AGRICULTURE VICTORIA

Dairy Farm Monitor Project

Victoria | Annual report 2023-24

Dairy Australia

Acknowledgements

Participants

To continuing participants and those new to the project, thank you for your participation, including all your efforts in supplying data for the 2024 Dairy Farm Monitor Project.

Project participants were selected based on a distribution of farm size, feeding system, herd size and geographical location within each region. The 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 18th 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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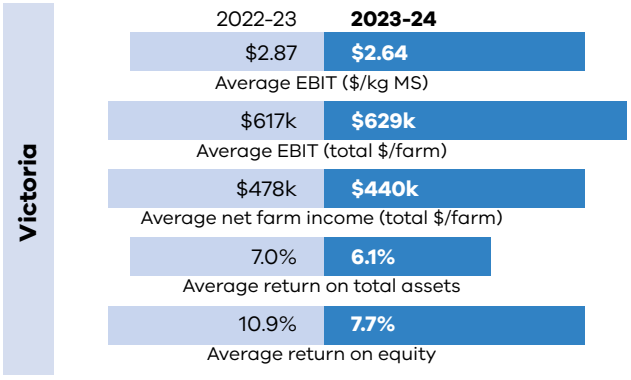
Contents

Summary

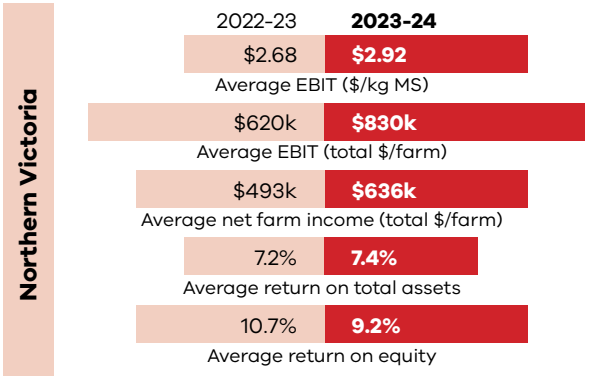
- Victorian dairy farm profits in 2023-24 were above the long-term average for the fifth consecutive year.
- The average dairy farm monitor participant recorded $629,000 ($2.64 per kilogram of milk solids) in profit, one of the highest in the history of the project.
- Varied seasonal conditions across the state influenced performance among the regions.
- Compared to 2022-23, farm incomes fell due to a 1% decrease in average milk price to $9.64 per kilogram of milk solids and a significant decline in livestock trading profits.
- An increase in feed inventory in Northern Victoria and Gippsland reduced costs in these regions, whereas most South West Victoria participants drew down their fodder reserves to manage dry conditions.
- Variable and overhead costs remained high and relatively unchanged on average for the state, compared to the previous year.

Victoria



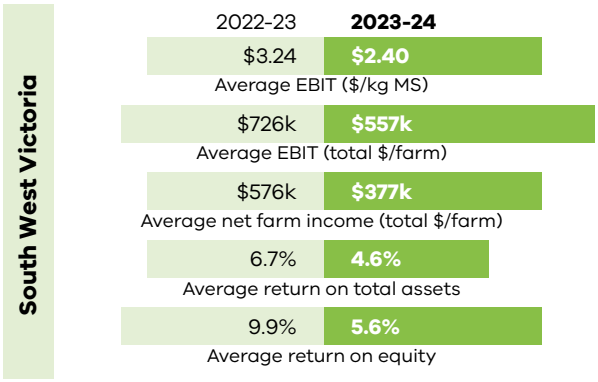
The varying weather conditions across regions were the key factor affecting profits in 2023-24. On average there was a minor drop in milk price received ($9.64/kg MS) with a corresponding slight reduction in total costs. This resulted in a small decline in average profit for participants of $2.64/kg MS. The opportunity to grow and harvest pasture and fodder supported profitability in Northern Victoria and Gippsland. Interest costs increased, due to a combination of larger borrowings and continued interest rate increases.

Northern Victoria



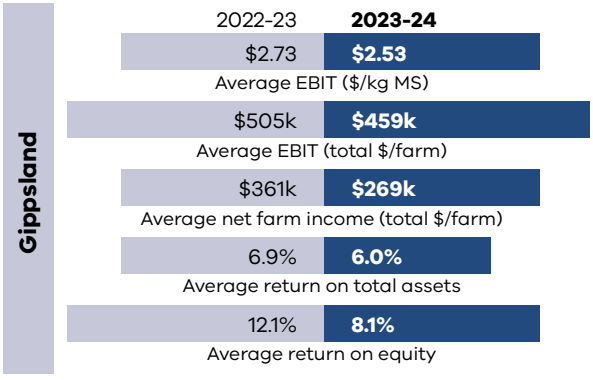
Northern Victorian participants on average had the most profitable year in 18 years. The average milk price in Northern Victoria held steady, while costs were reduced, resulting in a healthy profit. Livestock trading profit reduced but was offset by other income sources from the use of farm assets. Timely rainfall events and lower irrigation costs provide positive growing conditions which enabled farms to increase feed inventory, offsetting the minor increases in homegrown feed costs. Employed labour costs increased slightly but the reduction in other overhead costs led to a 9% increase in profit from the previous season.

South West Victoria



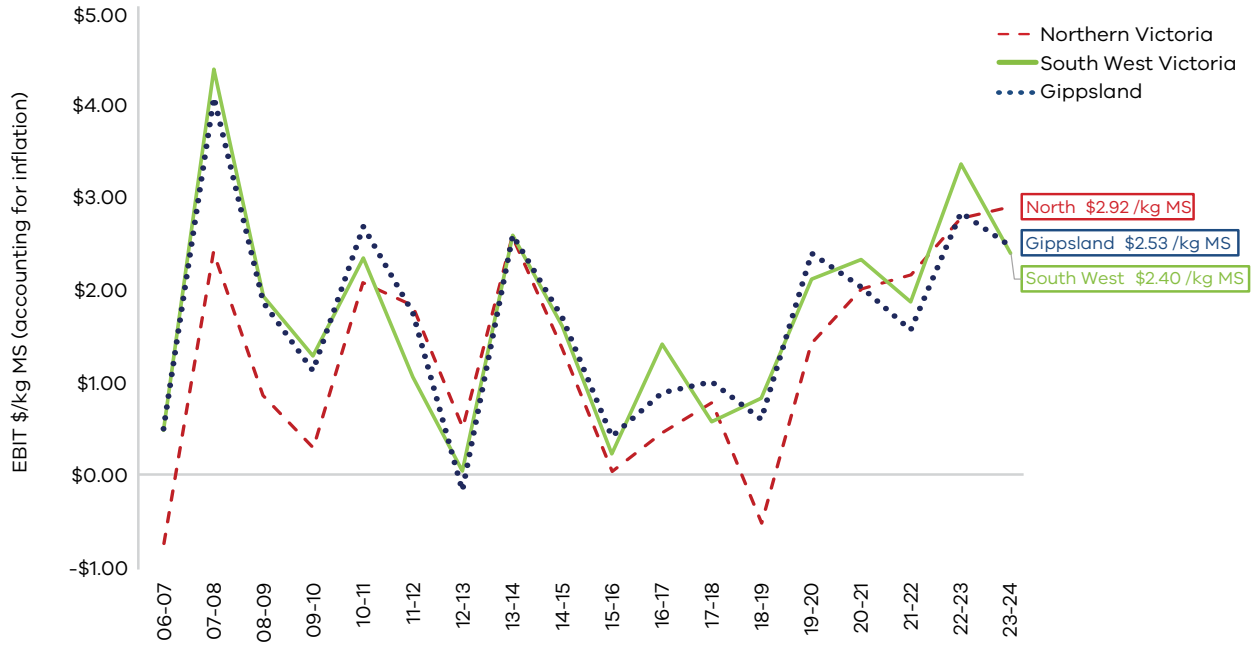
In 2023-24, dairy profits in South West Victoria remained above the long-term average. Lower returns from cattle trading, reduced feed inventory reserves, and higher cash costs contributed to a decrease in profits from the previous year. Very dry conditions led to increased feeding requirements at elevated costs. There was variability in individual profitability among farmers, indicating differing starting positions for the coming year. Nearly all farmers anticipated lower returns, faced minimal fodder reserves, and were burdened by high interest costs. Additionally, concerns about continued dry conditions added to their financial uncertainties.

Gippsland



In 2023-24, Gippsland dairy farmers experienced an average decline of 3% in milk prices, which contributed to a 7% decrease in profitability. Despite facing a wet first half of the financial year, which supported good growing conditions and ample irrigation water in the Macalister Irrigation District, fodder reserves increased. A minor reduction in purchased feed costs, coupled with the boost in fodder reserves, helped offset some of the increased expenditures on repairs and maintenance. Notably, these maintenance costs included repairs related to the February storm event.

How does 2023-24 compare?



- Average profit (per kg milk solids) for each region in 2023-24 remained above the long-term average for each respective region.
- Strong profit results per farm (average $629,000) across the state, well above the long-term average of $329,000.

Milk price

Milk price reduced by 1% on average in 2023-24 from the previous year and remained historically high. Milk income contributed approximately 91% of gross farm income due to the strong milk price.

Victoria	↓	**1% to** $9.64/kg MS
Northern Victoria	↑	**1% to** $9.93/kg MS
South West Victoria	↓	**2% to** $9.59/kg MS
Gippsland	↓	**3% to** $9.34/kg MS

Expectations for profit in 2024-25

Participants in each region had a similar weakening outlook for their business returns in the coming 12 months. With expectations for a lower milk price across most respondents in all regions for 2024-25, many farmers commented that they will focus on enterprise efficiency and reducing costs to negate the lower income (and dry outlook in the South West). Input costs, seasonal conditions and milk price were the highest ranked issues over the short and medium term.

Greenhouse gas emissions

The median net greenhouse gas emissions for Victorian dairy farm participants were 2,700 tonnes of carbon dioxide equivalents per farm in 2023-24. This was the highest recorded in 5 years as farms produced more milk, carried more animals and used greater quantities of inputs. The higher milk production appears to have kept pace with the higher emissions, resulting in stable emissions intensity (allocated to milk production).

Part One: Victorian overview

Dairying in Victoria

There were approximately **2,768** dairy farm businesses in Victoria that produced **5.3 billion litres** or **63%** of Australia's national milk production in 2023-24.

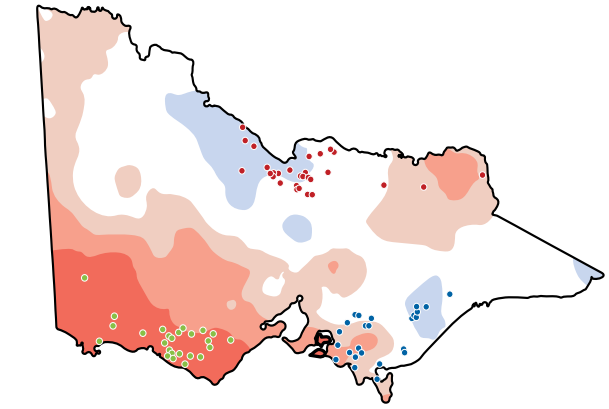
In 2023-24 average farm profits fell 9% from the previous year's high and remained strong compared to the long-term average. There was variability in profit across the Victorian participants with farm returns increasing on average in Northern Victoria. In contrast, the 2 southern regions (South West Victoria and Gippsland) had a decrease in profits from the previous year.

Across the state, prices received for milk supply and cattle decreased leading to lower average farm incomes. Total costs (variable and overhead costs) were similar to the previous year on average. Improvements in feed inventory lowered feed costs in Northern Victoria and Gippsland along with lower expenditure on fertiliser. Dry conditions in South West Victoria depleted fodder reserves - and added to their feed costs. In all regions, there were increased costs on purchased fodder and all cash overheads which kept total costs high relative to the longer-term.

Interest and lease costs increased in all regions. Many Dairy Farm Monitor (DFM) participants are growing and/or developing their businesses through additional debt. This combined with interest rate rises has increased debt servicing on average.

Average herd size increased across the state whereas in Gippsland the herd size has stabilised. Milk production per cow increased in Gippsland and Northern Victoria but stabilised in South West Victoria. Homegrown feed increased across the state as a proportion of the metabolisable energy consumed, helping contain feed costs this year. Labour efficiency stabilised in terms of cows per full time equivalent, whereas it rose in terms of milk production per full-time equivalent.

Dairy Farm Monitor Project farm locations and rainfall in 2023-24



Northern South West Gippsland

Rainfall Decile Ranges

Highest on record	Very much above average	Above average	Average	Below average	Very much below average	Lowest on record

In 2023-24 farm profitability for the state has been influenced by:

1% ↓ in average milk price to **$9.64/kg MS**

3% ↓ in total feed costs to **$4.21/kg MS**

1% ↑ in overhead costs to **$2.96/kg MS**

Profitability

The statewide average profit (earnings before interest and tax, EBIT) was $2.64/kg MS in 2023-24, the third highest in 18 years, accounting for inflation. Profitability was mixed across the regions with Northern Victorian participants recording their highest profit, while South West Victoria and Gippsland recorded their fourth and fifth highest profit respectively.

Seasonal conditions and operating environment influenced the profitability of participants in 2023-24.

In 2023-24, 96% of all Victorian participants had positive returns (77 out of 80)

Victoria

	2022-23	2023-24
Average EBIT ($/kg MS)	$2.87	**$2.64**
Average EBIT (total $/farm)	$617k	**$629k**
Average net farm income (total $/farm)	$478k	**$440k**
Average return on total assets	7.0%	**6.1%**
Average return on equity	10.9%	**7.7%**

Greenhouse gas emissions

2,700 tCO_2-e/farm	**2023-24 Greenhouse gas emissions**	0.91 tCO_2-e/t FPCM

Future expectations 2024-25

Of the farmers who responded, **75%** of farmers expect business returns to decline.

Physical parameters and seasonal conditions

- Homegrown feed production increased across the state, however regional differences were observed due to seasonal impacts.
- Northern Victoria and Gippsland had good water availability which allowed for more pasture to be grazed, as well as more fodder to be conserved. South West Victoria had their lowest homegrown feed (grazed and conserved) for many years.
- Total milk production increased in every region. This was largely driven by greater production per cow and/or milking more cows.

Victorian pasture-based dairy production

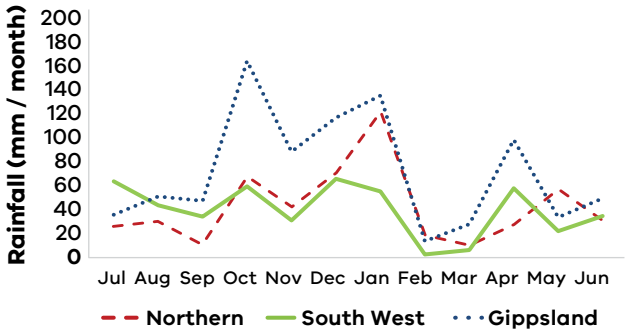
Dairying in Victoria is pasture and forage-based, with 42% of the average diet sourced from pasture. Homegrown feed production is important for Victorian dairying as 61% was consumed from homegrown sources (pasture, fodder and concentrates), on average in 2023-24. Spring and autumn rainfall is important, as is adequate irrigation water availability in the irrigation districts of Northern Victoria and Gippsland.

Rainfall

Parts of South West Victoria recorded their lowest rainfall on record in 2023-24. For a large proportion of the year South West Victoria received below the long-term average rainfall which resulted in homegrown feed (grazed plus conserved) falling to the lowest level in nearly a decade.

Northern Victoria and Gippsland received slightly above their respective long-term average rainfall totals. This was boosted by rainfall events occurring outside the usual growing season, such as January (Figure 1). This helped their homegrown feed production leading to a reduction in imported feed – most noticeable in these two regions.

FIGURE 1. MONTHLY RAINFALL 2023-24



Across the state, farms were more efficient in converting each millimetre of rainfall and irrigation water used to homegrown feed production. Water use efficiency (rainfall and irrigation) increased from 0.6 to 0.9 t DM/100mm/ha in 2023-24, compared to the previous year.

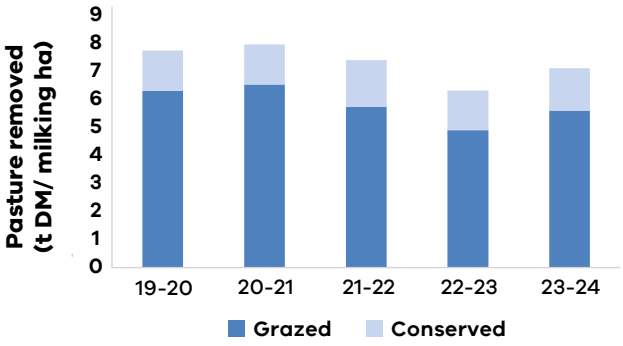
Feed consumption and harvest

Participants made the most of favourable growing conditions when they could, focusing on grazing of pasture. The overall levels of conserved pasture were similar to last year due to a shortened harvesting period.

Across the state, there was a slight increase in homegrown feed by 0.8 tDM/ha. The average amount of pasture harvested was 7.1 tDM/ha, with 5.6 tDM/ha grazed and 1.5 tDM/ha conserved specifically for the milking area.

There were regional differences in these observations. For example, South West Victoria experienced their lowest homegrown feed in 5 years due to the very dry conditions. More favourable conditions in Northern Victoria and Gippsland resulted in higher quantities of homegrown feed in these regions helping to lift the state average in 2023-24 (Figure 2). Further detail is provided in specific regional sections.

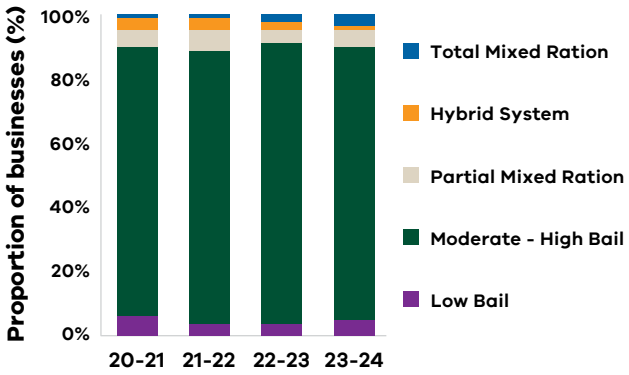
FIGURE 2. ESTIMATED TONNES OF HOMEGROWN FEED REMOVED



Feeding system

In 2023-24 the majority of feeding systems were moderate to high bail feeding (Figure 3). Within the 80 farms there has been a small but growing sub-set moving towards intensification in 2023-24 with 2 extra farms feeding total mixed ration and partial mixed ration diets. There were 3 participants feeding a total mixed ration diet.

FIGURE 3. TYPE OF FEEDING SYSTEMS



Information on feeding systems was first collected in 2020-21 to capture the intensification of dairy feeding systems in Victoria over time, reflecting a longer-term feeding system decision made by the business operator.

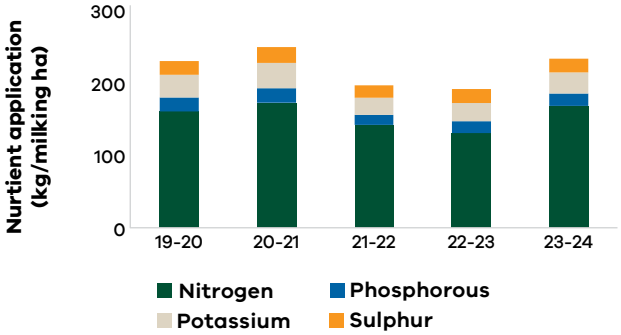
Fertiliser application

Total nutrient application on the milking area increased in 2023-24, to levels not observed in the last two years. Seasonal conditions and timing of effective rainfall determined fertiliser application this year. There were higher applications of macronutrients in Northern Victoria and Gippsland, whereas South West Victoria kept the total tonnes of fertiliser applied steady.

Figure 4 shows that in 2023-24

- Nitrogen applied was 164 kg/ha, a 29% increase
- Phosphorous applied was 17 kg/ha, a 5% increase
- Potassium applied was 29 kg/ha, a 16% increase
- Sulphur applied was 19 kg/ha, no change from the previous year.

FIGURE 4. NUTRIENT APPLICATION

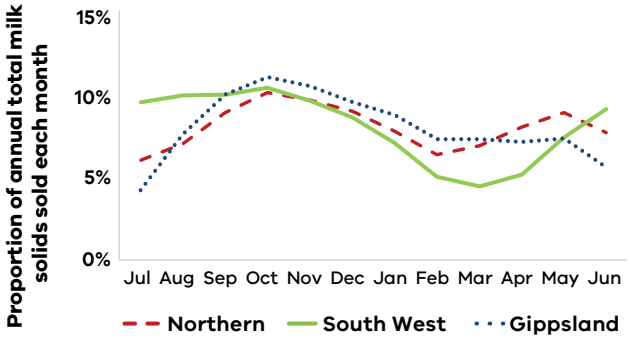


Milk solids sold

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).

Milk production per cow increased by 4% and milk production per hectare remained stable. Increases in per cow milk production in Northern Victoria and Gippsland was influenced by the more favourable seasonal conditions, while South West Victoria fed additional supplements to maintain per cow production.

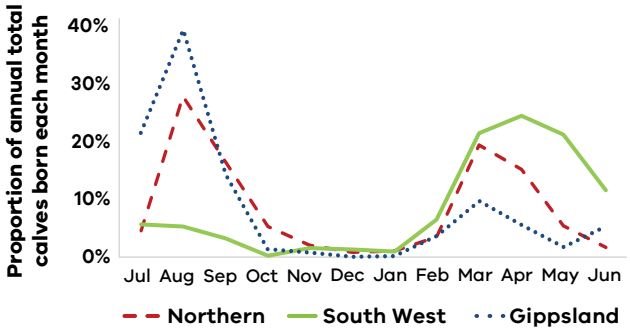
FIGURE 5. MONTHLY DISTRIBUTION OF MILK SOLD



Calving pattern

Calving patterns for participant farms will determine feed requirements. Northern Victorian participants were characterised by split calving (spring and autumn), South West Victorian participants were predominantly autumn calving and Gippsland predominantly spring calving, with a portion of farms opting for an autumn calving period (Figure 6).

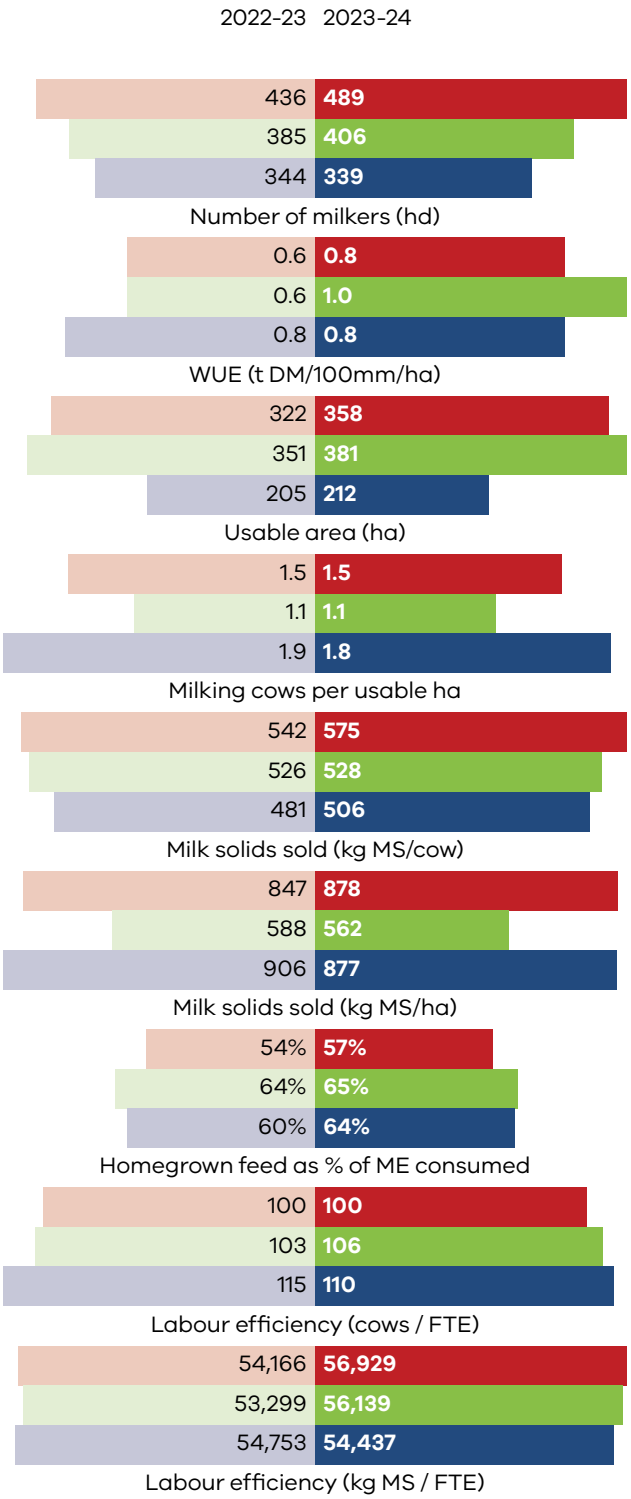
FIGURE 6. MONTHLY DISTRIBUTION OF CALVING



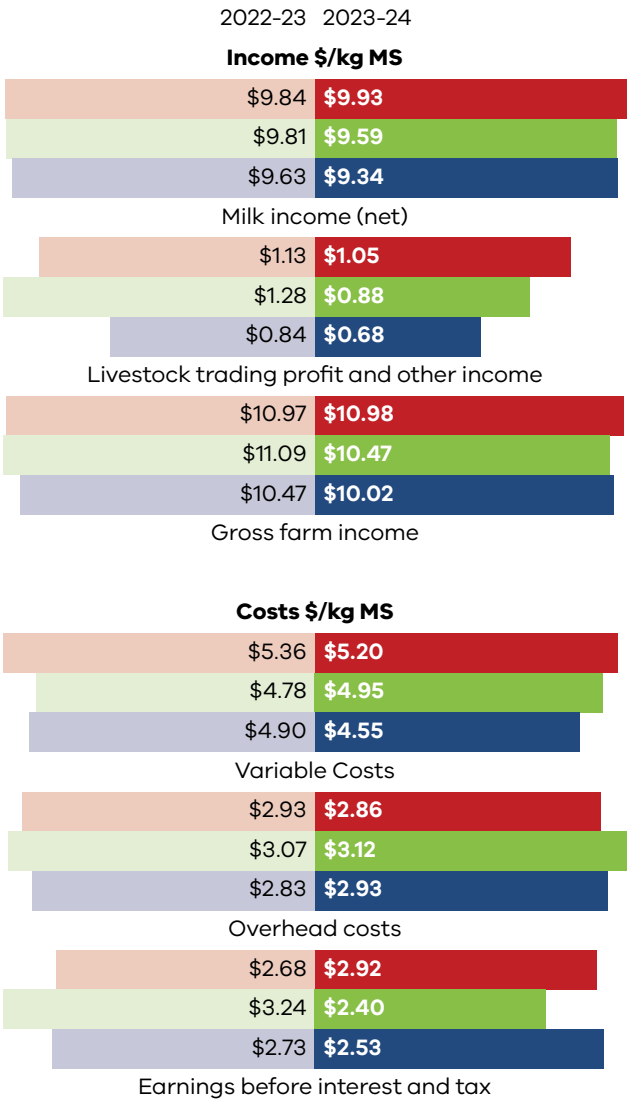
Whole farm analysis

- Earnings Before Interest and Tax (EBIT) was positive on 77 out of the 80 participating farms (96%).
- Milk price was relatively stable, only reducing by 1% across the state on average to $9.64/kg MS, with typical regional variation.
- Variable cost reduced by 2% to $4.92/kg MS, with large fluctuations in feed inventory change.
- Overhead costs were stable at $2.96/kg MS. The largest cost component increase was employed labour.
- Increased interest and lease costs, driven by larger borrowings and rising interest rates, put additional pressure on farm finances.

Physical parameters



Financial parameters



Earnings before interest and tax

The sustained high milk prices in 2023-24 maintained strong gross farm incomes. There was a considerable drop in livestock trading profit due to significantly fewer export cattle being sold and depressed livestock prices in the domestic market. In 2023-24 profitability was reduced by 8% (measured by earnings before interest and tax, EBIT) with the strongest influences being high milk prices and slightly reduced costs across the state. Northern Victoria had favourable seasonal conditions while Gippsland experienced quite a wet spring period. Gippsland experienced a significant storm event in February 2024 compounding the effect of delayed autumn rainfall. It was significantly dry for South West Victorian participants in the late autumn – early winter period. The volatility of available pasture for harvesting and grazing placed greater reliance on the purchased feed market at higher prices than the previous year, influencing profitability (Figure 7).

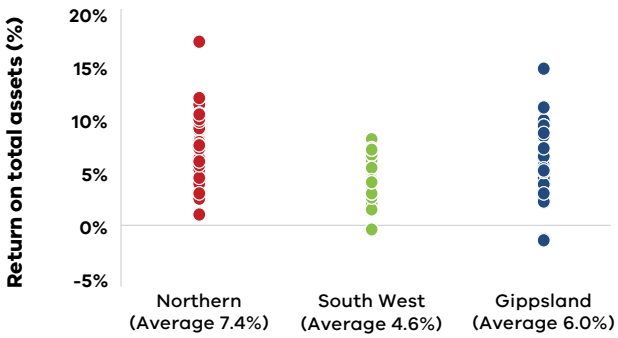
FIGURE 7. DISTRIBUTION OF FARMS BY EBIT

Return on total assets

In 2023-24 profitability as measured by return on total assets (ROTA) was recorded for 77 of the 80 participants (96%). Average ROTA decreased to 6.1% (Figure 8), mainly due to decreasing gross farm income and sustained cost structures. There was a greater reliance on milk income this season as a result of poorer livestock trading conditions and reduced demand for export heifers. Feed inventory change had the greatest impact on reducing costs in Northern Victoria and Gippsland. Homegrown feed was used in preference of purchasing larger amounts of all feed types.

Asset values increased this year and land, when purchased, was at higher values than previous years.

FIGURE 8. DISTRIBUTION OF FARMS BY ROTA



Return on equity

Strong return on equity (ROE) performance was observed across all 3 regions (Figure 9), with 73 of the 80 participants achieving a positive ROE (91%). Average ROE decreased to 7.7% in 2023-24, from the 10.9% high in 2022-23.

On average, dairy businesses had a lower equity level (70%) in 2023-24, compared to 72% equity in 2022-23.

FIGURE 9. DISTRIBUTION OF FARMS BY ROE

Part Two: Northern Victoria

Northern Victoria - performance

Dairying in Northern Victoria

Approximately **810** dairy farm businesses in Northern Victoria produced **1.55 billion litres** of milk in 2023-24, accounting for **29.2%** of Victoria's milk production output and **18.5%** of Australia's milk production.

Physical farm characteristics

The average herd size in Northern Victoria is larger than the other regions and most dairy farms have irrigation infrastructure. Pastures tend to be dominated by annual species and supplementary feeding is higher compared to the other regions.

The average number of cows milked increased by 12% in 2023-24, and there was a 6% increase in milk production per cow. Greater quantities of purchased concentrates and fodder were fed (per cow) with lower quantities of homegrown hay fed (per cow).

12% ↑	6% ↑	3% pt ↑
Average herd size 489 cows	**Milk solids sold** 575 kg MS/cow	**Homegrown feed** 57% of metabolisable energy consumed

In 2023-24, all 30 participants recorded a positive return on total assets

Northern Victoria

	2022-23	2023-24
Average EBIT ($/kg MS)	$2.68	**$2.92**
Average EBIT (total $/farm)	$620k	**$830k**
Average net farm income (total $/farm)	$493k	**$636k**
Average return on total assets	7.2%	**7.4%**
Average return on equity	10.7%	**9.2%**

In 2023-24 farm profitability has been influenced by:

1% ↑ in average milk price to **$9.93/kg MS**

4% ↓ in total feed costs to **$4.53/kg MS**

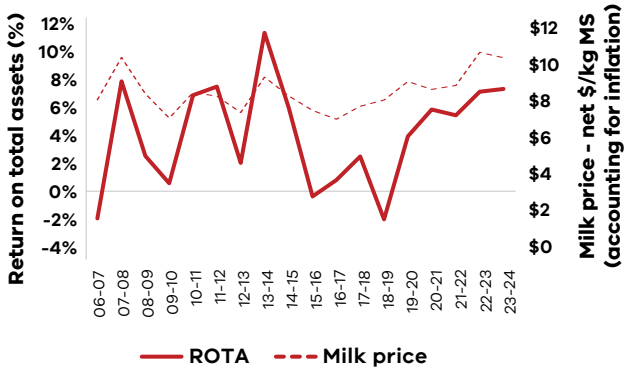
2% ↓ in overhead costs to **$2.86/kg MS.**

19% increase in homegrown feed (grazed plus conserved) on usable area

0.2 t DM/cow increase in average supplements fed (total 5.7 t DM/cow)

5th highest total costs (variable and overhead) in 18 years

Return on total assets and milk price



Future Expectations 2024-25

Two-thirds expect their business returns to decline.

Concerns as reported by farm businesses

Climate	Input Costs	Pasture/fodder
19%	18%	15%

Whole farm analysis

- Northern Victoria recorded its highest profits in the 18 years (accounting for inflation). This was supported by good seasonal conditions, irrigation water availability and affordability, a very high milk price (up 1%) and a slight decrease (2%) in total costs.
- Good seasonal conditions helped fodder conservation and there was an increase in homegrown feed and total feed inventories.
- Two-thirds of participating farms expect business returns to decline in the 2024-25 season.

Physical parameters

2022-23	2023-24	
Rainfall, area and cows		
715	**506**	Annual rainfall (mm)
436	**489**	Herd size
0.6	**0.8**	WUE (t DM/100mm/ha)
322	**358**	Usable area (ha)
1.5	**1.5**	Milking cows per usable ha
Milk production		
542	**575**	Milk solids sold (kg MS/cow)
847	**878**	Milk solids sold (kg MS/ha)
54%	**57%**	Homegrown feed as % of ME consumed
Pasture production		
6.8	**6.9**	Homegrown feed removed (t DM/ milking ha)
Labour use and efficiency		
4.5	**5.2**	Total FTE
100	**100**	Labour efficiency (cows / FTE)
54,166	**56,929**	Labour efficiency (kg MS / FTE)

Financial parameters

2022-23	2023-24	
Income $/kg MS		
$9.84	**$9.93**	Milk income (net)
$0.97	**$0.82**	Livestock trading profit
$0.16	**0.23**	Other farm income
$10.97	**$10.98**	Gross farm income
Variable costs $/kg MS		
$0.66	**$0.67**	Herd and shed
$1.61	**$1.76**	Home grown feed
$3.06	**$3.01**	Purchased feed and agistment
$0.03	**-$0.24**	Feed and water inventory change
$5.36	**$5.20**	Total variable costs
Overhead costs $/kg MS		
$0.91	**$1.00**	Employed labour
$0.47	**$0.45**	Repairs and maintenance
$0.36	**$0.38**	All other overheads
$0.81	**$0.67**	Imputed labour
$0.38	**$0.35**	Depreciation
$2.93	**$2.86**	Total overhead costs
Profit $/kg MS		
$2.68	**$2.92**	Earnings before interest and tax

Gross farm income

Gross farm income increased slightly to $10.98/kg MS, the third highest for Northern Victoria in the 18-year history of DFM (accounting for inflation).

The record-high average milk price received by Northern Victoria participants (higher than the other regions) underpinned the high incomes in 2023-24.

Variable costs

Homegrown and purchased feed costs for Northern Victorian farms typically represent a higher proportion of total costs than other regions. Northern Victoria spent more than double the other regions on purchased fodder (per kg MS) in 2023-24.

Participants increased their expenditure on fertiliser, pasture improvement and on hay and silage making. The cost of homegrown feed increased by 9% while the cost of purchased feed (per kg MS) decreased. Total feed inventories increased over the year. Total feed costs decreased by 4% to $4.53/kg MS, the third highest feed cost in the last 10 years (accounting for inflation).

Prices for allocation water were reasonable over the year, ranging from an average $30 to $45 per megalitre in the major irrigation zones. The purchase of temporary water (ML) per farm and the average irrigation water used increased by around half. Total irrigation costs (water charges and direct purchases of temporary water) per farm increased by 44% in 2023-24.

Total variable costs decreased by 3% to $5.21/kg MS.

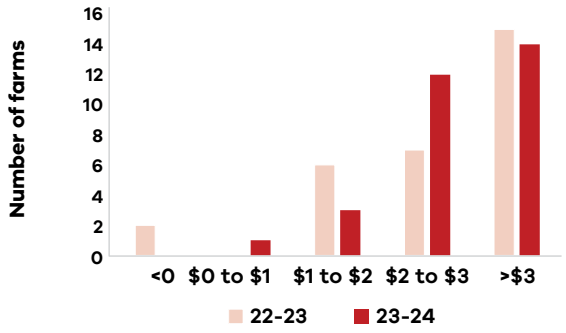
Overhead costs

Spending on repairs and maintenance was relatively stable. There was a 10% increase in employed labour costs, offset by an 18% decrease in imputed labour costs (owner/family). Total overhead costs declined by 2% to $2.86/kg MS.

Earnings before interest and tax

In 2023-24 all Northern Victorian participants had positive EBIT (Figure 10). Average EBIT per farm and per kilogram of milk solids was the highest in the 18 years of the DFM, accounting for inflation.

FIGURE 10. AVERAGE EBIT PER KG MS – NORTHERN VICTORIA



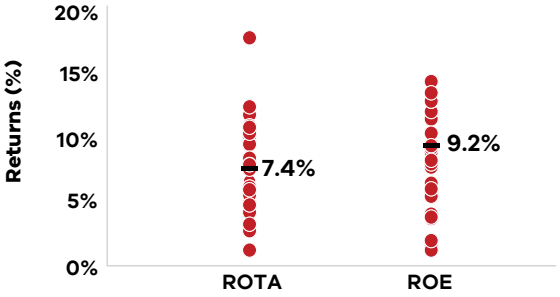
Return on total assets and equity

Returns were strong in 2023-24. Average return on total assets (ROTA) increased to 7.4% from 7.2% in 2022-23. Average ROTA was at its highest level since 2013-14. Aided by strong cash flows, many (25 of the 30 farms) made capital purchases for land, buildings or infrastructure. While average return on equity (ROE) at 9.2% in 2023-24 was lower than last year, it was still the third highest in DFM history.

Average equity levels remained the same (74%) between years, with the increase in average liabilities matched by higher asset values.

On average, interest and lease costs reached their highest level since 2016-17 (per kg MS, accounting for inflation). Even with these costs being higher, the cost of financing was still lower than the returns from accessing the additional assets (e.g., land), and 21 of the 30 participants recorded higher ROE than ROTA (Figure 11). These farmers have been able to grow their business.

FIGURE 11. 2023-24 AVERAGE RETURNS – NORTHERN VICTORIA



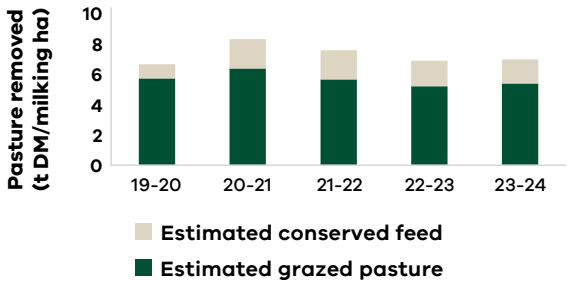
Feed consumption and fertiliser

Feed consumption and pasture harvested

Homegrown feed (direct grazing and conserved feed) in 2023-24 on the milking area was similar to the previous year at 6.9 tDM/ha (Figure 12). On the support area, homegrown feed increased by 19%, reflecting the good seasonal conditions and irrigation water availability and affordability.

On a tonnage basis, purchased concentrates and fodder per cow remained stable. As a proportion of the diet, homegrown feed (grazed and conserved pasture) accounted for 57% of the metabolisable energy consumed, higher than last year's average of 54%. Annual pastures constituted 69% of the feedbase on average, with the remaining made up of perennial pastures. There was a range of 0% to 100% for annual pasture across farms.

FIGURE 12. AVERAGE HOMEGROWN FEED REMOVED – NORTHERN VICTORIA

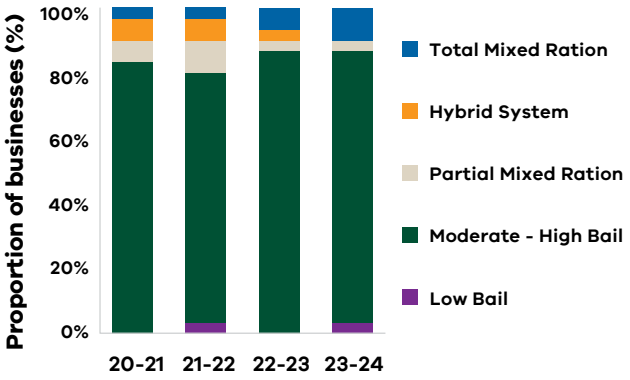


Feeding system

Twenty-five of the participating farms in 2023-24 employed a moderate to high bail feeding system, while the 5 remaining farms comprised of low bail, partial mixed ration and total mixed ration feeding systems (Figure 13).

Agriculture Victoria and Dairy Australia have developed resources to support farmers in understanding cost structures, profitability and risks for total mixed ration systems. A 2024 report includes an economic analysis of TMR farms in Northern Victoria and NSW over a seven-year period.

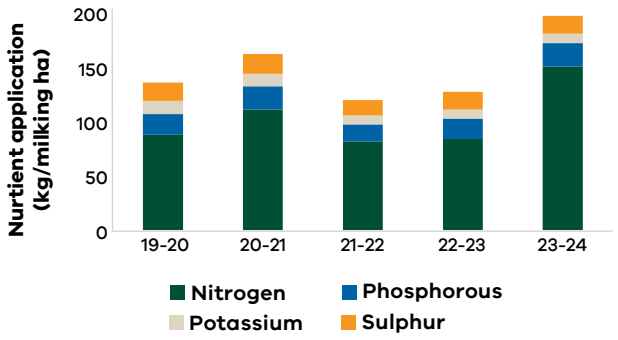
FIGURE 13. FEEDING SYSTEM TYPES – NORTHERN VICTORIA



Fertiliser

The amount of fertiliser applied on the milking area (Figure 14) was significantly higher than last year, driven by greater use of nitrogen fertiliser applications.

FIGURE 14. AVERAGE NUTRIENT APPLICATION – NORTHERN VICTORIA



Part Three: South West Victoria

South West Victoria - performance

Dairying in South West Victoria

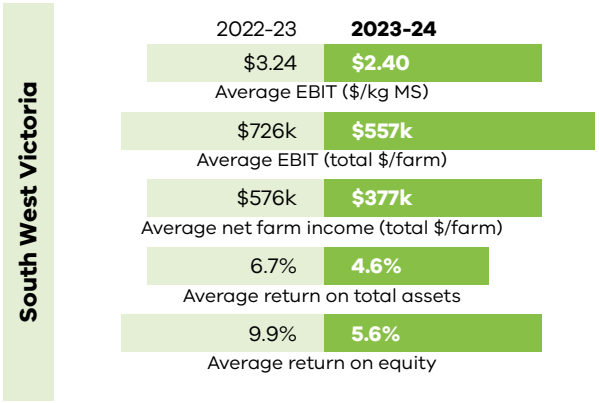
Approximately **936** dairy farm businesses in South West Victoria produced **1.85 billion litres** of milk in 2023-24, accounting for **34.8%** of Victorian milk production output and **22%** of Australia's milk production.

Physical farm characteristics

Rainfall deficits meant homegrown feed removed was almost at its lowest level in 18 years. Greater quantities of supplements were fed to maintain milk production per cow – leading to higher feed costs.

6% ↑	Stable	1% pt ↑
Average herd size 406 cows	**Milk solids sold** 528 kg MS/cow	**Homegrown feed** 65% of metabolisable energy consumed

In 2023-24, nearly all participants (24 of the 25) recorded a positive return on total assets



Future expectations 2024-25

Four-in-five farmers expect business returns to decline

In 2023-24 farm profitability has been influenced by:

2% ↓ in average milk price to **$9.59/kg MS**

3% ↑ in total feed costs to **$4.24/kg MS**

2% ↑ in overhead costs to **$3.12/kg MS.**

59% of long-term average rainfall. Some months recorded the lowest rainfall on record

0.6 t DM/cow increase in average supplements fed (total 4.3 t DM/cow)

31% decrease in livestock trading profit contributed to lower farm incomes

Return on total assets and milk price

Concerns as reported by farm businesses:

Milk price 19%	Climate 18%	Input costs 17%

Whole farm analysis

- South West Victorian DFM farms recorded above long-term average profits for five consecutive years.
- Farm profits in 2023-24 were reduced from the previous year as farm incomes were lower, feed inventories were depleted, and cash costs were higher.
- Very dry seasonal conditions led to the lowest pasture production in many years and dairy herds were fed greater quantities (at higher costs) of concentrates, silage and hay to maintain per cow milk production.
- Nearly all participants headed into 2024-25 with expectations for lower business returns emanating from a lower milk price, depleted feed reserves, high interest costs and an outlook for a dry 2024 spring.

Physical parameters

2022-23	2023-24	
Rainfall, area and cows		
994	**468**	Annual rainfall (mm)
385	**406**	Herd size
0.6	**1.0**	WUE (t DM/100mm/ha)
351	**381**	Usable area (ha)
1.1	**1.1**	Milking cows per usable ha
Milk production		
526	**528**	Milk solids sold (kg MS/cow)
588	**562**	Milk solids sold (kg MS/ha)
64%	**65%**	Homegrown feed as % of ME consumed
Pasture production		
6.3	**5.1**	Homegrown feed removed (t DM/ milking ha)
Labour use and efficiency		
3.9	**3.9**	Total FTE
103	**106**	Labour efficiency (cows / FTE)
53,229	**56,139**	Labour efficiency (kg MS / FTE)

Financial parameters

2022-23	2023-24	
Income $/kg MS		
$9.81	**$9.59**	Milk income (net)
$1.20	**$0.82**	Livestock trading profit
$0.08	**$0.06**	Other farm income
$11.09	**$10.47**	Gross farm income
Variable costs $/kg MS		
$0.70	**$0.71**	Herd and shed
$1.51	**$1.37**	Home grown feed
$2.55	**$2.61**	Purchased feed and agistment
$0.03	**$0.26**	Feed and water inventory change
$4.78	**$4.95**	Total variable costs
Overhead costs $/kg MS		
$0.82	**$0.89**	Employed labour
$0.59	**$0.61**	Repairs and maintenance
$0.38	**$0.42**	All other overheads
$0.88	**$0.82**	Imputed labour
$0.40	**$0.39**	Depreciation
$3.07	**$3.12**	Total overhead costs
Profit $/kg MS		
$3.24	**$2.40**	Earnings before interest and tax

Gross farm income

High incomes were supported by higher total milk production and a small decrease in milk price from the previous years' record high (2% decline to $9.59/kg MS in 2023-24). Lower income from cattle trading (lower price as volume of cattle sales increased) were the main contributor to the fall in farm incomes from the previous year.

Variable costs

In 2023-24, variable costs increased from the previous year mostly due to the costs of managing dry conditions.

Feed inventory reserves were depleted on most farms which added to their costs (22 of the 25 farms reduced their feed on hand, t DM). The very low rainfall limited pasture availability and feed conservation. Farmers relied on their carry-over reserves to supplement the lower pasture availability, and many headed into the next season with minimal fodder reserves.

In 2023-24, more supplements were fed – both homegrown and purchased, to maintain milk production. The price of purchased feeds ($/t DM) were mixed with concentrates cheaper in 2023-24 compared to the previous year while hay was more expensive. Only one farm purchased silage. Overall, purchased feed costs increased from the previous year.

Lower expenditure on homegrown feed costs was due to reduced fertiliser costs. Annual prices of key fertilisers (urea, superphosphate) were 25-30% lower in 2023-24 which helped to lower fertiliser costs. All other homegrown feed cost categories remained similar.

Overhead costs

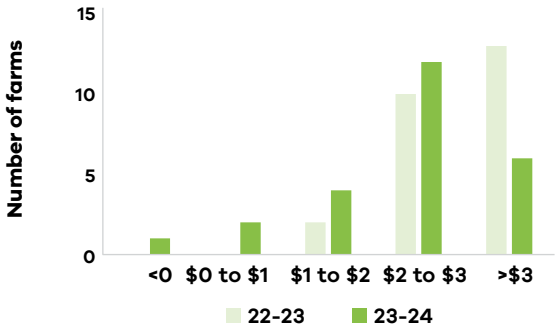
Overhead costs rose slightly (2% increase) from the previous year and were among the highest seen in the 18 years of DFM. On average, higher hourly rates for employed labour led to greater expenditure for the same number of employed people (2.3 FTE). This was offset by lower imputed labour costs. The number of labour units remained steady at 3.9 FTE but with the higher average total milk production there was a lift in labour productivity from the previous year.

In another high cash flow year, farmers made improvements to their capital (e.g., land, dairies, plant and equipment) with 12 of the same 22 farms spending more on repairs and maintenance than the previous year. This led to an average 3% increase in repairs and maintenance.

Earnings before interest and tax

Lower income and higher costs resulted in profit falling from the highs seen in 2022-23 (Figure 15). While lower EBIT ($/kg MS) were recorded, the profits in 2023-24 were the fourth highest recorded in the 18 years of the DFM, accounting for inflation. This solidifies a 5-year period of above average long-term profitability.

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



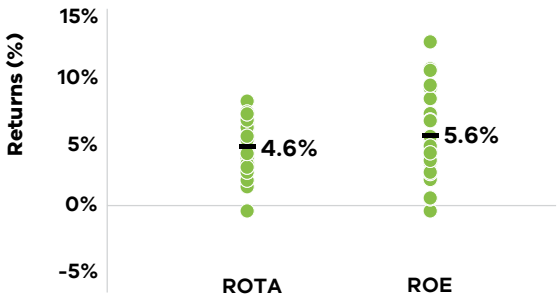
Return on total assets and equity

The combination of lower profits, and higher average total assets, saw returns fall in 2023-24 but remained above the long-term average. Asset values continued to increase on the back of strong land values and farmers investing in their business (purchasing land and other capital items). On-the-other-hand, feed inventory values decreased and there was also lower cash.

Average equity levels remained the same (73%). An increase in average liabilities was matched with the higher asset values leaving equity levels unchanged between years.

On average, interest and lease costs reached their highest level in 11 years, accounting for inflation. Even with the higher interest (and lease) costs, 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. 2023-24 AVERAGE RETURNS – SOUTH WEST VICTORIA



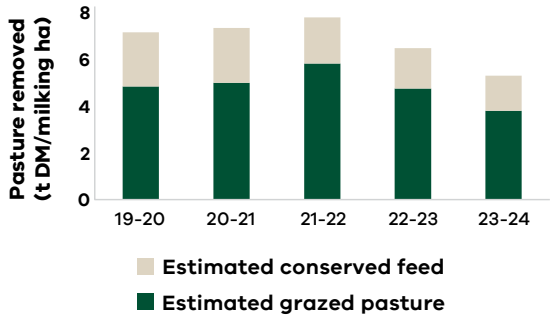
Feed consumption and fertiliser

Feed consumption and pasture harvested

The 2023-24 season was characterised by very dry conditions, with some months recording the lowest rainfall on record. By the end of 2023-24, total pasture grazed plus conserved (Figure 17) fell to the lowest level since 2015-16; a dry year.

Additional supplements were fed to manage the dry conditions. On the milking area, more silage was fed (0.4 t DM/cow increase) as well as more concentrates and hay (both 0.1 t DM/cow increases). As most farmers utilised their homegrown feed reserves, the homegrown feed proportion of the diet increased slightly from 64% to 65% the metabolisable energy consumed in 2023-24.

FIGURE 17. AVERAGE HOMEGROWN FEED REMOVED – SOUTH WEST VICTORIA



Total average milk production increased in 2023-24 compared to the previous year (which was impacted by wet conditions). Most farmers milked more cows in 2023-24 with the average increasing by 6% (10 of the same 22 farms milked more cows). Farmers kept their feeding levels steady per cow to maintain per cow milk production. Overall, this increased total milk production.

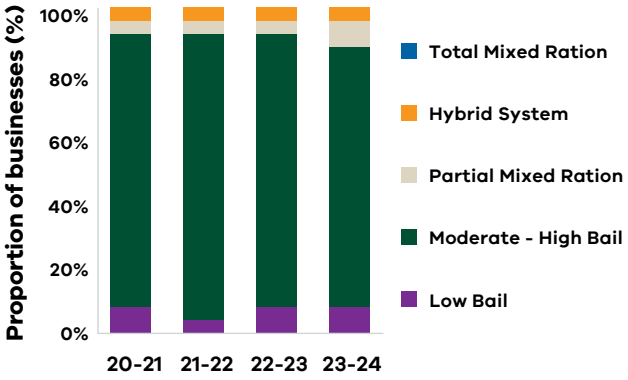
The higher total milk production has diluted costs when expressed as $/kg MS on South West DFM farms this year.

Feeding system

Moderate to high bail was the dominant feeding system (20 farms) on South West DFM farms. The remaining farms were hybrid, partial mixed ration and a low bail feeding system (Figure 18).

South West Victoria is predominantly reliant on perennial pasture species. Perennials comprised approximately 91% of pastures on average, with the remaining made up of annual pastures.

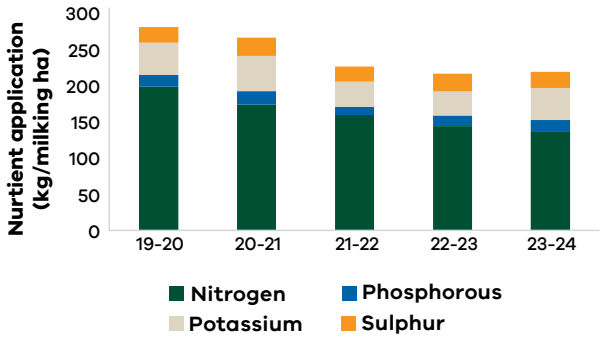
FIGURE 18. FEEDING SYSTEM TYPES – SOUTH WEST VICTORIA



Fertiliser

The total amount of macronutrients applied per milking hectare in 2023-24 remained similar to the previous year (Figure 19). Nitrogen fertiliser applications decreased by 5% from the previous year (farmers reported a nitrogen shortage) and this contributed to the lower homegrown feed production – as well as lower rainfall. The lower nitrogen trend continued and was the lowest in 5 years at 113 kg N/ha (12 of the same 22 farms applied less nitrogen).

FIGURE 19. AVERAGE NUTRIENT APPLICATION – SOUTH WEST VICTORIA



Part Four: Gippsland

Gippsland - performance

Dairying in Gippsland

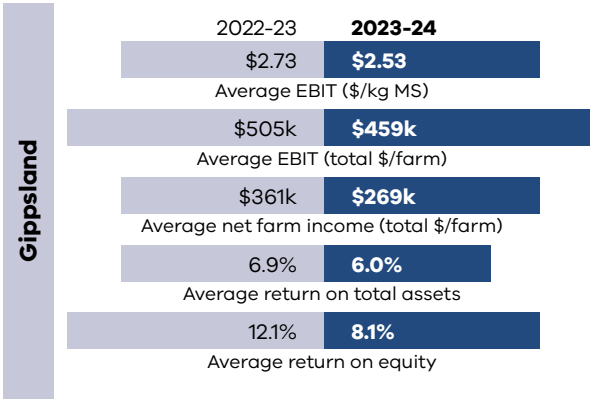
Approximately **1,022 dairy** farm businesses in Gippsland produced **1.91 billion litres** of milk in 2023-24 accounting for **36%** of Victoria's milk production output and **22.8%** of Australia's milk production.

Physical farm characteristics

Gippsland participants, on average, increased milk production per cow with a stable herd size. Grazed pasture increased by 7% on average for Gippsland and there was a large increase in conserved feed which was slightly influenced by participants in the Macalister Irrigation District, who enjoyed good water availability. Labour efficiency dropped across farms in the region. Gippsland farms experienced a significant storm event in February 2024 which resulted in lengthy power losses and impacted some farms' ability to maximise their profit.

Average herd size	Milk solids sold	Homegrown feed
Stable	5% ↑	4% pt ↑
339 cows	506 kg MS/cow	64% of metabolisable energy consumed

In 2023-24, 23 of the 25 Gippsland participants (92%) had a positive return on total assets



Future expectations 2024-25

Three-quarters of farmers expect business returns to decline

In 2023-24 farm profitability has been influenced by:

3% ↓ in average milk price to **$9.34/kg MS**

9% ↓ in total feed costs to **$3.81/kg MS**

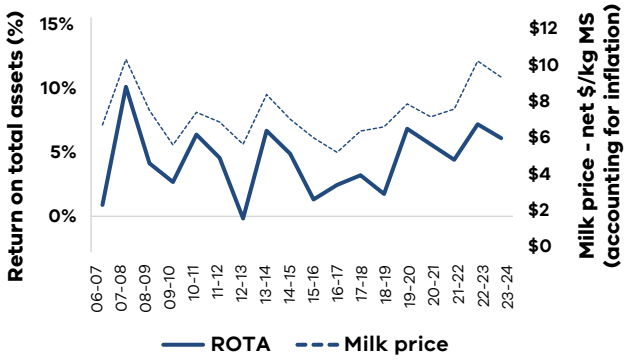
3% ↑ in overhead costs to **$2.93/kg MS.**

10% increase in homegrown feed (pasture plus conserved) to 7.7 tDM/ha directly grazed and 1.5 tDM/ha conserved

0.1 tDM/cow increase in average supplements fed. Increased homegrown fodder replaced purchased fodder sources

Increased interest and lease costs, driven by larger borrowings and rising interest rates, put additional pressure on farm finances

Return on total assets and milk price



Concerns as reported by farm businesses:

Whole farm performance

- Gippsland participants enjoyed a good combination of climatic conditions but not without its challenges in the erratic delivery of rainfall to dryland farms.
- Slight decline in costs, with farmers focusing on essential operating costs to run their businesses efficiently.
- A significant change to use homegrown feed sources rather than purchased fodder with concentrates costs per kg MS remaining stable. Feed inventory stores increased over the year to support this approach of homegrown feed sources.
- A swing to employed labour resulted in a reduction in imputed labour costs for many Gippsland businesses.
- Highest interest and lease costs in 18 years due to an increase in average debt with higher interest rates.

Physical parameters

2022-23	2023-24	
Rainfall, area and cows		
884	**854**	Annual rainfall (mm)
344	**339**	Herd size
0.8	**0.8**	WUE (t DM/100mm/ha)
205	**212**	Usable area (ha)
1.9	**1.8**	Milking cows per usable ha
Milk production		
481	**506**	Milk solids sold (kg MS/cow)
906	**877**	Milk solids sold (kg MS/ha)
60%	**64%**	Homegrown feed as % of ME consumed
Pasture production		
8.4	**9.2**	Homegrown feed removed (t DM/ milking ha)
Labour use and efficiency		
3.1	**3.2**	Total FTE
115	**110**	Labour efficiency (cows / FTE)
54,753	**54,437**	Labour efficiency (kg MS / FTE)

Financial parameters

2022-23	2023-24	
Income $/kg MS		
$9.63	**$9.34**	Milk income (net)
$0.80	**$0.62**	Livestock trading profit
$0.04	**$0.05**	Other farm income
$10.47	**$10.02**	Gross farm income
Variable costs $/kg MS		
$0.71	**$0.74**	Herd and shed
$1.40	**$1.37**	Home grown feed
$2.79	**$2.59**	Purchased feed and agistment
$0.01	**-$0.14**	Feed and water inventory change
$4.90	**$4.55**	Total variable costs
Overhead costs $/kg MS		
$0.84	**$0.90**	Employed labour
$0.45	**$0.53**	Repairs and maintenance
$0.36	**$0.38**	All other overheads
$0.91	**$0.79**	Imputed labour
$0.27	**$0.32**	Depreciation
$2.83	**$2.93**	Total overhead costs
Profit $/kg MS		
$2.73	**$2.53**	Earnings before interest and tax

Gross farm income

In 2023-24 gross farm decreased to $10.02/kg MS (4% decrease) influenced by an average milk price $9.34/kg MS, reducing by 3% from the previous year. Livestock trading profit declined by 4% to $0.80/kg MS due to reduced export heifers being sold and a reduction in prices received for livestock in the domestic market. .

Variable costs

Variable costs in 2023-24 were reduced by 7% to $4.55/kg MS. A focus on homegrown fodder production reduced purchased feed costs and enabled farmers to increase feed inventory by the end of the year.

Feed costs were reduced on Gippsland farms in 2023-24 by 9% to $3.81/kg MS. This was due to a combination of decreasing homegrown and purchased feed costs and an increase in feed inventory.

Herd costs had a minor increase to $0.47/kg MS (an increase of $0.02/kg MS from last year). The increase was mainly due to the use of sexed semen and addressing cow health concerns due to loss of power in February 2024.

Shed costs continued to increase in total dollars but with higher total milk production, they remained steady at $0.27/kg MS. Increased power costs were offset on some participant farms by solar-generated electricity for some or all dairy operations.

Overhead costs

Overhead costs increased by 3% to $2.93/kg MS in 2023-24 for Gippsland participants.

Cash overhead costs increased by 31% with major changes to the way labour was structured on farms. There was a 7% increase in employed labour to $0.90/kg MS, with a corresponding decline of imputed labour by 13%. Repairs and maintenance increased which was partially explained by the increase in repairs after the February storms.

Non-cash overheads were strongly influenced by the change in labour use on farm and depreciation also increased to $0.32/kg MS in 2023-24 as equipment purchased over the last few years required significant work.

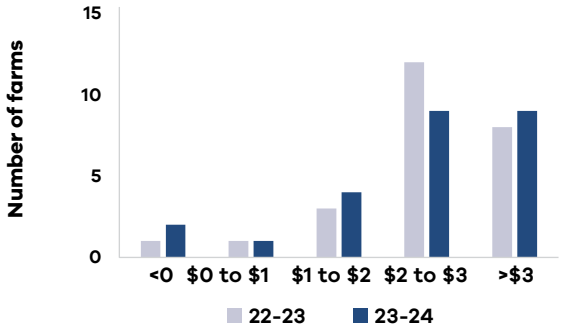
Earnings before interest and tax

In 2023-24, nearly all Gippsland dairy farms (23 out of 25) recorded a positive EBIT as shown in Figure 20. Despite a 7% reduction in average profits to $2.53 per kilogram of milk solids, the average EBIT per farm was the fifth highest in the 18-year history of the DFM, after adjusting for inflation.

Climatic conditions largely influenced the range of individual performance year-on-year as shown in Figure 20. A focus on the pasture base enabled farmers to increase homegrown feed, thereby reducing variable feed costs and have a direct impact on the bottom line.

Farmers reviewed their expenditures in 2023-24 to prepare for the upcoming year. They faced some challenges managing costs, especially because of a major storm in February 2024. The impact of this storm varied depending on location within the region, with some farmers experiencing more severe disruptions than others. Farm businesses took a strategic approach to navigate these challenges and prepare their operations for the future.

FIGURE 20. AVERAGE EBIT PER KG MS – GIPPSLAND



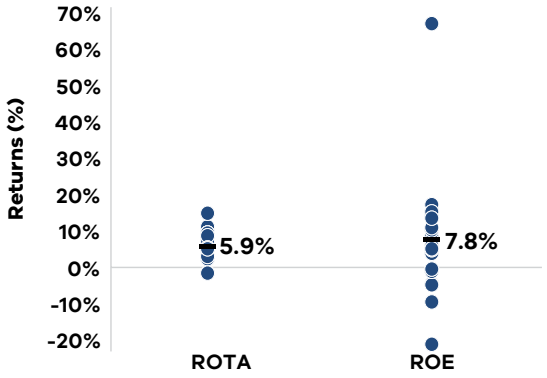
Return on total assets and equity

The average ROTA was 6.0% and was the 6th highest in the 18-year history of DFM, with the long-term average lifting to 4.2% (Figure 21).

The average return on equity (ROE) for Gippsland participants was 8.1% and was the 6th highest in the history of the DFM in Gippsland. The long-term average ROE has risen to 4.7%.

Equity levels decreased from 74% to 72% on average. Just over half of participant farms reduced their equity in 2023-24 (14 of the 25). Farmers drew down on cash reserves but invested back into plant and equipment and had an increase in average liabilities by 18%, strongly influencing the reduction in ROE this year and the related increase in interest and lease costs.

FIGURE 21. 2023-24 AVERAGE RETURNS – GIPPSLAND



Feed consumption and fertiliser

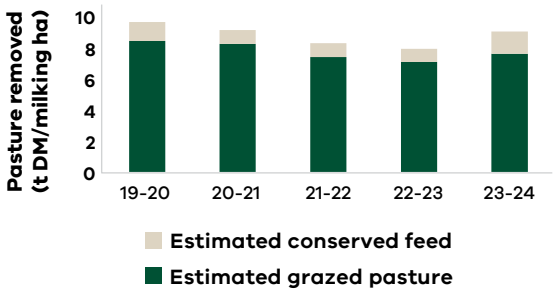
Feed consumption and pasture harvested

For the third year in a row, Gippsland experienced very wet conditions during spring 2023, delaying harvest in Central and South Gippsland. Harvested fodder tended to be silage rather than hay, with farmers taking advantage of multiple forage cuts.

Average homegrown feed on the milking area rose to 9.2 tDM/ha with directly grazed pasture accounting for 7.7 tDM/ha and 1.5 tDM/ha conserved (Figure 22). This was approximately a 7% increase in both directly grazed and conserved forage. As a result, more homegrown feed was available; 64% of all metabolisable energy consumed from homegrown sources in 2023-24 (up from 60% in 2022-23).

There was no change to the amount of directly grazed pasture (tDM/ha) on farms in the Macalister Irrigation District. However, conserved fodder increased by 0.2 tDM/ha on average from the previous year.

FIGURE 22. AVERAGE HOMEGROWN FEED REMOVED – GIPPSLAND



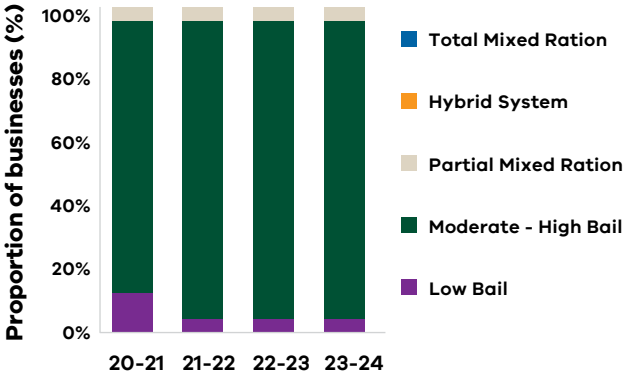
Feed inventory increased on most Gippsland participant farms over the year, meaning farms had more feed on hand at the end of the financial year than at the start.

Cows converted the additional pasture available into milk and there was a reduced reliance on purchased feeds, resulting in reduced costs.

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

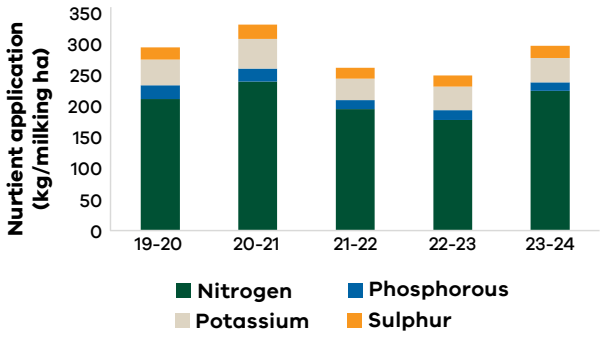


Fertiliser

Fertiliser use increased in 2023-24 per milking hectare (Figure 24). All macro nutrients applied remained stable except for nitrogen – which had an increase of 22% to 219 kgN/ha.

Spending on fertiliser reduced by 11% ($/kg MS) which was a combination of greater output per tonne of feed, grown by additional inputs, as well as a reduction in the cost of nitrogen and phosphorous this season.

FIGURE 24. AVERAGE NUTRIENT APPLICATION – GIPPSLAND



Part Five: Business confidence

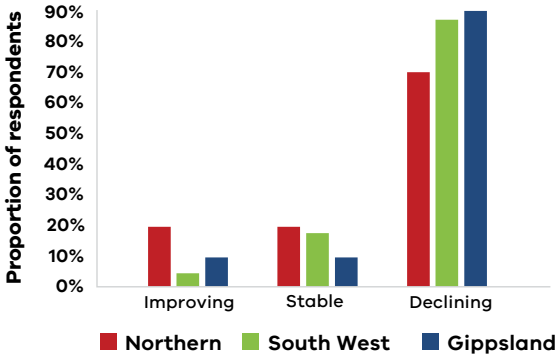
- Participants in each region had a similar weakening outlook for their business returns for 2024-25.
- With expectations for a lower milk price in all regions for 2024-25, many farmers commented they will focus on enterprise efficiency, reducing costs and effectively managing people to negate the lower income.
- Seasonal conditions were ranked among the highest concerns over the coming 12 months and over 5 years, with nearly all South West respondents concerned about the outlook for dry conditions.

Expectations for business profit 2024-25

The participant survey considers different aspects of farming, from climate outlook to expectations about market conditions for dairy products.

Expectations for business profit in the coming year showed similarities between the regions (Figure 25). Nearly all Gippsland and South West Victorian farms expected declining returns in the coming 12 months, as well as most Northern Victorian farms. This reflects the lower outlook for milk prices, dry seasonal conditions and lack of fodder reserves (in the South West).

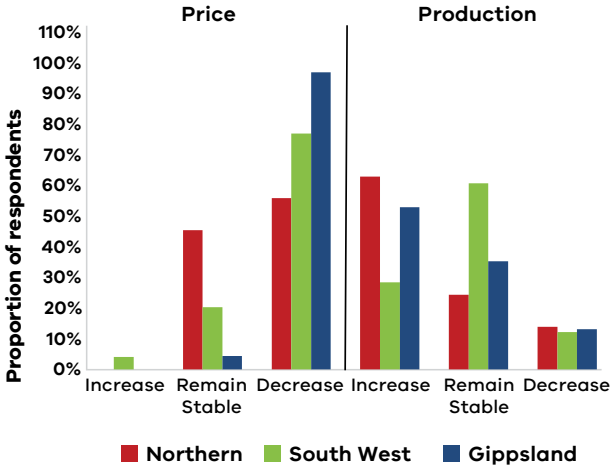
FIGURE 25. PRODUCER EXPECTATIONS OF FARM BUSINESS PROFIT IN 2024-25



Price and production expectations – milk

Most farms in all regions are expecting a lower milk price, while there were mixed expectations around production (Figure 26). Northern Victorian participants were expecting to increase their milk production in the next 12 months and receive a lower or similar milk price. Most Gippsland were expecting to increase their milk production and receive a decrease in milk price. Most in the South West were expecting to hold production steady but at a lower milk price.

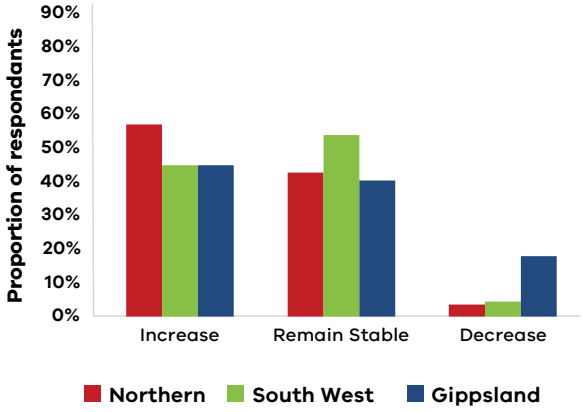
FIGURE 26. PRODUCER EXPECTATIONS OF MILK PRICES AND PRODUCTION IN 2024-25



Production expectations – fodder

The expectations for fodder production in 2024-25 were positive at the time of the survey. Over 40% of participants expected fodder production to increase while most of the remaining participants expected to maintain production (Figure 27).

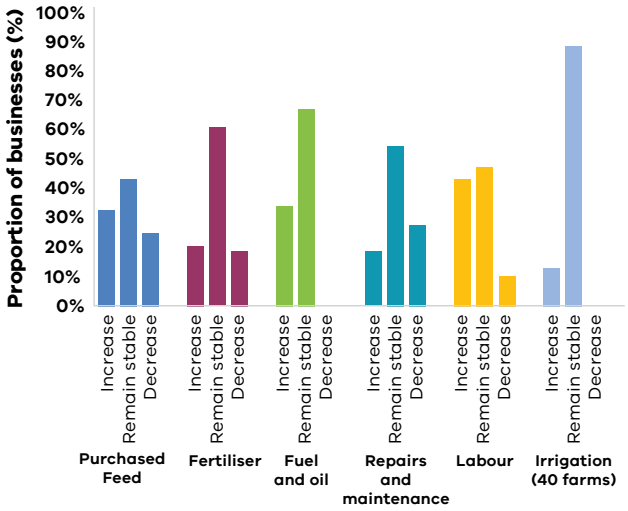
FIGURE 27. PRODUCER EXPECTATIONS OF FODDER PRODUCTION IN 2024-25



Cost expectations

In all cost categories, more participants expected costs to remain stable over the coming 12 months (Figure 28). Irrigation cost was the only category where zero participants expected costs to decrease, likely due to the outlook for dry conditions.

FIGURE 28. PRODUCER EXPECTATIONS OF COSTS FOR THE DAIRY INDUSTRY IN 2024-25



Comments from participants

Enterprise and business efficiency was a main concern over the next 12 months. Many farmers commented that as the 2024-25 milk price was locked in (lower for most), their focus was either on increasing milk production, slowing or reducing costs, and effectively managing people, to negate the lower income. In the South West, respondents were mostly concerned for a dry outlook, with comments such as 'season will have a big impact', 'consumed fodder reserves so need to replace fodder' and 'stock water is a concern, need to get runoff'.

For the next 5 years, the participants still had concerns about the milk price needing to keep pace with input costs, but there were increasing comments related to succession planning. Farmers were considering their role in the business and the industry. Others were thinking about farm developments (such as a new dairy or feedpad) and consolidating the business through debt reduction.

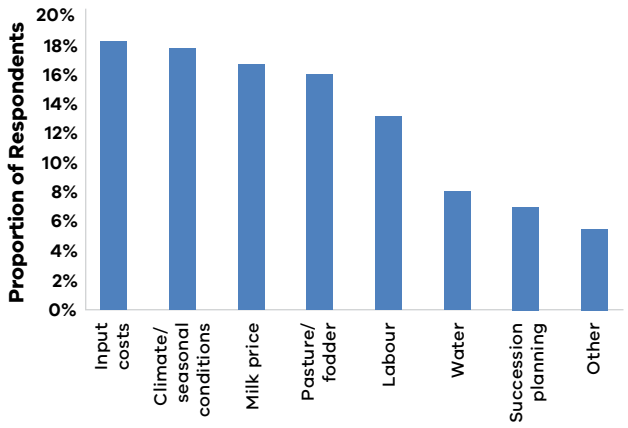
Issues of importance to dairy businesses

Participants were asked to rank issues based on the level of importance to their business – with a ranking of (1) being most important and (8) being least important.

Short term issues – next 12 months

Input costs were the most important issue in the coming 12 months (Figure 29). This was only marginally ahead of managing climatic conditions (ranked second at 17%).

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

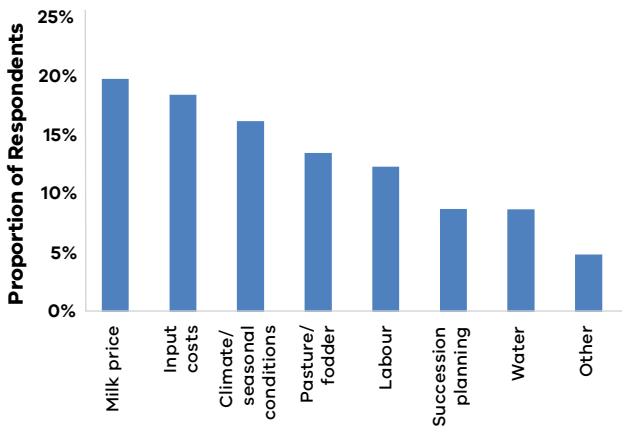


Medium to long term issues – next five years

Milk price was most important over the medium term (Figure 30) – rising from the third ranked importance in the short term.

Input costs were ranked the second greatest concern (18%) and was followed by climate/seasonal conditions (16%).

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



Part Six: 2023-24 Greenhouse gas emissions

- Median net greenhouse gas emissions for Victorian dairy farms in 2023-24 were the highest recorded in 5 years as farms produced more milk, carried more animals and used greater quantities of inputs.
- Emissions intensity (allocated to milk production) is relatively stable over the analysis period.

Total emissions

Median net greenhouse gas (GHG) emissions in 2023-24 were the highest in 5 years at around 2,700 tonnes of carbon dioxide equivalent (Table 1). Over the last 5 years, higher total GHG emissions were associated with farming a greater number of animals and increased milk production per farm.

All sources of GHG emissions increased in 2023-24 compared to the previous year. Methane from enteric (ruminant) sources was the largest contributor, making up around 61% of total farm emissions across all DFM farms. Recent years of more favourable seasonal and cattle market conditions resulted in farms carrying more animals (replacement animals and other livestock). In 2023-24 more milk was produced than the previous year further contributing to increased emissions per farm.

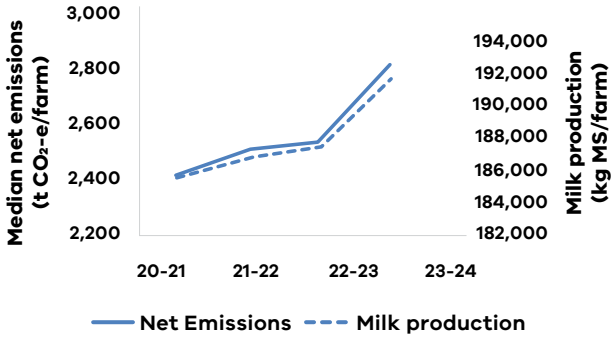
Higher inputs of purchased feed, fertiliser and electricity added to the higher emissions in 2023-24. More purchased feed was fed across all regions (in some areas this was driven by dry conditions) which contributed to the higher pre-farm gate emissions.

An enhanced effort on improving the data collection process for estimating GHG emissions is likely to have also contributed to the higher emissions. Farmers defined their own inputs (rather than relying on default values) for manure management, fuel use by contractors were included and more detail was collected for tree plantings.

Same participants

The higher median GHG emissions for the same 41 DFM participants mirrored the higher total milk production per farm (Figure 31). The higher milk production was achieved by milking more cows and using greater inputs, such as purchased feed, fertiliser and electricity (contributing to the higher net GHG emissions).

FIGURE 31. ESTIMATED MEDIAN GHG EMISSIONS AND MILK PRODUCTION FOR THE SAME PARTICIPATING FARMS (CO_2 EQUIVALENT)



Emissions intensity

The emissions intensity allocated to milk production (once meat production was considered) is relatively stable across the analysis period (Table 1). The higher total milk production kept pace with the higher total emissions in 2023-24 and there was no change from the previous year. The 3 regions had comparable emissions intensity at around 0.9 t CO_2-e/t FPCM.

NOTE: Greenhouse gas emission estimates are calculated using the Australian Dairy Carbon Calculator embedded within DairyBase. Data from all years was analysed using the 2024 accounting framework. The median GHG emissions have been provided as the data is not symmetrically distributed.

Tracking the emissions profile on your own farm over time will be the most reliable for your chosen farm system. These estimates reflect DFM farm profiles and should not be taken as representative of the dairy industry.

TABLE 1. ESTIMATED MEDIAN GHG EMISSIONS AND INTENSITY BETWEEN 2019-20 AND 2023-24 (CO2 EQUIVALENT)

Emission sources	19-20	20-21	21-22	22-23*	23-24
Sample size	80	80	80	80	80
Methane – enteric (t CO_2-e/farm)	1,378	1,356	1,410	1,470	1,647
Methane – waste management (t CO_2-e/farm)	211	208	212	243	231
Pre-farm gate (t CO_2-e/farm)	292	275	297	291	305
Nitrous oxide (t CO_2-e/farm)	291	282	278	284	306
Carbon dioxide (t CO_2-e/farm)	157	147	142	180	193
Carbon from trees (t CO_2-e/farm)	N/A	N/A	-9	-17	-9
Net emissions including carbon in trees (t CO_2-e/farm)	2,313	2,358	2,269	2,405	2,700
Emissions intensity – milk (t CO_2-e/t MS)	12.4	12.4	12.0	12.6	12.6
Emissions intensity - milk (t CO_2-e/FPCM)	0.89	0.88	0.87	0.91	0.91
Emissions intensity – meat (t CO_2-e/kg live weight)	4.5	4.4	4.4	4.8	5.0

MS – milk solids; FPCM – fat and protein corrected

*In 2022-23 greater detail was collected about manure management at the dairy and feeding areas, fuel usage by contractors and trees, meaning historical data may not be comparable.

Part Seven: How does 2023-24 compare?

- Profits per farm averaged $626,000 across the state, well above the long-term DFM average of $329,000. The average profit of $2.62/kg MS was the third highest in 18 years of DFM (accounting for inflation).
- The 2023-24 season underscored the importance of feed conservation in managing variable costs. Farmers prioritise building feed reserves during favourable periods and when they are anticipating drier conditions and rising feed prices. This strategy helps mitigate price risks and manage costs, protecting profitability during tougher times.
- In the last 12 months the South West Victorian participants used their feed reserves to manage dry conditions. The more favourable conditions experienced in Northern Victoria and Gippsland allowed for feed inventory reserves to increase (and helped lower the proportion of income used to cover variable costs).

Strong profitability in recent years

Victorian DFM participants have enjoyed a period of profitable business conditions over the past 5 years. The years have been characterised by a high milk price and predominately good livestock trading conditions. Participants have managed the good to unfavourable seasonal conditions (across years and regions) resulting in profits (EBIT kg/MS) for each region in the past 5 years, being at or above the respective region's long-term average.

Focus on feed

Geographic and climatic factors influence fodder conservation and feed practices. Northern Victoria is drier and benefits from irrigation for winter and summer crops (though this can be costly in dry seasons), and is close to major hay trading areas, leading to more purchased feed for the milking herd. Gippsland is more reliant on homegrown feed, being farther from key (cereal and vetch) hay production areas, with higher freight costs for external fodder. South West Victoria typically has reliable rainfall for homegrown feed and is the major producer of Victoria's pasture hay and pasture silage.

Exposure to high feed costs (homegrown and purchased) are a key influence on variable costs and profits. High feed costs reflect adverse seasonal conditions, such as drought or flood, and/or spikes in input costs (irrigation and/or fertiliser costs).

Increases in the proportion of gross farm income used to cover variable costs are an indicator of a deterioration in business conditions, including high costs and/or a decline in milk income.

The highest proportion of income used for variable costs was in 2018-19 for Northern Victoria and Gippsland (Table 2). Across eastern Australia, there were very high hay prices (an acute shortage of fodder) from mid-2018 into late 2019. Northern Victoria and Gippsland were more impacted by severe rainfall deficiencies than the South West in 2018-19. Farmers in Northern Victoria and Gippsland increased their average feed inventory (per cow) by around 30% in 2018-19, a strategic move to mitigate the ongoing risk of fodder supply and high feed costs. In Northern Victoria, variable costs (high irrigation and feed costs) jumped to 73% of income, resulting in negative profits for the region (lowest average profits since 2006-07).

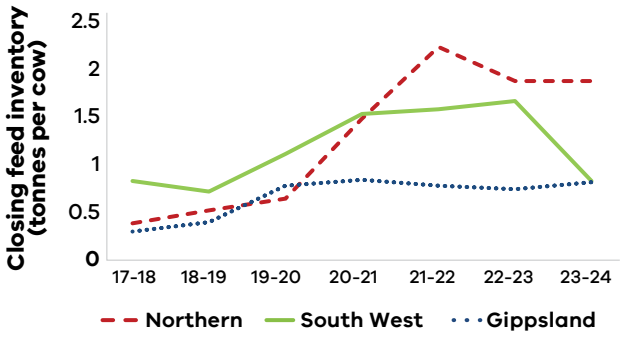
Post-2018-19, a proactive management approach has seen all regions more than double their on-farm feed reserves. With the dry conditions in the South West in 2023-24, participants had a substantial 50% decline in feed reserves (Figure 32). Conditions continue to be dry and both hay and silage production in this region will be significantly below average in 2024-25.

In summary, the more favourable conditions experienced in Northern Victoria and Gippsland allowed for feed inventory reserves to increase (and lowered the proportion of income used to cover variable costs). Whereas in the last 12 months the South West Victorian participants used their feed reserves to manage dry conditions and more of their income was used to cover their variable costs.

TABLE 2. VARIABLE COSTS AS A PERCENTAGE OF INCOME

	Northern Victoria (%)	South West Victoria (%)	Gippsland (%)
2014-15	56	50	48
2015-16	68	60	56
2016-17	58	43	49
2017-18	57	53	51
2018-19	73	53	59
2019-20	58	44	44
2020-21	49	39	45
2021-22	48	47	50
2022-23	49	43	47
2023-24	47	47	46

FIGURE 32. CLOSING FEED INVENTORY BETWEEN 2017-18 AND 2023-24



Northern Victoria

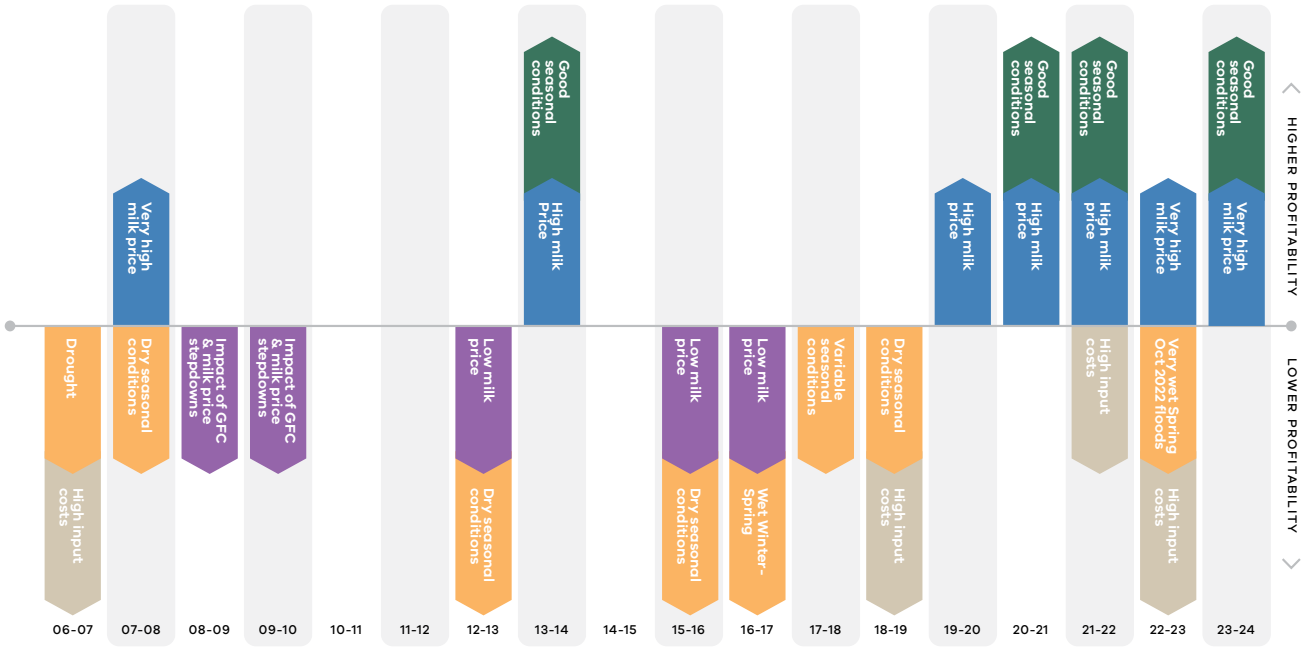


FIGURE 33. FARM PROFITABILITY BETWEEN 2006-07 AND 2023-24 – NORTHERN VICTORIA

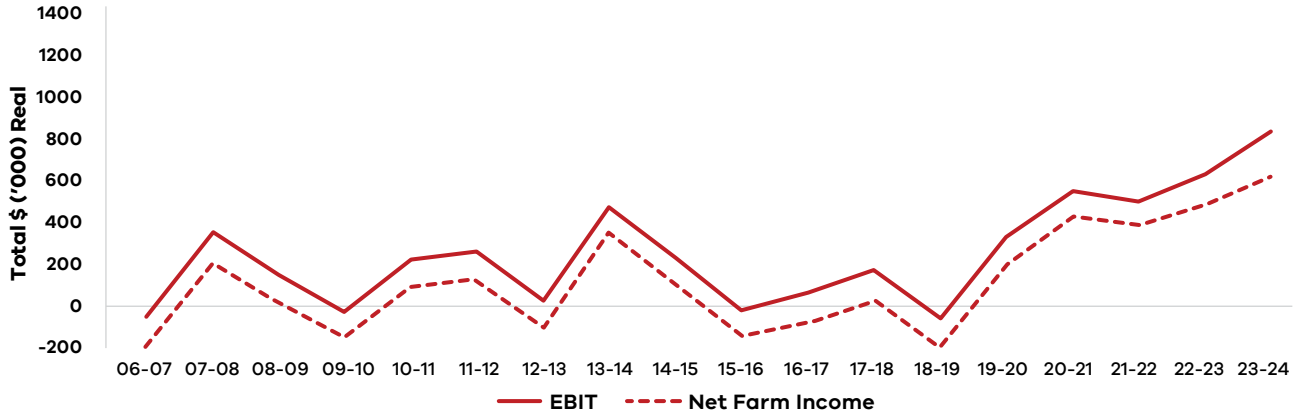
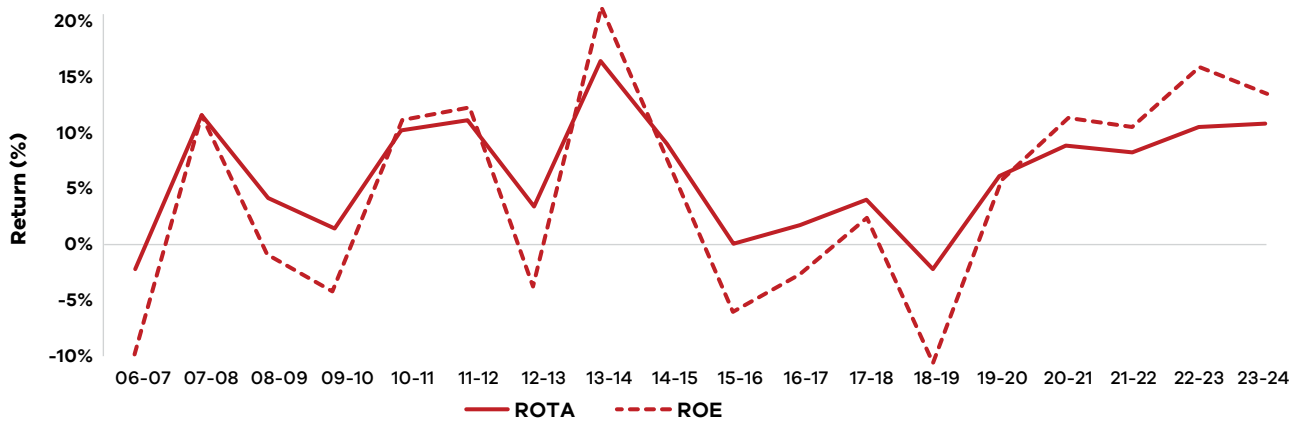


FIGURE 34. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2023-24 – NORTHERN VICTORIA



South West Victoria

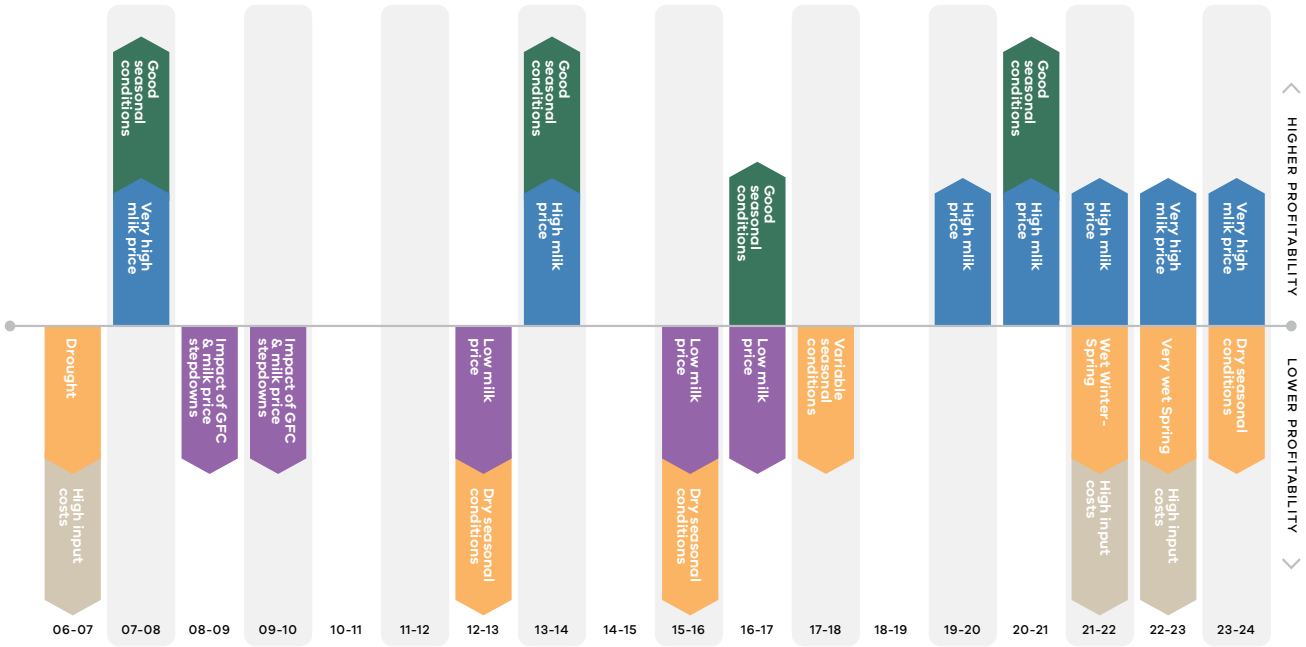


FIGURE 35. FARM PROFITABILITY BETWEEN 2006-07 AND 2023-24 – SOUTH WEST VICTORIA

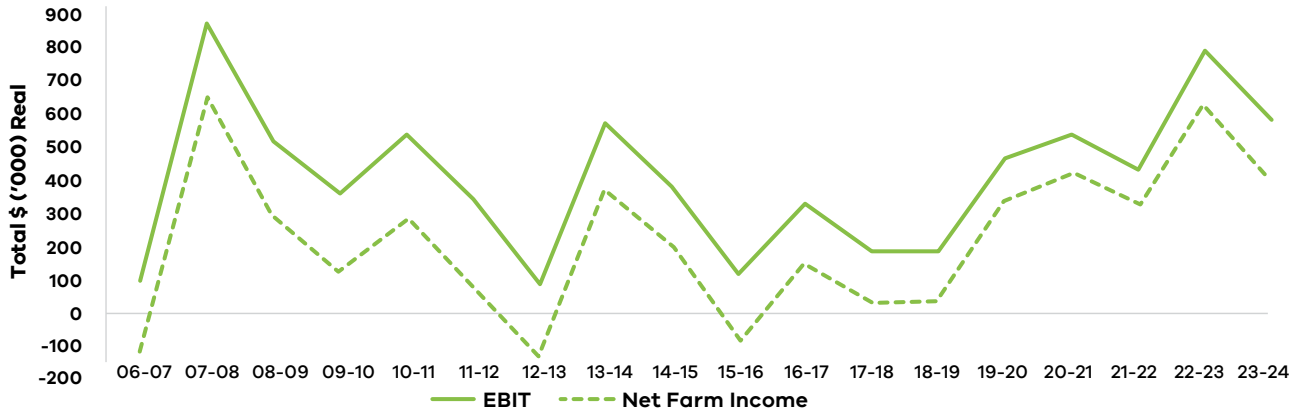
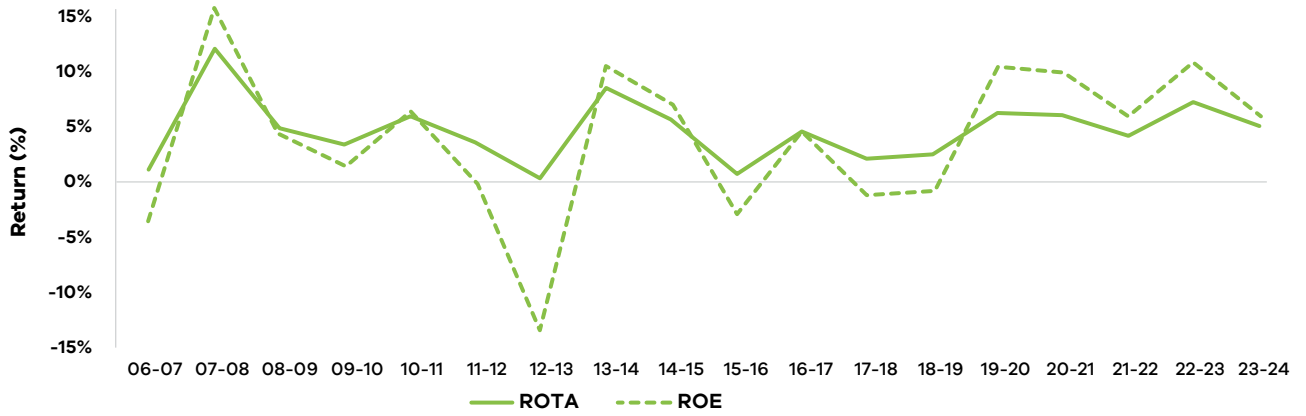


FIGURE 36. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2023-24 – SOUTH WEST VICTORIA



Gippsland

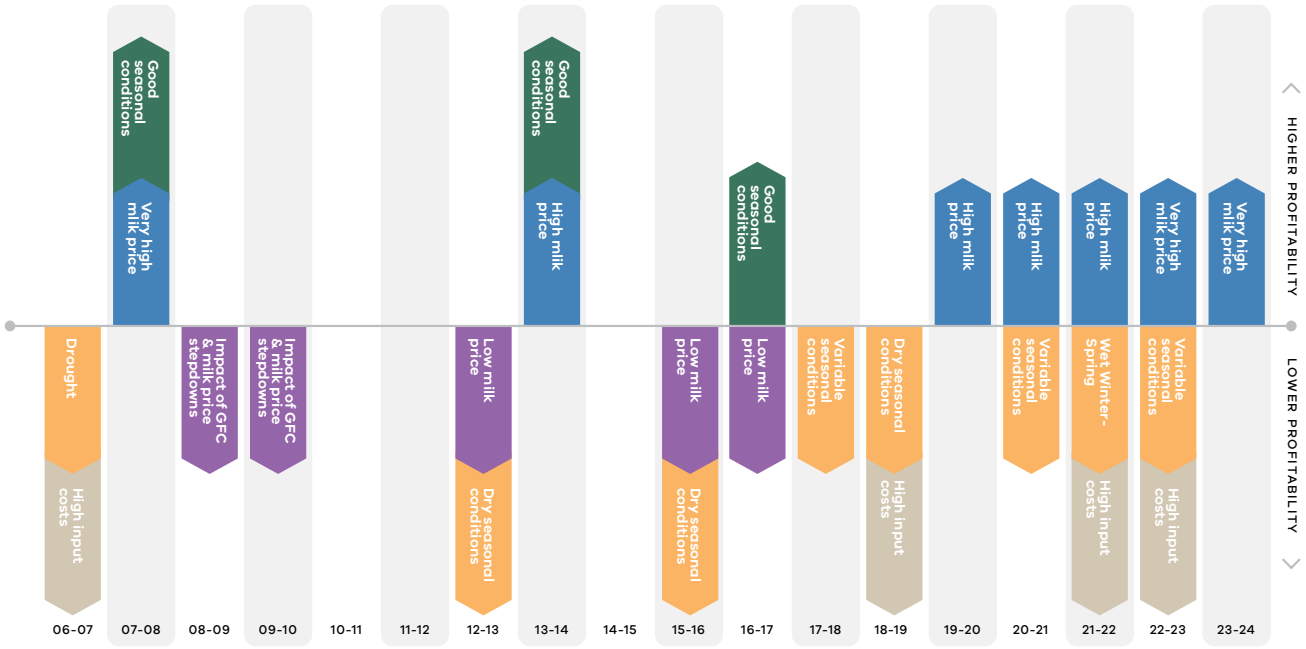


FIGURE 37. FARM PROFITABILITY BETWEEN 2006-07 AND 2023-24 – GIPPSLAND

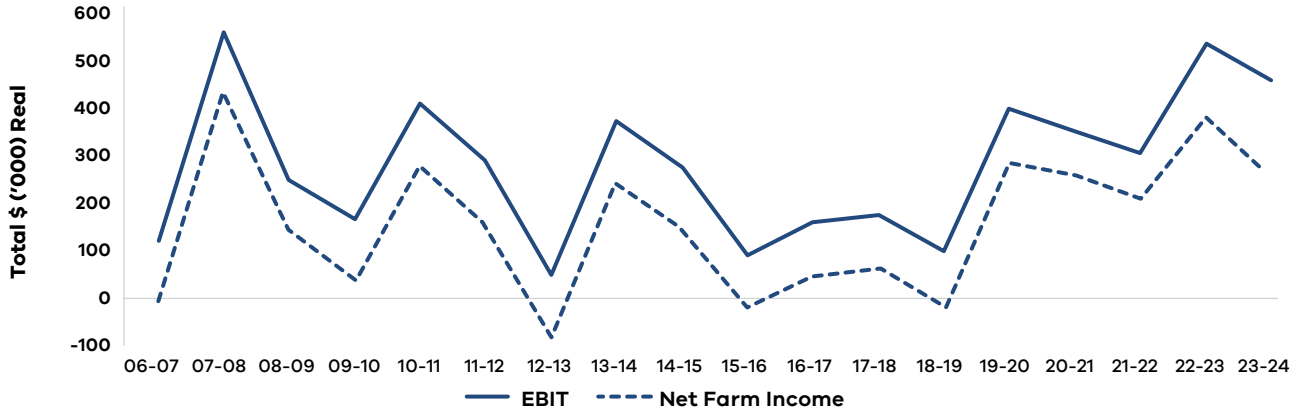
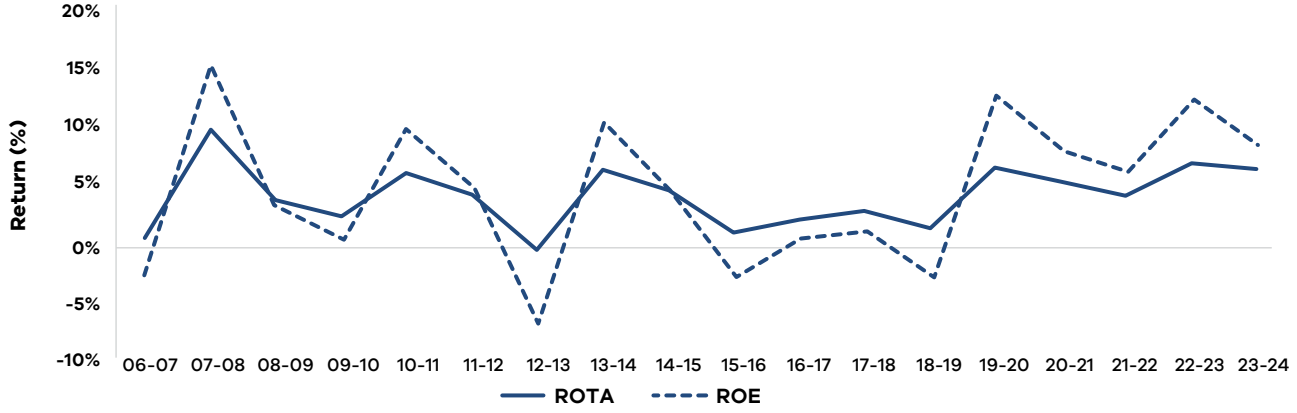


FIGURE 38. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2023-24 – GIPPSLAND



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	$9.64	$0.88	$10.52	$4.92	$2.96	62%	$2.64	6.1%	$0.90	8.6%	$1.74	7.7%
Top 25%	$9.83	$0.97	$10.80	$4.80	$2.45	66%	$3.56	10.6%	$0.66	6.1%	$2.90	17.2%

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	320	188	0.9	416	1.5	539	779	4.4%	3.5%
Top 25%	348	157	0.9	570	2.0	584	1141	4.4%	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	5.6	1.5	61%	164.0	16.7	28.5	18.7	105	55,903
Top 25%	6.5	1.4	56%	228.2	12.4	13.9	18.4	120	67,780

** 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	3.1	$549	$283	$355	$458	$489	39%
Top 25%	3.5	$544				$459	44%

** 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	$0.18	$0.16	$0.08	$0.16	$0.13	$0.71	$0.63	$0.30	$0.29
Top 25%	$0.15	$0.16	$0.06	$0.13	$0.11	$0.62	$0.52	$0.28	$0.35

** 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	$0.15	$0.25	$0.02	$0.49	$2.21	$0.04	-$0.05	$4.21	$4.92
Top 25%	$0.13	$0.32	$0.02	$0.61	$2.16	$0.10	-$0.31	$4.18	$4.80

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	$0.07	$0.12	$0.04	$0.53	$0.17	$0.94	$1.86	$0.35	$0.77	$2.98
Top 25%	$0.07	$0.11	$0.04	$0.43	$0.13	$0.85	$1.63	$0.34	$0.75	$2.71

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	$17,796	$13,725	$7,030	$4,143	$1,935	$4,365	$463	$877	$28,557
Top 25%	$17,814	$9,964	$5,791	$2,293	$1,811	$6,038	$668	$569	$32,692

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

Table A6

Capital structure – Statewide (continued)

	Liabilities			Equity	
	Liabilities per usable hectare	Liabilities per milking cow	Liabilities per kg of MS	Equity per usable hectare	Average equity
	($/ha)	($/cow)	($/kg MS)	($/ha)	(%)
Average	$8,278	$5,940	$11.26	$20,280	70%
Top 25%	$8,570	$5,609	$10.23	$24,317	71%

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 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	$7.13	$5.23	$8.35	$0.21	$0.33	$0.15	$0.24	$2.83	$4.52	$3.23	$5.16
2007-08	$6.57	$10.01	$7.80	$11.89	$0.24	$0.36	$0.14	$0.22	$3.39	$5.16	$3.79	$5.78
2008-09	$5.35	$7.82	$6.08	$8.89	$0.23	$0.33	$0.15	$0.22	$2.85	$4.17	$3.23	$4.72
2009-10	$4.46	$6.33	$5.17	$7.32	$0.22	$0.31	$0.16	$0.23	$2.20	$3.12	$2.58	$3.65
2010-11	$5.64	$7.76	$6.47	$8.91	$0.26	$0.36	$0.18	$0.25	$2.27	$3.12	$2.71	$3.74
2011-12	$5.52	$7.47	$5.97	$8.08	$0.26	$0.35	$0.19	$0.26	$2.33	$3.15	$2.78	$3.75
2012-13	$4.90	$6.45	$5.25	$6.91	$0.27	$0.36	$0.22	$0.29	$2.59	$3.40	$3.08	$4.06
2013-14	$6.79	$8.71	$7.44	$9.56	$0.28	$0.35	$0.22	$0.28	$2.90	$3.72	$3.39	$4.35
2014-15	$6.04	$7.59	$6.61	$8.30	$0.29	$0.36	$0.20	$0.25	$2.90	$3.64	$3.39	$4.26
2015-16	$5.40	$6.69	$5.90	$7.32	$0.28	$0.35	$0.19	$0.23	$3.15	$3.91	$3.62	$4.49
2016-17	$5.07	$6.17	$5.80	$7.06	$0.29	$0.35	$0.20	$0.24	$2.40	$2.92	$2.89	$3.52
2017-18	$5.81	$6.93	$6.41	$7.65	$0.31	$0.37	$0.22	$0.26	$2.93	$3.50	$3.46	$4.13
2018-19	$6.13	$7.22	$6.76	$7.96	$0.32	$0.37	$0.23	$0.27	$3.62	$4.27	$4.17	$4.91
2019-20	$7.15	$8.31	$7.87	$9.15	$0.32	$0.37	$0.23	$0.26	$3.33	$3.88	$3.88	$4.51
2020-21	$6.76	$7.75	$7.67	$8.79	$0.32	$0.37	$0.23	$0.27	$2.86	$3.27	$3.41	$3.91
2021-22	$7.37	$8.08	$8.50	$9.33	$0.39	$0.43	$0.24	$0.27	$3.48	$3.81	$4.11	$4.51
2022-23	$9.77	$10.17	$10.85	$11.30	$0.41	$0.43	$0.28	$0.29	$4.35	$4.53	$5.04	$5.24
2023-24	$9.64	$9.64	$10.52	$10.52	$0.41	$0.41	$0.29	$0.29	$4.21	$4.21	$4.92	$4.92
Average		$7.79		$8.74		$0.37		$0.26		$3.80		$4.42

Notes: 'Real' dollar values are the nominal values converted to 2023-24 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	$1.23	$1.17	$1.87	$1.94	$3.09
2007-08	$0.84	$1.28	$0.88	$1.34	$1.62	$2.48
2008-09	$0.82	$1.20	$0.88	$1.29	$1.70	$2.49
2009-10	$0.84	$1.19	$1.05	$1.48	$1.89	$2.67
2010-11	$1.00	$1.38	$1.02	$1.40	$2.02	$2.78
2011-12	$0.99	$1.34	$1.07	$1.44	$2.06	$2.78
2012-13	$0.99	$1.31	$1.09	$1.43	$2.08	$2.74
2013-14	$1.05	$1.35	$0.97	$1.25	$2.03	$2.60
2014-15	$1.08	$1.35	$0.90	$1.13	$1.97	$2.48
2015-16	$1.07	$1.32	$1.03	$1.28	$2.10	$2.60
2016-17	$1.09	$1.33	$1.06	$1.29	$2.16	$2.62
2017-18	$1.18	$1.41	$1.11	$1.32	$2.29	$2.73
2018-19	$1.22	$1.43	$1.12	$1.32	$2.34	$2.75
2019-20	$1.24	$1.45	$1.07	$1.24	$2.31	$2.69
2020-21	$1.32	$1.51	$1.09	$1.25	$2.40	$2.75
2021-22	$1.51	$1.65	$1.16	$1.28	$2.67	$2.93
2022-23	$1.73	$1.80	$1.22	$1.26	$2.94	$3.06
2023-24	$1.86	$1.86	$1.12	$1.12	$2.98	$2.98
Average		$1.41		$1.33		$2.74

Table A7

Historical data – Statewide

Main financial indicators (continued)

Year	Profit							
	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	$0.09	$0.58	$0.92	-$0.52	-$0.83	0.1%	-4.1%
2007-08	$2.39	$3.64	$0.63	$0.96	$1.75	$2.67	9.8%	12.4%
2008-09	$1.08	$1.58	$0.59	$0.86	$0.49	$0.72	3.8%	2.2%
2009-10	$0.65	$0.92	$0.68	$0.96	-$0.03	-$0.04	2.2%	-0.3%
2010-11	$1.73	$2.39	$0.76	$1.04	$0.98	$1.34	6.2%	7.8%
2011-12	$1.14	$1.55	$0.71	$0.96	$0.43	$0.58	5.0%	4.4%
2012-13	$0.09	$0.12	$0.70	$0.92	-$0.60	-$0.79	0.7%	-7.3%
2013-14	$2.02	$2.60	$0.65	$0.83	$1.38	$1.77	8.5%	11.6%
2014-15	$1.25	$1.56	$0.60	$0.76	$0.64	$0.81	5.3%	5.2%
2015-16	$0.18	$0.23	$0.59	$0.73	-$0.41	-$0.51	0.6%	-3.2%
2016-17	$0.75	$0.92	$0.63	$0.77	$0.12	$0.15	2.5%	1.0%
2017-18	$0.66	$0.79	$0.61	$0.73	$0.05	$0.05	2.5%	0.4%
2018-19	$0.25	$0.30	$0.64	$0.76	-$0.39	-$0.46	0.7%	-3.5%
2019-20	$1.68	$1.95	$0.54	$0.63	$1.14	$1.32	5.4%	8.3%
2020-21	$1.86	$2.13	$0.46	$0.53	$1.39	$1.60	5.7%	8.2%
2021-22	$1.72	$1.89	$0.46	$0.50	$1.27	$1.39	4.6%	6.3%
2022-23	$2.87	$2.99	$0.72	$0.75	$2.16	$2.24	7.0%	10.9%
2023-24	$2.64	$2.64	$0.90	$0.90	$1.74	$1.74	6.1%	7.7%
Average		$1.57		$0.81		$0.76	4.3%	3.8%

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
2022-23	294	173	0.6	391	1.5	518	784
2023-24	320	188	0.9	416	1.5	539	779
Average	262	187	0.8	349	1.5	505	764

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	$525
2007-08	4.8	1.0	64%	$425	$648
2008-09	5.6	0.9	62%	$375	$548
2009-10	6.2	0.8	66%	$273	$387
2010-11	5.8	1.9	65%	$301	$415
2011-12	6.2	1.0	57%	$296	$400
2012-13	6.2	1.2	58%	$336	$443
2013-14	6.6	1.4	62%	$388	$498
2014-15	6.5	1.2	59%	$405	$508
2015-16	5.8	1.2	53%	$402	$498
2016-17	6.5	1.6	65%	$335	$408
2017-18	6.1	1.5	62%	$373	$446
2018-19	6.4	1.7	65%	$514	$606
2019-20	6.3	1.4	61%	$495	$575
2020-21	6.5	1.7	62%	$430	$493
2021-22	5.7	1.7	60%	$483	$530
2022-23	4.9	1.4	59%	$566	$589
2023-24	5.6	1.5	61%	$549	$549
Average	5.9	1.3	61%		$504

* 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	***$9.95***	***$0.70***	***$10.65***	***$4.78***	***$2.32***	***67%***	***$3.56***	***11.6%***	***$0.19***	***1.8%***	***$3.36***	***14.2%***
NO0014	$9.23	$1.53	$10.75	$5.75	$3.13	65%	$1.88	2.5%	$1.17	10.9%	$0.71	1.3%
NO0015	$10.18	$0.87	$11.06	$5.23	$2.74	66%	$3.09	8.2%	$0.89	8.0%	$2.21	8.7%
NO0022	$10.03	$0.73	$10.76	$3.80	$2.25	63%	$4.70	9.1%	$0.13	1.2%	$4.57	9.6%
NO0027	***$10.20***	***$5.97***	***$16.17***	***$7.42***	***$4.51***	***62%***	***$4.25***	***9.3%***	***$0.98***	***6.1%***	***$3.27***	***11.3%***
NO0035	$10.15	$0.94	$11.09	$4.15	$2.59	62%	$4.35	7.7%	$0.00	0.0%	$4.35	7.7%
NO0041	$10.12	$1.00	$11.12	$5.61	$2.29	71%	$3.22	8.0%	$0.70	6.3%	$2.52	9.3%
NO0043	$10.45	$1.04	$11.49	$5.28	$3.43	61%	$2.78	5.5%	$1.65	14.4%	$1.13	3.8%
NO0045	***$10.19***	***$0.60***	***$10.79***	***$5.53***	***$2.31***	***71%***	***$2.94***	***9.9%***	***$0.51***	***4.7%***	***$2.43***	***11.5%***
NO0054	$10.25	$1.10	$11.35	$6.57	$3.03	68%	$1.75	8.2%	$0.61	5.4%	$1.14	9.0%
NO0056	$9.73	$2.28	$12.01	$5.98	$2.94	67%	$3.10	5.8%	$1.35	11.2%	$1.75	6.3%
NO0059	$10.18	$0.98	$11.16	$5.70	$2.98	66%	$2.49	6.0%	$0.90	8.1%	$1.59	5.5%
NO0064	$10.29	$1.12	$11.41	$6.41	$2.80	70%	$2.19	6.4%	$0.52	4.5%	$1.68	7.5%
NO0069	$9.20	$0.82	$10.02	$3.97	$2.41	62%	$3.64	7.3%	$0.44	4.4%	$3.20	7.5%
NO0072	$9.67	$0.98	$10.65	$5.36	$4.51	54%	$0.79	1.0%	$0.00	0.0%	$0.79	1.0%
NO0073	$9.63	$1.05	$10.69	$5.47	$2.88	65%	$2.33	4.0%	$0.78	7.3%	$1.55	3.5%
NO0075	***$10.18***	***$0.77***	***$10.95***	***$4.95***	***$2.48***	***67%***	***$3.52***	***10.2%***	***$0.68***	***6.2%***	***$2.85***	***11.9%***
NO0078	$10.02	$0.16	$10.18	$5.47	$2.05	73%	$2.65	5.5%	$0.62	6.1%	$2.03	5.2%
NO0079	$9.37	$0.85	$10.21	$4.53	$2.85	61%	$2.83	7.7%	$0.82	8.0%	$2.02	7.8%
NO0080	***$9.76***	***$0.73***	***$10.49***	***$5.76***	***$2.30***	***71%***	***$2.43***	***10.7%***	***$0.57***	***5.4%***	***$1.86***	***12.7%***
NO0081	***$10.17***	***$0.40***	***$10.57***	***$5.27***	***$2.00***	***72%***	***$3.29***	***12.2%***	***$0.15***	***1.4%***	***$3.14***	***12.7%***
NO0082	$10.20	$0.55	$10.75	$5.33	$2.93	64%	$2.49	4.7%	$1.35	12.5%	$1.15	3.6%
NO0083	$9.69	$0.64	$10.32	$3.65	$3.44	51%	$3.23	5.3%	$1.45	14.1%	$1.77	10.1%
NO0088	$9.98	$0.37	$10.35	$5.23	$3.04	63%	$2.08	4.5%	$0.82	8.0%	$1.26	9.2%
NO0089	***$10.27***	***$0.42***	***$10.70***	***$4.13***	***$2.52***	***62%***	***$4.04***	***10.6%***	***$0.89***	***8.3%***	***$3.15***	***13.3%***
NO0091	$9.69	$1.07	$10.76	$4.45	$3.77	54%	$2.54	6.0%	$0.81	7.6%	$1.72	6.2%
NO0092	***$9.61***	***$0.97***	***$10.59***	***$4.41***	***$2.18***	***67%***	***$4.00***	***17.6%***	***$0.72***	***6.8%***	***$3.28***	***50.9%***
NO0093	$10.08	$0.83	$10.90	$4.89	$2.66	65%	$3.36	7.7%	$0.43	3.9%	$2.93	8.0%
NO0094	$9.96	$1.44	$11.40	$6.18	$4.03	61%	$1.20	3.0%	$0.71	6.2%	$0.49	1.8%
NO0095	$9.55	$0.45	$10.00	$4.89	$2.28	68%	$2.83	5.7%	$0.28	2.8%	$2.55	5.8%
Average	$9.93	$1.04	$10.98	$5.20	$2.86	65%	$2.92	7.4%	$0.70	6.4%	$2.21	9.2%
Top 25%*	$10.04	$1.32	$11.36	$5.28	$2.58	67%	$3.50	11.5%	$0.59	5.1%	$2.92	17.3%

* 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)	(%)	(%)
NO0012	***472***	***1***	***1.8***	***1,075***	***2.3***	***734***	***1,672***	***4.3%***	***3.4%***
NO0014	561	437	0.8	560	1.0	529	528	4.0%	3.3%
NO0015	312	92	0.6	430	1.4	544	750	4.6%	3.6%
NO0022	226	105	0.8	340	1.5	509	765	4.7%	3.5%
NO0027	***1212***	***1***	***1.1***	***541***	***0.4***	***749***	***334***	***4.3%***	***3.4%***
NO0035	109	66	0.7	255	2.3	546	1,277	3.9%	3.4%
NO0041	217	153	0.7	390	1.8	568	1,022	4.2%	3.5%
NO0043	144	144	0.7	148	1.0	475	488	4.4%	3.4%
NO0045	***224***	***224***	***0.8***	***408***	***1.8***	***618***	***1,125***	***4.3%***	***3.6%***
NO0054	1112	290	1.0	2,497	2.2	690	1,549	4.2%	3.4%
NO0056	409	90	0.8	290	0.7	635	450	3.9%	3.3%
NO0059	197	75	0.4	228	1.2	470	544	4.4%	3.6%
NO0064	450	310	0.5	850	1.9	519	980	4.6%	3.7%
NO0069	162	100	0.7	254	1.6	521	817	4.9%	3.8%
NO0072	195	57	0.7	177	0.9	497	451	4.4%	3.5%
NO0073	389	230	0.7	550	1.4	594	840	4.0%	3.4%
NO0075	***404***	***190***	***0.8***	***600***	***1.5***	***665***	***988***	***4.2%***	***3.6%***
NO0078	269	100	0.8	324	1.2	689	829	4.0%	3.4%
NO0079	118	118	0.8	186	1.6	486	766	4.8%	3.7%
NO0080	***80***	***80***	***0.8***	***247***	***3.1***	***626***	***1,932***	***4.1%***	***3.5%***
NO0081	***345***	***345***	***0.9***	***630***	***1.8***	***653***	***1,192***	***4.4%***	***3.4%***
NO0082	566	566	0.9	490	0.9	662	574	4.2%	3.4%
NO0083	205	205	1.0	300	1.5	485	709	4.2%	3.4%
NO0088	45	29	0.6	92	2.1	508	1,043	4.8%	3.6%
NO0089	***413***	***413***	***1.0***	***520***	***1.3***	***673***	***847***	***4.1%***	***3.6%***
NO0091	178	102	1.0	280	1.6	434	683	4.5%	3.6%
NO0092	***108***	***108***	***0.8***	***320***	***3.0***	***491***	***1,454***	***4.7%***	***3.7%***
NO0093	600	264	0.7	800	1.3	513	684	4.7%	3.8%
NO0094	836	836	0.6	690	0.8	615	508	4.2%	3.6%
NO0095	190	190	0.7	190	1.0	547	547	4.8%	3.9%
Average	358	197	0.8	489	1.5	575	878	4.4%	3.5%
Top 25%*	407	170	1.0	543	1.9	651	1,193	4.3%	3.5%

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***	***0.0***	***69%***	***1380***	***0***	***0***	***0***	***131***	***95,908***
NO0014	4.6	1.3	56%	146	20	33	23	93	49,094
NO0015	6.8	0.0	42%	281	34	0	50	117	63,744
NO0022	11.1	1.4	73%	62	1	5	16	140	71,071
NO0027	***0.0***	***0.0***	***65%***	***0***	***0***	***0***	***0***	***64***	***47,925***
NO0035	10.8	0.9	49%	79	15	0	5	100	54,786
NO0041	7.5	1.0	49%	167	35	0	3	92	52,387
NO0043	3.8	2.3	81%	0	0	0	0	98	46,366
NO0045	***5.6***	***2.2***	***48%***	***116***	***37***	***13***	***35***	***105***	***64,789***
NO0054	0.0	0.0	47%	0	0	0	0	81	56,104
NO0056	6.8	1.9	60%	154	62	59	27	80	51,046
NO0059	8.4	1.4	59%	31	15	10	7	91	42,641
NO0064	3.4	0.2	35%	164	17	10	12	134	69,548
NO0069	6.3	2.2	66%	77	10	0	25	119	61,903
NO0072	8.4	0.3	72%	44	18	26	34	62	31,053
NO0073	2.9	4.8	53%	199	16	49	18	101	60,039
NO0075	***0.9***	***1.9***	***61%***	***192***	***8***	***0***	***4***	***111***	***73,568***
NO0078	4.0	0.0	37%	81	75	0	12	106	72,664
NO0079	5.1	0.4	52%	27	0	0	4	103	50,226
NO0080	***8.4***	***0.2***	***35%***	***244***	***0***	***2***	***15***	***96***	***60,361***
NO0081	***0.5***	***6.3***	***41%***	***106***	***18***	***0***	***12***	***114***	***74,520***
NO0082	3.5	2.7	57%	70	18	11	17	87	57,378
NO0083	7.9	1.0	73%	181	23	0	2	70	34,063
NO0088	9.2	0.5	45%	16	32	0	41	85	43,011
NO0089	***3.1***	***5.9***	***66%***	***145***	***26***	***14***	***32***	***80***	***54,100***
NO0091	9.3	1.8	85%	35	5	0	0	92	39,797
NO0092	***8.0***	***1.5***	***49%***	***58***	***10***	***0***	***10***	***142***	***69,797***
NO0093	8.4	0.5	65%	56	72	10	26	112	57,494
NO0094	2.1	2.8	61%	211	35	5	34	56	34,145
NO0095	3.5	2.2	55%	18	16	1	3	125	68,333
Average	5.3	1.6	57%	147	21	9	16	100	56,929
Top 25%*	3.3	2.2	54%	280	13	4	14	105	67,621

** On milking area. Average does not include farms with zero grazed pasture.

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	***5.2***	***$567***	***$229***	***$316***	***$493***	***$508***	***31%***
NO0014	4.8	$416	$453	$227	$1,182	$380	44%
NO0015	4.4	$401	$314	$311		$349	58%
NO0022	1.8	$559		$336		$525	27%
NO0027	***5.9***	***$561***	***$275***	***$155***	***$1,048***	***$364***	***35%***
NO0035	3.7	$438		$344		$400	51%
NO0041	5.1	$601		$344		$433	51%
NO0043	1.7	$647	$370	$353		$591	19%
NO0045	***4.9***	***$490***		***$354***		***$442***	***52%***
NO0054	5.6	$554		$342		$460	53%
NO0056	4.6	$527	$350	$377		$479	40%
NO0059	3.1	$680	$48	$360		$460	41%
NO0064	5.0	$486	$333	$435		$431	65%
NO0069	2.4	$578	$284	$176		$453	34%
NO0072	2.3	$633		$280		$578	28%
NO0073	3.2	$493		$361	$1,244	$478	47%
NO0075	***3.0***	***$475***		***$141***	***$528***	***$461***	***39%***
NO0078	6.7	$427	$191	$343		$366	63%
NO0079	3.6	$356	$489	$317	$608	$420	48%
NO0080	***5.4***	***$651***	***$320***	***$309***		***$471***	***65%***
NO0081	***5.0***	***$500***	***$262***	***$334***	***$143***	***$406***	***59%***
NO0082	4.5	$606		$463		$569	43%
NO0083	2.6	$477	$235	$231		$352	27%
NO0088	3.4	$592		$296		$472	55%
NO0089	***3.3***	***$466***	***$271***	***$200***		***$406***	***34%***
NO0091	1.2	$606		$286		$492	15%
NO0092	***3.1***	***$603***	***$300***	***$367***		***$418***	***51%***
NO0093	2.3	$633		$317		$566	35%
NO0094	3.8	$526		$303		$450	39%
NO0095	4.2	$575	$286	$294		$373	45%
Average	3.9	$537	$295	$309	$749	$452	43%
Top 25%*	4.5	$539				$434	46%

** 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	***$0.08***	***$0.13***	***$0.06***	***$0.12***	***$0.16***	***$0.54***	***$0.45***	***$0.14***	***$0.89***
NO0014	$0.17	$0.13	$0.19	$0.15	$0.08	$0.73	$0.77	$0.01	$0.06
NO0015	$0.10	$0.16	$0.02	$0.12	$0.09	$0.50	$0.61	$0.36	$0.49
NO0022	$0.21	$0.39	$0.04	$0.18	$0.04	$0.86	$0.23	$0.33	$0.22
NO0027	***$0.20***	***$0.16***	***$0.07***	***$0.23***	***$0.09***	***$0.75***	***$0.96***	***$0.42***	***$0.61***
NO0035	$0.18	$0.13	$0.01	$0.05	$0.12	$0.49	$0.22	$0.25	$0.14
NO0041	$0.23	$0.22	$0.03	$0.14	$0.09	$0.71	$0.33	$0.27	$0.08
NO0043	$0.30	$0.21	$0.04	$0.27	$0.24	$1.06	$0.08	$0.97	$0.15
NO0045	***$0.16***	***$0.22***	***$0.02***	***$0.07***	***$0.15***	***$0.62***	***$0.40***	***$0.54***	***$0.24***
NO0054	$0.19	$0.29	$0.05	$0.15	$0.08	$0.75	$0.30	$0.21	$0.66
NO0056	$0.28	$0.18	$0.01	$0.23	$0.10	$0.80	$0.68	$0.36	$0.41
NO0059	$0.13	$0.03	$0.03	$0.33	$0.12	$0.64	$0.02	$1.01	$0.15
NO0064	$0.19	$0.25	$0.04	$0.14	$0.09	$0.72	$0.59	$0.46	$0.32
NO0069	$0.20	$0.13	$0.04	$0.12	$0.10	$0.59	$0.37	$0.42	$0.39
NO0072	$0.14	$0.21	$0.23	$0.14	$0.15	$0.86	$0.66	$0.19	$0.39
NO0073	$0.31	$0.16	$0.27	$0.20	$0.16	$1.10	$0.51	$0.07	$0.38
NO0075	***$0.16***	***$0.09***	***$0.04***	***$0.07***	***$0.11***	***$0.46***	***$0.52***	***$0.59***	***$0.59***
NO0078	$0.13	$0.16	$0.00	$0.19	$0.11	$0.59	$0.69	$0.32	$0.59
NO0079	$0.00	$0.15	$0.12	$0.28	$0.08	$0.63	$0.11	$0.50	$0.12
NO0080	***$0.13***	***$0.10***	***$0.02***	***$0.10***	***$0.08***	***$0.43***	***$0.29***	***$0.30***	***$0.02***
NO0081	***$0.13***	***$0.23***	***$0.00***	***$0.09***	***$0.11***	***$0.56***	***$0.45***	***$0.24***	***$0.60***
NO0082	$0.15	$0.20	$0.02	$0.18	$0.07	$0.62	$0.66	$0.29	$0.60
NO0083	$0.03	$0.15	$0.12	$0.12	$0.03	$0.46	$0.57	***$0.26***	***$0.05***
NO0088	$0.11	$0.09	$0.02	$0.17	$0.12	$0.50	$0.51	$0.53	$0.03
NO0089	***$0.10***	***$0.24***	***$0.01***	***$0.14***	***$0.09***	***$0.58***	***$0.50***	***$0.60***	***$0.65***
NO0091	$0.16	$0.14	$0.08	$0.21	$0.27	$0.85	$0.19	$0.82	$0.38
NO0092	***$0.24***	***$0.10***	***$0.01***	***$0.22***	***$0.11***	***$0.68***	***$0.09***	***$0.34***	***$0.15***
NO0093	$0.14	$0.20	$0.00	$0.21	$0.18	$0.73	$0.50	$0.23	$0.35
NO0094	$0.22	$0.24	$0.21	$0.08	$0.10	$0.86	$1.17	$0.38	$0.51
NO0095	$0.07	$0.06	$0.00	$0.23	$0.16	$0.53	$0.34	$0.67	$0.25
Average	$0.16	$0.17	$0.06	$0.16	$0.12	$0.67	$0.46	$0.40	$0.35
Top 25%*	$0.15	$0.16	$0.03	$0.13	$0.11	$0.58	$0.46	$0.40	$0.47

** 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	***$0.23***	***$0.39***	***$0.00***	***$0.32***	***$3.11***	***$0.18***	***-$1.47***	***$4.24***	***$4.78***
NO0014	$0.30	$0.22	$0.00	$0.66	$2.49	$0.00	$0.51	$5.02	$5.75
NO0015	$0.18	$0.56	$0.01	$1.54	$1.40	$0.01	-$0.44	$4.72	$5.23
NO0022	$0.08	$0.45	$0.00	$0.19	$1.71	$0.04	-$0.31	$2.95	$3.80
NO0027	***$0.39***	***$1.52***	***$0.06***	***$1.25***	***$2.57***	***$0.00***	***-$1.11***	***$6.67***	***$7.42***
NO0035	$0.12	$0.15	$0.00	$0.98	$1.78	$0.06	-$0.05	$3.66	$4.15
NO0041	$0.12	$0.18	$0.02	$1.43	$2.33	$0.00	$0.15	$4.90	$5.61
NO0043	$0.23	$0.20	$0.00	$0.31	$2.24	$0.00	$0.04	$4.22	$5.28
NO0045	***$0.07***	***$0.36***	***$0.00***	***$0.98***	***$2.50***	***$0.00***	***-$0.19***	***$4.91***	***$5.53***
NO0054	$0.16	$0.45	$0.00	$0.88	$3.09	$0.16	-$0.10	$5.82	$6.57
NO0056	$0.14	$0.55	$0.03	$0.70	$2.13	$0.00	$0.18	$5.17	$5.98
NO0059	$0.08	$0.30	$0.00	$0.31	$2.56	$0.00	$0.63	$5.05	$5.70
NO0064	$0.15	$0.28	$0.00	$2.08	$2.25	$0.03	-$0.45	$5.70	$6.41
NO0069	$0.08	$0.09	$0.00	$0.07	$2.14	$0.00	-$0.17	$3.38	$3.97
NO0072	$0.11	$0.33	$0.00	$0.22	$2.71	$0.00	-$0.11	$4.50	$5.36
NO0073	$0.14	$0.41	$0.00	$0.53	$2.23	$0.16	-$0.05	$4.37	$5.47
NO0075	***$0.20***	***$0.42***	***$0.00***	***$0.04***	***$2.11***	***$0.18***	***-$0.17***	***$4.48***	***$4.95***
NO0078	$0.24	$0.41	$0.00	$1.64	$1.90	$0.00	-$0.91	$4.88	$5.47
NO0079	$0.24	$0.07	$0.09	$1.26	$1.51	$0.00	$0.01	$3.90	$4.53
NO0080	***$0.10***	***$0.39***	***$0.13***	***$1.41***	***$2.61***	***$0.05***	***$0.03***	***$5.33***	***$5.76***
NO0081	***$0.10***	***$0.30***	***$0.01***	***$1.05***	***$2.51***	***$0.17***	***-$0.72***	***$4.71***	***$5.27***
NO0082	$0.11	$0.59	$0.02	$0.62	$2.38	$0.00	-$0.56	$4.70	$5.33
NO0083	$0.25	$0.26	$0.00	$0.63	$1.25	$0.00	-$0.08	$3.19	$3.65
NO0088	$0.19	$0.11	$0.00	$0.83	$2.42	$0.25	-$0.15	$4.72	$5.23
NO0089	***$0.27***	***$0.39***	***$0.00***	***$0.30***	***$2.01***	***$0.00***	***-$1.18***	***$3.55***	***$4.13***
NO0091	$0.21	$0.75	$0.00	$0.31	$1.21	$0.00	-$0.28	$3.60	$4.45
NO0092	***$0.05***	***$0.15***	***$0.03***	***$1.16***	***$1.25***	***$0.38***	***$0.14***	***$3.72***	***$4.41***
NO0093	$0.11	$0.19	$0.00	$0.33	$2.47	$0.00	-$0.02	$4.16	$4.89
NO0094	$0.13	$0.88	$0.00	$0.60	$2.02	$0.00	-$0.37	$5.32	$6.18
NO0095	$0.05	$0.29	$0.00	$1.07	$1.60	$0.06	$0.05	$4.36	$4.89
Average	$0.16	$0.39	$0.01	$0.79	$2.15	$0.06	-$0.24	$4.53	$5.20
Top 25%*	$0.18	$0.49	$0.03	$0.81	$2.33	$0.12	-$0.58	$4.70	$5.28

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	***$0.04***	***$0.00***	***$0.01***	***$0.54***	***$0.10***	***$1.08***	***$1.76***	***$0.54***	***$0.01***	***$2.32***
NO0014	$0.12	$0.16	$0.12	$0.50	$0.10	$0.96	$1.96	$0.47	$0.70	$3.13
NO0015	$0.05	$0.11	$0.02	$0.57	$0.18	$0.78	$1.70	$0.45	$0.59	$2.74
NO0022	$0.07	$0.14	$0.02	$0.55	$0.14	$0.46	$1.37	$0.21	$0.66	$2.25
NO0027	***$0.12***	***$0.19***	***$0.02***	***$0.96***	***$0.19***	***$1.79***	***$3.28***	***$0.90***	***$0.33***	***$4.51***
NO0035	$0.10	$0.11	$0.08	$0.35	$0.17	$0.23	$1.04	$0.24	$1.31	$2.59
NO0041	$0.05	$0.05	$0.02	$0.22	$0.09	$1.11	$1.53	$0.25	$0.51	$2.29
NO0043	$0.08	$0.26	$0.10	$0.43	$0.39	$0.50	$1.76	$0.62	$1.06	$3.43
NO0045	***$0.05***	***$0.04***	***$0.01***	***$0.49***	***$0.15***	***$1.03***	***$1.76***	***$0.14***	***$0.41***	***$2.31***
NO0054	$0.01	$0.05	$0.02	$0.66	$0.21	$1.78	$2.74	$0.30	$0.00	$3.03
NO0056	$0.10	$0.20	$0.05	$0.50	$0.15	$0.76	$1.76	$0.20	$0.98	$2.94
NO0059	$0.07	$0.09	$0.28	$0.29	$0.10	$1.05	$1.89	$0.33	$0.76	$2.98
NO0064	$0.03	$0.12	$0.08	$0.71	$0.16	$1.06	$2.17	$0.24	$0.39	$2.80
NO0069	$0.08	$0.11	$0.02	$0.36	$0.13	$0.72	$1.43	$0.27	$0.71	$2.41
NO0072	$0.14	$0.08	$0.04	$0.45	$0.29	$2.14	$3.14	$0.34	$1.02	$4.51
NO0073	$0.07	$0.10	$0.02	$0.53	$0.13	$1.16	$2.01	$0.56	$0.32	$2.88
NO0075	***$0.05***	***$0.07***	***$0.00***	***$0.33***	***$0.15***	***$0.99***	***$1.59***	***$0.45***	***$0.43***	***$2.48***
NO0078	$0.07	$0.11	$0.02	$0.19	$0.07	$0.32	$0.78	$0.43	$0.84	$2.05
NO0079	$0.07	$0.11	$0.17	$0.53	$0.18	$0.47	$1.52	$0.21	$1.11	$2.85
NO0080	***$0.04***	***$0.05***	***$0.03***	***$0.38***	***$0.11***	***$0.57***	***$1.18***	***$0.28***	***$0.84***	***$2.30***
NO0081	***$0.02***	***$0.09***	***$0.01***	***$0.22***	***$0.12***	***$0.77***	***$1.23***	***$0.33***	***$0.44***	***$2.00***
NO0082	$0.07	$0.06	$0.05	$0.37	$0.14	$1.60	$2.29	$0.38	$0.27	$2.93
NO0083	$0.02	$0.09	$0.12	$0.24	$0.19	$1.26	$1.92	$0.54	$0.99	$3.44
NO0088	$0.05	$0.06	$0.12	$0.28	$0.20	$0.59	$1.30	$0.26	$1.48	$3.04
NO0089	***$0.04***	***$0.06***	***$0.01***	***$0.31***	***$0.16***	***$0.91***	***$1.49***	***$0.29***	***$0.74***	***$2.52***
NO0091	$0.11	$0.15	$0.03	$0.51	$0.16	$1.27	$2.23	$0.40	$1.14	$3.77
NO0092	***$0.00***	***$0.02***	***$0.06***	***$0.52***	***$0.14***	***$0.56***	***$1.30***	***$0.22***	***$0.66***	***$2.18***
NO0093	$0.07	$0.05	$0.03	$0.47	$0.15	$1.63	$2.41	$0.25	$0.00	$2.66
NO0094	$0.05	$0.06	$0.02	$0.83	$0.34	$2.07	$3.37	$0.21	$0.45	$4.03
NO0095	$0.09	$0.10	$0.07	$0.27	$0.19	$0.42	$1.14	$0.31	$0.83	$2.28
Average	$0.06	$0.10	$0.05	$0.45	$0.17	$1.00	$1.83	$0.35	$0.67	$2.86
Top 25%*	$0.04	$0.07	$0.02	$0.47	$0.14	$0.96	$1.70	$0.40	$0.48	$2.58

* 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)	($/ha)	($/ha)	($/ha)	($/ha)	($/ha)
Average	$16,937	$13,166	$8,236	$5,199	$2,137	$4,634	$665	$857	$32,324
Top 25%*	$13,747	$9,453	$5,527	$3,095	$2,981	$5,695	$1,260	$1,333	$30,543

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

Table B6

Capital structure – Northern Victoria (continued)

	Liabilities			Equity	
	Liabilities per usable hectare	Liabilities per milking cow	Liabilities per kg of MS	Equity per usable hectare	Average equity
	($/ha)	($/cow)	($/kg MS)	($/ha)	(%)
Average	$7,692	$5,616	$9.80	$24,632	74%
Top 25%*	$7,514	$4,987	$7.36	$23,029	75%

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	$7.40	$5.48	$8.75	$0.21	$0.34	$0.17	$0.27	$3.60	$5.75	$4.03	$6.44
2007-08	$6.53	$9.95	$7.86	$11.97	$0.23	$0.34	$0.15	$0.23	$4.37	$6.66	$4.70	$7.15
2008-09	$5.32	$7.77	$6.06	$8.86	$0.21	$0.31	$0.13	$0.19	$3.47	$5.07	$3.81	$5.57
2009-10	$4.46	$6.32	$5.19	$7.36	$0.23	$0.33	$0.15	$0.21	$2.71	$3.85	$3.09	$4.38
2010-11	$5.69	$7.84	$6.74	$9.28	$0.31	$0.43	$0.19	$0.26	$2.66	$3.67	$3.16	$4.35
2011-12	$5.64	$7.63	$6.06	$8.20	$0.26	$0.35	$0.18	$0.24	$2.52	$3.41	$2.95	$3.99
2012-13	$5.05	$6.64	$5.53	$7.28	$0.25	$0.33	$0.24	$0.31	$2.85	$3.74	$3.34	$4.39
2013-14	$6.83	$8.76	$7.46	$9.58	$0.27	$0.35	$0.21	$0.27	$3.13	$4.02	$3.61	$4.64
2014-15	$6.09	$7.64	$6.62	$8.31	$0.30	$0.37	$0.19	$0.24	$3.20	$4.01	$3.69	$4.62
2015-16	$5.46	$6.77	$5.98	$7.41	$0.30	$0.37	$0.18	$0.22	$3.59	$4.45	$4.06	$5.03
2016-17	$5.13	$6.24	$5.92	$7.20	$0.34	$0.42	$0.20	$0.24	$2.87	$3.49	$3.41	$4.15
2017-18	$5.87	$7.01	$6.55	$7.81	$0.34	$0.41	$0.20	$0.24	$3.21	$3.83	$3.75	$4.48
2018-19	$6.28	$7.39	$6.81	$8.02	$0.32	$0.37	$0.23	$0.27	$4.40	$5.19	$4.95	$5.83
2019-20	$7.31	$8.50	$8.01	$9.31	$0.32	$0.37	$0.23	$0.26	$4.08	$4.75	$4.61	$5.36
2020-21	$7.02	$8.04	$7.93	$9.08	$0.32	$0.37	$0.23	$0.27	$3.34	$3.82	$3.86	$4.42
2021-22	$7.54	$8.27	$8.72	$9.57	$0.39	$0.43	$0.24	$0.27	$3.59	$3.94	$4.20	$4.61
2022-23	$9.84	$10.24	$10.97	$11.42	$0.40	$0.41	$0.26	$0.27	$4.70	$4.90	$5.36	$5.58
2023-24	$9.93	$9.93	$10.98	$10.98	$0.39	$0.39	$0.28	$0.28	$4.53	$4.53	$5.20	$5.20
Average		$7.91		$8.91		$0.37		$0.25		$4.39		$5.01

Notes: 'Real' dollar values are the nominal values converted to 2023-24 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)

Year	Overhead Costs					
	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	$1.31	$1.10	$1.76	$1.92	$3.07
2007-08	$0.78	$1.19	$0.90	$1.37	$1.57	$2.40
2008-09	$0.74	$1.08	$0.82	$1.20	$1.56	$2.29
2009-10	$0.82	$1.16	$1.01	$1.43	$1.83	$2.60
2010-11	$1.01	$1.40	$1.05	$1.44	$2.06	$2.84
2011-12	$0.90	$1.22	$0.85	$1.15	$1.75	$2.37
2012-13	$0.94	$1.24	$0.87	$1.14	$1.81	$2.38
2013-14	$0.99	$1.26	$0.85	$1.09	$1.83	$2.35
2014-15	$1.03	$1.29	$0.81	$1.02	$1.84	$2.31
2015-16	$1.02	$1.26	$0.87	$1.08	$1.89	$2.34
2016-17	$1.13	$1.38	$1.01	$1.23	$2.14	$2.60
2017-18	$1.13	$1.35	$1.01	$1.21	$2.14	$2.55
2018-19	$1.23	$1.44	$1.08	$1.27	$2.31	$2.72
2019-20	$1.20	$1.40	$0.98	$1.14	$2.18	$2.53
2020-21	$1.31	$1.50	$0.99	$1.14	$2.30	$2.64
2021-22	$1.45	$1.60	$1.09	$1.19	$2.54	$2.79
2022-23	$1.74	$1.81	$1.19	$1.24	$2.93	$3.05
2023-24	$1.83	$1.83	$1.02	$1.02	$2.86	$2.86
Average		$1.37		$1.23		$2.59

Table B7

Historical data – Northern Victoria

Main financial indicators (continued)

Year	Profit							
	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	-$0.75	$0.57	$0.90	-$1.04	-$1.66	-1.6%	-6.9%
2007-08	$1.59	$2.42	$0.55	$0.84	$1.04	$1.58	7.9%	7.6%
2008-09	$0.59	$0.86	$0.54	$0.79	$0.05	$0.07	2.7%	-0.7%
2009-10	$0.20	$0.28	$0.51	$0.73	-$0.31	-$0.44	0.8%	-3.1%
2010-11	$1.52	$2.09	$0.65	$0.89	$0.87	$1.20	7.0%	7.6%
2011-12	$1.36	$1.84	$0.57	$0.78	$0.78	$1.06	7.6%	8.4%
2012-13	$0.39	$0.51	$0.58	$0.76	-$0.19	-$0.25	2.2%	-2.9%
2013-14	$2.02	$2.59	$0.56	$0.71	$1.46	$1.88	11.3%	14.7%
2014-15	$1.10	$1.38	$0.50	$0.63	$0.59	$0.74	6.1%	4.9%
2015-16	$0.03	$0.04	$0.46	$0.57	-$0.43	-$0.54	-0.1%	-4.4%
2016-17	$0.37	$0.45	$0.59	$0.71	-$0.22	-$0.27	1.0%	-2.0%
2017-18	$0.65	$0.78	$0.55	$0.66	$0.10	$0.12	2.5%	1.2%
2018-19	-$0.45	-$0.53	$0.56	$0.66	-$1.01	-$1.19	-1.7%	-7.4%
2019-20	$1.22	$1.42	$0.45	$0.52	$0.77	$0.90	4.1%	3.7%
2020-21	$1.76	$2.02	$0.44	$0.51	$1.32	$1.51	6.0%	7.5%
2021-22	$1.98	$2.17	$0.41	$0.45	$1.57	$1.72	5.6%	7.2%
2022-23	$2.68	$2.79	$0.58	$0.60	$2.10	$2.18	7.2%	10.7%
2023-24	$2.92	$2.92	$0.70	$0.70	$2.21	$2.21	7.4%	9.2%
Average		$1.29		$0.69		$0.60	4.2%	3.1%

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	1020
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
2023-24	322	167	0.6	436	1.5	542	847
2022-23	358	197	0.8	489	1.5	575	878
Average	265	173	0.8	364	1.6	526	851

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	$505
2007-08	3.1	0.7	47%	$398	$606
2008-09	4.3	0.7	46%	$347	$507
2009-10	5.0	0.6	51%	$256	$363
2010-11	5.1	2.6	58%	$286	$394
2011-12	7.1	1.1	53%	$267	$361
2012-13	8.1	1.4	55%	$311	$409
2013-14	7.6	1.6	57%	$366	$470
2014-15	7.6	1.2	54%	$387	$486
2015-16	7.1	1.1	50%	$389	$482
2016-17	6.8	1.1	58%	$311	$378
2017-18	7.0	1.4	59%	$352	$420
2018-19	7.1	1.6	60%	$513	$604
2019-20	5.7	0.9	50%	$494	$574
2020-21	6.3	1.9	55%	$433	$496
2021-22	5.6	1.9	56%	$479	$526
2022-23	5.2	1.7	54%	$552	$574
2023-24	5.3	1.6	57%	$537	$537
Average	6.0	1.3	54%		$483

* 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.

Estimated grazed pasture average does not include farms with zero grazed pasture.

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	$9.96	$1.60	$11.55	$5.45	$3.17	63%	$2.93	6.1%	$0.99	8.6%	$1.94	7.3%
SW0007	$8.81	$0.71	$9.52	$4.86	$4.85	50%	-$0.19	-0.4%	$0.00	0.0%	-$0.19	-0.4%
SW0022	$9.58	$0.43	$10.01	$5.75	$3.60	62%	$0.66	1.5%	$0.47	4.7%	$0.19	0.5%
SW0030	***$10.55***	***$0.71***	***$11.26***	***$4.03***	***$2.51***	***62%***	***$4.71***	***6.5%***	***$1.80***	***16.0%***	***$2.91***	***6.8%***
SW0035	$9.61	$0.74	$10.35	$5.03	$2.28	69%	$3.03	5.5%	$1.88	18.1%	$1.16	9.3%
SW0036	$9.09	$0.57	$9.66	$4.51	$2.71	62%	$2.44	5.2%	$0.36	3.7%	$2.08	5.0%
SW0037	$10.39	$0.72	$11.11	$5.56	$3.74	60%	$1.82	4.4%	$0.50	4.5%	$1.32	5.3%
SW0040	$9.38	$1.15	$10.54	$5.01	$3.45	59%	$2.08	3.4%	$1.92	18.2%	$0.16	0.6%
SW0042	$9.01	$0.64	$9.65	$4.06	$3.44	54%	$2.15	3.8%	$0.61	6.4%	$1.54	4.3%
SW0043	$9.06	$0.78	$9.84	$5.31	$3.59	60%	$0.94	2.0%	$0.28	2.8%	$0.67	2.1%
SW0045	***$9.89***	***$0.98***	***$10.87***	***$4.64***	***$3.24***	***59%***	***$2.99***	***6.5%***	***$0.24***	***2.2%***	***$2.76***	***6.7%***
SW0046	$9.45	$0.87	$10.32	$5.41	$3.25	62%	$1.66	3.2%	$1.03	10.0%	$0.64	2.5%
SW0047	***$10.24***	***$0.83***	***$11.08***	***$4.73***	***$2.55***	***65%***	***$3.79***	***8.2%***	***$1.18***	***10.7%***	***$2.61***	***10.8%***
SW0049	$9.27	$2.66	$11.93	$5.81	$3.42	63%	$2.70	4.5%	$1.47	12.3%	$1.23	4.1%
SW0050	$10.14	$1.10	$11.23	$5.52	$2.73	67%	$2.98	6.2%	$1.16	10.3%	$1.82	12.9%
SW0051	$9.48	$0.86	$10.34	$5.22	$2.77	65%	$2.34	5.2%	$1.02	9.9%	$1.32	8.5%
SW0053	***$9.65***	***$0.26***	***$9.91***	***$3.51***	***$3.10***	***53%***	***$3.30***	***6.8%***	***$1.04***	***10.5%***	***$2.26***	***8.4%***
SW0055	$9.65	$1.42	$11.07	$5.38	$3.10	63%	$2.59	3.3%	$0.97	8.8%	$1.62	3.4%
SW0056	$9.41	$0.69	$10.10	$3.95	$4.36	47%	$1.79	2.6%	$0.00	0.0%	$1.79	2.6%
SW0058	$9.29	$0.33	$9.62	$4.37	$2.90	60%	$2.35	5.5%	$0.07	0.7%	$2.28	5.5%
SW0059	$8.97	$0.97	$9.94	$5.42	$2.70	67%	$1.82	3.0%	$1.11	11.2%	$0.71	4.7%
SW0060	$9.35	$0.60	$9.95	$3.91	$2.98	57%	$3.06	4.3%	$1.84	18.5%	$1.23	3.6%
SW0061	***$10.19***	***$0.62***	***$10.81***	***$5.14***	***$2.68***	***66%***	***$2.98***	***7.4%***	***$0.68***	***6.3%***	***$2.30***	***10.7%***
SW0062	$9.65	$0.74	$10.39	$6.03	$2.32	72%	$2.04	4.1%	$0.45	4.3%	$1.59	4.2%
SW0063	***$9.60***	***$1.11***	***$10.71***	***$5.15***	***$2.48***	***67%***	***$3.08***	***7.2%***	***$0.18***	***1.7%***	***$2.89***	***9.5%***
Average	$9.59	$0.88	$10.47	$4.95	$3.12	61%	$2.40	4.6%	$0.85	8.0%	$1.55	5.6%
Top 25%*	$10.02	$0.75	$10.77	$4.53	$2.76	62%	$3.48	7.1%	$0.86	7.9%	$2.62	8.8%

* 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	480	280	1.1	490	1.0	568	580	4.1%	3.4%
SW0007	116	116	0.6	90	0.8	401	311	5.4%	4.1%
SW0022	759	410	0.5	680	0.9	627	562	4.3%	3.6%
SW0030	***285***	***180***	***0.9***	***230***	***0.8***	***450***	***363***	***4.9%***	***3.8%***
SW0035	224	135	1.1	215	1.0	542	521	3.8%	3.4%
SW0036	333	220	0.8	335	1.0	545	549	4.6%	3.6%
SW0037	431	252	1.0	570	1.3	550	727	4.1%	3.4%
SW0040	408	301	1.4	420	1.0	438	450	4.0%	3.5%
SW0042	209	144	1.0	210	1.0	510	513	4.1%	3.4%
SW0043	129	86	0.9	140	1.1	530	576	4.5%	3.6%
SW0045	***740***	***505***	***1.2***	***720***	***1.0***	***630***	***613***	***4.1%***	***3.5%***
SW0046	515	307	1.1	560	1.1	510	555	4.5%	3.5%
SW0047	***596***	***305***	***0.7***	***700***	***1.2***	***595***	***699***	***4.7%***	***3.5%***
SW0049	577	325	0.9	575	1.0	493	492	4.5%	3.5%
SW0050	409	280	0.8	480	1.2	558	654	4.3%	3.4%
SW0051	165	135	0.8	215	1.3	501	653	4.1%	3.3%
SW0053	***359***	***280***	***1.2***	***380***	***1.1***	***500***	***529***	***4.3%***	***3.4%***
SW0055	581	325	0.9	610	1.0	469	492	4.4%	3.5%
SW0056	118	80	1.0	102	0.9	516	446	4.2%	3.3%
SW0058	262	159	1.1	345	1.3	535	705	5.0%	3.8%
SW0059	241	110	1.4	230	1.0	531	507	4.7%	3.7%
SW0060	194	130	1.4	216	1.1	388	432	4.6%	3.6%
SW0061	***448***	***360***	***1.2***	***586***	***1.3***	***605***	***791***	***3.7%***	***3.4%***
SW0062	467	261	1.3	520	1.1	624	695	4.5%	3.5%
SW0063	***489***	***256***	***1.0***	***541***	***1.1***	***581***	***644***	***4.6%***	***3.6%***
Average	381	238	1.0	406	1.1	528	562	4.4%	3.5%
Top 25%*	486	314	1.0	526	1.1	560	607	4.4%	3.5%

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	2.8	3.0	66%	83	19	101	36	93	52,685
SW0007	2.0	0.0	41%	0	0	0	0	43	17,167
SW0022	1.3	0.9	61%	97	6	5	3	99	61,835
SW0030	***5.0***	***0.0***	***71%***	***0***	***0***	***0***	***0***	***143***	***64,412***
SW0035	4.2	1.9	73%	124	22	72	32	144	78,274
SW0036	2.7	2.0	59%	234	18	38	15	113	61,355
SW0037	3.1	3.0	56%	276	18	31	26	87	48,063
SW0040	4.5	2.4	78%	83	8	18	23	90	39,602
SW0042	4.6	1.2	66%	90	9	22	15	73	37,280
SW0043	4.1	0.6	61%	83	17	43	19	63	33,481
SW0045	***2.3***	***1.7***	***69%***	***119***	***19***	***37***	***28***	***124***	***77,974***
SW0046	2.3	2.1	63%	157	22	49	23	105	53,350
SW0047	***3.3***	***2.0***	***49%***	***111***	***13***	***37***	***14***	***104***	***61,615***
SW0049	3.7	1.9	78%	104	4	1	4	130	63,997
SW0050	1.9	2.0	49%	215	20	23	22	95	53,066
SW0051	3.1	1.1	58%	121	20	46	23	124	62,083
SW0053	***3.9***	***0.9***	***66%***	***57***	***7***	***0***	***8***	***94***	***46,743***
SW0055	3.5	0.6	70%	120	1	0	51	122	57,403
SW0056	3.8	0.7	80%	81	20	0	2	61	31,559
SW0058	4.2	1.7	69%	161	46	95	49	125	66,785
SW0059	6.4	1.2	79%	128	13	24	15	119	63,280
SW0060	6.4	0.3	89%	261	16	62	30	148	57,512
SW0061	***5.2***	***1.6***	***58%***	***232***	***20***	***144***	***32***	***113***	***68,161***
SW0062	3.8	2.8	56%	201	26	71	20	129	80,559
SW0063	***3.6***	***0.7***	***55%***	***184***	***16***	***155***	***55***	***112***	***65,241***
Average	3.7	1.4	65%	133	15	43	22	106	56,139
Top 25%*	3.9	1.1	61%	117	13	62	23	115	64,024

** 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	3.0	$597	$0	$351	$0	$558	34%
SW0007	2.8	$613	$0	$176	$0	$471	59%
SW0022	3.5	$485	$0	$284	$0	$426	39%
SW0030	***2.2***	***$604***	***$0***	***$344***	***$0***	***$526***	***29%***
SW0035	2.6	$541	$244	$0	$0	$531	27%
SW0036	3.1	$437	$0	$0	$175	$382	41%
SW0037	3.4	$496	$0	$0	$206	$447	44%
SW0040	1.9	$564	$0	$0	$0	$564	22%
SW0042	2.8	$533	$0	$339	$0	$478	34%
SW0043	3.0	$615	$0	$427	$0	$566	39%
SW0045	***3.2***	***$458***	***$0***	***$367***	***$190***	***$432***	***31%***
SW0046	3.0	$533	$0	$459	$0	$529	37%
SW0047	***4.2***	***$470***	***$0***	***$392***	***$183***	***$366***	***51%***
SW0049	2.3	$650	$0	$353	$0	$620	22%
SW0050	4.4	$486	$0	$393	$174	$382	51%
SW0051	2.8	$524	$0	$0	$1,205	$537	42%
SW0053	***2.4***	***$455***	***$0***	***$376***	***$0***	***$443***	***34%***
SW0055	2.7	$484	$0	$393	$0	$467	30%
SW0056	1.7	$558	$0	$0	$0	$558	20%
SW0058	2.2	$664	$0	$456	$0	$626	31%
SW0059	2.1	$653	$0	$405	$0	$576	21%
SW0060	0.7	$514	$0	$0	$0	$514	11%
SW0061	***3.5***	***$523***	***$0***	***$351***	***$0***	***$469***	***42%***
SW0062	4.5	$638	$0	$349	$241	$473	44%
SW0063	***3.9***	***$487***	***$0***	***$344***	***$202***	***$399***	***45%***
Average	2.9	$543	$244	$364	$322	$494	35%
Top 25%*	3.2	$499				$439	39%

** 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	$0.18	$0.11	$0.06	$0.20	$0.18	$0.72	$0.45	$0.02	$0.28
SW0007	$0.17	$0.23	$0.06	$0.20	$0.10	$0.77	$0.00	$0.00	$0.00
SW0022	$0.22	$0.19	$0.25	$0.16	$0.19	$1.01	$0.25	$0.00	$0.16
SW0030	***$0.15***	***$0.01***	***$0.00***	***$0.25***	***$0.26***	***$0.67***	***$0.00***	***$0.00***	***$0.00***
SW0035	$0.08	$0.11	$0.04	$0.16	$0.06	$0.45	$1.01	$0.00	$0.38
SW0036	$0.16	$0.09	$0.07	$0.17	$0.19	$0.68	$0.92	$0.07	$0.27
SW0037	$0.30	$0.18	$0.02	$0.21	$0.31	$1.02	$1.08	$0.03	$0.30
SW0040	$0.19	$0.09	$0.23	$0.28	$0.21	$1.00	$0.70	$0.00	$0.06
SW0042	$0.05	$0.17	$0.02	$0.07	$0.23	$0.53	$0.67	$0.00	$0.10
SW0043	$0.13	$0.14	$0.05	$0.22	$0.19	$0.74	$0.78	$0.00	$0.12
SW0045	***$0.13***	***$0.14***	***$0.17***	***$0.07***	***$0.07***	***$0.59***	***$0.72***	***$0.00***	***$0.18***
SW0046	$0.24	$0.19	$0.17	$0.25	$0.12	$0.97	$0.93	$0.01	$0.42
SW0047	***$0.14***	***$0.14***	***$0.08***	***$0.10***	***$0.06***	***$0.52***	***$0.78***	***$0.00***	***$0.36***
SW0049	$0.29	$0.05	$0.03	$0.18	$0.09	$0.64	$0.36	$0.01	$0.32
SW0050	$0.11	$0.16	$0.03	$0.23	$0.18	$0.71	$0.79	$0.00	$0.34
SW0051	$0.19	$0.18	$0.12	$0.19	$0.11	$0.78	$0.60	$0.00	$0.41
SW0053	***$0.18***	***$0.10***	***$0.08***	***$0.13***	***$0.17***	***$0.65***	***$0.29***	***$0.10***	***$0.09***
SW0055	$0.23	$0.06	$0.03	$0.22	$0.19	$0.73	$0.94	$0.08	$0.14
SW0056	$0.29	$0.06	$0.05	$0.20	$0.14	$0.74	$0.45	$0.00	$0.09
SW0058	$0.09	$0.10	$0.13	$0.19	$0.13	$0.64	$0.78	$0.00	$0.13
SW0059	$0.16	$0.14	$0.06	$0.12	$0.10	$0.57	$1.11	$0.00	$0.43
SW0060	$0.12	$0.11	$0.02	$0.12	$0.10	$0.47	$1.61	$0.00	$0.42
SW0061	***$0.09***	***$0.12***	***$0.09***	***$0.19***	***$0.12***	***$0.61***	***$0.98***	***$0.00***	***$0.31***
SW0062	$0.19	$0.23	$0.22	$0.10	$0.09	$0.83	$1.12	$0.00	$0.43
SW0063	***$0.09***	***$0.19***	***$0.10***	***$0.15***	***$0.21***	***$0.74***	***$1.03***	***$0.00***	***$0.20***
Average	$0.17	$0.13	$0.09	$0.17	$0.15	$0.71	$0.74	$0.05	$0.24
Top 25%*	$0.13	$0.12	$0.09	$0.15	$0.15	$0.63	$0.64	$0.10	$0.19

** 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	$0.24	$0.32	$0.00	$0.31	$2.98	$0.06	$0.06	$4.73	$5.45
SW0007	$0.08	$0.22	$0.03	$0.36	$2.60	$0.47	$0.33	$4.09	$4.86
SW0022	$0.20	$0.10	$0.00	$0.51	$2.11	$0.00	$1.42	$4.74	$5.75
SW0030	***$0.34***	***$0.53***	***$0.00***	***$0.46***	***$1.87***	***$0.00***	***$0.16***	***$3.36***	***$4.03***
SW0035	$0.08	$0.11	$0.02	$0.04	$2.54	$0.00	$0.39	$4.58	$5.03
SW0036	$0.17	$0.28	$0.00	$0.00	$2.05	$0.00	$0.06	$3.82	$4.51
SW0037	$0.28	$0.16	$0.04	$0.00	$2.77	$0.00	-$0.13	$4.54	$5.56
SW0040	$0.21	$0.15	$0.11	$0.00	$2.44	$0.00	$0.34	$4.01	$5.01
SW0042	$0.23	$0.09	$0.00	$0.54	$2.11	$0.00	-$0.21	$3.53	$4.06
SW0043	$0.17	$0.09	$0.00	$0.64	$2.62	$0.00	$0.14	$4.57	$5.31
SW0045	***$0.20***	***$0.17***	***$0.00***	***$0.25***	***$2.10***	***$0.00***	***$0.43***	***$4.05***	***$4.64***
SW0046	$0.18	$0.29	$0.04	$0.09	$1.99	$0.00	$0.49	$4.44	$5.41
SW0047	***$0.15***	***$0.21***	***$0.00***	***$0.05***	***$2.30***	***$0.00***	***$0.35***	***$4.20***	***$4.73***
SW0049	$0.33	$0.06	$0.00	$0.16	$2.68	$0.00	$1.24	$5.17	$5.81
SW0050	$0.13	$0.39	$0.00	$0.41	$2.80	$0.00	-$0.04	$4.81	$5.52
SW0051	$0.11	$0.10	$0.00	$0.00	$2.98	$0.00	$0.24	$4.44	$5.22
SW0053	***$0.17***	***$0.12***	***$0.00***	***$0.25***	***$1.58***	***$0.00***	***$0.26***	***$2.85***	***$3.51***
SW0055	$0.14	$0.10	$0.00	$0.42	$2.27	$0.00	$0.57	$4.64	$5.38
SW0056	$0.22	$0.20	$0.00	$0.00	$1.74	$0.00	$0.51	$3.20	$3.95
SW0058	$0.16	$0.16	$0.00	$0.34	$2.22	$0.00	-$0.06	$3.73	$4.37
SW0059	$0.17	$0.09	$0.27	$0.57	$2.02	$0.00	$0.18	$4.84	$5.42
SW0060	$0.19	$0.24	$0.02	$0.00	$0.97	$0.00	-$0.03	$3.43	$3.91
SW0061	***$0.12***	***$0.37***	***$0.00***	***$0.63***	***$2.07***	***$0.00***	***$0.05***	***$4.53***	***$5.14***
SW0062	$0.10	$0.24	$0.00	$0.42	$3.09	$0.00	-$0.19	$5.21	$6.03
SW0063	***$0.16***	***$0.20***	***$0.00***	***$0.63***	***$2.14***	***$0.00***	***$0.04***	***$4.41***	***$5.15***
Average	$0.18	$0.20	$0.02	$0.28	$2.28	$0.02	$0.26	$4.24	$4.95
Top 25%*	$0.19	$0.27	$0.00	$0.38	$2.01	$0.00	$0.21	$3.90	$4.53

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	$0.06	$0.15	$0.03	$0.72	$0.12	$1.03	$2.11	$0.60	$0.46	$3.17
SW0007	$0.13	$0.25	$0.01	$0.38	$0.30	$3.33	$4.40	$0.21	$0.25	$4.85
SW0022	$0.13	$0.19	$0.01	$1.16	$0.19	$0.87	$2.55	$0.46	$0.59	$3.60
SW0030	***$0.17***	***$0.03***	***$0.03***	***$0.36***	***$0.28***	***$0.71***	***$1.58***	***$0.20***	***$0.73***	***$2.51***
SW0035	$0.10	$0.06	$0.03	$0.59	$0.14	$0.08	$1.00	$0.27	$1.02	$2.28
SW0036	$0.07	$0.13	$0.01	$0.55	$0.15	$0.59	$1.49	$0.33	$0.89	$2.71
SW0037	$0.05	$0.12	$0.04	$1.36	$0.09	$1.12	$2.79	$0.46	$0.50	$3.74
SW0040	$0.09	$0.22	$0.02	$0.31	$0.28	$1.33	$2.25	$0.24	$0.95	$3.45
SW0042	$0.07	$0.10	$0.04	$0.49	$0.09	$1.35	$2.15	$0.28	$1.01	$3.44
SW0043	$0.05	$0.22	$0.05	$0.09	$0.15	$0.11	$0.66	$0.38	$2.55	$3.59
SW0045	***$0.05***	***$0.11***	***$0.01***	***$1.13***	***$0.32***	***$0.65***	***$2.28***	***$0.49***	***$0.48***	***$3.24***
SW0046	$0.05	$0.13	$0.09	$0.85	$0.09	$1.21	$2.42	$0.38	$0.44	$3.25
SW0047	***$0.06***	***$0.13***	***$0.01***	***$0.51***	***$0.15***	***$1.13***	***$1.99***	***$0.24***	***$0.33***	***$2.55***
SW0049	$0.09	$0.20	$0.02	$0.72	$0.38	$1.19	$2.59	$0.37	$0.47	$3.42
SW0050	$0.02	$0.10	$0.01	$0.61	$0.10	$0.99	$1.83	$0.37	$0.53	$2.73
SW0051	$0.06	$0.22	$0.02	$0.58	$0.18	$0.28	$1.33	$0.36	$1.07	$2.77
SW0053	***$0.07***	***$0.12***	***$0.02***	***$0.55***	***$0.13***	***$0.80***	***$1.68***	***$0.41***	***$1.01***	***$3.10***
SW0055	$0.08	$0.21	$0.01	$0.65	$0.17	$1.52	$2.64	$0.31	$0.15	$3.10
SW0056	$0.09	$0.19	$0.15	$0.32	$0.22	$0.00	$0.98	$0.65	$2.74	$4.36
SW0058	$0.08	$0.13	$0.03	$0.60	$0.07	$0.56	$1.47	$0.69	$0.74	$2.90
SW0059	$0.02	$0.12	$0.03	$0.70	$0.04	$0.41	$1.33	$0.40	$0.97	$2.70
SW0060	$0.06	$0.11	$0.08	$0.51	$0.20	$0.14	$1.09	$0.47	$1.42	$2.98
SW0061	***$0.07***	***$0.13***	***$0.02***	***$0.45***	***$0.18***	***$0.92***	***$1.77***	***$0.48***	***$0.43***	***$2.68***
SW0062	$0.06	$0.06	$0.05	$0.44	$0.09	$0.95	$1.64	$0.38	$0.31	$2.32
SW0063	***$0.03***	***$0.06***	***$0.01***	***$0.53***	***$0.14***	***$0.99***	***$1.76***	***$0.31***	***$0.41***	***$2.48***
Average	$0.07	$0.14	$0.03	$0.61	$0.17	$0.89	$1.91	$0.39	$0.82	$3.12
Top 25%*	$0.08	$0.10	$0.02	$0.59	$0.20	$0.87	$1.84	$0.36	$0.56	$2.76

* 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	$17,466	$16,640	$1,707	$1,681	$1,628	$3,556	$312	$742	$23,456
Top 25%*	$20,812	$19,808			$1,442	$3,656	$240	$356	$26,507

Table C6

Capital structure – South West Victoria (continued)

	Liabilities			Equity	
	Liabilities per usable hectare	Liabilities per milking cow	Liabilities per kg of MS	Equity per usable hectare	Average equity
	($/ha)	($/cow)	($/kg MS)	($/ha)	(%)
Average	$6,101	$5,704	$11.05	$17,355	73%
Top 25%*	$8,414	$7,877	$14.62	$18,093	68%

Table C7

Historical data – South West 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	$4.31	$6.88	$5.05	$8.07	$0.19	$0.30	$0.13	$0.21	$2.61	$4.17	$2.97	$4.75
2007-08	$6.56	$10.00	$7.91	$12.05	$0.21	$0.32	$0.14	$0.22	$2.95	$4.50	$3.32	$5.06
2008-09	$5.40	$7.90	$6.13	$8.96	$0.22	$0.32	$0.15	$0.23	$2.55	$3.73	$2.93	$4.28
2009-10	$4.55	$6.45	$5.23	$7.42	$0.21	$0.29	$0.16	$0.23	$2.00	$2.83	$2.37	$3.35
2010-11	$5.62	$7.74	$6.34	$8.73	$0.21	$0.29	$0.18	$0.25	$2.10	$2.89	$2.48	$3.42
2011-12	$5.56	$7.52	$5.97	$8.08	$0.23	$0.31	$0.21	$0.29	$2.35	$3.18	$2.79	$3.78
2012-13	$4.90	$6.45	$5.24	$6.90	$0.24	$0.32	$0.21	$0.28	$2.60	$3.43	$3.06	$4.03
2013-14	$6.91	$8.87	$7.54	$9.68	$0.25	$0.32	$0.23	$0.29	$2.90	$3.72	$3.37	$4.33
2014-15	$6.16	$7.73	$6.70	$8.41	$0.25	$0.32	$0.20	$0.26	$2.88	$3.62	$3.34	$4.20
2015-16	$5.47	$6.77	$5.95	$7.37	$0.24	$0.30	$0.19	$0.24	$3.14	$3.88	$3.57	$4.42
2016-17	$5.25	$6.39	$5.98	$7.27	$0.25	$0.31	$0.20	$0.24	$2.14	$2.60	$2.59	$3.15
2017-18	$5.80	$6.92	$6.42	$7.66	$0.29	$0.34	$0.24	$0.28	$2.90	$3.46	$3.43	$4.09
2018-19	$6.15	$7.25	$6.99	$8.24	$0.32	$0.37	$0.23	$0.27	$3.20	$3.76	$3.74	$4.40
2019-20	$7.16	$8.33	$7.98	$9.27	$0.32	$0.37	$0.23	$0.26	$2.95	$3.43	$3.52	$4.09
2020-21	$6.68	$7.65	$7.79	$8.93	$0.32	$0.37	$0.23	$0.27	$2.48	$2.84	$3.06	$3.50
2021-22	$7.39	$8.11	$8.74	$9.58	$0.39	$0.43	$0.24	$0.27	$3.47	$3.81	$4.12	$4.52
2022-23	$9.81	$10.21	$11.09	$11.55	$0.39	$0.41	$0.31	$0.32	$4.08	$4.25	$4.78	$4.98
2023-24	$9.59	$9.59	$10.47	$10.47	$0.39	$0.39	$0.33	$0.33	$4.24	$4.24	$4.95	$4.95
Average		$7.82		$8.81		$0.34		$0.26		$3.57		$4.18

Notes: 'Real' dollar values are the nominal values converted to 2023-24 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)

Year	Overhead Costs					
	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	$1.26	$0.99	$1.58	$1.78	$2.84
2007-08	$0.95	$1.45	$0.84	$1.28	$1.69	$2.58
2008-09	$0.92	$1.35	$0.89	$1.30	$1.81	$2.64
2009-10	$0.89	$1.26	$1.03	$1.47	$1.92	$2.73
2010-11	$1.06	$1.46	$1.08	$1.49	$2.14	$2.95
2011-12	$1.11	$1.50	$1.29	$1.75	$2.40	$3.25
2012-13	$0.95	$1.25	$1.20	$1.58	$2.15	$2.83
2013-14	$1.14	$1.46	$1.00	$1.29	$2.14	$2.75
2014-15	$1.15	$1.45	$0.92	$1.16	$2.08	$2.61
2015-16	$1.10	$1.36	$1.10	$1.36	$2.19	$2.72
2016-17	$1.11	$1.35	$1.12	$1.36	$2.23	$2.71
2017-18	$1.30	$1.55	$1.22	$1.45	$2.51	$3.00
2018-19	$1.28	$1.51	$1.27	$1.50	$2.55	$3.01
2019-20	$1.38	$1.60	$1.26	$1.46	$2.63	$3.06
2020-21	$1.45	$1.66	$1.25	$1.43	$2.70	$3.09
2021-22	$1.67	$1.83	$1.23	$1.35	$2.90	$3.19
2022-23	$1.79	$1.86	$1.28	$1.33	$3.07	$3.19
2023-24	$1.91	$1.91	$1.21	$1.21	$3.12	$3.12
Average		$1.50		$1.41		$2.90

Table C7

Historical data – South West Victoria

Main financial indicators (continued)

Year	Profit							
	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	$0.48	$0.59	$0.95	-$0.29	-$0.47	1.0%	-3.3%
2007-08	$2.89	$4.40	$0.72	$1.10	$2.17	$3.30	11.2%	14.8%
2008-09	$1.32	$1.94	$0.69	$1.01	$0.63	$0.92	4.5%	3.7%
2009-10	$0.91	$1.28	$0.80	$1.14	$0.10	$0.14	3.0%	1.3%
2010-11	$1.71	$2.36	$0.95	$1.30	$0.77	$1.05	5.5%	5.8%
2011-12	$0.78	$1.05	$0.90	$1.21	-$0.12	-$0.16	3.3%	-0.2%
2012-13	$0.03	$0.04	$0.78	$1.03	-$0.75	-$0.99	0.2%	-12.7%
2013-14	$2.03	$2.60	$0.69	$0.89	$1.33	$1.71	7.9%	9.9%
2014-15	$1.28	$1.61	$0.62	$0.78	$0.66	$0.83	5.2%	6.2%
2015-16	$0.18	$0.23	$0.68	$0.84	-$0.49	-$0.61	0.6%	-2.8%
2016-17	$1.16	$1.41	$0.63	$0.77	$0.53	$0.64	4.2%	4.3%
2017-18	$0.48	$0.57	$0.60	$0.71	-$0.12	-$0.14	1.9%	-1.1%
2018-19	$0.71	$0.83	$0.67	$0.79	$0.03	$0.04	2.3%	-0.8%
2019-20	$1.83	$2.12	$0.54	$0.63	$1.29	$1.50	5.8%	9.6%
2020-21	$2.04	$2.34	$0.43	$0.49	$1.61	$1.84	5.5%	9.1%
2021-22	$1.71	$1.88	$0.42	$0.46	$1.29	$1.42	3.9%	5.5%
2022-23	$3.24	$3.38	$0.76	$0.79	$2.48	$2.58	6.7%	9.9%
2023-24	$2.40	$2.40	$0.85	$0.85	$1.55	$1.55	4.6%	5.6%
Average		$1.72		$0.88		$0.84	4.3%	3.6%

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
2022-23	351	221	0.6	385	1.1	526	588
2023-24	381	238	1.0	406	1.1	528	562
Average	328	247	0.8	380	1.2	511	607

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	$530
2007-08	5.1	1.3	71%	$425	$648
2008-09	5.3	1.2	68%	$390	$570
2009-10	6.0	1.0	71%	$287	$407
2010-11	5.1	1.6	67%	$302	$416
2011-12	4.2	1.0	55%	$309	$418
2012-13	4.0	1.5	58%	$342	$450
2013-14	4.6	1.5	62%	$395	$507
2014-15	4.5	1.2	59%	$408	$513
2015-16	3.4	1.5	51%	$400	$496
2016-17	4.8	2.2	67%	$345	$420
2017-18	3.9	1.9	62%	$377	$450
2018-19	4.3	2.2	68%	$512	$603
2019-20	4.7	2.2	68%	$491	$570
2020-21	4.8	2.3	68%	$422	$483
2021-22	4.0	2.0	62%	$489	$536
2022-23	4.6	1.7	64%	$566	$589
2023-24	3.7	1.4	65%	$543	$543
Average	4.5	1.6	64%		$508

* 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)	(%)
GI0012	$8.97	$0.88	$9.85	$3.34	$3.33	50%	$3.18	4.9%	$0.44	4.5%	$2.74	5.7%
GI0021	$9.14	$0.43	$9.57	$4.58	$2.63	64%	$2.36	5.7%	$1.44	15.0%	$0.92	7.1%
GI0025	***$9.29***	***$0.97***	***$10.26***	***$3.97***	***$1.94***	***67%***	***$4.35***	***10.1%***	***$1.00***	***9.7%***	***$3.36***	***15.7%***
GI0028	$9.26	$0.52	$9.77	$5.60	$3.12	64%	$1.06	2.6%	$1.72	17.6%	-$0.66	-4.4%
GI0029	$9.20	$0.89	$10.09	$4.05	$2.62	61%	$3.42	8.6%	$0.93	9.2%	$2.49	8.7%
GI0031	$8.59	$0.18	$8.77	$5.66	$3.82	60%	-$0.72	-1.4%	$0.90	10.2%	-$1.61	-4.8%
GI0037	$9.47	$1.11	$10.59	$5.07	$2.42	68%	$3.09	6.6%	$0.77	7.3%	$2.32	7.5%
GI0039	$9.57	$0.35	$9.92	$4.76	$3.03	61%	$2.13	4.0%	$0.77	7.8%	$1.36	6.1%
GI0046	$9.15	$0.81	$9.96	$4.53	$2.50	64%	$2.94	7.4%	$1.23	12.4%	$1.70	10.7%
GI0048	***$9.64***	***$0.79***	***$10.43***	***$3.54***	***$2.14***	***62%***	***$4.75***	***9.9%***	***$0.25***	***2.4%***	***$4.50***	***14.5%***
GI0049	***$9.75***	***$0.72***	***$10.47***	***$4.37***	***$2.42***	***64%***	***$3.68***	***13.3%***	***$0.76***	***7.2%***	***$2.92***	***21.5%***
GI0051	$9.76	$0.87	$10.62	$6.17	$3.22	66%	$1.24	2.3%	$2.06	19.4%	-$0.83	-9.5%
GI0053	***$9.06***	***$0.20***	***$9.26***	***$4.16***	***$2.24***	***65%***	***$2.86***	***9.6%***	***$0.34***	***3.7%***	***$2.51***	***10.4%***
GI0055	$9.66	$0.70	$10.36	$5.09	$2.40	68%	$2.87	9.5%	$0.87	8.4%	$1.99	15.3%
GI0057	***$9.11***	***$0.71***	***$9.82***	***$3.75***	***$1.68***	***69%***	***$4.38***	***15.0%***	***$0.70***	***7.1%***	***$3.68***	***67.2%***
GI0058	$9.29	$1.04	$10.33	$5.84	$3.55	62%	$0.94	2.5%	$1.10	10.6%	-$0.15	-1.0%
GI0061	***$9.76***	***$0.40***	***$10.16***	***$4.40***	***$2.28***	***66%***	***$3.49***	***10.4%***	***$0.88***	***8.6%***	***$2.61***	***13.8%***
GI0064	$8.81	$1.22	$10.03	$2.46	$3.66	40%	$3.91	5.4%	$1.92	19.1%	$1.99	6.0%
GI0067	$8.93	$0.93	$9.86	$4.27	$3.11	58%	$2.48	3.8%	$1.04	10.6%	$1.43	13.7%
GI0068	$9.39	$0.41	$9.80	$5.95	$4.67	56%	-$0.82	-1.5%	$3.27	33.4%	-$4.09	-21.1%
GI0069	$9.92	$0.59	$10.51	$5.39	$3.00	64%	$2.12	4.5%	$1.39	13.2%	$0.73	4.0%
GI0070	$9.48	$0.37	$9.84	$5.24	$2.98	64%	$1.63	3.9%	$1.70	17.3%	-$0.07	-0.4%
GI0071	$9.66	$0.99	$10.65	$5.33	$3.38	61%	$1.95	5.1%	$0.95	8.9%	$1.00	5.1%
GI0072	$9.37	$0.18	$9.55	$3.43	$4.11	45%	$2.02	3.0%	$1.19	12.5%	$0.83	4.9%
GI0073	$9.21	$0.71	$9.92	$2.90	$3.10	48%	$3.92	5.2%	$1.70	17.1%	$2.23	5.2%
Average	$9.34	$0.68	$10.02	$4.55	$2.93	61%	$2.53	6.0%	$1.17	11.7%	$1.36	8.1%
Top 25%*	$9.44	$0.63	$10.07	$4.03	$2.12	66%	$3.92	11.4%	$0.65	6.5%	$3.26	23.8%

* 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)	(%)	(%)
GI0012	93	70	0.9	160	1.7	491	849	4.0%	3.4%
GI0021	347	188	0.9	440	1.3	493	626	5.2%	3.9%
GI0025	***215***	***130***	***0.6***	***420***	***2.0***	***460***	***897***	***4.3%***	***3.5%***
GI0028	188	114	0.8	274	1.5	547	797	4.1%	3.5%
GI0029	160	106	0.8	296	1.8	525	970	4.5%	3.4%
GI0031	112	73	0.7	294	2.6	350	915	4.2%	3.5%
GI0037	354	243	0.9	480	1.4	526	714	4.1%	3.4%
GI0039	203	125	0.7	300	1.5	495	730	4.2%	3.6%
GI0046	188	108	1.0	200	1.1	593	631	4.1%	3.5%
GI0048	***342***	***180***	***0.7***	***490***	***1.4***	***562***	***806***	***4.3%***	***3.5%***
GI0049	***107***	***72***	***0.9***	***290***	***2.7***	***497***	***1,348***	***4.6%***	***3.6%***
GI0051	358	172	0.7	550	1.5	455	699	4.1%	3.3%
GI0053	***123***	***123***	***1.1***	***340***	***2.8***	***543***	***1,502***	***4.5%***	***3.5%***
GI0055	253	120	0.9	520	2.1	626	1,287	4.6%	3.7%
GI0057	***174***	***174***	***1.4***	***420***	***2.4***	***549***	***1,325***	***4.5%***	***3.6%***
GI0058	171	94	0.7	365	2.1	620	1,323	4.3%	3.6%
GI0061	***89***	***89***	***1.1***	***325***	***3.7***	***380***	***1,387***	***4.5%***	***3.6%***
GI0064	220	134	1.0	220	1.0	470	470	5.1%	3.9%
GI0067	217	82	0.7	240	1.1	515	570	4.7%	3.7%
GI0068	161	120	0.6	220	1.4	291	397	4.3%	3.4%
GI0069	193	117	1.0	300	1.6	557	864	4.3%	3.7%
GI0070	210	130	0.6	357	1.7	542	922	4.1%	3.4%
GI0071	350	165	0.7	420	1.2	649	780	4.2%	3.5%
GI0072	288	149	0.6	295	1.0	543	556	4.4%	3.5%
GI0073	173	113	0.7	263	1.5	361	548	4.8%	3.7%
Average	212	128	0.8	339	1.8	506	877	4.4%	3.5%
Top 25%*	175	128	1.0	381	2.5	499	1,211	4.5%	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)
GI0012	9.9	0.9	71%	158	20	64	24	77	37,677
GI0021	5.3	1.7	70%	125	3	3	14	106	52,374
GI0025	***9.0***	***0.1***	***70%***	***193***	***9***	***57***	***19***	***169***	***77,595***
GI0028	7.3	0.9	60%	234	3	9	18	77	42,196
GI0029	10.5	0.1	65%	20	7	28	102	109	57,107
GI0031	8.7	0.3	64%	292	13	46	30	122	42,665
GI0037	4.0	2.9	74%	249	17	77	22	91	47,813
GI0039	5.1	1.1	49%	218	22	85	23	111	54,732
GI0046	6.4	0.7	66%	122	12	15	11	109	64,798
GI0048	***8.7***	***0.2***	***66%***	***256***	***0***	***0***	***0***	***128***	***71,972***
GI0049	***12.7***	***0.6***	***59%***	***345***	***8***	***0***	***13***	***165***	***81,964***
GI0051	7.8	1.1	71%	368	13	25	13	94	42,903
GI0053	***9.2***	***0.9***	***52%***	***277***	***7***	***0***	***2***	***133***	***72,397***
GI0055	12.7	1.6	54%	290	35	65	30	107	66,921
GI0057	***8.9***	***2.5***	***62%***	***297***	***34***	***58***	***13***	***127***	***69,870***
GI0058	6.0	0.0	32%	158	26	86	33	89	55,417
GI0061	***11.2***	***1.4***	***57%***	***191***	***0***	***0***	***0***	***169***	***64,277***
GI0064	3.7	6.1	64%	112	3	30	3	78	36,640
GI0067	7.6	0.4	65%	317	16	58	13	83	42,651
GI0068	4.9	0.6	64%	103	7	6	5	119	34,743
GI0069	2.4	5.2	71%	312	44	127	45	98	54,472
GI0070	8.2	0.8	55%	131	12	29	8	95	51,342
GI0071	5.9	3.0	59%	135	1	4	1	79	51,458
GI0072	7.3	2.3	78%	235	15	56	24	70	37,994
GI0073	9.5	0.9	95%	325	11	28	14	136	48,946
Average	7.7	1.5	64%	219	13	38	19	110	54,437
Top 25%*	10.0	0.9	61%	260	10	19	8	149	73,012

** 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)
GI0012	2.0	$501		$329		$479	29%
GI0021	2.0	$623		$559		$610	30%
GI0025	***2.0***	***$540***	***$232***	***$448***	***$195***	***$484***	***30%***
GI0028	3.0	$624		$605		$620	40%
GI0029	1.9	$644	$286	$410		$555	35%
GI0031	1.8	$566				$566	36%
GI0037	2.1	$604				$604	26%
GI0039	3.1	$471	$200	$453	$168	$435	51%
GI0046	2.4	$713		$471		$696	34%
GI0048	***2.8***	***$440***	***$373***	***$708***		***$434***	***34%***
GI0049	***2.5***	***$548***	***$440***	***$286***	***$261***	***$478***	***41%***
GI0051	2.1	$586	$380			$575	29%
GI0053	***2.6***	***$552***		***$387***		***$527***	***48%***
GI0055	3.7	$624	$200	$323		$543	46%
GI0057	***1.8***	***$669***	***$125***	***$289***		***$458***	***38%***
GI0058	6.6	$472	$346	$401		$435	68%
GI0061	***1.9***	***$572***			***$261***	***$527***	***43%***
GI0064	2.1	$502				$502	36%
GI0067	2.4	$557	$276			$508	35%
GI0068	2.0	$567	$83	$388		$469	36%
GI0069	2.5	$598				$598	29%
GI0070	3.4	$614	$375	$264		$551	45%
GI0071	3.1	$567		$472		$561	41%
GI0072	1.9	$502		$444		$494	22%
GI0073	0.4	$549				$549	5%
Average	2.5	$568	$276	$426	$221	$530	36%
Top 25%*	2.3	$554				$485	39%

** 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)
GI0012	$0.13	$0.18	$0.05	$0.15	$0.08	$0.59	$0.61	$0.00	$0.17
GI0021	$0.24	$0.08	$0.03	$0.21	$0.23	$0.80	$0.42	$0.00	$0.41
GI0025	***$0.00***	***$0.10***	***$0.10***	***$0.13***	***$0.19***	***$0.53***	***$0.74***	***$0.01***	***$0.23***
GI0028	$0.20	$0.16	$0.07	$0.13	$0.13	$0.69	$0.73	$0.00	$0.21
GI0029	$0.11	$0.13	$0.04	$0.07	$0.17	$0.52	$0.50	$0.41	$0.15
GI0031	$0.60	$0.30	$0.26	$0.13	$0.10	$1.40	$0.89	$0.17	$0.39
GI0037	$0.19	$0.17	$0.03	$0.13	$0.18	$0.71	$0.79	$0.00	$0.26
GI0039	$0.14	$0.12	$0.05	$0.16	$0.17	$0.65	$0.85	$0.00	$0.28
GI0046	$0.16	$0.10	$0.04	$0.11	$0.09	$0.50	$0.76	$0.00	$0.18
GI0048	***$0.15***	***$0.12***	***$0.10***	***$0.11***	***$0.08***	***$0.55***	***$0.72***	***$0.00***	***$0.23***
GI0049	***$0.33***	***$0.17***	***$0.21***	***$0.13***	***$0.19***	***$1.04***	***$0.48***	***$0.20***	***$0.08***
GI0051	$0.30	$0.51	$0.17	$0.14	$0.17	$1.30	$1.28	$0.00	$0.58
GI0053	***$0.12***	***$0.14***	***$0.03***	***$0.12***	***$0.15***	***$0.57***	***$0.41***	***$0.28***	***$0.09***
GI0055	$0.14	$0.12	$0.05	$0.13	$0.14	$0.58	$0.99	$0.19	$0.17
GI0057	***$0.04***	***$0.15***	***$0.05***	***$0.13***	***$0.04***	***$0.42***	***$0.75***	***$0.00***	***$0.38***
GI0058	$0.21	$0.13	$0.05	$0.14	$0.08	$0.61	$0.28	$0.18	$0.00
GI0061	***$0.37***	***$0.10***	***$0.10***	***$0.16***	***$0.14***	***$0.87***	***$0.24***	***$0.36***	***$0.17***
GI0064	$0.51	$0.22	$0.13	$0.21	$0.17	$1.25	$0.49	$0.00	$0.69
GI0067	$0.22	$0.10	$0.04	$0.14	$0.09	$0.60	$0.85	$0.00	$0.42
GI0068	$0.12	$0.32	$0.17	$0.13	$0.18	$0.91	$0.74	$0.00	$0.36
GI0069	$0.09	$0.12	$0.03	$0.18	$0.14	$0.56	$1.06	$0.00	$0.33
GI0070	$0.17	$0.17	$0.19	$0.12	$0.12	$0.77	$0.61	$0.06	$0.07
GI0071	$0.15	$0.19	$0.24	$0.11	$0.05	$0.76	$1.15	$0.03	$0.57
GI0072	$0.22	$0.12	$0.02	$0.20	$0.13	$0.69	$0.86	$0.00	$0.21
GI0073	$0.11	$0.28	$0.07	$0.17	$0.07	$0.70	$1.19	$0.00	$0.42
Average	$0.20	$0.17	$0.09	$0.14	$0.13	$0.74	$0.74	$0.19	$0.28
Top 25%*	$0.17	$0.13	$0.10	$0.13	$0.13	$0.66	$0.56	$0.22	$0.20

** 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)
GI0012	$0.11	$0.01	$0.03	$0.17	$1.77	$0.00	-$0.11	$2.75	$3.34
GI0021	$0.22	$0.14	$0.01	$0.49	$2.07	$0.00	$0.01	$3.78	$4.58
GI0025	***$0.11***	***$0.24***	***$0.00***	***$0.41***	***$1.67***	***$0.00***	***$0.02***	***$3.43***	***$3.97***
GI0028	$0.15	$0.49	$0.01	$0.75	$2.52	$0.00	$0.05	$4.90	$5.60
GI0029	$0.11	$0.08	$0.00	$0.50	$1.55	$0.20	$0.02	$3.54	$4.05
GI0031	$0.05	$0.12	$0.00	$0.00	$1.96	$0.00	$0.68	$4.26	$5.66
GI0037	$0.16	$0.15	$0.00	$0.00	$2.46	$0.00	$0.55	$4.37	$5.07
GI0039	$0.11	$0.04	$0.00	$0.11	$2.58	$0.23	-$0.09	$4.11	$4.76
GI0046	$0.07	$0.27	$0.02	$0.13	$2.71	$0.00	-$0.13	$4.02	$4.53
GI0048	***$0.09***	***$0.05***	***$0.04***	***$0.98***	***$1.26***	***$0.00***	***-$0.38***	***$2.98***	***$3.54***
GI0049	***$0.03***	***$0.13***	***$0.01***	***$0.23***	***$2.28***	***$0.00***	***-$0.11***	***$3.33***	***$4.37***
GI0051	$0.15	$0.06	$0.00	$0.09	$2.40	$0.00	$0.30	$4.87	$6.17
GI0053	***$0.09***	***$0.07***	***$0.03***	***$0.28***	***$2.20***	***$0.17***	***-$0.03***	***$3.59***	***$4.16***
GI0055	$0.11	$0.10	$0.00	$0.43	$2.79	$0.00	-$0.27	$4.51	$5.09
GI0057	***$0.09***	***$0.08***	***$0.00***	***$0.25***	***$1.64***	***$0.37***	***-$0.23***	***$3.34***	***$3.75***
GI0058	$0.08	$0.09	$0.00	$1.56	$2.90	$0.00	$0.13	$5.22	$5.84
GI0061	***$0.04***	***$0.06***	***$0.00***	***$0.00***	***$2.55***	***$0.15***	***-$0.04***	***$3.53***	***$4.40***
GI0064	$0.10	$0.14	$0.00	$0.00	$2.27	$0.00	-$2.49	$1.21	$2.46
GI0067	$0.14	$0.07	$0.07	$0.22	$2.13	$0.00	-$0.23	$3.68	$4.27
GI0068	$0.14	$0.54	$0.12	$0.97	$2.68	$0.00	-$0.51	$5.03	$5.95
GI0069	$0.13	$0.23	$0.00	$0.00	$2.67	$0.00	$0.40	$4.83	$5.39
GI0070	$0.19	$0.15	$0.00	$0.41	$2.98	$0.00	-$0.01	$4.47	$5.24
GI0071	$0.18	$0.32	$0.06	$0.16	$2.73	$0.00	-$0.63	$4.57	$5.33
GI0072	$0.16	$0.01	$0.00	$0.19	$1.43	$0.00	-$0.13	$2.73	$3.43
GI0073	$0.21	$0.12	$0.00	$0.00	$0.65	$0.00	-$0.39	$2.20	$2.90
Average	$0.12	$0.15	$0.02	$0.33	$2.20	$0.04	-$0.14	$3.81	$4.55
Top 25%*	$0.07	$0.10	$0.01	$0.36	$1.94	$0.12	-$0.13	$3.37	$4.03

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)
GI0012	$0.12	$0.08	$0.03	$0.32	$0.18	$0.00	$0.73	$0.30	$2.29	$3.33
GI0021	$0.05	$0.13	$0.00	$0.41	$0.15	$1.23	$1.98	$0.27	$0.37	$2.63
GI0025	***$0.07***	***$0.09***	***$0.01***	***$0.33***	***$0.12***	***$0.00***	***$0.62***	***$0.21***	***$1.11***	***$1.94***
GI0028	$0.10	$0.13	$0.01	$0.43	$0.23	$1.30	$2.21	$0.20	$0.70	$3.12
GI0029	$0.09	$0.12	$0.01	$0.37	$0.20	$0.95	$1.74	$0.22	$0.67	$2.62
GI0031	$0.07	$0.18	$0.00	$0.18	$0.39	$2.51	$3.33	$0.49	$0.00	$3.82
GI0037	$0.08	$0.14	$0.02	$0.62	$0.08	$1.05	$1.99	$0.03	$0.40	$2.42
GI0039	$0.06	$0.12	$0.01	$0.56	$0.19	$0.68	$1.62	$0.40	$1.00	$3.03
GI0046	$0.11	$0.18	$0.01	$0.47	$0.16	$0.67	$1.60	$0.17	$0.73	$2.50
GI0048	***$0.06***	***$0.10***	***$0.02***	***$0.66***	***$0.05***	***$0.42***	***$1.30***	***$0.14***	***$0.70***	***$2.14***
GI0049	***$0.07***	***$0.19***	***$0.00***	***$0.77***	***$0.22***	***$1.09***	***$2.35***	***$0.07***	***$0.00***	***$2.42***
GI0051	$0.05	$0.12	$0.01	$0.57	$0.27	$1.78	$2.81	$0.12	$0.29	$3.22
GI0053	***$0.08***	***$0.05***	***$0.02***	***$0.42***	***$0.19***	***$0.73***	***$1.49***	***$0.16***	***$0.59***	***$2.24***
GI0055	$0.05	$0.10	$0.02	$0.27	$0.05	$1.04	$1.54	$0.38	$0.48	$2.40
GI0057	***$0.00***	***$0.02***	***$0.00***	***$0.34***	***$0.04***	***$1.20***	***$1.59***	***$0.06***	***$0.04***	***$1.68***
GI0058	$0.04	$0.11	$0.02	$1.03	$0.16	$1.30	$2.65	$0.67	$0.23	$3.55
GI0061	***$0.07***	***$0.14***	***$0.00***	***$0.51***	***$0.19***	***$1.30***	***$2.20***	***$0.08***	***$0.00***	***$2.28***
GI0064	$0.08	$0.15	$0.02	$0.34	$0.32	$0.98	$1.90	$0.32	$1.45	$3.66
GI0067	$0.01	$0.04	$0.10	$0.48	$0.14	$0.48	$1.24	$0.32	$1.55	$3.11
GI0068	$0.09	$0.21	$0.13	$1.01	$0.22	$0.00	$1.66	$0.53	$2.49	$4.67
GI0069	$0.08	$0.16	$0.07	$0.54	$0.11	$0.73	$1.69	$0.54	$0.78	$3.00
GI0070	$0.06	$0.17	$0.03	$0.36	$0.11	$0.70	$1.43	$0.53	$1.02	$2.98
GI0071	$0.07	$0.09	$0.02	$0.84	$0.17	$1.03	$2.22	$0.56	$0.60	$3.38
GI0072	$0.01	$0.05	$0.09	$1.22	$0.15	$1.28	$2.80	$0.54	$0.76	$4.11
GI0073	$0.11	$0.08	$0.08	$0.21	$0.08	$0.18	$0.73	$0.75	$1.61	$3.10
Average	$0.07	$0.12	$0.03	$0.53	$0.17	$0.90	$1.82	$0.32	$0.79	$2.93
Top 25%*	$0.06	$0.10	$0.01	$0.50	$0.13	$0.79	$1.59	$0.12	$0.41	$2.12

* 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	$19,836	$12,131	$5,104	$2,089	$1,920	$4,790	$345	$941	$29,150
Top 25%*	$18,907	$8,277			$1,236	$6,512	$287	$564	$32,866

Table D6

Capital structure – Gippsland (continued)

	Liabilities			Equity	
	Liabilities per usable hectare	Liabilities per milking cow	Liabilities per kg of MS	Equity per usable hectare	Average equity
	($/ha)	($/cow)	($/kg MS)	($/ha)	(%)
Average	$11,077	$6,624	$13.16	$18,073	63%
Top 25%*	$10,797	$4,149	$8.96	$22,069	72%

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	$7.12	$5.16	$8.25	$0.23	$0.37	$0.15	$0.24	$2.31	$3.69	$2.72	$4.35
2007-08	$6.62	$10.09	$7.58	$11.56	$0.27	$0.42	$0.13	$0.20	$2.80	$4.27	$3.30	$5.02
2008-09	$5.32	$7.79	$6.05	$8.85	$0.25	$0.37	$0.15	$0.22	$2.61	$3.81	$3.01	$4.41
2009-10	$4.38	$6.21	$5.07	$7.19	$0.22	$0.31	$0.17	$0.23	$1.95	$2.76	$2.33	$3.30
2010-11	$5.59	$7.70	$6.34	$8.72	$0.28	$0.38	$0.19	$0.26	$2.06	$2.83	$2.52	$3.47
2011-12	$5.37	$7.26	$5.89	$7.97	$0.29	$0.39	$0.18	$0.25	$2.12	$2.87	$2.59	$3.50
2012-13	$4.75	$6.25	$4.99	$6.56	$0.31	$0.41	$0.22	$0.29	$2.31	$3.04	$2.85	$3.75
2013-14	$6.62	$8.50	$7.33	$9.41	$0.31	$0.40	$0.21	$0.27	$2.67	$3.43	$3.19	$4.10
2014-15	$5.88	$7.38	$6.51	$8.17	$0.32	$0.40	$0.20	$0.25	$2.63	$3.30	$3.15	$3.95
2015-16	$5.28	$6.54	$5.79	$7.17	$0.30	$0.38	$0.20	$0.24	$2.73	$3.39	$3.24	$4.01
2016-17	$4.84	$5.88	$5.50	$6.69	$0.27	$0.33	$0.20	$0.24	$2.21	$2.69	$2.68	$3.26
2017-18	$5.74	$6.85	$6.26	$7.47	$0.31	$0.37	$0.21	$0.25	$2.69	$3.21	$3.21	$3.83
2018-19	$5.97	$7.03	$6.47	$7.62	$0.32	$0.37	$0.23	$0.27	$3.27	$3.85	$3.81	$4.49
2019-20	$6.95	$8.08	$7.59	$8.82	$0.32	$0.37	$0.23	$0.26	$2.81	$3.27	$3.36	$3.90
2020-21	$6.54	$7.49	$7.24	$8.30	$0.32	$0.37	$0.23	$0.27	$2.66	$3.04	$3.23	$3.70
2021-22	$7.15	$7.84	$8.00	$8.78	$0.39	$0.43	$0.24	$0.27	$3.34	$3.67	$3.99	$4.37
2022-23	$9.63	$10.03	$10.47	$10.90	$0.45	$0.46	$0.27	$0.28	$4.19	$4.36	$4.90	$5.11
2023-24	$9.34	$9.34	$10.02	$10.02	$0.47	$0.47	$0.27	$0.27	$3.81	$3.81	$4.55	$4.55
Average		$7.63		$8.47		$0.39		$0.25		$3.40		$4.06

Notes: 'Real' dollar values are the nominal values converted to 2023-24 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)

Year	Overhead Costs					
	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	$1.11	$1.44	$2.30	$2.13	$3.40
2007-08	$0.80	$1.21	$0.90	$1.37	$1.59	$2.43
2008-09	$0.78	$1.15	$0.93	$1.36	$1.71	$2.50
2009-10	$0.80	$1.14	$1.09	$1.55	$1.90	$2.69
2010-11	$0.93	$1.28	$0.93	$1.28	$1.86	$2.56
2011-12	$0.95	$1.29	$1.05	$1.42	$2.01	$2.71
2012-13	$1.09	$1.43	$1.19	$1.56	$2.28	$2.99
2013-14	$1.04	$1.33	$1.07	$1.37	$2.11	$2.71
2014-15	$1.05	$1.31	$0.96	$1.20	$2.00	$2.51
2015-16	$1.09	$1.35	$1.13	$1.40	$2.22	$2.75
2016-17	$1.03	$1.25	$1.07	$1.30	$2.10	$2.55
2017-18	$1.11	$1.33	$1.10	$1.31	$2.21	$2.64
2018-19	$1.14	$1.35	$1.01	$1.19	$2.15	$2.54
2019-20	$1.16	$1.35	$0.99	$1.16	$2.16	$2.51
2020-21	$1.19	$1.37	$1.04	$1.19	$2.24	$2.56
2021-22	$1.41	$1.54	$1.18	$1.30	$2.59	$2.84
2022-23	$1.65	$1.72	$1.18	$1.23	$2.83	$2.95
2023-24	$1.82	$1.82	$1.12	$1.12	$2.93	$2.93
Average		$1.35		$1.37		$2.71

Table D7

Historical data – Gippsland

Main financial indicators (continued)

Year	Profit							
	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	$0.50	$0.57	$0.91	-$0.26	-$0.41	0.8%	-2.1%
2007-08	$2.69	$4.10	$0.61	$0.93	$2.08	$3.17	9.7%	14.9%
2008-09	$1.28	$1.87	$0.51	$0.75	$0.76	$1.12	4.0%	3.4%
2009-10	$0.80	$1.13	$0.70	$0.99	$0.10	$0.14	2.6%	0.7%
2010-11	$1.96	$2.70	$0.67	$0.92	$1.29	$1.78	6.1%	9.9%
2011-12	$1.30	$1.76	$0.65	$0.88	$0.64	$0.87	4.4%	5.1%
2012-13	-$0.14	-$0.18	$0.73	$0.96	-$0.86	-$1.13	-0.2%	-6.2%
2013-14	$2.03	$2.60	$0.69	$0.88	$1.34	$1.72	6.4%	10.2%
2014-15	$1.36	$1.71	$0.68	$0.85	$0.68	$0.85	4.7%	4.6%
2015-16	$0.33	$0.41	$0.64	$0.79	-$0.30	-$0.37	1.3%	-2.3%
2016-17	$0.73	$0.88	$0.68	$0.82	$0.05	$0.06	2.3%	0.7%
2017-18	$0.84	$1.01	$0.69	$0.83	$0.15	$0.18	3.0%	1.0%
2018-19	$0.51	$0.60	$0.69	$0.82	-$0.18	-$0.22	1.7%	-2.3%
2019-20	$2.07	$2.41	$0.65	$0.75	$1.43	$1.66	6.6%	12.4%
2020-21	$1.78	$2.04	$0.52	$0.59	$1.26	$1.45	5.4%	8.0%
2021-22	$1.43	$1.57	$0.56	$0.61	$0.87	$0.96	4.2%	6.2%
2022-23	$2.73	$2.85	$0.83	$0.87	$1.90	$1.98	6.9%	12.1%
2023-24	$2.53	$2.53	$1.17	$1.17	$1.36	$1.36	6.0%	8.1%
Average		$1.69		$0.85		$0.84	4.2%	4.7%

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
2022-23	205	131	0.8	344	1.9	481	906
2023-24	212	128	0.8	339	1.8	506	877
Average	190	139	0.8	299	1.8	476	835

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	$541
2007-08	7.2	1.1	74%	$451	$687
2008-09	7.2	0.8	71%	$385	$563
2009-10	7.6	0.9	73%	$273	$387
2010-11	7.1	1.7	69%	$315	$434
2011-12	7.4	0.9	62%	$311	$421
2012-13	6.9	0.6	62%	$356	$468
2013-14	7.6	1.0	68%	$403	$518
2014-15	7.4	1.1	66%	$419	$526
2015-16	6.9	1.0	59%	$418	$518
2016-17	7.8	1.4	70%	$350	$426
2017-18	7.4	1.2	66%	$391	$467
2018-19	7.9	1.1	66%	$518	$610
2019-20	8.6	1.2	68%	$500	$582
2020-21	8.4	0.9	66%	$435	$498
2021-22	7.5	0.9	63%	$480	$527
2022-23	7.2	0.9	60%	$583	$607
2023-24	7.7	1.5	64%	$568	$568
Average	7.4	1.1	67%		$519

* 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, such as livestock trading profit, dividends, interest payments received, and rent from farm houses..

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 high reliability water shares.

Allocation trade

The transfer of a volume of allocation water between a seller and buyer. Water is traded within a current irrigation season. Previously known as trading of temporary water entitlement.

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 and leased land and buildings, plant and machinery, fixtures and fittings, trading stock, farm investments (i.e., Farm Management Deposits), debtors, and cash.

Average

The sum of all values in a category divided by the number of summed values unless an exclusion has been specified.

Cash overheads

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

Cost structure

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

Concentrates

Refers to feeds with a concentrated source of energy such as grains, pellets and other grain mixes.

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%

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.

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.

Milk income

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

Milking area

The area of land grazed by milking cows to produce milk.

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 participant farms ranked by return on total assets; can also be referred to as the top group, top performers within a region or the state.

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 changes

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 – i.e. cows are fed up to one tonne of grain and concentrate in the dairy at milking time throughout lactation and livestock graze pasture all year round.

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, livestock 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 contained and fed a TMR throughout the year.

List of abbreviations

AI	Artificial insemination
CH_4	Methane
CO_2	Carbon dioxide
CO_2-e	Carbon dioxide equivalent
CoP	Cost of production
DEECA	Department of Energy, Environment and Climate Action
DFM	Dairy Farm Monitor
DM	Dry matter of feed stuffs
EBIT	Earnings before interest and tax
FPCM	Fat and protein corrected milk
FTE	Full time equivalent
GHG	Greenhouse gas
ha	Hectare(s)
hd	Head
HRWS	High Reliability Water Shares
kg	Kilogram
LRWS	Low Reliability Water Shares.
ME	Metabolisable energy (MJ/kg DM)
MJ	Megajoules of energy
ML	Megalitres
mm	Millimetres. 1 mm is equivalent to 4 points or 1/25th of an inch of rainfall
MS	Milk solids (protein and fat)
N_2O	Nitrous oxide
% pt	Percentage points
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
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
ROE	Return on equity
ROTA	Return on total assets
t	Tonne = 1,000 kg
tDM/ha	Tonnes of dry matter per hectare

Standard values

Pasture consumption

The pasture consumption calculation assumes 11 ME for homegrown feed.

Irrigation values

The 2023-24 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	$810	$30
Zone 3 Lower Goulburn	$3,900	$800	$30
Zone 6 Vic Murray - Dartmouth to Barmah Choke	$4,500	$850	$45
Zone 6B Lower Broken Creek	$6,450	$1,600	$32
Zone 7 Vic Murray - Barmah Choke to South Australian border	$7,000	$1,800	$45
Zone 9 King and Ovens	$1,300	$250	$95
Groundwater licence (permanent)	$999		$48
Zone 41 Macalister (Gippsland)	$2,700	$250	$225

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

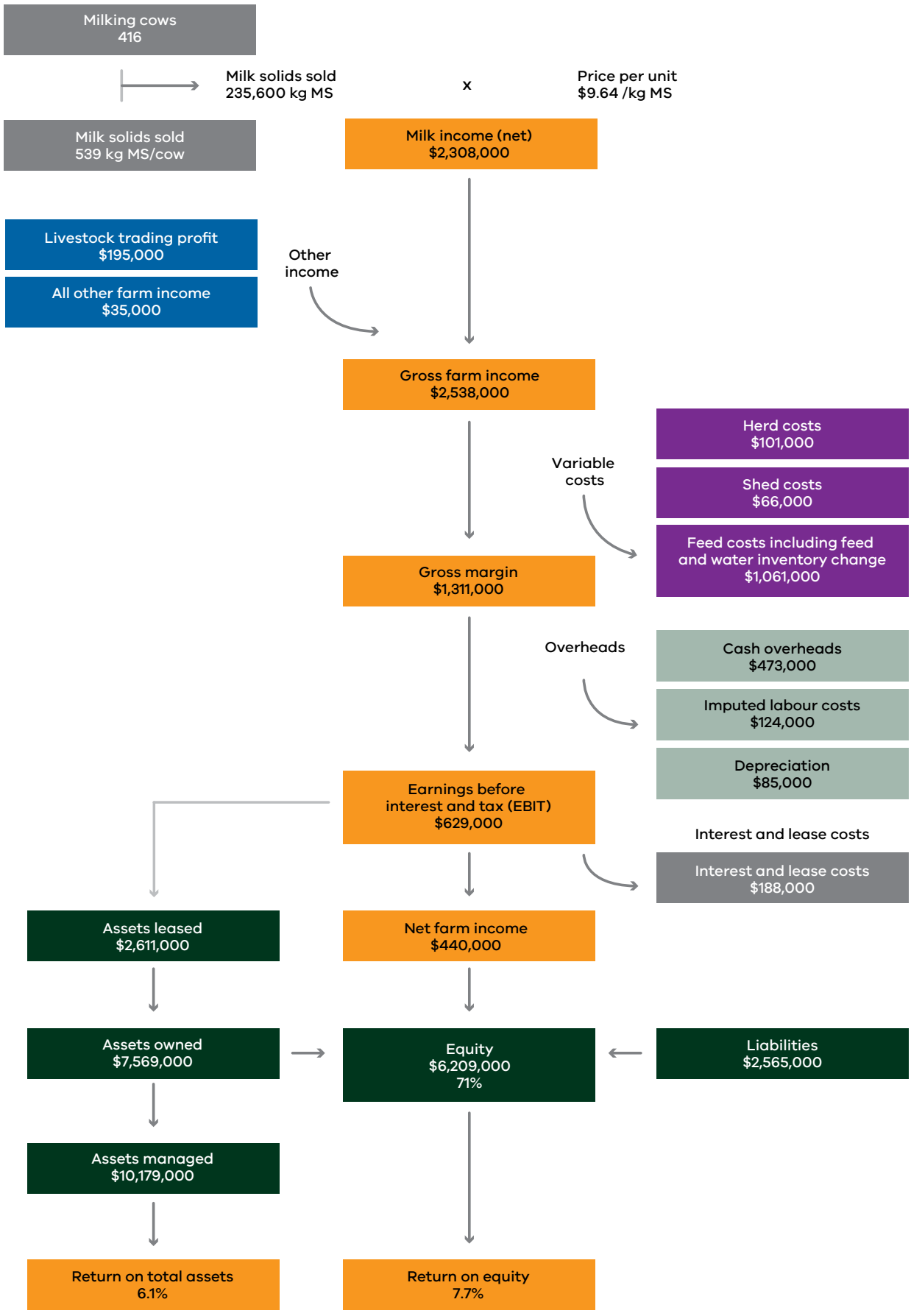
Category	Opening value ($/hd)	Closing value ($/hd)
Mature cows (550kg)	$2,200	$2,200
2-year-old heifers	$1,650	$2,200
1-year old heifers	$825	$1,650
2023-24 calves		$825
Mature bulls	$3,300	$3,300

Imputed owner/operator and family labour

In 2023-24, the imputed owner/operator and family labour rate was $36/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 2023–24

All Farms – 80



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