1.69	9.0%
NO0090	\$7.40	\$0.65	\$8.05	\$4.71	\$2.11	69%	\$1.22	4.8%	\$0.03	0.4%	\$1.19	5.0%
Average	\$7.54	\$1.19	\$8.72	\$4.20	\$2.54	62%	\$1.98	5.6%	\$0.41	4.7%	\$1.57	7.2%
Top 25%*	\$7.54	\$1.15	\$8.70	\$3.89	\$2.15	64%	\$2.66	8.5%	\$0.35	3.8%	\$2.31	11.6%

* Top 25% are bold and italicised

Table B2

Physical information – Northern Victoria

Farm Number	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	(ha)	(ha)	(t DM/100mm)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)	(%)	(%)
NO0014	561	437	0.6	510	0.9	505	459	3.9%	3.3%
NO0015	247	92	0.8	390	1.6	504	795	4.5%	3.6%
NO0022	226	105	0.8	340	1.5	515	775	4.7%	3.5%
NO0023	342	342	0.8	530	1.5	553	856	4.0%	3.4%
NO0027	1,212	1	1.1	715	0.6	665	392	4.3%	3.1%
NO0035	109	66	0.5	191	1.8	607	1,063	3.9%	3.5%
NO0041	217	153	0.7	330	1.5	612	931	4.1%	3.5%
NO0043	144	144	0.7	127	0.9	397	350	4.3%	3.3%
NO0054	1,111	290	1.4	2,036	1.8	704	1,290	4.2%	3.4%
NO0056	424	90	0.8	295	0.7	622	433	4.0%	3.2%
NO0059	311	75	0.7	273	0.9	517	454	4.5%	3.6%
NO0064	435	254	0.9	750	1.7	507	874	4.7%	3.6%
NO0065	218	218	1.1	450	2.1	603	1,244	4.1%	3.4%
NO0069	162	100	0.8	200	1.2	462	570	4.9%	3.8%
NO0072	195	57	0.6	179	0.9	504	462	4.4%	3.5%
NO0073	389	230	0.5	470	1.2	596	721	3.9%	3.3%
NO0075	373	190	1.1	540	1.4	635	919	4.2%	3.6%
NO0078	269	100	0.7	335	1.2	708	882	4.1%	3.3%
NO0079	118	118	0.5	178	1.5	467	705	4.7%	3.7%
NO0080	80	80	0.8	236	3.0	631	1,860	4.0%	3.4%
NO0081	345	345	1.3	535	1.6	650	1,008	4.2%	3.3%
NO0082	565	565	0.9	480	0.8	631	536	4.2%	3.4%
NO0083	184	184	0.7	300	1.6	506	825	4.2%	3.3%
NO0085	207	84	0.5	220	1.1	605	643	4.4%	3.5%
NO0086	433	315	0.7	490	1.1	629	711	4.3%	3.5%
NO0087	197	70	0.6	220	1.1	574	641	4.2%	3.5%
NO0088	29	29	1.0	87	3.0	576	1,727	4.7%	3.6%
NO0089	351	351	1.2	451	1.3	643	827	3.9%	3.6%
NO0090	113	113	0.5	167	1.5	575	850	4.6%	3.6%
Average	335	186	0.8	428	1.4	578	830	4.3%	3.5%
Top 25%*	244	150	0.9	381	1.7	602	1,016	4.2%	3.4%

Table B2

Physical information – Northern Victoria (continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Homegrown feed as % of ME consumed	Nitrogen application**	Phosphorous application**	Potassium application**	Sulphur application**	Labour efficiency	Labour efficiency
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(cows/ FTE)	(kg MS/ FTE)
NO0012	0.0	4.7	34%	130.8	16.7	4.3	7.0	132	83,778
NO0014	4.8	1.6	66%	174.5	82.5	29.7	40.3	92	46,353
NO0015	6.8	1.9	53%	120.4	26.1	3.4	40.3	135	67,962
NO0022	10.0	0.0	72%	0.0	0.0	0.0	1.1	148	76,174
NO0023	2.9	3.3	38%	47.8	13.1	2.8	6.3	116	64,073
NO0027	0.0	0.0	63%	0.0	0.0	0.0	0.0	68	45,443
NO0035	5.7	1.1	42%	5.0	2.2	1.1	10.2	80	48,608
NO0041	6.8	0.7	46%	51.8	8.7	4.4	4.0	102	62,527
NO0043	2.7	3.5	93%	0.0	3.1	0.0	3.8	102	40,640
NO0054	1.8	0.0	48%	57.0	10.3	0.0	5.7	108	75,817
NO0056	8.4	0.3	69%	172.0	15.2	56.3	25.7	97	60,574
NO0059	11.8	0.0	73%	33.3	23.7	33.3	25.5	108	55,914
NO0064	4.4	1.0	58%	174.3	44.4	26.6	6.0	115	58,221
NO0065	4.6	6.1	45%	171.2	14.8	7.8	12.6	93	55,845
NO0069	6.9	1.4	77%	0.0	6.2	0.1	7.7	91	42,035
NO0072	8.4	0.8	73%	65.4	3.5	11.4	4.4	62	31,032
NO0073	5.0	3.7	57%	231.1	31.9	30.7	31.6	108	64,375
NO0075	6.3	3.6	63%	104.1	25.3	0.0	2.0	97	61,455
NO0078	9.7	0.0	48%	27.6	0.0	0.0	0.0	96	68,087
NO0079	3.0	1.7	44%	50.7	0.0	0.0	0.0	125	58,639
NO0080	8.9	0.7	43%	256.4	4.8	0.0	7.5	93	58,666
NO0081	3.0	6.1	52%	62.2	15.0	1.2	19.5	112	72,768
NO0082	2.1	3.5	61%	21.4	14.7	6.1	16.3	94	59,444
NO0083	4.9	1.3	51%	39.3	0.0	0.0	0.9	91	45,960
NO0085	4.6	1.8	41%	95.2	17.5	0.0	32.4	79	47,761
NO0086	3.9	2.3	57%	67.7	21.7	16.3	28.0	92	57,915
NO0087	6.7	0.0	46%	13.1	0.0	0.0	3.8	81	46,239
NO0088	11.8	0.4	62%	0.0	34.0	0.0	42.5	71	40,682
NO0089	3.3	5.6	63%	115.5	10.0	2.9	13.3	90	57,636
NO0090	3.8	0.3	43%	21.1	4.4	0.0	0.4	112	64,374
Average	5.6	1.9	56%	76.3	15.5	8.2	13.8	100	57,300
Top 25%*	7.0	2.3	53%	94.4	10.7	1.5	10.9	107	63,400

**on milking area

Table B3

Purchased feed – Northern Victoria

Farm number	Purchased feed per milker**	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Purchased feed as % of ME consumed
	(t DM/ cow)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(% of ME)
NO0012	5.4	\$421	\$194	\$169	\$123	\$326	66%
NO0014	3.0	\$467		\$279		\$396	34%
NO0015	3.2	\$343		\$319		\$334	47%
NO0022	1.8	\$526				\$526	28%
NO0023	4.7	\$370	\$258	\$265		\$315	62%
NO0027	4.2	\$435		\$96	\$232	\$248	37%
NO0035	4.1	\$391		\$237		\$343	58%
NO0041	4.6	\$526	\$215	\$228		\$348	54%
NO0043	0.4	\$626				\$626	7%
NO0054	4.4	\$492		\$293		\$404	52%
NO0056	2.6	\$549		\$212		\$390	31%
NO0059	2.0	\$760	\$350	\$375		\$618	27%
NO0064	3.1	\$529	\$210	\$315		\$422	42%
NO0065	4.7	\$539	\$297	\$290		\$420	55%
NO0069	1.4	\$698	\$220	\$282		\$540	23%
NO0072	1.8	\$394		\$412		\$396	27%
NO0073	2.8	\$392		\$222		\$359	43%
NO0075	2.5	\$351		\$212		\$342	37%
NO0078	5.2	\$360	\$240	\$301		\$321	52%
NO0079	3.5	\$342	\$253	\$86		\$245	56%
NO0080	4.1	\$523	\$262	\$264		\$450	57%
NO0081	4.0	\$543	\$204	\$334		\$395	48%
NO0082	3.0	\$518		\$120		\$492	39%
NO0083	4.5	\$437	\$143	\$123		\$215	49%
NO0085	4.2	\$447	\$341	\$257		\$320	59%
NO0086	3.1	\$497	\$254	\$157		\$387	43%
NO0087	4.5	\$536		\$285		\$263	54%
NO0088	2.5	\$520		\$210		\$381	38%
NO0089	2.7	\$395	\$187			\$382	37%
NO0090	5.1	\$460		\$265		\$332	57%
Average	3.4	\$479	\$242	\$245	\$178	\$384	44%
Top 25%*	3.7	\$465				\$381	47%

** All purchased feed including concentrates, hay, silage, and other feed fed on the usable area to all classes of livestock divided by the number of cows

Calculation of average price of silage, hay and other feed excludes zero values

Table B4

Variable costs – Northern Victoria

Farm number	AI and herd test	Animal health	Calf rearing	Shed power	Dairy supplies	Total herd and shed costs	Fertiliser	Irrigation **	Hay and silage making
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
NO0012	\$0.17	\$0.15	\$0.07	\$0.10	\$0.12	\$0.61	\$0.67	\$0.16	\$0.52
NO0014	\$0.13	\$0.23	\$0.22	\$0.15	\$0.14	\$0.87	\$0.71	\$0.01	\$0.20
NO0015	\$0.12	\$0.11	\$0.02	\$0.14	\$0.07	\$0.46	\$0.41	\$0.30	\$0.44
NO0022	\$0.12	\$0.11	\$0.06	\$0.16	\$0.06	\$0.51	\$0.09	\$0.35	\$0.13
NO0023	\$0.24	\$0.17	\$0.02	\$0.13	\$0.10	\$0.67	\$0.32	\$0.29	\$0.42
NO0027	\$0.23	\$0.22	\$0.00	\$0.16	\$0.08	\$0.70	\$0.81	\$0.22	\$0.48
NO0035	\$0.13	\$0.16	\$0.02	\$0.09	\$0.09	\$0.49	\$0.17	\$0.33	\$0.17
NO0041	\$0.15	\$0.21	\$0.03	\$0.08	\$0.04	\$0.51	\$0.20	\$0.32	\$0.10
NO0043	\$0.30	\$0.18	\$0.09	\$0.28	\$0.19	\$1.04	\$0.09	\$0.91	\$0.10
NO0054	\$0.15	\$0.20	\$0.51	\$0.12	\$0.22	\$1.21	\$0.52	\$0.11	\$0.56
NO0056	\$0.29	\$0.17	\$0.02	\$0.12	\$0.05	\$0.65	\$0.72	\$0.48	\$0.37
NO0059	\$0.17	\$0.02	\$0.02	\$0.16	\$0.09	\$0.46	\$0.39	\$1.06	\$0.37
NO0064	\$0.16	\$0.31	\$0.05	\$0.09	\$0.08	\$0.68	\$0.58	\$0.37	\$0.38
NO0065	\$0.14	\$0.32	\$0.07	\$0.11	\$0.12	\$0.76	\$0.39	\$0.32	\$0.63
NO0069	\$0.15	\$0.15	\$0.10	\$0.06	\$0.09	\$0.55	\$0.22	\$0.49	\$0.52
NO0072	\$0.16	\$0.16	\$0.14	\$0.13	\$0.06	\$0.64	\$0.18	\$0.14	\$0.50
NO0073	\$0.24	\$0.15	\$0.11	\$0.11	\$0.14	\$0.75	\$0.75	\$0.07	\$0.30
NO0075	\$0.15	\$0.07	\$0.03	\$0.09	\$0.08	\$0.42	\$0.50	\$0.20	\$0.60
NO0078	\$0.12	\$0.10	\$0.00	\$0.09	\$0.11	\$0.42	\$0.10	\$0.19	\$0.07
NO0079	\$0.00	\$0.14	\$0.00	\$0.20	\$0.08	\$0.42	\$0.20	\$0.38	\$0.09
NO0080	\$0.10	\$0.11	\$0.02	\$0.07	\$0.08	\$0.38	\$0.37	\$0.27	\$0.04
NO0081	\$0.11	\$0.11	\$0.00	\$0.09	\$0.12	\$0.44	\$0.26	\$0.27	\$0.50
NO0082	\$0.16	\$0.14	\$0.01	\$0.12	\$0.08	\$0.50	\$0.54	\$0.37	\$0.65
NO0083	\$0.24	\$0.21	\$0.31	\$0.08	\$0.03	\$0.87	\$0.14	\$0.21	\$0.03
NO0085	\$0.14	\$0.21	\$0.12	\$0.15	\$0.10	\$0.73	\$0.32	\$0.25	\$0.33
NO0086	\$0.18	\$0.10	\$0.09	\$0.08	\$0.10	\$0.54	\$0.73	\$0.54	\$0.45
NO0087	\$0.14	\$0.12	\$0.07	\$0.11	\$0.09	\$0.54	\$0.07	\$0.16	\$0.07
NO0088	\$0.13	\$0.12	\$0.00	\$0.11	\$0.11	\$0.46	\$0.17	\$0.18	\$0.01
NO0089	\$0.14	\$0.17	\$0.09	\$0.09	\$0.11	\$0.60	\$0.44	\$0.50	\$0.69
NO0090	\$0.12	\$0.15	\$0.04	\$0.07	\$0.10	\$0.47	\$0.09	\$0.21	\$0.06
Average	\$0.16	\$0.16	\$0.08	\$0.12	\$0.10	\$0.61	\$0.37	\$0.32	\$0.33
Top 25%*	\$0.13	\$0.13	\$0.03	\$0.11	\$0.09	\$0.49	\$0.27	\$0.26	\$0.31

** Calculation of average cost of irrigation excludes zero values

Table B4

Variable costs – Northern Victoria (continued)

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Feed and water inventory change	Total feed costs	Total variable costs
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
NO0012	\$0.11	\$0.28	\$0.00	\$0.50	\$2.27	\$0.04	-\$0.42	\$4.12	\$4.73
NO0014	\$0.23	\$0.16	\$0.00	\$0.67	\$1.85	\$0.00	-\$0.48	\$3.35	\$4.22
NO0015	\$0.13	\$0.35	\$0.00	\$0.80	\$1.30	\$0.07	-\$0.15	\$3.65	\$4.11
NO0022	\$0.05	\$0.33	\$0.00	\$0.00	\$1.63	\$0.02	-\$0.04	\$2.55	\$3.06
NO0023	\$0.09	\$0.32	\$0.00	\$1.28	\$1.84	\$0.22	-\$0.81	\$3.97	\$4.64
NO0027	\$0.21	\$1.23	\$0.01	\$0.55	\$2.17	\$0.00	\$0.52	\$6.21	\$6.91
NO0035	\$0.12	\$0.14	\$0.00	\$0.44	\$1.61	\$0.09	\$0.07	\$3.14	\$3.63
NO0041	\$0.10	\$0.24	\$0.00	\$1.18	\$1.94	\$0.09	-\$0.23	\$3.94	\$4.46
NO0043	\$0.38	\$0.38	\$0.00	\$0.00	\$0.58	\$0.00	-\$0.08	\$2.37	\$3.41
NO0054	\$0.08	\$0.36	\$0.00	\$0.57	\$1.96	\$0.19	-\$0.06	\$4.29	\$5.50
NO0056	\$0.17	\$0.29	\$0.00	\$0.47	\$1.35	\$0.00	-\$0.65	\$3.19	\$3.84
NO0059	\$0.05	\$0.34	\$0.00	\$0.44	\$1.74	\$0.00	-\$0.16	\$4.24	\$4.71
NO0064	\$0.13	\$0.32	\$0.00	\$0.81	\$1.72	\$0.02	\$0.26	\$4.59	\$5.27
NO0065	\$0.13	\$0.66	\$0.00	\$1.09	\$2.16	\$0.10	-\$0.85	\$4.63	\$5.39
NO0069	\$0.19	\$0.10	\$0.00	\$0.28	\$1.35	\$0.10	-\$0.62	\$2.63	\$3.18
NO0072	\$0.11	\$0.25	\$0.00	\$0.18	\$1.28	\$0.00	\$0.02	\$2.66	\$3.31
NO0073	\$0.12	\$0.16	\$0.03	\$0.21	\$1.51	\$0.22	-\$0.23	\$3.12	\$3.87
NO0075	\$0.10	\$0.34	\$0.00	\$0.04	\$1.11	\$0.18	-\$0.27	\$2.81	\$3.23
NO0078	\$0.10	\$0.20	\$0.01	\$1.22	\$0.94	\$0.00	\$0.86	\$3.69	\$4.11
NO0079	\$0.23	\$0.19	\$0.00	\$0.50	\$1.39	\$0.34	-\$0.19	\$3.15	\$3.56
NO0080	\$0.06	\$0.35	\$0.00	\$0.41	\$2.11	\$0.15	-\$0.26	\$4.02	\$4.41
NO0081	\$0.08	\$0.27	\$0.00	\$0.62	\$1.66	\$0.15	-\$0.24	\$3.57	\$4.01
NO0082	\$0.09	\$0.41	\$0.03	\$0.04	\$2.32	\$0.04	\$0.09	\$4.57	\$5.07
NO0083	\$0.23	\$0.23	\$0.00	\$1.10	\$1.14	\$0.11	-\$0.20	\$2.99	\$3.86
NO0085	\$0.12	\$0.32	\$0.00	\$0.56	\$1.57	\$0.19	\$0.09	\$3.76	\$4.48
NO0086	\$0.04	\$0.18	\$0.00	\$0.38	\$2.01	\$0.00	-\$0.28	\$4.05	\$4.59
NO0087	\$0.08	\$0.22	\$0.00	\$0.02	\$1.74	\$0.00	-\$0.09	\$2.26	\$2.79
NO0088	\$0.14	\$0.01	\$0.00	\$0.54	\$1.65	\$0.12	-\$0.19	\$2.62	\$3.08
NO0089	\$0.21	\$0.42	\$0.00	\$0.05	\$1.49	\$0.13	-\$0.62	\$3.30	\$3.90
NO0090	\$0.09	\$0.21	\$0.00	\$1.52	\$1.41	\$0.07	\$0.58	\$4.24	\$4.71
Average	\$0.13	\$0.31	\$0.00	\$0.55	\$1.63	\$0.09	-\$0.14	\$3.59	\$4.20
Top 25%*	\$0.09	\$0.34	\$0.00	\$0.53	\$1.58	\$0.08	-\$0.07	\$3.40	\$3.89

Table B5

Overhead costs – Northern Victoria

Farm number	Rates	Farm Insurance	Motor vehicle expenses	Repairs and maintenance	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed labour cost	Total overheads
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
NO0012	\$0.05	\$0.01	\$0.02	\$0.37	\$0.10	\$1.08	\$1.63	\$0.35	\$0.02	\$2.00
NO0014	\$0.08	\$0.12	\$0.09	\$0.48	\$0.10	\$0.67	\$1.54	\$0.43	\$1.08	\$3.05
NO0015	\$0.05	\$0.08	\$0.01	\$0.38	\$0.08	\$0.49	\$1.07	\$0.23	\$0.75	\$2.05
NO0022	\$0.07	\$0.07	\$0.02	\$0.57	\$0.10	\$0.33	\$1.15	\$0.19	\$0.62	\$1.96
NO0023	\$0.05	\$0.09	\$0.03	\$0.33	\$0.18	\$0.57	\$1.26	\$0.21	\$0.66	\$2.13
NO0027	\$0.09	\$0.13	\$0.01	\$0.67	\$0.19	\$1.61	\$2.69	\$0.83	\$0.40	\$3.92
NO0035	\$0.05	\$0.12	\$0.05	\$0.29	\$0.14	\$0.00	\$0.66	\$0.32	\$1.68	\$2.66
NO0041	\$0.03	\$0.04	\$0.02	\$0.28	\$0.10	\$0.70	\$1.16	\$0.22	\$0.53	\$1.91
NO0043	\$0.09	\$0.28	\$0.07	\$0.88	\$0.29	\$0.39	\$2.00	\$0.50	\$1.48	\$3.98
NO0054	\$0.02	\$0.03	\$0.03	\$0.51	\$0.22	\$1.19	\$2.00	\$0.29	\$0.00	\$2.29
NO0056	\$0.09	\$0.12	\$0.03	\$0.46	\$0.05	\$0.46	\$1.20	\$0.17	\$0.93	\$2.30
NO0059	\$0.05	\$0.07	\$0.02	\$0.22	\$0.08	\$0.64	\$1.06	\$0.22	\$0.65	\$1.94
NO0064	\$0.03	\$0.13	\$0.02	\$0.81	\$0.18	\$0.90	\$2.06	\$0.28	\$0.46	\$2.80
NO0065	\$0.05	\$0.05	\$0.10	\$0.49	\$0.07	\$0.94	\$1.70	\$0.41	\$0.38	\$2.50
NO0069	\$0.09	\$0.19	\$0.03	\$0.48	\$0.18	\$0.76	\$1.75	\$0.36	\$1.04	\$3.15
NO0072	\$0.11	\$0.10	\$0.00	\$0.45	\$0.16	\$1.80	\$2.63	\$0.52	\$0.94	\$4.09
NO0073	\$0.05	\$0.09	\$0.01	\$0.43	\$0.07	\$0.94	\$1.58	\$0.61	\$0.39	\$2.58
NO0075	\$0.05	\$0.05	\$0.02	\$0.52	\$0.09	\$0.92	\$1.65	\$0.27	\$0.38	\$2.29
NO0078	\$0.05	\$0.08	\$0.01	\$0.24	\$0.06	\$0.51	\$0.95	\$0.32	\$0.65	\$1.92
NO0079	\$0.07	\$0.05	\$0.03	\$0.90	\$0.11	\$0.20	\$1.35	\$0.18	\$1.20	\$2.73
NO0080	\$0.03	\$0.03	\$0.03	\$0.19	\$0.13	\$0.42	\$0.81	\$0.14	\$0.83	\$1.78
NO0081	\$0.05	\$0.10	\$0.00	\$0.28	\$0.11	\$0.52	\$1.06	\$0.28	\$0.49	\$1.83
NO0082	\$0.04	\$0.04	\$0.03	\$0.46	\$0.07	\$1.05	\$1.69	\$0.25	\$0.30	\$2.24
NO0083	\$0.04	\$0.03	\$0.09	\$0.52	\$0.15	\$0.84	\$1.67	\$0.30	\$0.90	\$2.87
NO0085	\$0.05	\$0.09	\$0.02	\$0.56	\$0.20	\$0.51	\$1.44	\$0.34	\$1.12	\$2.90
NO0086	\$0.05	\$0.08	\$0.04	\$0.30	\$0.07	\$0.70	\$1.25	\$0.15	\$0.68	\$2.08
NO0087	\$0.03	\$0.11	\$0.20	\$0.21	\$0.11	\$0.72	\$1.39	\$0.57	\$0.92	\$2.89
NO0088	\$0.04	\$0.04	\$0.18	\$0.40	\$0.17	\$0.33	\$1.16	\$0.23	\$1.63	\$3.02
NO0089	\$0.04	\$0.05	\$0.03	\$0.42	\$0.11	\$0.50	\$1.16	\$0.30	\$0.84	\$2.30
NO0090	\$0.04	\$0.08	\$0.11	\$0.37	\$0.06	\$0.25	\$0.91	\$0.19	\$1.02	\$2.11
Average	\$0.05	\$0.08	\$0.04	\$0.45	\$0.12	\$0.70	\$1.45	\$0.32	\$0.77	\$2.54
Top 25%*	\$0.05	\$0.07	\$0.05	\$0.36	\$0.09	\$0.61	\$1.22	\$0.30	\$0.63	\$2.15

*Calculation of average values of land, water asset and equity exclude zero values.

Table B6
Capital structure – Northern Victoria

	Farm Assets				Other farm assets (per usable hectare)				
	Land value		Permanent water value		Plant and equipment	Livestock	Hay and grain	Other assets	Total assets
	(\$/ha)	(\$/cow)	(\$/ha)	(\$/cow)					
Average	\$13,262	\$10,799	\$6,816	\$4,623	\$1,722	\$4,272	\$635	\$571	\$26,804
Top 25%*	\$11,829	\$7,409	\$7,353	\$4,833	\$2,096	\$5,120	\$770	\$1,214	\$28,382

Table B6
Capital structure – Northern Victoria (continued)

	Liabilities		Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	(\$/ha)	(\$/cow)	(\$/ha)	(%)
Average	\$6,175	\$4,719	\$20,629	74%
Top 25%*	\$6,989	\$4,399	\$21,394	73%

Table B7
Historical data – Northern Victoria
Main financial indicators

Year	Income				Variable Costs							
	Milk income (net)		Gross farm income		Herd costs		Shed costs		Feed costs		Total variable costs	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$4.64	\$6.73	\$5.48	\$7.95	\$0.21	\$0.31	\$0.17	\$0.24	\$3.60	\$5.22	\$4.03	\$5.85
2007-08	\$6.53	\$9.04	\$7.86	\$10.88	\$0.23	\$0.31	\$0.15	\$0.21	\$4.37	\$6.06	\$4.70	\$6.50
2008-09	\$5.32	\$7.07	\$6.06	\$8.05	\$0.21	\$0.28	\$0.13	\$0.18	\$3.47	\$4.61	\$3.81	\$5.06
2009-10	\$4.46	\$5.74	\$5.19	\$6.69	\$0.23	\$0.30	\$0.15	\$0.19	\$2.71	\$3.49	\$3.09	\$3.98
2010-11	\$5.69	\$7.13	\$6.74	\$8.43	\$0.31	\$0.39	\$0.19	\$0.23	\$2.66	\$3.33	\$3.16	\$3.95
2011-12	\$5.64	\$6.93	\$6.06	\$7.44	\$0.26	\$0.32	\$0.18	\$0.22	\$2.52	\$3.09	\$2.95	\$3.63
2012-13	\$5.05	\$6.03	\$5.53	\$6.61	\$0.25	\$0.30	\$0.24	\$0.28	\$2.85	\$3.40	\$3.34	\$3.99
2013-14	\$6.83	\$7.96	\$7.46	\$8.70	\$0.27	\$0.31	\$0.21	\$0.24	\$3.13	\$3.65	\$3.61	\$4.21
2014-15	\$6.09	\$6.94	\$6.62	\$7.55	\$0.30	\$0.34	\$0.19	\$0.22	\$3.20	\$3.64	\$3.69	\$4.20
2015-16	\$5.46	\$6.15	\$5.98	\$6.73	\$0.30	\$0.33	\$0.18	\$0.20	\$3.59	\$4.04	\$4.06	\$4.57
2016-17	\$5.13	\$5.67	\$5.92	\$6.54	\$0.34	\$0.38	\$0.20	\$0.22	\$2.87	\$3.17	\$3.41	\$3.77
2017-18	\$5.87	\$6.37	\$6.55	\$7.10	\$0.34	\$0.37	\$0.20	\$0.22	\$3.21	\$3.48	\$3.75	\$4.07
2018-19	\$6.28	\$6.72	\$6.81	\$7.29	\$0.32	\$0.34	\$0.23	\$0.24	\$4.40	\$4.71	\$4.95	\$5.30
2019-20	\$7.31	\$7.73	\$8.01	\$8.47	\$0.32	\$0.34	\$0.23	\$0.24	\$4.08	\$4.32	\$4.61	\$4.88
2020-21	\$7.02	\$7.31	\$7.93	\$8.26	\$0.32	\$0.34	\$0.23	\$0.24	\$3.34	\$3.48	\$3.86	\$4.02
2021-22	\$7.54	\$7.54	\$8.72	\$8.72	\$0.39	\$0.39	\$0.24	\$0.24	\$3.59	\$3.59	\$4.20	\$4.20
Average		\$6.94		\$7.84		\$0.33		\$0.23		\$3.96		\$4.51

Notes: 'Real' dollar values are the nominal values converted to 2021-22-dollar equivalents by the consumer price index (CPI) to allow for inflation

From 2016-17 Gross farm income does not include feed inventory changes and changes to the value of carry-over water. These are included in feed costs.

Table B7

Historical data – Northern Victoria Main financial indicators (continued)

Overhead Costs						
Year	Cash overhead costs		Non-cash overhead costs		Total overhead costs	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$0.82	\$1.19	\$1.10	\$1.60	\$1.92	\$2.79
2007-08	\$0.78	\$1.08	\$0.90	\$1.24	\$1.57	\$2.18
2008-09	\$0.74	\$0.99	\$0.82	\$1.09	\$1.56	\$2.08
2009-10	\$0.82	\$1.06	\$1.01	\$1.30	\$1.83	\$2.36
2010-11	\$1.01	\$1.27	\$1.05	\$1.31	\$2.06	\$2.58
2011-12	\$0.90	\$1.11	\$0.85	\$1.04	\$1.75	\$2.15
2012-13	\$0.94	\$1.13	\$0.87	\$1.04	\$1.81	\$2.16
2013-14	\$0.99	\$1.15	\$0.85	\$0.99	\$1.83	\$2.14
2014-15	\$1.03	\$1.18	\$0.81	\$0.93	\$1.84	\$2.10
2015-16	\$1.02	\$1.14	\$0.87	\$0.98	\$1.89	\$2.12
2016-17	\$1.13	\$1.25	\$1.01	\$1.12	\$2.14	\$2.36
2017-18	\$1.13	\$1.23	\$1.01	\$1.10	\$2.14	\$2.32
2018-19	\$1.23	\$1.31	\$1.08	\$1.16	\$2.31	\$2.47
2019-20	\$1.20	\$1.27	\$0.98	\$1.03	\$2.18	\$2.30
2020-21	\$1.31	\$1.36	\$0.99	\$1.03	\$2.30	\$2.40
2021-22	\$1.45	\$1.45	\$1.09	\$1.09	\$2.54	\$2.54
Average		\$1.20		\$1.13		\$2.32

Table B7

Historical data – Northern Victoria Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	%	%
2006-07	-\$0.47	-\$0.68	\$0.57	\$0.82	-\$1.04	-\$1.50	-1.6%	-6.9%
2007-08	\$1.59	\$2.20	\$0.55	\$0.76	\$1.04	\$1.44	7.9%	7.6%
2008-09	\$0.59	\$0.78	\$0.54	\$0.72	\$0.05	\$0.06	2.7%	-0.7%
2009-10	\$0.20	\$0.26	\$0.51	\$0.66	-\$0.31	-\$0.40	0.8%	-3.1%
2010-11	\$1.52	\$1.90	\$0.65	\$0.81	\$0.87	\$1.09	7.0%	7.6%
2011-12	\$1.36	\$1.67	\$0.57	\$0.71	\$0.78	\$0.96	7.6%	8.4%
2012-13	\$0.39	\$0.46	\$0.58	\$0.69	-\$0.19	-\$0.23	2.2%	-2.9%
2013-14	\$2.02	\$2.35	\$0.56	\$0.65	\$1.46	\$1.70	11.3%	14.7%
2014-15	\$1.10	\$1.25	\$0.50	\$0.57	\$0.59	\$0.67	6.1%	4.9%
2015-16	\$0.03	\$0.03	\$0.46	\$0.52	-\$0.43	-\$0.49	-0.1%	-4.4%
2016-17	\$0.37	\$0.41	\$0.59	\$0.65	-\$0.22	-\$0.24	1.0%	-2.0%
2017-18	\$0.65	\$0.71	\$0.55	\$0.60	\$0.10	\$0.11	2.5%	1.2%
2018-19	-\$0.45	-\$0.48	\$0.56	\$0.60	-\$1.01	-\$1.08	-1.7%	-7.4%
2019-20	\$1.22	\$1.29	\$0.45	\$0.48	\$0.77	\$0.82	4.1%	3.7%
2020-21	\$1.76	\$1.84	\$0.44	\$0.46	\$1.32	\$1.38	6.0%	7.5%
2021-22	\$1.98	\$1.98	\$0.41	\$0.41	\$1.57	\$1.57	5.6%	7.2%
Average		\$1.00		\$0.63		\$0.37	3.8%	2.2%

Table B8

Historical data – Northern Victoria Average farm physical information

Year	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold
	(ha)	(ha)	(t DM/100mm/ha)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)
2006-07	336	331	0.7	365	1.4	430	636
2007-08	294	258	0.8	321	1.1	511	559
2008-09	245	195	0.8	322	1.6	500	784
2009-10	216	195	0.7	282	1.6	515	806
2010-11	196	171	0.7	261	1.5	495	762
2011-12	193	128	0.7	304	1.9	516	957
2012-13	193	123	0.8	300	1.8	518	961
2013-14	210	130	0.8	332	1.9	522	995
2014-15	222	135	0.9	356	1.9	537	1,020
2015-16	234	142	0.7	367	1.9	527	992
2016-17	274	152	0.7	370	1.7	499	827
2017-18	269	149	0.7	383	1.6	535	838
2018-19	271	149	0.9	399	1.6	524	829
2019-20	304	145	0.8	418	1.5	566	867
2020-21	307	162	0.9	427	1.7	572	923
2021-22	335	186	0.8	428	1.4	578	830
Average	256	172	0.8	352	1.6	522	849

Table B8

Historical data – Northern Victoria Average farm physical information (continued)

Year	Estimated grazed pasture*	Estimated conserved feed*	Homegrown feed as % of ME consumed	Concentrate price Nominal	Concentrate price Real
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(\$/t DM)	(\$/ t DM)
2006-07	4.3	0.5	48%	\$316	\$459
2007-08	3.1	0.7	47%	\$398	\$551
2008-09	4.3	0.7	46%	\$347	\$461
2009-10	5.0	0.6	51%	\$256	\$330
2010-11	5.1	2.6	58%	\$286	\$358
2011-12	7.1	1.1	53%	\$267	\$328
2012-13	8.1	1.4	55%	\$311	\$372
2013-14	7.6	1.6	57%	\$366	\$427
2014-15	7.6	1.2	54%	\$387	\$441
2015-16	7.1	1.1	50%	\$389	\$437
2016-17	6.8	1.1	58%	\$311	\$344
2017-18	7.0	1.4	59%	\$352	\$381
2018-19	7.1	1.6	60%	\$513	\$549
2019-20	5.7	0.9	50%	\$494	\$522
2020-21	6.3	1.9	55%	\$433	\$451
2021-22	5.6	1.9	56%	\$479	\$479
Average	6.1	1.3	53%	\$431	\$431

* From 2006-07 to 2010-11 estimated grazed pasture and conserved feed was calculated per usable hectare

From 2011-12 estimated grazed pasture and conserved feed was calculated per hectare of milking area

Appendix C: South West Victoria summary tables

Table C1

Main financial indicators – South West Victoria

Farm number	Milk income (net)	All other farm income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest and Tax	Return on total assets	Interest and lease charges	Debt servicing ratio	Net farm income	Return on equity
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(%)	(\$/ kg MS)	(%)	(\$/ kg MS)	(% of income)	(\$/ kg MS)	(%)
SW0001	\$7.79	\$1.54	\$9.32	\$4.61	\$2.46	65%	\$2.25	5.0%	\$0.34	3.7%	\$1.91	6.4%
SW0007	\$7.11	\$0.25	\$7.36	\$3.24	\$3.25	50%	\$0.87	2.4%	\$0.00	0.0%	\$0.87	2.4%
SW0008	\$7.32	\$1.36	\$8.68	\$3.16	\$3.05	51%	\$2.46	5.5%	\$0.40	4.6%	\$2.07	6.2%
SW0022	\$6.88	\$1.58	\$8.46	\$4.68	\$3.24	59%	\$0.54	1.3%	\$0.17	2.0%	\$0.37	1.1%
SW0025	\$7.59	\$1.26	\$8.85	\$3.80	\$2.32	62%	\$2.73	9.2%	\$0.09	1.0%	\$2.64	10.6%
SW0030	\$8.48	\$2.05	\$10.53	\$3.77	\$2.41	61%	\$4.36	5.7%	\$0.86	8.2%	\$3.50	7.4%
SW0035	\$7.40	\$1.18	\$8.57	\$4.14	\$2.02	67%	\$2.42	6.3%	\$1.03	12.0%	\$1.39	15.0%
SW0036	\$7.30	\$1.00	\$8.30	\$4.31	\$3.01	59%	\$0.98	1.7%	\$0.19	2.3%	\$0.78	1.6%
SW0037	\$7.63	\$1.28	\$8.91	\$5.30	\$3.41	61%	\$0.21	0.5%	\$0.36	4.1%	-\$0.16	-0.7%
SW0040	\$7.23	\$1.83	\$9.06	\$4.06	\$2.88	59%	\$2.12	4.4%	\$0.74	8.2%	\$1.38	6.7%
SW0042	\$7.11	\$1.84	\$8.95	\$5.36	\$3.09	63%	\$0.51	0.9%	\$0.40	4.5%	\$0.10	0.3%
SW0043	\$7.00	\$0.84	\$7.84	\$4.83	\$3.96	55%	-\$0.94	-1.9%	\$0.27	3.5%	-\$1.21	-3.5%
SW0045	\$7.68	\$2.05	\$9.73	\$2.93	\$2.98	50%	\$3.83	9.2%	\$0.03	0.3%	\$3.80	9.5%
SW0046	\$7.37	\$0.88	\$8.25	\$4.46	\$3.04	59%	\$0.75	1.7%	\$0.44	5.4%	\$0.31	1.3%
SW0047	\$7.69	\$0.85	\$8.54	\$4.17	\$2.29	65%	\$2.09	5.0%	\$0.45	5.3%	\$1.64	8.6%
SW0049	\$7.09	\$1.57	\$8.66	\$3.91	\$2.95	57%	\$1.80	3.8%	\$0.74	8.6%	\$1.06	3.8%
SW0050	\$7.52	\$0.93	\$8.45	\$4.45	\$2.63	63%	\$1.36	3.5%	\$0.21	2.5%	\$1.15	3.6%
SW0051	\$7.52	\$1.52	\$9.04	\$4.45	\$2.11	68%	\$2.48	6.0%	\$0.40	4.4%	\$2.08	16.2%
SW0053	\$7.48	\$0.83	\$8.31	\$2.56	\$3.05	46%	\$2.71	5.7%	\$0.30	3.6%	\$2.41	11.2%
SW0054	\$7.54	\$1.69	\$9.23	\$4.39	\$3.04	59%	\$1.79	3.9%	\$0.65	7.0%	\$1.15	4.7%
SW0055	\$7.20	\$1.59	\$8.79	\$5.00	\$3.00	63%	\$0.79	1.4%	\$0.95	10.8%	-\$0.17	-0.6%
SW0056	\$7.47	\$2.34	\$9.81	\$3.66	\$4.58	44%	\$1.56	2.3%	\$0.01	0.1%	\$1.55	2.3%
SW0057	\$7.12	\$0.86	\$7.97	\$3.17	\$3.26	49%	\$1.55	4.8%	\$0.52	6.5%	\$1.03	10.8%
SW0058	\$7.02	\$0.73	\$7.76	\$3.38	\$2.45	58%	\$1.93	4.2%	\$0.14	1.8%	\$1.79	4.3%
SW0059	\$7.14	\$1.87	\$9.01	\$5.19	\$2.16	71%	\$1.66	4.0%	\$0.78	8.6%	\$0.88	7.4%
Average	\$7.39	\$1.35	\$8.74	\$4.12	\$2.90	59%	\$1.71	3.9%	\$0.42	4.7%	\$1.29	5.5%
Top 25%*	\$7.69	\$1.48	\$9.17	\$3.61	\$2.48	59%	\$3.09	7.0%	\$0.45	4.9%	\$2.64	11.7%

* Top 25% are bold and italicised

Table C2

Physical information – South West Victoria

Farm Number	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	(ha)	(ha)	(t DM/100mm)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)	(%)	(%)
SW0001	523	250	0.8	530	1.0	553	561	4.0%	3.4%
SW0007	116	116	0.4	105	0.9	438	396	5.2%	4.0%
SW0008	332	332	1.2	580	1.7	558	975	4.3%	3.4%
SW0022	759	410	0.9	675	0.9	605	538	4.1%	3.6%
SW0025	229	164	1.3	420	1.8	651	1,193	3.9%	3.4%
SW0030	279	180	0.6	230	0.8	434	358	4.7%	3.6%
SW0035	149	135	0.8	215	1.4	531	769	3.9%	3.3%
SW0036	333	220	0.5	324	1.0	457	445	4.4%	3.5%
SW0037	431	252	0.6	500	1.2	600	696	3.6%	3.3%
SW0040	409	307	0.7	380	0.9	523	486	4.1%	3.4%
SW0042	209	157	0.4	220	1.1	454	478	4.3%	3.5%
SW0043	129	86	0.5	140	1.1	489	531	4.6%	3.6%
SW0045	635	505	1.2	720	1.1	574	650	3.8%	3.5%
SW0046	419	290	0.8	545	1.3	460	598	4.4%	3.6%
SW0047	596	305	0.4	660	1.1	630	698	4.7%	3.6%
SW0049	567	305	0.5	525	0.9	554	513	4.5%	3.5%
SW0050	341	341	0.6	430	1.3	539	680	4.3%	3.4%
SW0051	165	120	0.6	225	1.4	499	680	3.9%	3.2%
SW0053	302	240	0.7	350	1.2	504	584	4.2%	3.4%
SW0054	206	115	0.6	280	1.4	557	757	4.5%	3.6%
SW0055	728	728	0.8	830	1.1	527	601	4.3%	3.4%
SW0056	118	80	0.9	107	0.9	469	425	4.0%	3.3%
SW0057	106	106	0.9	190	1.8	521	934	4.7%	3.7%
SW0058	262	159	0.7	330	1.3	503	634	4.9%	3.7%
SW0059	170	170	0.9	230	1.4	537	727	4.7%	3.7%
Average	341	243	0.7	390	1.2	527	636	4.3%	3.5%
Top 25%*	293	224	0.9	360	1.3	532	706	4.1%	3.4%

Table C2

Physical information – South West Victoria (continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Homegrown feed as % of ME consumed	Nitrogen application**	Phosphorous application**	Potassium application**	Sulphur application**	Labour efficiency	Labour efficiency
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(cows/ FTE)	(kg MS/ FTE)
SW0001	3.1	3.4	65%	119.2	0.0	0.0	0.0	129	71,259
SW0007	2.5	0.0	54%	0.0	0.0	0.0	0.0	50	21,865
SW0008	7.5	3.3	72%	263.6	0.0	131.2	35.6	118	65,828
SW0022	2.3	3.3	48%	210.2	9.5	10.2	6.1	121	73,296
SW0025	7.3	2.2	60%	336.6	6.4	0.0	8.0	72	47,140
SW0030	6.0	0.0	76%	3.8	1.2	6.3	0.0	140	60,835
SW0035	5.6	1.3	66%	120.4	21.6	61.2	35.0	142	75,318
SW0036	2.7	2.0	74%	149.8	10.4	29.5	11.5	96	43,714
SW0037	3.1	1.9	48%	181.2	15.9	38.4	35.7	80	47,974
SW0040	2.1	3.6	72%	96.2	7.6	35.4	14.3	94	48,923
SW0042	2.9	0.0	54%	60.6	13.4	25.1	28.0	82	37,209
SW0043	1.6	2.2	64%	86.6	14.7	21.0	45.6	63	30,896
SW0045	3.9	2.3	60%	94.2	23.3	46.2	11.0	124	71,195
SW0046	4.5	1.5	62%	198.3	9.0	25.2	11.1	120	54,991
SW0047	2.2	2.2	36%	121.6	5.2	17.2	6.8	97	61,372
SW0049	2.1	4.5	60%	175.5	4.9	31.2	6.3	95	52,888
SW0050	4.0	1.1	58%	127.4	20.0	8.6	13.1	88	47,424
SW0051	4.0	1.3	59%	228.6	0.0	0.0	0.0	145	72,091
SW0053	4.5	1.8	73%	146.1	3.3	0.0	6.2	97	49,051
SW0054	7.2	0.6	57%	272.6	12.0	84.2	46.9	90	49,912
SW0055	3.7	1.9	60%	182.1	0.6	1.1	20.2	95	50,060
SW0056	3.5	3.4	74%	102.1	11.3	0.0	0.9	66	31,129
SW0057	6.3	0.9	70%	174.8	15.2	66.4	28.6	69	35,773
SW0058	4.3	2.5	70%	216.2	47.3	90.0	88.0	146	73,562
SW0059	3.3	3.3	67%	203.4	9.3	30.1	28.7	145	77,648
Average	4.0	2.0	62%	154.8	10.5	30.3	19.5	103	54,054
Top 25%*	5.2	1.5	66%	155.0	9.3	18.9	10.0	120	62,605

**on milking area

Table C3

Purchased feed – South West Victoria

Farm number	Purchased feed per milker**	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Purchased feed as % of ME consumed
	(t DM/ cow)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(% of ME)
SW0001	2.4	\$513				\$513	35%
SW0007	2.4	\$537		\$163		\$343	46%
SW0008	1.8	\$432		\$171		\$411	28%
SW0022	4.0	\$483		\$314		\$461	52%
SW0025	3.0	\$497	\$204	\$168		\$427	40%
SW0030	2.1	\$420		\$298		\$366	24%
SW0035	2.4	\$465	\$392			\$457	34%
SW0036	1.5	\$530	\$392	\$135		\$518	26%
SW0037	3.9	\$470				\$470	52%
SW0040	1.9	\$491				\$491	28%
SW0042	3.2	\$562	\$387	\$191		\$466	46%
SW0043	2.3	\$644		\$315		\$578	36%
SW0045	2.8	\$441		\$142		\$424	40%
SW0046	2.4	\$406		\$309	\$122	\$385	38%
SW0047	5.3	\$429		\$353	\$124	\$293	64%
SW0049	2.7	\$547	\$200	\$301		\$498	40%
SW0050	3.0	\$463			\$124	\$403	42%
SW0051	2.4	\$469				\$469	41%
SW0053	1.6	\$429		\$306		\$421	27%
SW0054	2.9	\$484	\$153	\$294		\$426	43%
SW0055	2.8	\$491		\$340		\$476	40%
SW0056	1.7	\$488				\$488	26%
SW0057	1.6	\$511		\$188		\$446	30%
SW0058	1.6	\$508				\$508	30%
SW0059	2.5	\$514		\$314		\$479	33%
Average	2.6	\$489	\$288	\$253	\$123	\$449	38%
Top 25%*	2.4	\$453				\$427	34%

** All purchased feed including concentrates, hay, silage, and other feed fed on the usable area to all classes of livestock divided by the number of cows

Calculation of average price of silage, hay and other feed excludes zero values

Table C4

Variable costs – South West Victoria

Farm number	AI and herd test	Animal health	Calf rearing	Shed power	Dairy supplies	Total herd and shed costs	Fertiliser	Irrigation **	Hay and silage making
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
SW0001	\$0.12	\$0.11	\$0.13	\$0.13	\$0.10	\$0.59	\$0.67	\$0.04	\$0.42
SW0007	\$0.10	\$0.19	\$0.02	\$0.14	\$0.10	\$0.55	\$0.00	\$0.00	\$0.00
SW0008	\$0.10	\$0.10	\$0.10	\$0.17	\$0.04	\$0.51	\$0.86	\$0.13	\$0.06
SW0022	\$0.12	\$0.16	\$0.36	\$0.09	\$0.10	\$0.83	\$0.65	\$0.00	\$0.39
SW0025	\$0.14	\$0.15	\$0.13	\$0.09	\$0.09	\$0.60	\$0.63	\$0.18	\$0.13
SW0030	\$0.15	\$0.00	\$0.03	\$0.27	\$0.30	\$0.75	\$0.15	\$0.00	\$0.00
SW0035	\$0.10	\$0.09	\$0.02	\$0.13	\$0.05	\$0.39	\$0.81	\$0.00	\$0.13
SW0036	\$0.08	\$0.17	\$0.04	\$0.16	\$0.10	\$0.56	\$0.98	\$0.06	\$0.34
SW0037	\$0.21	\$0.18	\$0.03	\$0.16	\$0.19	\$0.78	\$0.87	\$0.05	\$0.23
SW0040	\$0.21	\$0.13	\$0.11	\$0.23	\$0.15	\$0.82	\$0.62	\$0.00	\$0.14
SW0042	\$0.15	\$0.11	\$0.00	\$0.06	\$0.20	\$0.52	\$0.79	\$0.00	\$0.05
SW0043	\$0.16	\$0.13	\$0.06	\$0.21	\$0.10	\$0.66	\$0.75	\$0.00	\$0.10
SW0045	\$0.11	\$0.08	\$0.10	\$0.10	\$0.27	\$0.66	\$1.02	\$0.00	\$0.22
SW0046	\$0.22	\$0.15	\$0.19	\$0.19	\$0.11	\$0.85	\$0.86	\$0.03	\$0.35
SW0047	\$0.18	\$0.12	\$0.01	\$0.10	\$0.11	\$0.52	\$0.58	\$0.00	\$0.30
SW0049	\$0.16	\$0.03	\$0.15	\$0.09	\$0.06	\$0.49	\$0.15	\$0.01	\$0.27
SW0050	\$0.12	\$0.19	\$0.04	\$0.18	\$0.11	\$0.64	\$0.70	\$0.00	\$0.24
SW0051	\$0.17	\$0.13	\$0.09	\$0.21	\$0.11	\$0.70	\$0.64	\$0.00	\$0.44
SW0053	\$0.19	\$0.16	\$0.00	\$0.08	\$0.18	\$0.61	\$0.31	\$0.05	\$0.09
SW0054	\$0.11	\$0.23	\$0.06	\$0.14	\$0.11	\$0.65	\$1.15	\$0.00	\$0.12
SW0055	\$0.25	\$0.30	\$0.08	\$0.18	\$0.16	\$0.97	\$0.93	\$0.13	\$0.21
SW0056	\$0.28	\$0.04	\$0.10	\$0.38	\$0.08	\$0.88	\$0.72	\$0.00	\$0.08
SW0057	\$0.08	\$0.15	\$0.04	\$0.05	\$0.16	\$0.48	\$0.57	\$0.00	\$0.07
SW0058	\$0.07	\$0.12	\$0.13	\$0.12	\$0.14	\$0.59	\$0.82	\$0.00	\$0.04
SW0059	\$0.15	\$0.15	\$0.04	\$0.07	\$0.09	\$0.50	\$0.94	\$0.00	\$0.32
Average	\$0.15	\$0.14	\$0.08	\$0.15	\$0.13	\$0.65	\$0.69	\$0.08	\$0.19
Top 25%*	\$0.14	\$0.10	\$0.06	\$0.15	\$0.17	\$0.62	\$0.59	\$0.11	\$0.17

** Calculation of average cost of irrigation excludes zero values

Table C4

Variable costs – South West Victoria (continued)

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Feed and water inventory change	Total feed costs	Total variable costs
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
SW0001	\$0.13	\$0.20	\$0.01	\$0.00	\$2.21	\$0.04	\$0.32	\$4.03	\$4.61
SW0007	\$0.08	\$0.05	\$0.00	\$0.58	\$1.77	\$0.45	-\$0.23	\$2.69	\$3.24
SW0008	\$0.31	\$0.13	\$0.00	\$0.05	\$1.36	\$0.00	-\$0.26	\$2.65	\$3.16
SW0022	\$0.14	\$0.27	\$0.00	\$0.27	\$2.83	\$0.00	-\$0.71	\$3.84	\$4.68
SW0025	\$0.12	\$0.07	\$0.01	\$0.13	\$1.99	\$0.00	-\$0.05	\$3.20	\$3.80
SW0030	\$0.26	\$0.86	\$0.00	\$0.59	\$1.04	\$0.00	\$0.11	\$3.01	\$3.77
SW0035	\$0.08	\$0.12	\$0.00	\$0.20	\$1.90	\$0.00	\$0.50	\$3.74	\$4.14
SW0036	\$0.14	\$0.18	\$0.01	\$0.01	\$1.76	\$0.00	\$0.26	\$3.76	\$4.31
SW0037	\$0.22	\$0.16	\$0.03	\$0.00	\$3.05	\$0.00	-\$0.09	\$4.52	\$5.30
SW0040	\$0.17	\$0.14	\$0.24	\$0.00	\$1.82	\$0.00	\$0.11	\$3.24	\$4.06
SW0042	\$0.15	\$0.23	\$0.00	\$0.59	\$2.85	\$0.00	\$0.17	\$4.84	\$5.36
SW0043	\$0.17	\$0.15	\$0.00	\$0.29	\$2.37	\$0.00	\$0.34	\$4.17	\$4.83
SW0045	\$0.14	\$0.01	\$0.00	\$0.04	\$2.01	\$0.00	-\$1.18	\$2.27	\$2.93
SW0046	\$0.14	\$0.19	\$0.00	\$0.27	\$1.95	\$0.00	-\$0.18	\$3.61	\$4.46
SW0047	\$0.12	\$0.18	\$0.00	\$0.22	\$2.30	\$0.00	-\$0.05	\$3.65	\$4.17
SW0049	\$0.20	\$0.14	\$0.00	\$0.18	\$2.09	\$0.22	\$0.15	\$3.42	\$3.91
SW0050	\$0.07	\$0.25	\$0.00	\$0.00	\$2.21	\$0.00	\$0.34	\$3.80	\$4.45
SW0051	\$0.10	\$0.16	\$0.00	\$0.00	\$2.25	\$0.00	\$0.16	\$3.75	\$4.45
SW0053	\$0.11	\$0.11	\$0.00	\$0.06	\$1.37	\$0.00	-\$0.15	\$1.94	\$2.56
SW0054	\$0.14	\$0.24	\$0.00	\$0.21	\$1.99	\$0.05	-\$0.14	\$3.74	\$4.39
SW0055	\$0.12	\$0.12	\$0.03	\$0.17	\$2.33	\$0.00	-\$0.01	\$4.03	\$5.00
SW0056	\$0.19	\$0.22	\$0.00	\$0.00	\$1.82	\$0.00	-\$0.24	\$2.79	\$3.66
SW0057	\$0.06	\$0.00	\$0.00	\$0.14	\$1.48	\$0.43	-\$0.06	\$2.68	\$3.17
SW0058	\$0.11	\$0.06	\$0.00	\$0.00	\$1.60	\$0.00	\$0.15	\$2.79	\$3.38
SW0059	\$0.17	\$0.24	\$0.19	\$0.27	\$2.02	\$0.00	\$0.52	\$4.69	\$5.19
Average	\$0.15	\$0.18	\$0.02	\$0.17	\$2.02	\$0.05	-\$0.01	\$3.47	\$4.12
Top 25%*	\$0.13	\$0.22	\$0.00	\$0.17	\$1.76	\$0.00	-\$0.10	\$2.98	\$3.61

Table C5

Overhead costs – South West Victoria

Farm number	Rates	Farm Insurance	Motor vehicle expenses	Repairs and maintenance	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed labour cost	Total overheads
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
SW0001	\$0.05	\$0.12	\$0.05	\$0.51	\$0.09	\$0.69	\$1.52	\$0.52	\$0.42	\$2.46
SW0007	\$0.08	\$0.12	\$0.08	\$0.30	\$0.20	\$2.11	\$2.89	\$0.18	\$0.18	\$3.25
SW0008	\$0.03	\$0.08	\$0.01	\$1.02	\$0.07	\$0.66	\$1.88	\$0.65	\$0.52	\$3.05
SW0022	\$0.12	\$0.07	\$0.02	\$0.97	\$0.29	\$0.80	\$2.28	\$0.28	\$0.68	\$3.24
SW0025	\$0.04	\$0.07	\$0.02	\$0.35	\$0.08	\$0.95	\$1.51	\$0.34	\$0.48	\$2.32
SW0030	\$0.13	\$0.04	\$0.02	\$0.36	\$0.26	\$0.62	\$1.43	\$0.26	\$0.72	\$2.41
SW0035	\$0.01	\$0.05	\$0.01	\$0.44	\$0.15	\$0.06	\$0.73	\$0.29	\$1.01	\$2.02
SW0036	\$0.08	\$0.12	\$0.04	\$0.46	\$0.09	\$0.38	\$1.17	\$0.45	\$1.39	\$3.01
SW0037	\$0.06	\$0.12	\$0.01	\$0.97	\$0.05	\$1.14	\$2.36	\$0.55	\$0.49	\$3.41
SW0040	\$0.08	\$0.15	\$0.09	\$0.42	\$0.44	\$0.78	\$1.96	\$0.27	\$0.65	\$2.88
SW0042	\$0.06	\$0.08	\$0.05	\$0.45	\$0.15	\$1.04	\$1.83	\$0.22	\$1.04	\$3.09
SW0043	\$0.05	\$0.12	\$0.11	\$0.49	\$0.23	\$0.09	\$1.09	\$0.26	\$2.61	\$3.96
SW0045	\$0.05	\$0.10	\$0.01	\$0.73	\$0.49	\$0.56	\$1.94	\$0.51	\$0.53	\$2.98
SW0046	\$0.04	\$0.08	\$0.03	\$1.08	\$0.09	\$0.74	\$2.06	\$0.44	\$0.54	\$3.04
SW0047	\$0.05	\$0.07	\$0.01	\$0.43	\$0.17	\$1.00	\$1.72	\$0.26	\$0.31	\$2.29
SW0049	\$0.05	\$0.13	\$0.03	\$0.41	\$0.41	\$0.95	\$1.98	\$0.28	\$0.69	\$2.95
SW0050	\$0.06	\$0.09	\$0.04	\$0.56	\$0.12	\$1.08	\$1.94	\$0.20	\$0.49	\$2.63
SW0051	\$0.00	\$0.16	\$0.02	\$0.41	\$0.20	\$0.12	\$0.90	\$0.23	\$0.97	\$2.11
SW0053	\$0.05	\$0.08	\$0.02	\$0.44	\$0.22	\$0.85	\$1.65	\$0.53	\$0.86	\$3.05
SW0054	\$0.08	\$0.13	\$0.03	\$0.63	\$0.08	\$0.81	\$1.77	\$0.49	\$0.78	\$3.04
SW0055	\$0.06	\$0.12	\$0.01	\$0.88	\$0.08	\$1.39	\$2.53	\$0.27	\$0.19	\$3.00
SW0056	\$0.08	\$0.15	\$0.07	\$0.89	\$0.12	\$0.01	\$1.32	\$0.66	\$2.60	\$4.58
SW0057	\$0.00	\$0.08	\$0.01	\$0.52	\$0.16	\$0.04	\$0.81	\$0.26	\$2.19	\$3.26
SW0058	\$0.07	\$0.11	\$0.06	\$0.51	\$0.15	\$0.52	\$1.42	\$0.63	\$0.39	\$2.45
SW0059	\$0.00	\$0.15	\$0.03	\$0.42	\$0.15	\$0.34	\$1.09	\$0.39	\$0.69	\$2.16
Average	\$0.05	\$0.10	\$0.04	\$0.59	\$0.18	\$0.71	\$1.67	\$0.38	\$0.86	\$2.90
Top 25%*	\$0.05	\$0.08	\$0.02	\$0.45	\$0.23	\$0.53	\$1.36	\$0.36	\$0.76	\$2.48

*Calculation of average values of land, water asset and equity exclude zero values.

Table C6

Capital structure – South West Victoria

Farm Assets				Other farm assets (per usable hectare)					
Land value		Permanent water value		Plant and equipment	Livestock	Hay and grain	Other assets	Total assets	
(\$/ha)	(\$/cow)	(\$/ha)	(\$/cow)	(\$/ha)	(\$/ha)	(\$/ha)	(\$/ha)	(\$/ha)	
Average	\$17,235	\$15,289	\$2,849	\$2,225	\$1,719	\$3,755	\$431	\$763	\$22,622
Top 25%*	\$14,546	\$12,208			\$1,759	\$4,333	\$394	\$476	\$21,507

Table C6

Capital structure – South West Victoria (continued)

Liabilities			Equity	
per usable hectare		per milking cow	per usable hectare	Average equity
(\$/ha)		(\$/cow)	(\$/ha)	(%)
Average	\$5,257	\$4,603	\$17,365	77%
Top 25%*	\$4,697	\$4,124	\$16,809	76%

Table C7

Historical data – South West Victoria Main financial indicators

		Income				Variable Costs							
Year	Milk income (net)		Gross farm income		Herd costs		Shed costs		Feed costs		Total variable costs		
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	
2006-07	\$4.31	\$6.25	\$5.05	\$7.33	\$0.19	\$0.27	\$0.13	\$0.19	\$2.61	\$3.79	\$2.97	\$4.31	
2007-08	\$6.56	\$9.09	\$7.91	\$10.95	\$0.21	\$0.29	\$0.14	\$0.20	\$2.95	\$4.09	\$3.32	\$4.60	
2008-09	\$5.40	\$7.18	\$6.13	\$8.15	\$0.22	\$0.29	\$0.15	\$0.21	\$2.55	\$3.39	\$2.93	\$3.89	
2009-10	\$4.55	\$5.86	\$5.23	\$6.74	\$0.21	\$0.27	\$0.16	\$0.21	\$2.00	\$2.57	\$2.37	\$3.05	
2010-11	\$5.62	\$7.04	\$6.34	\$7.94	\$0.21	\$0.26	\$0.18	\$0.22	\$2.10	\$2.62	\$2.48	\$3.11	
2011-12	\$5.56	\$6.82	\$5.97	\$7.34	\$0.23	\$0.28	\$0.21	\$0.26	\$2.35	\$2.89	\$2.79	\$3.43	
2012-13	\$4.90	\$5.86	\$5.24	\$6.26	\$0.24	\$0.29	\$0.21	\$0.26	\$2.60	\$3.11	\$3.06	\$3.66	
2013-14	\$6.91	\$8.05	\$7.54	\$8.79	\$0.25	\$0.29	\$0.23	\$0.26	\$2.90	\$3.38	\$3.37	\$3.93	
2014-15	\$6.16	\$7.02	\$6.70	\$7.63	\$0.25	\$0.29	\$0.20	\$0.23	\$2.88	\$3.29	\$3.34	\$3.81	
2015-16	\$5.47	\$6.15	\$5.95	\$6.69	\$0.24	\$0.27	\$0.19	\$0.22	\$3.14	\$3.53	\$3.57	\$4.02	
2016-17	\$5.25	\$5.80	\$5.98	\$6.61	\$0.25	\$0.28	\$0.20	\$0.22	\$2.14	\$2.36	\$2.59	\$2.86	
2017-18	\$5.80	\$6.29	\$6.42	\$6.96	\$0.29	\$0.31	\$0.24	\$0.26	\$2.90	\$3.14	\$3.43	\$3.72	
2018-19	\$6.15	\$6.58	\$6.99	\$7.48	\$0.32	\$0.34	\$0.23	\$0.24	\$3.20	\$3.42	\$3.74	\$4.00	
2019-20	\$7.16	\$7.57	\$7.98	\$8.44	\$0.32	\$0.34	\$0.23	\$0.24	\$2.95	\$3.12	\$3.52	\$3.72	
2020-21	\$6.68	\$6.96	\$7.79	\$8.12	\$0.32	\$0.34	\$0.23	\$0.24	\$2.48	\$2.59	\$3.06	\$3.18	
2021-22	\$7.39	\$7.39	\$8.74	\$8.74	\$0.39	\$0.39	\$0.24	\$0.24	\$3.47	\$3.47	\$4.12	\$4.12	
Average		\$6.87		\$7.76		\$0.30		\$0.23		\$3.17		\$3.71	

Notes: 'Real' dollar values are the nominal values converted to 2021-22-dollar equivalents by the consumer price index (CPI) to allow for inflation

From 2016-17 Gross farm income does not include feed inventory changes and changes to the value of carry-over water. These are included in feed costs.

Table C7

Historical data – South West Victoria Main financial indicators (continued)

Overhead Costs						
Year	Cash overhead costs		Non-cash overhead costs		Total overhead costs	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$0.79	\$1.15	\$0.99	\$1.43	\$1.78	\$2.58
2007-08	\$0.95	\$1.31	\$0.84	\$1.17	\$1.69	\$2.35
2008-09	\$0.92	\$1.22	\$0.89	\$1.18	\$1.81	\$2.40
2009-10	\$0.89	\$1.15	\$1.03	\$1.33	\$1.92	\$2.48
2010-11	\$1.06	\$1.33	\$1.08	\$1.36	\$2.14	\$2.68
2011-12	\$1.11	\$1.36	\$1.29	\$1.59	\$2.40	\$2.95
2012-13	\$0.95	\$1.13	\$1.20	\$1.44	\$2.15	\$2.57
2013-14	\$1.14	\$1.33	\$1.00	\$1.17	\$2.14	\$2.50
2014-15	\$1.15	\$1.31	\$0.92	\$1.05	\$2.08	\$2.36
2015-16	\$1.10	\$1.23	\$1.10	\$1.23	\$2.19	\$2.46
2016-17	\$1.11	\$1.23	\$1.12	\$1.23	\$2.23	\$2.46
2017-18	\$1.30	\$1.40	\$1.22	\$1.32	\$2.51	\$2.72
2018-19	\$1.28	\$1.37	\$1.27	\$1.36	\$2.55	\$2.73
2019-20	\$1.38	\$1.45	\$1.26	\$1.33	\$2.63	\$2.78
2020-21	\$1.45	\$1.51	\$1.25	\$1.30	\$2.70	\$2.81
2021-22	\$1.67	\$1.67	\$1.23	\$1.23	\$2.90	\$2.90
Average		\$1.32		\$1.30		\$2.61

Table C7

Historical data – South West Victoria Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	%	%
2006-07	\$0.30	\$0.44	\$0.59	\$0.86	-\$0.29	-\$0.43	1.0%	-3.3%
2007-08	\$2.89	\$4.00	\$0.72	\$1.00	\$2.17	\$3.00	11.2%	14.8%
2008-09	\$1.32	\$1.76	\$0.69	\$0.92	\$0.63	\$0.84	4.5%	3.7%
2009-10	\$0.91	\$1.17	\$0.80	\$1.04	\$0.10	\$0.13	3.0%	1.3%
2010-11	\$1.71	\$2.14	\$0.95	\$1.18	\$0.77	\$0.96	5.5%	5.8%
2011-12	\$0.78	\$0.96	\$0.90	\$1.10	-\$0.12	-\$0.14	3.3%	-0.2%
2012-13	\$0.03	\$0.03	\$0.78	\$0.93	-\$0.75	-\$0.90	0.2%	-12.7%
2013-14	\$2.03	\$2.36	\$0.69	\$0.81	\$1.33	\$1.55	7.9%	9.9%
2014-15	\$1.28	\$1.46	\$0.62	\$0.71	\$0.66	\$0.75	5.2%	6.2%
2015-16	\$0.18	\$0.21	\$0.68	\$0.76	-\$0.49	-\$0.55	0.6%	-2.8%
2016-17	\$1.16	\$1.28	\$0.63	\$0.70	\$0.53	\$0.58	4.2%	4.3%
2017-18	\$0.48	\$0.52	\$0.60	\$0.65	-\$0.12	-\$0.13	1.9%	-1.1%
2018-19	\$0.71	\$0.76	\$0.67	\$0.72	\$0.03	\$0.04	2.3%	-0.8%
2019-20	\$1.83	\$1.93	\$0.54	\$0.57	\$1.29	\$1.36	5.8%	9.6%
2020-21	\$2.04	\$2.13	\$0.43	\$0.45	\$1.61	\$1.68	5.5%	9.1%
2021-22	\$1.71	\$1.71	\$0.42	\$0.42	\$1.29	\$1.29	3.9%	5.5%
Average		\$1.43		\$0.80		\$0.63	4.1%	3.1%

Table C8

Historical data – South West Victoria Average farm physical information

Year	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold
	(ha)	(ha)	(t DM/100mm/ha)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)
2006-07	286	285	0.8	386	1.4	500	688
2007-08	320	317	0.8	387	1.2	489	591
2008-09	330	328	0.8	384	1.3	510	649
2009-10	302	298	0.8	366	1.3	503	665
2010-11	322	319	0.7	369	1.2	491	585
2011-12	327	225	0.7	387	1.2	507	605
2012-13	308	205	0.8	369	1.2	506	601
2013-14	330	214	0.8	390	1.2	503	600
2014-15	333	223	0.9	389	1.2	525	627
2015-16	320	222	0.7	378	1.2	523	625
2016-17	326	224	0.7	368	1.1	525	595
2017-18	333	225	0.6	378	1.1	502	569
2018-19	325	215	0.8	364	1.1	492	553
2019-20	333	215	0.8	369	1.1	516	577
2020-21	335	235	0.7	373	1.1	526	602
2021-22	341	243	0.7	390	1.2	527	636
Average	323	250	0.8	378	1.2	509	610

Table C8

Historical data – South West Victoria Average farm physical information (continued)

Year	Estimated grazed pasture*	Estimated conserved feed*	Homegrown feed as % of ME consumed	Concentrate price Nominal	Concentrate price Real
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(\$/t DM)	(\$/ t DM)
2006-07	4.8	1.1	61%	\$332	\$482
2007-08	5.1	1.3	71%	\$425	\$589
2008-09	5.3	1.2	68%	\$390	\$518
2009-10	6.0	1.0	71%	\$287	\$370
2010-11	5.1	1.6	67%	\$302	\$378
2011-12	4.2	1.0	55%	\$309	\$379
2012-13	4.0	1.5	58%	\$342	\$409
2013-14	4.6	1.5	62%	\$395	\$460
2014-15	4.5	1.2	59%	\$408	\$465
2015-16	3.4	1.5	51%	\$400	\$450
2016-17	4.8	2.2	67%	\$345	\$381
2017-18	3.9	1.9	62%	\$377	\$409
2018-19	4.3	2.2	68%	\$512	\$548
2019-20	4.7	2.2	68%	\$491	\$519
2020-21	4.8	2.3	68%	\$422	\$440
2021-22	4.0	2.0	62%	\$489	\$489
Average	4.6	1.6	64%		\$455

* From 2006-07 to 2010-11 estimated grazed pasture and conserved feed was calculated per usable hectare

From 2011-12 estimated grazed pasture and conserved feed was calculated per hectare of milking area

Appendix D: Gippsland summary tables

Table D1

Main financial indicators – Gippsland

Farm number	Milk income (net)	All other farm income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest and Tax	Return on total assets	Interest and lease charges	Debt servicing ratio	Net farm income	Return on equity
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(%)	(\$/ kg MS)	(%)	(\$/ kg MS)	(% of income)	(\$/ kg MS)	(%)
GI0004	\$6.90	\$0.71	\$7.61	\$4.10	\$6.73	38%	-\$3.23	-2.7%	\$1.54	20.2%	-\$4.76	-5.6%
GI0005	\$6.86	-\$0.50	\$6.36	\$2.98	\$4.50	40%	-\$1.13	-1.9%	\$0.35	5.4%	-\$1.47	-2.8%
GI0012	\$7.16	\$1.14	\$8.31	\$3.18	\$3.16	50%	\$1.96	3.0%	\$0.40	4.8%	\$1.57	3.9%
GI0021	\$6.94	\$0.79	\$7.73	\$3.80	\$2.53	60%	\$1.40	3.5%	\$0.88	11.4%	\$0.51	4.5%
GI0025	\$7.05	\$1.03	\$8.09	\$4.04	\$1.87	68%	\$2.18	5.4%	\$0.30	3.8%	\$1.88	7.0%
GI0028	\$7.08	\$1.66	\$8.74	\$5.08	\$2.55	67%	\$1.11	2.8%	\$0.54	6.1%	\$0.57	3.2%
GI0029	\$7.08	\$1.01	\$8.08	\$2.81	\$2.49	53%	\$2.79	8.3%	\$0.18	2.2%	\$2.61	9.4%
GI0031	\$7.22	\$0.55	\$7.76	\$5.21	\$2.03	72%	\$0.52	1.8%	\$0.18	2.3%	\$0.35	1.4%
GI0032	\$7.03	\$0.97	\$8.00	\$4.90	\$3.03	62%	\$0.07	0.2%	\$0.12	1.5%	-\$0.05	-0.1%
GI0037	\$7.38	\$1.01	\$8.39	\$4.64	\$2.08	69%	\$1.68	4.2%	\$0.34	4.0%	\$1.34	5.0%
GI0039	\$7.18	\$0.73	\$7.91	\$4.10	\$2.49	62%	\$1.32	3.0%	\$0.76	9.7%	\$0.55	3.6%
GI0046	\$7.09	\$0.97	\$8.05	\$3.61	\$2.35	61%	\$2.10	4.6%	\$0.93	11.6%	\$1.17	6.9%
GI0048	\$7.35	\$1.29	\$8.64	\$3.30	\$1.72	66%	\$3.62	9.0%	\$0.24	2.8%	\$3.38	13.4%
GI0049	\$7.39	\$0.93	\$8.33	\$3.68	\$2.16	63%	\$2.49	9.5%	\$0.37	4.5%	\$2.12	14.4%
GI0051	\$7.38	\$0.85	\$8.23	\$5.42	\$2.09	72%	\$0.72	1.6%	\$1.09	13.2%	-\$0.37	-5.6%
GI0053	\$7.16	\$0.59	\$7.75	\$3.22	\$1.91	63%	\$2.63	7.9%	\$0.18	2.3%	\$2.45	9.8%
GI0055	\$7.51	\$0.79	\$8.30	\$3.72	\$1.87	67%	\$2.71	9.5%	\$0.58	6.9%	\$2.13	19.8%
GI0056	\$6.91	\$0.18	\$7.08	\$2.49	\$2.00	55%	\$2.60	6.7%	\$0.13	1.9%	\$2.47	8.0%
GI0057	\$7.24	\$0.42	\$7.66	\$4.30	\$1.75	71%	\$1.61	5.1%	\$0.88	11.5%	\$0.73	13.4%
GI0058	\$7.42	\$1.44	\$8.87	\$3.30	\$2.28	59%	\$3.29	10.9%	\$0.88	10.0%	\$2.41	32.9%
GI0061	\$7.43	\$0.34	\$7.76	\$3.31	\$2.07	61%	\$2.38	8.1%	\$0.72	9.3%	\$1.67	10.5%
GI0063	\$6.98	\$0.80	\$7.77	\$4.83	\$2.79	63%	\$0.15	0.3%	\$0.24	3.1%	-\$0.09	-0.3%
GI0064	\$7.01	\$0.89	\$7.90	\$3.88	\$2.69	59%	\$1.33	2.6%	\$0.88	11.1%	\$0.45	2.2%
GI0066	\$7.03	\$1.88	\$8.91	\$6.02	\$2.35	72%	\$0.53	1.1%	\$0.27	3.0%	\$0.27	0.6%
GI0067	\$6.91	\$0.94	\$7.85	\$3.75	\$3.22	54%	\$0.88	1.5%	\$0.95	12.1%	-\$0.06	-0.6%
Average	\$7.15	\$0.86	\$8.00	\$3.99	\$2.59	61%	\$1.43	4.2%	\$0.56	7.0%	\$0.87	6.2%
Top 25%*	\$7.36	\$0.97	\$8.33	\$3.35	\$2.10	61%	\$2.88	9.2%	\$0.49	5.9%	\$2.39	16.8%

* Top 25% are bold and italicised

Table D2

Physical information - Gippsland

Farm Number	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	(ha)	(ha)	(t DM/100mm)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)	(%)	(%)
GI0004	143	135	0.5	130	0.9	238	216	4.4%	3.5%
GI0005	91	84	0.6	142	1.6	317	494	4.0%	3.2%
GI0012	97	70	0.8	165	1.7	496	844	4.1%	3.4%
GI0021	368	188	0.8	430	1.2	461	539	5.1%	3.9%
GI0025	189	102	0.7	360	1.9	453	864	4.5%	3.6%
GI0028	162	104	0.7	260	1.6	513	821	4.1%	3.4%
GI0029	106	99	1.0	285	2.7	506	1,360	4.6%	3.5%
GI0031	73	73	0.9	326	4.5	442	1,973	4.2%	3.6%
GI0032	160	120	0.7	300	1.9	546	1,024	4.4%	3.3%
GI0037	341	220	0.8	520	1.5	512	781	4.1%	3.4%
GI0039	193	125	0.8	290	1.5	512	770	4.2%	3.5%
GI0046	188	108	0.7	192	1.0	516	527	4.1%	3.4%
GI0048	342	180	0.7	510	1.5	552	823	4.1%	3.5%
GI0049	72	72	1.2	280	3.9	450	1,749	4.5%	3.5%
GI0051	358	162	0.7	605	1.7	481	813	3.9%	3.3%
GI0053	123	123	1.0	320	2.6	492	1,279	4.4%	3.6%
GI0055	263	120	0.9	460	1.7	572	1,001	4.6%	3.7%
GI0056	182	135	1.0	333	1.8	408	746	5.5%	3.8%
GI0057	174	174	0.7	396	2.3	465	1,059	4.5%	3.5%
GI0058	147	100	0.8	360	2.4	597	1,463	4.0%	3.5%
GI0061	89	89	1.1	310	3.5	429	1,494	4.5%	3.5%
GI0063	177	130	0.5	250	1.4	542	765	4.6%	3.5%
GI0064	235	155	0.6	330	1.4	430	604	4.8%	3.8%
GI0066	226	73	0.4	215	1.0	395	376	4.0%	3.1%
GI0067	181	82	0.7	240	1.3	457	608	4.6%	3.6%
Average	187	121	0.8	320	1.9	471	920	4.4%	3.5%
Top 25%*	170	110	0.9	368	2.6	518	1,315	4.4%	3.5%

Table D2

Physical information – Gippsland (continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Homegrown feed as % of ME consumed	Nitrogen application**	Phosphorous application**	Potassium application**	Sulphur application**	Labour efficiency	Labour efficiency
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(cows/ FTE)	(kg MS/ FTE)
GI0004	2.3	1.7	77%	4.4	0.7	2.4	0.9	92	21,822
GI0005	4.7	0.8	64%	11.6	0.0	0.0	0.0	71	22,572
GI0012	9.6	0.5	72%	175.5	19.9	38.3	28.5	74	36,550
GI0021	5.6	1.3	62%	96.9	8.8	28.4	11.0	107	49,338
GI0025	7.1	2.0	58%	186.0	0.0	43.0	3.0	159	72,261
GI0028	5.9	0.4	52%	280.2	17.5	41.8	21.3	83	42,365
GI0029	11.8	0.3	73%	75.7	0.0	0.0	15.5	97	48,857
GI0031	11.0	0.0	49%	279.2	30.0	36.7	30.9	176	77,598
GI0032	8.0	0.5	63%	289.0	11.9	28.8	11.9	112	61,206
GI0037	6.1	3.4	58%	287.8	0.0	0.0	0.0	105	53,971
GI0039	8.3	0.9	64%	274.3	1.8	52.7	1.3	106	54,489
GI0046	7.0	0.7	72%	115.8	9.5	17.1	0.2	116	60,014
GI0048	7.6	1.4	57%	225.6	2.7	9.3	2.0	130	71,705
GI0049	11.0	0.6	55%	166.5	34.4	121.0	38.2	169	75,858
GI0051	7.1	0.0	62%	264.2	6.2	20.1	7.7	126	60,658
GI0053	10.1	1.0	69%	223.6	0.0	20.3	13.8	124	60,855
GI0055	11.5	0.8	66%	319.0	82.0	130.0	86.4	142	81,491
GI0056	9.1	1.1	85%	197.3	29.4	40.7	38.0	196	79,895
GI0057	5.8	0.6	50%	186.6	8.2	4.9	15.2	118	54,831
GI0058	8.2	0.0	44%	150.4	3.6	11.7	4.5	97	57,836
GI0061	9.6	1.1	56%	129.0	32.4	113.9	35.9	161	69,276
GI0063	6.0	0.8	58%	283.1	18.4	51.7	22.7	80	43,461
GI0064	5.6	1.1	68%	168.4	0.0	0.0	0.0	111	47,593
GI0066	1.3	1.8	73%	113.8	26.6	33.1	14.1	136	53,690
GI0067	7.2	0.0	67%	238.5	9.5	2.4	18.8	88	40,028
Average	7.5	0.9	63%	189.7	14.1	33.9	16.9	119	55,929
Top 25%*	10.0	0.7	59%	177.7	25.9	64.3	30.4	133	67,504

**on milking area

Table D3

Purchased feed – Gippsland

Farm number	Purchased feed per milker**	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Purchased feed as % of ME consumed
	(t DM/ cow)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(\$/ t DM)	(% of ME)
GI0004	1.2	\$490				\$490	23%
GI0005	2.1	\$411		\$36		\$263	36%
GI0012	1.7	\$450	\$236	\$284		\$437	28%
GI0021	2.0	\$552		\$315		\$539	38%
GI0025	2.7	\$443		\$295	\$190	\$378	42%
GI0028	3.6	\$474	\$249	\$360		\$415	48%
GI0029	1.6	\$484		\$267		\$423	27%
GI0031	2.3	\$475	\$468	\$210		\$410	51%
GI0032	2.6	\$590		\$252		\$479	37%
GI0037	2.7	\$488		\$386		\$478	42%
GI0039	2.5	\$404				\$404	36%
GI0046	1.7	\$537				\$537	28%
GI0048	3.5	\$352	\$208	\$321		\$302	43%
GI0049	2.4	\$442	\$251	\$159	\$189	\$374	45%
GI0051	2.4	\$517	\$220	\$254		\$486	38%
GI0053	1.7	\$487	\$250			\$478	31%
GI0055	2.1	\$558		\$170		\$532	34%
GI0056	0.8	\$421				\$421	15%
GI0057	2.7	\$535	\$227	\$240	\$173	\$391	50%
GI0058	4.1	\$395	\$223	\$228		\$336	56%
GI0061	2.3	\$456	\$196	\$159	\$189	\$374	44%
GI0063	3.4	\$627	\$227	\$312		\$454	42%
GI0064	1.7	\$435				\$435	32%
GI0066	1.6	\$558	\$592			\$563	27%
GI0067	2.0	\$430	\$254	\$185		\$374	33%
Average	2.3	\$480	\$277	\$246	\$185	\$431	37%
Top 25%*	2.7	\$448				\$390	41%

** All purchased feed including concentrates, hay, silage, and other feed fed on the usable area to all classes of livestock divided by the number of cows

Calculation of average price of silage, hay and other feed excludes zero values

Table D4

Variable costs – Gippsland

Farm number	AI and herd test	Animal health	Calf rearing	Shed power	Dairy supplies	Total herd and shed costs	Fertiliser	Irrigation **	Hay and silage making
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
GI0004	\$0.02	\$0.20	\$0.08	\$0.34	\$0.25	\$0.90	\$0.09	\$0.00	\$0.10
GI0005	\$0.14	\$0.04	\$0.02	\$0.25	\$0.14	\$0.58	\$0.29	\$0.00	\$0.19
GI0012	\$0.11	\$0.14	\$0.13	\$0.12	\$0.22	\$0.73	\$0.59	\$0.00	\$0.05
GI0021	\$0.11	\$0.13	\$0.03	\$0.19	\$0.16	\$0.62	\$0.44	\$0.00	\$0.31
GI0025	\$0.00	\$0.16	\$0.08	\$0.08	\$0.16	\$0.49	\$0.65	\$0.00	\$0.19
GI0028	\$0.16	\$0.14	\$0.04	\$0.08	\$0.11	\$0.55	\$1.01	\$0.00	\$0.13
GI0029	\$0.10	\$0.17	\$0.01	\$0.10	\$0.12	\$0.51	\$0.15	\$0.22	\$0.03
GI0031	\$0.25	\$0.38	\$0.07	\$0.08	\$0.07	\$0.85	\$0.81	\$0.45	\$0.00
GI0032	\$0.22	\$0.12	\$0.29	\$0.13	\$0.07	\$0.82	\$1.02	\$0.00	\$0.22
GI0037	\$0.12	\$0.21	\$0.03	\$0.05	\$0.11	\$0.52	\$0.87	\$0.00	\$0.32
GI0039	\$0.16	\$0.14	\$0.06	\$0.17	\$0.14	\$0.66	\$0.89	\$0.00	\$0.32
GI0046	\$0.15	\$0.14	\$0.06	\$0.11	\$0.04	\$0.51	\$0.69	\$0.01	\$0.37
GI0048	\$0.16	\$0.13	\$0.02	\$0.08	\$0.07	\$0.46	\$0.45	\$0.00	\$0.13
GI0049	\$0.15	\$0.12	\$0.24	\$0.15	\$0.10	\$0.76	\$0.28	\$0.21	\$0.05
GI0051	\$0.52	\$0.30	\$0.09	\$0.08	\$0.11	\$1.10	\$0.74	\$0.00	\$0.54
GI0053	\$0.15	\$0.10	\$0.05	\$0.11	\$0.14	\$0.56	\$0.52	\$0.27	\$0.11
GI0055	\$0.14	\$0.09	\$0.05	\$0.08	\$0.08	\$0.44	\$0.75	\$0.11	\$0.18
GI0056	\$0.16	\$0.21	\$0.06	\$0.10	\$0.06	\$0.59	\$0.97	\$0.00	\$0.15
GI0057	\$0.13	\$0.19	\$0.03	\$0.08	\$0.05	\$0.47	\$0.65	\$0.00	\$0.08
GI0058	\$0.19	\$0.11	\$0.04	\$0.13	\$0.08	\$0.54	\$0.19	\$0.05	\$0.00
GI0061	\$0.13	\$0.11	\$0.03	\$0.12	\$0.08	\$0.47	\$0.30	\$0.28	\$0.00
GI0063	\$0.17	\$0.17	\$0.05	\$0.12	\$0.10	\$0.61	\$1.11	\$0.00	\$0.18
GI0064	\$0.33	\$0.15	\$0.17	\$0.16	\$0.14	\$0.96	\$0.66	\$0.00	\$0.24
GI0066	\$0.11	\$0.26	\$0.05	\$0.28	\$0.05	\$0.76	\$0.58	\$0.00	\$0.74
GI0067	\$0.20	\$0.14	\$0.07	\$0.07	\$0.11	\$0.58	\$0.91	\$0.00	\$0.30
Average	\$0.16	\$0.16	\$0.07	\$0.13	\$0.11	\$0.64	\$0.62	\$0.18	\$0.20
Top 25%*	\$0.14	\$0.12	\$0.07	\$0.11	\$0.09	\$0.53	\$0.35	\$0.17	\$0.06

** Calculation of average cost of irrigation excludes zero values

Table D4

Variable costs – Gippsland (continued)

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Feed and water inventory change	Total feed costs	Total variable costs
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
GI0004	\$0.30	\$0.04	\$0.01	\$0.00	\$2.40	\$0.00	\$0.27	\$3.20	\$4.10
GI0005	\$0.15	\$0.01	\$0.00	\$0.08	\$1.37	\$0.11	\$0.21	\$2.40	\$2.98
GI0012	\$0.13	\$0.02	\$0.10	\$0.07	\$1.28	\$0.00	\$0.22	\$2.45	\$3.18
GI0021	\$0.15	\$0.14	\$0.07	\$0.08	\$2.25	\$0.00	-\$0.25	\$3.18	\$3.80
GI0025	\$0.10	\$0.21	\$0.05	\$0.46	\$1.86	\$0.00	\$0.04	\$3.55	\$4.04
GI0028	\$0.13	\$0.28	\$0.06	\$0.87	\$1.93	\$0.00	\$0.12	\$4.53	\$5.08
GI0029	\$0.08	\$0.00	\$0.03	\$0.25	\$1.19	\$0.42	-\$0.08	\$2.30	\$2.81
GI0031	\$0.06	\$0.16	\$0.00	\$0.57	\$1.97	\$0.61	-\$0.28	\$4.35	\$5.21
GI0032	\$0.13	\$0.16	\$0.00	\$0.41	\$1.95	\$0.00	\$0.18	\$4.08	\$4.90
GI0037	\$0.13	\$0.13	\$0.05	\$0.20	\$2.35	\$0.21	-\$0.14	\$4.11	\$4.64
GI0039	\$0.08	\$0.04	\$0.00	\$0.00	\$2.01	\$0.00	\$0.11	\$3.44	\$4.10
GI0046	\$0.07	\$0.18	\$0.00	\$0.00	\$1.80	\$0.00	-\$0.03	\$3.09	\$3.61
GI0048	\$0.08	\$0.10	\$0.16	\$0.91	\$0.90	\$0.00	\$0.10	\$2.84	\$3.30
GI0049	\$0.04	\$0.07	\$0.00	\$0.32	\$1.87	\$0.22	-\$0.14	\$2.92	\$3.68
GI0051	\$0.09	\$0.09	\$0.01	\$0.13	\$2.25	\$0.00	\$0.47	\$4.32	\$5.42
GI0053	\$0.08	\$0.03	\$0.00	\$0.03	\$1.53	\$0.14	-\$0.04	\$2.66	\$3.22
GI0055	\$0.06	\$0.14	\$0.00	\$0.04	\$2.04	\$0.00	-\$0.03	\$3.28	\$3.72
GI0056	\$0.02	\$0.08	\$0.01	\$0.00	\$0.78	\$0.00	-\$0.12	\$1.89	\$2.49
GI0057	\$0.06	\$0.21	\$0.00	\$0.59	\$1.75	\$0.52	-\$0.03	\$3.83	\$4.30
GI0058	\$0.05	\$0.01	\$0.05	\$0.54	\$1.79	\$0.08	\$0.01	\$2.75	\$3.30
GI0061	\$0.02	\$0.00	\$0.00	\$0.18	\$1.91	\$0.14	\$0.01	\$2.84	\$3.31
GI0063	\$0.08	\$0.08	\$0.01	\$0.96	\$1.63	\$0.00	\$0.18	\$4.22	\$4.83
GI0064	\$0.05	\$0.07	\$0.00	\$0.00	\$1.68	\$0.11	\$0.11	\$2.92	\$3.88
GI0066	\$0.14	\$0.40	\$0.26	\$0.33	\$1.93	\$0.00	\$0.88	\$5.26	\$6.02
GI0067	\$0.09	\$0.10	\$0.07	\$0.29	\$1.59	\$0.00	-\$0.18	\$3.17	\$3.75
Average	\$0.09	\$0.11	\$0.04	\$0.29	\$1.76	\$0.10	\$0.06	\$3.34	\$3.99
Top 25%*	\$0.06	\$0.05	\$0.04	\$0.37	\$1.61	\$0.14	-\$0.02	\$2.82	\$3.35

Table D5

Overhead costs – Gippsland

Farm number	Rates	Farm Insurance	Motor vehicle expenses	Repairs and maintenance	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed labour cost	Total overheads
	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)	(\$/ kg MS)
GI0004	\$0.22	\$0.40	\$0.10	\$1.23	\$0.52	\$0.00	\$2.48	\$0.51	\$3.74	\$6.73
GI0005	\$0.17	\$0.15	\$0.03	\$0.34	\$0.11	\$0.00	\$0.80	\$0.09	\$3.62	\$4.50
GI0012	\$0.12	\$0.09	\$0.03	\$0.34	\$0.19	\$0.58	\$1.35	\$0.32	\$1.50	\$3.16
GI0021	\$0.14	\$0.10	\$0.00	\$0.26	\$0.21	\$1.15	\$1.86	\$0.21	\$0.46	\$2.53
GI0025	\$0.07	\$0.06	\$0.01	\$0.41	\$0.06	\$0.05	\$0.66	\$0.22	\$0.99	\$1.87
GI0028	\$0.08	\$0.07	\$0.01	\$0.25	\$0.17	\$1.11	\$1.69	\$0.13	\$0.73	\$2.55
GI0029	\$0.08	\$0.07	\$0.01	\$0.43	\$0.17	\$0.85	\$1.59	\$0.10	\$0.79	\$2.49
GI0031	\$0.05	\$0.08	\$0.00	\$0.44	\$0.07	\$1.21	\$1.85	\$0.18	\$0.00	\$2.03
GI0032	\$0.08	\$0.20	\$0.10	\$0.71	\$0.09	\$0.18	\$1.36	\$0.53	\$1.13	\$3.03
GI0037	\$0.06	\$0.06	\$0.02	\$0.29	\$0.10	\$0.77	\$1.29	\$0.24	\$0.55	\$2.08
GI0039	\$0.06	\$0.08	\$0.01	\$0.55	\$0.13	\$0.46	\$1.27	\$0.21	\$1.02	\$2.49
GI0046	\$0.10	\$0.13	\$0.02	\$0.43	\$0.20	\$0.57	\$1.45	\$0.07	\$0.82	\$2.35
GI0048	\$0.07	\$0.06	\$0.02	\$0.31	\$0.05	\$0.44	\$0.95	\$0.12	\$0.65	\$1.72
GI0049	\$0.05	\$0.14	\$0.00	\$0.38	\$0.37	\$1.16	\$2.09	\$0.07	\$0.00	\$2.16
GI0051	\$0.04	\$0.07	\$0.00	\$0.37	\$0.17	\$1.05	\$1.71	\$0.10	\$0.28	\$2.09
GI0053	\$0.07	\$0.08	\$0.01	\$0.14	\$0.21	\$0.34	\$0.86	\$0.13	\$0.92	\$1.91
GI0055	\$0.04	\$0.07	\$0.00	\$0.35	\$0.06	\$0.51	\$1.04	\$0.27	\$0.56	\$1.87
GI0056	\$0.05	\$0.09	\$0.01	\$0.49	\$0.05	\$0.00	\$0.69	\$0.29	\$1.02	\$2.00
GI0057	\$0.00	\$0.02	\$0.00	\$0.21	\$0.04	\$1.34	\$1.61	\$0.07	\$0.07	\$1.75
GI0058	\$0.00	\$0.04	\$0.01	\$0.40	\$0.09	\$1.00	\$1.54	\$0.43	\$0.30	\$2.28
GI0061	\$0.06	\$0.10	\$0.00	\$0.49	\$0.25	\$1.09	\$1.99	\$0.08	\$0.00	\$2.07
GI0063	\$0.08	\$0.10	\$0.05	\$0.62	\$0.06	\$0.86	\$1.77	\$0.22	\$0.80	\$2.79
GI0064	\$0.14	\$0.11	\$0.01	\$0.26	\$0.27	\$0.57	\$1.36	\$0.19	\$1.14	\$2.69
GI0066	\$0.08	\$0.13	\$0.10	\$0.23	\$0.14	\$0.00	\$0.68	\$0.16	\$1.52	\$2.35
GI0067	\$0.00	\$0.03	\$0.08	\$0.48	\$0.13	\$0.49	\$1.21	\$0.41	\$1.60	\$3.22
Average	\$0.08	\$0.10	\$0.03	\$0.42	\$0.16	\$0.63	\$1.41	\$0.21	\$0.97	\$2.59
Top 25%*	\$0.05	\$0.08	\$0.01	\$0.39	\$0.17	\$0.84	\$1.53	\$0.18	\$0.38	\$2.10

*Calculation of average values of land, water asset and equity exclude zero values.

Table D6

Capital structure – Gippsland

	Farm assets*				Other farm assets (per usable hectare)				
	Land value	Land value	Permanent water value	Permanent water value	Plant and equipment	Livestock	Hay and grain	Other assets	Total assets
	(\$/ha)	(\$/cow)	(\$/ha)	(\$/cow)	(\$/ha)	(\$/ha)	(\$/ha)	(\$/ha)	(\$/ha)
Average	\$19,415	\$11,295	\$6,619	\$2,151	\$1,479	\$5,112	\$263	\$844	\$27,707
Top 25%*	\$18,222	\$7,388			\$1,601	\$7,211	\$208	\$550	\$33,273

Table D6

Capital structure – Gippsland (continued)

	Liabilities		Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	(\$/ha)	(\$/cow)	(\$/ha)	(%)
Average	\$7,545	\$4,178	\$20,162	72%
Top 25%*	\$11,732	\$4,323	\$21,541	64%

Table D7

Historical data – Gippsland

Main financial indicators

Year	Income				Variable Costs							
	Milk income (net)		Gross farm income		Herd costs		Shed costs		Feed costs		Total variable costs	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$4.46	\$6.47	\$5.16	\$7.49	\$0.23	\$0.33	\$0.15	\$0.21	\$2.31	\$3.36	\$2.72	\$3.95
2007-08	\$6.62	\$9.17	\$7.58	\$10.50	\$0.27	\$0.38	\$0.13	\$0.18	\$2.80	\$3.88	\$3.30	\$4.57
2008-09	\$5.32	\$7.08	\$6.05	\$8.04	\$0.25	\$0.34	\$0.15	\$0.20	\$2.61	\$3.46	\$3.01	\$4.01
2009-10	\$4.38	\$5.65	\$5.07	\$6.53	\$0.22	\$0.28	\$0.17	\$0.21	\$1.95	\$2.51	\$2.33	\$3.00
2010-11	\$5.59	\$7.00	\$6.34	\$7.93	\$0.28	\$0.35	\$0.19	\$0.23	\$2.06	\$2.57	\$2.52	\$3.15
2011-12	\$5.37	\$6.59	\$5.89	\$7.24	\$0.29	\$0.35	\$0.18	\$0.23	\$2.12	\$2.60	\$2.59	\$3.18
2012-13	\$4.75	\$5.68	\$4.99	\$5.96	\$0.31	\$0.37	\$0.22	\$0.26	\$2.31	\$2.76	\$2.85	\$3.40
2013-14	\$6.62	\$7.72	\$7.33	\$8.54	\$0.31	\$0.36	\$0.21	\$0.25	\$2.67	\$3.12	\$3.19	\$3.72
2014-15	\$5.88	\$6.70	\$6.51	\$7.42	\$0.32	\$0.36	\$0.20	\$0.23	\$2.63	\$2.99	\$3.15	\$3.58
2015-16	\$5.28	\$5.94	\$5.79	\$6.51	\$0.30	\$0.34	\$0.20	\$0.22	\$2.73	\$3.08	\$3.24	\$3.64
2016-17	\$4.84	\$5.34	\$5.50	\$6.08	\$0.27	\$0.30	\$0.20	\$0.22	\$2.21	\$2.44	\$2.68	\$2.96
2017-18	\$5.74	\$6.23	\$6.26	\$6.79	\$0.31	\$0.33	\$0.21	\$0.23	\$2.69	\$2.91	\$3.21	\$3.48
2018-19	\$5.97	\$6.39	\$6.47	\$6.93	\$0.32	\$0.34	\$0.23	\$0.24	\$3.27	\$3.50	\$3.81	\$4.08
2019-20	\$6.95	\$7.35	\$7.59	\$8.02	\$0.32	\$0.34	\$0.23	\$0.24	\$2.81	\$2.98	\$3.36	\$3.55
2020-21	\$6.54	\$6.82	\$7.24	\$7.55	\$0.32	\$0.34	\$0.23	\$0.24	\$2.66	\$2.77	\$3.23	\$3.36
2021-22	\$7.15	\$7.15	\$8.00	\$8.00	\$0.39	\$0.39	\$0.24	\$0.24	\$3.34	\$3.34	\$3.99	\$3.99
Average	\$6.70		\$7.47		\$0.34		\$0.23		\$3.02		\$3.60	

Notes: 'Real' dollar values are the nominal values converted to 2021-22-dollar equivalents by the consumer price index (CPI) to allow for inflation

From 2016-17 Gross farm income does not include feed inventory changes and changes to the value of carry-over water. These are included in feed costs.

Table D7

Historical data – Gippsland Main financial indicators (continued)

Overhead Costs						
Year	Cash overhead costs		Non-cash overhead costs		Total overhead costs	
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)
2006-07	\$0.69	\$1.00	\$1.44	\$2.09	\$2.13	\$3.09
2007-08	\$0.80	\$1.10	\$0.90	\$1.24	\$1.59	\$2.21
2008-09	\$0.78	\$1.04	\$0.93	\$1.23	\$1.71	\$2.27
2009-10	\$0.80	\$1.04	\$1.09	\$1.40	\$1.90	\$2.44
2010-11	\$0.93	\$1.17	\$0.93	\$1.16	\$1.86	\$2.33
2011-12	\$0.95	\$1.17	\$1.05	\$1.29	\$2.01	\$2.46
2012-13	\$1.09	\$1.30	\$1.19	\$1.42	\$2.28	\$2.72
2013-14	\$1.04	\$1.21	\$1.07	\$1.25	\$2.11	\$2.46
2014-15	\$1.05	\$1.19	\$0.96	\$1.09	\$2.00	\$2.28
2015-16	\$1.09	\$1.23	\$1.13	\$1.27	\$2.22	\$2.49
2016-17	\$1.03	\$1.14	\$1.07	\$1.18	\$2.10	\$2.32
2017-18	\$1.11	\$1.20	\$1.10	\$1.19	\$2.21	\$2.40
2018-19	\$1.14	\$1.23	\$1.01	\$1.08	\$2.15	\$2.30
2019-20	\$1.16	\$1.23	\$0.99	\$1.05	\$2.16	\$2.28
2020-21	\$1.19	\$1.24	\$1.04	\$1.09	\$2.24	\$2.33
2021-22	\$1.41	\$1.41	\$1.18	\$1.18	\$2.59	\$2.59
Average		\$1.18		\$1.26		\$2.44

Table D7

Historical data – Gippsland Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	Nominal (\$/kg MS)	Real (\$/kg MS)	%	%
2006-07	\$0.31	\$0.45	\$0.57	\$0.83	-\$0.26	-\$0.38	0.8%	-2.1%
2007-08	\$2.69	\$3.73	\$0.61	\$0.85	\$2.08	\$2.88	9.7%	14.9%
2008-09	\$1.28	\$1.70	\$0.51	\$0.68	\$0.76	\$1.02	4.0%	3.4%
2009-10	\$0.80	\$1.02	\$0.70	\$0.90	\$0.10	\$0.13	2.6%	0.7%
2010-11	\$1.96	\$2.45	\$0.67	\$0.84	\$1.29	\$1.62	6.1%	9.9%
2011-12	\$1.30	\$1.59	\$0.65	\$0.80	\$0.64	\$0.79	4.4%	5.1%
2012-13	-\$0.14	-\$0.16	\$0.73	\$0.87	-\$0.86	-\$1.03	-0.2%	-6.2%
2013-14	\$2.03	\$2.36	\$0.69	\$0.80	\$1.34	\$1.56	6.4%	10.2%
2014-15	\$1.36	\$1.55	\$0.68	\$0.78	\$0.68	\$0.77	4.7%	4.6%
2015-16	\$0.33	\$0.38	\$0.64	\$0.72	-\$0.30	-\$0.34	1.3%	-2.3%
2016-17	\$0.73	\$0.80	\$0.68	\$0.75	\$0.05	\$0.06	2.3%	0.7%
2017-18	\$0.84	\$0.92	\$0.69	\$0.75	\$0.15	\$0.16	3.0%	1.0%
2018-19	\$0.51	\$0.55	\$0.69	\$0.74	-\$0.18	-\$0.20	1.7%	-2.3%
2019-20	\$2.07	\$2.19	\$0.65	\$0.68	\$1.43	\$1.51	6.6%	12.4%
2020-21	\$1.78	\$1.86	\$0.52	\$0.54	\$1.26	\$1.32	5.4%	8.0%
2021-22	\$1.43	\$1.43	\$0.56	\$0.56	\$0.87	\$0.87	4.2%	6.2%
Average		\$1.43		\$0.75		\$0.67	3.9%	4.0%

Table D8

Historical data – Gippsland

Average farm physical information

Year	Total usable area	Milking area	Total water use efficiency	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold
	(ha)	(ha)	(t DM/100mm/ha)	(cows)	(cows/ha)	(kg MS/ cow)	(kg MS/ ha)
2006-07	191	187	0.8	282	1.4	405	579
2007-08	181	174	0.9	289	1.6	464	741
2008-09	182	172	0.9	276	1.6	483	803
2009-10	172	160	0.8	268	1.7	472	792
2010-11	190	187	0.8	285	1.6	494	811
2011-12	189	126	0.6	291	1.7	501	843
2012-13	194	134	0.8	299	1.7	462	781
2013-14	186	126	0.8	284	1.8	468	835
2014-15	189	123	0.9	304	1.8	479	890
2015-16	201	122	0.7	291	1.7	482	836
2016-17	203	122	0.8	290	1.7	486	823
2017-18	189	124	0.9	294	1.8	471	849
2018-19	186	123	1.0	307	1.9	468	888
2019-20	187	124	0.8	310	1.9	486	925
2020-21	186	115	0.7	308	1.9	485	924
2021-22	187	121	0.8	320	1.9	471	920
Average	188	140	0.8	294	1.7	474	827

Table D8

Historical data – Gippsland

Average farm physical information (continued)

Year	Estimated grazed pasture*	Estimated conserved feed*	Homegrown feed as % of ME consumed	Concentrate price Nominal	Concentrate price Real
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(\$/t DM)	(\$/ t DM)
2006-07	5.6	1.2	71%	\$339	\$492
2007-08	7.2	1.1	74%	\$451	\$625
2008-09	7.2	0.8	71%	\$385	\$512
2009-10	7.6	0.9	73%	\$273	\$352
2010-11	7.1	1.7	69%	\$315	\$394
2011-12	7.4	0.9	62%	\$311	\$382
2012-13	6.9	0.6	62%	\$356	\$425
2013-14	7.6	1.0	68%	\$403	\$470
2014-15	7.4	1.1	66%	\$419	\$478
2015-16	6.9	1.0	59%	\$418	\$470
2016-17	7.8	1.4	70%	\$350	\$387
2017-18	7.4	1.2	66%	\$391	\$424
2018-19	7.9	1.1	66%	\$518	\$554
2019-20	8.6	1.2	68%	\$500	\$529
2020-21	8.4	0.9	66%	\$435	\$453
2021-22	7.5	0.9	63%	\$480	\$480
Average	7.4	1.1	67%		\$464

* From 2006-07 to 2010-11 estimated grazed pasture and conserved feed was calculated per usable hectare
From 2011-12 estimated grazed pasture and conserved feed was calculated per hectare of milking area

Appendix E: Glossary of terms, abbreviations, and standard value

Glossary of terms

All other farm income

Income to the farm from all sources except milk. Includes livestock trading profit, dividends, interest payments received, and rent from farm cottages.

Allocation

Water that is actually available to use or trade in any given year, including new allocations and carryover. Previously known as temporary water. Full allocation means irrigators receive 100 per cent of their HRWS.

Allocation trade

The transfer of a volume of allocation water between a seller and buyer. Water is traded within a current irrigation season. Previously this was known as trading of temporary water entitlement and some irrigators still use this term.

Appreciation

An increase in the value of an asset in the market, often only applicable to land value.

Asset

Anything managed by the farm, whether it is owned or not. Assets include owned land and buildings, leased land, plant and machinery, fixtures and fittings, trading stock, farm investments (i.e., Farm Management Deposits), debtors, and cash.

Cash overheads

All fixed costs that have a cash cost to the business. Includes all overhead costs except imputed labour costs and depreciation.

Cost of production

The cost of producing the main product of the business; milk. Usually expressed in terms of the main enterprise output i.e., dollars per kg MS. It is reported at the following levels.

Cash cost of production; variable costs plus cash overhead costs

Cost of production excluding inventory changes; variable costs plus cash and non-cash overhead costs

Cost of production including inventory changes; variable costs plus cash and non-cash overhead costs, accounting for feed inventory change and livestock inventory change minus livestock purchases

Cost structure

Variable costs as a percentage of total costs, where total costs equal variable costs plus overhead costs.

Debt servicing ratio

Interest and lease costs as a percentage of gross farm income.

Depreciation

Decrease in value over time of capital asset, usually as a result of using the asset. Depreciation is a non-cash cost of the business but reduces the book value of the asset and is therefore a cost.

Earnings before interest and tax (EBIT)

Gross income minus total variable and total overhead costs.

Employed labour cost

Cash cost of any paid employee, including on-costs such as superannuation and Workcover.

Equity

Total assets minus total liabilities. Equal to the total value of capital invested in the farm business by the owner/ operator(s).

Equity per cent

Total equity as a percentage of the total assets owned. The proportion of the total assets owned by the business.

Feed costs

Cost of fertiliser, irrigation (including effluent), hay and silage making, fuel and oil, pasture improvement, fodder purchases, grain/concentrates, agistment and lease costs associated with any of the above costs, and feed inventory change.

Feed inventory change

An estimate of the feed on hand at the start and end of the financial year to capture feed used in the production of milk and livestock.

Finance costs

See interest and lease costs.

Full time equivalent (FTE)

Standardised labour unit. Equal to 2,400 hours a year. Calculated as 48 hours a week for 50 weeks a year.

Grazed pasture

Calculated using the back-calculation approach. Grazed pasture is calculated as the difference between total metabolisable energy required by livestock over the year and amount of metabolisable energy available from other sources (hay, silage, grain, and concentrates).

Total metabolisable energy required by livestock is a factor of age, weight, growth rate, pregnancy, and lactation requirements, walking distance to shed, terrain and number of animals.

Total metabolisable energy available is the sum of metabolisable energy from all feed sources except

pasture, calculated as (weight (kg) x dry matter content (DM per cent) x metabolisable energy (MJ/ kg DM)).

Gross farm income

Farm income including milk sales, livestock trading and other income such as income from grants and rebates.

Gross margin

Gross farm income minus total variable costs.

Herd costs

Cost of artificial insemination (AI) and herd tests, animal health and calf rearing.

Imputed

An estimated amount introduced into economic management analysis to allow reasonable comparisons between years and between other businesses.

Imputed labour cost

An allocated allowance for the cost of owner/operator, family, and sharefarmer time in the business.

Interest and lease costs

Total interest plus total lease costs paid.

Labour cost

Cost of the labour resource on farm. Includes both imputed and employed labour costs.

Labour efficiency

FTEs per cow and per kg MS. Measures productivity of the total labour resources in the business.

Labour resource

Any person who works in the business, be they the owner, family, sharefarmer or employed on a permanent, part time or contract basis.

Liability

Money owed to someone else, e.g., family or a financial institute such as a bank.

Livestock trading profit

An estimate of the annual contribution to gross farm income by accounting for the changes in the number and value of livestock during the year. It is calculated as the trading income from sales minus purchases, plus changes in the value and number of livestock on hand at the start and end of the year, and accounting for births and deaths. An increase in livestock trading indicates there was an appreciation of livestock or an increase in livestock numbers over the year.

Milk income

Income from the sale of milk. This is net of compulsory levies and charges.

Milking area

Total usable area minus out-blocks or run-off areas.

Net farm income

Earnings before interest and tax (EBIT) minus interest and lease costs. The amount of profit available for capital investment, loan principal repayments and tax.

Nominal terms

Dollar values or interest rates that include an inflation component.

Number of milkers

Total number of cows milked for at least three months.

Other income

Income to the farm from other farm owned assets and farm business related external sources. Includes milk factory dividends, interest payments received, and rent from farm cottages.

Overhead costs

All fixed costs incurred by the farm business that do not vary with the level of production. These include cash overhead costs such as employed labour and non-cash costs such as imputed owner-operator labour, family labour and depreciation of plant and equipment. It excludes interest, lease costs, capital expenditure, principal repayments, drawings, and tax.

Real terms

Dollar values or interest rates that have no inflation component.

Return on equity (ROE)

Net farm income divided by the value of total equity.

Return on total assets (ROTA)

Earnings before interest and tax divided by the value of total assets under management, including owned and leased land.

Shed costs

Cost of shed power and dairy supplies such as filter socks, rubberware, vacuum pump oil etc.

Top 25%

Regional or State average for the Top 25% of farms ranked by return on total assets.

Total income

See gross farm income.

Total usable area

Total hectares managed minus the area of land which is of little or no value for livestock production e.g., house and shed area.

Total water use efficiency

Homegrown feed consumed or harvested per 100 mm water applied (rainfall and irrigation) to the usable hectares on the farm.

Variable costs

All costs that vary with the size of production in the enterprise e.g., herd, shed and feed costs (including feed and water inventory change).

Water inventory change

An estimate of the values irrigation water on hand at the start and end of the financial year to capture water used in the production of pasture and crops.

Feeding Systems:

Low bail

Low bail is defined by the one-tonne annual cap of grain or concentrates fed in the dairy bail.

Moderate – High bail

The level of grain or concentrate fed in the bail is more significant than one tonne per annum, and livestock graze pasture all year round.

Partial mixed ration

In the partial mixed ration (PMR) system, animals graze on pasture for most of the year, if not all of the year, while being fed a PMR on a feed pad.

Hybrid system

Hybrid systems are classified as grazing pasture for fewer than nine months of the year while feeding a partial mixed ration on a feed pad with grain or concentrates.

Total mixed ration

A total mixed ration or TMR is classified by zero-grazing, where cows are housed and fed a TMR all throughout the year.

List of abbreviations

AI	Artificial insemination	mm	Millimetres. 1 mm is equivalent to 4 points or 1/25th of an inch of rainfall
CH₄	Methane	MS	Milk solids (protein and fat)
CO₂	Carbon dioxide	N₂O	Nitrous oxide
CO₂-e	Carbon dioxide equivalent	Q1	First quartile, i.e., the value of which one quarter, or 25 per cent, of data in that range is less than the average
CoP	Cost of production	Q3	Third quartile, i.e., the value of which one quarter, or 25 per cent, of data in that range is greater than the average
DFMP	Dairy Farm Monitor Project	ROE	Return on equity
DJPR	Department of Jobs, Precincts and Resources, Victoria	ROTA	Return on total assets
DM	Dry matter of feed stuffs	t	Tonne = 1,000 kg
EBIT	Earnings before interest and tax		
FTE	Full time equivalent		
ha	Hectare(s)		
hd	Head		
HRWS	High Reliability Water Shares		
kg	Kilograms		
LRWS	Low Reliability Water Shares.		
ME	Metabolisable energy (MJ/kg DM)		
MJ	Megajoules of energy		
ML	Megalitres		

Standard values

Pasture

The pasture consumption calculation assumes 11 ME for homegrown feed.

Irrigation values

The 2021-22 standard opening values used to estimate the inventory and capital values of irrigation water in the North and Gippsland were:

Category	HRWS (\$/ML) ¹	LRWS (\$/ML) ²	Allocation (\$/ML) ³
Zone 1A Greater Goulburn	\$4,000	\$550	\$60
Zone 3 Lower Goulburn	\$4,000	\$500	\$46
Zone 6 Vic Murray - Dartmouth to Barmah Choke	\$4,900	\$600	\$60
Zone 6B Lower Broken Creek	\$6,620	\$1,032	\$29
Zone 7 Vic Murray - Barmah Choke to South Australian border	\$5,500	\$1,450	\$75
Zone 9 King and Ovens	\$1,300	\$200	\$70
Groundwater licence (permanent)	\$1,200		\$43
Zone 41 Macalister (Gippsland)	\$2,500	\$200	

Notes:

Closing values were the weighted average of opening, allocation and the farm's purchases and sales, if applicable.

Source: waterregister.com.au and srw.org.au

Livestock values

The standard values used to estimate the inventory values of livestock were determined by breed and liveweight. Example values for Friesians were:

Category	Opening value (\$/hd)	Closing value (\$/hd)
Mature cows (550kg)	\$2,200	\$2,200
2-year-old heifers	\$1,650	\$2,200
1-year old heifers	\$825	\$1,650
21-22 calves		\$825
Mature bulls	\$3,300	\$3,300

Imputed owner/operator and family labour

In 2021-22, the imputed owner/operator and family labour rate was \$34/hr based on a full time equivalent (FTE) working 48 hours/week for 50 weeks of the year.

Dairy Farm Monitor Project Map – State average data 2021–22
All Farms – 80

