AGRICULTURE VICTORIA

Dairy Farm Monitor Project

Victoria | Annual report 2022-23

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 2023 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 and results should not be viewed as a representation of Victoria's entire dairy farm population.

Report

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Industry partners

The Dairy Farm Monitor Project is a collaboration between Agriculture Victoria and Dairy Australia. Now in its seventeenth 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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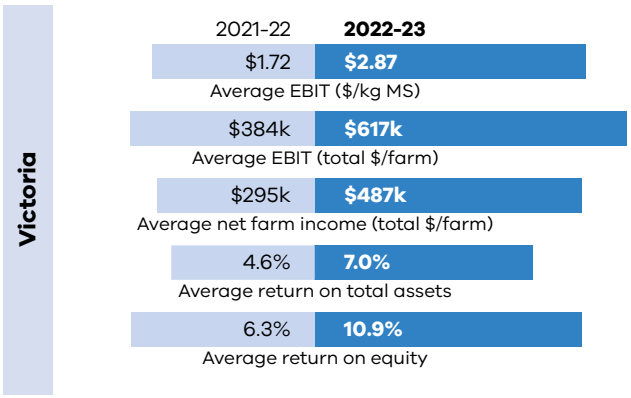
Contents

Summary

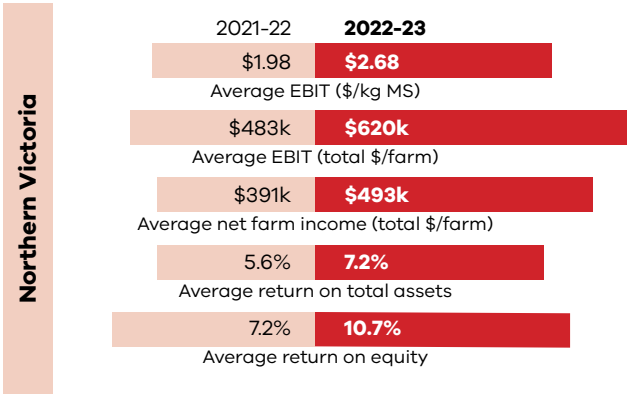
- In 2022-23 average profitability in Victoria was the second highest in 17 years of Dairy Farm Monitor.
- Average milk price increased to $9.77 per kilograms of milk solids ($/kg MS).
- Higher variable costs, mainly for quality supply of grain and fodder, impacted farm business margins in 2022-23.
- Severe flooding and wet seasonal conditions influenced supply and demand of purchased feed this season.
- Higher labour use at higher rates was the greatest contributor to the highest overhead costs in 15 years.

Victoria



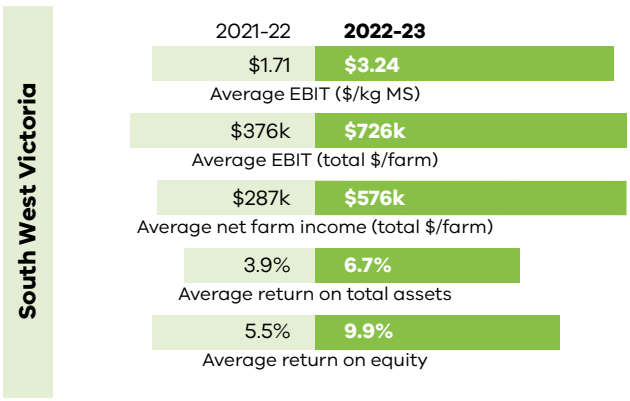
In 2022-23 all regions had seasonal challenges, most markedly in Northern Victoria with severe flooding in October. Record high milk prices resulted in high gross farm income, despite livestock prices declining. 96 per cent (%) of all participants recorded a profit. On a statewide level, the average pasture harvested was the lowest observed on the milking area since 2011-12. Many participants were challenged with sourcing high-quality fodder and grain at elevated prices, dampening the profits received by businesses. Interest and lease costs increased due to higher interest rates on increased borrowings, funding land purchases and major capital improvements.

Northern Victoria



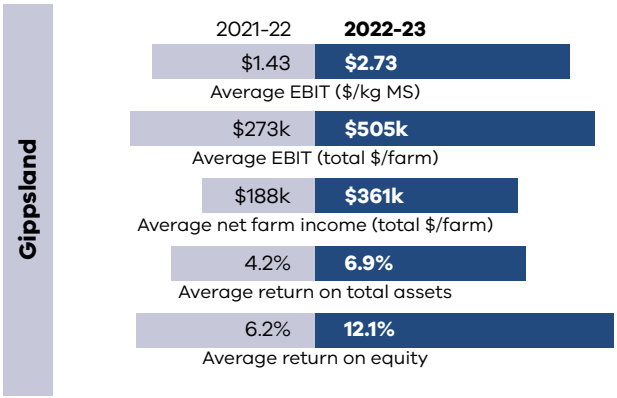
Higher income, supported by the record milk price, more than offset the increase in costs and Northern Victoria recorded its highest profits (EBIT per kilogram of milk solids) in 17 years. Total costs increased in 2022-23 and were the third highest in DFM history. The very wet spring 2022 conditions and flood impacts hampered fodder conservation and significantly increased feed costs.

South West Victoria



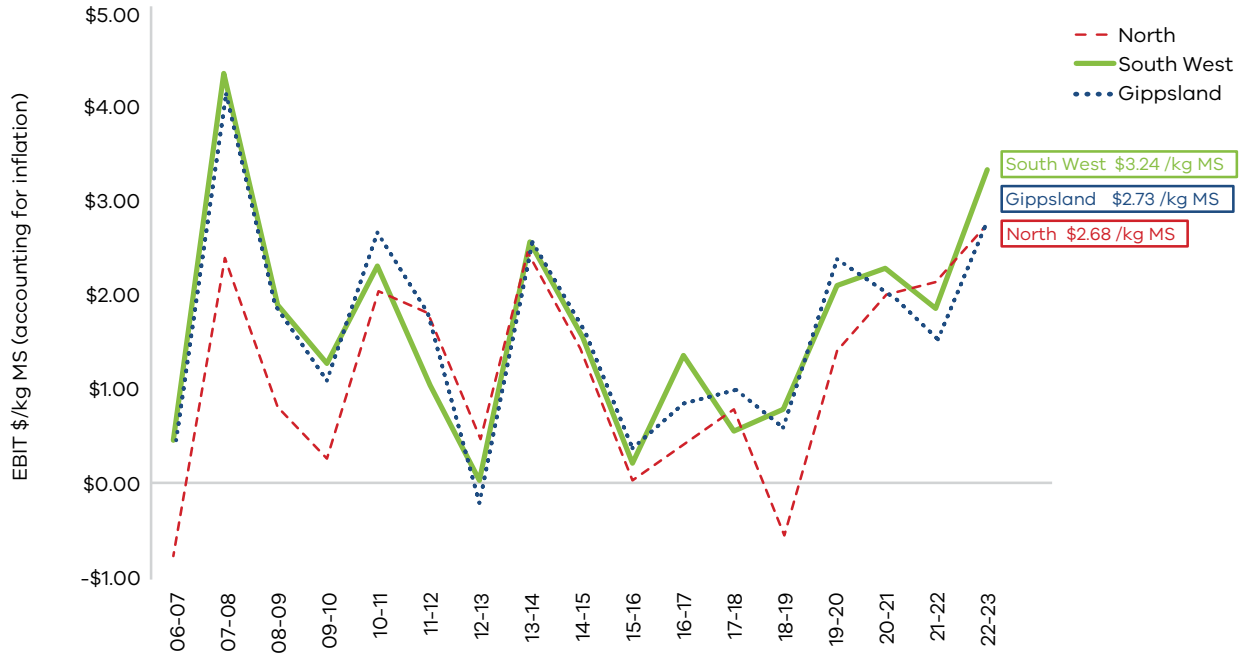
South West Victorian participants received the highest average milk price in 17 years, leading to the second highest gross farm income received. Challenging seasonal conditions were managed well, resulting in higher average homegrown feed production. Despite the higher input prices and inflationary pressures, profits were the second highest (EBIT per kilogram of milk solids) in 17 years.

Gippsland



Average EBIT was the second highest in 17 years in Gippsland, due to a substantial increase in average milk price. Climatic conditions were variable across Gippsland, resulting in a large increase in costs, particularly purchased concentrates, silage and fertiliser. The Macalister Irrigation District enjoyed good growing conditions and irrigation water availability resulting in increased profits in the region. Total variable costs and total cash overhead costs in Gippsland were the highest in 17 years.

How does 2022-23 compare?



- Average profit (per kg milk solids) for each region in 2022-23 was well above the long-term average for each respective region.
- Strong profit results per farm (average $617,000) across the state, well above the long-term average of $300,000.

Milk price

Milk price increased 33% on average in 2022-23. Milk income contributed approximately 90% of gross farm income due to the strong influence of increased milk price across all regions of Victoria.

Victoria	↑ **33% to** $9.77/kg MS
Northern Victoria	↑ **31% to** $9.84/kg MS
South West Victoria	↑ **33% to** $9.81/kg MS
Gippsland	↑ **35% to** $9.63/kg MS

Expectations for profit in 2023-24

Participants in each region had a different outlook for their business returns in the coming 12 months. Northern Victoria participants were the most optimistic with three-quarters expecting higher returns underpinned by increasing milk and fodder production and stable prices (for milk and costs). Most Gippsland participants expected stable returns while South West Victoria expected returns to decline in the coming 12 months. Input costs and seasonal conditions were the highest ranked issues in the short term, with many in the South West concerned about the dry outlook for spring 2023. Milk price was the highest ranked issue over the medium term.

Greenhouse gas emissions

The median net greenhouse gas emissions for Victorian dairy farm participants were 2,400 tonnes of carbon dioxide equivalents per farm in 2022-23. This year more specific questions were asked about the participating farm systems, and the results more accurately reflect the on-farm emissions. The median emissions intensity appeared to increase due to the more accurate capture of data in 2022-23 and change in the sample.

Part One: Victorian overview

In 2022-23, average profits across Victorian participants rose by 67% to $2.87 per kilogram of milk solids (kg MS). Prices offered for milk supply increased on average by 33% and was the highest on record (accounting for inflation). Livestock trading profits reflected the type of livestock sold and the timing of sales as market prices declined sharply in the second half of the financial year.

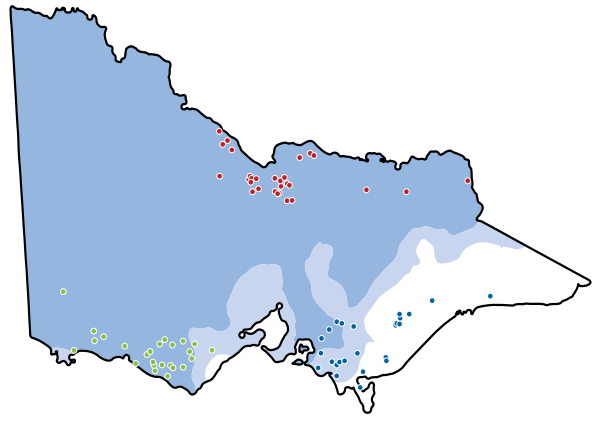
Climatic conditions varied across the state – to include significant flooding (in Northern Victoria), storms, hail damage and very wet conditions throughout the year.

Increased costs, most notably for purchased feed, were accompanied by general increases in costs across all categories. The widespread October flood event with subsequent storms in Northern Victoria put greater pressure on sourcing quality feeds at higher prices. South West Victoria and Gippsland managed wetter and drier (than typical) conditions for other portions of the year. Statewide, homegrown feed quality and quantity produced was reduced in 2022-23 compared to 2021-22.

Dairying in Victoria

There were approximately **2,773** dairy farm businesses in Victoria that produced **5.14 billion litres** or **63%** of Australia's national milk production in 2022-23.

Dairy Farm Monitor Project farm locations and rainfall in 2022-23



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 2022-23 farm profitability for the state has been influenced by:

33% ↑ in average milk price to **$9.77/kg MS**

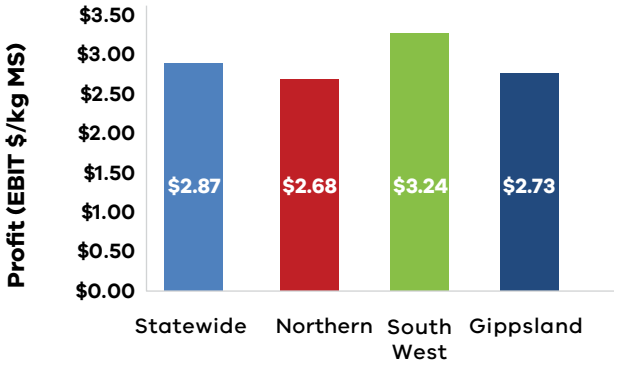
9% ↑ in herd and shed costs to **$0.69/kg MS**

25% ↑ in total feed costs to **$4.35/kg MS**

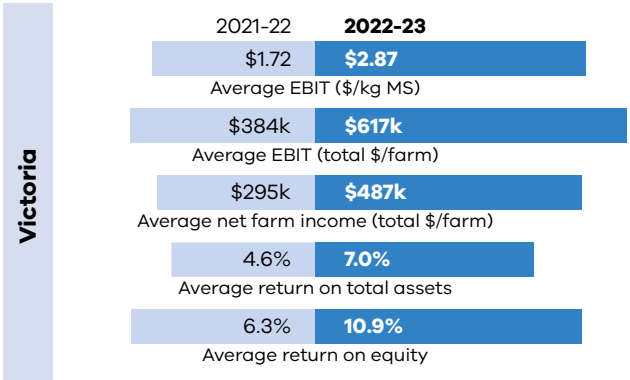
10% ↑ in overhead costs to **$2.94/kg MS.**

Profitability

Despite elevated costs across most areas of the business, the statewide average profit (earnings before interest and tax, EBIT per farm) was the second highest on record, accounting for inflation. This outcome reflects participants receiving the highest milk price recorded in 17 years.



In 2022-23, 96% of all Victorian participants had a positive profit (77 out of 80)



Future expectations 2023-24

Of the farmers who responded, **4-in-5** farmers expect business returns to improve or remain stable.

Physical parameters and seasonal conditions

- Homegrown directly grazed pasture and fodder conservation were maximised where possible, but the seasonal conditions did not allow this to occur for all participants in each region, reducing on average across the state.
- In 2022-23 Northern Victoria experienced floods in October which impacted farm infrastructure and the ability to harvest pasture and crops, and conserve fodder. In South West Victoria and Gippsland, conditions were very wet from August to November – which was followed by below average rainfall in the summer period.
- Irrigated farms in Gippsland and Northern Victoria that were less affected by flooding were able to maintain milk production and incurred lower feed cost impacts, which was reflected in their farm profitability.
- Access to quality fodder was challenging and participants paid more for purchased quality feedstuffs. Prices paid for concentrates were also higher for participants in 2022-23.

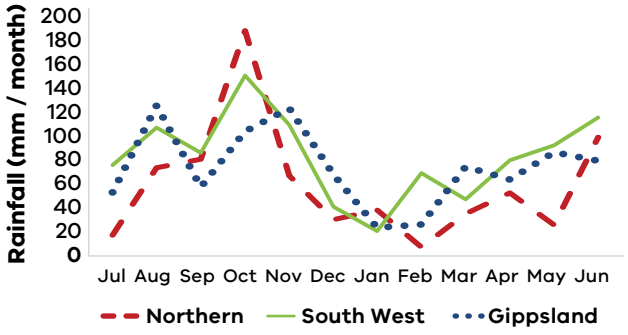
Victorian pasture-based dairy production

Dairying in Victoria is predominately pasture-based, with 44% of the average metabolisable energy in the cow diet sourced from pasture. Homegrown feed production is important for Victorian dairying as 59% is consumed from homegrown sources (pasture, fodder and concentrates), on average. Spring and autumn rainfall is important, as is adequate irrigation water availability in the irrigation districts of Northern Victoria and Gippsland.

Rainfall

Monthly variation to seasonal conditions has influenced physical and financial performance in each of the regions (Figure 1). The conditions leading up to and during a particular month influenced feed availability and conditions to harvest pastures and crops.

FIGURE 1. MONTHLY RAINFALL 2022-23



In the 3 months to November Northern Victoria had more than twice its typical rainfall, together with widespread flooding in October. Storm and hail events following the floods further impacted the ability for grazing and conserving high quality pasture, fodder and grain.

In the dryland southern regions, for the second successive year, South West Victoria and Gippsland experienced very wet conditions through winter and spring 2022. It was then very dry in January, continuing into a very dry and hot February in Gippsland.

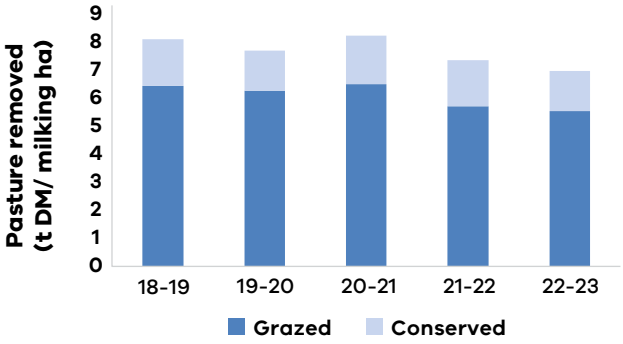
Water use efficiency (rainfall and irrigation) in 2022-23 was lower at 0.65 t DM/100mm/ha, relative to 0.77 t DM/100 mm/ha in 2021-22. The timing and volume of rainfall events limited the ability to directly graze pastures for portions of the year.

Feed consumption and harvest

Seasonal conditions impacted the ability to grow, graze and harvest feed. The total amount of homegrown feed reduced by 0.9 t DM/ha on average across the state (Figure 2). On a statewide level, pasture harvested was the lowest observed in the last 5 years at 7.0 t DM/ha (5.5 t DM/ha grazed and 1.4 t DM/ha conserved on the milking area). The amount of directly grazed pasture on the milking area was the lowest since 2011-12.

Many farms purchased additional concentrates and fodder (at relatively higher prices) to maintain milk production. Regional differences to this general observation are discussed in the regional sections.

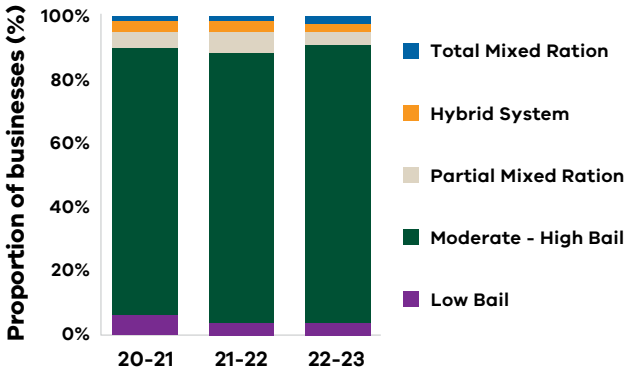
FIGURE 2. ESTIMATED TONNES OF HOMEGROWN FEED REMOVED



Feeding system

In 2022-23 the majority of feeding systems were moderate to high bail feeding (Figure 3). Some partial mixed ration farms have intensified further to become total mixed ration or reduced reliance on the feedpad to operate as a moderate to high bail feeding systems. There are 3 participants across the state utilising low bail feeding system.

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.

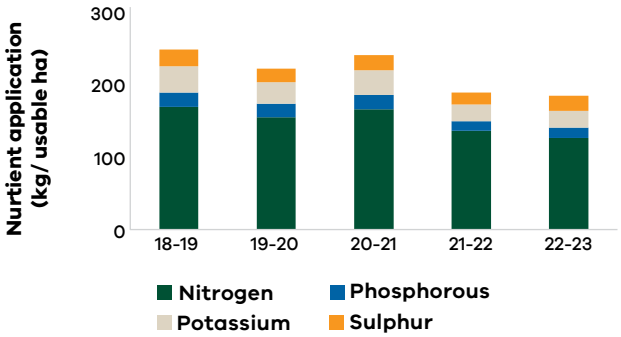
Fertiliser application

Total nutrient application on the milking area decreased slightly in 2022-23, however the reduction was seen in nitrogen and potassium products. The cost of fertiliser application was still limiting fertiliser use, but floods and wet conditions had a greater impact on the ability to apply fertiliser in comparison to historical use levels.

Figure 4 shows that in 2022-23

- Nitrogen applied was 127 kg/ha, a 7% reduction
- Phosphorous applied was 16 kg/ha, a 15% increase
- Potassium applied was 23 kg/ha, a 10% decrease
- Sulphur applied was 21 kg/ha, a 26% increase.

FIGURE 4. NUTRIENT APPLICATION

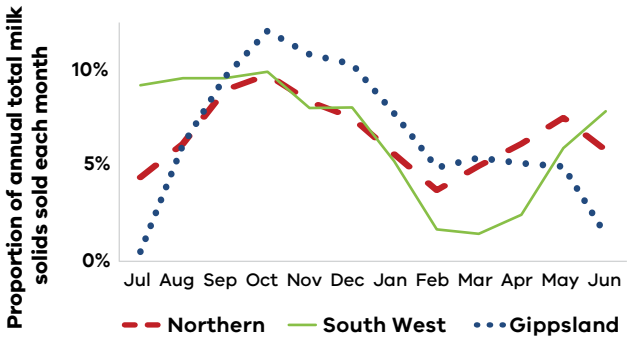


Milk solids sold

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 and per hectare remained stable or reduced slightly due to the wet conditions and inability to provide consistent high-quality diet. A marked dip in milk supply was observed in February due to the dry conditions and seasonal calving.

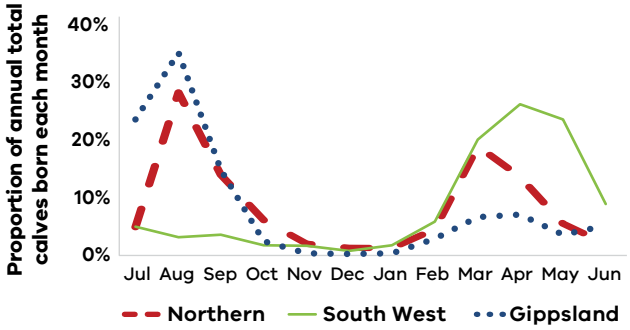
FIGURE 5. MONTHLY DISTRIBUTION OF MILK SOLD



Calving pattern

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

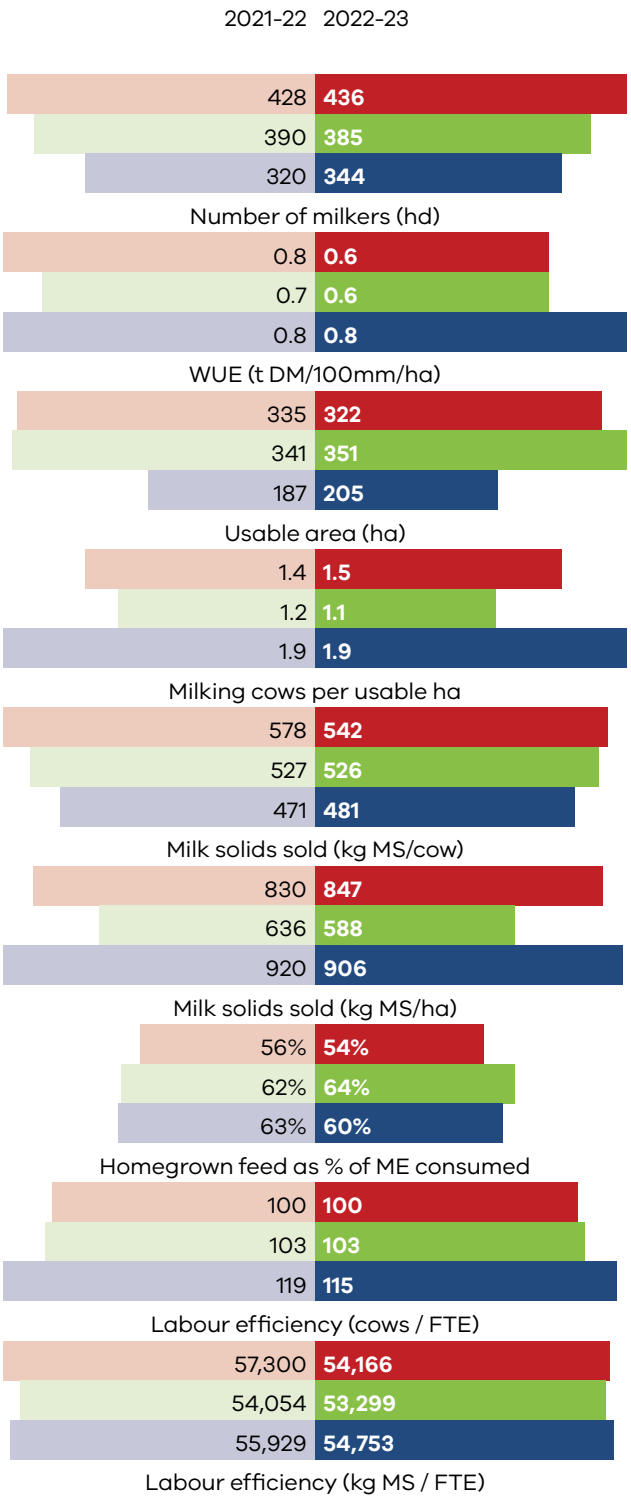
FIGURE 6. MONTHLY DISTRIBUTION OF CALVING



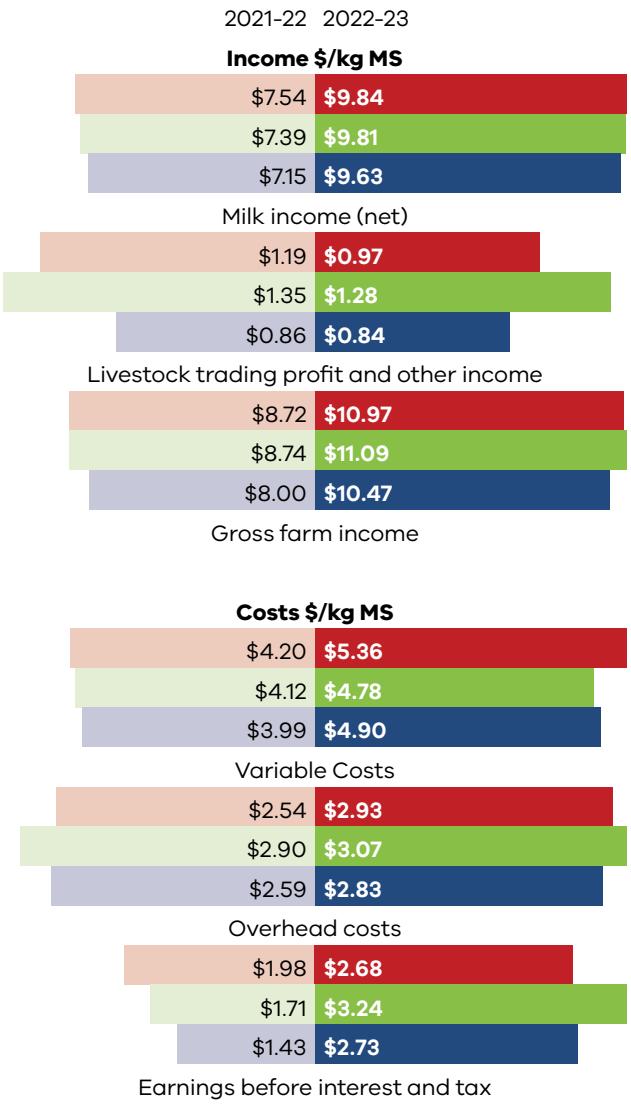
Whole farm analysis

- In 2022-23 farm profitability was the second highest in 17 years. Earnings before Interest and Tax (EBIT) was positive on 77 out of the 80 participating farms (96%).
- Milk price increased by 33% and was the highest on record in 17 years at $9.77/kg MS on average. There was a six% reduction in livestock trading profit.
- Variable costs rose by 23% to $5.04/kg MS, with purchased feed and fodder being the major contributor, increasing by $0.59/kg MS.
- Overhead costs rose by 10% to $2.94/kg MS, with employed labour costs increasing by $0.18/kg MS.

Physical parameters



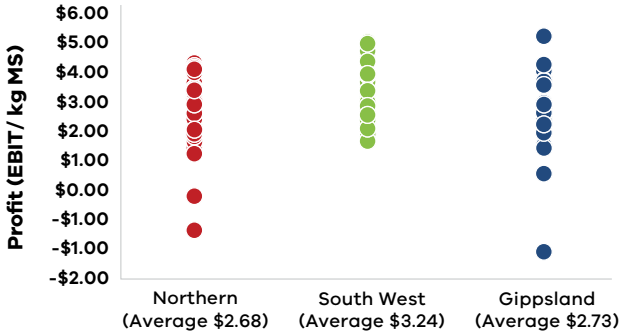
Financial parameters



Earnings before interest and tax

In 2022-23 the increase in average farm profitability (measured by earnings before interest and tax, EBIT) was predominantly influenced by a high milk price. Flooding in Northern Victoria impacted on feed quality, availability, and pricing. In South West Victoria and Gippsland winter and spring conditions also impacted feed quality leading to increased feed costs that had the greatest influence on profitability (Figure 7).

FIGURE 7. DISTRIBUTION OF FARMS BY EBIT



Return on total assets

In 2022-23 profitability as measured by return on total assets (ROTA) was recorded for 77 of the 80 participants (96%). Average ROTA increased to 7.0% (Figure 8) mainly due to improved gross farm income. Participants took advantage of the improved milk price to maximise milk production when the seasonal conditions allowed, but at an increased cost of producing that milk.

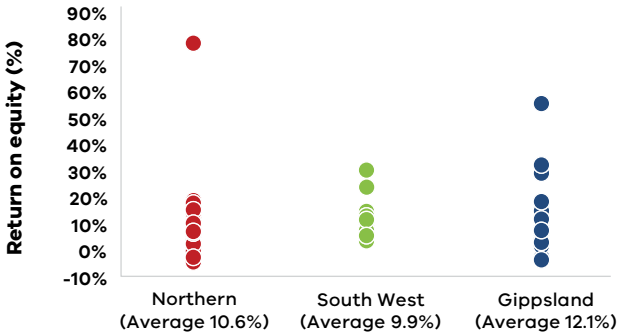
FIGURE 8. DISTRIBUTION OF FARMS BY ROTA

Return on equity

Strong return on equity (ROE) performance was observed across all 3 regions (Figure 9), with 74 of the 80 participants achieving a positive ROE (93%). Average ROE increased to 10.9% in 2022-23, from the 6.3% high in 2021-22.

On average, dairy businesses had a lower equity level (72%) in 2022-23, compared to 75% equity in 2021-22.

FIGURE 9. DISTRIBUTION OF FARMS BY ROE



Part Two: Northern Victoria

Northern Victoria - performance

Dairying in Northern Victoria

Approximately **805** dairy farm businesses in Northern Victoria produced **1.48 billion litres** of milk in 2022-23, accounting for **29%** of Victoria's milk production output and **18%** 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 slightly, while there was a 6% decrease in milk production per cow. Greater quantities of purchased concentrates were fed with lower quantities of homegrown feed.

2% ↑	6% ↓	4% ↓
Average herd size 436 cows	**Milk solids sold** 542 kg MS/cow	**Homegrown feed** 54% of metabolisable energy consumed

In 2022-23, 28 out of 30 participants recorded a positive return on total assets

Northern Victoria

	2021-22	2022-23
Average EBIT ($/kg MS)	$1.98	**$2.68**
Average EBIT (total $/farm)	$483k	**$620k**
Average net farm income (total $/farm)	$391k	**$493k**
Average return on total assets	5.6%	**7.2%**
Average return on equity	7.2%	**10.7%**

Future expectations 2023-24

Nine-in-ten are optimistic their business returns will improve and 10% expect business returns to remain stable.

Farm profitability was influenced by:

31% ↑ in average milk price to **$9.84/kg MS**

6% ↑ in herd and shed costs to **$0.66/kg MS**

31% ↑ in total feed costs to **$4.70/kg MS**

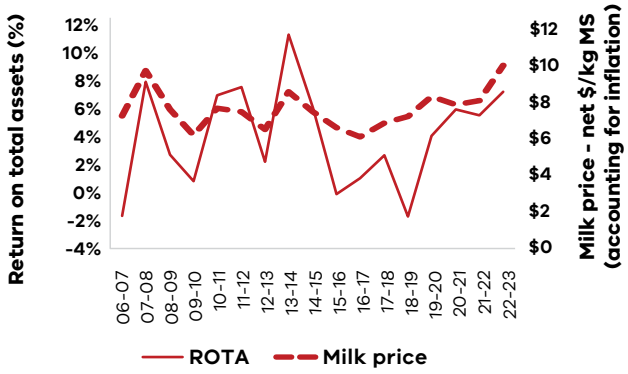
15% ↑ in overhead costs to **$2.93/kg MS.**

9% decrease in homegrown feed (pasture grazed plus conserved) due to wet conditions and flood impacts

0.3 t DM/cow decrease in average supplements fed (total 5.4 t DM/cow)

3rd highest total costs (variable and overhead) in 17 years of DFM

Return on total assets and milk price



Concerns as reported by farm businesses

Climate	Input Costs	Pasture/fodder
20%	18%	17%

Whole farm analysis

- Northern Victoria recorded its highest profits in the 17 years. Total costs increased by $1.55 kg/MS in 2022-23 and were the third highest in DFM history (kg MS, accounting for inflation). Higher income, supported by the record milk price, more than offset the increase in costs.
- Very wet spring 2022 conditions and flood impacts hampered fodder conservation and increased feed costs.
- The vast majority of participating farms are feeling optimistic about the 2023-24 season.

Physical parameters

2021-22	2022-23	
Rainfall, area and cows		
536	**715**	Annual rainfall (mm)
428	**436**	Herd size
0.8	**0.6**	WUE (t DM/100mm/ha)
335	**322**	Usable area (ha)
1.4	**1.5**	Milking cows per usable ha
Milk production		
578	**542**	Milk solids sold (kg MS/cow)
830	**847**	Milk solids sold (kg MS/ha)
56%	**54%**	Homegrown feed as % of ME consumed
Pasture production		
7.5	**6.8**	Homegrown feed removed (t DM/ milking ha)
Labour use and efficiency		
4.3	**4.5**	Total FTE
100	**100**	Labour efficiency (cows / FTE)
57,300	**54,166**	Labour efficiency (kg MS / FTE)

Financial parameters

2021-22	2022-23	
Income $/kg MS		
$7.54	**$9.84**	Milk income (net)
$1.07	**$0.97**	Livestock trading profit
$0.12	**$0.16**	Other farm income
$8.72	**$10.97**	Gross farm income
Variable costs $/kg MS		
$0.62	**$0.66**	Herd and shed
$1.46	**$1.61**	Home grown feed
$2.27	**$3.06**	Purchased feed and agistment
-$0.14	**$0.03**	Feed and water inventory change
$4.20	**$5.36**	Total variable costs
Overhead costs $/kg MS		
$0.70	**$0.91**	Employed labour
$0.45	**$0.47**	Repairs and maintenance
$0.31	**$0.36**	All other overheads
$0.77	**$0.81**	Imputed labour
$0.32	**$0.38**	Depreciation
$2.54	**$2.93**	Total overhead costs
Profit $/kg MS		
$1.98	**$2.68**	Earnings before interest and tax

Gross farm income

Gross farm income increased by 26% to $10.97/kg MS, the second highest for Northern Victoria in the 17-year history of DFM (accounting for inflation). The record-high milk price in 2022-23 underpinned the high incomes.

Variable costs

Homegrown and purchased feed costs for Northern Victorian farms represent a higher proportion of total costs than other regions. The wet spring and floods in October had a major impact in the north of the state as they occurred at the key time for harvest and fodder conservation.

Total feed costs increased by $1.11/kg MS to $4.70/kg MS, the highest feed cost recorded for a non-drought year (accounting for inflation). The average price paid for concentrates was the equal third highest in 17 years (accounting for inflation). The combined impact of higher concentrate and fodder costs accounted for around 70% of the increase in feed costs. Fertiliser use on the support area declined, while increasing on the milking area. Overall, there was a 22% increase in fertiliser costs to $0.45/kg MS.

Higher feed costs drove the increase in total variable costs. Herd costs were stable, while shed costs increased due to increased power use and costs. Herd and shed costs accounted for a $0.04/kg MS increase in variable costs.

The annual median price for allocation water in 2022-23 was lower than in 2021-22. Total irrigation costs (water charges and direct purchases of temporary water) per farm decreased by 2% in 2022-23.

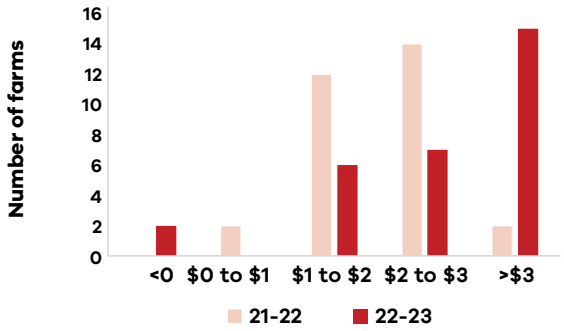
Overhead costs

Overhead costs increased by 15% on average for Northern Victorian participants in 2022-23. Increased labour costs accounted for two-thirds of the increase in overheads. Spending on repairs and maintenance was relatively stable, while the higher average value of assets on hand led to an increase in the non-cash cost of depreciation.

Earnings before interest and tax

In 2022-23 all Northern Victorian participants, except 2, had positive earnings before interest and tax (EBIT) (Figure 10). Average EBIT per farm and per kilogram of milk solids was the highest in the 17 years of the DFM, accounting for inflation.

FIGURE 10. AVERAGE EBIT PER KG MS – NORTHERN VICTORIA



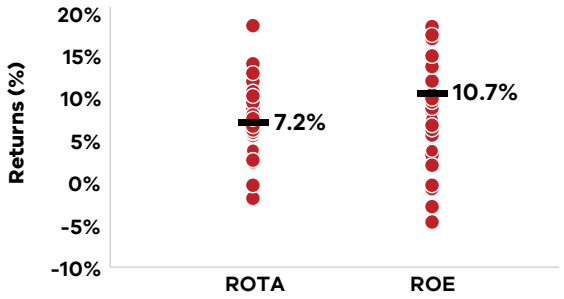
Return on total assets and equity

Returns were strong in 2022-23. Average return on total assets (ROTA) increased to 7.2% from 5.6% in 2021-22. A record profit performance and a modest increase in asset values resulted in average ROTA at its highest level since 2013-14. Aided by strong cash flows, many (22 of the 30 farms) made capital purchases for land, buildings, irrigation or milking equipment.

Equity levels (average equity, percentage) improved for some farms in 2022-23 (19 out of the 30) Average return on equity (ROE) was 10.7% in 2022-23 compared to 7.2% last year.

The cost of financing was lower than the returns from accessing the additional assets (e.g., land), and 24 of the 30 participants recorded higher ROE than ROTA (Figure 11). Note that one farm had a ROE well above 20% and has not been mapped. These farmers have been able to grow their business.

FIGURE 11. 2022-23 AVERAGE RETURNS – NORTHERN VICTORIA



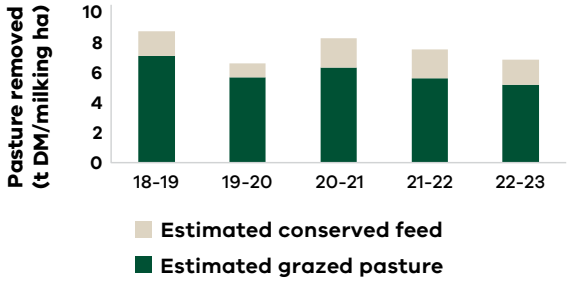
Feed consumption and fertiliser

Feed consumption and pasture harvested

Homegrown feed (direct grazing and conserved feed) decreased by 9% in 2022-23 (Figure 12). Direct grazing on the milking area reduced by around 0.4 t DM/ha and conserved feed reduced by around 0.2 t DM/ha, compared to the previous year. Directly grazed pasture quantities were the lowest since 2009-10.

Seasonal impacts resulted in a significant increase in purchased concentrates. As a proportion of the diet, homegrown feed (grazed and conserved pasture) accounted for 54% of the metabolisable energy consumed, lower than last year's average of 56%.

FIGURE 12. AVERAGE HOMEGROWN FEED REMOVED – NORTHERN VICTORIA

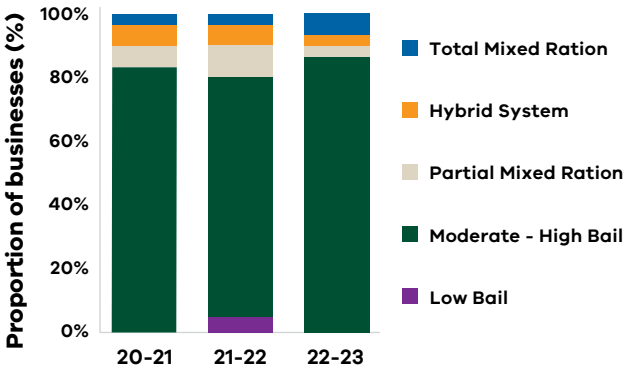


Feeding system

Twenty-six of the participating farms in 2022-23 employed a moderate to high bail feeding system, while the 4 remaining farms comprised of total mixed ration, hybrid, partial mixed ration feeding systems (Figure 13).

Annual pasture constituted 71% of the feedbase on average, with the remaining made up of perennial pastures. There was a range of between 5% to 100% for annual pasture across farms.

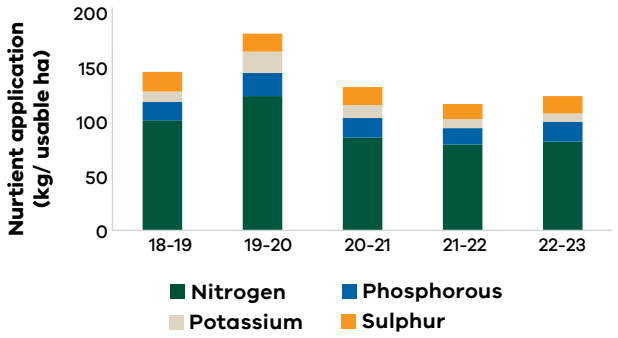
FIGURE 13. FEEDING SYSTEM TYPES – NORTHERN VICTORIA



Fertiliser

The amount of fertiliser applied on the milking area (Figure 14) was higher than last year, though still below the 5-year average. This reflects the farmers assessment on the returns from fertiliser applications.

FIGURE 14. AVERAGE NUTRIENT APPLICATION – NORTHERN VICTORIA



Part Three: South West Victoria

South West Victoria - performance

Dairying in South West Victoria

Approximately **941** dairy farm businesses in South West Victoria produced **1.85 billion litres** of milk in 2022-23, accounting for **36%** of Victorian milk production output and **23%** of Australia's milk production.

Physical farm characteristics

Greater pasture availability due to good seasonal grazing conditions lifted the amount of homegrown feed in the diet and reduced the requirement for supplements. Milk production and cows milked remained comparable on average.

1% ↓	Stable	2% ↑
Average herd size 385 cows	**Milk solids sold** 526 kg MS/cow	**Homegrown feed** 64% of metabolisable energy consumed

In 2022-23, all participants (25 of the 25) recorded a positive return on total assets

South West Victoria

	2021-22	**2022-23**
Average EBIT ($/kg MS)	$1.71	**$3.24**
Average EBIT (total $/farm)	$376k	**$726k**
Average net farm income (total $/farm)	$287k	**$576k**
Average return on total assets	3.9%	**6.7%**
Average return on equity	5.5%	**9.9%**

Future expectations 2023-24

Four-in-five farmers expect business returns to decline or stabilise

In 2022-23 farm profitability has been influenced by:

33% ↑ in average milk price to **$9.81/kg MS**

9% ↑ in herd and shed costs to **$0.70/kg MS**

17% ↑ in total feed costs to **$4.08/kg MS**

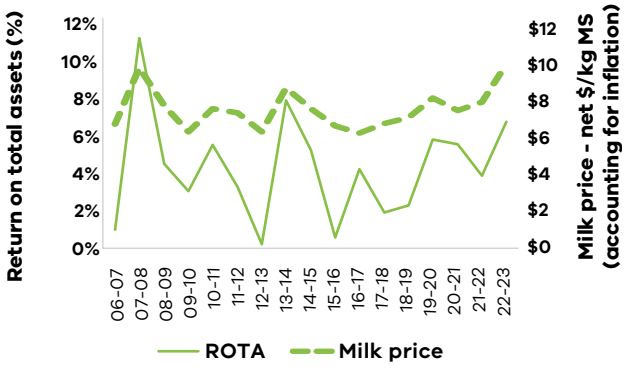
6% ↑ in overhead costs to **$3.07/kg MS.**

124% of long-term average rainfall saw wet conditions and reduced conserved feed

0.3 t DM/cow decrease in average supplements fed (total 3.7 t DM/cow)

Highest total costs (variable and overhead) in 17 years of DFM.

Return on total assets and milk price



Concerns as reported by farm businesses:

Input costs 19%	Climate 18%	Pasture/fodder 17%

Whole farm analysis

- A high-income year for South West Victoria was supported by the highest milk price recorded in the 17 years of DFM. Livestock trading income reduced slightly .
- Total costs were also the highest in 17 years which were covered by the higher (average) income in 2022-23
- Very wet conditions for many months (especially spring 2022 and winter 2023) hampered fodder conservation and increased costs.
- Managing tricky wet conditions left many farms feeling tired by the end of the year and their sentiments dampened the exuberance of the strong financial performance.

Physical parameters

2021-22	2022-23	
Rainfall, area and cows		
783	**994**	Annual rainfall (mm)
390	**385**	Herd size
0.7	**0.6**	WUE (t DM/100mm/ha)
341	**351**	Usable area (ha)
1.2	**1.1**	Milking cows per usable ha
Milk production		
527	**526**	Milk solids sold (kg MS/cow)
636	**588**	Milk solids sold (kg MS/ha)
62%	**64%**	Homegrown feed as % of ME consumed
Pasture production		
6.0	**6.3**	Homegrown feed removed (t DM/ milking ha)
Labour use and efficiency		
3.9	**3.9**	Total FTE
103	**103**	Labour efficiency (cows / FTE)
54,054	**53,299**	Labour efficiency (kg MS / FTE)

Financial parameters

2021-22	2022-23	
Income $/kg MS		
$7.39	**$9.81**	Milk income (net)
$1.27	**$1.20**	Livestock trading profit
$0.08	**$0.08**	Other farm income
$8.74	**$11.09**	Gross farm income
Variable costs $/kg MS		
$0.65	**$0.70**	Herd and shed
$1.23	**$1.51**	Home grown feed
$2.25	**$2.55**	Purchased feed and agistment
-$0.01	**$0.03**	Feed and water inventory change
$4.12	**$4.78**	Total variable costs
Overhead costs $/kg MS		
$0.71	**$0.82**	Employed labour
$0.59	**$0.59**	Repairs and maintenance
$0.38	**$0.38**	All other overheads
$0.86	**$0.88**	Imputed labour
$0.38	**$0.40**	Depreciation
$2.90	**$3.07**	Total overhead costs
Profit $/kg MS		
$1.71	**$3.24**	Earnings before interest and tax

Gross farm income

Incomes on South West Victorian participant farms were the highest in 15 years ($/kg MS), accounting for inflation. The record-high milk price in 2022-23 (highest in 17-year history of DFM) underpinned the high incomes. A bearish cattle market reduced livestock trading profit relative to 2021-22. Some farms benefited from good prices for export heifer sales earlier in the financial year.

Variable costs

Almost all variable cost categories increased in 2022-23 as farmers managed wet conditions and inflationary pressures (a $0.66/kg MS increase from 2021-22).

Higher purchased feed costs were the greatest contributor to the higher variable costs. The cost of concentrates increased as farmers paid a higher unit price but kept feeding levels the same. Farmers relied less on purchased hay and silage, as there were improved seasonal conditions for pasture grazing, and silage was also cheaper per unit.

The amount of fertiliser applied remained relatively similar between years but was more expensive (per unit and application costs) therefore total expenditure increased. Irrigation costs decreased as irrigators used less or zero water.

The very wet spring 2022 conditions hampered fodder conservation. Bogging of harvesting and baling equipment was a common occurrence for many in the wet conditions. Most farms conserved less feed than the previous year (14 of the same 24 participating farms). By the end of the financial year, farmers had lower feed inventories on average.

Overhead costs

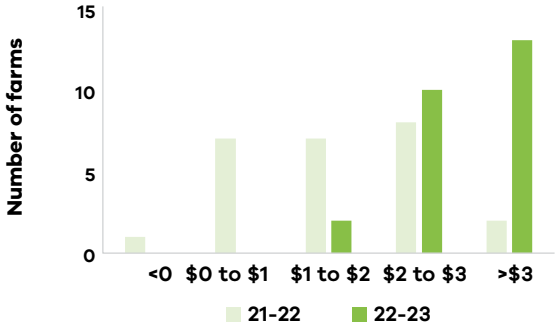
In 2022-23 the South West experienced historically high cash overhead costs and total overhead costs. On average, higher employed labour costs were offset by reduction in other overhead costs categories. This kept overhead costs to increase only 6% to $3.07/kg MS. Employed labour contributed an $0.11/kg MS increase in overhead costs as farmers paid higher hourly rates on average. The amount of labour used remained steady as did labour productivity. The difficult wet conditions throughout the year left many farmers feeling tired from constantly adapting their management to the conditions. This sentiment was captured in the South West DFM participants outlook for the next 12 months (see Business Confidence) and dampened the exuberance of a high cash flow year.

Earnings before interest and tax

The higher incomes covered the rise in variable and overhead costs in 2022-23. The same 24 participating farms recorded higher profits than they did the previous year (Figure 15).

Average EBIT ($/kg MS) rose to the highest level since 2007-08 and ranks second in the 17-year history of the DFM, accounting for inflation.

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



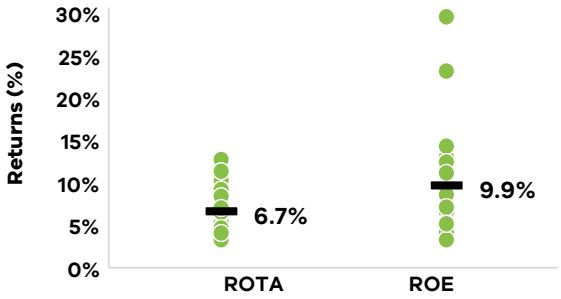
Return on total assets and equity

Returns were strong in 2022-23. An improved profit performance and a modest increase in asset values saw average ROTA rise to a level not seen since 2013-14. Higher asset values over the year were common among participants with all but 3 increasing their total assets under management. Aided by strong cash flows, many (20 of the 25 farms) made capital purchases for land, buildings, irrigation or milking equipment.

Equity levels improved on nearly all farms (23 of the 25 farms) during the last 12 months (total $). This was due to the strong profit performance and repayment of debt.

The cost of financing was lower than the returns from accessing the additional assets (e.g., land), and 23 of the 25 participants recorded higher ROE than ROTA (Figure 16). These farmers have been able to grow their business.

FIGURE 16. 2022-23 AVERAGE RETURNS – SOUTH WEST VICTORIA



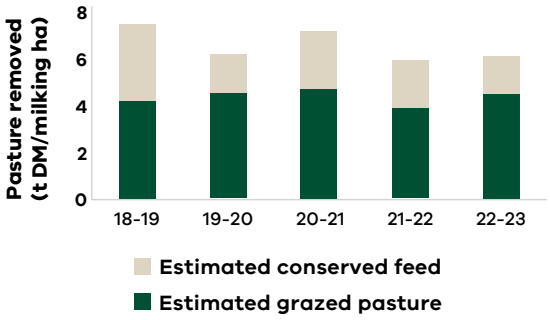
Feed consumption and fertiliser

Feed consumption and pasture harvested

The 2022-23 year was bookended by challenging wet conditions with one of the better autumns remembered in recent times in between. High spring 2022 rainfall delayed or prevented fodder harvest which saw average conserved feed decrease by 0.3 t DM/milking ha (Figure 17).

An additional 0.6 t DM/milking ha of grazed feed was removed decreasing the use of supplements. This helped increase the amount of homegrown feed in the diet. As a proportion of the diet, homegrown feed (grazed and conserved pasture) accounted for 64% of the metabolisable energy consumed, compared to 62% in the previous year.

FIGURE 17. AVERAGE HOMEGROWN FEED REMOVED – SOUTH WEST VICTORIA



Depending on the farm location, timing of rainfall and the number of extra cows the farm was carrying, the wet conditions were felt differently. For example, 9 of the 18 farms that had lower homegrown feed production also had lower milk production (total and per cow production). The wet paddocks sometimes meant less fertiliser was applied than intended and regular summer crops were not sown as equipment couldn't get on the paddocks.

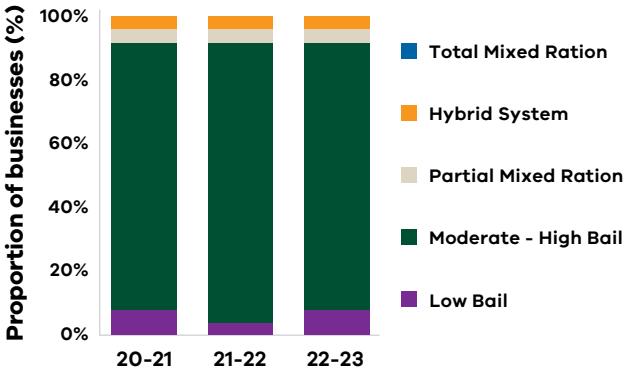
Whereas other farms increased their total milk production (14 of the same 24 participating farms). Some of these farms carried additional cows, adjusted their grain feeding with the attraction of a higher milk price than the previous year and caught up some of their lost milk production when conditions improved in autumn 2023.

Feeding system

Moderate to high bail was the dominant feeding system (21 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 comprise approximately 91% of pastures on average, with the remaining made up of annual pastures.

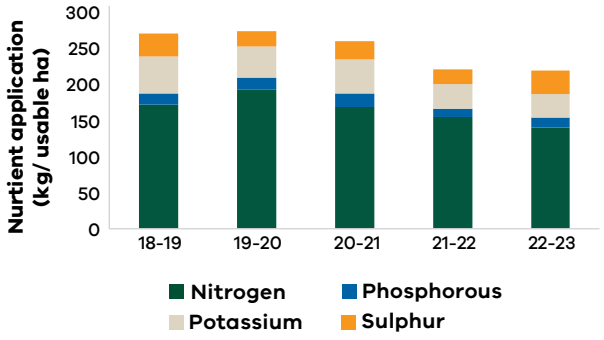
FIGURE 18. FEEDING SYSTEM TYPES – SOUTH WEST VICTORIA



Fertiliser

The total amount of macronutrients applied per hectare in 2022-23 remained similar to the previous year (Figure 19). Wet conditions hampered the ability for some farms to apply fertiliser while others increased their fertiliser use (10 of the same 24 farms). The nitrogen application in the South West was the lowest in 5 years at 140kg/ha.

FIGURE 19. AVERAGE NUTRIENT APPLICATION – SOUTH WEST VICTORIA



Part Four: Gippsland

Gippsland - performance

Dairying in Gippsland

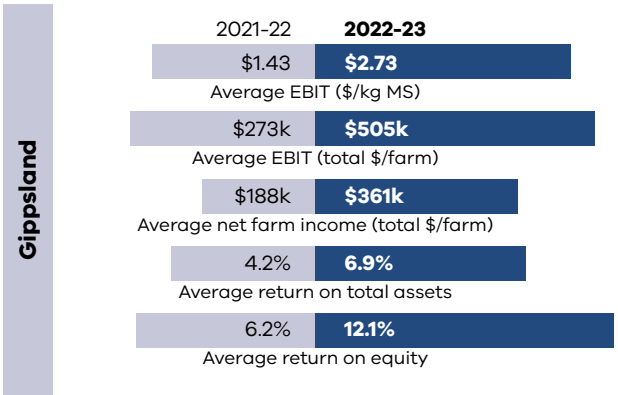
Approximately **1,027 dairy** farm businesses in Gippsland produced **1.82 billion litres** of milk in 2022-23 accounting for **35%** of Victoria's milk production output and **22%** of Australia's milk production.

Physical farm characteristics

South and west Gippsland had an increase in average herd size and milk production per cow. The Macalister Irrigation District (MID) observed an increase in milking herd size but decreased milk production per cow and per hectare. This was matched with a decline in the quantity of directly grazed pasture, with a minor increase in conserved feed in the MID, although there was good irrigation water availability. Labour efficiency dropped across farms in the region.

7% ↑	2% ↑	4% ↓
Average herd size	**Milk solids sold**	**Homegrown feed**
344 cows	481 kg MS/cow	60% of metabolisable energy consumed

In 2022-23, 24 of the 25 Gippsland participants (96%) had a positive return on total assets



Future expectations 2023-24

Three quarters of farmers expect business returns to stabilise

In 2022-23 farm profitability has been influenced by:

35% ↑ in average milk price to **$9.63/kg MS**

11% ↑ in herd and shed costs to **$0.71/kg MS**

25% ↑ in total feed costs to **$4.19/kg MS**

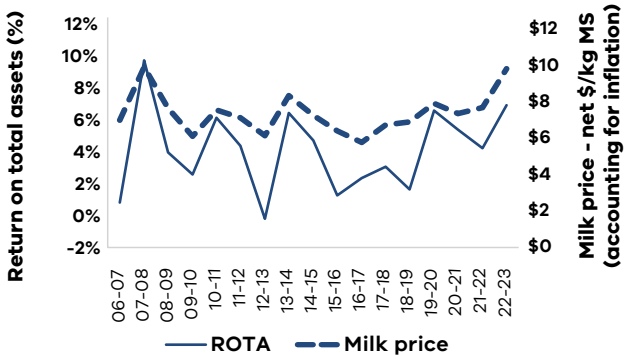
9% ↑ in overhead costs to **$2.83/kg MS.**

4% decrease in homegrown feed (pasture plus conserved) due to wet conditions

0.2 t DM/cow increase in average supplements fed (increased to 3.0 t DM/cow) at higher unit prices

Highest total ($/kg MS) costs (variable and overhead) in 17 years. Largest contributors were elevated grain and fodder prices.

Return on total assets and milk price



Concerns as reported by farm businesses:

Labour	Input Cost	Climate/ seasonal conditions	Pasture/ fodder
18%	18%	16%	16%

Whole farm performance

- In 2022-23 average gross farm income was the second highest in 17 years for Gippsland participants increasing 35% from the previous year.
- Highest total costs in 17 years in 2022-23 still resulted in a healthy increase to profits.
- Increased use of supplements (16% increase) at higher per unit price (concentrates, silage and hay) to manage challenging seasonal conditions and lower homegrown feed production.
- Strong returns allowed for investment in land and capital purchases.

Physical parameters

	2021-22	2022-23
Rainfall, area and cows		
Annual rainfall (mm)	937	**884**
Herd size	320	**344**
WUE (t DM/100mm/ha)	0.8	**0.8**
Usable area (ha)	187	**205**
Milking cows per usable ha	1.9	**1.9**
Milk production		
Milk solids sold (kg MS/cow)	471	**481**
Milk solids sold (kg MS/ha)	920	**906**
Homegrown feed as % of ME consumed	63%	**60%**
Pasture production		
Homegrown feed removed (t DM/ milking ha)	8.4	**8.0**
Labour use and efficiency		
Total FTE	2.8	**3.1**
Labour efficiency (cows / FTE)	119	**115**
Labour efficiency (kg MS / FTE)	55,929	**54,753**

Financial parameters

	2021-22	2022-23
Income $/kg MS		
Milk income (net)	$7.15	**$9.63**
Livestock trading profit	$0.83	**$0.80**
Other farm income	$0.02	**$0.04**
Gross farm income	$8.00	**$10.47**
Variable costs $/kg MS		
Herd and shed	$0.64	**$0.71**
Home grown feed	$1.09	**$1.40**
Purchased feed and agistment	$2.19	**$2.79**
Feed and water inventory change	$0.06	**$0.01**
Total variable costs	$3.99	**$4.90**
Overhead costs $/kg MS		
Employed labour	$0.63	**$0.84**
Repairs and maintenance	$0.42	**$0.45**
All other overheads	$0.36	**$0.36**
Imputed labour	$0.97	**$0.91**
Depreciation	$0.21	**$0.27**
Total overhead costs	$2.59	**$2.83**
Profit $/kg MS		
Earnings before interest and tax	$1.43	**$2.73**

Gross farm income

Gross farm increased to $10.47/kg MS (31% increase) boosted by a 35% increase in milk price to $9.63/kg MS. Livestock trading profit declined by 4% to $0.80/kg MS while other farm income made up $0.04/kg MS on average. Escalating costs dampened the effect of the high gross farm income on profits in 2022-23.

Variable costs

Variable costs in 2022-23 were the highest in 17 years of DFM. Higher unit prices mostly reflected the 23% increase to $4.90/kg MS, from the previous year. Homegrown feed costs increased due to a combination of increased costs for fertiliser, irrigation, hay and silage making, fuel and oil, and pasture improvement.

A $0.64/kg MS increase in concentrate costs pushed up feed costs to $2.79/kg MS in 2022-23. More concentrates were fed per cow (16% increase) at higher prices per tonne (21% increase). Fodder costs remained unchanged between years. The wet conditions required farmers to purchase more silage for their milkers.

Herd costs increased in 2022-23 with a focus on sexed semen and using herd testing for selection of the future milking herd. Shed costs increased this year mainly due to an increase in costs of dairy supplies, with a minor increase in shed power. Many farms supplemented their energy requirements with solar generated electricity.

Overhead costs

Gippsland participants experienced the highest overhead costs since 2006-07, increasing 9% from the previous year to $2.83/kg MS in 2022-23.

Cash overhead costs increases were the greatest contributor to the total overhead costs increase observed in 2022-23. Employed labour costs increased by 34%, reflecting the competition to find and retain labour by offering attractive packages.

Depreciation was the second largest overhead, rising to $0.27/kg MS in 2022-23. This reflected comparable spending to previous years as well as the current, and large amount of assets on-farm..

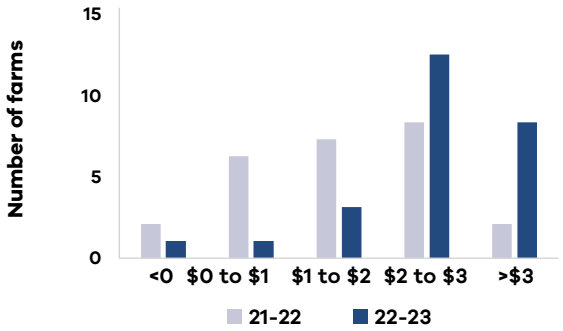
Earnings before interest and tax

In 2022-23, almost all the Gippsland participants recorded a positive EBIT (24 of the 25) (Figure 20). Average profits increased by 91% to $2.73/kg MS. Average EBIT per farm was the second highest in the 17 years of the DFM, accounting for inflation.

Healthy returns in 2022-23 were primarily due to a near record milk price despite higher costs due to farmers feeding more costly supplements at higher levels.

Profitability for the Gippsland DFM participants was strongly influenced by the very high milk price (second highest on record accounting for inflation). Increased feed costs were the main contributor to a large increase in costs for Gippsland participants in 2022-23.

FIGURE 20. AVERAGE EBIT PER KG MS – GIPPSLAND



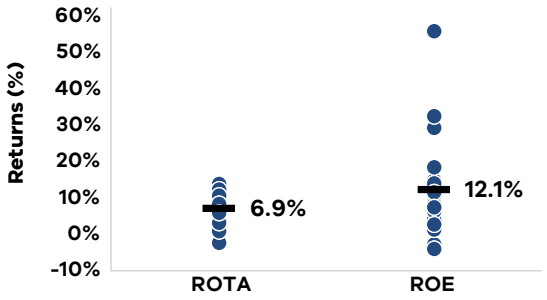
Return on total assets and equity

The average ROTA was 6.9% and was the second highest in the 17 year history of DFM, well above the long-term average of 4.1% (Figure 21).

The average return on equity (ROE) for Gippsland participants was 12.1% and was the third highest over the history of the DFM in Gippsland. The long-term average ROE is 4.5%.

Equity levels improved for most farms in 2022-23 (16 of the 25). Increases in current and equipment loans to fund capital and equipment purchases and maintain cash flow during high costs period were the main cause for the overall reduction in equity percentage to 68% from 72% in 2021-22.

FIGURE 21. 2022-23 AVERAGE RETURNS – GIPPSLAND



Feed consumption and fertiliser

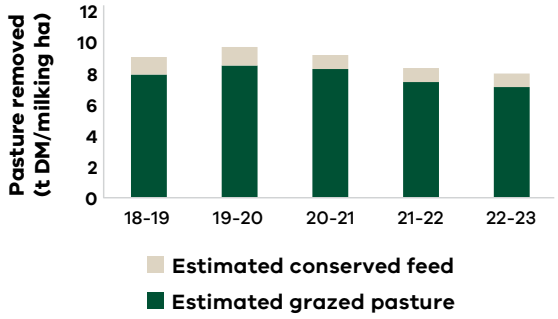
Feed consumption and pasture harvested

Similar to the winter and spring period in 2021, the region experienced very wet conditions during 2022. In general, fodder conservation was delayed by around 4 weeks and compromised fodder quantity and quality. About half of the same participants between years conserved less fodder on the miking area compared to last year.

Average homegrown feed on the milking area was 8.0 t DM/ha with directly grazed pasture accounting for 7.2 t DM/ha and 0.9 t DM/ha conserved (Figure 22). This was a 4% decline in homegrown feed on the milking area, on average. Just on 60% of all metabolisable energy consumed on was from homegrown sources, the lowest in 17 years.

Just over one third of same farms participating between years increased their directly grazed pasture in 2022-23. The Macalister Irrigation District had on average 0.3 t DM/ha less grazed pasture per hectare on the milking area than the previous year.

FIGURE 22. AVERAGE HOMEGROWN FEED REMOVED – GIPPSLAND



There was minimal feed inventory change, meaning feed on hand at the end of the year was similar to the start of the year. If fodder reserves were used during the year, they were replenished by the end of the year. This places Gippsland participants in a good position for fodder reserves entering 2023-24.

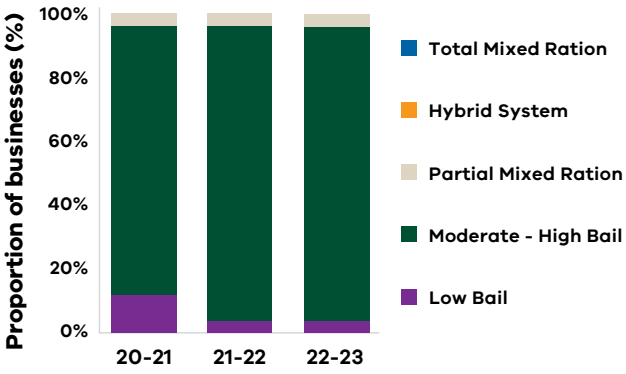
Purchased feed made up the highest proportion of the cows' diet in 17 years. Supplementary feeding increased per cow in 2022-23. Increased quantities of concentrates were purchased to maintain milk production through winter and spring, with participants encouraged to maximise the milk production where possible due to the high milk price being offered.

In 2022-23, on average, greater quantities of concentrates and purchased silage were fed to supplement lower homegrown feed. There was a lesser reliance on purchased hay this season with a 23% reduction in use per cow, with high prices being cited as a deterrent on some farms.

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

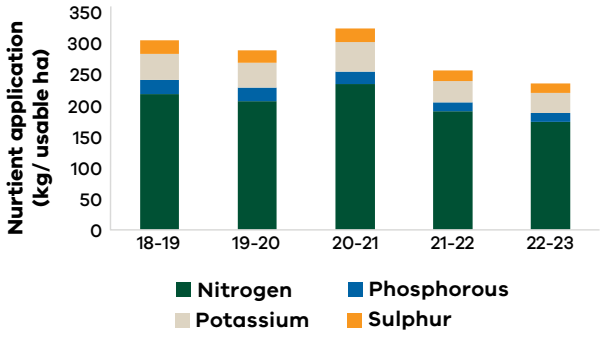


Fertiliser

There was an overall decline in fertiliser use per milking hectare in 2022-23 (Figure 24). All macro nutrient application declined; nitrogen (by 9%), phosphorous (by 4%), potassium (by 16%) and sulphur (by 20%).

Similar to last year the reduction in nutrient application per hectare was matched with a 32% increase to overall costs (due to higher per unit price). The lower nitrogen application was also a reflection of the wet conditions (not being able to put fertiliser on pastures) followed by dry conditions (where it was perceived nitrogen applications would not be utilised by dormant plants).

FIGURE 24. AVERAGE NUTRIENT APPLICATION – GIPPSLAND



Part Five: Business confidence

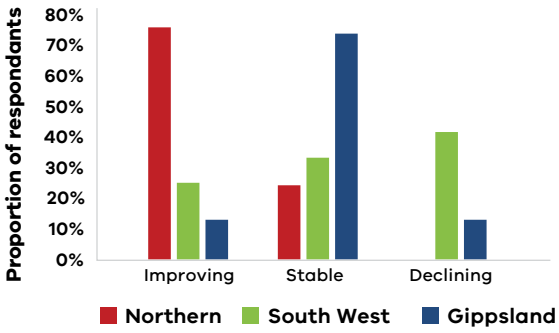
- Participants in each region had a different outlook for their business returns.
- Northern Victorian farmers were overwhelmingly confident in their returns in the coming 12 months. Increasing production expectations for milk and fodder yet milk price and unit input prices to remain stable underpinned the optimism.
- In Gippsland participants expected stable returns in the coming year and had similar expectations for production (milk and fodder) and costs to be stable also.
- South West Victorian participants expected their business returns to decline in the coming 12 months. This was supported by their expectations of a lower milk price while holding milk and fodder production stable at similar or higher costs.

Expectations for business profit 2023-24

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 regional differences (Figure 25). Northern Victorian participants were the most optimistic, likely to be underpinned by full water storages, strong milk price and a drier seasonal outlook (from the floods experienced in the last 12 months). Most Gippsland farms expected their returns to remain stable. Whereas most in the South West expected declining returns in the coming 12 months.

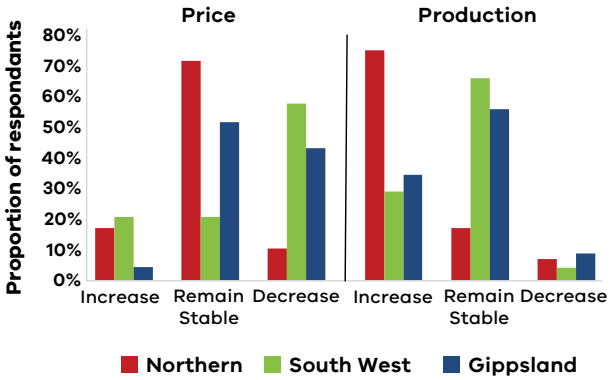
FIGURE 25. PRODUCER EXPECTATIONS OF FARM BUSINESS PROFIT IN 2023-24



Price and production expectations – milk

The expectations for milk price and production were again mixed between the regions (Figure 26). Northern Victorian participants were expecting to increase their milk production in the next 12 months and receive a similar milk price. Most Gippsland were expecting to hold production steady and no change in milk price. Most in the South West were also expecting to hold production steady but at a lower milk price.

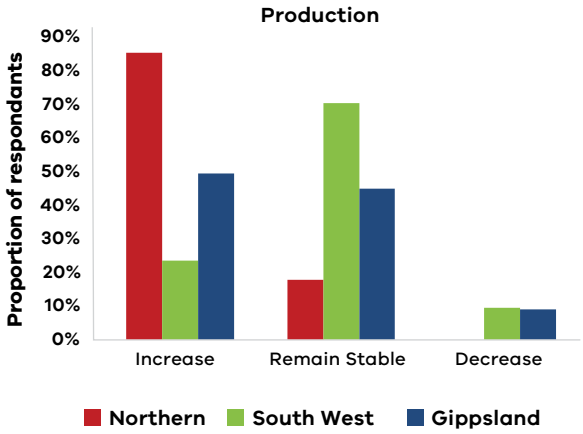
FIGURE 26. PRODUCER EXPECTATIONS OF MILK PRICES AND PRODUCTION IN 2023-24



Production expectations – fodder

The expectations for fodder production in 2023-24 were positive. Over half of participants expected fodder production to increase while 40% were expected to maintain production (Figure 27).

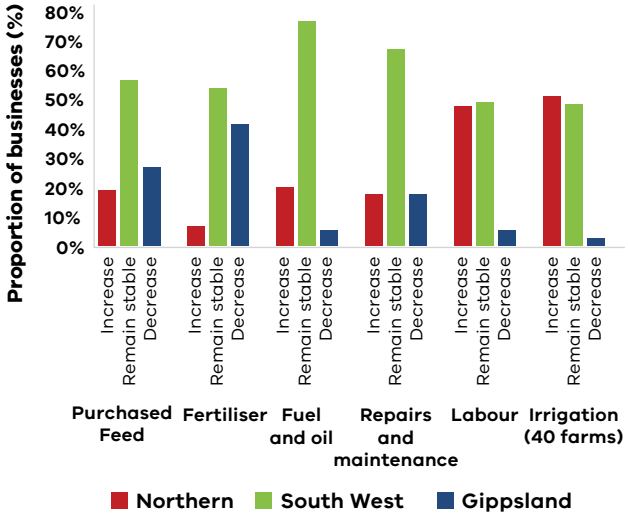
FIGURE 27. PRODUCER EXPECTATIONS OF FODDER PRODUCTION 2023-24



Cost expectations

The cost category that was expected to be the most likely to increase in 2022-23 was irrigation (Figure 28). In general, all remaining cost categories were expected to remain stable.

FIGURE 28. PRODUCER EXPECTATIONS OF COSTS FOR THE DAIRY INDUSTRY IN 2023-24



Comments from participants

There was concern for a dry 2023 spring and summer 2023-24 conditions. This was prompted by climate forecasts, showing likely drier rainfall and warmer temperatures for spring 2023.

Access to available labour and finding suitable accommodation for farm labour needs was a concern over the next 12 months. A lack of staff accommodation options was noted as a barrier for attracting full-time staff.

Over the next 5 years, the main issue for participants was their future role in the business – either through retirement, bringing a sharefarmer in so they can step back or other related succession planning issues. Children were key considerations in their decision making for some.

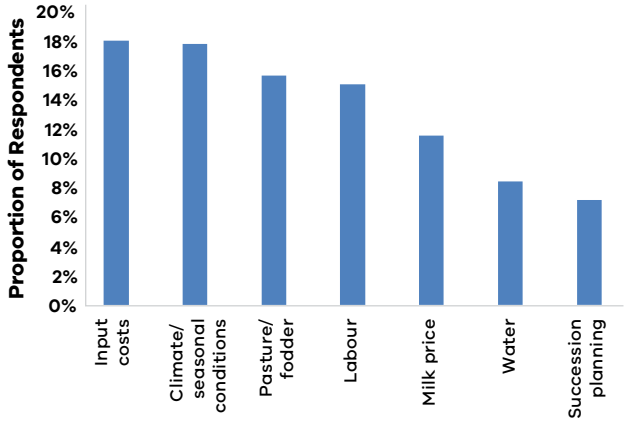
Issues of importance to dairy businesses

Participants were asked to rank issues based on the level of importance to their business – with a ranking of (1) being most important and (7) being least important.

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 number 2 by 18%).

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

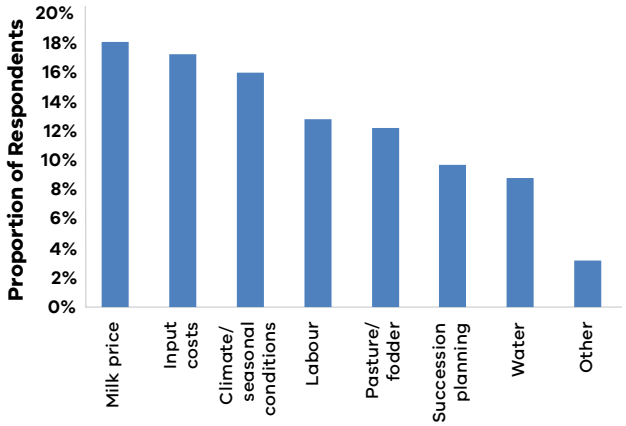


Medium to long term issues – next five years

Milk price was most important over the medium term (Figure 30) – rising from fifth 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: 2022-23 Greenhouse gas emissions

- Median net greenhouse gas emissions for Victorian dairy farms in 2022-23 were the highest recorded in 5 years, mostly due to a change in the data capture process.

Total emissions

Net greenhouse gas (GHG) emissions (median) in 2022-23 were the highest in 5 years at around 2,400 tonnes of carbon dioxide equivalent (Table 1). Median milk production increased in 2022-23 but there was also a change in the way the data inputs were captured. User defined inputs for manure management and fuel from contractors are now included. Over the last 5 years, higher median GHG emissions were also associated with greater herd size and milk production per farm.

Methane from manure management contributed the largest increase to higher emissions in 2022-23. Relying on the historical state defined values for this input did not fully reflect emissions across all farms. Further, considering fuel used by contractors aligns with the industry standard. Greater fuel and electricity use also increased carbon dioxide emissions.

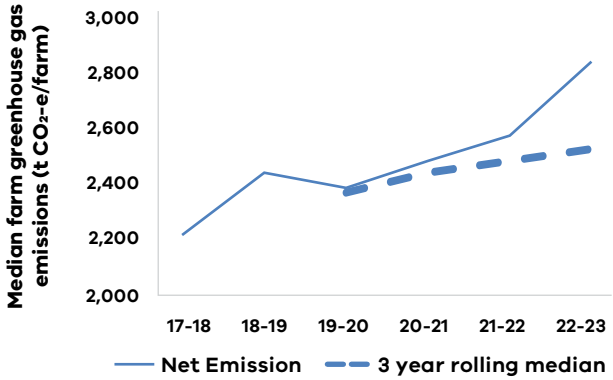
Emissions from pre-farm sources (such as purchase of feed and fertiliser) decreased on average – due to regional seasonal conditions, while nitrous oxide emissions remained relatively similar.

Same participants

The median emissions for the same 47 participants have trended higher over five years (Figure 31). Greater per farm milk production (and a change in the data capture) have contributed to the higher emissions in 2022-23 compared with a 3-year rolling median.

The median GHG emissions have been provided as the data is not symmetrically distributed. When the data are skewed, the median is more useful because the average will be distorted by outliers.

FIGURE 31. ESTIMATED MEDIAN GHG EMISSIONS FOR THE SAME PARTICIPATING FARMS BETWEEN 2017-18 AND 2022-23 (CO_2 EQUIVALENT)



Emissions intensity

The emissions intensity allocated to milk production (once meat production is considered), has fluctuated over the last 5 years (Table 1). In 2022-23 net GHG emissions have increased the median emission intensity, predominantly due to improved data capture.

NOTE: Greenhouse gas emission estimates are calculated using the Australian Dairy Carbon Calculator embedded within DairyBase. Data from all years was analysed using the 2023 accounting framework. Discrepancies in historical years have been rectified. Carbon sequestered in trees was introduced in the calculator in 2021-22.

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 2018-19 AND 2022-23 (CO2 EQUIVALENT)

Emission sources	18-19	19-20	20-21	21-22	22-23*
Sample size	75	80	80	80	80
Methane (t CO_2-e/farm)	1,567	1,595	1,591	1,648	1,760
Pre-farm gate (t CO_2-e/farm)	266	284	278	298	288
Nitrous oxide (t CO_2-e/farm)	244	274	261	263	270
Carbon dioxide (t CO_2-e/farm)	173	180	167	154	199
Carbon from trees (t CO_2-e/farm)	N/A	N/A	N/A	-9	-17
Net emissions (t CO_2-e/farm)	2,186	2,323	2,357	2,276	2,406
Emissions intensity (t CO_2-e/t MS)	13.2	12.6	12.5	12.2	12.8
Emissions intensity (t CO_2-e/FPCM)	0.94	0.91	0.90	0.88	0.92
Emissions intensity (t CO_2-e/kg live weight)	4.4	4.2	4.1	4.1	4.5

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

Part Seven: How does 2022-23 compare?

- **Gross farm income** increased by 21% to $10.85/kg MS, the second highest (behind 2007-08) in the 17 year history of DFM (accounting for inflation). The record-high milk price in 2022-23 underpinned the high incomes.
- **Total costs** rose $0.83/kg MS to $7.98/kg MS, the highest in DFM history. The main driver for higher costs was a $0.68/kg MS increase in feed costs.
- **Profits** per farm averaged $617,000 across the state and were well above the long-term DFM average of $300,000. Average profitability of $2.87/kg MS was the second highest in 17 years of DFM (accounting for inflation).

Strong profitability in recent years

Victorian DFM participants have enjoyed a period of profitable business conditions over the past 4 years, with statewide gross farm in come and profits above the long-term average. The 3 years preceding 2022-23 were characterised by a strong milk price and good livestock trading conditions, followed by the record high milk price in 2022-23. Participants have managed the good to unfavourable seasonal conditions (across years and regions) resulting in profits (EBIT kg/MS) for each region in those years, being at or above the respective region's long-term average.

Comparative assessment

A comparative assessment (Table 2) illustrates the dynamics around variable costs (accounting for inflation) over the past 10 years.

Exposure to purchased feed prices and high feed costs (homegrown and purchased) are a key influence on variable costs and profits. Over the 10 year period, feed costs and total variable costs (statewide average, $/kg MS) were highest in 2022-23, followed by 2018-19. Feed costs in Northern Victoria averaged $4.07/kg MS over the 10 years, around 17% higher than the other 2 regions.

Spikes in the proportion of gross farm income used to cover variable costs are an indicator of a significant deterioration in conditions for farm businesses. The ratio was relatively high in 2015-16, a year with a lower milk price and dry seasonal conditions. The drought across the east coast in 2018-19 resulted in a dramatic increase in purchased grain and fodder prices. In the key period (winter-spring) for growing pasture, Northern Victoria and Gippsland were more impacted by the rainfall deficits than South West Victoria. Northern Victoria also had significant increase in irrigation costs, given the greater reliance on high priced irrigation water to produce feed.

Figure 32 through Figure 37 map key performance indicators for Northern Victoria, South West Victoria and Gippsland participants since 2006-07.

Risk management a key characteristic in 2022-23

In 2022-23, having certainty around high income streams allowed farmers to commit early to management strategies to deal with the multiple impacts of very wet conditions, storm and flooding events, whilst delivering the best outcomes (short and long term) for their business. Strategies included agistment, pasture management and restoration, purchasing (and baling) standing fodder crops on less impacted farms, dealing with herd nutrition, including greater use of concentrates (high quality and price) and early purchasing of quality and protein fodder (in short supply). Successful management meant that milk production (kg MS/cow) increased in Gippsland, was stable in South West Victoria, while the 6% decline (kg MS/ cow) in Northern Victoria was partially offset by an increase in the average herd size.

In 2022-23, a combination of these management strategies and the record-high milk price underpinned the second highest statewide profits in DFM history while costs remained persistently high.

TABLE 2. VARIABLE COSTS AS A PERCENTAGE OF INCOME

	Northern Victoria (%)	South West Victoria (%)	Gippsland (%)
2013-14	48	45	44
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

Northern Victoria

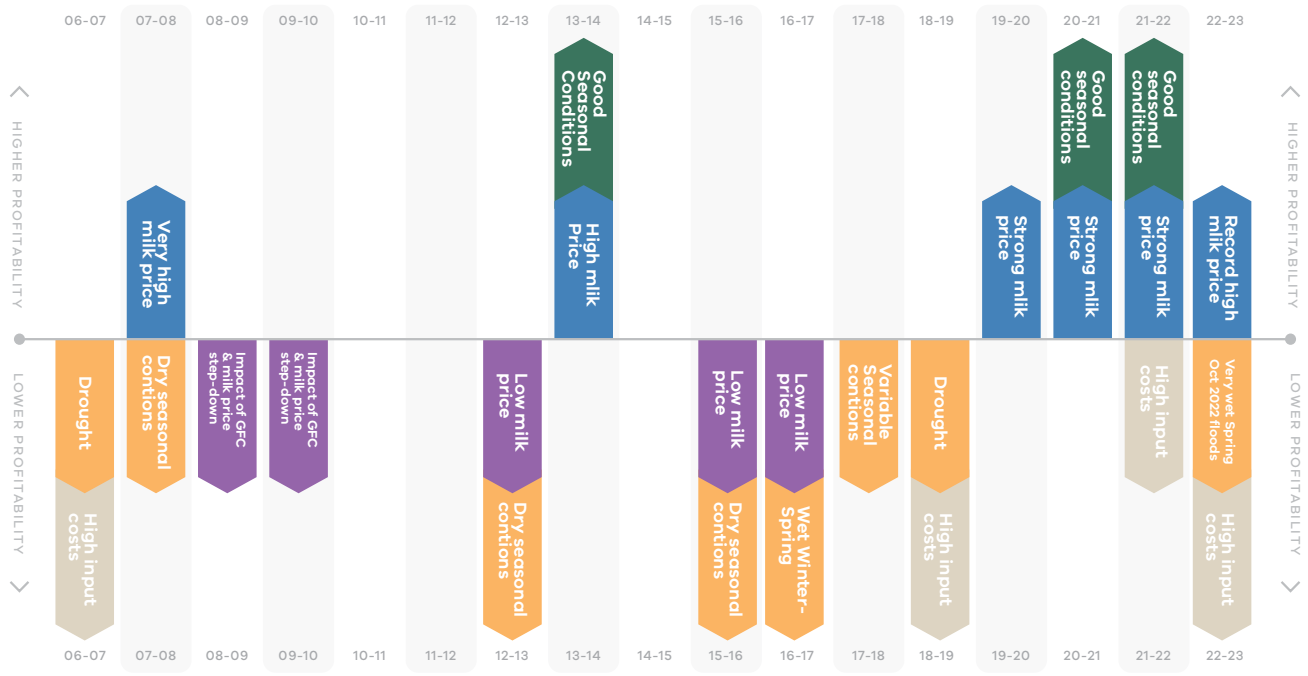


FIGURE 32. FARM PROFITABILITY BETWEEN 2006-07 AND 2022-23 – NORTHERN VICTORIA

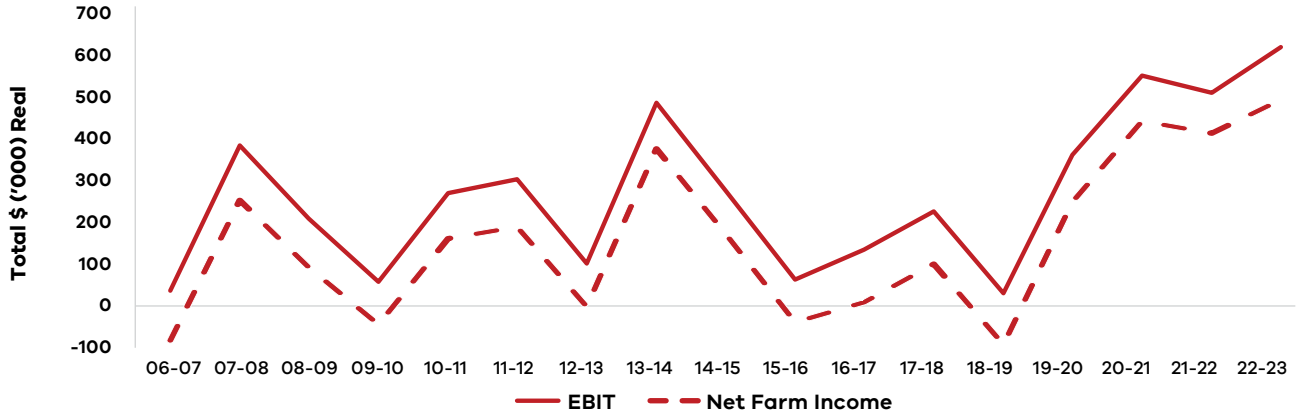
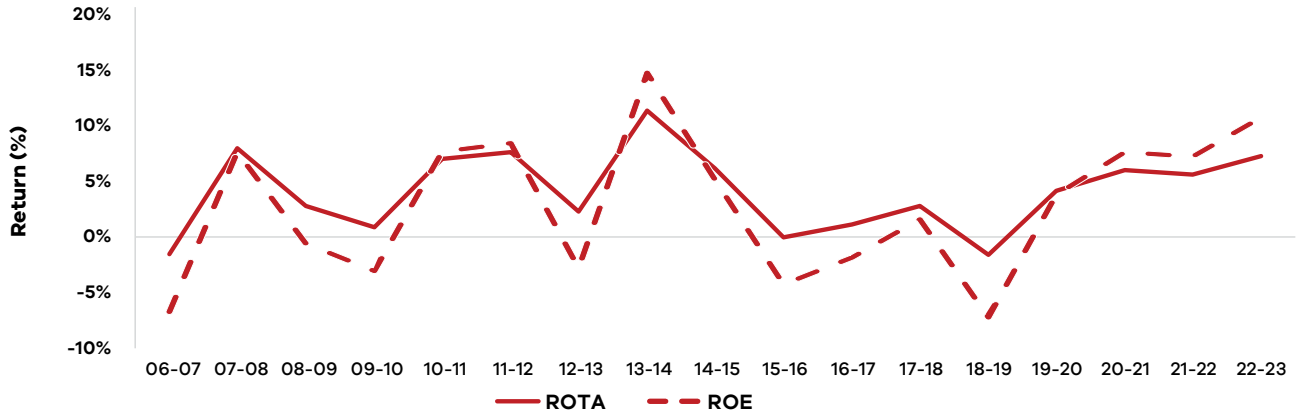


FIGURE 33. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2022-23 – NORTHERN VICTORIA



South West Victoria

FIGURE 34. FARM PROFITABILITY BETWEEN 2006-07 AND 2022-23 – SOUTH WEST VICTORIA

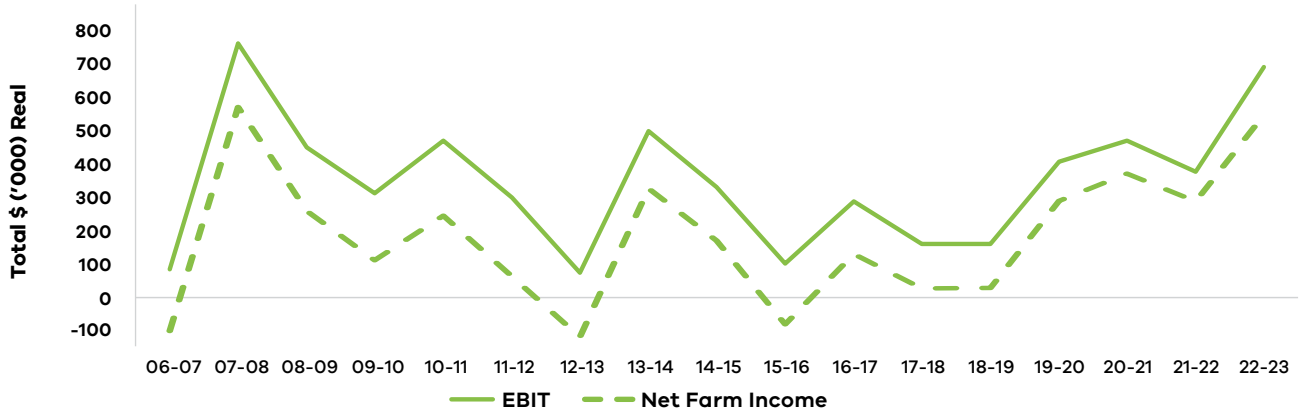
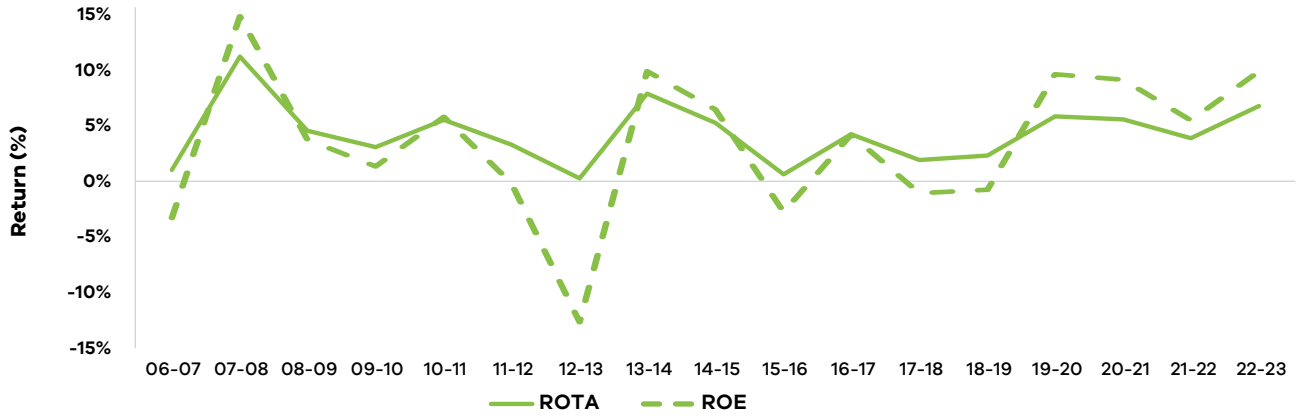


FIGURE 35. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2022-23 – SOUTH WEST VICTORIA



Gippsland

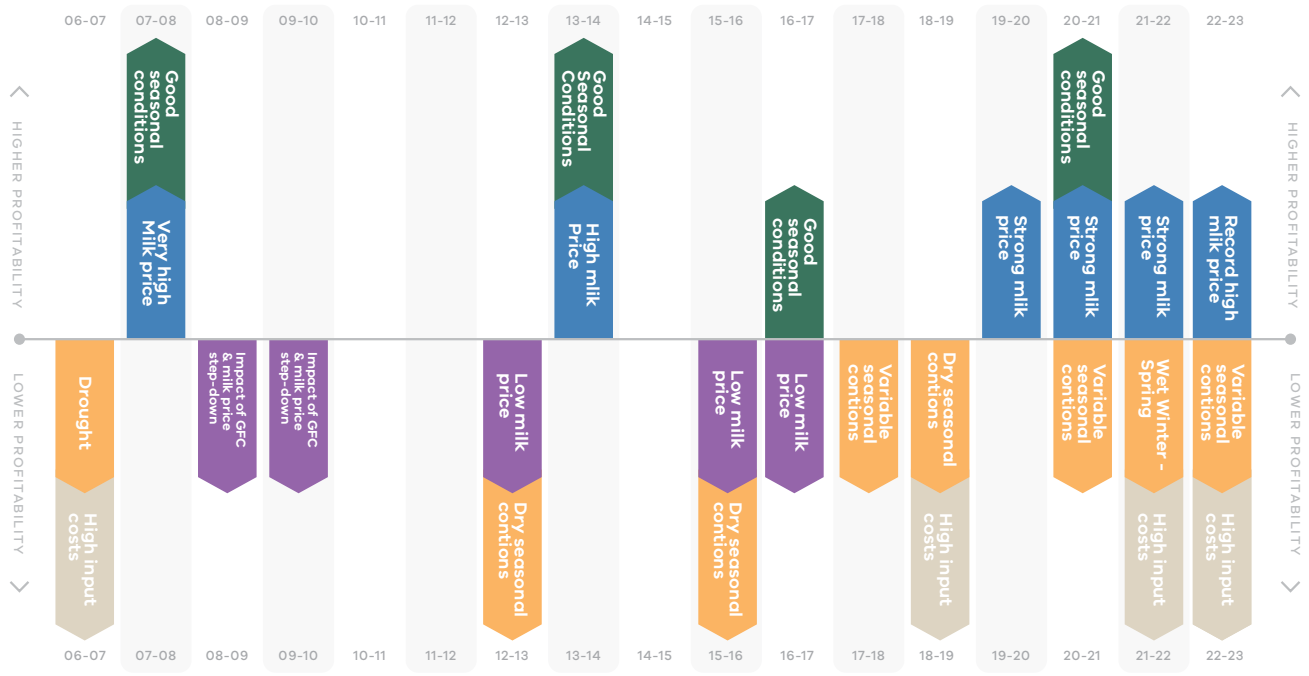


FIGURE 36. FARM PROFITABILITY BETWEEN 2006-07 AND 2022-23 – GIPPSLAND

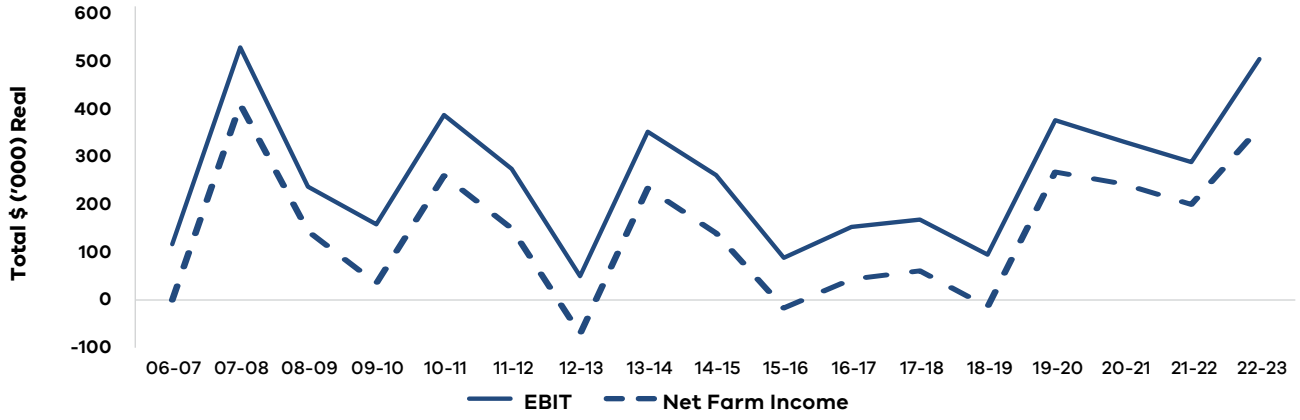
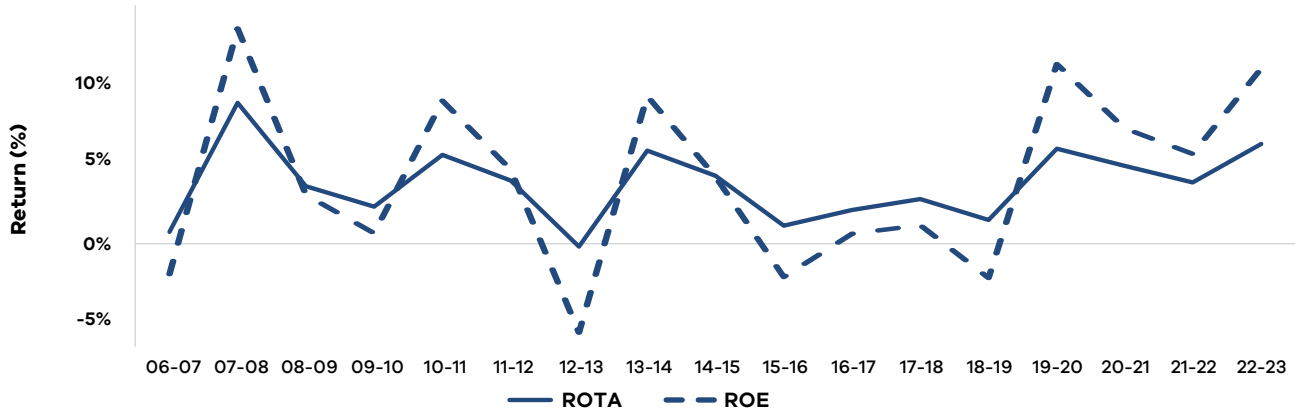


FIGURE 37. WHOLE FARM PERFORMANCE BETWEEN 2006-07 AND 2022-23 – GIPPSLAND



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	$9.77	$1.09	$10.85	$5.04	$2.94	63%	$2.87	7.0%	$0.72	6.6%	$2.16	10.9%
Top 25%	$9.88	$1.06	$10.94	$4.65	$2.34	66%	$3.95	11.7%	$0.55	5.1%	$3.40	21.8%

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	294	173	0.6	391	1.5	518	784	4.3%	3.5%
Top 25%	258	195	0.8	405	1.9	541	1032	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	5.5	1.4	59%	127	16	23	21	106	54,079
Top 25%	6.9	1.7	56%	136	14	19	11	119	62,787

**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	3.0	$566	$288	$276	$2,682	$497	41%
Top 25%	3.0	$569				$490	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	$0.17	$0.16	$0.08	$0.15	$0.13	$0.69	$0.71	$0.26	$0.25
Top 25%	$0.15	$0.12	$0.05	$0.12	$0.12	$0.57	$0.54	$0.15	$0.22

** 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	$0.17	$0.23	$0.02	$0.42	$2.31	$0.06	$0.03	$4.35	$5.04
Top 25%	$0.13	$0.19	$0.02	$0.54	$2.16	$0.11	-$0.04	$4.09	$4.65

Table A5

Overhead costs – Statewide

	Rates	Farm Insurance	Motor vehicle expenses	Repairs and maintenance	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed labour cost	Total overheads
	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)
Average	$0.06	$0.11	$0.03	$0.50	$0.16	$0.86	$1.73	$0.35	$0.86	$2.94
Top 25%	$0.05	$0.08	$0.02	$0.41	$0.13	$0.76	$1.44	$0.26	$0.64	$2.34

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	$17,431	$13,164	$6,734	$3,863	$1,858	$4,413	$494	$796	$27,446
Top 25%	$16,512	$7,325	$4,790	$1,897	$2,203	$5,522	$485	$1,088	$30,601

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

Table A6

Capital structure – Statewide (continued)

	Liabilities		Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	($/ha)	($/cow)	($/ha)	(%)
Average	$7,464	$5,291	$19,982	72%
Top 25%	$6,931	$3,539	$20,342	74%

Table A7

Historical data – Statewide
Main financial indicators

Year	Income				Variable Costs							
	Milk income (net)		Gross farm income		Herd costs		Shed costs		Feed costs		Total variable costs	
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)
2006-07	$4.46	$6.85	$5.23	$8.02	$0.21	$0.32	$0.15	$0.23	$2.83	$4.35	$3.23	$4.96
2007-08	$6.57	$9.62	$7.80	$11.43	$0.24	$0.35	$0.14	$0.21	$3.39	$4.96	$3.79	$5.56
2008-09	$5.35	$7.52	$6.08	$8.55	$0.23	$0.32	$0.15	$0.21	$2.85	$4.01	$3.23	$4.54
2009-10	$4.46	$6.08	$5.17	$7.04	$0.22	$0.30	$0.16	$0.22	$2.20	$3.00	$2.58	$3.51
2010-11	$5.64	$7.46	$6.47	$8.56	$0.26	$0.35	$0.18	$0.24	$2.27	$3.00	$2.71	$3.59
2011-12	$5.52	$7.18	$5.97	$7.77	$0.26	$0.34	$0.19	$0.25	$2.33	$3.03	$2.78	$3.61
2012-13	$4.90	$6.20	$5.25	$6.65	$0.27	$0.34	$0.22	$0.28	$2.59	$3.27	$3.08	$3.90
2013-14	$6.79	$8.38	$7.44	$9.19	$0.28	$0.34	$0.22	$0.27	$2.90	$3.58	$3.39	$4.19
2014-15	$6.04	$7.29	$6.61	$7.98	$0.29	$0.35	$0.20	$0.24	$2.90	$3.50	$3.39	$4.09
2015-16	$5.40	$6.44	$5.90	$7.03	$0.28	$0.34	$0.19	$0.22	$3.15	$3.76	$3.62	$4.32
2016-17	$5.07	$5.93	$5.80	$6.78	$0.29	$0.34	$0.20	$0.23	$2.40	$2.81	$2.89	$3.38
2017-18	$5.81	$6.66	$6.41	$7.35	$0.31	$0.36	$0.22	$0.25	$2.93	$3.36	$3.46	$3.97
2018-19	$6.13	$6.94	$6.76	$7.65	$0.32	$0.36	$0.23	$0.26	$3.62	$4.10	$4.17	$4.72
2019-20	$7.15	$7.99	$7.87	$8.80	$0.32	$0.36	$0.23	$0.25	$3.33	$3.73	$3.88	$4.33
2020-21	$6.76	$7.45	$7.67	$8.45	$0.32	$0.35	$0.23	$0.26	$2.86	$3.15	$3.41	$3.76
2021-22	$7.37	$7.77	$8.50	$8.97	$0.39	$0.41	$0.24	$0.26	$3.48	$3.67	$4.11	$4.33
2022-23	$9.77	$9.77	$10.85	$10.85	$0.41	$0.41	$0.28	$0.28	$4.35	$4.35	$5.04	$5.04
Average		$7.38		$8.30		$0.35		$0.24		$3.63		$4.22

Notes:'Real' dollar values are the nominal values converted to 2022-23 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)

Overhead Costs						
Year	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	$1.18	$1.17	$1.80	$1.94	$2.97
2007-08	$0.84	$1.23	$0.88	$1.29	$1.62	$2.38
2008-09	$0.82	$1.15	$0.88	$1.24	$1.70	$2.39
2009-10	$0.84	$1.14	$1.05	$1.43	$1.89	$2.57
2010-11	$1.00	$1.33	$1.02	$1.35	$2.02	$2.68
2011-12	$0.99	$1.29	$1.07	$1.39	$2.06	$2.67
2012-13	$0.99	$1.26	$1.09	$1.38	$2.08	$2.63
2013-14	$1.05	$1.30	$0.97	$1.20	$2.03	$2.50
2014-15	$1.08	$1.30	$0.90	$1.08	$1.97	$2.38
2015-16	$1.07	$1.27	$1.03	$1.23	$2.10	$2.50
2016-17	$1.09	$1.28	$1.06	$1.24	$2.16	$2.52
2017-18	$1.18	$1.35	$1.11	$1.27	$2.29	$2.62
2018-19	$1.22	$1.38	$1.12	$1.27	$2.34	$2.65
2019-20	$1.24	$1.39	$1.07	$1.20	$2.31	$2.59
2020-21	$1.32	$1.45	$1.09	$1.20	$2.40	$2.65
2021-22	$1.51	$1.59	$1.16	$1.23	$2.67	$2.82
2022-23	$1.73	$1.73	$1.22	$1.22	$2.94	$2.94
Average		$1.33		$1.29		$2.62

Table A7

Historical data – Statewide

Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	%	%
2006-07	$0.06	$0.09	$0.58	$0.89	-$0.52	-$0.80	0.1%	-4.1%
2007-08	$2.39	$3.50	$0.63	$0.93	$1.75	$2.57	9.8%	12.4%
2008-09	$1.08	$1.52	$0.59	$0.82	$0.49	$0.69	3.8%	2.2%
2009-10	$0.65	$0.89	$0.68	$0.92	-$0.03	-$0.04	2.2%	-0.3%
2010-11	$1.73	$2.29	$0.76	$1.00	$0.98	$1.29	6.2%	7.8%
2011-12	$1.14	$1.49	$0.71	$0.92	$0.43	$0.56	5.0%	4.4%
2012-13	$0.09	$0.12	$0.70	$0.88	-$0.60	-$0.76	0.7%	-7.3%
2013-14	$2.02	$2.50	$0.65	$0.80	$1.38	$1.70	8.5%	11.6%
2014-15	$1.25	$1.50	$0.60	$0.73	$0.64	$0.78	5.3%	5.2%
2015-16	$0.18	$0.22	$0.59	$0.70	-$0.41	-$0.49	0.6%	-3.2%
2016-17	$0.75	$0.88	$0.63	$0.74	$0.12	$0.14	2.5%	1.0%
2017-18	$0.66	$0.76	$0.61	$0.70	$0.05	$0.05	2.5%	0.4%
2018-19	$0.25	$0.29	$0.64	$0.73	-$0.39	-$0.44	0.7%	-3.5%
2019-20	$1.68	$1.87	$0.54	$0.60	$1.14	$1.27	5.4%	8.3%
2020-21	$1.86	$2.04	$0.46	$0.51	$1.39	$1.53	5.7%	8.2%
2021-22	$1.72	$1.82	$0.46	$0.48	$1.27	$1.34	4.6%	6.3%
2022-23	$2.87	$2.87	$0.72	$0.72	$2.16	$2.16	7.0%	10.9%
Average		$1.45		$0.77		$0.68	4.2%	3.5%

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
Average	259	187	0.8	345	1.5	503	763

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	$505
2007-08	4.8	1.0	64%	$425	$623
2008-09	5.6	0.9	62%	$375	$527
2009-10	6.2	0.8	66%	$273	$372
2010-11	5.8	1.9	65%	$301	$399
2011-12	6.2	1.0	57%	$296	$385
2012-13	6.2	1.2	58%	$336	$426
2013-14	6.6	1.4	62%	$388	$479
2014-15	6.5	1.2	59%	$405	$489
2015-16	5.8	1.2	53%	$402	$479
2016-17	6.5	1.6	65%	$335	$392
2017-18	6.1	1.5	62%	$373	$428
2018-19	6.4	1.7	65%	$514	$582
2019-20	6.3	1.4	61%	$495	$553
2020-21	6.5	1.7	62%	$430	$474
2021-22	5.7	1.7	60%	$483	$509
2022-23	5.5	1.4	59%	$566	$566
Average	6.0	1.3	61%		$482

* 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	$9.30	$1.00	$10.30	$6.13	$2.23	73%	$1.93	6.2%	$0.25	2.5%	$1.68	6.5%
NO0014	$9.64	$2.44	$12.07	$5.94	$3.18	65%	$2.96	3.7%	$1.00	8.3%	$1.95	3.3%
NO0015	$9.95	$1.14	$11.09	$5.17	$2.33	69%	$3.59	8.8%	$0.63	5.7%	$2.96	10.5%
NO0022	$9.92	$0.59	$10.51	$3.73	$2.69	58%	$4.10	7.5%	$0.03	0.3%	$4.07	8.1%
NO0023	***$10.32***	***$0.84***	***$11.17***	***$5.44***	***$2.42***	***69%***	***$3.31***	***12.1%***	***$0.39***	***3.5%***	***$2.92***	***14.0%***
NO0027	$9.18	$6.00	$15.18	$9.71	$6.85	59%	-$1.37	-1.8%	$0.85	5.6%	-$2.22	-4.7%
NO0035	$10.16	$0.86	$11.02	$3.96	$2.80	59%	$4.26	6.9%	$0.00	0.0%	$4.26	6.9%
NO0041	$9.85	$1.23	$11.08	$5.56	$2.31	71%	$3.21	7.0%	$0.54	4.8%	$2.67	8.7%
NO0043	$10.16	$1.15	$11.32	$5.86	$4.05	59%	$1.40	2.5%	$1.61	14.2%	-$0.21	-0.7%
NO0054	$9.26	$0.71	$9.97	$5.76	$2.60	69%	$1.62	6.9%	$0.36	3.6%	$1.26	8.6%
NO0056	$9.85	$1.14	$10.99	$5.95	$2.95	67%	$2.10	3.9%	$0.96	8.7%	$1.14	3.8%
NO0059	***$10.40***	***$0.65***	***$11.05***	***$4.55***	***$2.33***	***66%***	***$4.16***	***10.3%***	***$0.78***	***7.1%***	***$3.38***	***14.9%***
NO0064	$10.15	$0.82	$10.97	$5.64	$2.95	66%	$2.38	5.8%	$0.28	2.5%	$2.10	7.6%
NO0065	$10.17	$1.60	$11.76	$5.66	$2.68	68%	$3.43	7.8%	$1.07	9.1%	$2.36	17.3%
NO0069	$9.72	$0.75	$10.47	$4.40	$2.97	60%	$3.10	5.7%	$0.42	4.0%	$2.69	5.7%
NO0072	$9.41	$1.17	$10.58	$6.11	$4.69	57%	-$0.22	-0.3%	$0.00	0.0%	-$0.22	-0.3%
NO0073	$9.06	$1.29	$10.34	$5.46	$3.09	64%	$1.79	2.7%	$0.71	6.9%	$1.08	2.1%
NO0075	***$10.19***	***$1.05***	***$11.24***	***$5.26***	***$2.58***	***67%***	***$3.40***	***9.6%***	***$0.22***	***2.0%***	***$3.18***	***12.2%***
NO0078	$10.11	$0.86	$10.96	$5.67	$2.40	70%	$2.88	5.9%	$0.49	4.5%	$2.39	6.4%
NO0079	***$9.61***	***$0.69***	***$10.30***	***$3.77***	***$2.42***	***61%***	***$4.11***	***10.9%***	***$0.59***	***5.7%***	***$3.52***	***14.1%***
NO0080	***$10.14***	***$0.55***	***$10.69***	***$5.54***	***$2.15***	***72%***	***$3.00***	***14.2%***	***$0.25***	***2.3%***	***$2.76***	***18.7%***
NO0081	***$10.28***	***$1.33***	***$11.61***	***$5.48***	***$2.19***	***71%***	***$3.94***	***13.1%***	***$0.06***	***0.5%***	***$3.88***	***13.9%***
NO0082	***$10.29***	***$1.49***	***$11.79***	***$6.02***	***$2.50***	***71%***	***$3.27***	***10.4%***	***$0.81***	***6.8%***	***$2.46***	***17.7%***
NO0083	$9.65	-$0.59	$9.06	$4.71	$3.14	60%	$1.21	2.7%	$1.61	17.8%	-$0.40	-2.9%
NO0087	$10.05	-$0.08	$9.97	$4.96	$3.13	61%	$1.88	6.1%	$0.43	4.3%	$1.45	8.9%
NO0088	$9.43	$1.06	$10.49	$4.44	$3.49	56%	$2.56	6.3%	$0.65	6.2%	$1.91	15.2%
NO0089	$9.21	$0.87	$10.08	$4.73	$2.48	66%	$2.88	8.1%	$0.69	6.8%	$2.19	9.7%
NO0090	$9.94	$0.63	$10.57	$6.15	$2.40	72%	$2.02	6.8%	$0.02	0.2%	$2.00	6.9%
NO0091	$10.10	$1.76	$11.86	$4.49	$4.01	53%	$3.35	7.6%	$0.85	7.2%	$2.50	10.0%
NO0092	***$9.70***	***$0.86***	***$10.56***	***$4.60***	***$1.90***	***71%***	***$4.05***	***18.8%***	***$0.87***	***8.2%***	***$3.19***	***78.6%***
Average	$9.84	$1.13	$10.97	$5.36	$2.93	65%	$2.68	7.2%	$0.58	5.3%	$2.10	10.7%
Top 25%*	$10.12	$0.93	$11.05	$5.08	$2.31	69%	$3.66	12.4%	$0.50	4.5%	$3.16	23.0%

* 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	0.8	980	2.1	657	1,365	4.3%	3.4%
NO0014	561	437	0.4	510	0.9	534	486	4.0%	3.3%
NO0015	276	92	0.6	405	1.5	496	727	4.5%	3.5%
NO0022	226	105	0.5	320	1.4	499	707	4.7%	3.4%
NO0023	***342***	***342***	***0.7***	***530***	***1.5***	***544***	***842***	***4.2%***	***3.5%***
NO0027	1212	1	0.5	595	0.5	415	204	4.3%	3.1%
NO0035	109	66	0.7	222	2.0	559	1,139	4.1%	3.3%
NO0041	217	153	0.6	335	1.5	581	896	4.2%	3.5%
NO0043	144	144	0.5	133	0.9	455	421	4.3%	3.4%
NO0054	1112	290	0.6	2,164	1.9	673	1,309	4.2%	3.4%
NO0056	394	90	0.4	280	0.7	603	429	3.9%	3.2%
NO0059	***276***	***75***	***0.6***	***278***	***1.0***	***471***	***474***	***4.5%***	***3.5%***
NO0064	450	254	0.5	760	1.7	482	815	4.5%	3.7%
NO0065	219	218	0.7	340	1.6	643	999	4.1%	3.5%
NO0069	162	100	0.7	225	1.4	518	720	4.9%	3.7%
NO0072	195	57	0.4	173	0.9	460	408	4.3%	3.5%
NO0073	389	230	0.4	480	1.2	570	703	3.9%	3.3%
NO0075	***373***	***190***	***0.7***	***570***	***1.5***	***605***	***924***	***4.4%***	***3.6%***
NO0078	269	100	0.5	334	1.2	656	814	4.1%	3.3%
NO0079	***118***	***118***	***0.4***	***178***	***1.5***	***454***	***684***	***4.6%***	***3.7%***
NO0080	***80***	***80***	***0.7***	***250***	***3.1***	***594***	***1,856***	***4.1%***	***3.5%***
NO0081	***345***	***345***	***0.9***	***570***	***1.7***	***604***	***998***	***4.3%***	***3.3%***
NO0082	***565***	***565***	***0.5***	***480***	***0.8***	***653***	***555***	***4.3%***	***3.4%***
NO0083	193	193	0.6	380	2.0	447	881	4.3%	3.4%
NO0087	169	70	0.7	245	1.4	531	769	4.1%	3.4%
NO0088	29	29	0.6	89	3.1	525	1,612	4.8%	3.6%
NO0089	351	351	0.8	510	1.5	653	951	4.0%	3.6%
NO0090	113	113	0.4	160	1.4	526	745	4.6%	3.6%
NO0091	178	102	0.8	280	1.6	350	550	4.6%	3.5%
NO0092	***108***	***108***	***0.7***	***300***	***2.8***	***509***	***1,414***	***4.7%***	***3.7%***
Average	322	167	0.6	436	1.5	542	847	4.3%	3.5%
Top 25%*	276	228	0.7	395	1.7	554	968	4.4%	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	35%	0	0	0	0	132	86,629
NO0014	3.2	1.1	55%	199	19	48	35	84	45,060
NO0015	7.3	1.4	53%	179	24	0	30	135	67,089
NO0022	6.6	0.0	72%	66	0	0	10	131	65,662
NO0023	***3.2***	***3.4***	***39%***	***54***	***12***	***3***	***6***	***101***	***54,945***
NO0027	0.0	0.0	59%	0	0	0	0	63	26,327
NO0035	7.8	1.0	54%	0	7	13	10	79	44,294
NO0041	5.2	0.8	41%	45	17	0	1	94	54,614
NO0043	2.9	2.4	66%	0	14	0	8	116	52,892
NO0054	0.0	0.0	42%	194	29	9	24	94	63,159
NO0056	8.3	0.8	82%	73	28	40	21	84	50,726
NO0059	***13.4***	***2.0***	***69%***	***90***	***45***	***30***	***20***	***106***	***50,068***
NO0064	6.6	0.5	47%	190	32	0	40	140	67,665
NO0065	3.4	4.1	65%	62	15	0	19	77	49,691
NO0069	6.1	2.1	68%	0	26	0	33	98	50,678
NO0072	7.0	0.0	66%	21	19	30	23	61	28,099
NO0073	3.0	3.9	59%	143	16	15	19	103	58,736
NO0075	***3.8***	***7.7***	***63%***	***166***	***22***	***0***	***21***	***107***	***64,879***
NO0078	5.0	0.3	27%	87	39	0	3	106	69,193
NO0079	***3.4***	***0.3***	***41%***	***31***	***0***	***0***	***0***	***125***	***56,703***
NO0080	***8.4***	***0.1***	***38%***	***278***	***16***	***0***	***6***	***95***	***56,252***
NO0081	***1.4***	***6.5***	***54%***	***82***	***14***	***2***	***14***	***110***	***66,414***
NO0082	***2.6***	***2.1***	***57%***	***70***	***20***	***8***	***19***	***85***	***55,462***
NO0083	5.2	0.0	45%	15	3	0	21	86	38,294
NO0087	6.4	0.0	49%	103	51	34	23	88	46,704
NO0088	8.2	0.2	44%	13	26	0	33	67	35,133
NO0089	3.6	4.7	61%	80	17	3	18	86	55,889
NO0090	3.5	0.0	37%	35	21	0	3	104	54,789
NO0091	7.0	4.0	80%	14	0	0	3	88	30,851
NO0092	***7.5***	***0.9***	***50%***	***84***	***2***	***0***	***0***	***153***	***78,099***
Average	5.2	1.7	54%	82	18	8	16	100	54,166
Top 25%*	5.5	2.9	52%	107	16	5	11	110	60,352

**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	5.4	$556	$250	$199	$327	$423	65%
NO0014	4.1	$444		$270		$429	45%
NO0015	3.3	$435	$218	$443		$357	47%
NO0022	1.8	$578		$272		$529	28%
NO0023	***4.5***	***$467***	***$255***	***$227***		***$408***	***61%***
NO0027	4 .0	$593		$80	$408	$230	41%
NO0035	3.2	$459		$289		$393	46%
NO0041	5.0	$624		$297		$470	59%
NO0043	2.1	$633				$633	34%
NO0054	4.3	$532		$189		$447	58%
NO0056	2.5	$646		$319		$431	18%
NO0059	***1.9***	***$699***	***$360***			***$614***	***31%***
NO0064	3.5	$463	$276	$399		$446	53%
NO0065	2.9	$529	$330	$242		$461	35%
NO0069	2.0	$659				$659	32%
NO0072	2.2	$620				$620	34%
NO0073	2.5	$524		$224		$499	41%
NO0075	***2.5***	***$462***		***$119***		***$437***	***37%***
NO0078	7.7	$487	$474	$306		$381	73%
NO0079	***3.8***	***$408***	***$190***	***$171***	***$211***	***$278***	***59%***
NO0080	***4.4***	***$650***	***$500***	***$273***		***$501***	***62%***
NO0081	***3.4***	***$529***	***$220***	***$312***	***$132***	***$446***	***46%***
NO0082	***3.8***	***$622***	***$405***	***$286***		***$481***	***43%***
NO0083	4.0	$568	$207	$326		$404	55%
NO0087	4.1	$587	$233	$342	$111	$408	51%
NO0088	4.1	$607		$255		$438	56%
NO0089	2.8	$474	$215	$141		$441	39%
NO0090	6.1	$511		$327		$388	63%
NO0091	1.2	$624		$232	$627	$487	20%
NO0092	***3.5***	***$564***	***$307***	***$137***		***$392***	***50%***
Average	3.5	$552	$296	$257	$303	$451	46%
Top 25%*	3.5	$550				$445	48%

** 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	$0.11	$0.19	$0.15	$0.11	$0.15	$0.71	$0.41	$0.12	$0.46
NO0014	$0.13	$0.23	$0.26	$0.14	$0.17	$0.94	$1.00	$0.01	$0.04
NO0015	$0.15	$0.13	$0.02	$0.13	$0.07	$0.50	$0.47	$0.30	$0.42
NO0022	$0.11	$0.16	$0.01	$0.19	$0.03	$0.51	$0.03	$0.42	$0.25
NO0023	***$0.16***	***$0.26***	***$0.01***	***$0.12***	***$0.15***	***$0.71***	***$0.37***	***$0.27***	***$0.21***
NO0027	$0.21	$0.35	$0.00	$0.24	$0.17	$0.98	$1.78	$0.40	$0.48
NO0035	$0.13	$0.21	$0.02	$0.09	$0.07	$0.52	$0.04	$0.45	$0.16
NO0041	$0.25	$0.23	$0.03	$0.10	$0.09	$0.70	$0.30	$0.34	$0.15
NO0043	$0.32	$0.17	$0.06	$0.30	$0.24	$1.09	$0.15	$0.93	$0.13
NO0054	$0.13	$0.27	$0.03	$0.12	$0.06	$0.61	$0.38	$0.13	$0.43
NO0056	$0.28	$0.28	$0.04	$0.16	$0.16	$0.92	$0.87	$0.34	$0.08
NO0059	***$0.15***	***$0.03***	***$0.03***	***$0.18***	***$0.11***	***$0.50***	***$0.04***	***$1.17***	***$0.50***
NO0064	$0.18	$0.28	$0.04	$0.13	$0.12	$0.75	$0.73	$0.28	$0.16
NO0065	$0.12	$0.19	$0.09	$0.12	$0.16	$0.67	$0.39	$0.39	$0.51
NO0069	$0.16	$0.17	$0.02	$0.12	$0.10	$0.56	$0.24	$0.36	$0.51
NO0072	$0.21	$0.23	$0.30	$0.16	$0.17	$1.07	$0.72	$0.16	$0.44
NO0073	$0.32	$0.14	$0.32	$0.14	$0.24	$1.16	$0.93	$0.07	$0.36
NO0075	***$0.17***	***$0.10***	***$0.04***	***$0.10***	***$0.11***	***$0.52***	***$0.70***	***$0.41***	***$0.61***
NO0078	$0.14	$0.12	$0.01	$0.14	$0.08	$0.48	$0.29	$0.31	$0.14
NO0079	***$0.00***	***$0.09***	***$0.12***	***$0.24***	***$0.09***	***$0.54***	***$0.15***	***$0.11***	***$0.08***
NO0080	***$0.11***	***$0.10***	***$0.03***	***$0.08***	***$0.11***	***$0.44***	***$0.50***	***$0.26***	***$0.01***
NO0081	***$0.10***	***$0.14***	***$0.01***	***$0.10***	***$0.08***	***$0.43***	***$0.65***	***$0.23***	***$0.44***
NO0082	***$0.17***	***$0.13***	***$0.01***	***$0.12***	***$0.11***	***$0.55***	***$0.75***	***$0.29***	***$0.38***
NO0083	$0.04	$0.14	$0.40	$0.09	$0.03	$0.70	$0.14	$0.09	$0.00
NO0087	$0.09	$0.15	$0.00	$0.12	$0.11	$0.48	$0.14	$0.21	$0.25
NO0088	$0.05	$0.16	$0.00	$0.10	$0.11	$0.41	$0.12	$0.34	$0.00
NO0089	$0.14	$0.19	$0.03	$0.11	$0.06	$0.52	$0.40	$0.42	$0.60
NO0090	$0.09	$0.13	$0.06	$0.07	$0.11	$0.47	$0.27	$0.35	$0.00
NO0091	$0.13	$0.13	$0.05	$0.26	$0.12	$0.69	$0.54	$0.91	$0.43
NO0092	***$0.18***	***$0.10***	***$0.03***	***$0.17***	***$0.11***	***$0.59***	***$0.14***	***$0.37***	***$0.08***
Average	$0.15	$0.17	$0.07	$0.14	$0.12	$0.66	$0.45	$0.35	$0.28
Top 25%*	$0.13	$0.12	$0.03	$0.14	$0.11	$0.53	$0.41	$0.39	$0.29

** 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	$0.24	$0.44	$0.00	$0.60	$2.96	$0.20	$0.00	$5.42	$6.13
NO0014	$0.29	$0.36	$0.00	$0.71	$2.69	$0.00	-$0.11	$4.99	$5.94
NO0015	$0.17	$0.55	$0.00	$1.27	$1.29	$0.18	$0.03	$4.67	$5.17
NO0022	$0.12	$0.01	$0.00	$0.18	$1.95	$0.00	$0.25	$3.21	$3.73
NO0023	***$0.20***	***$0.57***	***$0.00***	***$0.53***	***$2.86***	***$0.20***	***-$0.48***	***$4.73***	***$5.44***
NO0027	$0.73	$1.66	$0.01	$0.75	$2.37	$0.13	$0.41	$8.73	$9.71
NO0035	$0.10	$0.23	$0.00	$0.64	$1.59	$0.08	$0.14	$3.44	$3.96
NO0041	$0.12	$0.25	$0.00	$1.14	$2.66	$0.05	-$0.15	$4.86	$5.56
NO0043	$0.23	$0.22	$0.00	$0.00	$3.07	$0.00	$0.04	$4.77	$5.86
NO0054	$0.16	$0.29	$0.01	$0.30	$2.53	$0.25	$0.68	$5.15	$5.76
NO0056	$0.15	$0.33	$0.03	$1.00	$1.55	$0.00	$0.70	$5.03	$5.95
NO0059	***$0.05***	***$0.12***	***$0.02***	***$0.73***	***$2.01***	***$0.00***	***-$0.59***	***$4.06***	***$4.55***
NO0064	$0.16	$0.39	$0.01	$1.59	$2.22	$0.01	-$0.66	$4.89	$5.64
NO0065	$0.19	$0.40	$0.00	$0.42	$1.98	$0.09	$0.62	$4.99	$5.66
NO0069	$0.21	$0.10	$0.00	$0.00	$2.18	$0.00	$0.24	$3.85	$4.40
NO0072	$0.10	$0.28	$0.00	$0.00	$2.62	$0.00	$0.71	$5.03	$6.11
NO0073	$0.14	$0.25	$0.00	$0.08	$2.05	$0.20	$0.23	$4.30	$5.46
NO0075	***$0.25***	***$0.59***	***$0.00***	***$0.04***	***$1.83***	***$0.24***	***$0.06***	***$4.74***	***$5.26***
NO0078	$0.17	$0.27	$0.00	$2.31	$1.88	$0.00	-$0.17	$5.19	$5.67
NO0079	***$0.25***	***$0.04***	***$0.08***	***$0.75***	***$1.46***	***$0.15***	***$0.15***	***$3.23***	***$3.77***
NO0080	***$0.10***	***$0.25***	***$0.09***	***$1.30***	***$2.72***	***$0.05***	***-$0.17***	***$5.10***	***$5.54***
NO0081	***$0.12***	***$0.38***	***$0.00***	***$0.28***	***$2.40***	***$0.16***	***$0.38***	***$5.05***	***$5.48***
NO0082	***$0.12***	***$0.41***	***$0.01***	***$1.27***	***$2.63***	***$0.03***	***-$0.43***	***$5.47***	***$6.02***
NO0083	$0.19	$0.22	$0.00	$0.68	$2.28	$0.09	$0.32	$4.01	$4.71
NO0087	$0.17	$0.30	$0.01	$1.01	$2.26	$0.00	$0.13	$4.48	$4.96
NO0088	$0.20	$0.07	$0.00	$0.81	$2.08	$0.18	$0.23	$4.02	$4.44
NO0089	$0.23	$0.48	$0.00	$0.10	$1.86	$0.06	$0.08	$4.21	$4.73
NO0090	$0.13	$0.34	$0.02	$2.66	$2.06	$0.00	-$0.15	$5.68	$6.15
NO0091	$0.27	$0.37	$0.05	$0.36	$1.79	$0.25	-$1.17	$3.81	$4.49
NO0092	***$0.07***	***$0.20***	***$0.00***	***$1.39***	***$1.72***	***$0.26***	***-$0.22***	***$4.02***	***$4.60***
Average	$0.19	$0.35	$0.01	$0.76	$2.19	$0.10	$0.04	$4.70	$5.36
Top 25%*	$0.15	$0.32	$0.03	$0.79	$2.21	$0.14	-$0.16	$4.55	$5.08

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	$0.10	$0.03	$0.01	$0.43	$0.13	$1.14	$1.83	$0.39	$0.01	$2.23
NO0014	$0.14	$0.11	$0.09	$0.55	$0.09	$0.83	$1.82	$0.45	$0.92	$3.18
NO0015	$0.05	$0.12	$0.01	$0.37	$0.15	$0.57	$1.26	$0.36	$0.71	$2.33
NO0022	$0.08	$0.10	$0.02	$0.88	$0.17	$0.49	$1.74	$0.23	$0.72	$2.69
NO0023	***$0.05***	***$0.06***	***$0.01***	***$0.49***	***$0.20***	***$0.83***	***$1.62***	***$0.22***	***$0.57***	***$2.42***
NO0027	$0.10	$0.24	$0.01	$1.15	$0.31	$3.03	$4.83	$1.23	$0.79	$6.85
NO0035	$0.06	$0.14	$0.00	$0.26	$0.15	$0.19	$0.80	$0.28	$1.72	$2.80
NO0041	$0.04	$0.04	$0.03	$0.29	$0.09	$0.98	$1.47	$0.25	$0.59	$2.31
NO0043	$0.12	$0.27	$0.09	$0.91	$0.39	$0.18	$1.95	$0.72	$1.38	$4.05
NO0054	$0.01	$0.04	$0.01	$0.63	$0.10	$1.56	$2.36	$0.24	$0.00	$2.60
NO0056	$0.10	$0.15	$0.02	$0.55	$0.17	$0.66	$1.65	$0.23	$1.07	$2.95
NO0059	***$0.06***	***$0.09***	***$0.07***	***$0.24***	***$0.15***	***$0.72***	***$1.32***	***$0.27***	***$0.74***	***$2.33***
NO0064	$0.04	$0.11	$0.06	$0.87	$0.14	$1.03	$2.25	$0.29	$0.41	$2.95
NO0065	$0.06	$0.08	$0.08	$0.21	$0.10	$1.06	$1.59	$0.59	$0.50	$2.68
NO0069	$0.07	$0.14	$0.03	$0.55	$0.19	$0.83	$1.82	$0.29	$0.87	$2.97
NO0072	$0.13	$0.13	$0.00	$0.43	$0.22	$2.27	$3.18	$0.38	$1.13	$4.69
NO0073	$0.06	$0.05	$0.02	$0.49	$0.27	$1.24	$2.13	$0.52	$0.43	$3.09
NO0075	***$0.05***	***$0.08***	***$0.00***	***$0.38***	***$0.15***	***$1.02***	***$1.68***	***$0.40***	***$0.50***	***$2.58***
NO0078	$0.05	$0.13	$0.02	$0.57	$0.06	$0.59	$1.42	$0.39	$0.59	$2.40
NO0079	***$0.07***	***$0.05***	***$0.11***	***$0.39***	***$0.09***	***$0.18***	***$0.89***	***$0.23***	***$1.29***	***$2.42***
NO0080	***$0.03***	***$0.03***	***$0.05***	***$0.25***	***$0.10***	***$0.52***	***$0.98***	***$0.24***	***$0.93***	***$2.15***
NO0081	***$0.05***	***$0.12***	***$0.00***	***$0.27***	***$0.11***	***$0.75***	***$1.29***	***$0.38***	***$0.52***	***$2.19***
NO0082	***$0.05***	***$0.08***	***$0.03***	***$0.40***	***$0.09***	***$1.27***	***$1.92***	***$0.28***	***$0.30***	***$2.50***
NO0083	$0.03	$0.04	$0.08	$0.33	$0.21	$1.10	$1.78	$0.52	$0.85	$3.14
NO0087	$0.04	$0.11	$0.02	$0.43	$0.16	$0.89	$1.64	$0.56	$0.93	$3.13
NO0088	$0.05	$0.05	$0.13	$0.32	$0.24	$0.62	$1.40	$0.24	$1.85	$3.49
NO0089	$0.03	$0.07	$0.01	$0.39	$0.09	$0.83	$1.43	$0.27	$0.78	$2.48
NO0090	$0.05	$0.09	$0.05	$0.35	$0.04	$0.30	$0.88	$0.29	$1.23	$2.40
NO0091	$0.07	$0.16	$0.00	$0.27	$0.36	$1.25	$2.13	$0.47	$1.41	$4.01
NO0092	***$0.00***	***$0.02***	***$0.01***	***$0.50***	***$0.18***	***$0.40***	***$1.11***	***$0.11***	***$0.68***	***$1.90***
Average	$0.06	$0.10	$0.04	$0.47	$0.16	$0.91	$1.74	$0.38	$0.81	$2.93
Top 25%*	$0.04	$0.07	$0.04	$0.36	$0.13	$0.71	$1.35	$0.27	$0.69	$2.31

*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	$15,163	$11,869	$7,800	$4,943	$2,046	$4,525	$688	$650	$29,566
Top 25%*	$10,382	$6,877	$4,421	$2,723	$1,861	$4,776	$892	$983	$23,315

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

Table B6

Capital structure – Northern Victoria (continued)

Liabilities			Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	($/ha)	($/cow)	($/ha)	(%)
Average	$6,753	$4,992	$22,813	74%
Top 25%*	$6,017	$3,756	$17,299	72%

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	$7.12	$5.48	$8.41	$0.21	$0.33	$0.17	$0.26	$3.60	$5.53	$4.03	$6.19
2007-08	$6.53	$9.57	$7.86	$11.51	$0.23	$0.33	$0.15	$0.22	$4.37	$6.41	$4.70	$6.88
2008-09	$5.32	$7.48	$6.06	$8.52	$0.21	$0.29	$0.13	$0.19	$3.47	$4.88	$3.81	$5.36
2009-10	$4.46	$6.07	$5.19	$7.08	$0.23	$0.31	$0.15	$0.20	$2.71	$3.70	$3.09	$4.21
2010-11	$5.69	$7.54	$6.74	$8.92	$0.31	$0.41	$0.19	$0.25	$2.66	$3.53	$3.16	$4.18
2011-12	$5.64	$7.34	$6.06	$7.88	$0.26	$0.34	$0.18	$0.23	$2.52	$3.27	$2.95	$3.84
2012-13	$5.05	$6.39	$5.53	$7.00	$0.25	$0.32	$0.24	$0.30	$2.85	$3.60	$3.34	$4.22
2013-14	$6.83	$8.43	$7.46	$9.21	$0.27	$0.33	$0.21	$0.26	$3.13	$3.87	$3.61	$4.46
2014-15	$6.09	$7.35	$6.62	$7.99	$0.30	$0.36	$0.19	$0.23	$3.20	$3.86	$3.69	$4.45
2015-16	$5.46	$6.51	$5.98	$7.12	$0.30	$0.35	$0.18	$0.21	$3.59	$4.27	$4.06	$4.84
2016-17	$5.13	$6.00	$5.92	$6.92	$0.34	$0.40	$0.20	$0.23	$2.87	$3.35	$3.41	$3.99
2017-18	$5.87	$6.74	$6.55	$7.51	$0.34	$0.39	$0.20	$0.23	$3.21	$3.68	$3.75	$4.31
2018-19	$6.28	$7.11	$6.81	$7.71	$0.32	$0.36	$0.23	$0.26	$4.40	$4.99	$4.95	$5.61
2019-20	$7.31	$8.17	$8.01	$8.96	$0.32	$0.36	$0.23	$0.25	$4.08	$4.56	$4.61	$5.15
2020-21	$7.02	$7.73	$7.93	$8.73	$0.32	$0.35	$0.23	$0.26	$3.34	$3.67	$3.86	$4.25
2021-22	$7.54	$7.95	$8.72	$9.20	$0.39	$0.41	$0.24	$0.26	$3.59	$3.79	$4.20	$4.43
2022-23	$9.84	$9.84	$10.97	$10.97	$0.40	$0.40	$0.26	$0.26	$4.70	$4.70	$5.36	$5.36
Average		$7.49		$8.45		$0.36		$0.24		$4.22		$4.81

Notes:'Real' dollar values are the nominal values converted to 2022-23 dollar equivalents by the consumer price index (CPI) to allow for inflation

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

Table B7

Historical data – Northern Victoria

Main financial indicators (continued)

Overhead Costs						
Year	Cash overhead costs		Non-cash overhead costs		Total overhead costs	
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)
2006-07	$0.82	$1.26	$1.10	$1.69	$1.92	$2.95
2007-08	$0.78	$1.14	$0.90	$1.32	$1.57	$2.30
2008-09	$0.74	$1.04	$0.82	$1.16	$1.56	$2.20
2009-10	$0.82	$1.12	$1.01	$1.38	$1.83	$2.50
2010-11	$1.01	$1.34	$1.05	$1.39	$2.06	$2.73
2011-12	$0.90	$1.18	$0.85	$1.10	$1.75	$2.28
2012-13	$0.94	$1.19	$0.87	$1.10	$1.81	$2.29
2013-14	$0.99	$1.22	$0.85	$1.05	$1.83	$2.26
2014-15	$1.03	$1.24	$0.81	$0.98	$1.84	$2.22
2015-16	$1.02	$1.21	$0.87	$1.04	$1.89	$2.25
2016-17	$1.13	$1.32	$1.01	$1.18	$2.14	$2.50
2017-18	$1.13	$1.30	$1.01	$1.16	$2.14	$2.45
2018-19	$1.23	$1.39	$1.08	$1.22	$2.31	$2.61
2019-20	$1.20	$1.34	$0.98	$1.09	$2.18	$2.43
2020-21	$1.31	$1.44	$0.99	$1.09	$2.30	$2.53
2021-22	$1.45	$1.53	$1.09	$1.15	$2.54	$2.68
2022-23	$1.74	$1.74	$1.19	$1.19	$2.93	$2.93
Average		$1.29		$1.19		$2.48

Table B7

Historical data – Northern Victoria

Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	%	%
2006-07	-$0.47	-$0.72	$0.57	$0.87	-$1.04	-$1.59	-1.6%	-6.9%
2007-08	$1.59	$2.33	$0.55	$0.80	$1.04	$1.52	7.9%	7.6%
2008-09	$0.59	$0.82	$0.54	$0.76	$0.05	$0.07	2.7%	-0.7%
2009-10	$0.20	$0.27	$0.51	$0.70	-$0.31	-$0.43	0.8%	-3.1%
2010-11	$1.52	$2.01	$0.65	$0.86	$0.87	$1.15	7.0%	7.6%
2011-12	$1.36	$1.77	$0.57	$0.75	$0.78	$1.02	7.6%	8.4%
2012-13	$0.39	$0.49	$0.58	$0.74	-$0.19	-$0.24	2.2%	-2.9%
2013-14	$2.02	$2.49	$0.56	$0.69	$1.46	$1.80	11.3%	14.7%
2014-15	$1.10	$1.32	$0.50	$0.61	$0.59	$0.71	6.1%	4.9%
2015-16	$0.03	$0.03	$0.46	$0.55	-$0.43	-$0.52	-0.1%	-4.4%
2016-17	$0.37	$0.43	$0.59	$0.69	-$0.22	-$0.25	1.0%	-2.0%
2017-18	$0.65	$0.75	$0.55	$0.63	$0.10	$0.12	2.5%	1.2%
2018-19	-$0.45	-$0.51	$0.56	$0.63	-$1.01	-$1.15	-1.7%	-7.4%
2019-20	$1.22	$1.37	$0.45	$0.50	$0.77	$0.86	4.1%	3.7%
2020-21	$1.76	$1.94	$0.44	$0.49	$1.32	$1.45	6.0%	7.5%
2021-22	$1.98	$2.09	$0.41	$0.43	$1.57	$1.66	5.6%	7.2%
2022-23	$2.68	$2.68	$0.58	$0.58	$2.10	$2.10	7.2%	10.7%
Average		$1.15		$0.66		$0.49	4.0%	2.7%

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
2022-23	322	167	0.6	436	1.5	542	847
Average	260	172	0.8	357	1.6	523	849

Table B8

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

Year	Estimated grazed pasture*	Estimated conserved feed*	Homegrown feed as % of ME consumed	Concentrate price Nominal	Concentrate price Real
	(t DM/ ha)	(t DM/ ha)	(% of ME)	($/t DM)	($/ t DM)
2006-07	4.3	0.5	48%	$316	$485
2007-08	3.1	0.7	47%	$398	$583
2008-09	4.3	0.7	46%	$347	$488
2009-10	5.0	0.6	51%	$256	$349
2010-11	5.1	2.6	58%	$286	$379
2011-12	7.1	1.1	53%	$267	$347
2012-13	8.1	1.4	55%	$311	$394
2013-14	7.6	1.6	57%	$366	$452
2014-15	7.6	1.2	54%	$387	$467
2015-16	7.1	1.1	50%	$389	$463
2016-17	6.8	1.1	58%	$311	$364
2017-18	7.0	1.4	59%	$352	$403
2018-19	7.1	1.6	60%	$513	$580
2019-20	5.7	0.9	50%	$494	$552
2020-21	6.3	1.9	55%	$433	$477
2021-22	5.6	1.9	56%	$479	$506
2022-23	5.2	1.7	54%	$552	$552
Average	6.1	1.3	53%		$461

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

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

Appendix C: South West Victoria summary tables

Table C1

Main financial indicators – South West Victoria

Farm number	Milk income (net)	All other farm income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest and Tax	Return on total assets	Interest and lease charges	Debt servicing ratio	Net farm income	Return on equity
	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	(%)	($/ kg MS)	(%)	($/ kg MS)	(% of income)	($/ kg MS)	(%)
SW0001	$10.03	$1.30	$11.33	$5.45	$3.11	64%	$2.77	6.4%	$0.84	7.4%	$1.93	6.9%
SW0007	$9.25	$0.20	$9.45	$3.45	$4.11	46%	$1.88	4.9%	$0.00	0.0%	$1.88	4.9%
SW0008	$10.06	$1.16	$11.22	$4.70	$2.89	62%	$3.63	6.3%	$0.88	7.9%	$2.74	6.6%
SW0022	$9.85	$1.45	$11.30	$5.61	$2.49	69%	$3.20	7.5%	$0.28	2.5%	$2.93	8.6%
SW0025	***$9.89***	***$1.93***	***$11.82***	***$4.41***	***$2.82***	***61%***	***$4.59***	***13.0%***	***$0.14***	***1.2%***	***$4.46***	***14.3%***
SW0030	$10.83	$1.67	$12.50	$4.11	$3.41	55%	$4.97	5.0%	$1.84	14.7%	$3.13	5.2%
SW0035	***$9.93***	***$1.21***	***$11.14***	***$4.34***	***$2.12***	***67%***	***$4.68***	***10.5%***	***$1.64***	***14.7%***	***$3.04***	***30.3%***
SW0036	$9.44	$0.92	$10.36	$4.79	$3.30	59%	$2.27	4.2%	$0.31	3.0%	$1.96	4.1%
SW0037	***$10.08***	***$2.02***	***$12.10***	***$5.73***	***$3.13***	***65%***	***$3.24***	***8.9%***	***$0.56***	***4.7%***	***$2.68***	***13.3%***
SW0040	$9.72	$1.87	$11.58	$4.97	$3.31	60%	$3.30	5.8%	$1.68	14.5%	$1.63	7.3%
SW0042	$9.42	$1.44	$10.85	$4.94	$3.08	62%	$2.83	5.5%	$0.51	4.7%	$2.33	7.5%
SW0043	$9.42	$0.97	$10.38	$4.91	$3.83	56%	$1.64	3.5%	$0.28	2.7%	$1.36	4.2%
SW0045	***$10.09***	***$2.39***	***$12.48***	***$4.66***	***$2.91***	***62%***	***$4.92***	***11.6%***	***$0.15***	***1.2%***	***$4.76***	***12.2%***
SW0046	$9.73	$0.98	$10.71	$4.72	$3.09	60%	$2.89	7.1%	$0.49	4.6%	$2.40	12.0%
SW0047	***$10.21***	***$1.15***	***$11.35***	***$4.67***	***$2.37***	***66%***	***$4.31***	***9.2%***	***$1.07***	***9.4%***	***$3.24***	***14.6%***
SW0049	$9.33	$1.91	$11.24	$4.51	$3.18	59%	$3.55	6.4%	$0.95	8.5%	$2.59	8.8%
SW0050	***$9.87***	***$1.57***	***$11.44***	***$4.98***	***$2.60***	***66%***	***$3.86***	***9.4%***	***$0.99***	***8.7%***	***$2.87***	***23.7%***
SW0051	$9.96	$0.99	$10.95	$5.22	$2.78	65%	$2.95	6.7%	$1.04	9.5%	$1.92	12.0%
SW0053	$10.01	$0.53	$10.54	$3.34	$3.30	50%	$3.90	8.5%	$0.78	7.4%	$3.12	12.7%
SW0054	$9.99	$1.28	$11.27	$6.05	$2.87	68%	$2.34	4.6%	$1.03	9.1%	$1.32	5.4%
SW0055	$9.76	$0.77	$10.53	$4.70	$3.22	59%	$2.61	4.1%	$0.90	8.6%	$1.71	5.3%
SW0056	$9.90	$1.05	$10.95	$4.55	$4.34	51%	$2.06	3.3%	$0.00	0.0%	$2.06	3.3%
SW0058	$9.53	$0.60	$10.12	$3.92	$2.88	58%	$3.33	7.2%	$0.14	1.4%	$3.19	7.3%
SW0059	$9.21	$1.73	$10.94	$5.78	$2.34	71%	$2.82	4.7%	$1.16	10.6%	$1.67	11.4%
SW0060	$9.80	$0.96	$10.76	$5.04	$3.20	61%	$2.52	4.1%	$1.37	12.7%	$1.16	5.2%
Average	$9.81	$1.28	$11.09	$4.78	$3.07	61%	$3.24	6.7%	$0.76	6.8%	$2.48	9.9%
Top 25%*	$10.01	$1.71	$11.72	$4.80	$2.66	64%	$4.27	10.4%	$0.76	6.6%	$3.51	18.1%

* 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	450	280	0.6	510	1.1	544	616	3.8%	3.4%
SW0007	116	116	0.3	95	0.8	454	372	5.3%	4.1%
SW0008	320	236	0.7	580	1.8	479	870	4.1%	3.5%
SW0022	759	410	0.7	680	0.9	636	570	4.1%	3.5%
SW0025	***238***	***174***	***0.9***	***420***	***1.8***	***665***	***1174***	***4.0%***	***3.4%***
SW0030	289	180	0.5	226	0.8	336	262	5.0%	3.9%
SW0035	***215***	***135***	***0.6***	***215***	***1.0***	***558***	***558***	***3.9%***	***3.3%***
SW0036	333	220	0.5	285	0.9	550	471	4.4%	3.6%
SW0037	***431***	***252***	***0.6***	***550***	***1.3***	***587***	***750***	***3.7%***	***3.3%***
SW0040	408	301	0.6	380	0.9	473	440	4.1%	3.4%
SW0042	209	144	0.5	220	1.1	498	524	4.2%	3.4%
SW0043	129	86	0.5	140	1.1	515	559	4.6%	3.5%
SW0045	669	505	0.7	720	1.1	619	666	4.2%	3.5%
SW0046	443	290	0.6	540	1.2	572	697	4.5%	3.6%
SW0047	***596***	***305***	***0.4***	***675***	***1.1***	***559***	***634***	***4.7%***	***3.5%***
SW0049	567	305	0.8	540	1.0	504	480	4.3%	3.5%
SW0050	***409***	***280***	***0.5***	***500***	***1.2***	***519***	***634***	***4.1%***	***3.3%***
SW0051	165	135	0.4	205	1.2	487	605	3.9%	3.3%
SW0053	334	264	0.7	396	1.2	480	568	4.2%	3.4%
SW0054	256	115	0.4	275	1.1	587	631	4.3%	3.6%
SW0055	623	325	0.7	590	0.9	607	575	4.3%	3.5%
SW0056	118	80	0.5	108	0.9	532	487	4.2%	3.3%
SW0058	262	159	0.6	333	1.3	512	650	4.9%	3.8%
SW0059	240	110	0.6	230	1.0	512	490	4.7%	3.6%
SW0060	194	130	0.6	216	1.1	370	412	4.7%	3.6%
Average	351	221	0.6	385	1.1	526	588	4.3%	3.5%
Top 25%*	426	275	0.6	513	1.2	585	736	4.1%	3.4%

Table C2

Physical information – South West Victoria (continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Homegrown feed as % of ME consumed	Nitrogen application**	Phosphorous application**	Potassium application**	Sulphur application**	Labour efficiency	Labour efficiency
	(t DM/ ha)	(t DM/ ha)	(% of ME)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(kg/ ha)	(cows/ FTE)	(kg MS/ FTE)
SW0001	3.6	1.8	59%	47	8	52	7	96	52,231
SW0007	2.5	0.0	56%	0	0	0	0	45	20,517
SW0008	6.4	3.0	66%	202	15	90	28	154	73,906
SW0022	1.6	3.9	53%	162	8	13	5	98	62,193
SW0025	***7.2***	***1.8***	***54%***	***258***	***10***	***24***	***6***	***62***	***40,950***
SW0030	5.6	0.0	82%	3	1	4	0	141	47,146
SW0035	***5.4***	***1.3***	***65%***	***93***	***17***	***59***	***15***	***144***	***80,508***
SW0036	3.1	1.2	60%	118	18	28	11	93	51,342
SW0037	***5.7***	***1.5***	***56%***	***223***	***11***	***31***	***19***	***94***	***55,216***
SW0040	3.9	1.0	74%	109	4	15	16	88	41,790
SW0042	4.5	1.2	64%	74	15	33	19	82	40,802
SW0043	3.8	1.1	62%	88	35	68	50	63	32,527
SW0045	***5.8***	***1.0***	***76%***	***66***	***13***	***30***	***3***	***116***	***71,559***
SW0046	4.6	2.8	57%	214	7	14	9	105	60,319
SW0047	***3.3***	***1.5***	***39%***	***146***	***15***	***45***	***18***	***101***	***56,390***
SW0049	5.1	4.3	72%	122	4	1	5	114	57,541
SW0050	***3.5***	***1.9***	***53%***	***171***	***12***	***23***	***12***	***96***	***49,883***
SW0051	3.0	1.9	53%	54	6	16	7	130	63,281
SW0053	4.3	1.1	71%	70	2	0	0	79	37,732
SW0054	5.8	0.5	53%	372	8	103	29	83	48,479
SW0055	7.0	1.4	72%	125	52	0	192	82	49,591
SW0056	3.4	2.7	74%	100	20	0	2	64	33,866
SW0058	5.3	1.8	72%	218	49	100	280	146	74,871
SW0059	5.7	1.8	68%	249	15	28	17	159	81,356
SW0060	4.5	1.1	87%	211	12	30	65	131	48,485
Average	4.6	1.7	64%	140	14	32	33	103	53,299
Top 25%*	5.2	1.5	57%	160	13	35	12	102	59,085

**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	$564	$0	$0	$0	$564	41%
SW0007	2.5	$637	$0	$167	$0	$483	44%
SW0008	2.0	$525	$0	$168	$0	$506	34%
SW0022	3.5	$598	$0	$404	$0	$588	47%
SW0025	***3.7***	***$598***	***$251***	***$141***	***$455***	***$515***	***46%***
SW0030	1.8	$586	$0	$328	$0	$442	18%
SW0035	***2.6***	***$568***	***$0***	***$0***	***$0***	***$568***	***35%***
SW0036	2.8	$510	$0	$0	$162	$446	40%
SW0037	***3.2***	***$599***	***$0***	***$0***	***$0***	***$599***	***44%***
SW0040	1.9	$607	$0	$487	$0	$607	26%
SW0042	2.8	$632	$0	$272	$0	$553	36%
SW0043	2.6	$640	$0	$265	$0	$575	38%
SW0045	***1.8***	***$492***	***$0***	***$0***	***$0***	***$492***	***24%***
SW0046	3.1	$461	$0	$313	$134	$400	43%
SW0047	***4.7***	***$461***	***$0***	***$335***	***$134***	***$337***	***61%***
SW0049	2.1	$559	$0	$0	$0	$559	28%
SW0050	***3.2***	***$501***	***$0***	***$278***	***$136***	***$391***	***47%***
SW0051	3.0	$523	$0	$0	$0	$523	47%
SW0053	1.7	$436	$0	$226	$0	$419	29%
SW0054	3.4	$527	$240	$200	$0	$455	47%
SW0055	2.3	$660	$0	$337	$0	$610	28%
SW0056	1.9	$607	$0	$0	$0	$607	26%
SW0058	1.6	$649	$0	$0	$0	$649	28%
SW0059	2.6	$653	$0	$284	$0	$508	32%
SW0060	0.6	$557	$0	$0	$0	$557	13%
Average	2.6	$566	$245	$280	$204	$518	36%
Top 25%*	3.2	$537				$484	43%

** 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	$0.13	$0.12	$0.11	$0.15	$0.15	$0.66	$0.36	$0.02	$0.21
SW0007	$0.19	$0.14	$0.02	$0.14	$0.08	$0.57	$0.00	$0.00	$0.00
SW0008	$0.07	$0.11	$0.05	$0.40	$0.04	$0.67	$1.22	$0.13	$0.03
SW0022	$0.22	$0.22	$0.25	$0.13	$0.13	$0.94	$0.87	$0.00	$0.45
SW0025	***$0.12***	***$0.09***	***$0.12***	***$0.09***	***$0.11***	***$0.51***	***$0.61***	***$0.08***	***$0.13***
SW0030	$0.17	$0.00	$0.03	$0.29	$0.32	$0.82	$0.16	$0.00	$0.00
SW0035	***$0.16***	***$0.07***	***$0.08***	***$0.10***	***$0.08***	***$0.49***	***$0.88***	***$0.00***	***$0.44***
SW0036	$0.13	$0.15	$0.10	$0.16	$0.14	$0.67	$1.04	$0.06	$0.28
SW0037	***$0.18***	***$0.16***	***$0.04***	***$0.16***	***$0.20***	***$0.74***	***$1.04***	***$0.01***	***$0.13***
SW0040	$0.21	$0.13	$0.20	$0.19	$0.21	$0.94	$0.69	$0.00	$0.09
SW0042	$0.17	$0.16	$0.02	$0.09	$0.19	$0.63	$0.73	$0.00	$0.09
SW0043	$0.17	$0.12	$0.02	$0.22	$0.23	$0.77	$0.74	$0.00	$0.09
SW0045	***$0.14***	***$0.12***	***$0.06***	***$0.09***	***$0.33***	***$0.73***	***$0.51***	***$0.00***	***$0.19***
SW0046	$0.25	$0.18	$0.24	$0.20	$0.12	$1.00	$0.84	$0.01	$0.39
SW0047	***$0.20***	***$0.17***	***$0.02***	***$0.12***	***$0.07***	***$0.58***	***$0.88***	***$0.00***	***$0.36***
SW0049	$0.27	$0.02	$0.30	$0.12	$0.10	$0.82	$0.61	$0.01	$0.56
SW0050	***$0.14***	***$0.24***	***$0.09***	***$0.22***	***$0.10***	***$0.79***	***$0.81***	***$0.00***	***$0.49***
SW0051	$0.22	$0.10	$0.12	$0.11	$0.18	$0.74	$0.69	$0.00	$0.30
SW0053	$0.16	$0.10	$0.05	$0.11	$0.14	$0.57	$0.59	$0.07	$0.11
SW0054	$0.16	$0.26	$0.07	$0.18	$0.14	$0.81	$1.80	$0.00	$0.17
SW0055	$0.09	$0.13	$0.05	$0.17	$0.13	$0.57	$1.23	$0.09	$0.25
SW0056	$0.22	$0.04	$0.05	$0.31	$0.13	$0.76	$0.73	$0.00	$0.05
SW0058	$0.08	$0.10	$0.07	$0.17	$0.13	$0.54	$1.16	$0.00	$0.05
SW0059	$0.18	$0.19	$0.02	$0.10	$0.13	$0.61	$1.72	$0.00	$0.50
SW0060	$0.19	$0.11	$0.11	$0.09	$0.10	$0.63	$2.23	$0.00	$0.28
Average	$0.17	$0.13	$0.09	$0.16	$0.15	$0.70	$0.89	$0.05	$0.22
Top 25%*	$0.16	$0.14	$0.07	$0.13	$0.15	$0.64	$0.79	$0.05	$0.29

** 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	$0.16	$0.31	$0.03	$0.00	$3.11	$0.07	$0.53	$4.79	$5.45
SW0007	$0.13	$0.07	$0.02	$0.27	$2.08	$0.34	-$0.02	$2.89	$3.45
SW0008	$0.33	$0.32	$0.00	$0.04	$2.10	$0.00	-$0.16	$4.03	$4.70
SW0022	$0.19	$0.24	$0.00	$0.12	$3.23	$0.00	-$0.43	$4.66	$5.61
SW0025	***$0.14***	***$0.07***	***$0.00***	***$0.14***	***$2.76***	***$0.00***	***-$0.04***	***$3.90***	***$4.41***
SW0030	$0.31	$0.43	$0.00	$1.09	$1.52	$0.00	-$0.22	$3.29	$4.11
SW0035	***$0.06***	***$0.08***	***$0.08***	***$0.00***	***$2.69***	***$0.00***	***-$0.38***	***$3.85***	***$4.34***
SW0036	$0.13	$0.36	$0.01	$0.00	$2.32	$0.00	-$0.08	$4.12	$4.79
SW0037	***$0.27***	***$0.19***	***$0.02***	***$0.00***	***$3.27***	***$0.00***	***$0.07***	***$4.99***	***$5.73***
SW0040	$0.24	$0.15	$0.31	$0.00	$2.39	$0.00	$0.16	$4.04	$4.97
SW0042	$0.21	$0.10	$0.02	$0.35	$2.92	$0.00	-$0.13	$4.31	$4.94
SW0043	$0.18	$0.19	$0.00	$0.23	$2.72	$0.00	-$0.01	$4.15	$4.91
SW0045	***$0.26***	***$0.07***	***$0.00***	***$0.00***	***$1.43***	***$0.00***	***$1.46***	***$3.93***	***$4.66***
SW0046	$0.15	$0.24	$0.03	$0.14	$2.29	$0.00	-$0.37	$3.73	$4.72
SW0047	***$0.11***	***$0.13***	***$0.01***	***$0.09***	***$2.94***	***$0.00***	***-$0.43***	***$4.09***	***$4.67***
SW0049	$0.29	$0.26	$0.00	$0.00	$2.32	$0.00	-$0.36	$3.69	$4.51
SW0050	***$0.16***	***$0.39***	***$0.09***	***$0.11***	***$2.33***	***$0.00***	***-$0.18***	***$4.19***	***$4.98***
SW0051	$0.16	$0.18	$0.00	$0.00	$3.17	$0.00	-$0.01	$4.49	$5.22
SW0053	$0.11	$0.13	$0.00	$0.07	$1.54	$0.00	$0.16	$2.77	$3.34
SW0054	$0.32	$0.38	$0.03	$0.00	$2.35	$0.00	$0.19	$5.24	$6.05
SW0055	$0.13	$0.05	$0.03	$0.20	$2.15	$0.00	$0.01	$4.13	$4.70
SW0056	$0.17	$0.16	$0.00	$0.00	$2.27	$0.00	$0.42	$3.79	$4.55
SW0058	$0.14	$0.03	$0.00	$0.00	$1.97	$0.00	$0.03	$3.37	$3.92
SW0059	$0.16	$0.01	$0.19	$0.56	$1.97	$0.00	$0.05	$5.16	$5.78
SW0060	$0.19	$0.16	$0.03	$0.00	$1.08	$0.00	$0.43	$4.41	$5.04
Average	$0.19	$0.19	$0.04	$0.14	$2.36	$0.02	$0.03	$4.08	$4.78
Top 25%*	$0.17	$0.16	$0.03	$0.06	$2.57	$0.00	$0.08	$4.16	$4.80

Table C5

Overhead costs – South West Victoria

Farm number	Rates	Farm Insurance	Motor vehicle expenses	Repairs and maintenance	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed labour cost	Total overheads
	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)
SW0001	$0.05	$0.13	$0.03	$0.70	$0.12	$1.01	$2.05	$0.58	$0.47	$3.11
SW0007	$0.10	$0.16	$0.01	$0.76	$0.23	$2.46	$3.73	$0.18	$0.21	$4.11
SW0008	$0.04	$0.06	$0.01	$0.73	$0.13	$0.53	$1.51	$0.80	$0.58	$2.89
SW0022	$0.08	$0.12	$0.02	$0.36	$0.25	$0.73	$1.56	$0.30	$0.63	$2.49
SW0025	***$0.04***	***$0.11***	***$0.01***	***$0.37***	***$0.08***	***$1.35***	***$1.96***	***$0.30***	***$0.55***	***$2.82***
SW0030	$0.28	$0.07	$0.08	$0.56	$0.26	$0.88	$2.13	$0.28	$1.00	$3.41
SW0035	***$0.04***	***$0.05***	***$0.01***	***$0.54***	***$0.14***	***$0.07***	***$0.86***	***$0.27***	***$1.00***	***$2.12***
SW0036	$0.07	$0.12	$0.03	$0.55	$0.12	$0.91	$1.80	$0.44	$1.06	$3.30
SW0037	***$0.06***	***$0.10***	***$0.03***	***$0.91***	***$0.07***	***$1.07***	***$2.23***	***$0.42***	***$0.48***	***$3.13***
SW0040	$0.08	$0.19	$0.04	$0.48	$0.22	$1.18	$2.20	$0.26	$0.86	$3.31
SW0042	$0.06	$0.09	$0.04	$0.48	$0.09	$1.03	$1.79	$0.29	$1.01	$3.08
SW0043	$0.05	$0.23	$0.11	$0.26	$0.19	$0.11	$0.94	$0.27	$2.62	$3.83
SW0045	***$0.05***	***$0.10***	***$0.01***	***$0.88***	***$0.25***	***$0.62***	***$1.90***	***$0.50***	***$0.51***	***$2.91***
SW0046	$0.04	$0.10	$0.09	$1.07	$0.07	$0.98	$2.34	$0.34	$0.41	$3.09
SW0047	***$0.06***	***$0.10***	***$0.00***	***$0.33***	***$0.16***	***$1.08***	***$1.74***	***$0.27***	***$0.36***	***$2.37***
SW0049	$0.07	$0.16	$0.02	$0.69	$0.41	$0.98	$2.32	$0.37	$0.49	$3.18
SW0050	***$0.02***	***$0.11***	***$0.01***	***$0.44***	***$0.11***	***$1.03***	***$1.73***	***$0.19***	***$0.69***	***$2.60***
SW0051	$0.05	$0.17	$0.09	$0.69	$0.16	$0.19	$1.35	$0.27	$1.16	$2.78
SW0053	$0.06	$0.08	$0.02	$0.44	$0.08	$1.41	$2.09	$0.39	$0.81	$3.30
SW0054	$0.05	$0.14	$0.02	$0.41	$0.09	$0.74	$1.45	$0.53	$0.89	$2.87
SW0055	$0.07	$0.15	$0.03	$0.73	$0.07	$1.54	$2.58	$0.39	$0.25	$3.22
SW0056	$0.07	$0.25	$0.12	$0.65	$0.18	$0.04	$1.31	$0.53	$2.51	$4.34
SW0058	$0.07	$0.11	$0.03	$0.54	$0.07	$0.20	$1.03	$0.92	$0.93	$2.88
SW0059	$0.02	$0.11	$0.05	$0.59	$0.10	$0.26	$1.13	$0.45	$0.76	$2.34
SW0060	$0.06	$0.10	$0.08	$0.51	$0.18	$0.10	$1.03	$0.47	$1.70	$3.20
Average	$0.07	$0.12	$0.04	$0.59	$0.15	$0.82	$1.79	$0.40	$0.88	$3.07
Top 25%*	$0.04	$0.10	$0.01	$0.58	$0.13	$0.87	$1.74	$0.33	$0.60	$2.66

*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	$17,047	$15,494	$2,795	$2,219	$1,743	$3,680	$427	$791	$23,612
Top 25%*	$17,082	$13,301			$1,934	$4,110	$321	$237	$23,684

Table C6

Capital structure – South West Victoria (continued)

Liabilities			Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	($/ha)	($/cow)	($/ha)	(%)
Average	$6,188	$5,626	$17,425	73%
Top 25%*	$6,200	$5,177	$17,484	69%

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	$6.61	$5.05	$7.76	$0.19	$0.29	$0.13	$0.20	$2.61	$4.01	$2.97	$4.56
2007-08	$6.56	$9.61	$7.91	$11.59	$0.21	$0.31	$0.14	$0.21	$2.95	$4.32	$3.32	$4.87
2008-09	$5.40	$7.59	$6.13	$8.62	$0.22	$0.31	$0.15	$0.22	$2.55	$3.59	$2.93	$4.11
2009-10	$4.55	$6.20	$5.23	$7.13	$0.21	$0.28	$0.16	$0.22	$2.00	$2.72	$2.37	$3.22
2010-11	$5.62	$7.45	$6.34	$8.40	$0.21	$0.28	$0.18	$0.24	$2.10	$2.78	$2.48	$3.29
2011-12	$5.56	$7.23	$5.97	$7.77	$0.23	$0.30	$0.21	$0.27	$2.35	$3.06	$2.79	$3.63
2012-13	$4.90	$6.20	$5.24	$6.63	$0.24	$0.31	$0.21	$0.27	$2.60	$3.30	$3.06	$3.88
2013-14	$6.91	$8.53	$7.54	$9.31	$0.25	$0.31	$0.23	$0.28	$2.90	$3.57	$3.37	$4.16
2014-15	$6.16	$7.43	$6.70	$8.09	$0.25	$0.31	$0.20	$0.25	$2.88	$3.48	$3.34	$4.03
2015-16	$5.47	$6.51	$5.95	$7.08	$0.24	$0.29	$0.19	$0.23	$3.14	$3.74	$3.57	$4.25
2016-17	$5.25	$6.14	$5.98	$6.99	$0.25	$0.29	$0.20	$0.24	$2.14	$2.50	$2.59	$3.03
2017-18	$5.80	$6.65	$6.42	$7.37	$0.29	$0.33	$0.24	$0.27	$2.90	$3.33	$3.43	$3.93
2018-19	$6.15	$6.97	$6.99	$7.92	$0.32	$0.36	$0.23	$0.26	$3.20	$3.62	$3.74	$4.23
2019-20	$7.16	$8.01	$7.98	$8.92	$0.32	$0.36	$0.23	$0.25	$2.95	$3.30	$3.52	$3.93
2020-21	$6.68	$7.35	$7.79	$8.58	$0.32	$0.35	$0.23	$0.26	$2.48	$2.73	$3.06	$3.37
2021-22	$7.39	$7.79	$8.74	$9.22	$0.39	$0.41	$0.24	$0.26	$3.47	$3.66	$4.12	$4.35
2022-23	$9.81	$9.81	$11.09	$11.09	$0.39	$0.39	$0.31	$0.31	$4.08	$4.08	$4.78	$4.78
Average		$7.42		$8.38		$0.32		$0.25		$3.40		$3.98

Notes:'Real' dollar values are the nominal values converted to 2022-23 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	$1.22	$0.99	$1.52	$1.78	$2.73
2007-08	$0.95	$1.39	$0.84	$1.24	$1.69	$2.48
2008-09	$0.92	$1.29	$0.89	$1.25	$1.81	$2.54
2009-10	$0.89	$1.21	$1.03	$1.41	$1.92	$2.62
2010-11	$1.06	$1.41	$1.08	$1.43	$2.14	$2.84
2011-12	$1.11	$1.44	$1.29	$1.68	$2.40	$3.12
2012-13	$0.95	$1.20	$1.20	$1.52	$2.15	$2.72
2013-14	$1.14	$1.41	$1.00	$1.24	$2.14	$2.65
2014-15	$1.15	$1.39	$0.92	$1.11	$2.08	$2.50
2015-16	$1.10	$1.30	$1.10	$1.31	$2.19	$2.61
2016-17	$1.11	$1.30	$1.12	$1.30	$2.23	$2.61
2017-18	$1.30	$1.49	$1.22	$1.40	$2.51	$2.88
2018-19	$1.28	$1.45	$1.27	$1.44	$2.55	$2.89
2019-20	$1.38	$1.54	$1.26	$1.40	$2.63	$2.94
2020-21	$1.45	$1.60	$1.25	$1.37	$2.70	$2.97
2021-22	$1.67	$1.76	$1.23	$1.30	$2.90	$3.06
2022-23	$1.79	$1.79	$1.28	$1.28	$3.07	$3.07
Average		$1.42		$1.37		$2.78

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	$0.46	$0.59	$0.91	-$0.29	-$0.45	1.0%	-3.3%
2007-08	$2.89	$4.23	$0.72	$1.06	$2.17	$3.17	11.2%	14.8%
2008-09	$1.32	$1.86	$0.69	$0.97	$0.63	$0.89	4.5%	3.7%
2009-10	$0.91	$1.24	$0.80	$1.10	$0.10	$0.14	3.0%	1.3%
2010-11	$1.71	$2.27	$0.95	$1.25	$0.77	$1.01	5.5%	5.8%
2011-12	$0.78	$1.01	$0.90	$1.17	-$0.12	-$0.15	3.3%	-0.2%
2012-13	$0.03	$0.04	$0.78	$0.99	-$0.75	-$0.95	0.2%	-12.7%
2013-14	$2.03	$2.50	$0.69	$0.86	$1.33	$1.64	7.9%	9.9%
2014-15	$1.28	$1.55	$0.62	$0.75	$0.66	$0.80	5.2%	6.2%
2015-16	$0.18	$0.22	$0.68	$0.81	-$0.49	-$0.59	0.6%	-2.8%
2016-17	$1.16	$1.36	$0.63	$0.74	$0.53	$0.62	4.2%	4.3%
2017-18	$0.48	$0.55	$0.60	$0.68	-$0.12	-$0.13	1.9%	-1.1%
2018-19	$0.71	$0.80	$0.67	$0.76	$0.03	$0.04	2.3%	-0.8%
2019-20	$1.83	$2.04	$0.54	$0.60	$1.29	$1.44	5.8%	9.6%
2020-21	$2.04	$2.25	$0.43	$0.48	$1.61	$1.77	5.5%	9.1%
2021-22	$1.71	$1.81	$0.42	$0.44	$1.29	$1.36	3.9%	5.5%
2022-23	$3.24	$3.24	$0.76	$0.76	$2.48	$2.48	6.7%	9.9%
Average		$1.61		$0.84		$0.77	4.3%	3.5%

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
Average	325	248	0.8	378	1.2	510	609

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	$510
2007-08	5.1	1.3	71%	$425	$623
2008-09	5.3	1.2	68%	$390	$548
2009-10	6.0	1.0	71%	$287	$391
2010-11	5.1	1.6	67%	$302	$400
2011-12	4.2	1.0	55%	$309	$402
2012-13	4.0	1.5	58%	$342	$433
2013-14	4.6	1.5	62%	$395	$487
2014-15	4.5	1.2	59%	$408	$493
2015-16	3.4	1.5	51%	$400	$477
2016-17	4.8	2.2	67%	$345	$404
2017-18	3.9	1.9	62%	$377	$433
2018-19	4.3	2.2	68%	$512	$580
2019-20	4.7	2.2	68%	$491	$548
2020-21	4.8	2.3	68%	$422	$465
2021-22	4.0	2.0	62%	$489	$516
2022-23	4.6	1.7	64%	$566	$566
Average	4.6	1.6	64%		$487

* 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)	(%)
GI0005	$9.13	-$0.05	$9.07	$3.78	$7.39	34%	-$2.09	-2.2%	$0.35	3.8%	-$2.44	-2.8%
GI0012	$9.33	$1.13	$10.46	$4.02	$4.03	50%	$2.42	3.2%	$0.45	4.3%	$1.96	4.0%
GI0021	$9.38	$0.59	$9.97	$5.52	$2.96	65%	$1.49	3.3%	$1.31	13.1%	$0.19	1.3%
GI0022	$9.68	$1.23	$10.91	$4.89	$3.40	59%	$2.63	6.2%	$0.93	8.5%	$1.70	6.4%
GI0028	$9.78	$1.31	$11.09	$5.85	$2.93	67%	$2.32	5.7%	$1.06	9.5%	$1.26	8.0%
GI0029	***$9.66***	***$0.55***	***$10.21***	***$3.67***	***$2.78***	***57%***	***$3.76***	***10.2%***	***$0.13***	***1.2%***	***$3.63***	***11.8%***
GI0031	$9.31	$0.14	$9.44	$5.72	$2.33	71%	$1.40	3.5%	$0.69	7.3%	$0.71	2.7%
GI0037	$9.90	$0.96	$10.85	$5.44	$2.47	69%	$2.94	6.6%	$0.51	4.7%	$2.43	8.3%
GI0039	$10.03	$0.70	$10.73	$5.22	$2.77	65%	$2.74	5.5%	$0.80	7.5%	$1.94	10.7%
GI0046	$9.34	$0.74	$10.07	$5.01	$2.43	67%	$2.64	6.1%	$1.10	10.9%	$1.54	9.3%
GI0048	$9.77	$1.07	$10.84	$3.61	$2.06	64%	$5.17	10.1%	$0.23	2.2%	$4.94	15.0%
GI0049	$9.28	$0.19	$9.47	$4.65	$2.04	70%	$2.78	9.7%	$0.78	8.2%	$2.00	12.8%
GI0051	$9.90	$1.33	$11.22	$5.63	$2.74	67%	$2.85	5.3%	$1.90	17.0%	$0.95	10.3%
GI0053	***$9.41***	***$1.39***	***$10.79***	***$4.34***	***$2.45***	***64%***	***$4.00***	***12.4%***	***$0.32***	***3.0%***	***$3.67***	***14.7%***
GI0055	***$9.88***	***$0.98***	***$10.86***	***$5.09***	***$2.11***	***71%***	***$3.67***	***13.8%***	***$0.65***	***6.0%***	***$3.02***	***29.1%***
GI0056	***$9.52***	***$0.38***	***$9.90***	***$2.93***	***$1.79***	***62%***	***$5.18***	***11.8%***	***$0.20***	***2.0%***	***$4.98***	***14.0%***
GI0057	***$9.47***	***$0.54***	***$10.01***	***$4.74***	***$1.62***	***75%***	***$3.65***	***12.3%***	***$0.79***	***7.9%***	***$2.86***	***55.5%***
GI0058	***$9.90***	***$1.51***	***$11.41***	***$4.96***	***$2.92***	***63%***	***$3.53***	***10.6%***	***$0.99***	***8.7%***	***$2.54***	***18.3%***
GI0061	$10.04	-$0.35	$9.69	$4.57	$2.53	64%	$2.59	8.0%	$0.80	8.2%	$1.79	10.2%
GI0064	$9.03	$0.05	$9.08	$5.23	$3.31	61%	$0.54	0.8%	$1.76	19.4%	-$1.22	-4.0%
GI0067	$9.30	$0.97	$10.26	$5.00	$3.35	60%	$1.91	3.2%	$1.01	9.8%	$0.91	8.8%
GI0068	$9.88	$1.31	$11.19	$4.59	$2.40	66%	$4.21	6.6%	$0.82	7.3%	$3.39	32.3%
GI0069	$10.27	$0.77	$11.04	$5.78	$2.33	71%	$2.93	6.3%	$1.49	13.5%	$1.44	8.1%
GI0070	$9.42	$2.18	$11.59	$6.14	$2.58	70%	$2.88	8.2%	$1.02	8.8%	$1.85	11.5%
GI0071	$10.20	$1.39	$11.59	$6.22	$3.16	66%	$2.20	5.8%	$0.77	6.7%	$1.43	7.3%
Average	$9.63	$0.84	$10.47	$4.90	$2.83	64%	$2.73	6.9%	$0.83	8.0%	$1.90	12.1%
Top 25%*	$9.64	$0.89	$10.53	$4.29	$2.28	65%	$3.96	11.8%	$0.51	4.8%	$3.45	23.9%

* 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)	(%)	(%)
GI0005	91	84	0.6	96	1.1	322	339	4.0%	3.3%
GI0012	97	70	0.6	160	1.6	467	771	4.0%	3.4%
GI0021	368	188	0.8	438	1.2	456	543	5.2%	3.9%
GI0022	423	280	0.8	512	1.2	492	595	4.1%	3.4%
GI0028	188	114	0.5	290	1.5	509	785	4.0%	3.4%
GI0029	***106***	***99***	***1.2***	***300***	***2.8***	***490***	***1,388***	***4.5%***	***3.5%***
GI0031	117	73	0.8	326	2.8	440	1,225	4.3%	3.6%
GI0037	341	230	0.6	490	1.4	505	727	4.1%	3.5%
GI0039	203	125	0.6	300	1.5	495	732	4.0%	3.5%
GI0046	188	108	0.8	195	1.0	545	566	4.1%	3.4%
GI0048	342	180	0.5	515	1.5	478	720	4.3%	3.4%
GI0049	72	72	1.2	290	4.0	411	1,656	4.5%	3.6%
GI0051	358	162	0.7	540	1.5	466	704	4.1%	3.3%
GI0053	***119***	***119***	***1.1***	***340***	***2.9***	***495***	***1,421***	***4.5%***	***3.5%***
GI0055	***253***	***120***	***1.1***	***515***	***2.0***	***631***	***1,286***	***4.6%***	***3.7%***
GI0056	***212***	***135***	***0.7***	***347***	***1.6***	***408***	***668***	***5.5%***	***3.9%***
GI0057	***174***	***174***	***0.7***	***392***	***2.3***	***520***	***1,171***	***4.4%***	***3.5%***
GI0058	***147***	***94***	***1.0***	***390***	***2.7***	***583***	***1,548***	***4.4%***	***3.5%***
GI0061	89	89	1.3	345	3.9	357	1,384	4.4%	3.5%
GI0064	229	155	0.5	280	1.2	395	483	4.8%	3.9%
GI0067	186	82	0.4	235	1.3	479	604	4.5%	3.6%
GI0068	155	115	0.6	230	1.5	386	574	4.3%	3.5%
GI0069	193	117	0.9	300	1.6	561	871	4.2%	3.7%
GI0070	185	130	0.5	359	1.9	546	1,057	4.1%	3.3%
GI0071	295	165	0.6	420	1.4	590	840	4.4%	3.5%
Average	205	131	0.8	344	1.9	481	906	4.4%	3.5%
Top 25%*	168	123	1.0	381	2.4	521	1,247	4.6%	3.6%

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)
GI0005	4.3	1.8	80%	0	2	0	8	49	15,839
GI0012	8.3	1.0	68%	239	29	55	36	71	33,096
GI0021	4.1	1.4	66%	108	0	0	0	106	48,292
GI0022	5.1	0.0	73%	1	0	1	1	115	56,327
GI0028	6.7	0.6	53%	246	4	8	7	85	43,012
GI0029	***12.0***	***0.4***	***70%***	***29***	***0***	***0***	***4***	***100***	***49,037***
GI0031	8.4	0.1	52%	177	12	51	21	136	59,818
GI0037	4.8	1.5	56%	244	6	40	18	101	50,774
GI0039	5.6	1.4	50%	187	19	59	21	103	51,076
GI0046	5.0	0.5	64%	109	17	15	11	111	60,782
GI0048	8.8	0.0	64%	184	0	0	0	130	62,031
GI0049	10.7	0.5	53%	74	29	96	29	191	78,422
GI0051	9.0	0.3	71%	278	0	0	0	113	52,473
GI0053	***9.3***	***0.8***	***60%***	***185***	***0***	***0***	***3***	***102***	***50,766***
GI0055	***11.0***	***2.0***	***53%***	***249***	***33***	***61***	***23***	***145***	***91,217***
GI0056	***8.3***	***1.1***	***85%***	***229***	***32***	***41***	***16***	***204***	***83,375***
GI0057	***6.2***	***0.5***	***51%***	***248***	***0***	***0***	***0***	***119***	***61,733***
GI0058	***6.5***	***0.0***	***34%***	***88***	***14***	***0***	***18***	***92***	***53,432***
GI0061	10.6	0.3	56%	56	22	73	22	180	64,164
GI0064	5.2	0.4	66%	127	0	0	0	95	37,569
GI0067	8.2	0.3	61%	299	12	49	33	80	38,296
GI0068	5.7	1.4	66%	146	2	7	2	152	58,821
GI0069	4.1	2.1	64%	369	45	128	49	117	65,770
GI0070	5.3	0.8	42%	254	51	58	15	97	52,671
GI0071	6.4	2.2	46%	193	22	61	33	85	50,031
Average	7.2	0.9	60%	173	14	32	15	115	54,753
Top 25%*	8.9	0.8	59%	171	13	17	11	127	64,927

**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)
GI0005	1.2	$564				$564	20%
GI0012	1.8	$520		$118		$487	32%
GI0021	1.7	$648				$648	34%
GI0022	1.9	$610				$610	27%
GI0028	3.3	$595	$404	$454		$546	47%
GI0029	***1.9***	***$644***	***$400***	***$447***	***$211***	***$548***	***30%***
GI0031	2.6	$514				$514	48%
GI0037	3.1	$553	$252			$510	44%
GI0039	3.2	$490		$268	$167	$455	50%
GI0046	2.1	$683				$683	36%
GI0048	2.8	$484	$227	$390		$376	36%
GI0049	2.4	$578	$332	$284		$542	47%
GI0051	1.9	$594	$308	$363		$535	29%
GI0053	***2.2***	***$586***	***$380***	***$393***		***$539***	***40%***
GI0055	***3.5***	***$647***	***$207***	***$145***		***$547***	***47%***
GI0056	***0.7***	***$512***				***$512***	***15%***
GI0057	***2.9***	***$617***	***$195***	***$369***	***$175***	***$464***	***49%***
GI0058	***5.4***	***$512***	***$251***	***$329***		***$410***	***66%***
GI0061	2.1	$637	$495	$298	$193	$543	44%
GI0064	1.7	$558			$177	$527	34%
GI0067	2.4	$549	$277			$506	39%
GI0068	2.1	$568				$568	34%
GI0069	2.4	$629		$200		$557	36%
GI0070	3.6	$658	$159	$197		$558	58%
GI0071	3.9	$627	$99	$325		$535	54%
Average	2.5	$583	$285	$305	$185	$531	40%
Top 25%*	2.8	$586				$503	41%

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

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

Table D4

Variable costs – Gippsland

Farm number	AI and herd test	Animal health	Calf rearing	Shed power	Dairy supplies	Total herd and shed costs	Fertiliser	Irrigation **	Hay and silage making
	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)	($/ kg MS)
GI0005	$0.07	$0.04	$0.09	$0.33	$0.33	$0.85	$0.66	$0.00	$0.43
GI0012	$0.15	$0.16	$0.05	$0.15	$0.06	$0.58	$1.01	$0.00	$0.12
GI0021	$0.18	$0.16	$0.05	$0.23	$0.31	$0.92	$0.66	$0.00	$0.56
GI0022	$0.21	$0.31	$0.11	$0.13	$0.06	$0.83	$0.59	$0.00	$0.36
GI0028	$0.20	$0.10	$0.12	$0.13	$0.13	$0.67	$1.09	$0.00	$0.15
GI0029	***$0.12***	***$0.09***	***$0.04***	***$0.04***	***$0.14***	***$0.44***	***$0.31***	***$0.29***	***$0.04***
GI0031	$0.40	$0.29	$0.08	$0.11	$0.04	$0.93	$1.05	$0.33	$0.27
GI0037	$0.22	$0.16	$0.05	$0.15	$0.11	$0.69	$0.88	$0.00	$0.23
GI0039	$0.16	$0.18	$0.05	$0.10	$0.17	$0.66	$0.95	$0.00	$0.30
GI0046	$0.16	$0.13	$0.06	$0.09	$0.17	$0.61	$0.80	$0.00	$0.40
GI0048	$0.09	$0.16	$0.03	$0.08	$0.07	$0.43	$0.48	$0.00	$0.15
GI0049	$0.22	$0.16	$0.10	$0.20	$0.08	$0.76	$0.29	$0.22	$0.08
GI0051	$0.29	$0.47	$0.20	$0.13	$0.16	$1.25	$1.34	$0.00	$0.78
GI0053	***$0.19***	***$0.13***	***$0.06***	***$0.13***	***$0.22***	***$0.73***	***$0.42***	***$0.24***	***$0.10***
GI0055	***$0.14***	***$0.12***	***$0.06***	***$0.08***	***$0.12***	***$0.52***	***$0.94***	***$0.14***	***$0.19***
GI0056	***$0.18***	***$0.09***	***$0.06***	***$0.12***	***$0.09***	***$0.55***	***$1.08***	***$0.00***	***$0.23***
GI0057	***$0.12***	***$0.17***	***$0.02***	***$0.10***	***$0.06***	***$0.48***	***$0.83***	***$0.00***	***$0.06***
GI0058	***$0.23***	***$0.10***	***$0.07***	***$0.13***	***$0.08***	***$0.61***	***$0.30***	***$0.14***	***$0.00***
GI0061	$0.33	$0.10	$0.02	$0.09	$0.07	$0.61	$0.22	$0.33	$0.00
GI0064	$0.71	$0.18	$0.20	$0.17	$0.22	$1.47	$1.28	$0.00	$0.22
GI0067	$0.23	$0.12	$0.10	$0.13	$0.17	$0.75	$1.18	$0.00	$0.19
GI0068	$0.15	$0.09	$0.08	$0.12	$0.11	$0.56	$0.81	$0.00	$0.32
GI0069	$0.03	$0.11	$0.03	$0.19	$0.15	$0.51	$1.51	$0.00	$0.22
GI0070	$0.22	$0.17	$0.10	$0.11	$0.11	$0.71	$0.89	$0.05	$0.26
GI0071	$0.18	$0.25	$0.10	$0.09	$0.07	$0.69	$1.08	$0.03	$0.42
Average	$0.21	$0.16	$0.08	$0.13	$0.13	$0.71	$0.83	$0.18	$0.24
Top 25%*	$0.16	$0.12	$0.05	$0.10	$0.12	$0.55	$0.65	$0.16	$0.10

** 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)
GI0005	$0.20	$0.02	$0.00	$0.00	$1.70	$0.00	-$0.08	$2.92	$3.78
GI0012	$0.12	$0.13	$0.05	$0.04	$2.01	$0.00	-$0.03	$3.44	$4.02
GI0021	$0.23	$0.30	$0.05	$0.00	$2.45	$0.00	$0.34	$4.59	$5.52
GI0022	$0.24	$0.05	$0.00	$0.00	$2.35	$0.00	$0.46	$4.06	$4.89
GI0028	$0.16	$0.20	$0.00	$1.04	$2.64	$0.00	-$0.11	$5.18	$5.85
GI0029	***$0.12***	***$0.07***	***$0.00***	***$0.59***	***$1.68***	***$0.34***	***-$0.21***	***$3.23***	***$3.67***
GI0031	$0.09	$0.09	$0.00	$0.00	$2.87	$0.28	-$0.19	$4.79	$5.72
GI0037	$0.14	$0.30	$0.00	$0.22	$2.88	$0.00	$0.11	$4.75	$5.44
GI0039	$0.11	$0.20	$0.00	$0.22	$2.85	$0.00	-$0.05	$4.57	$5.22
GI0046	$0.10	$0.44	$0.01	$0.00	$2.68	$0.00	-$0.02	$4.40	$5.01
GI0048	$0.09	$0.06	$0.08	$1.20	$1.22	$0.00	-$0.11	$3.18	$3.61
GI0049	$0.13	$0.05	$0.00	$0.23	$2.77	$0.10	$0.03	$3.89	$4.65
GI0051	$0.12	$0.12	$0.01	$0.36	$2.36	$0.00	-$0.71	$4.38	$5.63
GI0053	***$0.08***	***$0.05***	***$0.00***	***$0.45***	***$2.14***	***$0.19***	***-$0.07***	***$3.61***	***$4.34***
GI0055	***$0.08***	***$0.13***	***$0.00***	***$0.20***	***$2.86***	***$0.00***	***$0.03***	***$4.57***	***$5.09***
GI0056	***$0.07***	***$0.00***	***$0.00***	***$0.00***	***$0.91***	***$0.00***	***$0.08***	***$2.38***	***$2.93***
GI0057	***$0.10***	***$0.22***	***$0.00***	***$0.59***	***$2.15***	***$0.39***	***-$0.09***	***$4.26***	***$4.74***
GI0058	***$0.08***	***$0.13***	***$0.02***	***$1.03***	***$2.66***	***$0.04***	***-$0.05***	***$4.35***	***$4.96***
GI0061	$0.03	$0.07	$0.00	$0.43	$2.74	$0.15	-$0.01	$3.96	$4.57
GI0064	$0.08	$0.03	$0.00	$0.00	$2.20	$0.09	-$0.15	$3.75	$5.23
GI0067	$0.16	$0.12	$0.08	$0.20	$2.15	$0.08	$0.09	$4.25	$5.00
GI0068	$0.06	$0.13	$0.00	$0.00	$2.19	$0.00	$0.53	$4.03	$4.59
GI0069	$0.13	$0.10	$0.02	$0.00	$2.71	$0.00	$0.60	$5.27	$5.78
GI0070	$0.12	$0.30	$0.05	$0.29	$3.51	$0.00	-$0.03	$5.42	$6.14
GI0071	$0.10	$0.16	$0.30	$0.29	$3.25	$0.05	-$0.13	$5.53	$6.22
Average	$0.12	$0.14	$0.03	$0.29	$2.40	$0.07	$0.01	$4.19	$4.90
Top 25%*	$0.09	$0.10	$0.00	$0.48	$2.07	$0.16	-$0.05	$3.73	$4.29

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)
GI0005	$0.24	$0.29	$0.10	$0.92	$0.13	$0.00	$1.69	$0.25	$5.45	$7.39
GI0012	$0.12	$0.11	$0.07	$0.68	$0.19	$0.76	$1.94	$0.35	$1.73	$4.03
GI0021	$0.07	$0.13	$0.01	$0.58	$0.16	$1.35	$2.29	$0.26	$0.41	$2.96
GI0022	$0.09	$0.19	$0.09	$0.79	$0.31	$1.35	$2.82	$0.45	$0.13	$3.40
GI0028	$0.09	$0.10	$0.01	$0.41	$0.24	$1.07	$1.92	$0.17	$0.84	$2.93
GI0029	***$0.08***	***$0.07***	***$0.01***	***$0.51***	***$0.16***	***$1.05***	***$1.89***	***$0.19***	***$0.70***	***$2.78***
GI0031	$0.05	$0.12	$0.00	$0.50	$0.10	$1.21	$1.98	$0.34	$0.00	$2.33
GI0037	$0.00	$0.04	$0.06	$0.21	$0.14	$1.30	$1.74	$0.31	$0.42	$2.47
GI0039	$0.05	$0.09	$0.02	$0.42	$0.16	$0.70	$1.45	$0.32	$1.00	$2.77
GI0046	$0.11	$0.18	$0.02	$0.28	$0.19	$0.66	$1.44	$0.18	$0.81	$2.43
GI0048	$0.07	$0.09	$0.02	$0.43	$0.05	$0.44	$1.10	$0.17	$0.80	$2.06
GI0049	$0.06	$0.15	$0.00	$0.40	$0.23	$1.13	$1.97	$0.07	$0.00	$2.04
GI0051	$0.07	$0.07	$0.01	$0.53	$0.25	$1.34	$2.28	$0.12	$0.34	$2.74
GI0053	***$0.06***	***$0.07***	***$0.01***	***$0.29***	***$0.20***	***$0.69***	***$1.32***	***$0.20***	***$0.93***	***$2.45***
GI0055	***$0.04***	***$0.07***	***$0.01***	***$0.42***	***$0.06***	***$0.68***	***$1.28***	***$0.34***	***$0.48***	***$2.11***
GI0056	***$0.07***	***$0.08***	***$0.00***	***$0.27***	***$0.03***	***$0.00***	***$0.46***	***$0.30***	***$1.04***	***$1.79***
GI0057	***$0.00***	***$0.02***	***$0.00***	***$0.12***	***$0.04***	***$1.34***	***$1.52***	***$0.06***	***$0.04***	***$1.62***
GI0058	***$0.03***	***$0.08***	***$0.00***	***$0.57***	***$0.21***	***$1.09***	***$1.99***	***$0.47***	***$0.46***	***$2.92***
GI0061	$0.07	$0.13	$0.00	$0.84	$0.16	$1.24	$2.44	$0.09	$0.00	$2.53
GI0064	$0.06	$0.16	$0.02	$0.27	$0.22	$0.80	$1.54	$0.26	$1.52	$3.31
GI0067	$0.00	$0.03	$0.05	$0.51	$0.17	$0.59	$1.36	$0.39	$1.60	$3.35
GI0068	$0.00	$0.08	$0.10	$0.13	$0.27	$0.14	$0.72	$0.36	$1.32	$2.40
GI0069	$0.07	$0.10	$0.01	$0.13	$0.05	$0.60	$0.96	$0.49	$0.88	$2.33
GI0070	$0.09	$0.12	$0.02	$0.39	$0.11	$0.47	$1.19	$0.26	$1.14	$2.58
GI0071	$0.06	$0.06	$0.02	$0.72	$0.11	$1.08	$2.05	$0.44	$0.66	$3.16
Average	$0.07	$0.11	$0.03	$0.45	$0.16	$0.84	$1.65	$0.27	$0.91	$2.83
Top 25%*	$0.05	$0.07	$0.01	$0.36	$0.12	$0.81	$1.41	$0.26	$0.61	$2.28

*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	$20,855	$12,223	$5,322	$1,845	$1,748	$5,010	$326	$1,033	$28,735
Top 25%*	$17,426	$7,359	$0	$0	$2,286	$5,711	$310	$1,226	$32,014

Table D6

Capital structure – Gippsland (continued)

	Liabilities		Equity	
	per usable hectare	per milking cow	per usable hectare	Average equity
	($/ha)	($/cow)	($/ha)	(%)
Average	$9,594	$5,314	$19,142	68%
Top 25%*	$8,185	$3,277	$23,830	78%

Table D7

Historical data – Gippsland
Main financial indicators

Year	Income				Variable Costs							
	Milk income (net)		Gross farm income		Herd costs		Shed costs		Feed costs		Total variable costs	
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)
2006-07	$4.46	$6.85	$5.16	$7.93	$0.23	$0.35	$0.15	$0.23	$2.31	$3.55	$2.72	$4.18
2007-08	$6.62	$9.71	$7.58	$11.11	$0.27	$0.40	$0.13	$0.19	$2.80	$4.10	$3.30	$4.83
2008-09	$5.32	$7.49	$6.05	$8.51	$0.25	$0.36	$0.15	$0.22	$2.61	$3.66	$3.01	$4.24
2009-10	$4.38	$5.97	$5.07	$6.91	$0.22	$0.30	$0.17	$0.23	$1.95	$2.65	$2.33	$3.17
2010-11	$5.59	$7.40	$6.34	$8.39	$0.28	$0.37	$0.19	$0.25	$2.06	$2.72	$2.52	$3.33
2011-12	$5.37	$6.98	$5.89	$7.66	$0.29	$0.37	$0.18	$0.24	$2.12	$2.75	$2.59	$3.37
2012-13	$4.75	$6.01	$4.99	$6.31	$0.31	$0.40	$0.22	$0.28	$2.31	$2.93	$2.85	$3.60
2013-14	$6.62	$8.18	$7.33	$9.05	$0.31	$0.38	$0.21	$0.26	$2.67	$3.30	$3.19	$3.94
2014-15	$5.88	$7.10	$6.51	$7.86	$0.32	$0.38	$0.20	$0.24	$2.63	$3.17	$3.15	$3.80
2015-16	$5.28	$6.29	$5.79	$6.89	$0.30	$0.36	$0.20	$0.23	$2.73	$3.26	$3.24	$3.85
2016-17	$4.84	$5.65	$5.50	$6.43	$0.27	$0.32	$0.20	$0.23	$2.21	$2.58	$2.68	$3.13
2017-18	$5.74	$6.59	$6.26	$7.19	$0.31	$0.35	$0.21	$0.24	$2.69	$3.08	$3.21	$3.68
2018-19	$5.97	$6.76	$6.47	$7.33	$0.32	$0.36	$0.23	$0.26	$3.27	$3.70	$3.81	$4.31
2019-20	$6.95	$7.77	$7.59	$8.48	$0.32	$0.36	$0.23	$0.25	$2.81	$3.15	$3.36	$3.75
2020-21	$6.54	$7.20	$7.24	$7.98	$0.32	$0.35	$0.23	$0.26	$2.66	$2.93	$3.23	$3.55
2021-22	$7.15	$7.54	$8.00	$8.44	$0.39	$0.41	$0.24	$0.26	$3.34	$3.53	$3.99	$4.21
2022-23	$9.63	$9.63	$10.47	$10.47	$0.45	$0.45	$0.27	$0.27	$4.19	$4.19	$4.90	$4.90
Average		$7.24		$8.06		$0.37		$0.24		$3.25		$3.87

Notes:'Real' dollar values are the nominal values converted to 2022-23 dollar equivalents by the consumer price index (CPI) to allow for inflation

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

Table D7

Historical data – Gippsland

Main financial indicators (continued)

Overhead Costs						
Year	Cash overhead costs		Non-cash overhead costs		Total overhead costs	
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)
2006-07	$0.69	$1.06	$1.44	$2.21	$2.13	$3.27
2007-08	$0.80	$1.17	$0.90	$1.32	$1.59	$2.33
2008-09	$0.78	$1.10	$0.93	$1.30	$1.71	$2.41
2009-10	$0.80	$1.10	$1.09	$1.49	$1.90	$2.58
2010-11	$0.93	$1.23	$0.93	$1.23	$1.86	$2.46
2011-12	$0.95	$1.24	$1.05	$1.37	$2.01	$2.61
2012-13	$1.09	$1.38	$1.19	$1.50	$2.28	$2.88
2013-14	$1.04	$1.28	$1.07	$1.32	$2.11	$2.60
2014-15	$1.05	$1.26	$0.96	$1.16	$2.00	$2.42
2015-16	$1.09	$1.30	$1.13	$1.34	$2.22	$2.64
2016-17	$1.03	$1.21	$1.07	$1.25	$2.10	$2.45
2017-18	$1.11	$1.27	$1.10	$1.26	$2.21	$2.54
2018-19	$1.14	$1.30	$1.01	$1.14	$2.15	$2.44
2019-20	$1.16	$1.30	$0.99	$1.11	$2.16	$2.41
2020-21	$1.19	$1.31	$1.04	$1.15	$2.24	$2.46
2021-22	$1.41	$1.48	$1.18	$1.25	$2.59	$2.73
2022-23	$1.65	$1.65	$1.18	$1.18	$2.83	$2.83
Average		$1.27		$1.33		$2.59

Table D7

Historical data – Gippsland

Main financial indicators (continued)

Profit								
Year	Earnings before interest and tax		Interest and lease charges		Net farm income		Return on total assets	Return on equity
	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	Nominal ($/kg MS)	Real ($/kg MS)	%	%
2006-07	$0.31	$0.48	$0.57	$0.87	-$0.26	-$0.40	0.8%	-2.1%
2007-08	$2.69	$3.95	$0.61	$0.89	$2.08	$3.05	9.7%	14.9%
2008-09	$1.28	$1.79	$0.51	$0.72	$0.76	$1.07	4.0%	3.4%
2009-10	$0.80	$1.08	$0.70	$0.95	$0.10	$0.13	2.6%	0.7%
2010-11	$1.96	$2.59	$0.67	$0.88	$1.29	$1.71	6.1%	9.9%
2011-12	$1.30	$1.69	$0.65	$0.85	$0.64	$0.84	4.4%	5.1%
2012-13	-$0.14	-$0.17	$0.73	$0.92	-$0.86	-$1.09	-0.2%	-6.2%
2013-14	$2.03	$2.50	$0.69	$0.85	$1.34	$1.65	6.4%	10.2%
2014-15	$1.36	$1.64	$0.68	$0.82	$0.68	$0.82	4.7%	4.6%
2015-16	$0.33	$0.40	$0.64	$0.76	-$0.30	-$0.36	1.3%	-2.3%
2016-17	$0.73	$0.85	$0.68	$0.79	$0.05	$0.06	2.3%	0.7%
2017-18	$0.84	$0.97	$0.69	$0.80	$0.15	$0.17	3.0%	1.0%
2018-19	$0.51	$0.58	$0.69	$0.79	-$0.18	-$0.21	1.7%	-2.3%
2019-20	$2.07	$2.32	$0.65	$0.72	$1.43	$1.59	6.6%	12.4%
2020-21	$1.78	$1.96	$0.52	$0.57	$1.26	$1.39	5.4%	8.0%
2021-22	$1.43	$1.51	$0.56	$0.59	$0.87	$0.92	4.2%	6.2%
2022-23	$2.73	$2.73	$0.83	$0.83	$1.90	$1.90	6.9%	12.1%
Average		$1.58		$0.80		$0.78	4.1%	4.5%

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
Average	189	140	0.8	297	1.8	474	832

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	$521
2007-08	7.2	1.1	74%	$451	$661
2008-09	7.2	0.8	71%	$385	$541
2009-10	7.6	0.9	73%	$273	$372
2010-11	7.1	1.7	69%	$315	$417
2011-12	7.4	0.9	62%	$311	$405
2012-13	6.9	0.6	62%	$356	$450
2013-14	7.6	1.0	68%	$403	$498
2014-15	7.4	1.1	66%	$419	$506
2015-16	6.9	1.0	59%	$418	$498
2016-17	7.8	1.4	70%	$350	$409
2017-18	7.4	1.2	66%	$391	$449
2018-19	7.9	1.1	66%	$518	$587
2019-20	8.6	1.2	68%	$500	$559
2020-21	8.4	0.9	66%	$435	$479
2021-22	7.5	0.9	63%	$480	$507
2022-23	7.2	0.9	60%	$583	$583
Average	7.4	1.1	67%		$497

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

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

Glossary of terms

All other farm income

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

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

Feeding Systems:

Low bail

Low bail is defined by the one-tonne annual cap of grain or concentrates fed in the dairy bail – 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
DFM	Dairy Farm Monitor
DJPR	Department of Jobs, Precincts and Resources, Victoria
DM	Dry matter of feed stuffs
EBIT	Earnings before interest and tax
FPCM	Fat and protein corrected milk
FTE	Full time equivalent
ha	Hectare(s)
hd	Head
HRWS	High Reliability Water Shares
kg	Kilograms
LRWS	Low Reliability Water Shares.
ME	Metabolisable energy (MJ/kg DM)
MJ	Megajoules of energy
ML	Megalitres
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
Q1	First quartile, i.e., the value of which one quarter, or 25%, of data in that range is less than the average
Q3	Third quartile, i.e., the value of which one quarter, or 25%, of data in that range is greater than the average
ROE	Return on equity
ROTA	Return on total assets
t	Tonne = 1,000 kg

Standard values

Pasture consumption

The pasture consumption calculation assumes 11 ME for homegrown feed.

Irrigation values

The 2022-23 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	$4,100	$800	$44
Zone 3 Lower Goulburn	$4,100	$700	$14
Zone 6 Vic Murray - Dartmouth to Barmah Choke	$5,000	$850	$29
Zone 6B Lower Broken Creek	$7,200	$1,650	$10
Zone 7 Vic Murray - Barmah Choke to South Australian border	$7,600	$1,750	$38
Zone 9 King and Ovens	$1,125	$578	$62
Groundwater licence (permanent)	$1,200		$43
Zone 41 Macalister (Gippsland)	$2,500	$250	$80

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:

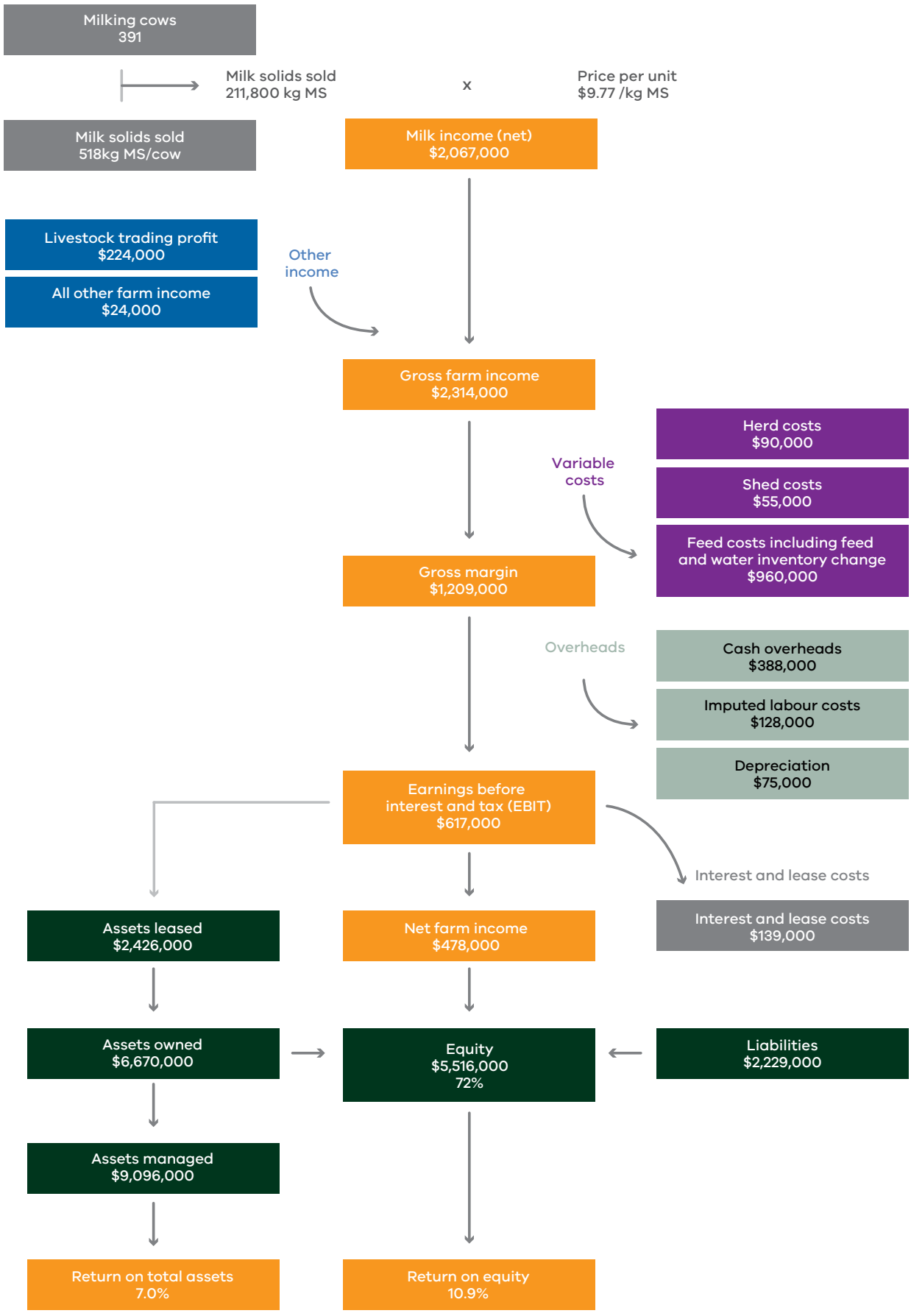
Category	Opening value ($/hd)	Closing value ($/hd)
Mature cows (550kg)	$2,200	$2,200
2-year-old heifers	$1,650	$2,200
1-year old heifers	$825	$1,650
2022-23 calves		$825
Mature bulls	$3,300	$3,300

Imputed owner/operator and family labour

In 2022-23, 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 2022–23

All Farms – 80



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