

Dairy Farm Monitor Project

Victoria

Annual Report 2012/13



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Notes on the presentation of data in this report

This section of the report defines and explains the calculations used and the data presented throughout the report. The different sections of the report are discussed and the number of participant farms in the three dairying regions listed.

This section is not to be confused with II. Farm Monitor Method which discusses the methodology for the farm data analysis.

This report is presented in the following parts;

- Summary
- Farm monitor method
- Statewide overview
- North region overview
- South West region overview
- Gippsland region overview
- Business confidence survey
- Greenhouse report
- Historical analysis
- Appendices

The report presents visual descriptions of the data for the 2012/13 year. Data is presented for individual farms, regional averages and regional top 25% of farms ranked by return on assets. Reported averages are calculated as the mean. These averages should in no way be considered averages for the population of farms in that region given the small sample size and farms are not randomly selected.

The top 25% of farms are presented as lighter coloured bars in the regional overview figures. Return on assets replaced earnings before interest and tax per hectare in 2011/12 as the determinate of the top producers due to return on assets providing an assessment of the performance of the whole farm while accounting for differences in location and production system.

The Q1 - Q3 data range for key indicators is also presented in the tables to give an indication of the variation in the data. The Q1 value is the quartile 1 value. That is, the value of which one quarter (25%) of data in that range is less than. The Q3 value is the quartile 3 value. That is, the value of which one quarter (75%) of data in that range is greater than. This means that the middle 50% of data sits between the Q1-Q3 data range. Given the differences in variation in the regional data, caution is highly recommended when comparing one region to another.

To reduce wordiness, this report will often refer to the group of participating farms in each region by their regional name;

- The 25 participating farms in the Northern Victoria region are referred to as 'the North'.
- The 25 participating farms in the South Western Victoria region are referred to as 'the South West'.
- The 25 participating farms in the Gippsland region are referred to as 'Gippsland'.

The appendices include detailed data tables, a list of abbreviations and a glossary of terms.

Milk production data is presented in kilograms of milk solids as farms are paid according to milk solids.

The report will focus on measures on a per kilogram of milk solids basis, with occasional referral to measure on a per hectare or per cow basis. The appendix tables contain the majority of financial information in a per kilogram of milk solids basis.

The method used is a combination of that used in the Livestock Farm Monitor Project, and various other referenced sources. Attention should be paid to the method when directly comparing figures from this report with those generated via other means. More detail on the method is provided in Part II.

Percentage differences are calculated as $[(\text{new value} - \text{original value}) / \text{original value}]$. For example 'costs went from \$80/ha to \$120/ha, a 50% increase'; $[(120-80)/80] \times (100/1) = [(40/80) \times 100] = 0.5 \times 100 = 50\%$, unless otherwise stated.

Top 25% consists of six farms from each of North, South West and Gippsland regions and 19 farms on a statewide basis. The 19 farms in the statewide top 25% are taken by considering all 75 as the one sample and not from combining the top farms from each region.

Discussion on 'last year' refers to the 2011/12 Dairy Farm Monitor Project report. It must be noted that not all of the participants from the 2011/12 report are in the 2012/13 report and that there are also new participants in this year's dataset, which have not been in previous years. It is important to keep this in mind when comparing datasets between years. Farms that were included in last year's sample are noted at the start of each regional chapter.

Please note that text around explanations of terms will be repeated within the different chapters.

What's new in 2013!

The Dairy Farm Monitor Report for 2012/13 includes a number of changes since last year's report. The following highlights the most significant of these.

- The Figures in the regional chapters that were expressed on a dollars per hectare basis are now expressed on a dollars per kilogram of milk solids basis.
- Cost of production reported in the regional chapters is calculated as variable and overhead costs including any changes in feed inventory or livestock trading losses.
- The appendix tables now includes the main historical financial and physical farm performance indicators. They are located at the end of Appendices A - D. The average performance from the last seven years of the project is reported.
- The criteria for items included as other farm income is only those items that are included in the balance sheet and the business draws an income from. For example milk share dividends are included as other farm income. Farm rebates and grants are included net of costs.

Keep an eye on the project website for further reports and updates on the project at:

www.depi.vic.gov.au/dairyfarmmonitor

or

www.dairyaustralia.com.au/dairyfarmmonitor

or email:

farm.monitor.project@dpi.vic.gov.au.



I. Summary

Summary

This is the seventh year of the Dairy Farm Monitor Project in Victoria. The project aims to provide the Victorian dairy industry with valuable farm level data relating to profitability and production. Longer term trends in profitability are also reported.

Data was collected from 75 farms across three regions of Victoria; Northern Victoria, South West Victoria and Gippsland. Participants have been selected with the objective of representing a distribution of farm sizes, herd sizes and geographical locations within each region. The results published in this report should not be taken to represent population averages as the participant farms were not selected via random population sampling.

Across the three regions profitability declined as a result of the challenging market and seasonal conditions. Following on from relatively high milk prices in 2010/11 and 2011/12, in 2012/13 the average milk price across the state fell by 11 %, from \$5.52 per kilogram of milk solids to \$4.90 per kilogram of milk solids. Input costs rose during the year with feed costs in particular reaching the highest level in four years. This rise was driven primarily by the increased cost of concentrates which rose by 14% to \$336 per tonne of dry matter. Seasonal conditions across Victoria were drier than usual with lower than average rainfall recorded across the majority of Victoria's three dairying regions.

In the North average annual rainfall was 71% of the long term average. Irrigation allocations closed at 100% of high reliability water shares on all northern systems and the availability of reasonably priced temporary water helped to reduce some of the impact of the drier conditions. Increased water use saw irrigation costs rise by 48% which contributed to a rise in total feed costs of 29% to \$3.34 per kilogram of milk solids. Average milk price in the region fell by 10% to \$5.05 per kilogram of milk solids. These factors resulted in average whole farm earnings before interest and tax falling by two-thirds to \$77,779 in 2012/13 while return on assets fell to 2.2%. Average net farm income was -\$4,711 and average return on equity was -2.8%.

South of the divide the South West and Gippsland faced their most challenging year since the drought of 2006/07. In the South West, spring rainfall was below average for the second consecutive year; the first time this has occurred since the 1981/82 drought while the nine month period from October 2012 to June 2013 was decile one across the majority of the region. Milk price fell by 12% in the South West closing the year at \$4.90 per kilogram of milk solids. Depleted fodder reserves forced many farmers to purchase feed during the autumn causing feed costs to rise by 11% however total variable and overhead costs remained relatively stable as farmers clamped down on overhead costs, particularly repairs and maintenance and employed

labour. Average return on assets for farms in the South West fell to 0.2% in 2012/13 and whole farm earnings before interest and tax to \$61,888. High interest and lease costs saw average net farm income fall to -\$98,128 with 22 of 25 farms in the sample recording a negative net farm income for the financial year.

Following a very wet 2011/12, in 2012/13 Gippsland too experienced drier than average conditions. As a result many farmers drew heavily on long term stores of fodder resulting in an average feed inventory loss of \$27,696. In the Macalister Irrigation District allocations closed at 100% of high reliability water shares plus 20% of low reliability water shares however the dry conditions prompted many farmers to dry off portions of their land in order to maximise water use efficiency on their better country.

Milk price declined 12% to \$4.75/kg MS while variable costs rose by 10% due mainly to increased feed costs. Overhead costs also rose in Gippsland, climbing 13% to \$2.28/kg MS driven by increases in repairs and maintenance and labour costs. In what was a difficult year for many Gippsland producers average return on assets fell to -0.2% with average whole farm earnings before interest and tax down 82% to \$37,609. The average return on equity for Gippsland farms was -6.2% with net farm income across the region reported at -\$58,784.

The expectation of a higher milk price resulted in over 90% of farmers predicting an improvement in farm business returns in 2013/14. Once again more than 50% in each region are intending to increase production in 2013/14 while 78% of farmers expect fodder prices to remain stable or decrease. Seasonal variability ranked as the main issue facing farmers over the next 12 months while milk price and input costs were the major long term issues.

A greenhouse gas emission audit was conducted using the Australian National Greenhouse Gas Inventory method. The average level of greenhouse gases emitted increased by 5% to 11.5 tonnes per tonne of milk solids.

A historical analysis over the past seven years of the project showed that 2012/13 will go down as the most challenging since the drought of 2006/07. In the North real returns dipped to their lowest level since 2009/10 while farmers in the South West and Gippsland reported real returns similar to those recorded in 2006/07.



II. Farm monitor method

Farm monitor method

This section of the report explains the methodology behind how figures in the Dairy Farm Monitor Project (DFMP) are calculated and what they mean. It helps put farm business economic terminology into context.

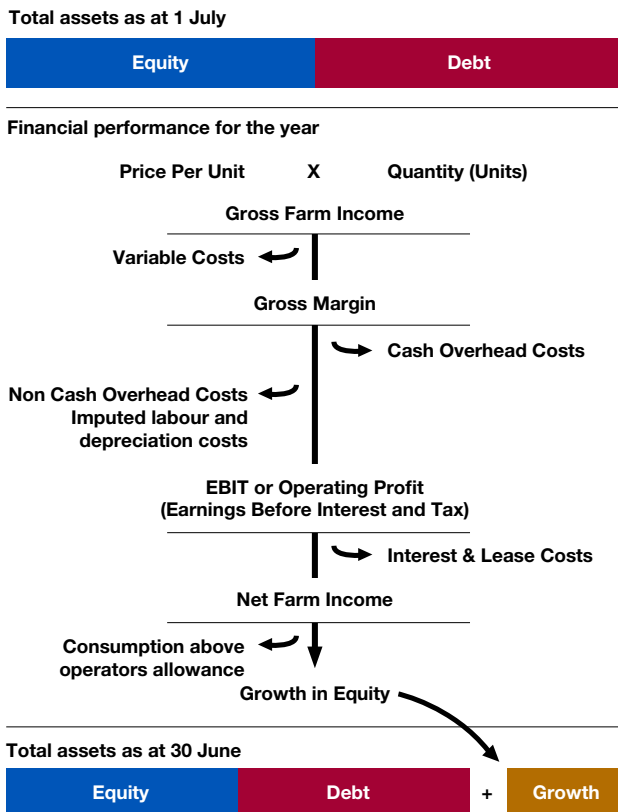
The methodology employed to generate the profitability and productivity data in this report was adapted from that described in *The Farming Game* (Malcolm *et al.* 2005) and is consistent with that used in previous Dairy Farm Monitor Project reports. Readers should be aware that not all benchmarking programs use the same methodology or terminology for farm financial reporting. The allocation of items such as lease costs, overhead costs or imputed labour costs against the farm enterprises will vary between financial benchmarking programs. Standard dollar values for things such as stock and feed on hand and imputed labour rates may also vary. For this reason, the results from different benchmarking programs should be compared with caution.

Figure 1 demonstrates how all of the different farm business economic terms come together and are calculated. It is adapted from an initial diagram obtained from Bill Malcolm (2008) at the University of Melbourne. The diagram shows the different profitability measures as certain costs deducted from total income. It also discusses capital and growth.

Growth is achieved by investing in assets which generate income. These assets can be owned with equity (one's own capital) and debt (borrowed capital), as shown in Figure 1 above. In order for the assets to generate income they need to be farmed and managed, which involves incurring costs. The amount of growth is dependant on the maximisation of income and minimisation of costs, or cost efficiency relative to income generation.

The method is also shown using the state average results in Figure 2. Production and economic data are identified to indicate how the terms are calculated and how they all fit together.

FIGURE 1. DAIRY FARM MONITOR PROJECT METHOD



Gross farm income

The farming business generates a total income which can be income from milk cash income (net), livestock trading profit, feed inventory change or other sources such as colostrum sales or milk share dividends. The main source of income, that from milk, is calculated simply by multiplying price received per unit by the number of units. For example dollars per kilogram milk solids multiplied by kilograms of milk solids. Subtracting certain costs from total income gives different profitability measures.

Variable costs

Variable costs are costs that are specific to an enterprise, such as herd, shed and feed costs, and vary directly in relation to the size of the enterprise. Subtracting variable costs from total income, only for the dairy enterprise, gives a gross margin. Gross margins are a common method for comparing between similar enterprises and are commonly used in broad acre cropping and livestock enterprises. Gross margins are not generally referred to in economic analysis of dairy farming businesses.

Overhead costs

Overhead costs are costs that are not directly related to an enterprise as they are expenses incurred through the general operating of the business. The DFMP separates overheads into cash overheads and non cash overheads, to distinguish between cash flows of the business. Cash overheads are those fixed costs such as rates, insurance, and repairs and maintenance. Non cash overheads include costs that are not actual cash receipts or expenditure; for example the amount of depreciation on a piece of equipment. Imputed operators allowance for labour and management is also a non cash overhead that must be costed and deducted from income if a realistic estimate of costs, profit and the return on the capital of the business is to be obtained.

Earnings before interest and tax

Earnings before interest and tax (EBIT) is calculated by subtracting variable and overhead costs from gross farm income. EBIT is sometimes referred to as operating profit and is the return from all the capital used in the business.

From 2006/7 to 2010/11 DFMP farms were ranked by EBIT per hectare. In 2011/12 we changed this ranking method to a return on assets basis.

Net farm income

Net farm income is EBIT minus interest and lease costs and is the reward to the farmer's own capital. Interest and lease costs are viewed as financing expenses, either for borrowed money or leased land that is being utilised.

Net farm income is then used to pay tax and what is left over is business profit (after tax) or surplus and therefore growth, as it can be invested into the business to expand the equity base; either by direct reinvestment or the payment of debt.

Return on assets and return on equity

Two commonly used economic indicators of whole farm performance are return on assets and return on equity. They measure the return to their respective capital base.

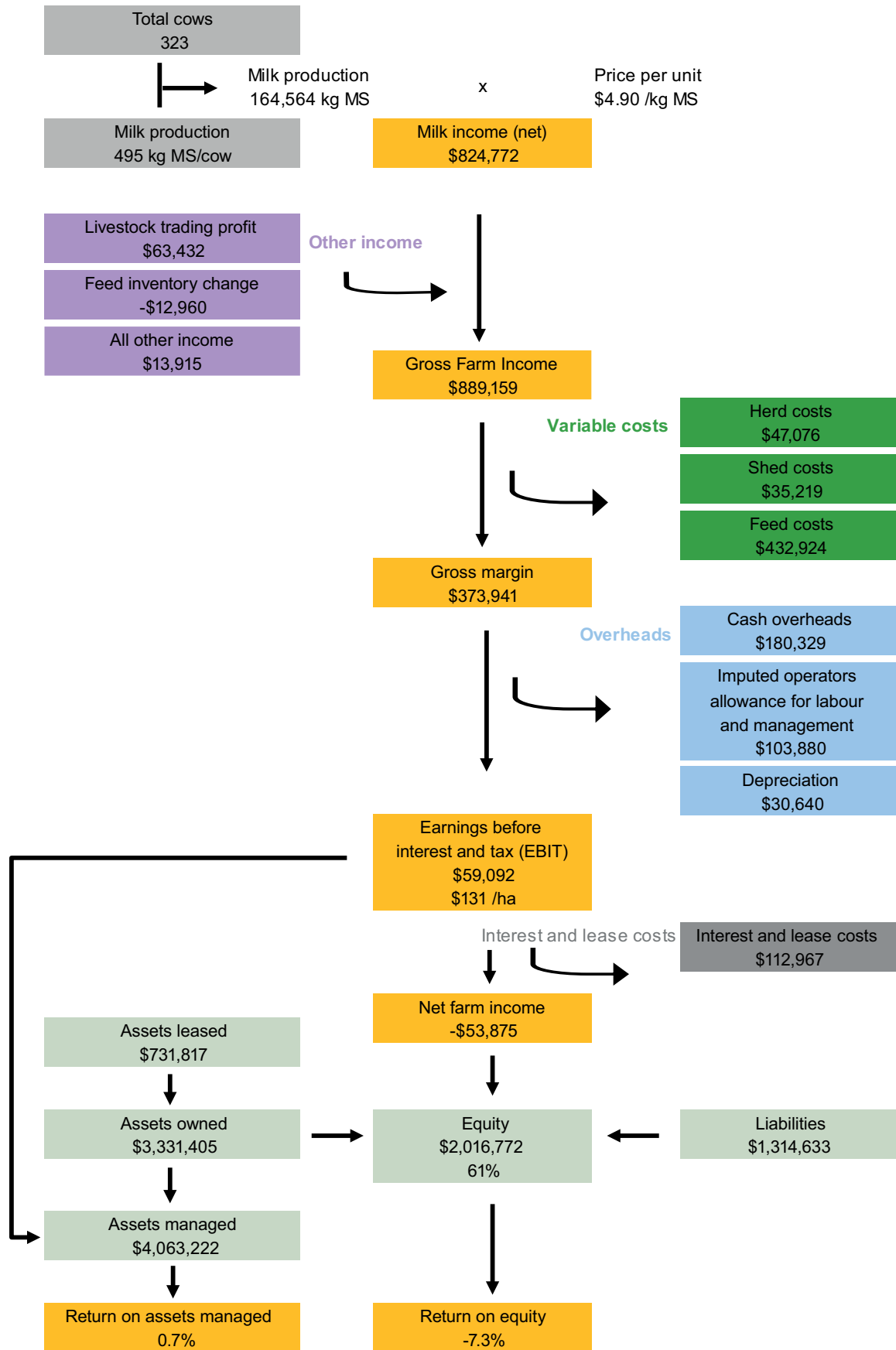
Return on assets (RoA) indicates the overall earning of the total farm assets, irrespective of capital structure of the business. It is EBIT or operating profit expressed as a percentage of the total assets under management in the farm business, including the value of leased assets. EBIT expressed as a return on total assets is the return from farming. There is also a further return to the asset from any increase in the value of the assets over the year, such as land value. If land value goes up 5% over the year, this is added to the return from farming to give total return to the investment. This return to total assets can be compared with the performance of alternative investments with similar risk in the economy.

In 2011/12 RoA replaced EBIT as the final financial measure used to gauge the profitability of a farming business. Return on asset enables a more complete assessment to be made of individual and between different farming businesses as it ignores how the operation is financed while also accounting for the difference in the productive capacity of land in different areas and regions.

In Figure 1 total assets are visually represented by debt and equity. The debt:equity ratio, or equity percent of total capital varies depending on the detail of individual farm business and the situation of the owners, including their attitude towards risk.

Return on equity (RoE) measures the owner's rate of return on their own capital investment in the business. It is net farm income expressed as a percentage of total equity (one's own capital). The DFMP reports RoE with and without capital appreciation. This is to distinguish between productivity gains (RoE without capital appreciation) and capital gains (RoE with capital appreciation).

FIGURE 2. DAIRY FARM MONITOR PROJECT METHOD PROFIT MAP – STATE AVERAGE DATA¹



¹ Profit map adapted from Queensland Dairy Accounting Scheme - 2010 with permission from Ray Murphy, Department of Employment, Economic Development and Innovation, Queensland.



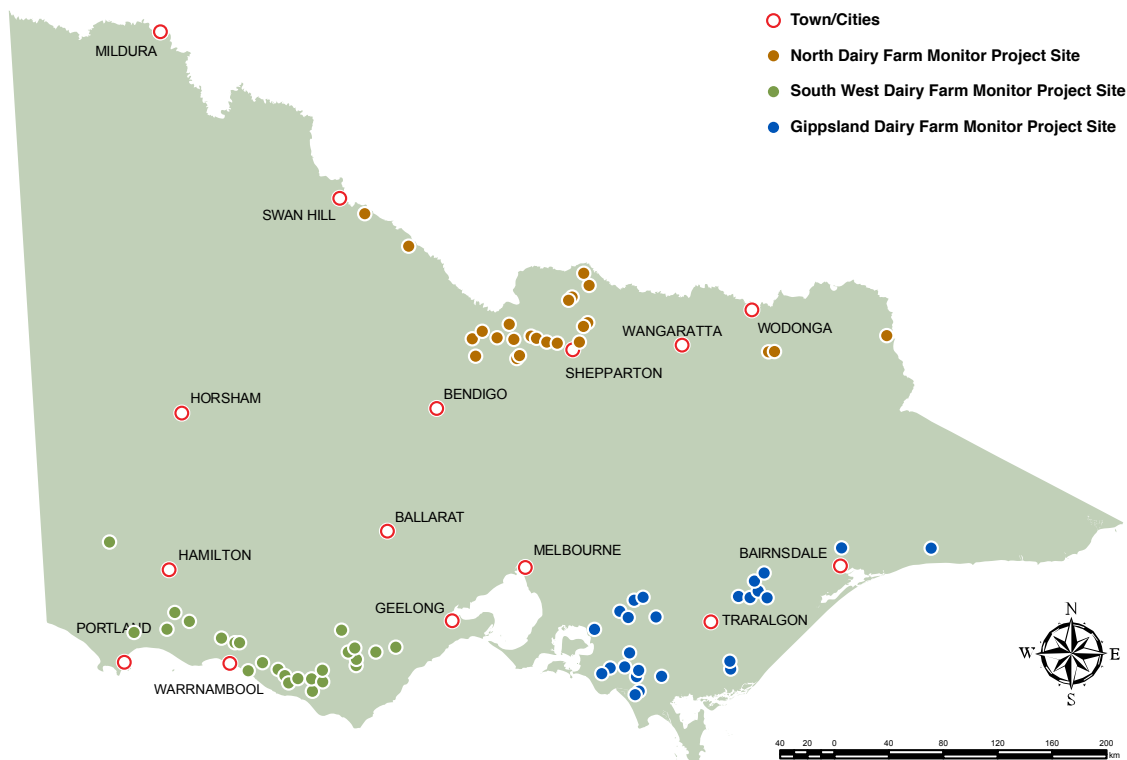
Part One: Statewide overview

Statewide overview

This section of the report compares the average performance, in a range of physical and financial indicators, for all participant farms across Victoria; with the averages from the North, South West and Gippsland regions reported.

The approximate location of the participating farms is shown in Figure 3.

FIGURE 3. DISTRIBUTION OF PARTICIPANT FARMS ACROSS VICTORIA



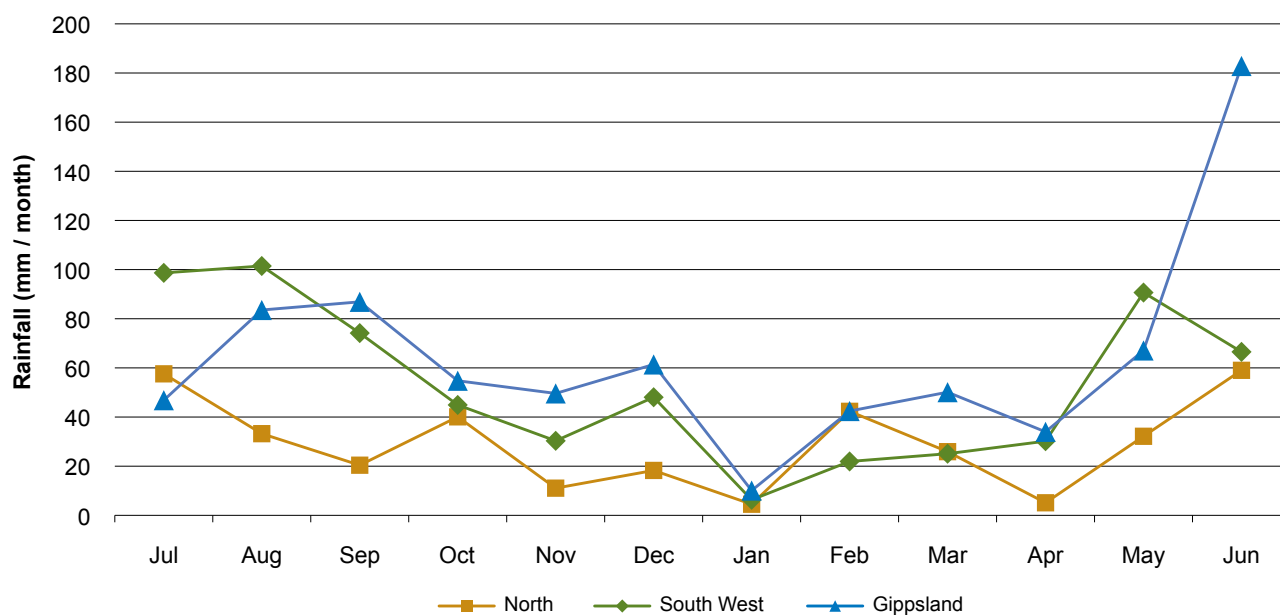
2012/13 Seasonal conditions

The average rainfall across the farms in each region was consistently below long-term averages. The North received 350mm over the year, approximately 70% of the long term average for these farms of 503mm. Farms in the South West received on average 638mm, or 79% of their long term average rainfall of 810mm.

Gippsland received an average of 770mm, which is equivalent to 90% of their long term average rainfall of 856mm. Figure 4 shows the rainfall pattern during the year and the wide variation that occurred.

The regional chapters provide more detail on the 2012/13 seasonal conditions.

FIGURE 4. 2012/13 MONTHLY RAINFALL



Whole farm analysis

On average, farms in the South West ran the largest herds over the largest area compared to the other two regions. Gippsland had a smaller average useable area compared to the other two regions at 189 hectares, but a higher average rainfall and water use than the other two regions. Farms in the North had the highest average milk production across the year on both a per cow and per hectare basis and received on average a higher milk price than farms in the other two regions.

Total water use per hectare in the North and Gippsland reflected the availability of irrigation in those regions, with each region recording over 900mm of water used per hectare. The two main systems, the Murray and the Goulburn, both closed at 100% determination of high reliability water shares for the year. The Macalister Irrigation District in Gippsland also recorded a 100% allocation of high reliability water shares for the year in addition to a 20% allocation of low reliability water shares. Rainfall in the South West was below the long term average for the second successive year with the region recording its driest year since 2006/07.

Table 1 suggests that over four times the amount of water was used for irrigation per hectare on farms in the North compared to farms in Gippsland during 2012/13.

Farms in the North recorded the highest average labour efficiency while levels in the South West and Gippsland were similar to those reported last year.

Table 1 presents the average of some farm characteristics for each region. Further details can be found in Appendix Tables 2 for each region.

TABLE 1. FARM PHYSICAL DATA – STATE OVERVIEW

Farm physical parameters	Statewide	North	South West	Gippsland
Number of farms in sample	75	25	25	25
Herd size (max no. cows milked for at least 3 months)	323	300	369	299
Annual rainfall 12/13	586	349	638	770
Water used (irrigation + rainfall) (mm / ha)	818	901	647	906
Total useable area (hectares)	232	193	308	194
Stocking rate (milking cows per useable hectares)	1.6	1.8	1.2	1.7
Milk sold (kg MS / cow)	495	518	506	462
Milk sold (kg MS / ha)	781	961	601	781
Milk price received (\$ / kg MS)	\$4.90	\$5.05	\$4.90	\$4.75
Labour efficiency (milking cows / FTE)	99	108	91	99
Labour efficiency (kg MS / FTE)	49,558	55,741	46,885	46,047

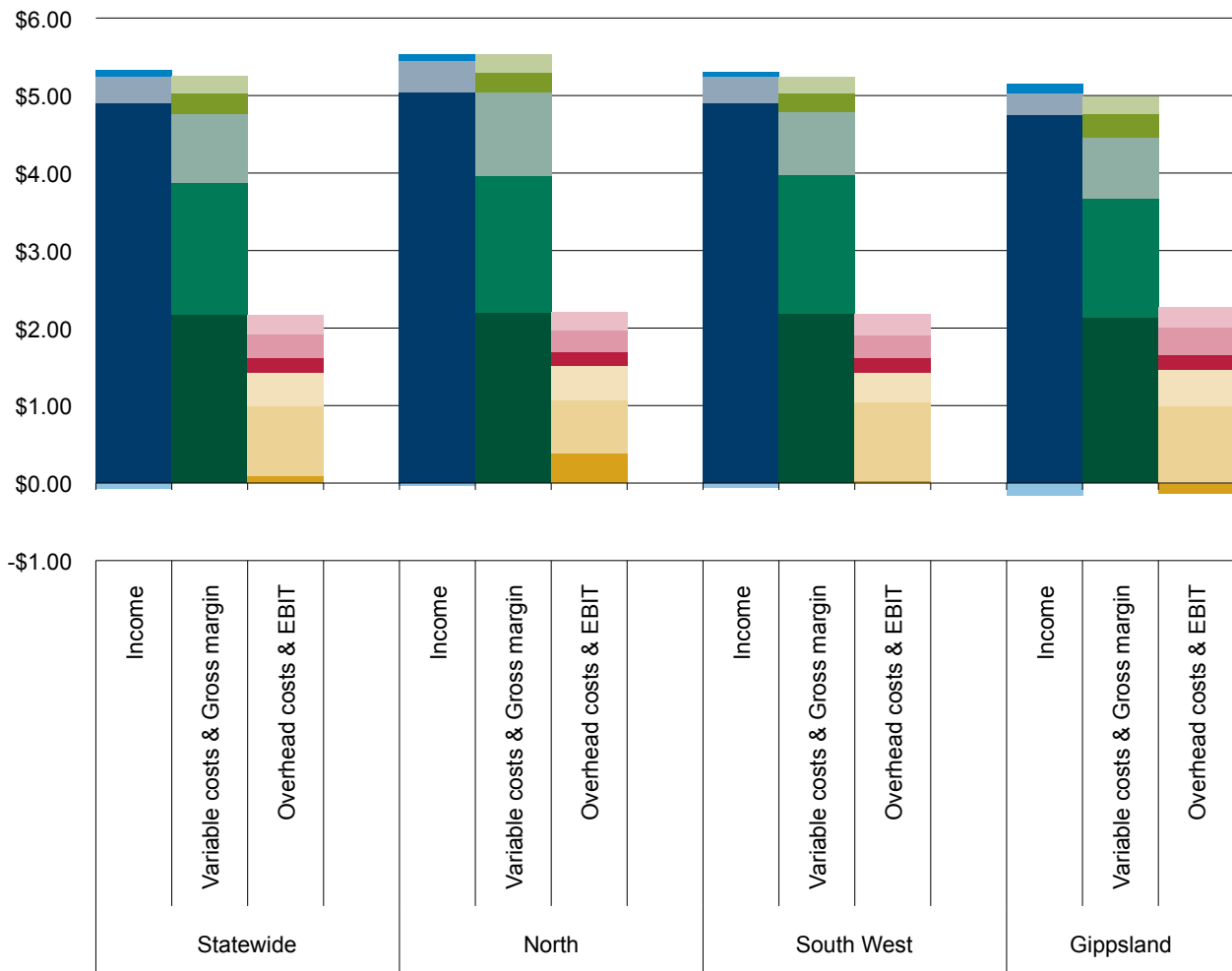
Figure 5 provides a visual representation of the average farm financial performance. The blue colours represent income per kilogram of milk solids added vertically to give gross income. From gross income, we can subtract the green variable costs, to give the grey gross margin values. From the gross margin we subtract the red/orange overhead costs to give us the yellow earnings before interest and tax. The legend for Figure 5 and the values for category can be found in Table 2.

Gross farm income

Gross income includes all farm income, whether that is income from milk sales, a change in inventories of stock or feed or cash income from livestock trading. Income from sources such as milk share dividends, interest from bank accounts and colostrum sales is included in other income.

While Figure 5 shows just how much milk income dominates gross income, other sources are still important to the farm business. Across the state, income from sources other than milk accounted for 5-9% of gross farm income.

FIGURE 5. AVERAGE FARM FINANCIAL PERFORMANCE PER KILOGRAM OF MILK SOLIDS



See Table 2 for the legend on Figure 5

Feed inventory losses were again reported in the South West and Gippsland as dry conditions further reduced fodder reserves.

Variable costs

Variable costs are costs directly associated with production. Examples include animal health, contract services, supplementary feeding, agistment and pasture costs. Figure 5 shows the large cost of purchased feed and agistment (seen as dark green), particularly in the North. Home grown feed was the other major variable cost. The total cost of feed accounted for between 81 and 86% of total variable costs in all regions. See Appendix Tables 6 for a breakdown of variable costs as a percentage of total costs in each region.

The gross margin is equal to gross income minus total variable costs. While commonly used to compare enterprises that can use a similar capital structure like sheep or beef, it can be a useful measure in dairy to analyse changes on farm that don't require capital investment. The state-wide average gross margin was \$2.19/kg MS, a 30% decline from \$3.20/kg MS last year.

Overhead costs

Overhead costs or 'fixed costs' are relatively unresponsive to small changes in the scale of operation of a business. Examples include depreciation, administration, repairs and maintenance and the cost of people's time. Imputed labour cost is an estimate of the cost of the time spent in the business by people with a share in the business such as the owner, the owner's family or a sharefarmer that owns assets in the business. The imputed labour cost is calculated as \$25 per hour of imputed labour performed by either the owner operator or family members. Average overhead costs for participant farms have been increasing over the past four years.

Table 1 showed an inverse relationship between variable and overhead costs. Participants in the North had higher average variable costs per kilogram of milk solids than those in the other two regions however they also had lower average overhead costs than those participants in the other two regions. Similarly Gippsland had the highest average overhead costs, but the lowest average variable costs. Total labour costs were lowest in the North at \$1.10/kg MS compared to \$1.40 and \$1.46/kg MS in the South West and Gippsland respectively.

TABLE 2. AVERAGE FARM FINANCIAL PERFORMANCE PER KILOGRAM OF MILK SOLIDS - STATEWIDE

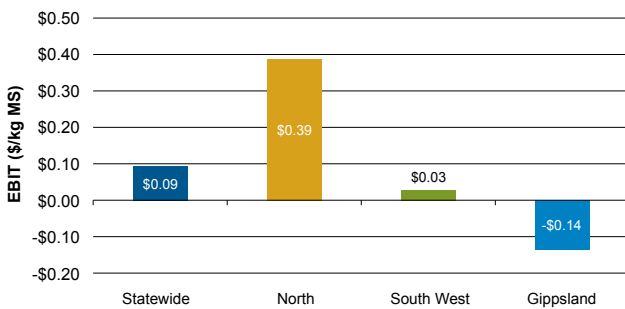
Farm income and cost category	Statewide	North	South West	Gippsland
INCOME				
Feed inventory change	-\$0.07	\$0.00	-\$0.06	-\$0.16
Other farm income	\$0.08	\$0.08	\$0.05	\$0.12
Livestock trading profit	\$0.35	\$0.41	\$0.35	\$0.28
Milk income (net)	\$4.90	\$5.05	\$4.90	\$4.75
Gross farm income	\$5.25	\$5.53	\$5.24	\$4.99
VARIABLE COSTS				
Shed cost	\$0.22	\$0.24	\$0.21	\$0.22
Herd cost	\$0.27	\$0.25	\$0.24	\$0.31
Home grown feed cost	\$0.89	\$1.08	\$0.80	\$0.79
Purchased feed and agistment	\$1.70	\$1.77	\$1.80	\$1.53
Total variable costs	\$3.08	\$3.34	\$3.06	\$2.85
GROSS MARGIN				
per kilogram of milk solids	\$2.17	\$2.20	\$2.18	\$2.14
OVERHEAD COSTS				
All other overheads	\$0.25	\$0.23	\$0.27	\$0.26
Repairs and maintenance	\$0.31	\$0.27	\$0.30	\$0.36
Depreciation	\$0.19	\$0.18	\$0.19	\$0.20
Employed labour	\$0.43	\$0.44	\$0.38	\$0.47
Imputed owner/operator and family labour	\$0.90	\$0.68	\$1.01	\$0.99
Total overhead costs	\$2.08	\$1.81	\$2.15	\$2.28
EARNINGS BEFORE INTEREST AND TAX				
per kilogram of milk solids	\$0.09	\$0.39	\$0.03	-\$0.14

Earnings before interest and tax

Earnings before interest and tax (EBIT) is the gross farm income, less variable costs and overhead costs including non-cash costs. As this figure excludes tax and interest and lease costs, it can be used to analyse the operational efficiency of the whole farm business.

Average EBIT was positive in the North and South West during 2012/13, however it has fallen in all regions as a result of the challenging year which included lower milk prices, higher concentrate prices and drier seasonal conditions. In the North, EBIT fell from \$1.36/kg MS to \$0.39/kg MS, in the South West EBIT fell from \$0.78/kg MS to \$0.03/kg MS and in Gippsland EBIT fell from \$1.30/kg MS to -\$0.14/kg MS, the second lowest figure reported in the seven year history of the project surpassed only by the -\$0.47/kg MS the North reported during the drought of 2006/07. Figures 19, 30 and 41 in the regional chapters provide a visual representation of the decrease in EBIT between the samples this year and last.

FIGURE 6. AVERAGE EARNINGS BEFORE INTEREST AND TAX PER KILOGRAM OF MILK SOLIDS SOLD

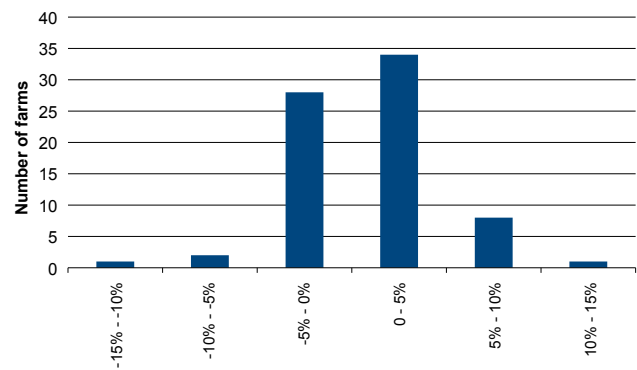


Return on assets and equity

Return on assets is the earnings before interest and tax expressed as a percentage of total farm assets under management and hence is an indicator of the earning power of total assets, irrespective of capital structure. Similarly, it can be considered as an indicator of the overall efficiency of use of the resources that are involved in this production system and not elsewhere in the economy. Return on assets is sometimes referred to as return on capital.

The average return on assets for participants across the state was 0.7%, with a range from -11.5% to 10.2% and a median of 0.3% indicating that the data is skewed towards the upper end of the data range (Figure 7 and Appendix Tables 1). 43 of the 75 participant farms had a positive return on assets, while 32 farms, including 12 in both the South West and Gippsland and eight in the North, returned a negative EBIT and thus return on assets in this economic analysis.

FIGURE 7. DISTRIBUTION OF FARMS BY RETURN ON ASSETS

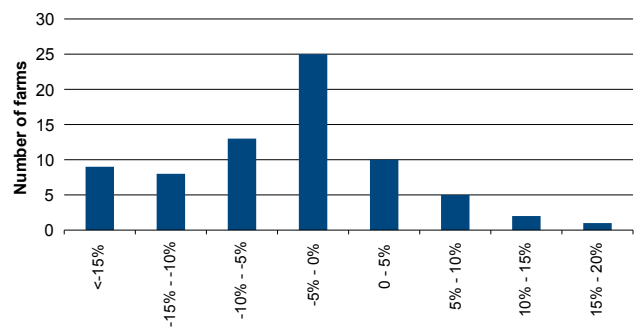


Return on equity is the net farm income (earnings before interest and tax less interest and lease charges) expressed as a percentage of owner equity. Items not accounted for in net farm income are capital expenditure, principle loan repayments and tax. Return on equity is a measure of the owner's rate of return on their investment.

The average return on equity for the 75 farms during 2012/13 was -7.3% with a range from -93.3% to 15.2% and a median of 4.1%; again indicating a skew towards the upper end of the range. Of the farms that reported a negative return on equity, two reported losses of greater than 90%. When these outliers are removed from the sample the average return on equity rises to -5.0%.

Further discussion of return on assets and return on equity occur in the risk section below and later in the regional chapters. Appendix Tables 1 present all the return on assets and return on equity for the individual farms.

FIGURE 8. DISTRIBUTION OF FARMS BY RETURN ON EQUITY



Risk

“Risk is conventionally classified into two types: business risk and financial risk. Business risk is the risk any business faces regardless of how it is financed. It comes from production and price risk, uncertainty and variability. ‘Business risk’ refers to variable yields of crops, reproduction rates, disease outbreaks, climatic variability, unexpected changes in markets and prices, fluctuations in inflation and interest rates, and personal mishap... ‘Financial risk’ derives from the proportion of other people’s money that is used in the business relative to the proportion of owner-operator’s capital...”²

Table 3 presents some risk indicators. Refer to Appendix E for the definition of terms used in Table 3. The indicators in Table 3 can also be found in Appendix Tables 1, 3 and 8 for each region.

TABLE 3. RISK INDICATORS - STATEWIDE

	State wide	North	South West	Gippsland
Cost structure (proportion of total costs that are variable costs)	60%	65%	59%	56%
Debt services ratio (percentage of income as finance costs)	13%	11%	15%	15%
Debt per cow	\$3,952	\$3,582	\$4,605	\$3,669
Equity percentage (ownership of total assets managed)	61%	55%	59%	67%
Percentage of feed imported (as a % of total ME)	42%	47%	42%	38%

Exposure to risk in business is entirely rational if not unavoidable. It is through managing risk that greater profits can be made. It is also the case that by accepting a level of risk in one area of business, a greater risk in another area can be avoided. With the example of feed sources, dairy farmers are generally better at dairy farming than they are at grain production. By allowing someone who is experienced in producing grain to supply them, they lessen the production and other business risks as well as the financial risks they would have exposed themselves to by including extensive cropping in their business. The trade-off is that they are exposed to price and supply risks, which historically have been lower.

The trade-off between perceived risk and expected profitability will dictate the level of risk the individual is willing to take. It thus holds that in regions where risk is higher, less risk is taken. While in good times this will result in lower returns, in bad times it will lessen the losses.

The North and South West have both been exposed to the fluctuations in prices and supply in the market for feed, including water, given the greater use of imported feed stuffs over the past 12 months. Equity levels across all regions have declined with the state average falling from 65% to 61% this year. It shouldn’t be assumed that this change is purely due to increased debt as there has been a turnover of farms in the sample over this period.

The cost structure ratio provides variable costs as a proportion of total costs. A lower ratio implies that overhead costs comprised a greater proportion of total costs which in turn indicates less flexibility in the business. Table 3 shows that across the state for every \$1.00 spent, \$0.60 is used to cover variable costs however it is worth noting that the cost structure varies considerably between the three regions. One hundred minus this percentage gives the proportion of total costs that are overhead costs.

The debt services ratio shows interest and lease costs, as a proportion of gross income. The ratio of 13% this year is higher than the 12% reported last year which is unsurprising given the challenging conditions and low profitability that required many farmers to seek additional finance. The ratio of 13% indicates that on average farms repaid \$0.13 of every dollar of gross income to their creditors.

The benefit of taking some risks and borrowing money can be seen when farm incomes yield a higher return on equity than on their return on assets. In 2007/08, 68% of participants were able to borrow money and generate a return on equity greater than their return on assets, a good result. In 2008/09 that number fell to 28% with only 19 of 68 farms able to generate a return from the extra capital greater than the cost of accessing that capital. In 2009/10 this number fell again, this time to 10%. In 2010/11 the buoyant milk price resulted in 88% of farms making return on equity above their return on assets, while in 2011/12 declining income and higher costs resulted in only 36% of farms being able to borrow money or lease land and make a return off the extra available capital beyond the cost of having access to it, i.e. interest or lease charges. In 2012/13 only six of 75 farms have reported a return on equity higher than their return on asset.

The higher the risk indicator (or lower with equity %) in Table 3, the greater the exposure to the risk of a shock in those areas of the business. Further, the data in Appendix Tables 4 and 5 are in cost per kilograms of milk solids sold. This data is best used as risk indicators, given it is measured against the product produced and sold currently and not the capital invested.

2 Malcolm, L.R., Makeham, J.P. and Wright, V. (2005), *The Farming Game, Agricultural Management and Marketing*, Cambridge University Press, New York. p180

Physical Measures

Feed consumption

Figure 9 presents the contribution of different feed sources to the total metabolisable energy (ME) consumed on the farm. This includes feed consumed by dry cows and young stock.

Grazed pasture is the major component of the cow's diet in all regions however the dependence on supplements can also be seen. In the North and South West grazed pasture made up 46% and 44% of the diet respectively compared to 56% in Gippsland however this is a decline in all regions from 2011/12 reflecting the dry conditions with both silage and hay being used to make up the reduction in pasture in the diet. Home grown feed, whether grazed or conserved, accounted for over 50% of the total ME fed in each region. 47% of the total ME fed was sourced from bought in feed in the North and South West, compared to 38% in Gippsland. All regions are dependent on concentrates with average proportion of ME sourced from concentrates at 31% for the North, 33% for the South West and 28% for Gippsland.

Appendix Tables 3 give further information on purchased feed.

The amount of home grown feed produced per usable hectare will be dependent on numerous factors, with water availability, fertiliser application rates and grazing management being central. The average estimates were, as grazed feed and conserved feed, 8.1t/ha & 1.4t/ha for the North, 4.0t/ha & 1.5t/ha for the South West and 6.9t/ha & 0.6 t/ha for Gippsland. The high amount of pasture grazed and conserved in the North reflects the good water allocations however many northern dairy farmers commented on the need to work hard to grow every kilogram of pasture. The reduction in the amount of pasture grazed in the South West reflects the dry summer and autumn period however the improved spring enabled more fodder to be conserved compared to 2011/12.

Appendix Tables 2 gives estimates of individual tonnes of home grown feed produced per milking hectare. The graph below accounts only for the consumption of pasture that occurred on the milking area whether by milking, dry or young stock.

FIGURE 9. SOURCES OF WHOLE FARM METABOLISABLE ENERGY

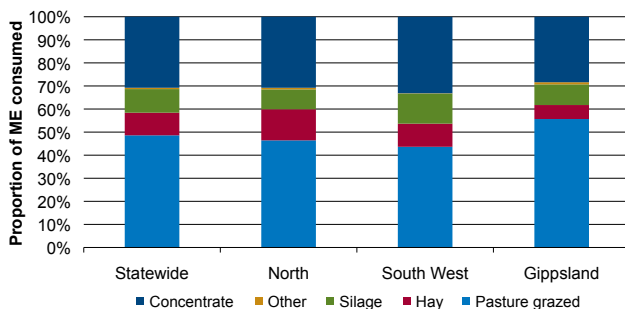


FIGURE 10. ESTIMATED TONNES OF HOME GROWN FEED CONSUMED PER MILKING HECTARE

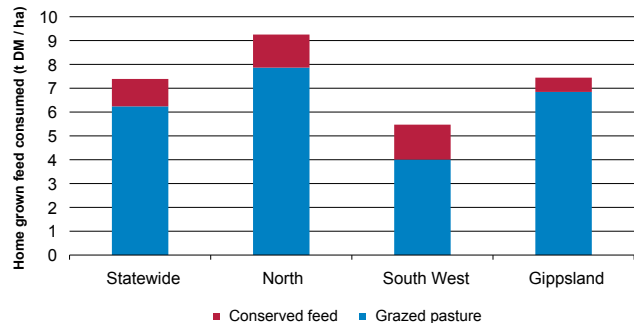


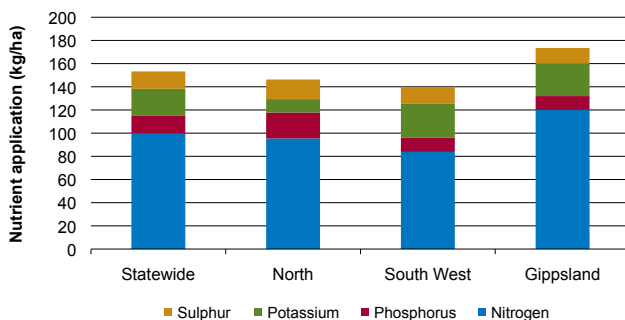
Figure 10 shows the average estimated home grown feed production per milking hectare. Both Figures 9 and 10 were estimated using DEPI's Pasture Consumption calculator. It involves first a calculation of the total energy required on the farm, which is a factor of stock numbers held on the farm, stock weights, distance stock walk to the dairy on average and also milk production. From the total farm energy requirements over the year, the energy imported to the farm as feed is subtracted. This leaves the estimate for total energy produced on farm, which is then divided into grazed and conserved feed depending on the amount of fodder production recorded.

Fertiliser application

Figure 10 and 11 do not show a strong relationship between estimated home grown feed produced and fertiliser applied per hectare. It should also be noted however that water availability, pasture species, soil type, pasture management, seasonal variation in response rates to fertilisers, variations in long-term fertiliser strategies plus other factors will all influence pasture growth and fertiliser application strategies. The good seasonal conditions and confidence in ongoing water availability were reflected in the North where applications of nitrogen, phosphorus and sulphur increased by nine kilograms per hectare, one kilogram per hectare and three kilograms per hectare respectively compared to 2011/12 levels. The South West and Gippsland spread similar amounts of phosphorus potassium and sulphur, all at slightly reduced levels compared to 2011/12. In Gippsland farms spread more nitrogen than farms in the South West however in both regions the amount spread was similar to last year. All of the 22 farms in the irrigation region of the North applied fertiliser to the irrigated portion of their total useable area in 2012/13.

Appendix Tables 2 give further information on fertiliser application.

FIGURE 11. NUTRIENT APPLICATION PER HECTARE



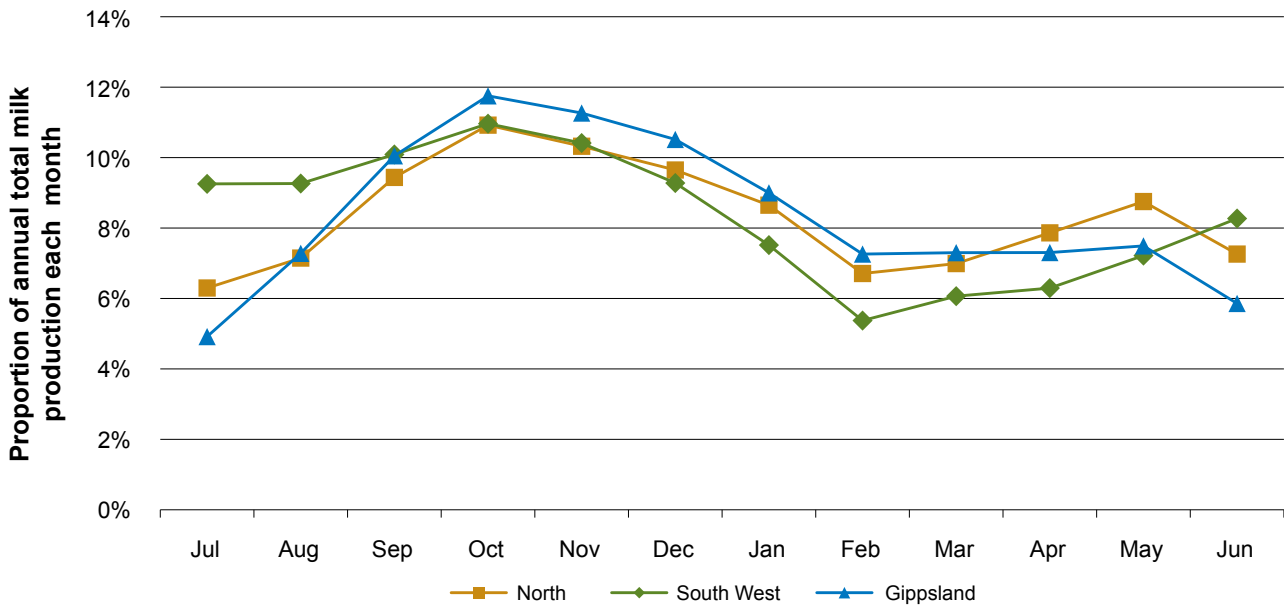
The digestion of feed in the rumen and the use of fertiliser are major sources of greenhouse gases on dairy farms. A summary of greenhouse gas emissions can be found on page 55 of this report.

Milk production

Average distribution of milk production in all regions saw the main production peak in spring, but only the North saw another small peak in autumn 2013. This autumn production is reflected in the North having the highest average milk price of any region. Gippsland farms on average experienced the most rapid increase in production coming into the 2012 spring, going from 4.9% of total production in July to 11.8% by October. In the South West over two-thirds of annual production occurred from July to January with the region producing the a lower proportion of the milk in the autumn and winter period than the other two regions reflecting the feed shortages in the region over that period.

The reduction in the amount of pasture grazed in the South West reflects of the dry summer and autumn period however the improved spring enabled more fodder to be conserved compared to 2011/12.

FIGURE 12. MONTHLY DISTRIBUTION OF MILK PRODUCTION

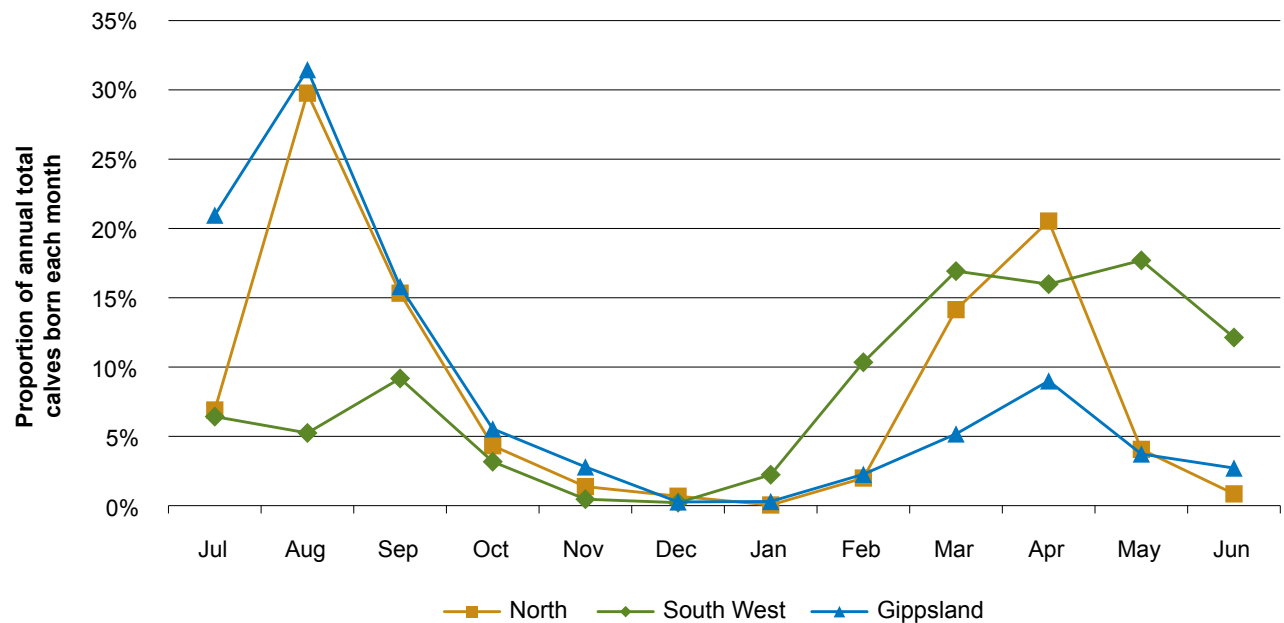


Calving pattern

Typically the milk production shown in Figure 12 would follow a similar pattern to the calving pattern shown in Figure 13 below, with a two to three month delay between calving and peak lactation. This can be seen best in the peak production and peak calving times, particularly in the North and Gippsland when milk production peaks one to two months after calving. In the South West however this was not the case with reduced feed limiting the production response that would typically be expected of cows in peak lactation. A similar trend occurred in Gippsland in the autumn.

Gippsland had a very concentrated calving pattern, with almost one-third of all calves born in August and 68% born from July to September. Less than 3% of calves were born in Gippsland and the South West during the summer months. In the North 95% of calves were born in two separate concentrated periods with 56% born between July and October and 39% born from March to May.

FIGURE 13. MONTHLY DISTRIBUTION OF CALVES BORN





Part Two: North

North

Farms NO010 – NO048 were also included in last year’s report and farms NO049 to NO052 are new to the sample this year. Please refer to page 3 for notes on the presentation of data.

2012/13 Seasonal conditions

In 2012/13 it was a reasonable year for pasture growth however a lot of effort was required to grow every kilogram of pasture. The season was hot and dry with rainfall on average 71% below the long term average for farms in the North (Figure 14). On some farms there was significant farm development activities through the On-Farm Irrigation Efficiency Program resulting in interruptions to production for several months.

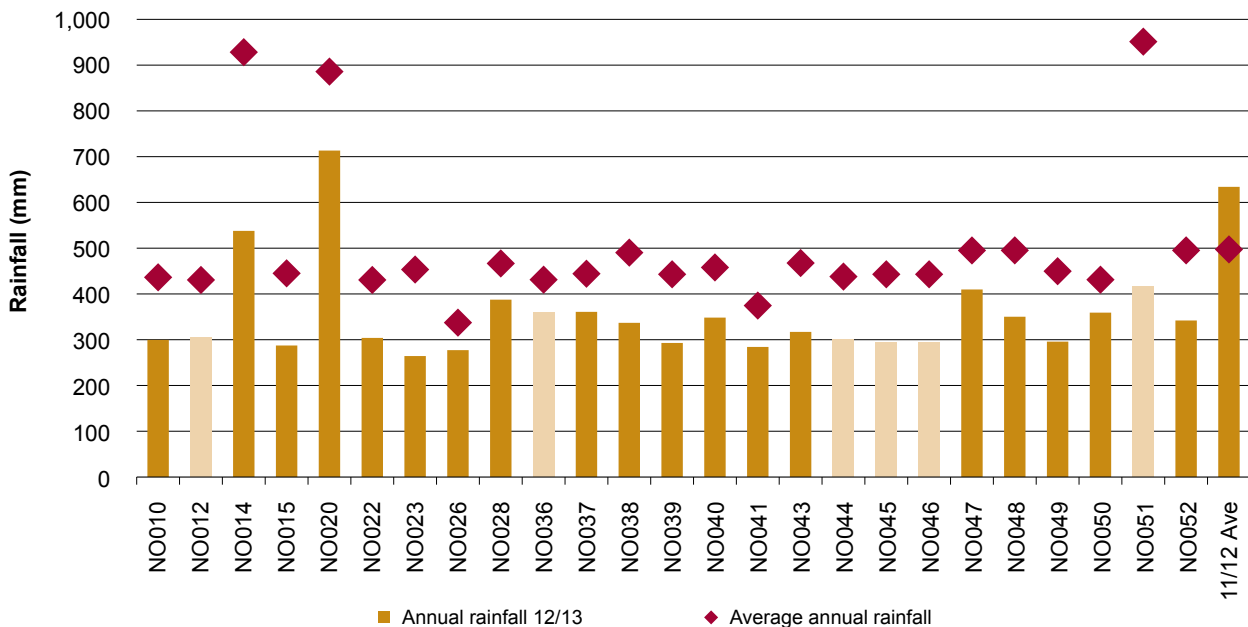
Despite a lower milk price in 2012/13 the Northern Victorian dairy farmers were able to increase milk production and maintain a reasonable cash flow to January. The latter half of the season became more difficult due to above average temperatures, high irrigation requirements and mild heat stress in cows.

The lower milk price, shortages of fodder and higher prices for grain led to reduced farm profits. There was 100%

determination of high reliability water shares (HRWS) in all districts and a large amount of carryover water available. Large volumes of allocation (“temporary water”) was purchased due to the dry conditions. A continuing dry autumn led to many dairy farmers irrigating right up until the end of the traditional irrigation season close in mid-May. Isolated rainfall events in early March provided some relief to the dry season and helped kick start some annual pastures.

Top 25% * - The top 25% are shown as the lighter bars in all graphs as ranked by return on assets.

FIGURE 14. 2012/13 ANNUAL RAINFALL AND LONG TERM AVERAGE RAINFALL – NORTH



Whole farm analysis

Key whole farm physical parameters for the North are presented below in Table 4. The Q1 – Q3 range shows the band in which the middle 50% of farms for each parameter sit.

The physical parameters of the top 25% of farms (ranked by return on assets) lie within the middle 50% of the north dataset. The parameters where the top performers are slightly higher were milk sold per cow (at 566 kg MS compared to the Q1 - Q3 range of 484-560 ks MS) and higher labour efficiency (based on milk production per labour unit).

The average and the top 25% had similar rainfall, usable hectares, and stocking rate. However the top performers had higher milk production per cow and per hectare, and a larger proportion of the diet from home grown feeds.

TABLE 4. FARM PHYSICAL DATA – NORTH

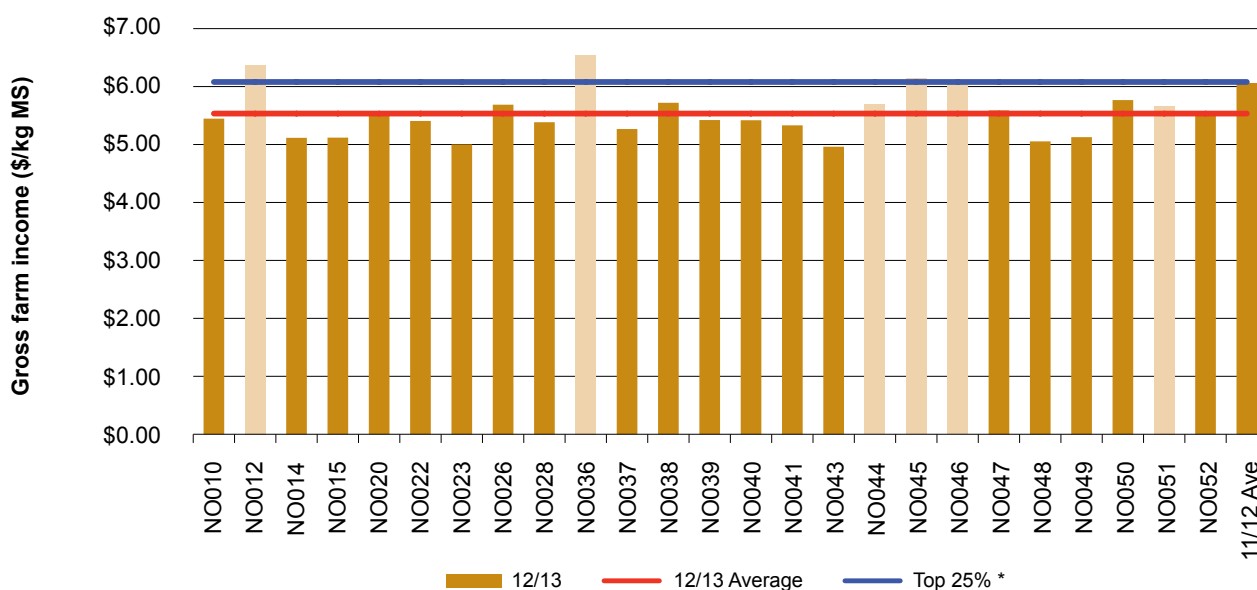
Farm physical parameters	North average	Q1 to Q3 range	Top 25% average
Annual rainfall 12/13	349	293 - 359	328
Water used (irrigation + rainfall) (mm / ha)	901	724 - 1,065	1,045
Total usable area (hectares)	193	103 - 211	194
Milking cows per usable hectares	1.8	1.2 - 2.3	1.9
Milk sold (kg MS / cow)	518	484 - 560	566
Milk sold (kg MS / ha)	961	624 - 1,109	1,083
Home grown feed as % of ME consumed	55%	45% - 63%	60%
Labour efficiency (milking cows / FTE)	108	92 - 119	105
Labour efficiency (kg MS / FTE)	55,741	46,131 - 57,584	59,851

Gross farm income

Gross farm income includes all farm income, whether that is income from milk sales, changes in inventories of stock or feed, or cash income from livestock trading. The average gross farm income of the top 25% is \$6.08/kg MS which is noticeably higher than the overall average of \$5.53/kg MS (Figure 15).

The figure also shows that last year's average gross farm income of \$6.06/kg MS is higher than the average red line of \$5.53/kg MS. The main cause of the decrease in gross farm income was a 10% decrease in milk price on average.

FIGURE 15. GROSS FARM INCOME PER KILOGRAM OF MILK SOLIDS – NORTH



Milk solids production

Average milk production per hectare is almost the same year on year with 961 kg MS/ha produced in 2012/13. This is shown by the red average line balancing on top of the 11/12 Ave bar in Figure 16. The range of this year's dataset was 373 to 1,746 kg MS/ha.

While the average of the top 25% group at 1,083 kg MS/ha is above the average at 961 kg MS/ha, not all farms in the top group are above the average. For example farm NO036 and NO051 have below average milk production per hectare suggesting they have other attributes that contribute to their strong performance.

FIGURE 16. MILK SOLIDS SOLD PER HECTARE – NORTH



Variable costs

Variable costs include herd, shed and feed costs. On average they increased in 2012/13 to \$3.34, up from \$2.59/kg MS last year. The wide range of \$2.25/kg MS (NO051) to \$4.81/kg MS (NO052) for North farms can be seen by the variation in maroon bars in Figure 17.

Feed costs are clearly the major variable cost accounting for 55% of total costs. The large increases in feed costs this year came from increases in irrigation and purchased feed. Irrigation costs increased from \$0.25/kg MS up to \$0.37/kg MS, as farms purchased more water allocations this year.

Fodder purchases increased from \$0.38/kg MS up to \$0.43/kg MS this year and concentrates increased from \$1.09/kg MS up to \$1.23/kg MS. This increase in concentrates was the result of an increase in the price of concentrates rather than an increase in the quantity purchased. The cost increased from \$267/t DM up to \$311/t DM. The concentrates fed in 2011/12 was 1.9 t DM/cow which was very similar to 1.8 t DM/cow this year.

A break down of variable costs for the individual businesses on a \$/kg MS basis can be seen in Appendix Table A4.

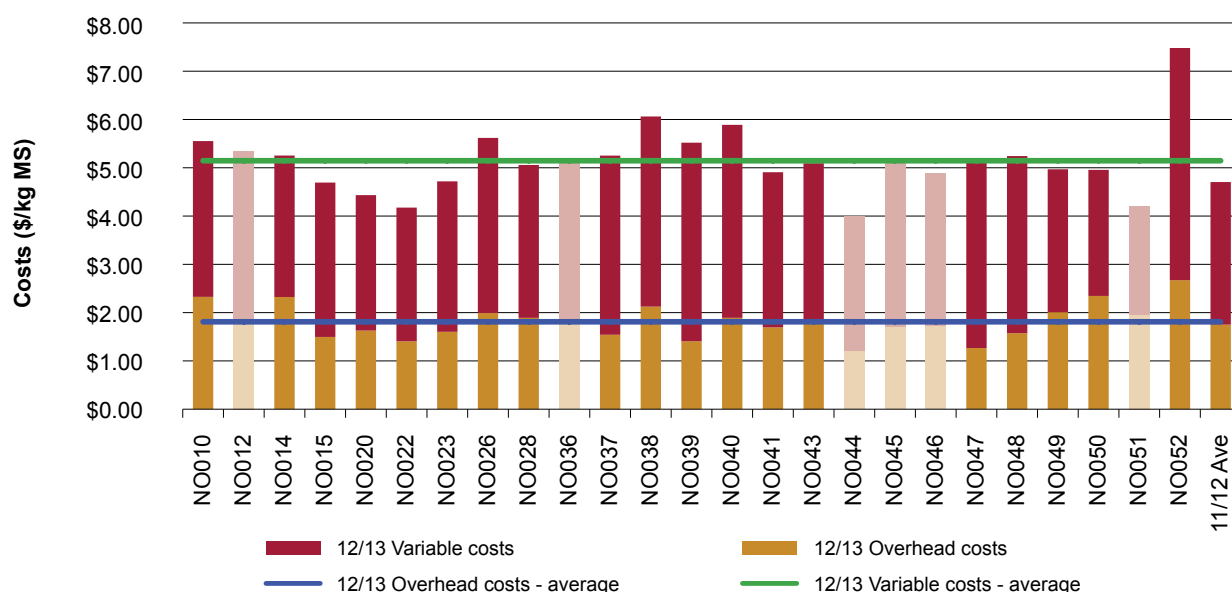
Overhead costs

Overhead costs are those that do not vary with the small changes in level of production. The DFMP includes cash overheads such as rates and insurance as well as non cash costs such as imputed owner operator and family labour and depreciation of plant and equipment. Figure 17 illustrates the range spent on overhead costs per hectare, which was from \$1.22/kg MS to \$2.67/kg MS in 2011/12.

Average overhead costs were \$1.81/kg MS, up from \$1.75/kg MS recorded in 2011/12. The main overhead cost category that increased this year was employed labour, increasing by 4 c/kg MS to \$0.44/kg MS. The average total labour units for North farms was 2.9 FTE; with owner operators contributing 1.5 FTE, employed labour 1.3 FTE and contract labour 0.1 FTE.

A breakdown of the overhead costs in \$/kg MS is provided in Appendix Tables A5 and A7. The percentage breakdown of the individual totals expressed as percentages is presented in Appendix Table A6.

FIGURE 17. WHOLE FARM VARIABLE AND OVERHEAD COSTS PER KILOGRAM OF MILK SOLIDS – NORTH



Cost of production

Cost of production gives an indication of the average cost of producing a kilogram of milk solids. It is calculated as variable plus overhead costs and accounting for changes in fodder inventory and livestock trading losses. Considering the changes in inventory is important to establish the true costs to the business. The changes in fodder inventory counts for the net cost of feed from what was fed out, conserved, purchased and stored over the year.

Livestock trading loss is also considered in cost of production where there is a net livestock depreciation or reduced stock numbers.

Table 5 shows that the average cost of production was \$5.15/kg MS and the top 25% of farms were 11% lower at \$4.57/kg MS.

TABLE 5. COST OF PRODUCTION – NORTH

Farm costs (\$ / kg MS)	North average	Q1 to Q3 range	Top 25% average
Livestock trading loss	\$0.00	\$0.00 - \$0.00	\$0.00
Feed inventory change	\$0.00	-\$0.11 - \$0.07	-\$0.21
Changes in inventory (\$ / kg MS)	\$0.00	-\$0.09 - \$0.07	-\$0.21
VARIABLE COSTS			
Herd costs	\$0.25	\$0.20 - \$0.31	\$0.25
Shed costs	\$0.24	\$0.19 - \$0.24	\$0.19
Purchased feed and agistment	\$1.77	\$1.50 - \$2.16	\$1.64
Home grown feed cost	\$1.08	\$0.83 - \$1.20	\$1.00
Total variable costs (\$ / kg MS)	\$3.34	\$2.96 - \$3.67	\$3.08
OVERHEAD COSTS			
Rates	\$0.04	\$0.02 - \$0.04	\$0.04
Registration and insurance	\$0.02	\$0.01 - \$0.02	\$0.03
Farm insurance	\$0.06	\$0.04 - \$0.07	\$0.05
Repairs and maintenance	\$0.27	\$0.23 - \$0.32	\$0.28
Bank charges	\$0.01	\$0.00 - \$0.01	\$0.01
Other overheads	\$0.10	\$0.06 - \$0.13	\$0.09
Employed labour cost	\$0.44	\$0.17 - \$0.59	\$0.51
Total cash overheads (\$ / kg MS)	\$0.94	\$0.72 - \$1.07	\$1.00
Depreciation	\$0.18	\$0.10 - \$0.24	\$0.16
Imputed owner/operator and family labour	\$0.68	\$0.52 - \$0.89	\$0.54
Total overhead costs (\$ / kg MS)	\$1.81	\$1.57 - \$1.99	\$1.70
Total cost of production (\$ / kg MS)	\$5.15	\$4.75 - \$5.48	\$4.57

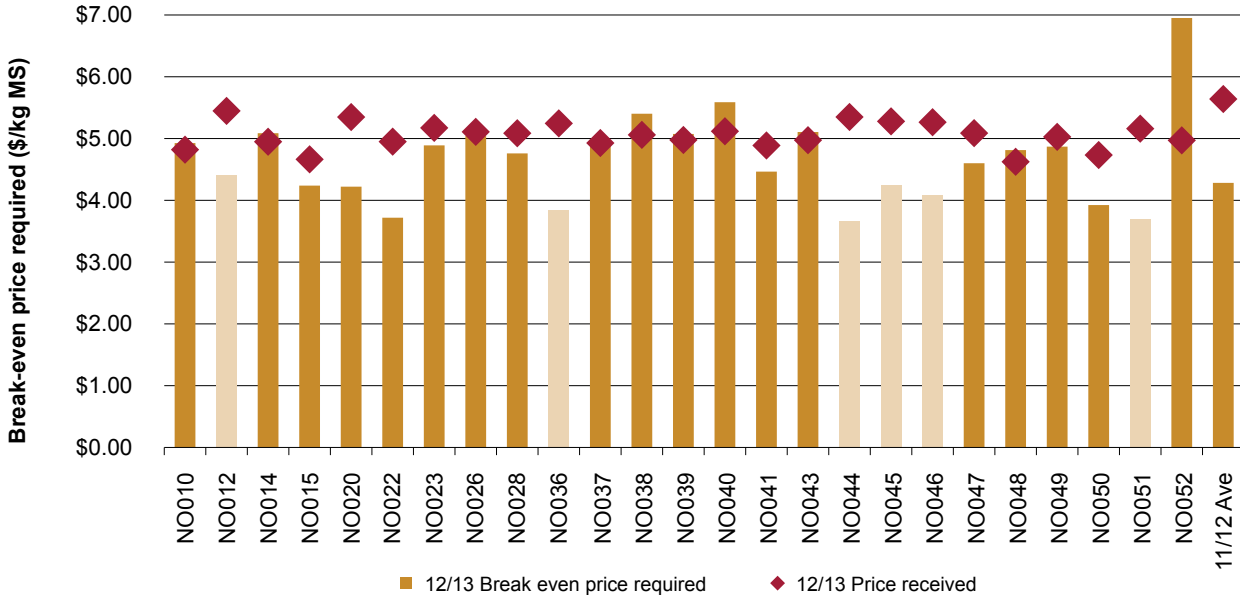
Break-even price required

The break-even price required for milk is calculated as variable and overhead costs less income other than milk (including livestock trading profit, changes in feed inventory or other income). The difference between the break-even price required and milk income is earnings before interest and tax per kilogram of milk solids.

Figure 18 shows that the break-even price required varied from \$3.66/kg MS to \$6.95/kg MS, and an average of \$4.66/kg MS.

Milk price varied from \$4.62/kg MS to \$5.45/kg MS, and an average of 5.05/kg MS.

FIGURE 18. BREAK-EVEN PRICE REQUIRED PER KILOGRAM OF MILK SOLIDS SOLD – NORTH



Earnings before interest and tax

Earnings before interest and tax is gross income less variable and overhead costs.

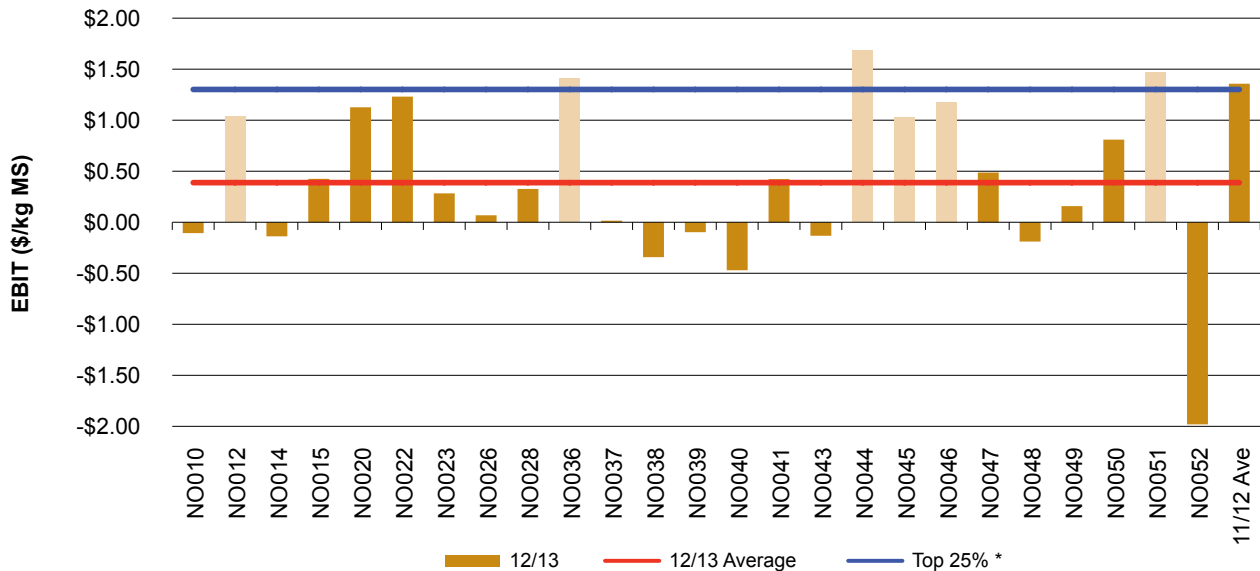
Figure 19 shows the decrease in profits between years with the average falling almost \$1.00/kg MS to \$0.39/kg MS in 2012/13.

Eight of the 25 farms recorded negative EBIT compared to all farms recording a profit last year. Some of the farms who recorded negative EBIT participated in the On-Farm

Irrigation Efficiency Program and had large areas of usable area under development, significantly influencing their farm performance this year.

The top 25% recorded over three times the profit of the average at \$1.30/kg MS, however this was lower than the average of the top group last year at \$1.94/kg MS.

FIGURE 19. WHOLE FARM EARNINGS BEFORE INTEREST & TAX PER KILOGRAM OF MILK SOLIDS – NORTH



Return on assets and equity

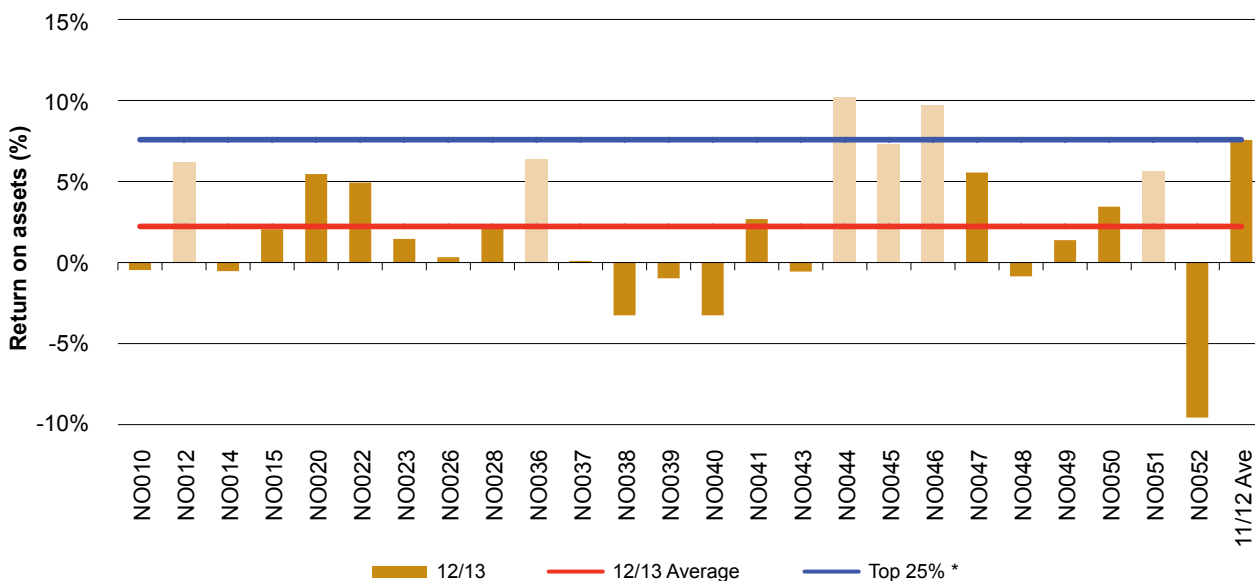
Return on assets is the earnings before interest and tax expressed as a percentage of total assets. It is an indicator of the overall earning power of total assets, irrespective of capital structure. Return on equity is the net farm income expressed as a percentage of owner equity. It is a measure of the owner's rate of return on investment.

Figures 20 and 21 were calculated excluding capital appreciation. For return on equity including capital appreciation refer to Appendix Table A1.

Figure 20 shows the distribution of return on assets in 2012/13. The group average was 2.2%, compared to 7.6% recorded last year.

The top 25% achieved 8.7% this year, which was lower than 13.3% recorded last year.

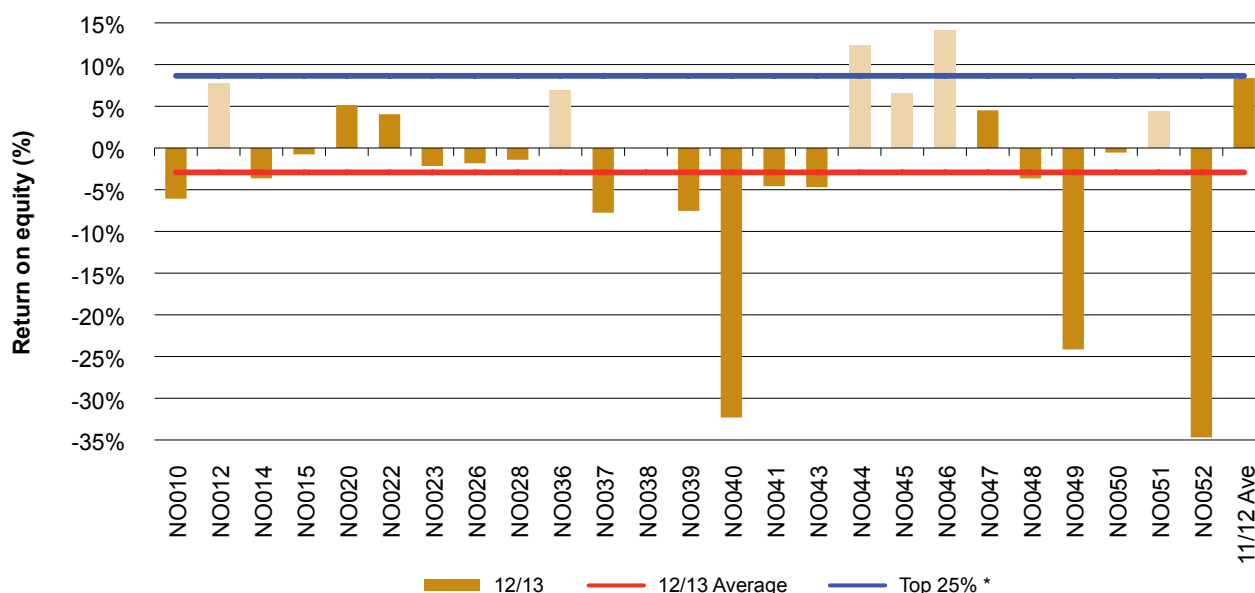
FIGURE 20. RETURN ON ASSETS – NORTH



The distribution of return on equity in 2012/13 is shown in Figure 21. This year the range of return on equity for North farms was -34.7 to 14.1%, with an average of -2.9%, down from 8.4% last year. The top performers achieved 8.7%, also down from that recorded last year of 20.7%.

Interestingly the top 25% as ranked by return on assets are within the highest performing farms according to return on equity. This consistent result highlights the financial strength of the top farms.

FIGURE 21. RETURN ON EQUITY – NORTH



Feed consumption and fertiliser

Feed data was collected on a whole farm basis rather than determining which feeds went to each class of stock as this would have made the data collection process too difficult on many farms.

The relative contribution of each feed type to the metabolisable energy (ME) consumption on the farm is shown in Figure 22. The broad range of different source of ME used on individual farms is evident. Eleven of the 25 farms have more than half of the diet sourced directly from grazed pasture. All farms source at least 20% of the metabolisable energy from concentrates, excluding farm

NO050. All farms source part of their ME requirements from hay, with the range between 2 and 39%. Silage accounts for between 0 and 23% of farm's ME.

'Other' sources of feed include sources that are not used by or available to dairy farmers on the common market. Palm Kernel Extract is included as a concentrate.

FIGURE 22. SOURCES OF WHOLE FARM METABOLISABLE ENERGY – NORTH

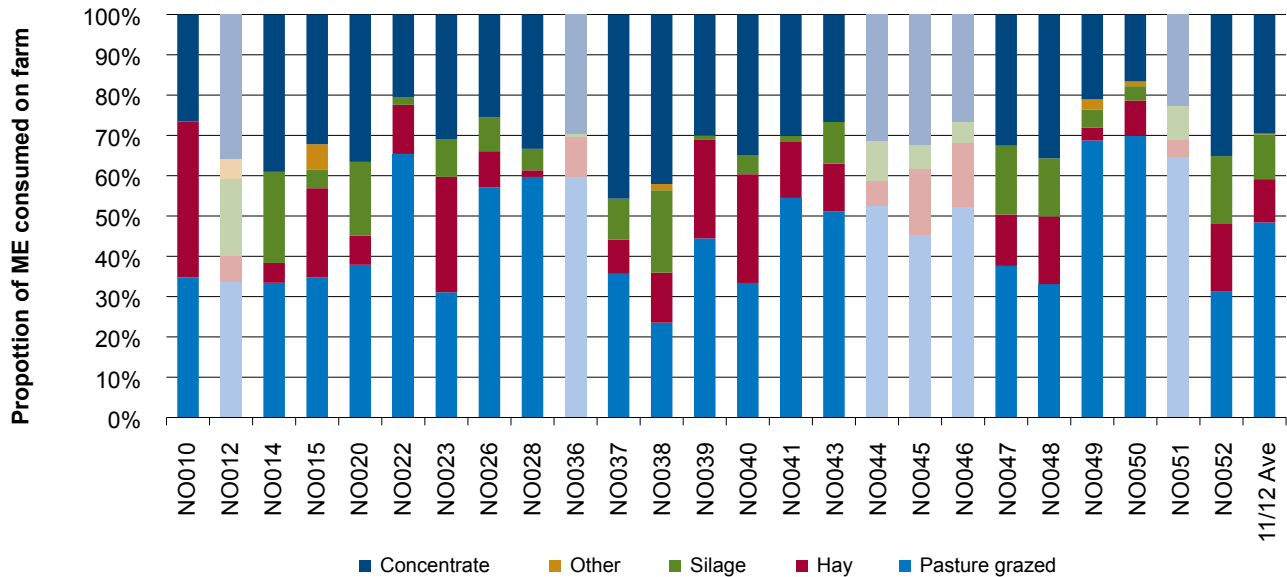


Figure 23 shows the estimated home grown feed consumed per milking hectare for farms in the North.

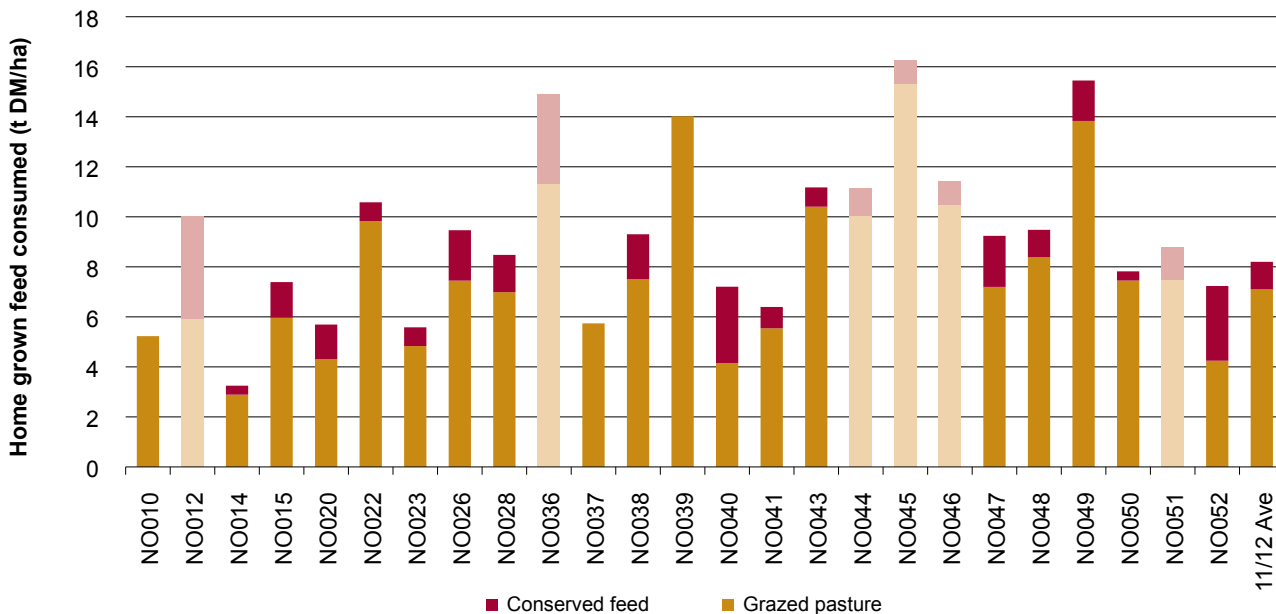
Total pasture harvest for the North on average increased in 2012/13 to 9.3 t DM/ha, up from 8.2 t DM/ha recorded last year. This was due to both increases in direct pasture harvest and conserved pasture.

Pasture grazed increased from 7.1 t DM/ha up to 7.9 t DM/ha, and conserved feed increased from 1.1 t DM/ha up to 1.4 t DM/ha.

The high amount of pasture grazed and conserved in 2012/13 for farms in the North reflects the good water determinations for HRWS, access to large volumes of carryover water and allocation (temporary) water. However many northern dairy farmers have commented on the need to work hard to grow every kilogram pasture.

Grazed pasture consumption is estimated by using a back calculation method. It should be noted that there can be a number of sources of error in the method used to calculate home pasture consumption including incorrect estimation of liveweight, amounts of fodder and concentrates fed, energy content of fodder and concentrate, energy content of pasture, wastage of feed and associative effects of feeds. Comparing pasture consumption estimated using the back calculation method between farms can lead to incorrect conclusions due to errors in each farm's estimate and it is best to compare pasture consumption on the same farm over time using the same method of estimation. More details on how pasture consumption was calculated can be found on page 16 of Part One – Statewide or in Appendix E.

FIGURE 23. ESTIMATED TONNES OF HOME GROWN FEED CONSUMED PER MILKING HECTARE – NORTH



Fertiliser application

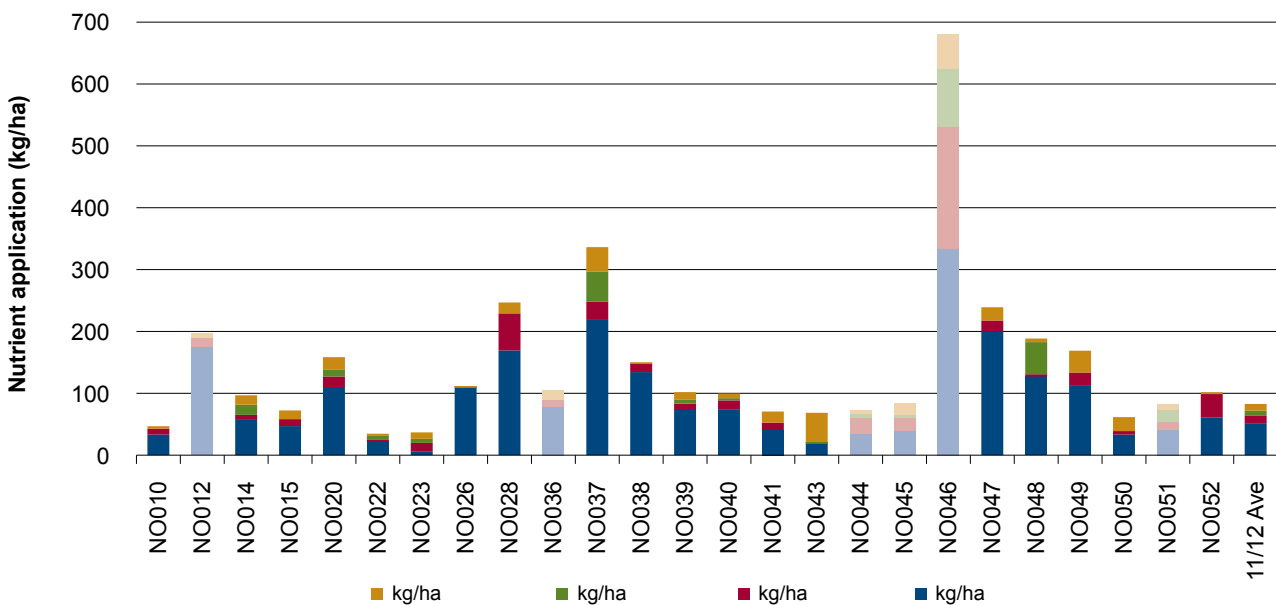
The relationship between fertiliser application per hectare and home grown feed consumed per hectare during 2012/13 is shown in Figures 23 and 24.

Similar to last year, there are no discernable trends between those farms that applied the greatest amount of fertiliser and those that had the greatest amount of home grown feed.

This could be due to a range of factors including soil type, irrigation scheduling, grazing management, and timing of rain events and damage from flooding or locusts.

All farms in both the northern irrigation region and the north east applied fertiliser to their crops and pasture.

FIGURE 24. NUTRIENT APPLICATION PER HECTARE – NORTH





Part Three: South West

South West

Farms SW001 - SW020 have been involved in the project since 2006/07. Farms SW001 to SW041 participated last year. Please refer to page 3 for notes on the presentation of data.

2012/13 Seasonal conditions

Challenging seasonal conditions combined with a reduced milk price and rising input costs resulted in 2012/13 being a very challenging year for farmers across south west Victoria. Average rainfall across participant farms was 638mm, 172mm below normal. Participant farms received rainfall totals between 66% and 93% of their long term average rainfall as shown in Figure 25.

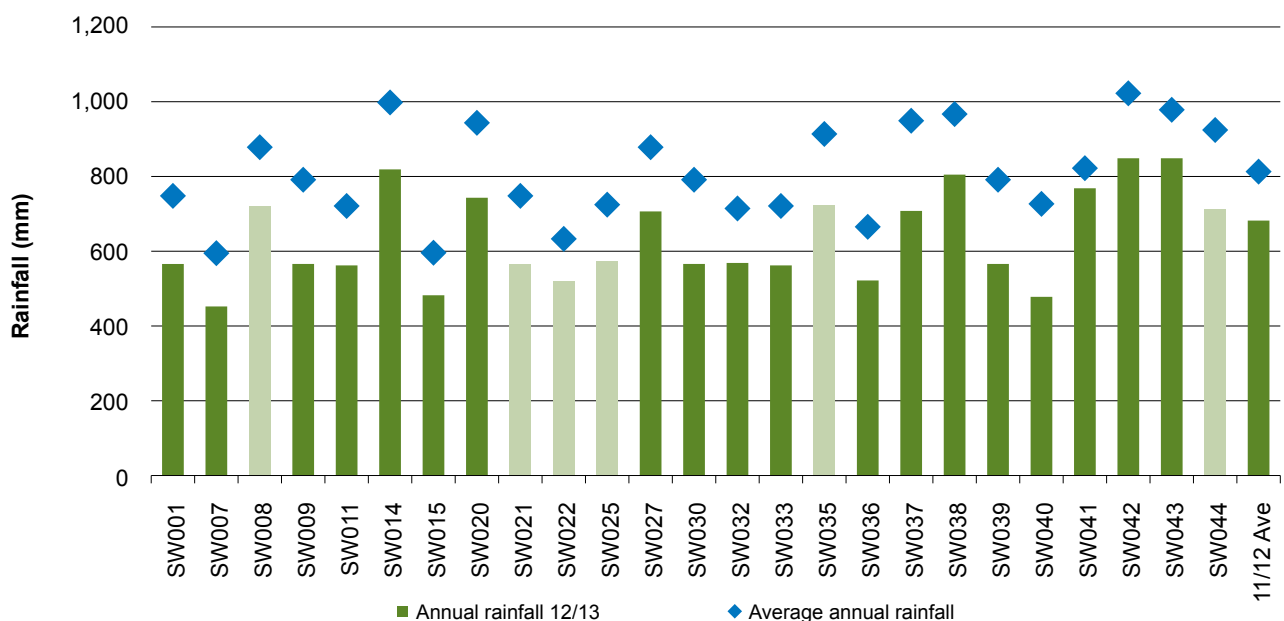
Similar to 2011/12, 2012/13 began wet before rapidly drying out, with the region experiencing its second successive year of spring rainfall at or below decile three for the first time since 1981/82. Extremely dry conditions prevailed during the nine month period from October to June with almost the entire region experiencing decile one rainfall, with some sites recording lowest on record rainfall.

With long term fodder storages depleted during 2011/12 many farmers intended to cut significant amounts of hay and silage in a bid to replenish supplies. The harvest season started well with reasonable quantities conserved, however the need to feed it back to herds almost immediately meant that many farmers were looking to purchase fodder by mid-autumn.

As the autumn progressed without rainfall, fodder prices climbed and by the time the break arrived in mid-May hay and silage had reached prices not seen since the 2006/07 drought. Many of the perennial ryegrass pastures across the region were a casualty of the dry summer and autumn period and failed to re-grow following the break. This compounded the feed deficit experienced on many farms. Fortunately winter progressed well and was both drier and milder than average during June. Where pastures had survived or been re-sown early, cover was reasonable heading into July.

Top 25% * - The top 25% are shown as the lighter bars in all graphs as ranked by return on assets.

FIGURE 25. 2012/13 ANNUAL RAINFALL AND LONG TERM AVERAGE RAINFALL – SOUTH WEST



Whole farm analysis

The key whole farm physical parameters for the South West are presented in Table 6. The Q1 – Q3 range shows the band in which the middle 50% of farms for each parameter sit.

The physical characteristics of top 25% of farms (ranked by return on assets) generally lie within the middle 50% of the South West dataset. The only characteristic where the top performers have slightly higher performance was with regard to labour efficiency in terms of the kilograms of milk solids sold per labour unit.

The top 25% of farms received similar rainfall and used a similar amount of water compared to the average. Stocking rate was also similar although per cow and per hectare production was higher for the top 25% than for the average.

The areas where the top 25% were noticeably above the regional average were total useable area, and labour efficiency, both milking cows/FTE and kg MS/FTE.

TABLE 6. FARM PHYSICAL DATA – SOUTH WEST

Farm physical parameters	South west average	Q1 to Q3 range	Top 25% average
Annual rainfall 12/13	638	562 - 725	636
Water used (irrigation + rainfall) (mm / ha)	647	562 - 747	652
Total useable area (hectares)	308	157 - 407	398
Milking cows per useable hectares	1.2	1.1 - 1.4	1.2
Milk sold (kg MS / cow)	506	490 - 722	543
Milk sold (kg MS / ha)	601	476 - 546	644
Home grown feed as % of ME consumed	58%	52% - 63%	60%
Labour efficiency (milking cows / FTE)	91	76 - 115	111
Labour efficiency (kg MS / FTE)	46,885	36,353 - 58,558	60,443

Gross farm income

Gross farm income includes all farm income, whether that is income from milk sales, cash income from livestock trading, or income from other sources such as milk factory shares, interest from bank accounts and rebates or grants. Changes in inventories of stock or feed are also accounted for in gross farm income and in 2012/13 the second successive dry summer and autumn depleted feed inventory by \$11,515 on average meaning this figure was deducted from gross farm income. This follows a reduction in feed inventories of \$51,919 in 2011/12. Gross farm income as per hectare and per cow can be found in the interactive appendix tables which are available online at www.dairyaustralia.com.au/dairyfarmmonitor.

Figure 26 shows that gross income in the South West ranged from \$4.47 per kilogram of milk solids to \$6.41/kg MS. In comparison with last year's average gross farm income of \$5.97/kg MS, this year's average decreased by over 12% to 5.24/kg MS, as shown by the red 12/13 average line being well below the 11/12 average green bar.

Two farms in the top 25% recorded gross farm income below the average for farms in the region. This suggests that while it has an influence, high gross farm income alone does not translate to being highly profitable and that other attributes of top performers need to be examined when assessing farm performance.

FIGURE 26. GROSS FARM INCOME PER KILOGRAM OF MILK SOLIDS – SOUTH WEST



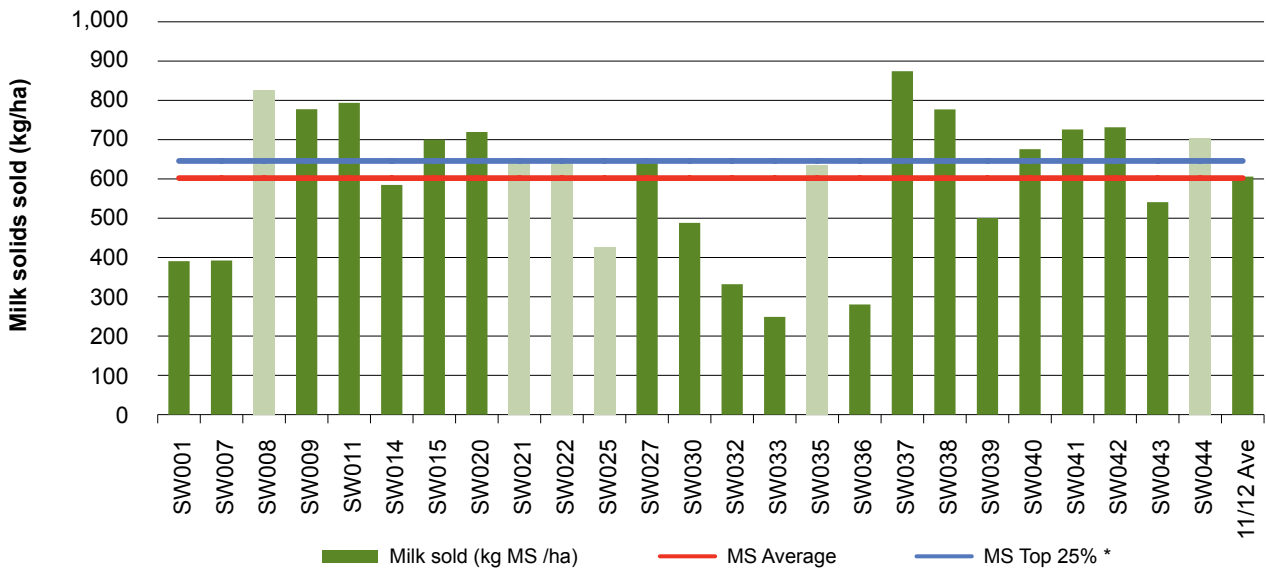
Milk solids production

Large variation can be seen in the amount of milk solids produced per hectare with a range of 257 - 866 kg MS/ha reported. Part of this variation can be accounted for by farms having runoff areas and out paddocks that are included as part of the total usable area.

The top performing farms achieved 644 kg MS/ha in the South West compared to the average farms who sold 7% less milk at 601 kg MS/ha.

This group average is similar to the average reported in 2011/12 of 605 kg MS/ha. With production stable, the reduction in gross farm income can be predominantly attributed to the decline in milk price which is shown in Figure 29 below.

FIGURE 27. MILK SOLIDS SOLD PER HECTARE – SOUTH WEST



Variable costs

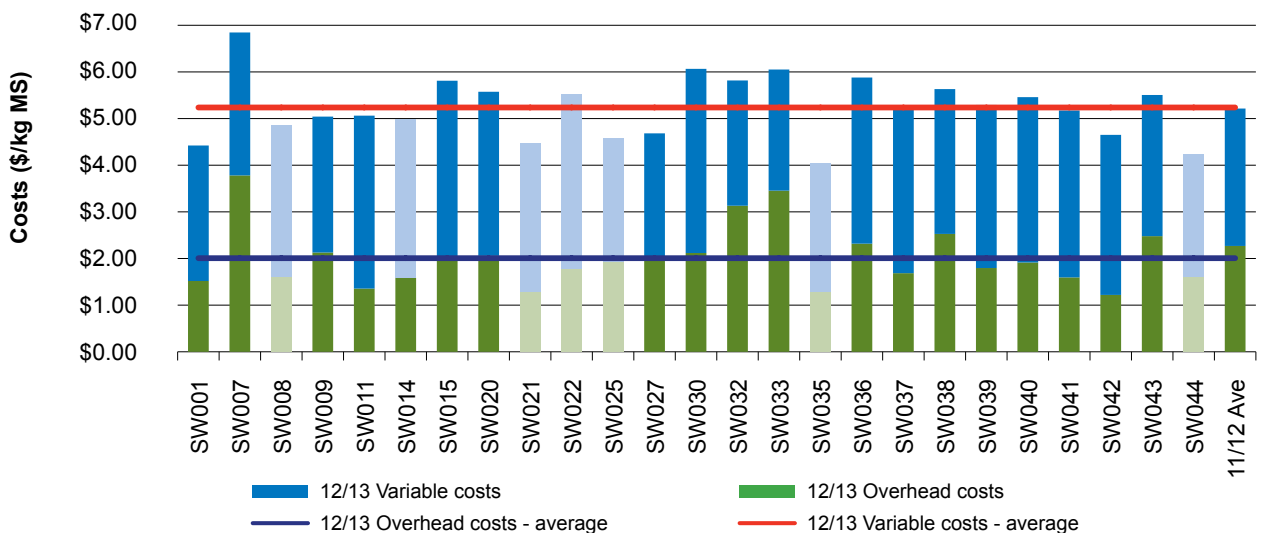
The separation of variable and overhead costs per hectare is shown in Figure 28. Variable costs are those costs that change directly according to the amount of output, such as herd, shed and feed costs.

Variable costs for the South West region varied from \$2.50/kg MS to \$3.74/kg MS. On average they increased from \$2.79/kg MS last year to \$3.06/kg MS in 2012/13 due to a rise in feed costs, particularly purchased concentrates and fodder reflecting the poor growing conditions and higher prices that occurred for much of the year.

Feed costs were again the major variable cost on South West farms, with the dry summer and autumn increasing feed costs by 10% on last year and 46% since 2010/11. Feed costs again accounted for 46% of total costs of production and this does not include the \$0.06/kg MS feed inventory loss also incurred through the depletion of fodder reserves.

The percentage breakdown of the variable costs can be found in Appendix Table B6.

FIGURE 28. WHOLE FARM VARIABLE AND OVERHEAD COSTS PER KILOGRAM OF MILK SOLIDS – SOUTH WEST



Overhead costs

The calculation of overhead costs in the DFMP consists of cash and non-cash costs to the dairy business. Examples of cash overheads include rates, insurance and employed labour, and non-cash overheads include depreciation and imputed owner/operator and family labour.

Figure 28 also illustrates the variation in overhead costs per hectare between participant farms. Values ranged from \$1.40 to \$3.83 per kilogram of milk solids. The top 25% recorded much lower overhead costs compared to the regional average at \$1.75/kg MS and \$2.15/kg MS respectively.

The major overhead cost to the average South West farm was the cost of labour in the business, which includes both employed and imputed labour. Labour costs account for 26% of total costs. Repairs and maintenance and depreciation were the other two major overhead cost categories.

Cost of production

Table 7 presents cost of production which includes both variable and overhead costs as well as accounting for changes in fodder inventory and livestock trading losses. Considering the changes in inventory is important to establish the true costs to the business. The changes in fodder inventory counts for the net cost of feed from what was fed out, conserved, purchased and stored over the year. Livestock trading loss is also considered in cost of production, where there is a net livestock depreciation or reduced stock numbers. Where negative changes in inventory occur, such as the -\$0.06/kg MS feed inventory change, this is counted as a cost to the business and added to variable and overhead costs to give total cost of production.

Table 5 shows that the average cost of production was \$5.28/kg MS and the top 25% of farms was 12% lower at \$4.65/kg MS.

TABLE 7. COST OF PRODUCTION – SOUTH WEST

Farm costs (\$ / kg MS)	South West average	Q1 to Q3 range	Top 25% average
Livestock trading loss	\$0.01	\$0.00 - \$0.00	\$0.04
Feed inventory change	\$0.06	-\$0.03 - \$0.10	-\$0.01
Changes in inventory (\$ / kg MS)	\$0.07	-\$0.03 - \$0.21	\$0.03
VARIABLE COSTS			
Herd costs	\$0.24	\$0.19 - \$0.31	\$0.24
Shed costs	\$0.21	\$0.16 - \$0.27	\$0.18
Purchased feed and agistment	\$1.80	\$1.58 - \$2.07	\$1.60
Home grown feed cost	\$0.80	\$0.68 - \$0.94	\$0.87
Total variable costs (\$ / kg MS)	\$3.06	\$2.75 - \$3.38	\$2.88
OVERHEAD COSTS			
Rates	\$0.05	\$0.03 - \$0.06	\$0.04
Registration and insurance	\$0.02	\$0.01 - \$0.03	\$0.01
Farm insurance	\$0.05	\$0.04 - \$0.07	\$0.05
Repairs and maintenance	\$0.30	\$0.18 - \$0.37	\$0.31
Bank charges	\$0.02	\$0.01 - \$0.02	\$0.01
Other overheads	\$0.12	\$0.08 - \$0.15	\$0.13
Employed labour	\$0.38	\$0.08 - \$0.61	\$0.35
Total cash overheads (\$ / kg MS)	\$0.95	\$0.72 - \$1.23	\$0.90
Depreciation	\$0.19	\$0.12 - \$0.22	\$0.18
Imputed owner operator and family labour	\$1.01	\$0.48 - \$1.34	\$0.67
Total overhead costs (\$ / kg MS)	\$2.15	\$1.76 - \$2.27	\$1.75
Total cost of production (\$ / kg MS)	\$5.28	\$4.65 - \$5.66	\$4.66

Break-even price required

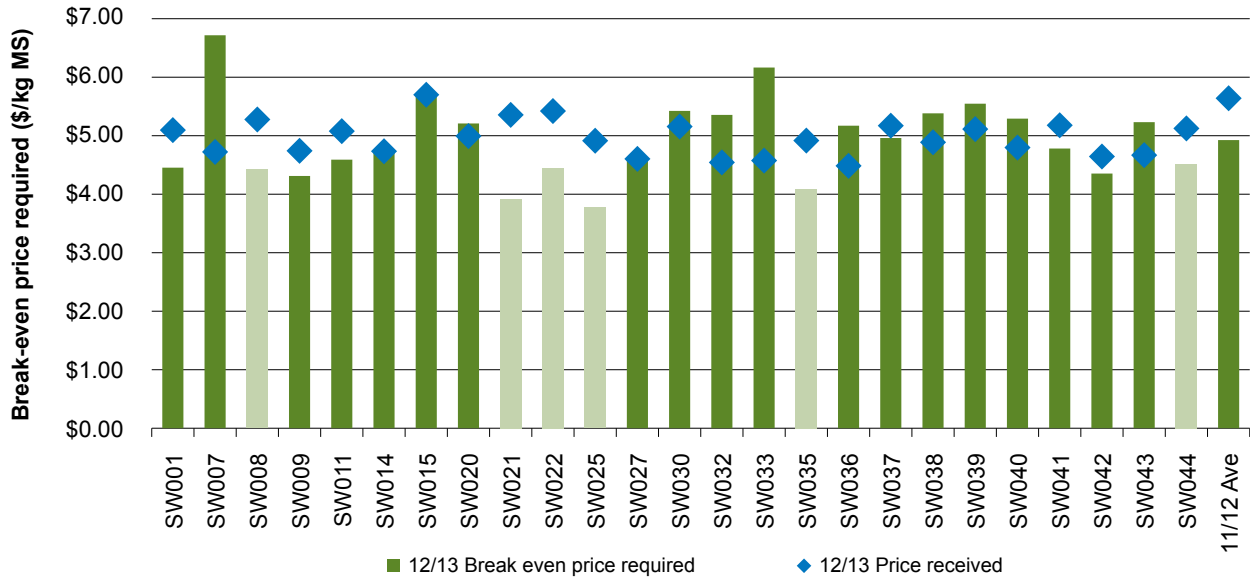
The break-even price required per kilogram of milk solids sold is calculated as the cost of production less any income from other sources, including livestock trading profit or increase in feed inventory. This makes it an even more relevant risk indicator in dairying than cost of production as it can be compared directly to the price of the main output in the business, that being milk price.

Figure 29 shows that the break-even price required ranged from \$3.78/kg MS to \$6.58/per kg MS in the South West. The average milk price was \$4.90/kg MS, almost 12%

below the 2011/12 average price of \$5.56/kg MS. The distribution was \$4.90 to \$5.61/kg MS which was both lower and higher than the range recorded last year.

The difference between the price received and the break-even price required is the earnings before interest and tax per kilogram of milk solids sold. The average earnings before interest and tax was \$0.03/kg MS, the lowest figure recorded for South West farms in the seven year history of the project.

FIGURE 29. BREAK-EVEN PRICE REQUIRED PER KILOGRAM OF MILK SOLIDS SOLD – SOUTH WEST



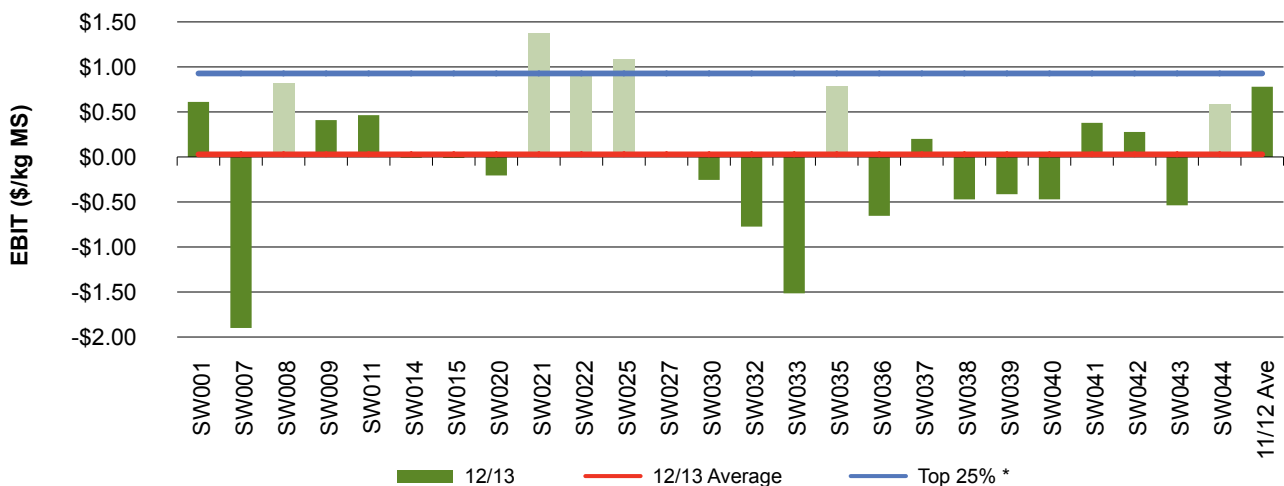
Earnings before interest and tax

Earnings before interest and tax (EBIT) is calculated by subtracting variable and overhead costs, including imputed labour costs from gross income. It is the return from all the capital invested in the business.

On average EBIT per hectare has declined significantly from \$0.78/kg MS in 2011/12 to \$0.03/kg MS as shown in Figure 30. The reduced gross income via a lower milk

price, feed inventory loss and higher variable cost, especially concentrate and purchased fodder costs, are contributing factors to the decline in farm returns. The strength of the top performers is highlighted by recording an average EBIT of \$0.93/kg MS, however this too is a reduction of around 40% year on year.

FIGURE 30. WHOLE FARM EARNINGS BEFORE INTEREST & TAX PER KILOGRAM OF MILK SOLIDS – SOUTH WEST

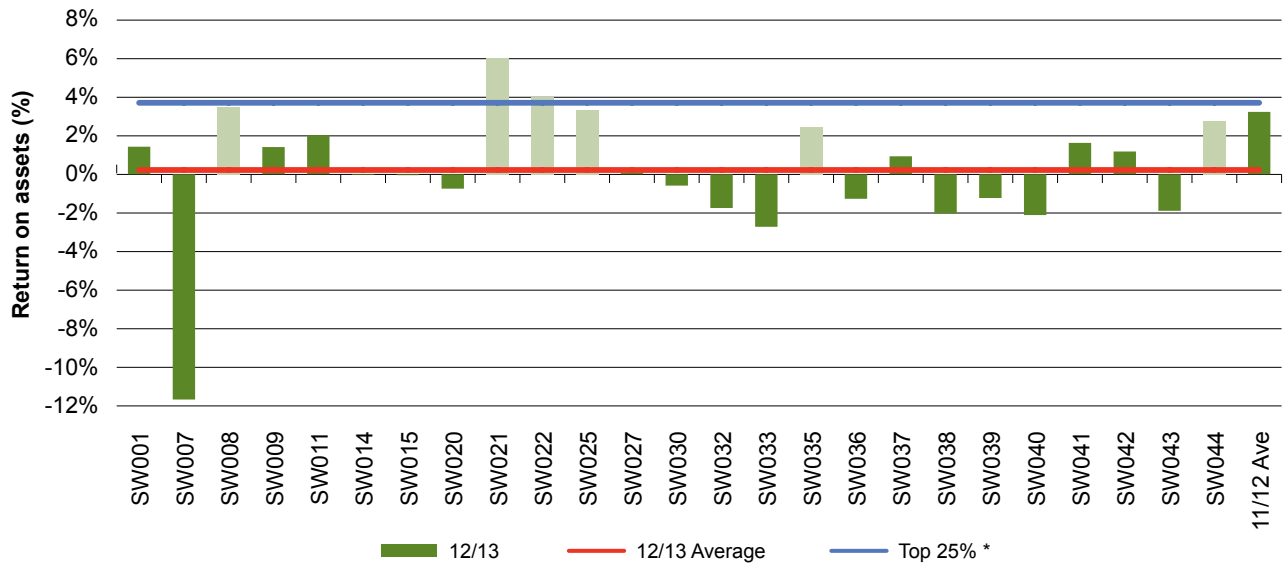


Return on assets and equity

Return on assets is the earnings before interest and tax expressed as a percentage of total assets involved in the farm business. It is an indicator of the overall earning power of total assets, irrespective of capital structure. Return on equity is the net farm income; that is EBIT minus interest and lease costs, expressed as a percentage of owner equity. It is a measure of the owner's rate of return on investment. Figures 31 and 32 were calculated excluding capital appreciation. For return on equity including capital appreciation, as well as individual farm results, refer to Appendix Table B1.

The return on assets for the South West region ranged from -11.5% to 6.0%. In line with falls in income and rises in costs, average farm economic efficiency across the group has declined from 3.3% to 0.2% year on year. The top 25% achieved 3.7%, just over half the 7.2% recorded last year by the top performers. Land value appears to have stabilised in 2012/13 at \$11,714/ha (\$4,739/acre) after falling to \$11,809/ha (\$4,781/acre) in 2011/12 from \$14,238/ha (\$5,764/acre) in 2010/11. Changes to the sample mean that caution must be exercised when comparing results between years.

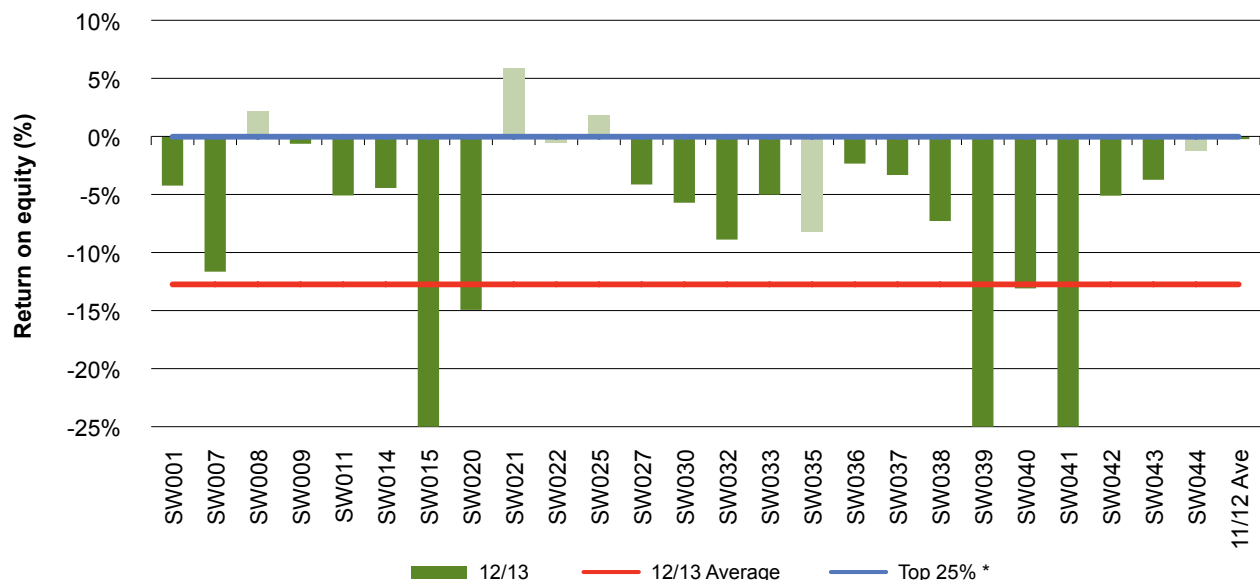
FIGURE 31. RETURN ON ASSETS – SOUTH WEST



This year return on equity has shown the impact of the high interest and lease costs being incurred by some farms in the sample. For the second successive year the average return on equity for the region was negative at -12.7%. Individual farm results for return on equity is shown in Figure 31; however three farms, SW015, SW039 and SW041 incurred large negative results that are not shown in the chart. Two farms, SW039 and SW041, reported very large losses in equity of 93.3% and 92.4% respectively. SW015

also reported a large loss in equity of -33.2%. With the two most extreme cases excluded from the sample, average return on equity is -5.7%. The average of the top 25% was 0.0%, considerably lower than the 8.3% reported in 2011/12. The difficulty of the year is highlighted by the fact that only three of the 25 farms in the sample reported a positive return on equity.

FIGURE 32. RETURN ON EQUITY – SOUTH WEST



Feed consumption and fertiliser

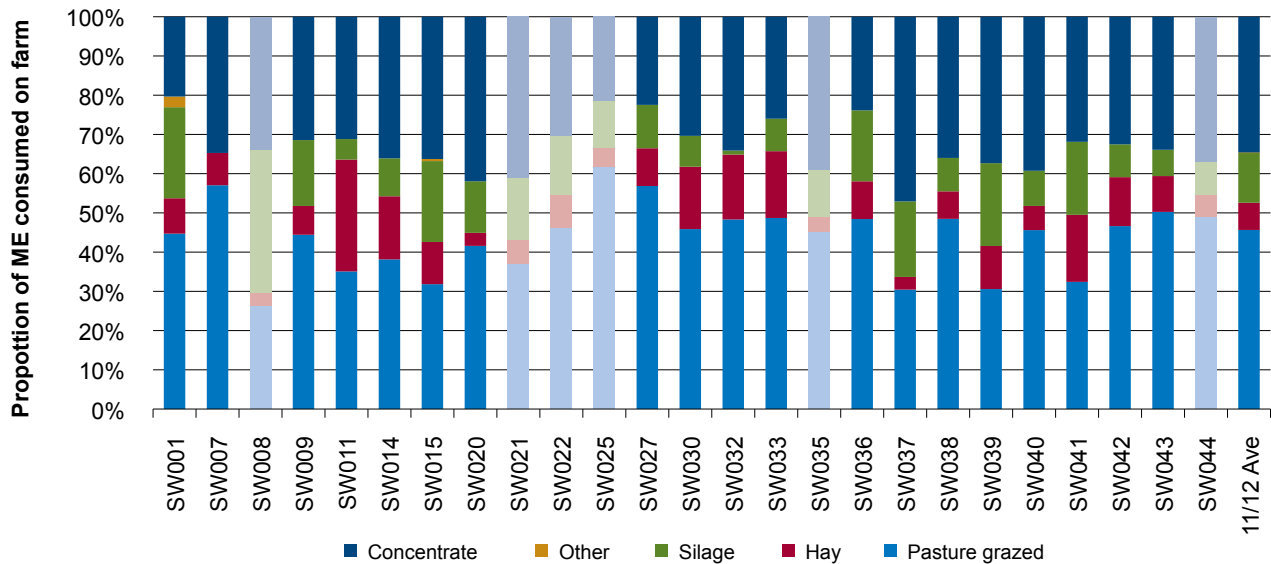
Feed data was collected on a whole farm basis rather than determining which feeds went to each class of stock as this would have made the data collection process too difficult on many farms.

Figure 33 shows the relative contribution of each feed type to the ME consumption on the farm. The contribution of grazed pasture as a proportion of ME consumed on farm fell from 46% on average in 2011/12 to 44% in 2012/13. Concentrates were the most used supplement contributing one-third of total ME fed while silage contributed 13% of total ME consumed on farm on average. Hay use increased

contributing 10% of total ME consumed on farm on average compared to 7% in 2011/12 and 3.5% in 2010/11.

'Other' sources of feed include sources that are not used by or available to dairy farmers on the common market. Palm Kernel Extract is included as a concentrate.

FIGURE 33. SOURCES OF WHOLE FARM METABOLISABLE ENERGY – SOUTH WEST



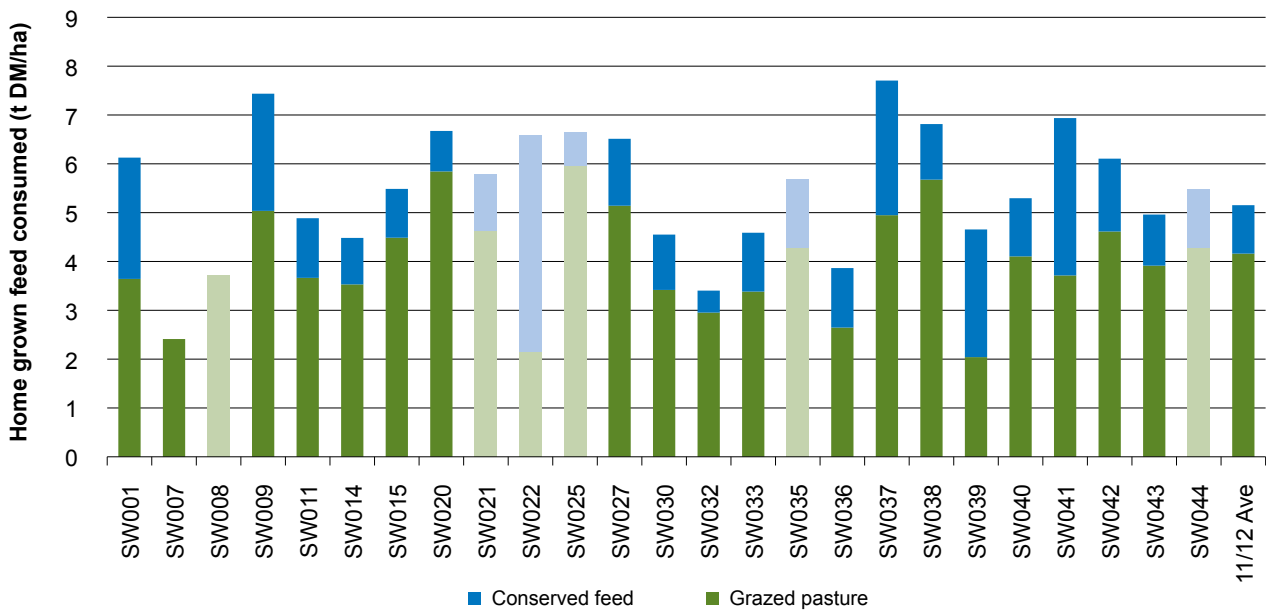
Since 2011/12 home grown feed consumption has been measured per milking hectare as opposed to per usable hectare as had been the measurement in the past. Pasture consumption for farms in the South West is shown in Figure 34. The large amounts of purchased and carried over supplement fed this year made an accurate calculation of pasture consumption difficult.

The amount of pasture grazed this year ranged from 2.0 tonnes of dry matter per hectare up to 6.0 t DM/ha, with an average of 4.0 t DM/ha which is down from 4.2 t DM/ha grazed in 2011/12 reflecting the dry summer and autumn when pasture growth was minimal. Conserved fodder ranged from 0.5 t DM/ha (excluding the 0 t DM/ha values) to 4.0 t DM/ha, with an average of 1.5 t DM/ha reflecting the better spring and increased hay and silage conserved

compared to 2011/12 when the average was 1.0 t DM/ha. Overall average total pasture harvest from the milking area was 5.5 t DM/ha, up from 5.2 t DM/ha harvested in 2011/12.

It should be noted that there can be a number of potential sources of error in the method used to calculate home pasture consumption including incorrect estimation of liveweight, amounts of fodder and concentrates fed, energy content of fodder and concentrate, energy content of pasture, wastage of feed and associative effects of feeds. Comparing pasture consumption estimated using the back calculation method between farms can lead to incorrect conclusions due errors in each farms estimate and it is best to compare pasture consumption on the same farm over time using the same method of estimation.

FIGURE 34. ESTIMATED TONNES OF HOME GROWN FEED CONSUMED PER MILKING HECTARE – SOUTH WEST



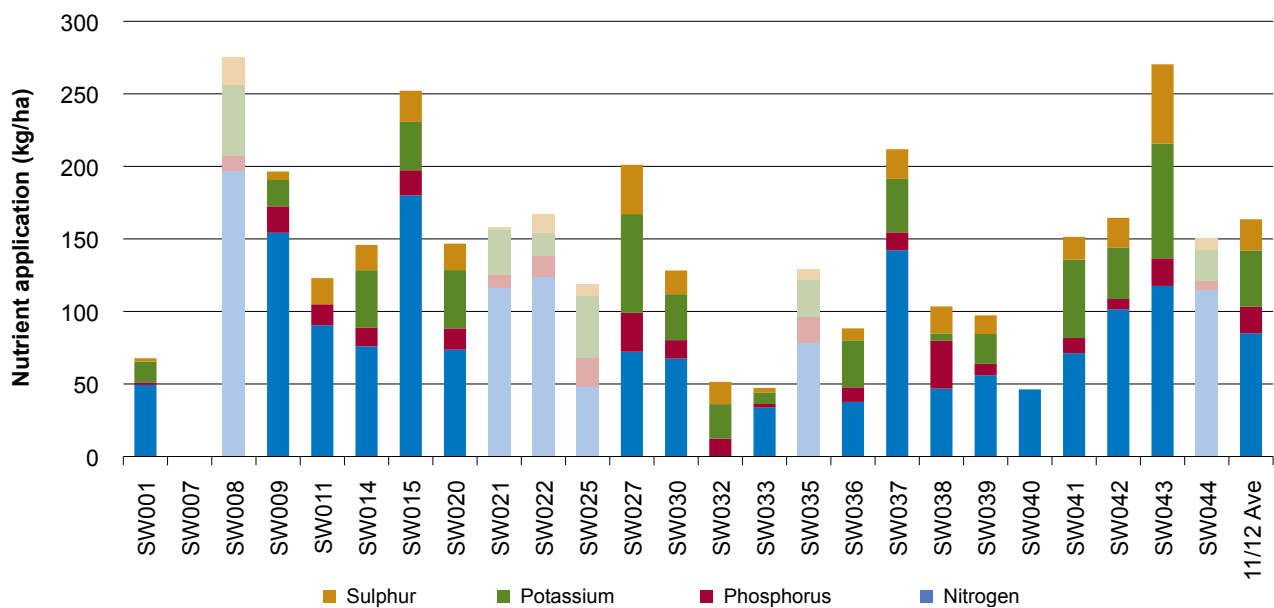
Fertiliser application

The proportion of nutrients in fertiliser applied per hectare on farm is shown in Figure 35. Figures 34 and 35 show limited signs of correlation and the influence of other factors beyond fertiliser application such as current soil fertility, climate and management of pastures can be attributable to the differences seen. Rates of nitrogen application averaged over the entire useable area of each farm varied

substantially, from 34 kg/ha (excluding the 0 kg/ha values) to up to 197 kg/ha. The average was 84 kg/ha, similar to the 85 kg/ha applied last year.

The individual values relating to Figure 35 can be found in Appendix Table B2.

FIGURE 35. NUTRIENT APPLICATION PER HECTARE – SOUTH WEST





Part Four: Gippsland

Gippsland

Farms GI004 to GI017 are participating in the project for their seventh year. Farms GI020 to GI048 were involved in the 2010/11 and 2011/12 project. Farm GI049 is new to the project this year. Please refer to page 3 for notes on the presentation of this data.

2012/13 Seasonal conditions

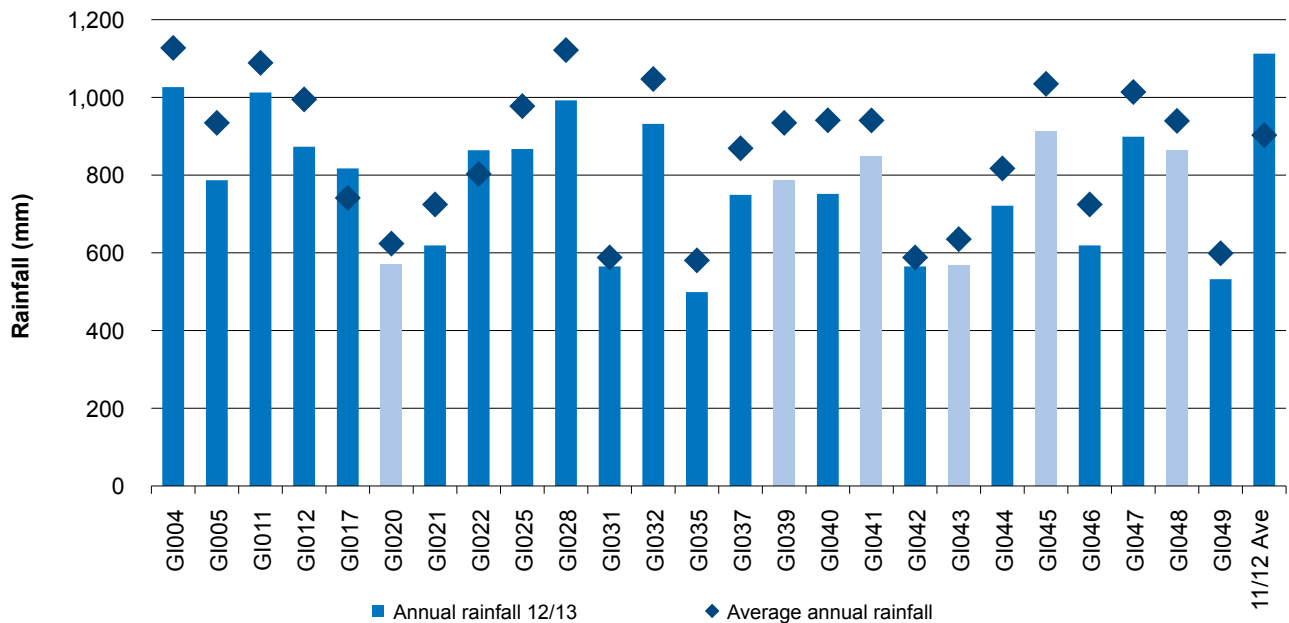
The 2012/13 year in Gippsland started off exceptionally wet and ran into a dry summer. Annual rainfall was on average 90% of the long term average (Figure 36), with most farmers experiencing the largest deficits between their annual and long term rainfall in January. These conditions depleted fodder reserves and resulted in lighter stock or reduced stock numbers. This was a year with little room for error and where there was any mishap or mistake it made a significant impact to farm performance.

Dry conditions and reduced fodder reserves had considerable impact on Gippsland dairy farmers' ability to provide consistent diets of home grown forage in 2012/13. Gippsland experienced one of the longest dry periods on record with no significant rainfall events from November 2012 through to May 2013. The lower milk price received put extreme pressure on cash flow resulting in decisions to either reduce farm production, put off key capital expenditure or fund operating expenses from small cash reserves or new borrowings.

With the extended lower rainfall period the producers in West and South Gippsland imported higher levels of forage whilst those in the Macalister Irrigation District dried off portions of land to enable better water use efficiency of the remaining irrigation water, resulting in less home grown forage being harvested this season. The end of this season saw home grown forage reserves being depleted and general cow condition drop especially in younger stock.

Top 25% * - The top 25% are shown as the lighter bars in all graphs as ranked by return on assets.

FIGURE 36. 2012/13 ANNUAL RAINFALL AND LONG TERM AVERAGE RAINFALL – GIPPSLAND



The variation in gross farm income per hectare between participants in Gippsland ranged from \$3.85/kg MS and \$5.81/kg MS.

Whole farm analysis

The key whole farm physical parameters for Gippsland are presented in Table 8. The Q1 – Q3 range shows the band in which the middle 50% of farms for each parameter sit.

The physical characteristics of top 25% of farms compared to the average are greater milk production per hectare at 824 compared to the average of 781 and milk production per cow at 499 compared to 462 for the average.

The top 25% also have a greater proportion of the diet from home grown sources and higher labour efficiency compared to the average.

It must be noted that these physical parameters only partly explain the most profitable farms. Caution must be taken when looking at these physical parameters in isolation.

The average had greater annual rainfall at 770 mm compared to 758 mm for the top producers and slightly less usable area at 194 ha compared to 252 ha for the top producers.

TABLE 8. FARM PHYSICAL DATA – GIPPSLAND

Farm physical parameters	Gippsland average	Q1 to Q3 range	Top 25% average
Annual rainfall 12/13	770	619 - 873	758
Water used (irrigation + rainfall) (mm / ha)	906	787 - 992	942
Total usable area (hectares)	194	123 - 256	252
Milking cows per usable hectares	1.7	1.3 - 1.9	1.6
Milk sold (kg MS / cow)	462	397 - 508	499
Milk sold (kg MS / ha)	781	596 - 905	824
Home grown feed as % of ME consumed	62%	60% - 66%	64%
Labour efficiency (milking cows / FTE)	99	78 - 118	108
Labour efficiency (kg MS / FTE)	46,047	36,169 – 55,627	53,517

Gross farm income

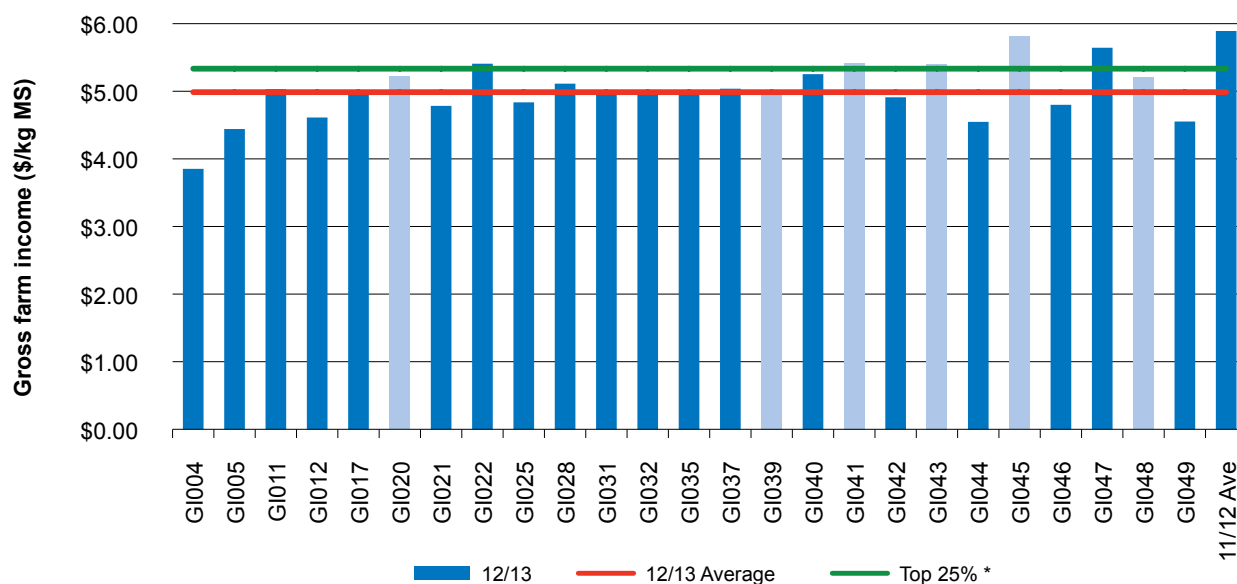
Gross farm income includes all farm income, whether from milk sales, a change in stock or feed inventories or cash income from livestock trading.

Figure 37 shows the variation in gross income per kg MS between participants in Gippsland, ranging from \$3.85/kg MS up to \$5.22/kg MS. The top 25% of farms averaged \$5.33/kg MS, compared to the average of \$4.99/kg MS.

Gross farm income on average was down \$0.90/kg MS compared to last year. This was predominately due to

the \$0.13/kg MS decline in livestock trading profit as some farms de-stocked to manage the season, as well as a \$0.12/kg MS decline in feed inventory. While the decline in fodder inventories in 2011/12 was a result of the wet winter making it difficult to conserve fodder, in 2012/13 the dry summer saw large quantities of fodder supplements used. Milk price was also 12% lower falling from \$5.37/kg MS last year to \$4.75/kg MS this year.

FIGURE 37. GROSS FARM INCOME PER KILOGRAM OF MILK SOLIDS – GIPPSLAND

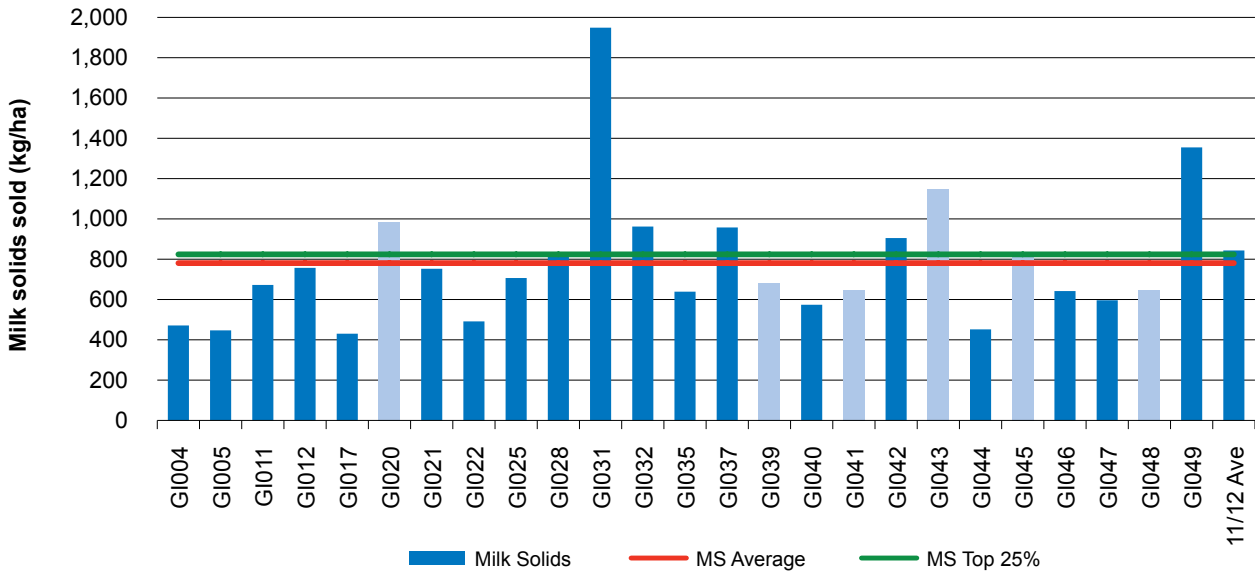


Milk solids production

In 2012/13 average milk solids sold per hectare decreased 7% on average to 781 kg MS/ha, falling from the 2011/12 levels of 843 kg MS/ha. The milk solids production of the top 25% of farms was 23% lower at 824 compared to the

2011/12 levels at 1,073 kg MS/ha. There does not appear to be a strong link between milk solids sold per hectare and either annual rainfall or the long-term average for individual farms.

FIGURE 38. MILK SOLIDS SOLD PER HECTARE – GIPPSLAND



Variable costs

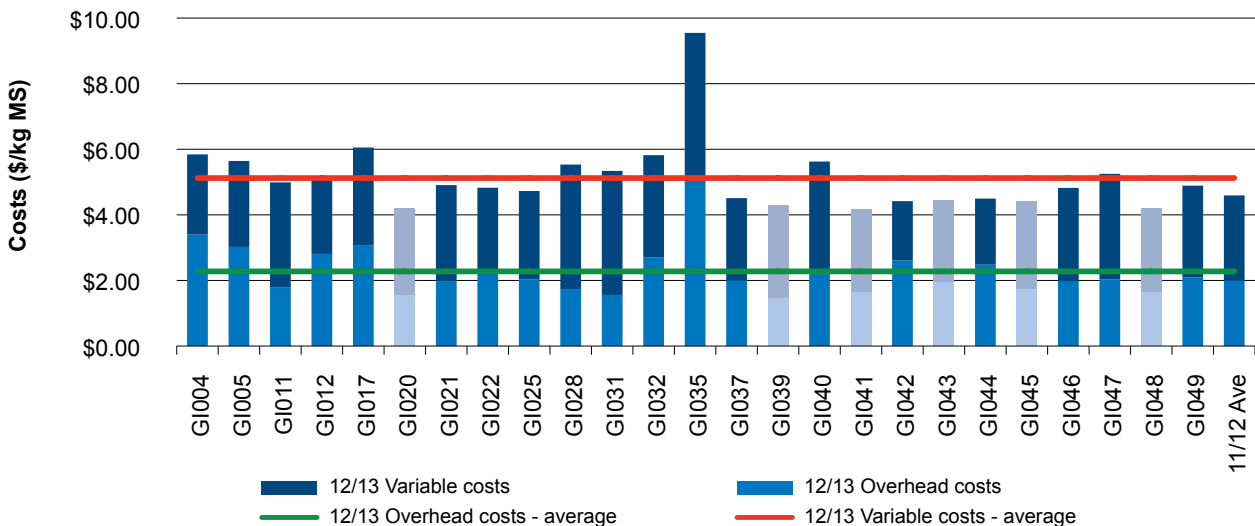
The separation of variable and overhead costs per kilogram of milk solids is shown in Figure 39. Variable costs are those costs that change directly according to the amount of output, such as herd, shed and feed costs.

Feed costs are the greatest cost in the dairy business representing 45% of total costs on Gippsland farms. Feed costs were 9% higher this year due to increases in grain and concentrates (\$0.15/kg MS) and fodder purchases (\$0.12/kg MS).

Variable costs for the Gippsland varied from \$1.81/kg MS and \$4.40/kg MS. This year average variable costs increased from \$2.59 in 2011/12 up to 2.85/kg MS.

The percentage breakdown of the variable costs can be found in Appendix Table B6 while Appendix Table B4 gives the costs at dollars per kilogram of milk solids sold.

FIGURE 39. WHOLE FARM VARIABLE AND OVERHEAD COSTS PER KILOGRAM OF MILK SOLIDS – GIPPSLAND



Overhead costs

Figure 39 also illustrates the overhead costs per kg MS for Gippsland. This figure includes the non cash overhead costs of imputed owner/operator and family labour and depreciation. Both these cost categories are important costs to be considered in an economic analysis of a business to realistically monitor farm business performance.

Labour costs, including employed labour and imputed owner/operator and family labour, was the major overhead cost, accounting for 65% of overhead costs for both the regional average and top 25% of farms. The break down of overheads cost per hectare as a percentage of the total costs can be found in Appendix Table C7 and Appendix Table C5 provides a breakdown to \$/kg MS for individual farms.

There was a range of total expenditure on overhead costs in Gippsland during 2012/13. The highest value was 5.15/kg MS; three and a half times the level of the lowest value of \$1.49/kg MS. Table 9 gives an indication of the range of overheads per kilogram of milk solids sold and presents the regional and top 25% averages.

Cost of production

Cost of production gives an indication of the average cost of producing a kilogram of milk solids. It is calculated as variable plus overhead costs and accounting for changes in fodder inventory and livestock trading losses. Considering the changes in inventory is important to establish the true costs to the business. The changes in fodder inventory counts for the net cost of feed from what was fed out, conserved, purchased and stored over the year. The losses in livestock inventory that occur through livestock depreciation or reduced stock numbers over the year is also considered in cost of production.

Table 9 shows that the average cost of production was \$5.30/kg MS and the top 25% of farms was 16% lower at \$4.47/kg MS.

As mentioned in the overhead costs section, imputed owner/operator and family labour and depreciation are very important non-cash costs to be considered in an economic analysis of a business. Table 9 has these costs separated out allowing owner/operators to distinguish their own cost of labour and where cash flow occurs in the business.

TABLE 9. COST OF PRODUCTION – GIPPSLAND

Farm costs (\$ / kg MS)	Gippsland average	Q1 to Q3 range	Top 25% average
Livestock trading loss	\$0.02	\$0.00 - \$0.00	\$0.00
Feed inventory change	\$0.16	\$0.01 - \$0.27	\$0.18
Changes in inventory (\$ / kg MS)	\$0.18	\$0.02 - \$0.27	\$0.18
VARIABLE COSTS			
Herd costs	\$0.31	\$0.23 - \$0.42	\$0.27
Shed costs	\$0.22	\$0.17 - \$0.28	\$0.16
Purchased feed and agistment	\$1.53	\$1.27 - \$1.73	\$1.32
Home grown feed cost	\$0.79	\$0.61 - \$0.93	\$0.86
Total variable costs (\$ / kg MS)	\$2.85	\$2.51 - \$3.12	\$2.61
OVERHEAD COSTS			
Rates	\$0.07	\$0.04 - \$0.07	\$0.04
Registration and insurance	\$0.02	\$0.01 - \$0.02	\$0.01
Farm insurance	\$0.06	\$0.04 - \$0.08	\$0.03
Repairs and maintenance	\$0.36	\$0.23 - \$0.45	\$0.27
Bank charges	\$0.01	\$0.00 - \$0.01	\$0.01
Other overheads	\$0.11	\$0.08 - \$0.12	\$0.09
Employed labour cost	\$0.47	\$0.23 - \$0.67	\$0.49
Total cash overheads (\$ / kg MS)	\$1.09	\$0.77 - \$1.40	\$0.95
Depreciation	\$0.20	\$0.57 - \$1.16	\$0.13
Imputed owner/operator and family labour	\$0.99	\$0.12 - \$0.25	\$0.59
Total overhead costs (\$ / kg MS)	\$2.28	\$1.75 - \$2.61	\$1.68
Total cost of production (\$ / kg MS)	\$5.30	\$4.55 - \$5.68	\$4.47

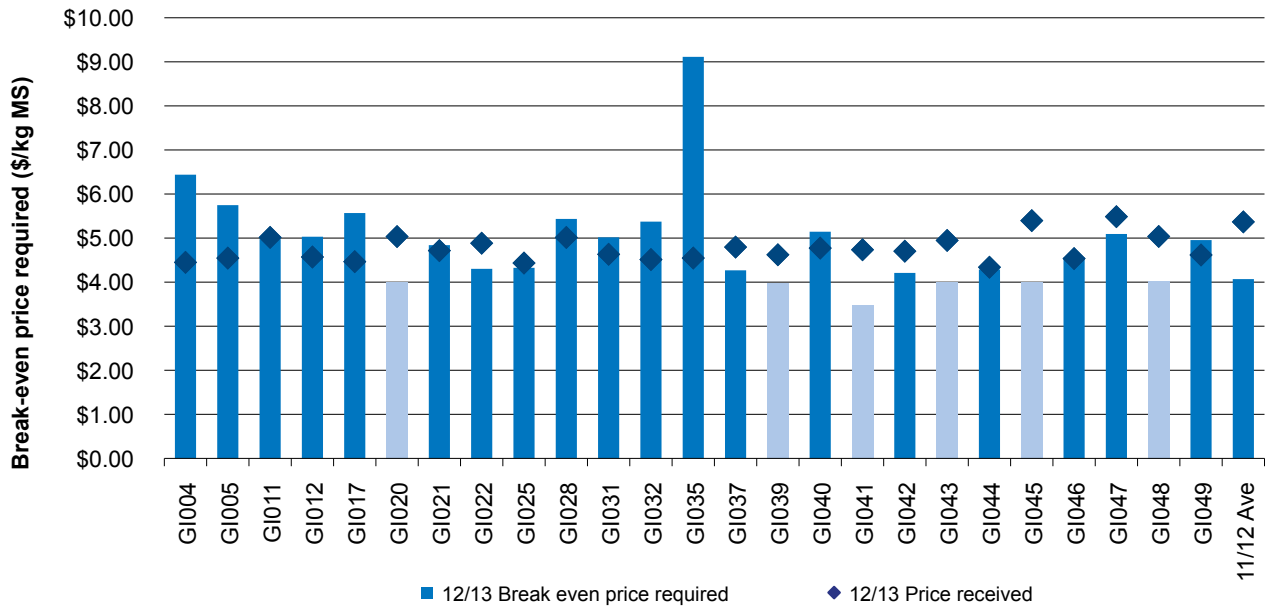
Break-even price required

The break-even price required for milk is calculated as the cost of production per kilogram of milk solids sold less any other sources of income such as livestock trading profit or feed inventory gain. By accounting for all costs and other sources of income, the break-even price required allows for a direct comparison to the price received for the main output of the business, milk. The difference between the break-even price required and the price received is the EBIT per unit.

Figure 40 shows that the break-even price required varied from \$3.48/kg MS to \$9.11/kg MS in Gippsland. The average break-even milk price required of 4.89/kg MS was higher than \$4.07/kg MS recorded last year.

Milk price was lower this year with the average price for participants at \$4.75/kg MS compared to \$5.37/kg MS last year, a 12% drop.

FIGURE 40. BREAK-EVEN PRICE REQUIRED PER KILOGRAM OF MILK SOLIDS SOLD – GIPPSLAND



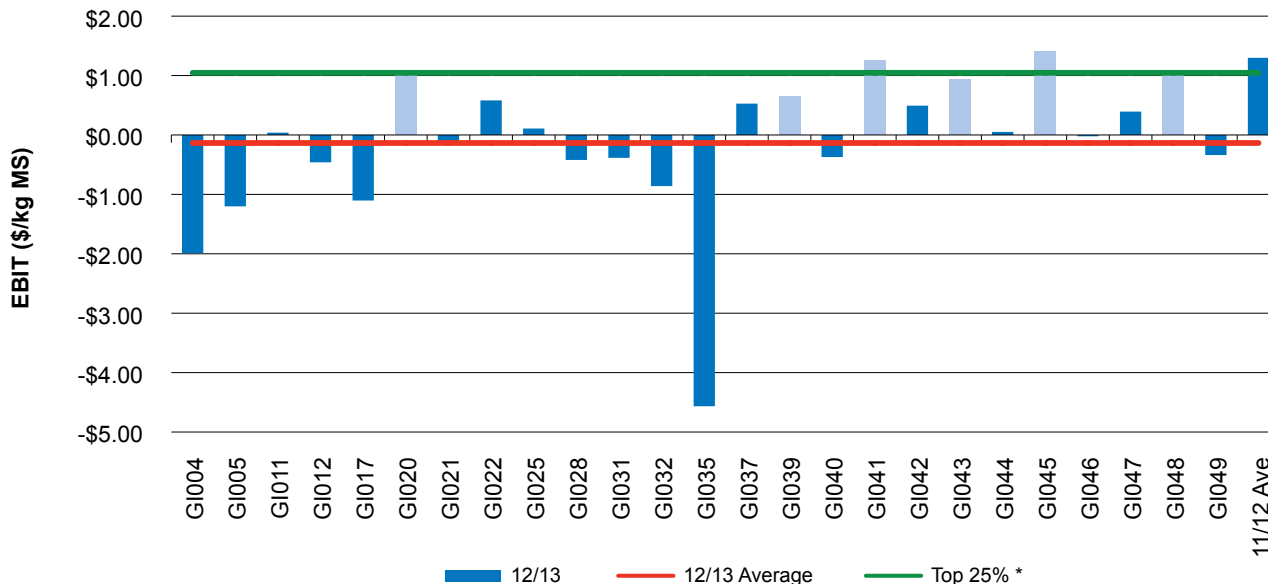
Earnings before interest and tax

EBIT is gross farm income less variable and overhead costs.

On average EBIT was negative \$0.14/kg MS in 2012/13, down from \$1.30/kg MS on last year or a 111% reduction. The top 25% of farms recorded an average EBIT of \$1.05/kg MS which is also lower than last year's top performers of \$1.93/kg MS.

The challenging season of a wet winter in 2012 and an exceptionally dry summer was the main factor in the lower EBIT recorded this year. The decreases to gross farm income as a result of the lower milk price, lower milk production and depletion of fodder reserves, was compounded by higher variable and overhead costs.

FIGURE 41. WHOLE FARM EARNINGS BEFORE INTEREST AND TAX PER KILOGRAM OF MILK SOLIDS – GIPPSLAND



Return on assets and equity

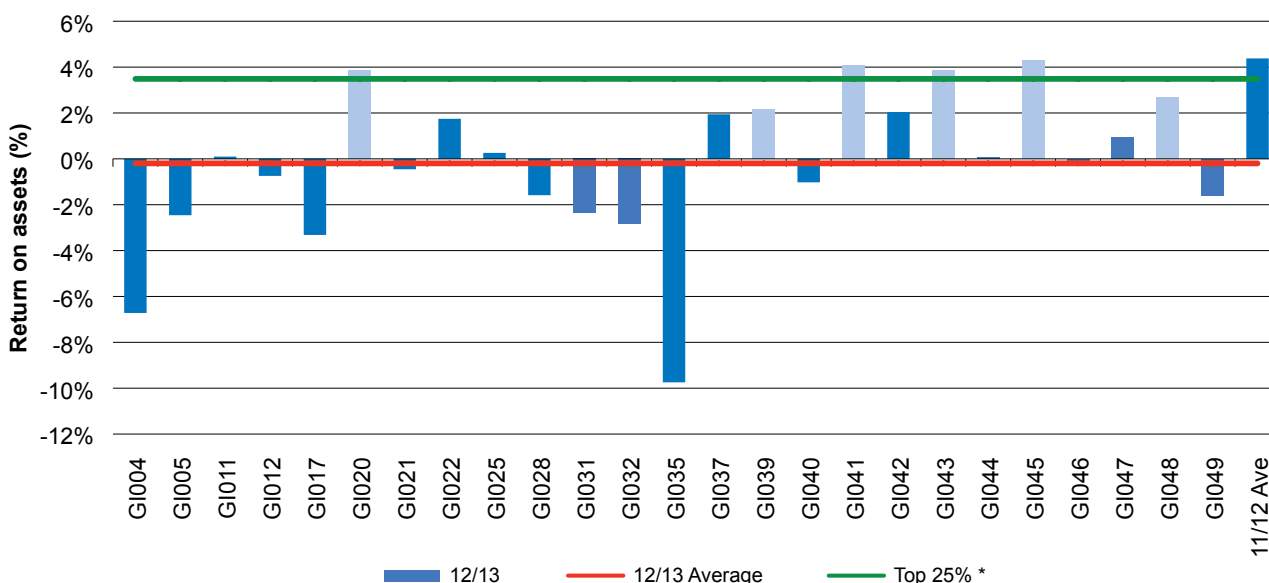
Return on assets is the EBIT expressed as a percentage of total assets. It is an indicator of the earning power of total assets, irrespective of capital structure. Return on equity is the net farm income (EBIT less interest and lease payments) expressed as a percentage of the owner's equity. It is a measure of the owner's rate of return on investment.

The variation between farms' return on assets will reflect the variation between farms' earnings before interest and tax, with differences between those farms with a similar EBIT being explained by the variation in the valuation of the total assets managed. These results are a reflection of the total economic result on the farm.

Return on assets in Gippsland ranged from -9.7% to 4.3% during 2012/13. The average of -0.2% return on assets for Gippsland is noticeably lower than last year's result of 4.4%, as shown by the red 12/13 average line below the 11/12 average bar, and below zero, in Figure 42.

A return on assets becomes a lesser return on equity when the rate of interest on loans or lease on leased capital is greater than the return from the additional assets managed. A negative return on equity will result when total interest and lease payments exceed the earnings before interest and tax. When the percentage of return on equity increases compared to return on assets, it is the result of a higher return from the additional assets than the interest or lease rate.

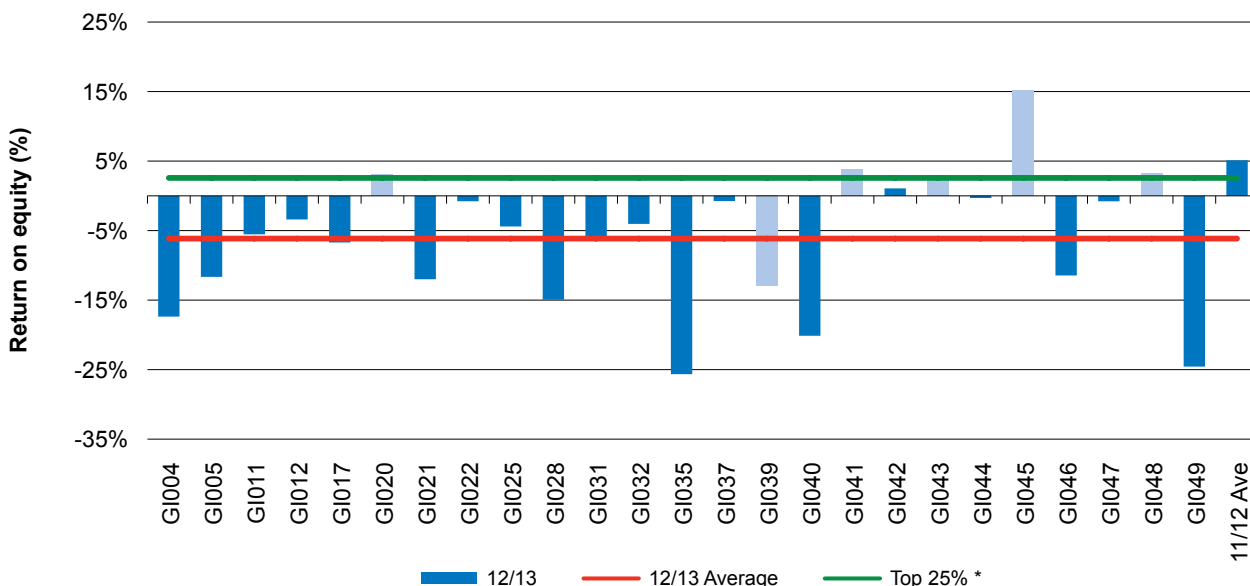
FIGURE 42. RETURN ON ASSETS – GIPPSLAND



Three quarters of Gippsland farms, or 19 of the 25 farms, recorded negative return on equity in 2012/13 (Figure 43). The average return on equity for all farms was -6.2% and the top group was 2.6%.

Interest and lease costs were \$0.08/kg MS higher in 2012/13 rising to \$1.73/kg MS. The average equity of the sample fell from 72% to 67%. Average capital values can be seen in Appendix C8.

FIGURE 43. RETURN ON EQUITY – GIPPSLAND



Feed consumption and fertiliser

Figure 44 shows that Gippsland dairy farming systems were predominantly pasture based, with 20 farms sourcing at least half their energy requirement as grazed pasture.

Pasture consumption is calculated as the gap between the calculated total energy required on farm for all stock classes and the energy provided from concentrates, silage, hay and **other sources. A further description of the Energetics method used to calculate energy sources and feed consumption can be found on page 19 of Part One – Statewide or in Appendix E.

Concentrates provided the next greatest energy source after pasture consumption averaging 28% of energy in the diet. The intake of concentrates ranged from 18% to 41% of all metabolisable energy (ME) consumed.

**Other sources of feed include those that are not commonly used by, or available to, dairy farmers.

FIGURE 44. SOURCES OF WHOLE FARM METABOLISABLE ENERGY – GIPPSLAND

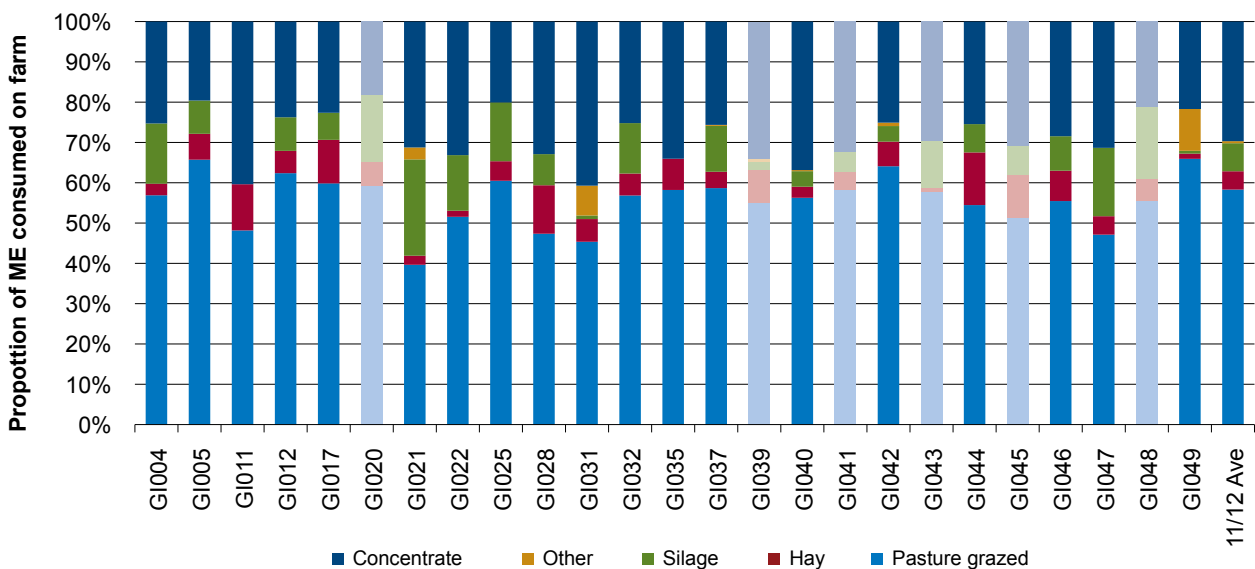
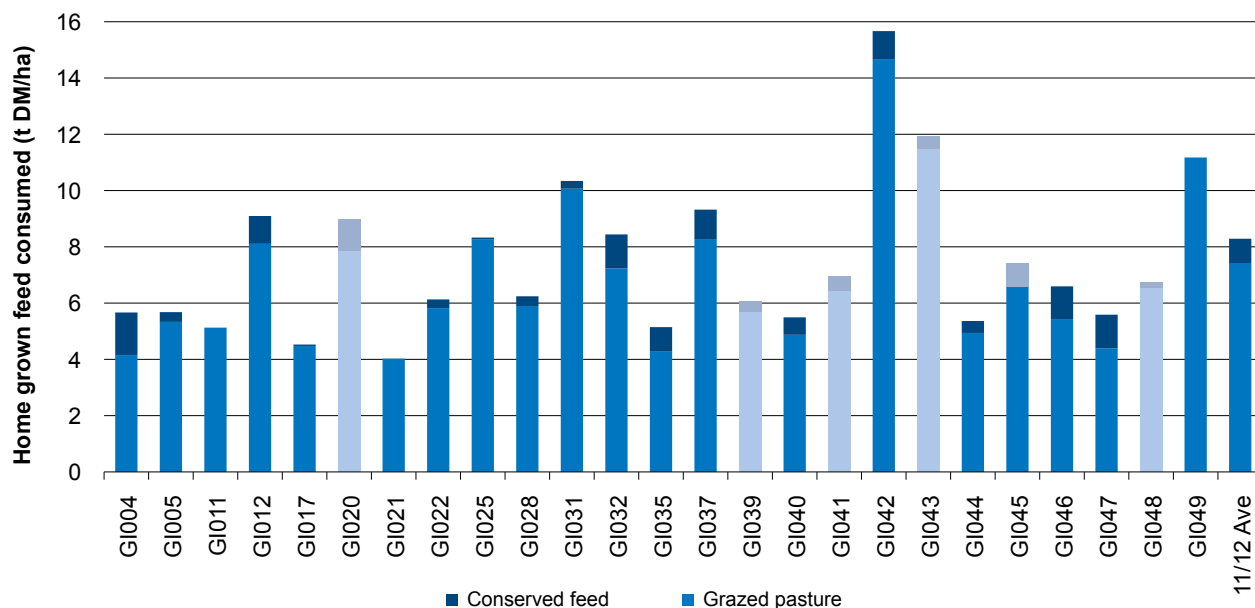


Figure 45 shows the estimated tonnes of home grown feed consumed per milking hectare for farms in Gippsland. Home grown feed can be grazed pasture (shown by the bottom lighter blue bars) and conserved pasture (shown by the top darker blue bars). Total home grown feed ranged from 4.0 tonnes of dry matter per milking hectare up to 15.7 tonnes per milking hectare. The average home grown feed produced per milking hectare was 7.4 t DM and the top 25% of farms averaged 8.0 t DM/ha.

As described above, 2012/13 was a challenging year for providing consistent quality of feeds in the diet and reduced pasture growth. The extremes of wet winter and dry summer saw lower direct pasture harvest; falling from 7.4 t DM/ha to 6.8 t DM/ha in 2012/13. The quantity of conserved feed reduced from 0.9 t/ha last year to 0.6 t/ha this year. Four farms did not conserve any feed in 2012/13.

It should be noted that there can be a number of sources of error in the method used to calculate home pasture consumption including incorrect estimation of liveweight, amounts of fodder and concentrates fed, energy content of fodder and concentrates, energy content of pasture, wastage of feed and associative effects of feeds. Comparing pasture consumption estimated using the back calculation method between farms can lead to incorrect conclusions due to errors in each farms estimate and it is best to compare pasture consumption on the same farm over time using the same method of estimation.

FIGURE 45. ESTIMATED TONNES OF HOME GROWN FEED PRODUCED PER MILKING HECTARE – GIPPSLAND

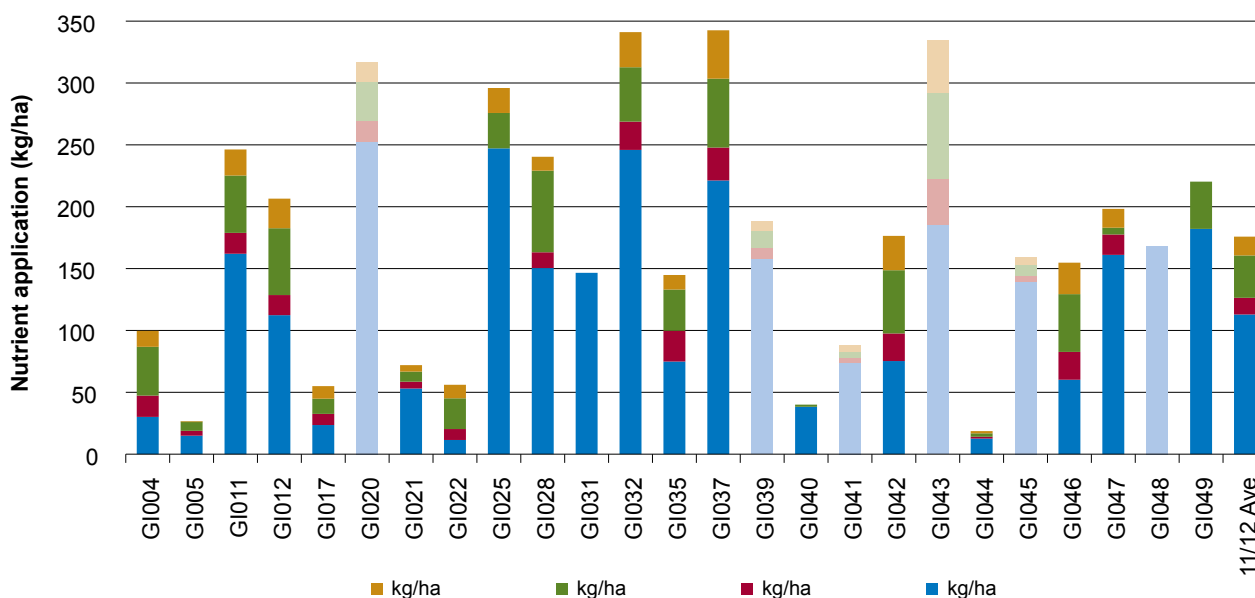


Fertiliser application

Farms in Gippsland used a wide range of fertiliser application rates, both between farms and with the mix of key macronutrients on individual farms. Nitrogen applied varied from 11 kg/ha up to 252 kg/ha, with the group average at 120 kg/ha, slightly up from 113 kg/ha last year.

There does not appear to be any degree of correlation between the pasture growth per milking hectare and fertiliser application rates per usable hectare as seen in Figures 45 and 46. It should be noted that grazing strategies and timing of rainfall and irrigation scheduling would also impact upon pasture growth and consumption. The values for Figures 45 and 46 can be found in Appendix Table C2.

FIGURE 46. NUTRIENT APPLICATION PER HECTARE – GIPPSLAND





Part Five:
Business confidence
survey

Expectations and issues

Responses to this business confidence survey were made in June 2013 with regard to the 2013/14 financial year.

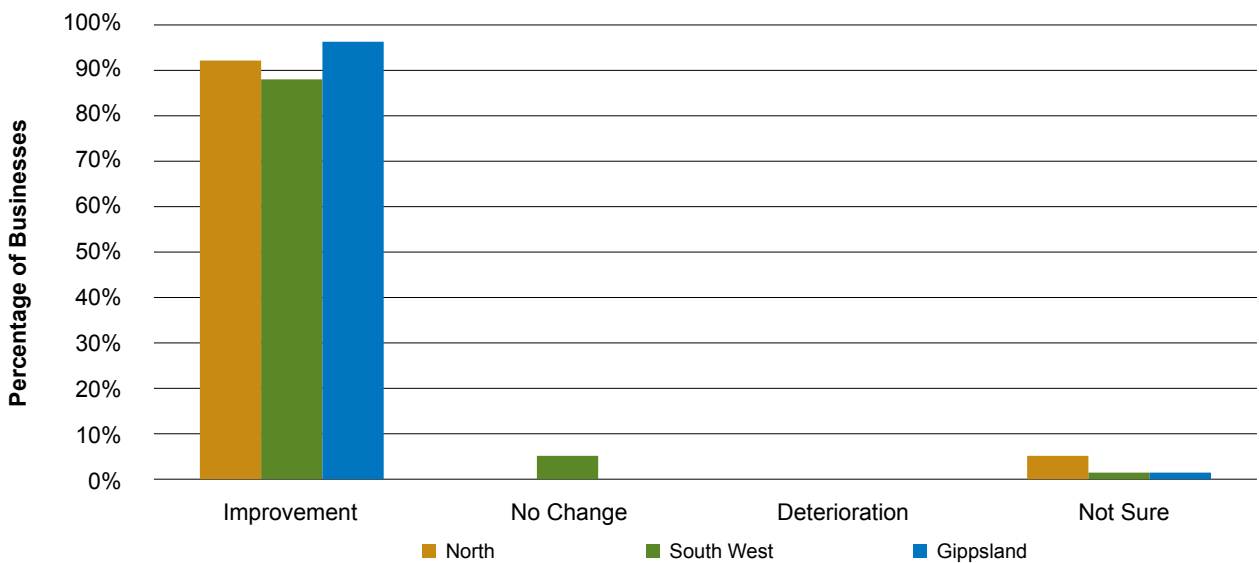
Expectations for business returns

Following a challenging 2012/13 year, and the expectation of a higher milk price in the coming year, over 90% of farmers predict an improvement in farm business returns (Figure 47). This is opposite to those recorded last year when the majority expected a deterioration in farm business returns.

Responses to the survey were made with consideration to all aspects of farming, including climate and market conditions for all products bought and sold.

Across all three regions, over 90% of participants expect their farm business returns to improve in 2013/14 as shown in Figure 47.

FIGURE 47. EXPECTED CHANGE TO FARM BUSINESS RETURNS IN 2013/14

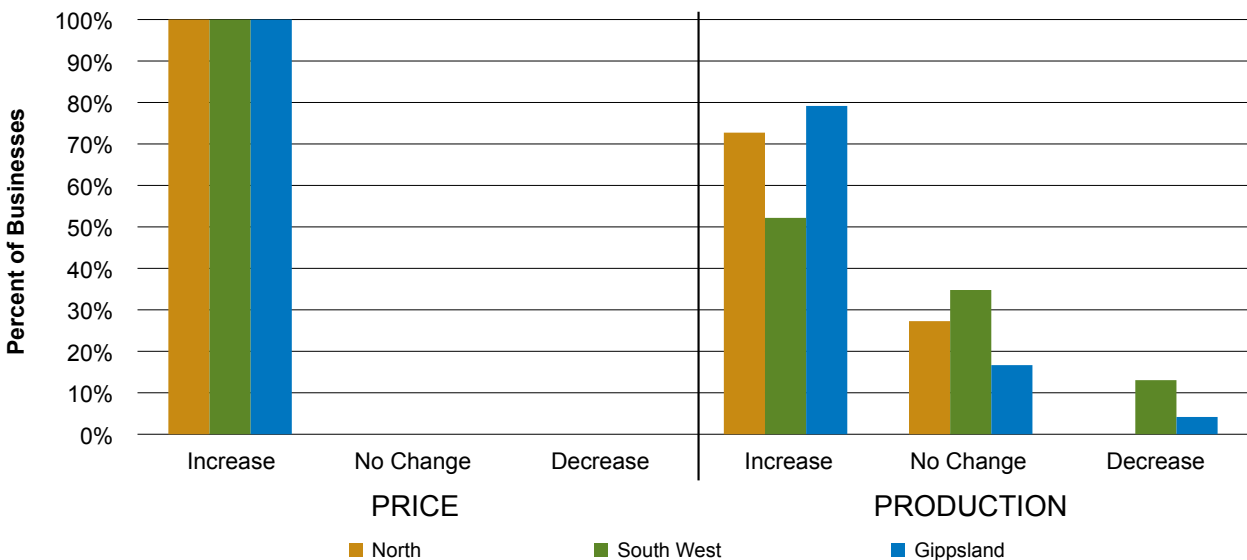


Price and production expectations - milk

All farmers across the state are expecting their milk price to increase for the 2013/14 year (Figure 48). This is following an 11% decrease in milk price on average for farms across the state between 2011/12 and 2012/13.

The expectation about future milk production isn't an unanymous as milk price. At least 50% of farmers in all regions indicated that they will increase milk production in the coming year, a similar trend to past years.

FIGURE 48. PRODUCER EXPECTATIONS OF PRICES AND PRODUCTION OF MILK IN 2013/14

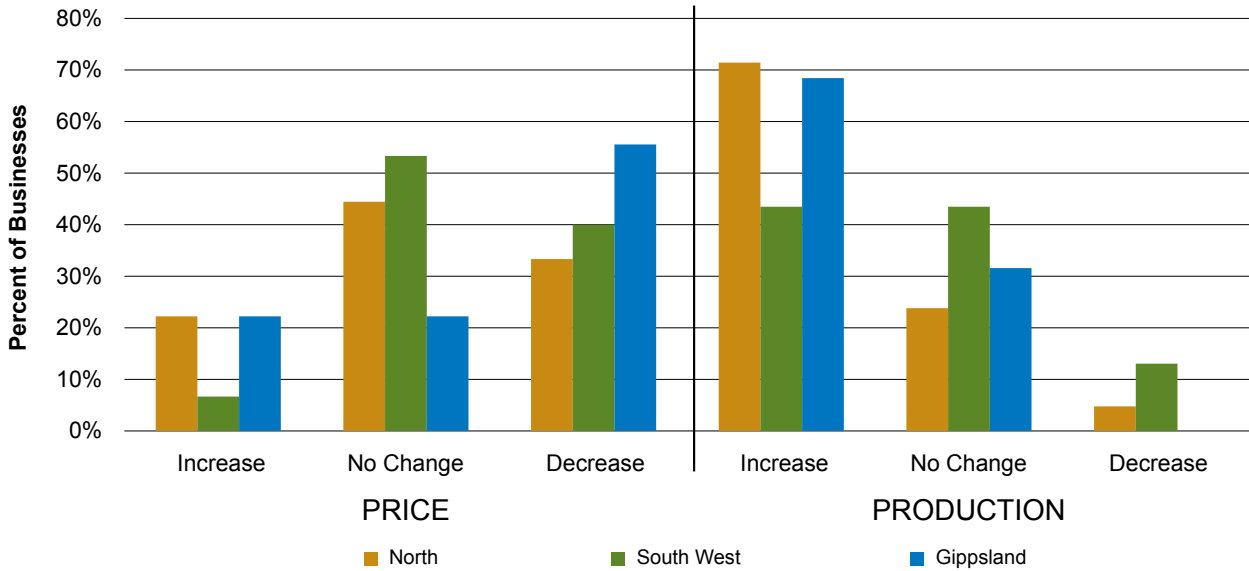


Price and production expectations - fodder

The majority of farms expect fodder prices to remain unchanged or decrease next year (Figure 49). The dry conditions of 2012/13 was a cause of higher fodder prices during that year. The outlook for rainfall is for an average spring and most farmers are expecting prices

to not increase further. Reflecting the depletion of fodder inventories for the second consecutive year, over the majority of farmers in all regions expect fodder production to increase as they rebuild reserves.

FIGURE 49. PRODUCER EXPECTATIONS OF PRICES AND PRODUCTION OF FODDER IN 2013/14



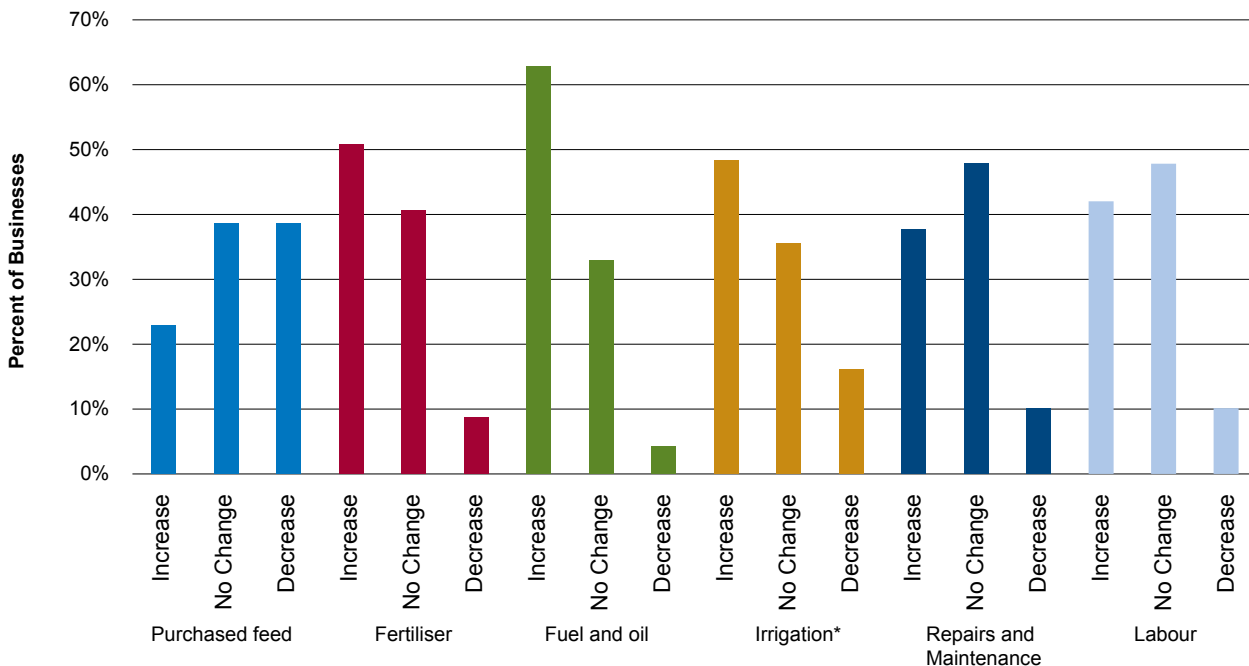
Cost expectations

Data presented in Figure 50 represents the expectations of costs for the dairy industry from 70 of the farms in the project, excluding the costs of irrigation which was answered by 31 farms that have significant irrigation.

There are some clear trends surrounding some of the key costs in the dairy industry with over 50% of participants

around the state expecting costs for purchased fertiliser and fuel and oil to rise. The majority of farms in all categories expect input costs to remain unchanged or increase except purchased feed costs. This category is evenly split between unchanged and decrease costs for 2013/14.

FIGURE 50. PRODUCER EXPECTATIONS OF COSTS FOR THE DAIRY INDUSTRY IN 2013/14



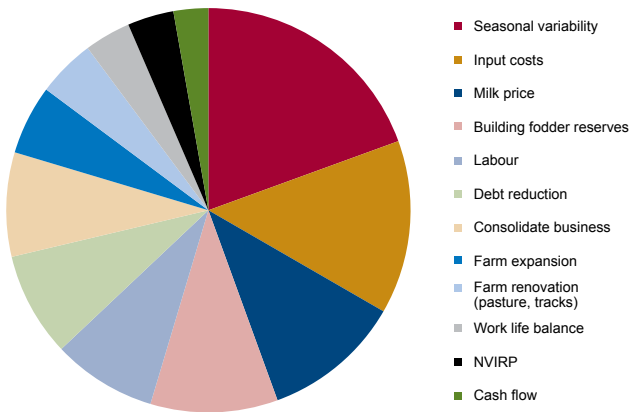
*only includes 31 farms with irrigation

Major issues in the dairy industry - The next 12 months

A summary of the key issues identified by participant businesses over the coming 12 months are identified in Figure 51. A total of 111 responses were recorded from 69 farms. All these participating farms had at least one response.

This year seasonal variability was the major concern facing participating farms with 19% of responses. Seasonal variability came ahead of input costs (14% of responses) and milk price (11% of responses). These two categories were the two foremost concerns reported last year. Following input costs and milk price, building fodder reserves was the next major issue. This is unsurprising given the depletion of fodder reserves. Also reflecting the challenging year, consolidating the business was a key focus of participating farms. The majority of these farms were located in the South West with seven out of the nine farms located there. Four farms (20% of responses in the North) noted participating in the Northern Victorian Irrigation Renewal Project (NVIRP) to be a concern in the coming year.

FIGURE 51. MAJOR ISSUES FOR INDIVIDUAL BUSINESSES – 12 MONTH OUTLOOK

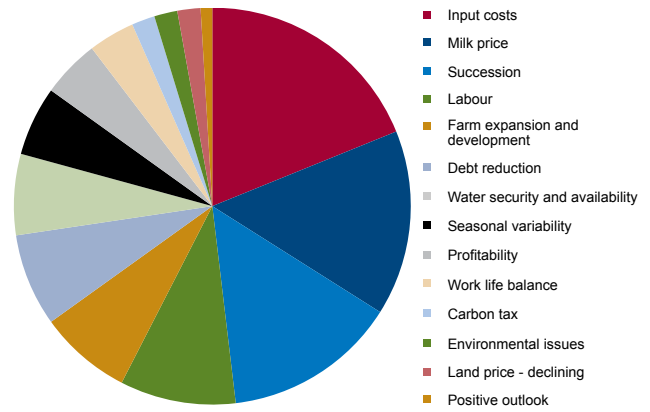


Major issues in the dairy industry - The next five years

The key issues identified by individual participants for their business over the next five years are identified in Figure 52. A total of 106 responses were recorded from 69 farms.

As has been the case in previous years input costs (19% of responses) and milk price (15%) were identified as the key issues in the dairy industry over the next five years. Succession planning (14%), labour (9%) and farm expansion and development (8%) and were also common concerns. These top five issues are the same year-on-year. Reducing debt in the farm business (8%) and maintaining profitability through market volatility (5%) were also key concerns of farmers. One farm in the North indicated that they that they are very positive for the long term future of the industry.

FIGURE 52. MAJOR ISSUES FOR INDIVIDUAL BUSINESSES – 5 YEAR OUTLOOK





Part Six: Greenhouse

2012/13 Greenhouse gas emissions

The analysis of greenhouse gas emissions from participating farms is based on the Australian National Greenhouse Gas Inventory method. This model was developed to predict the magnitude and source of greenhouse gasses emitted from a dairy farm. The initial analysis template was sourced from Melbourne University's greenhouse in agriculture website (<http://www.greenhouse.unimelb.edu.au>), which provides decision support frameworks for greenhouse accounting on Australian dairy, sheep, beef and grain farms. While comprehensive, this analysis should not be assumed exact, but used as indicative only.

Carbon dioxide equivalents ($\text{CO}_2\text{-e}$) are used to standardise the greenhouse potentials from different gases. The Global Warming Potential (GWP) is the index used to convert relevant non-carbon dioxide gases to a carbon dioxide equivalent. This is calculated by multiplying the quantity of the gas by its Global Warming Potential (GWP). All of the data in this section is in $\text{CO}_2\text{-e}$ tonnes.

The GWP for the three gases that are noted in this report are: 1 : 21 : 310 (CO_2 : CH_4 : N_2O). This means that one $\text{CO}_2\text{-e}$ tonne equates to 47.6 kg of methane (CH_4) and 3.2 kg of nitrous oxide (N_2O).

The distribution of different emissions for 2012/13 is shown in Figure 53. Greenhouse gas emissions per tonne of milk solids produced ranged from 3.1 t/t MS to 16.8 t/t MS and the average level of emission was 11.2 t/t MS. This is 5% higher than the average from last year's greenhouse gas emissions audit of 10.7 t/t MS.

Methane (CH_4) was identified as the main greenhouse gas emitted from dairy farms, accounting for 68% of all greenhouse emissions. There are two main sources on farm; ruminant digestion and anaerobic digestion in effluent management systems. Methane produced from ruminant digestion is known as enteric methane and was the major source of emissions from all farms in this report, with an average of 62% of total emissions. Methane from effluent ponds accounted for 6% of total emissions.

The most efficient strategy to reduce enteric methane production is manipulating the diet by increasing the diet quality through improved pastures and adding concentrates. Adding fat supplements such as whole cotton seed and linseed oil into the diet can also reduce methane emissions. This is simple and effective method however it is recommended that fats should not be more than 6-7% of the dietary dry matter.

The second main greenhouse gas emission is nitrous oxide (N_2O) accounting for 21% of total emissions or 2.3 t/t MS. Nitrous oxide emissions in dairy farms are sourced primarily from direct emissions; including nitrogen fertiliser application, effluent management systems, and animal excreta (dung and urine), as well as indirect emissions such as that from ammonia and nitrate loss in soils.

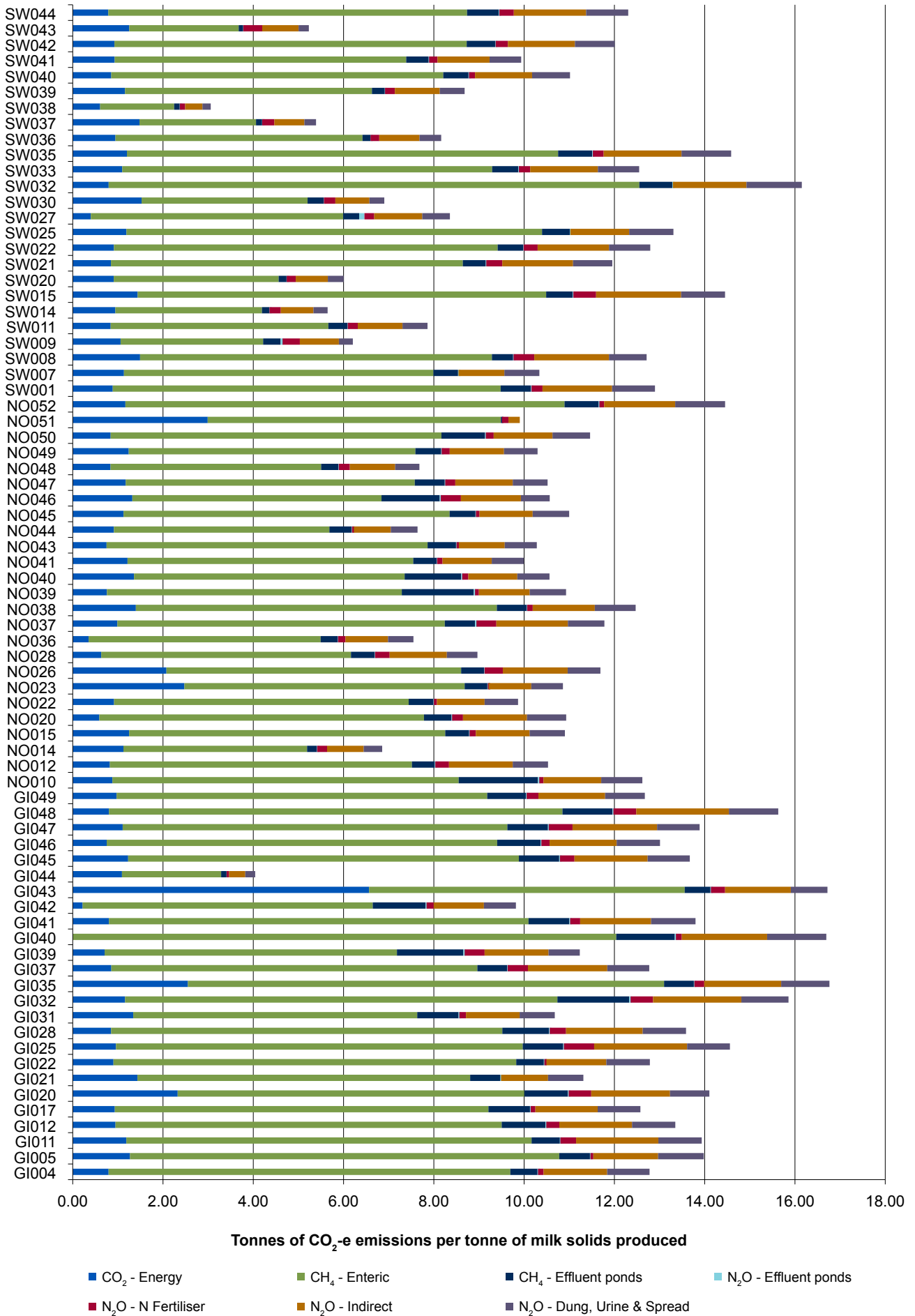
Nitrous oxide emissions from fertiliser accounted for 2% of total emissions, effluent ponds accounted for 0.1% and excreta accounted for 7%. N_2O from indirect emissions were 12%. N_2O emissions are greatest in warm, waterlogged soils with readily available nitrogen. Over application of nitrogen, high stocking intensity and flood irrigation are all potential causes of increased nitrogen loss as nitrous oxide. Strategic fertiliser management practices can reduce N_2O emissions and improve nitrogen efficiency.

The third main greenhouse gas emission is carbon dioxide (CO_2), which is produced primarily from fossil fuel consumption as either electricity or petrochemicals. CO_2 accounted for 11% of total emissions or 1.2 t/t MS. Output levels were highly dependent on the source of electricity used with all farms using brown coal generated electricity. Using renewable energy sources however, could cut electricity emissions significantly. There are also a number of technologies available to improve energy efficiency in the dairy while reducing electricity costs.

We are currently seeing the importance of understanding and monitoring greenhouse gas emissions, and this will potentially become even more essential in the near future. To find detailed information on the Australian National Greenhouse Gas Inventory, strategies for reducing greenhouse gases and more details on sources of greenhouse gases on dairy farms visit the Australian Greenhouse Office's website at www.climatechange.gov.au.

Methane (CH_4) was identified as the main greenhouse gas emitted from dairy farms, accounting for 68% of all greenhouse emissions.

FIGURE 53. 2012/13 GREENHOUSE GAS EMISSIONS PER TONNE OF MILK SOLIDS SOLD (CO₂ EQUIVALENT)





Part Seven: Historical analysis

Historical analysis

This section looks back at the profitability performance of participant farms in the Dairy Farm Monitor Project over the past seven years. The historical analysis compares the trends in farm performance between individual regions. While figures are adjusted for inflation to allow comparison between years it should be noted that the same farms do not participate each year and care needs be taken when comparing the performance across years.

North

From 2006/07 to 2009/10 farm profitability in the North was affected by drought, low water allocations and milk price volatility. In 2010/11 conditions turned enabling a year of recovery with farms posting much healthier profits and in 2011/12 farms in the North recorded profits similar to that recorded in 2007/08 which coincided with the highest milk price on record. In 2012/13 farm profitability fell with the milk price declining year on year and input costs rising.

The difference between earnings before interest and tax (EBIT) and net income is interest and lease costs. In the North interest and lease costs have followed a similar trend as EBIT and net farm income.

While interest and lease costs increased slightly from 2009/10 to 2011/12 over the past year interest and lease costs declined by 7% as shown in Figure 54. After two years where return on equity exceeded return on assets in 2012/13 return on equity has fallen sharply to -2.9% finishing the year well below the 2.2% reported for return on assets. A return on assets becomes a lesser return on equity when the rate of interest on loans or lease on leased capital is greater than the return from the additional assets managed.

The seven year average for return on assets in the North is 3.8% and return on equity is 1.4%.

FIGURE 54. HISTORICAL FARM PROFITABILITY (REAL \$) – NORTH

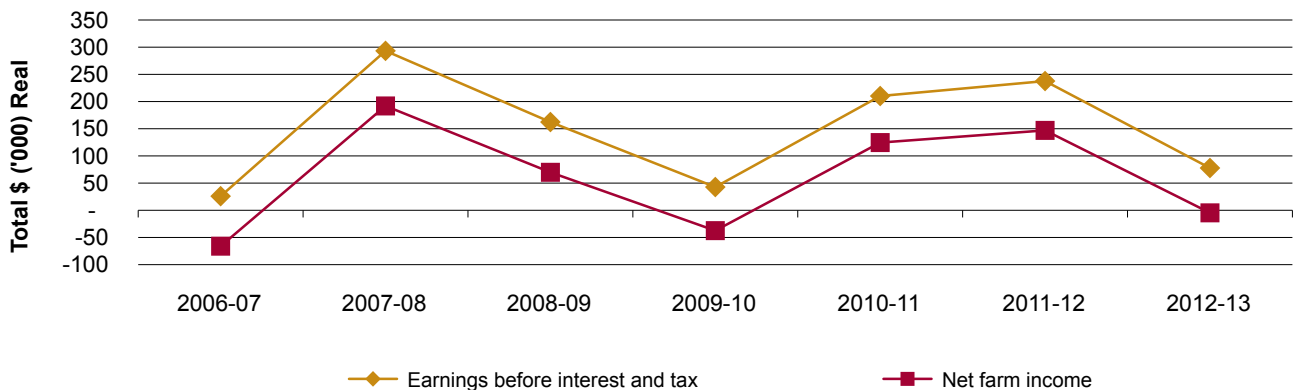
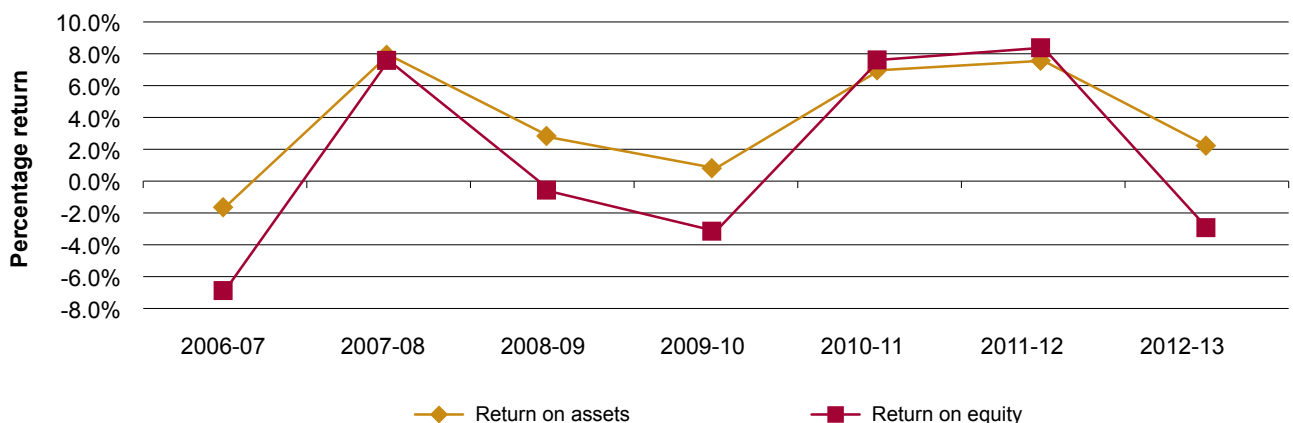


FIGURE 55. HISTORICAL WHOLE FARM PERFORMANCE – NORTH



South West

In each of the seven years of the project, on average south west farms have recorded positive EBIT which is the dark green line in Figure 56. Net farm income on average has also been positive in five out of the seven years. In 2012/13 both EBIT and net farm income have fallen to the lowest levels in the history of the project finishing the year at \$61,888 and -\$98,128 respectively.

Over the seven year period the gap between EBIT and net farm income has been growing, as shown by the diverging EBIT and net farm income lines in Figure 56 indicating a rise in interest and lease costs. While average total interest and lease costs have declined from \$191,293 in 2011/12 to \$160,017 in 2012/13 this decline is due to changes in the project sample rather than reductions in debt on project farms.

In 2012/13 average return on asset was 0.2%, falling from 3.3% in 2011/12. Average return on equity fell considerably from -0.2% in 2011/12 to -12.7% as shown in Figure 57 reflective of the challenging year in the south west. It is worth noting that two farms in the South West reported returns on equity in excess of -90% which has a large affect on the group average result. When excluded from the sample average return on equity in the South West is -5.8%.

The seven year average for return on assets in south west Victoria is 4.1% and return on equity is 1.3%. Interestingly the average return on asset figure is the highest of the three regions while the average return on equity figure is the lowest.

FIGURE 56. HISTORICAL FARM PROFITABILITY (REAL \$) – SOUTH WEST

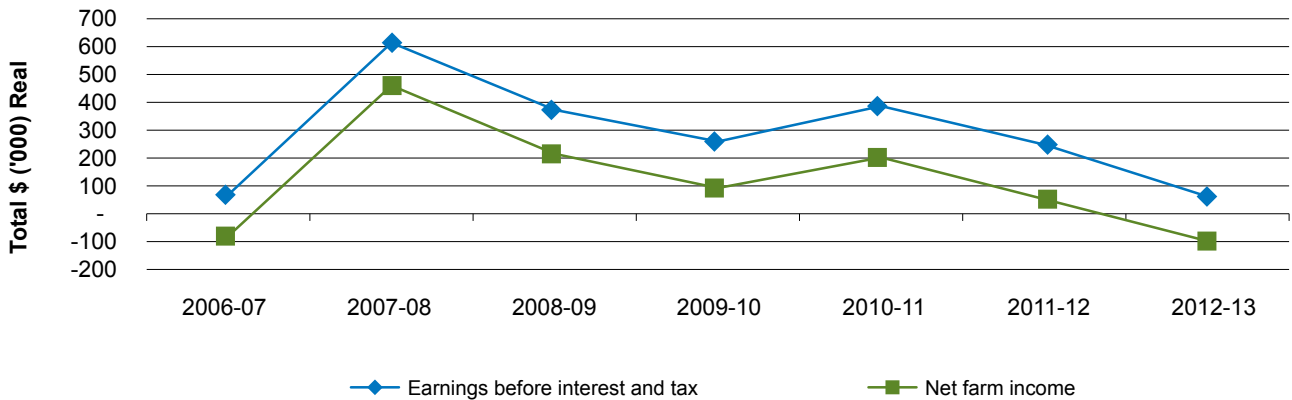
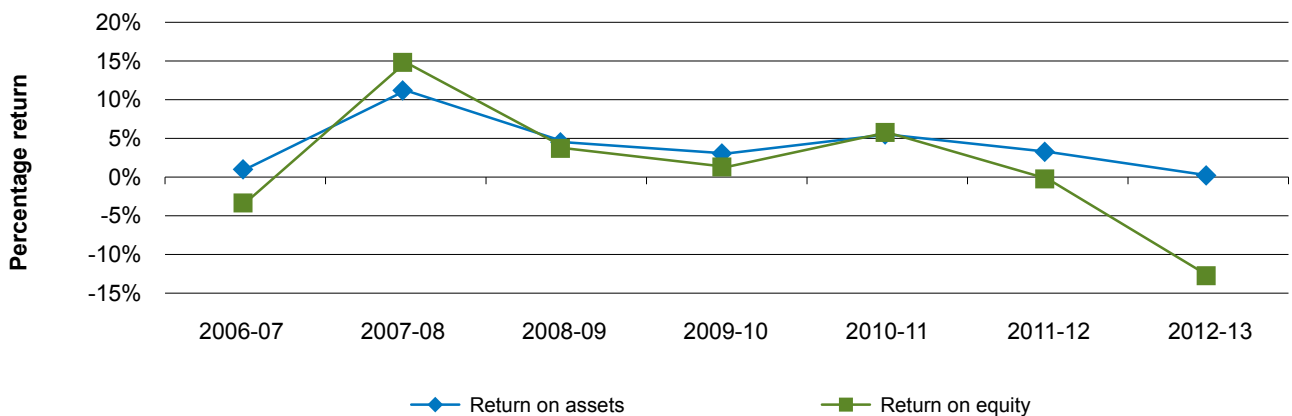


FIGURE 57. HISTORICAL WHOLE FARM PERFORMANCE – SOUTH WEST



Gippsland

The reduction in EBIT and net farm income for Gippsland farms in 2012/13 as discussed in part one and part four is highlighted in Figure 58. The milk price fell to its lowest level in three years with dry conditions following two wet winters and increases in supplementary feed consumed all contributed to the lower performance reported this year.

Similar to the other regions, interest and lease costs have increased over the period which can be seen by the EBIT and net farm income lines moving further apart as you move from left to right in Figure 56. Despite this increase interest and lease costs have remained relatively stable over the past three years.

Figure 59 displays return on asset and return on equity both excluding capital appreciation. In 2012/13 average return on assets fell to -0.2% well down from 4.4% reported in 2011/12 reflecting the challenging operating conditions that existed in the region during the year. Return on equity also fell significantly from 5.1% in 2011/12 to -6.2% in 2012/13.

The seven year average for return on assets in Gippsland is 3.9% and return on equity is 3.7%.

FIGURE 58. HISTORICAL FARM PROFITABILITY (REAL \$) – GIPPSLAND

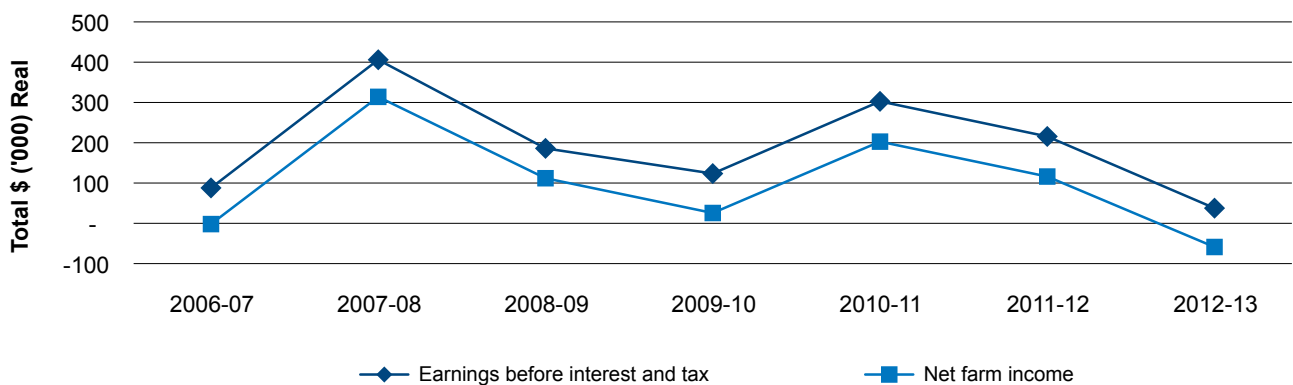
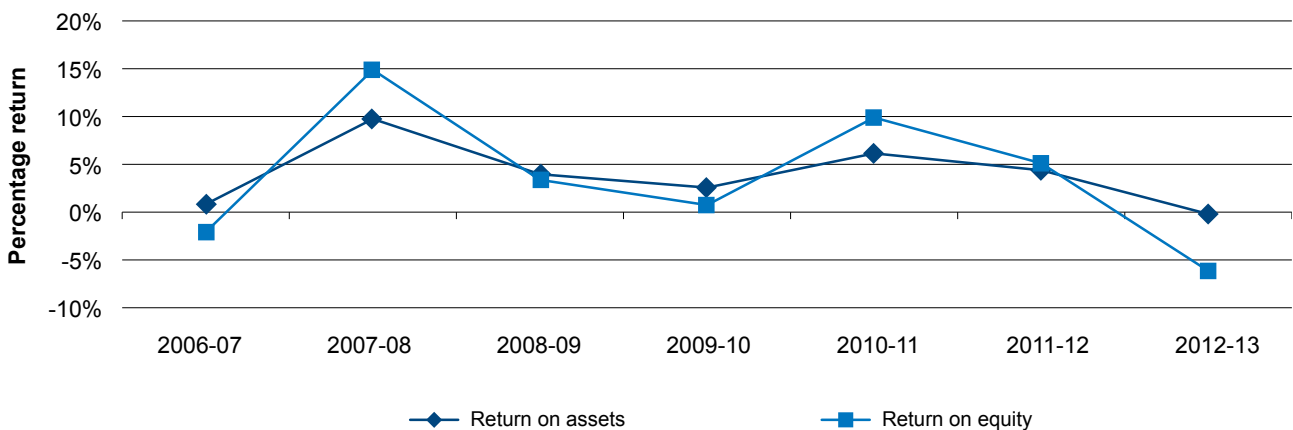


FIGURE 59. HISTORICAL WHOLE FARM PERFORMANCE – GIPPSLAND



Regional comparison

Figures 60 - 63 compare the profitability performance of the three regions simultaneously over the last seven years.

The volatile nature of returns from farming is obvious in each of the figures below. Most recently the strong performance of farms in the North has continued despite reduced profitability in 2012/13. Conversely, average farm profitability in the South West has been lower than that experienced in the other two regions over the past two to three years following a four year period from 2006/07 to 2009/10 when it was the best performing region. Over the seven year period Gippsland farms have reported strong returns in years when milk price has been high, specifically 2007/08 and 2010/11.

In the North 100% water allocations helped farmers to offset some of the higher input costs and lower milk prices experienced in 2012/13 however farmers report having to work hard to achieve good pasture growth. After two strong

years profitability has declined this year however high water storages should help the North to continue their good form over the coming few years.

Larger farm and herd size helped the South West to stand out over in terms of EBIT and net farm income during the middle years of the project (Figures 60 and 61). Since 2010/11 farm performance in the South West has mostly been below that reported in the other regions.

Over the past two years farms in Gippsland have recorded the lowest average whole farm EBIT of any of the regions, due in part to the smaller herd size. The low return on asset figure in 2012/13 points to the challenging operating environment throughout the year but fortunately for Gippsland farms higher equity and lower debt servicing obligations have helped limit the low net farm income and return on equity figures reported in the South West.

FIGURE 60. REGIONAL HISTORICAL EARNINGS BEFORE INTEREST AND TAX (REAL \$)

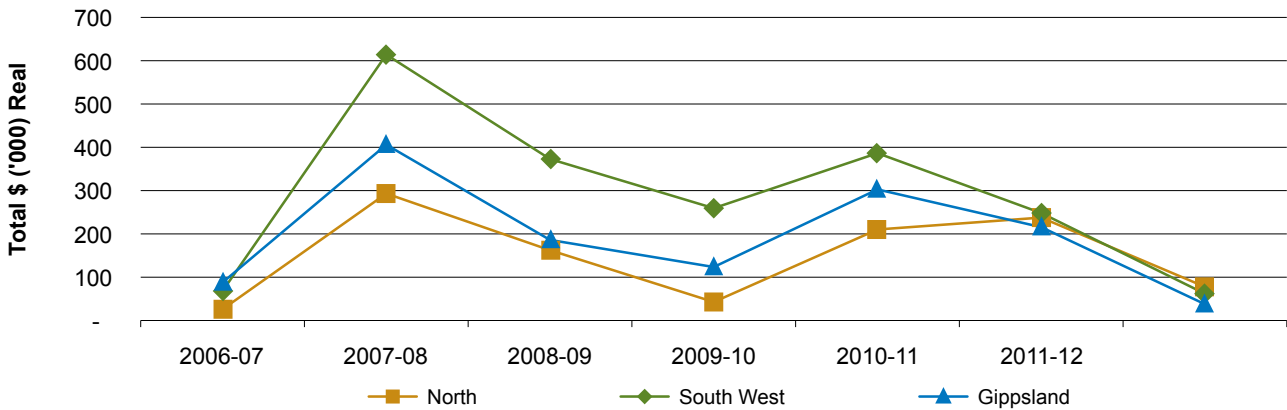


FIGURE 61. REGIONAL HISTORICAL NET FARM INCOME (REAL \$)

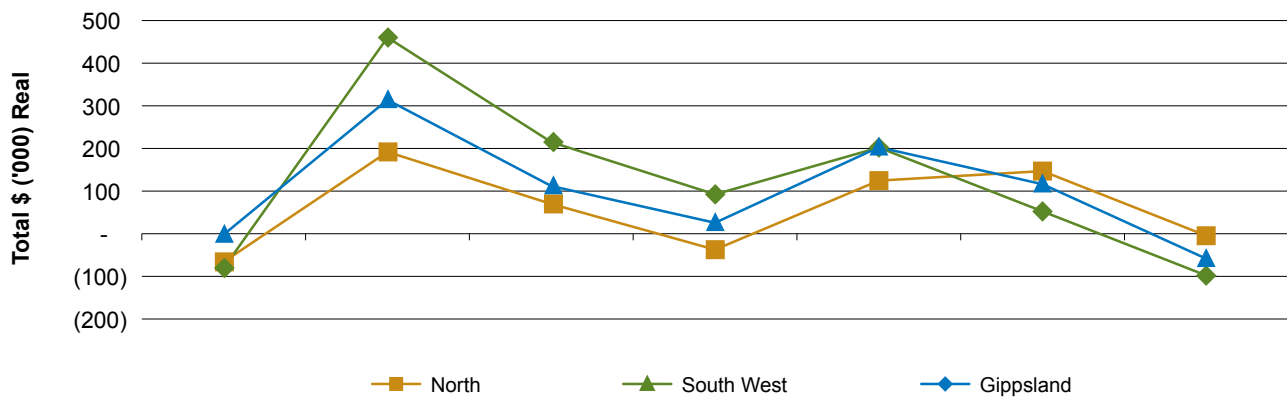


FIGURE 62. REGIONAL HISTORICAL RETURN ON ASSETS

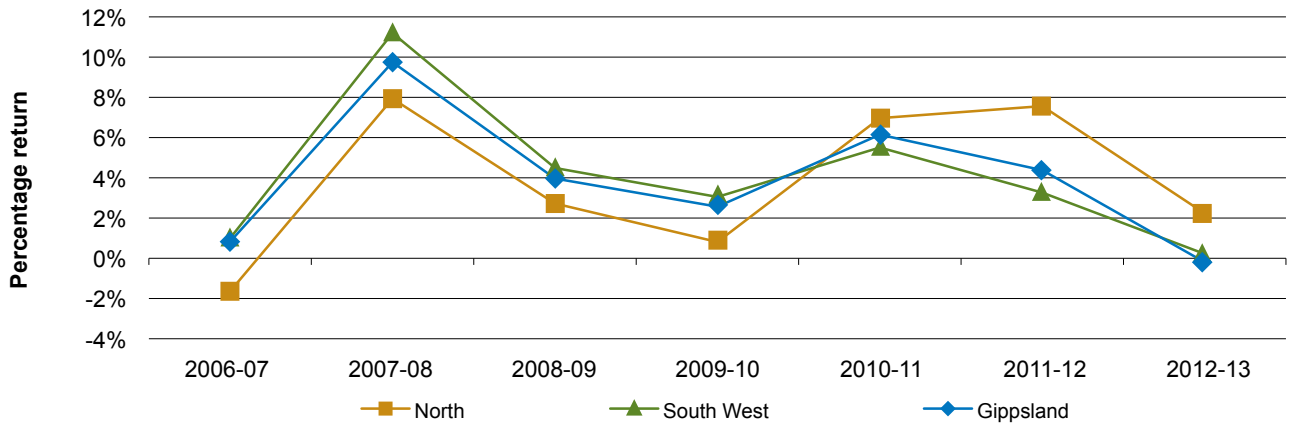
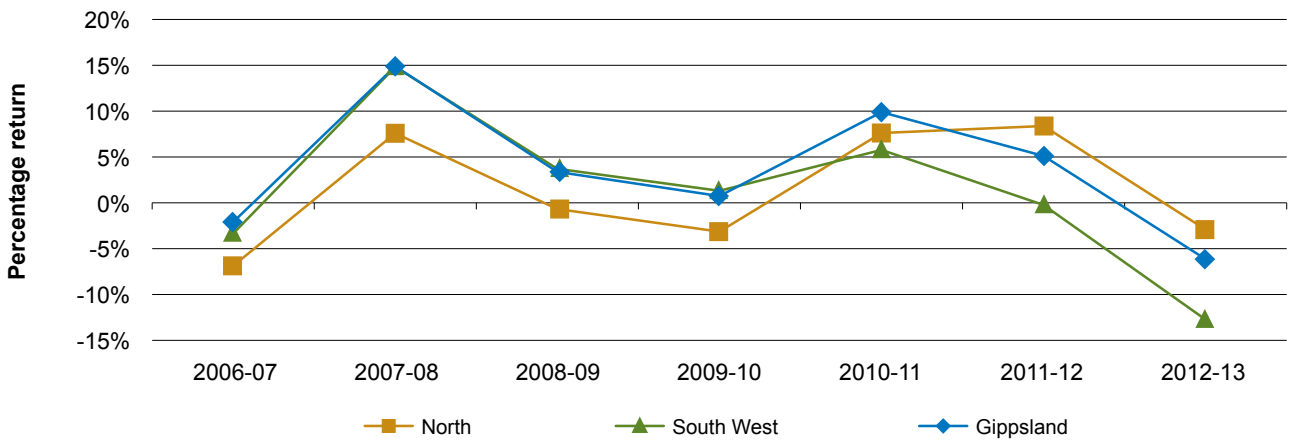


FIGURE 63. REGIONAL HISTORICAL RETURN ON EQUITY





Appendices

TABLE A1

Main Financial Indicators - North

Farm number	Milk income (net)	All other income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest & Tax	Return on assets (excl. capital apprec.)	Interest & lease charges	Debt servicing ratio	Net farm income	Return on equity	Return on equity (incl. capital apprec.)
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	%	\$/ KG MS	%	\$/ KG MS	% OF INCOME	\$/ KG MS	%	%
NO010	\$4.82	\$0.63	\$5.45	\$3.23	\$2.33	58%	-\$0.11	-0.5%	\$0.73	13%	-\$0.84	-6.1%	-17.7%
NO012	\$5.45	\$0.92	\$6.37	\$3.53	\$1.80	66%	\$1.04	6.2%	\$0.27	4%	\$0.76	7.7%	1.0%
NO014	\$4.95	\$0.17	\$5.12	\$2.93	\$2.32	56%	-\$0.14	-0.5%	\$0.56	11%	-\$0.70	-3.6%	-3.4%
NO015	\$4.66	\$0.46	\$5.12	\$3.20	\$1.50	68%	\$0.43	2.1%	\$0.53	10%	-\$0.11	-0.8%	-7.1%
NO020	\$5.35	\$0.21	\$5.56	\$2.81	\$1.63	63%	\$1.13	5.5%	\$0.59	11%	\$0.54	5.1%	5.4%
NO022	\$4.95	\$0.46	\$5.41	\$2.77	\$1.41	66%	\$1.23	4.9%	\$0.44	8%	\$0.79	4.1%	4.3%
NO023	\$5.17	-\$0.17	\$5.00	\$3.12	\$1.60	66%	\$0.28	1.5%	\$0.51	10%	-\$0.23	-2.2%	-2.2%
NO026	\$5.11	\$0.58	\$5.69	\$3.63	\$1.99	65%	\$0.07	0.3%	\$0.35	6%	-\$0.29	-1.8%	-1.8%
NO028	\$5.09	\$0.30	\$5.38	\$3.17	\$1.89	63%	\$0.33	2.3%	\$0.46	9%	-\$0.13	-1.4%	-2.9%
NO036	\$5.25	\$1.30	\$6.54	\$3.34	\$1.79	65%	\$1.41	6.4%	\$0.67	10%	\$0.74	6.9%	7.2%
NO037	\$4.93	\$0.34	\$5.27	\$3.71	\$1.54	71%	\$0.02	0.1%	\$0.52	10%	-\$0.51	-7.8%	-7.6%
NO038	\$5.06	\$0.66	\$5.72	\$3.94	\$2.12	65%	-\$0.34	-3.3%	\$0.81	14%	-\$1.16	-	-
NO039	\$4.98	\$0.45	\$5.42	\$4.11	\$1.41	75%	-\$0.10	-1.0%	\$0.33	6%	-\$0.43	-7.5%	-7.4%
NO040	\$5.12	\$0.30	\$5.42	\$4.00	\$1.89	68%	-\$0.47	-3.3%	\$0.70	13%	-\$1.17	-32.3%	-35.2%
NO041	\$4.89	\$0.44	\$5.33	\$3.21	\$1.69	65%	\$0.42	2.7%	\$0.63	12%	-\$0.21	-4.6%	-6.4%
NO043	\$4.97	-\$0.01	\$4.96	\$3.23	\$1.86	63%	-\$0.13	-0.6%	\$0.57	11%	-\$0.70	-4.7%	-5.2%
NO044	\$5.35	\$0.34	\$5.69	\$2.79	\$1.22	70%	\$1.68	10.2%	\$0.33	6%	\$1.36	12.3%	13.5%
NO045	\$5.28	\$0.86	\$6.14	\$3.41	\$1.69	67%	\$1.03	7.3%	\$0.44	7%	\$0.59	6.5%	7.8%
NO046	\$5.26	\$0.80	\$6.07	\$3.15	\$1.74	64%	\$1.18	9.7%	\$0.54	9%	\$0.64	14.1%	12.8%
NO047	\$5.09	\$0.50	\$5.59	\$3.83	\$1.27	75%	\$0.49	5.6%	\$0.23	4%	\$0.26	4.5%	-5.7%
NO048	\$4.62	\$0.43	\$5.05	\$3.67	\$1.57	70%	-\$0.19	-0.9%	\$0.42	8%	-\$0.61	-3.6%	-3.7%
NO049	\$5.03	\$0.10	\$5.13	\$2.96	\$2.01	60%	\$0.16	1.4%	\$0.67	13%	-\$0.52	-24.1%	-67.2%
NO050	\$4.73	\$1.03	\$5.77	\$2.61	\$2.35	53%	\$0.81	3.4%	\$0.86	15%	-\$0.05	-0.5%	-3.5%
NO051	\$5.16	\$0.51	\$5.67	\$2.25	\$1.95	54%	\$1.47	5.7%	\$0.86	15%	\$0.61	4.4%	4.2%
NO052	\$4.97	\$0.53	\$5.50	\$4.81	\$2.67	64%	-\$1.98	-9.6%	\$1.48	27%	-\$3.46	-34.7%	-42.3%
Average	\$5.05	\$0.49	\$5.53	\$3.34	\$1.81	65%	\$0.39	2.2%	\$0.58	11%	-\$0.19	-2.9%	-6.8%
Top 25%*	\$5.29	\$0.79	\$6.08	\$3.08	\$1.70	64%	\$1.30	7.6%	\$0.52	9%	\$0.78	8.7%	7.7%

* Top 25% are bold and italicised

TABLE A2

Physical Information - North

Farm number	Total usable area	Milking area	Water used	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	%	%
NO010	188	79	596	276	1.5	462	678	4.4%	3.4%
NO012	452	307	912	730	1.6	635	1,026	4.0%	3.3%
NO014	440	380	538	411	0.9	514	480	3.9%	3.3%
NO015	230	92	752	310	1.3	484	652	4.5%	3.6%
NO020	280	280	713	420	1.5	589	884	3.6%	3.3%
NO022	211	91	821	260	1.2	505	624	4.5%	3.3%
NO023	283	110	500	330	1.2	525	612	4.3%	3.6%
NO026	540	220	879	570	1.1	494	521	3.8%	3.3%
NO028	140	136	886	235	1.7	603	1,010	3.8%	3.5%
NO036	140	100	1,314	240	1.7	528	905	3.9%	3.1%
NO037	204	140	874	400	2.0	493	966	4.8%	3.8%
NO038	95	89	753	301	3.2	522	1,653	4.0%	3.4%
NO039	90	60	1,061	310	3.4	491	1,692	4.5%	3.5%
NO040	139	139	1,312	250	1.8	560	1,008	4.1%	3.5%
NO041	206	144	865	243	1.2	513	606	4.1%	3.4%
NO043	103	48	811	189	1.8	369	678	5.1%	3.8%
NO044	96	86	1,283	265	2.8	584	1,612	4.2%	3.4%
NO045	141	42	898	256	1.8	536	972	4.0%	3.3%
NO046	129	104	1,162	330	2.6	563	1,440	4.5%	3.7%
NO047	75	73	1,362	210	2.8	623	1,746	4.0%	3.4%
NO048	85	55	1,065	193	2.3	443	1,006	4.6%	3.6%
NO049	108	76	1,213	285	2.6	467	1,233	4.5%	3.5%
NO050	186	81	538	165	0.9	421	373	4.4%	3.5%
NO051	203	105	702	200	1.0	551	543	4.3%	3.5%
NO052	51	43	724	118	2.3	475	1,109	3.9%	3.3%
Average	193	123	901	300	1.8	518	961	4.2%	3.5%
Top 25%	194	124	1,045	337	1.9	566	1,083	4.1%	3.4%

TABLE A2

Physical Information - North

(Continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Home grown 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	HD/ FTE	KG MS/ FTE
NO010	5.2	0.0	40%	33.2	9.7	0.0	3.9	98	45,089
NO012	5.9	4.1	55%	175.2	14.2	0.0	7.0	116	73,942
NO014	2.9	0.4	46%	57.0	8.1	16.4	15.3	88	45,156
NO015	6.0	1.4	49%	47.0	11.2	0.0	14.1	137	66,150
NO020	4.3	1.4	42%	110.2	16.9	11.6	19.7	140	82,510
NO022	9.8	0.8	72%	21.8	2.8	6.5	3.5	114	57,493
NO023	4.8	0.7	45%	6.3	13.4	6.6	10.4	92	48,522
NO026	7.4	2.0	72%	109.3	2.2	0.0	0.2	93	46,131
NO028	7.0	1.5	63%	169.3	59.9	0.0	17.6	81	48,936
NO036	11.3	3.6	65%	77.7	11.8	0.0	14.7	101	53,518
NO037	5.7	0.0	36%	218.6	29.4	49.0	39.2	96	47,251
NO038	7.5	1.8	37%	134.3	14.7	0.0	1.2	80	41,496
NO039	14.0	0.0	45%	74.6	8.8	6.1	12.4	117	57,473
NO040	4.2	3.0	52%	74.3	14.2	3.6	7.5	89	49,780
NO041	5.5	0.9	59%	40.7	11.9	0.0	18.0	124	63,616
NO043	10.4	0.8	56%	18.3	2.8	0.1	47.2	156	57,584
NO044	10.0	1.1	57%	34.6	25.3	7.8	5.5	129	75,506
NO045	15.3	0.9	54%	40.0	20.6	5.3	17.9	105	56,434
NO046	10.5	0.9	55%	333.1	198.4	93.0	56.4	98	55,165
NO047	7.2	2.0	44%	200.6	17.1	0.0	21.4	154	95,738
NO048	8.4	1.1	45%	127.1	3.8	51.9	5.8	119	52,662
NO049	13.8	1.6	74%	113.2	20.4	0.0	35.2	112	52,277
NO050	7.5	0.4	79%	33.3	5.7	0.0	22.6	102	43,159
NO051	7.5	1.3	72%	40.8	12.6	20.5	8.3	81	44,540
NO052	4.2	3.0	47%	61.2	37.6	0.0	3.0	70	33,388
Average	7.9	1.4	54%	94.1	22.9	11.1	16.3	108	55,741
Top 25%	10.1	2.0	60%	116.9	47.2	21.1	18.3	105	59,851

**on milking area

TABLE A3

Purchased feed - North

Farm number	Purchased feed per milker	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Average ME of purchased feed	Average purchased feed price	Percent of total energy imported
	T DM/HD	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	MJ ME/ KG	C/ MJ	% OF ME
NO010	4.0	\$309	-	\$180	\$180	\$224	10.5	2.3	60%
NO012	2.6	\$304	-	\$100	\$235	\$288	12.8	2.3	45%
NO014	2.7	\$297	-	\$196	\$196	\$286	12.1	2.4	100%
NO015	3.0	\$239	-	\$207	\$143	\$201	11.9	1.8	51%
NO020	2.5	\$284	-	\$149	\$149	\$259	12.6	2.1	58%
NO022	1.7	\$412	-	\$198	\$198	\$361	11.5	3.3	28%
NO023	2.4	\$313	-	\$196	\$138	\$291	11.7	2.6	55%
NO026	1.6	\$324	-	-	-	\$324	12.0	2.7	28%
NO028	2.2	\$265	-	\$139	\$280	\$255	12.1	2.1	37%
NO036	2.5	\$336	-	\$234	\$234	\$320	11.8	2.8	35%
NO037	4.0	\$353	\$103	\$180	\$180	\$283	11.5	2.6	64%
NO038	4.1	\$266	\$100	\$165	\$166	\$229	11.4	2.1	63%
NO039	2.9	\$367	-	\$241	\$241	\$310	10.7	3.1	55%
NO040	3.4	\$352	-	\$221	\$221	\$307	11.2	2.9	48%
NO041	2.3	\$313	-	\$194	\$194	\$297	11.6	2.6	41%
NO043	1.5	\$342	\$86	-	-	\$303	11.9	2.7	44%
NO044	2.3	\$306	\$221	\$181	\$170	\$271	11.5	2.5	43%
NO045	2.5	\$316	\$270	\$293	\$293	\$307	11.6	2.7	46%
NO046	2.9	\$240	-	\$219	\$219	\$232	11.2	2.2	45%
NO047	3.9	\$336	\$116	\$177	\$197	\$228	10.6	2.5	56%
NO048	1.8	\$247	\$113	\$190	\$190	\$231	13.1	1.8	55%
NO049	1.1	\$333	-	-	\$96	\$310	12.3	2.6	26%
NO050	0.8	\$309	-	-	-	\$309	11.0	2.8	21%
NO051	1.4	\$278	-	-	-	\$278	13.0	2.2	28%
NO052	2.3	\$341	-	\$191	\$195	\$312	12.2	2.6	53%
Average	2.5	\$311	\$126	\$183	\$187	\$281	11.8	2.5	47%
Top 25%	2.4	\$297	-	-	-	\$283	12.0	2.5	40%

TABLE A4
Variable costs - North

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
NO010	\$0.06	\$0.10	\$0.00	\$0.10	\$0.11	\$0.36	\$0.08	\$0.23	\$0.14
NO012	\$0.13	\$0.18	\$0.02	\$0.07	\$0.09	\$0.49	\$0.31	\$0.41	\$0.37
NO014	\$0.12	\$0.13	\$0.00	\$0.11	\$0.05	\$0.42	\$0.43	\$0.03	\$0.00
NO015	\$0.16	\$0.12	\$0.01	\$0.13	\$0.05	\$0.47	\$0.18	\$0.46	\$0.30
NO020	\$0.18	\$0.12	\$0.03	\$0.04	\$0.09	\$0.46	\$0.33	\$0.00	\$0.15
NO022	\$0.09	\$0.17	\$0.01	\$0.15	\$0.06	\$0.48	\$0.08	\$0.46	\$0.04
NO023	\$0.11	\$0.10	\$0.01	\$0.16	\$0.04	\$0.43	\$0.24	\$0.40	\$0.14
NO026	\$0.17	\$0.13	\$0.00	\$0.15	\$0.13	\$0.58	\$0.23	\$0.60	\$0.12
NO028	\$0.11	\$0.15	\$0.06	\$0.08	\$0.11	\$0.52	\$0.40	\$0.42	\$0.17
NO036	\$0.06	\$0.05	\$0.06	\$0.13	\$0.11	\$0.41	\$0.20	\$0.47	\$0.07
NO037	\$0.01	\$0.11	\$0.00	\$0.12	\$0.08	\$0.31	\$0.25	\$0.30	\$0.02
NO038	\$0.16	\$0.27	\$0.00	\$0.16	\$0.10	\$0.70	\$0.21	\$0.24	\$0.12
NO039	\$0.11	\$0.19	\$0.03	\$0.09	\$0.15	\$0.57	\$0.13	\$0.21	\$0.03
NO040	\$0.10	\$0.09	\$0.01	\$0.24	\$0.06	\$0.52	\$0.21	\$0.51	\$0.28
NO041	\$0.12	\$0.16	\$0.00	\$0.13	\$0.09	\$0.51	\$0.30	\$0.52	\$0.03
NO043	\$0.10	\$0.07	\$0.10	\$0.17	\$0.06	\$0.50	\$0.25	\$0.39	\$0.05
NO044	\$0.14	\$0.11	\$0.00	\$0.10	\$0.06	\$0.40	\$0.06	\$0.52	\$0.09
NO045	\$0.15	\$0.14	\$0.02	\$0.10	\$0.08	\$0.49	\$0.15	\$0.26	\$0.13
NO046	\$0.05	\$0.11	\$0.00	\$0.16	\$0.06	\$0.37	\$0.21	\$0.41	\$0.14
NO047	\$0.04	\$0.11	\$0.04	\$0.11	\$0.09	\$0.40	\$0.19	\$0.56	\$0.14
NO048	\$0.07	\$0.06	\$0.03	\$0.14	\$0.07	\$0.38	\$0.45	\$0.46	\$0.22
NO049	\$0.11	\$0.06	\$0.03	\$0.11	\$0.30	\$0.62	\$0.31	\$0.48	\$0.08
NO050	\$0.05	\$0.07	\$0.00	\$0.30	\$0.14	\$0.55	\$0.26	\$0.42	\$0.12
NO051	\$0.10	\$0.14	\$0.04	\$0.15	\$0.04	\$0.47	\$0.25	\$0.09	\$0.18
NO052	\$0.20	\$0.17	\$0.03	\$0.20	\$0.26	\$0.86	\$0.23	\$0.44	\$0.27
Average	\$0.11	\$0.12	\$0.02	\$0.14	\$0.10	\$0.49	\$0.24	\$0.37	\$0.14
Top 25%	\$0.10	\$0.12	\$0.02	\$0.12	\$0.07	\$0.44	\$0.20	\$0.36	\$0.16

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Total feed costs	Total variable costs
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
NO010	\$0.07	\$0.08	\$0.00	\$1.22	\$1.04	\$0.00	\$2.86	\$3.23
NO012	\$0.11	\$0.17	\$0.03	\$0.02	\$1.35	\$0.27	\$3.04	\$3.53
NO014	\$0.11	\$0.08	\$0.15	\$0.15	\$1.56	\$0.00	\$2.51	\$2.93
NO015	\$0.13	\$0.12	\$0.01	\$0.38	\$1.15	\$0.00	\$2.73	\$3.20
NO020	\$0.10	\$0.16	\$0.11	\$0.19	\$1.15	\$0.16	\$2.35	\$2.81
NO022	\$0.06	\$0.15	\$0.04	\$0.27	\$1.16	\$0.03	\$2.29	\$2.77
NO023	\$0.11	\$0.25	\$0.00	\$0.26	\$1.29	\$0.00	\$2.69	\$3.12
NO026	\$0.27	\$0.31	\$0.24	\$0.05	\$1.19	\$0.02	\$3.04	\$3.63
NO028	\$0.09	\$0.12	\$0.07	\$0.05	\$0.98	\$0.35	\$2.65	\$3.17
NO036	\$0.18	\$0.12	\$0.10	\$0.33	\$1.47	\$0.00	\$2.93	\$3.34
NO037	\$0.11	\$0.13	\$0.02	\$0.39	\$2.18	\$0.00	\$3.40	\$3.71
NO038	\$0.10	\$0.38	\$0.03	\$0.52	\$1.64	\$0.00	\$3.24	\$3.94
NO039	\$0.09	\$0.20	\$0.02	\$1.36	\$1.34	\$0.17	\$3.54	\$4.11
NO040	\$0.14	\$0.19	\$0.00	\$0.57	\$1.56	\$0.04	\$3.48	\$4.00
NO041	\$0.11	\$0.24	\$0.00	\$0.18	\$1.32	\$0.00	\$2.70	\$3.21
NO043	\$0.02	\$0.07	\$0.00	\$0.59	\$1.37	\$0.00	\$2.73	\$3.23
NO044	\$0.03	\$0.10	\$0.00	\$0.39	\$0.91	\$0.28	\$2.38	\$2.79
NO045	\$0.11	\$0.12	\$0.00	\$0.63	\$1.32	\$0.21	\$2.93	\$3.41
NO046	\$0.10	\$0.08	\$0.00	\$0.81	\$0.81	\$0.22	\$2.78	\$3.15
NO047	\$0.09	\$0.10	\$0.11	\$1.02	\$1.03	\$0.20	\$3.44	\$3.83
NO048	\$0.05	\$0.18	\$0.08	\$0.59	\$1.00	\$0.27	\$3.29	\$3.67
NO049	\$0.11	\$0.16	\$0.00	\$0.13	\$0.86	\$0.22	\$2.34	\$2.96
NO050	\$0.26	\$0.14	\$0.00	\$0.06	\$0.79	\$0.00	\$2.06	\$2.61
NO051	\$0.06	\$0.26	\$0.14	\$0.00	\$0.80	\$0.00	\$1.78	\$2.25
NO052	\$0.17	\$0.28	\$0.17	\$0.59	\$1.60	\$0.21	\$3.95	\$4.81
Average	\$0.11	\$0.17	\$0.05	\$0.43	\$1.23	\$0.11	\$2.85	\$3.34
Top 25%	\$0.10	\$0.14	\$0.04	\$0.36	\$1.11	\$0.16	\$2.64	\$3.08

TABLE A5

Overhead costs - North

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
NO010	\$0.03	\$0.02	\$0.04	\$0.10	\$0.01	\$0.08	\$0.87	\$1.15	\$0.54	\$0.64	\$2.33
NO012	\$0.03	\$0.01	\$0.04	\$0.25	\$0.00	\$0.21	\$0.95	\$1.50	\$0.30	\$0.00	\$1.80
NO014	\$0.04	\$0.09	\$0.00	\$0.50	\$0.01	\$0.03	\$0.32	\$0.99	\$0.36	\$0.97	\$2.32
NO015	\$0.03	\$0.02	\$0.05	\$0.24	\$0.00	\$0.06	\$0.62	\$1.02	\$0.10	\$0.39	\$1.50
NO020	\$0.03	\$0.01	\$0.04	\$0.23	\$0.00	\$0.17	\$0.57	\$1.06	\$0.24	\$0.33	\$1.63
NO022	\$0.05	\$0.01	\$0.06	\$0.15	\$0.01	\$0.09	\$0.30	\$0.67	\$0.07	\$0.67	\$1.41
NO023	\$0.05	\$0.01	\$0.04	\$0.23	\$0.00	\$0.10	\$0.54	\$0.97	\$0.11	\$0.52	\$1.60
NO026	\$0.05	\$0.04	\$0.07	\$0.27	\$0.00	\$0.06	\$0.90	\$1.39	\$0.24	\$0.36	\$1.99
NO028	\$0.03	\$0.01	\$0.06	\$0.17	\$0.00	\$0.13	\$0.54	\$0.94	\$0.23	\$0.73	\$1.89
NO036	\$0.04	\$0.01	\$0.11	\$0.24	-\$0.01	\$0.09	\$0.40	\$0.88	\$0.20	\$0.71	\$1.79
NO037	\$0.04	\$0.00	\$0.02	\$0.16	\$0.00	\$0.10	\$0.59	\$0.91	\$0.08	\$0.55	\$1.54
NO038	\$0.02	\$0.01	\$0.06	\$0.33	\$0.01	\$0.11	\$1.38	\$1.91	\$0.06	\$0.15	\$2.12
NO039	\$0.02	\$0.01	\$0.04	\$0.22	\$0.00	\$0.05	\$0.14	\$0.48	\$0.04	\$0.89	\$1.41
NO040	\$0.01	\$0.01	\$0.06	\$0.42	\$0.00	\$0.05	\$0.21	\$0.77	\$0.14	\$0.99	\$1.89
NO041	\$0.02	\$0.03	\$0.04	\$0.38	\$0.04	\$0.09	\$0.17	\$0.78	\$0.20	\$0.71	\$1.69
NO043	\$0.05	\$0.02	\$0.08	\$0.24	\$0.01	\$0.14	\$0.04	\$0.59	\$0.24	\$1.04	\$1.86
NO044	\$0.02	\$0.02	\$0.05	\$0.19	\$0.00	\$0.03	\$0.31	\$0.61	\$0.16	\$0.45	\$1.22
NO045	\$0.02	\$0.02	\$0.03	\$0.41	\$0.02	\$0.09	\$0.48	\$1.07	\$0.06	\$0.57	\$1.69
NO046	\$0.03	\$0.08	\$0.01	\$0.24	\$0.01	\$0.10	\$0.61	\$1.08	\$0.10	\$0.56	\$1.74
NO047	\$0.02	\$0.00	\$0.06	\$0.25	\$0.02	\$0.10	\$0.10	\$0.55	\$0.18	\$0.54	\$1.27
NO048	\$0.04	\$0.01	\$0.07	\$0.31	\$0.01	\$0.05	\$0.03	\$0.52	\$0.17	\$0.88	\$1.57
NO049	\$0.03	\$0.02	\$0.12	\$0.31	\$0.01	\$0.25	\$0.48	\$1.23	\$0.16	\$0.63	\$2.01
NO050	\$0.08	\$0.03	\$0.13	\$0.23	\$0.07	\$0.13	\$0.05	\$0.72	\$0.32	\$1.31	\$2.35
NO051	\$0.09	\$0.02	\$0.06	\$0.36	\$0.01	\$0.04	\$0.32	\$0.89	\$0.12	\$0.94	\$1.95
NO052	\$0.03	\$0.04	\$0.19	\$0.32	\$0.01	\$0.17	\$0.12	\$0.88	\$0.21	\$1.58	\$2.67
Average	\$0.04	\$0.02	\$0.06	\$0.27	\$0.01	\$0.10	\$0.44	\$0.94	\$0.18	\$0.68	\$1.81
Top 25%	\$0.04	\$0.03	\$0.05	\$0.28	\$0.01	\$0.09	\$0.51	\$1.00	\$0.16	\$0.54	\$1.70

TABLE A6

Variable costs % - North

Percentage of total farm costs

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
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
NO010	1.0%	1.7%	0.0%	1.8%	2.0%	6.6%	1.5%	4.1%	2.5%
NO012	2.5%	3.5%	0.4%	1.3%	1.6%	9.3%	5.8%	3.9%	6.9%
NO014	2.4%	2.6%	0.0%	2.1%	1.0%	8.0%	8.3%	0.5%	0.0%
NO015	3.4%	2.5%	0.3%	2.7%	1.0%	9.9%	3.8%	6.9%	6.5%
NO020	4.0%	2.7%	0.6%	0.9%	2.1%	10.3%	7.4%	0.0%	3.3%
NO022	2.2%	4.1%	0.2%	3.6%	1.5%	11.6%	1.9%	10.2%	1.0%
NO023	2.2%	2.1%	0.3%	3.4%	0.9%	9.0%	5.1%	8.0%	3.0%
NO026	3.1%	2.3%	0.0%	2.7%	2.3%	10.4%	4.2%	7.3%	2.2%
NO028	2.3%	3.0%	1.2%	1.6%	2.2%	10.2%	8.0%	2.4%	3.4%
NO036	1.1%	1.0%	1.2%	2.5%	2.2%	8.0%	3.9%	6.8%	1.3%
NO037	0.1%	2.1%	0.1%	2.2%	1.5%	5.9%	4.7%	5.3%	0.3%
NO038	2.6%	4.5%	0.0%	2.7%	1.7%	11.5%	3.4%	2.9%	1.9%
NO039	2.0%	3.5%	0.5%	1.6%	2.8%	10.3%	2.3%	1.7%	0.6%
NO040	1.8%	1.6%	0.2%	4.1%	1.1%	8.8%	3.5%	4.9%	4.7%
NO041	2.5%	3.2%	0.0%	2.7%	1.9%	10.4%	6.2%	7.4%	0.7%
NO043	2.0%	1.4%	1.9%	3.4%	1.2%	9.7%	4.9%	5.1%	1.1%
NO044	3.4%	2.7%	0.1%	2.5%	1.4%	10.1%	1.4%	6.1%	2.1%
NO045	2.9%	2.8%	0.3%	1.9%	1.6%	9.5%	3.0%	2.3%	2.6%
NO046	1.0%	2.2%	0.0%	3.2%	1.2%	7.6%	4.3%	2.9%	2.8%
NO047	0.9%	2.2%	0.8%	2.1%	1.9%	7.8%	3.7%	4.7%	2.7%
NO048	1.4%	1.2%	0.6%	2.7%	1.3%	7.2%	8.5%	6.0%	4.2%
NO049	2.3%	1.2%	0.7%	2.2%	6.0%	12.4%	6.2%	4.3%	1.5%
NO050	1.0%	1.3%	0.0%	6.0%	2.9%	11.2%	5.3%	5.5%	2.3%
NO051	2.4%	3.3%	1.0%	3.5%	1.0%	11.2%	6.0%	2.2%	4.2%
NO052	2.7%	2.2%	0.4%	2.7%	3.5%	11.4%	3.1%	4.6%	3.6%
Average	2.1%	2.4%	0.4%	2.6%	1.9%	9.5%	4.7%	4.6%	2.6%
Top 25%	2.2%	2.6%	0.5%	2.5%	1.5%	9.3%	4.1%	4.0%	3.3%

TABLE A6

Variable costs % - North

Percentage of total farm costs (Continued)

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Total feed costs	Total variable costs
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
NO010	1.3%	1.5%	0.0%	21.9%	18.7%	0.0%	51.5%	58.1%
NO012	2.1%	3.2%	0.5%	0.3%	25.3%	5.1%	56.9%	66.2%
NO014	2.1%	1.5%	2.8%	2.8%	29.6%	0.0%	47.8%	55.8%
NO015	2.7%	2.5%	0.2%	8.2%	24.5%	0.0%	58.2%	68.1%
NO020	2.1%	3.6%	2.5%	4.4%	26.0%	3.7%	53.0%	63.3%
NO022	1.3%	3.6%	1.0%	6.4%	27.7%	0.8%	54.7%	66.3%
NO023	2.2%	5.2%	0.0%	5.6%	27.3%	0.0%	57.0%	66.0%
NO026	4.9%	5.5%	4.3%	0.9%	21.2%	0.4%	54.2%	64.6%
NO028	1.7%	2.3%	1.4%	1.0%	19.4%	6.9%	52.4%	62.6%
NO036	3.6%	2.3%	2.0%	6.4%	28.6%	0.0%	57.2%	65.1%
NO037	2.1%	2.6%	0.4%	7.4%	41.4%	0.0%	64.7%	70.6%
NO038	1.6%	6.2%	0.5%	8.6%	27.1%	0.0%	53.4%	65.0%
NO039	1.7%	3.6%	0.3%	24.7%	24.2%	3.1%	64.2%	74.5%
NO040	2.4%	3.2%	0.0%	9.6%	26.5%	0.6%	59.1%	67.9%
NO041	2.3%	4.8%	0.0%	3.6%	27.0%	0.0%	55.1%	65.5%
NO043	0.3%	1.3%	0.0%	11.6%	26.8%	0.0%	53.7%	63.4%
NO044	0.8%	2.4%	0.0%	9.8%	22.7%	7.1%	59.5%	69.6%
NO045	2.1%	2.3%	0.0%	12.4%	25.8%	4.0%	57.3%	66.8%
NO046	2.1%	1.6%	0.0%	16.6%	16.6%	4.5%	56.9%	64.5%
NO047	1.8%	2.0%	2.1%	20.0%	20.2%	3.8%	67.4%	75.2%
NO048	0.9%	3.4%	1.5%	11.3%	19.0%	5.1%	62.8%	70.0%
NO049	2.1%	3.3%	0.1%	2.6%	17.4%	4.4%	47.2%	59.5%
NO050	5.3%	2.7%	0.0%	1.2%	16.0%	0.0%	41.5%	52.7%
NO051	1.4%	6.2%	3.3%	0.0%	19.1%	0.0%	42.3%	53.5%
NO052	2.3%	3.7%	2.3%	7.9%	21.3%	2.8%	52.8%	64.3%
Average	2.1%	3.2%	1.0%	8.2%	24.0%	2.1%	55.2%	64.8%
Top 25%	2.0%	3.0%	1.0%	7.6%	23.0%	3.5%	55.0%	64.3%

TABLE A7

Overhead costs % - North

Percentage of total farm costs

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
NO010	0.5%	0.3%	0.8%	1.7%	0.2%	1.4%	15.7%	20.7%	9.7%	11.4%	41.9%
NO012	0.5%	0.2%	0.8%	4.8%	0.1%	4.0%	17.8%	28.1%	5.7%	0.0%	33.8%
NO014	0.7%	1.7%	0.0%	9.5%	0.2%	0.6%	6.1%	18.8%	6.9%	18.5%	44.2%
NO015	0.6%	0.3%	1.0%	5.1%	0.0%	1.3%	13.2%	21.6%	2.0%	8.2%	31.9%
NO020	0.7%	0.1%	1.0%	5.2%	0.1%	3.8%	13.0%	23.9%	5.3%	7.5%	36.7%
NO022	1.2%	0.2%	1.4%	3.6%	0.3%	2.2%	7.1%	16.0%	1.7%	16.0%	33.7%
NO023	1.0%	0.2%	0.9%	4.8%	0.1%	2.1%	11.5%	20.6%	2.3%	11.0%	34.0%
NO026	0.9%	0.8%	1.2%	4.7%	0.0%	1.1%	16.0%	24.7%	4.3%	6.4%	35.4%
NO028	0.6%	0.2%	1.3%	3.3%	0.0%	2.5%	10.6%	18.5%	4.5%	14.4%	37.4%
NO036	0.7%	0.2%	2.2%	4.6%	-0.2%	1.8%	7.7%	17.1%	4.0%	13.8%	34.9%
NO037	0.8%	0.0%	0.3%	3.1%	0.0%	1.8%	11.3%	17.4%	1.6%	10.4%	29.4%
NO038	0.3%	0.1%	0.9%	5.4%	0.2%	1.8%	22.7%	31.5%	1.0%	2.5%	35.0%
NO039	0.3%	0.1%	0.7%	4.0%	0.0%	1.0%	2.5%	8.8%	0.7%	16.1%	25.5%
NO040	0.2%	0.2%	1.0%	7.1%	0.0%	0.9%	3.6%	13.1%	2.3%	16.7%	32.1%
NO041	0.5%	0.7%	0.9%	7.8%	0.7%	1.9%	3.4%	15.9%	4.1%	14.5%	34.5%
NO043	0.9%	0.5%	1.5%	4.8%	0.2%	2.8%	0.9%	11.6%	4.6%	20.4%	36.6%
NO044	0.6%	0.4%	1.1%	4.7%	0.0%	0.7%	7.6%	15.2%	3.9%	11.3%	30.4%
NO045	0.5%	0.3%	0.6%	8.0%	0.4%	1.8%	9.3%	20.9%	1.1%	11.2%	33.2%
NO046	0.7%	1.6%	0.1%	4.9%	0.3%	2.0%	12.5%	22.0%	2.0%	11.5%	35.5%
NO047	0.4%	0.0%	1.3%	4.9%	0.3%	1.9%	1.9%	10.8%	3.4%	10.6%	24.8%
NO048	0.8%	0.2%	1.3%	6.0%	0.3%	0.9%	0.5%	10.0%	3.2%	16.8%	30.0%
NO049	0.6%	0.5%	2.4%	6.2%	0.2%	5.1%	9.6%	24.7%	3.2%	12.6%	40.5%
NO050	1.6%	0.6%	2.6%	4.6%	1.4%	2.7%	1.0%	14.5%	6.4%	26.4%	47.3%
NO051	2.2%	0.4%	1.3%	8.5%	0.2%	1.0%	7.6%	21.3%	2.8%	22.4%	46.5%
NO052	0.5%	0.5%	2.5%	4.3%	0.2%	2.2%	1.7%	11.8%	2.7%	21.2%	35.7%
Average	0.7%	0.4%	1.2%	5.3%	0.2%	2.0%	8.6%	18.4%	3.6%	13.3%	35.2%
Top 25%	0.9%	0.5%	1.0%	5.9%	0.1%	1.9%	10.4%	20.8%	3.2%	11.7%	35.7%

TABLE A8

Capital structure - North

	FARM ASSETS				OTHER FARM ASSETS (PER USABLE HECTARE)					LIABILITIES		EQUITY	
	Land value	Land value	Permanent water value	Permanent water value	Plant and equipment	Livestock	Hay and grain	Other assets	Total assets	Liabilities	Liabilities	Equity	Average equity
	\$/HA	\$/COW	\$/HA	\$/COW	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/COW	\$/HA	%
Average	\$7,370	\$4,476	\$2,570	\$1,478	\$1,443	\$2,656	\$249	\$188	\$14,566	\$6,431	\$3,582	\$8,135	55%
Top 25%	\$8,846	\$5,059	\$2,791	\$1,519	\$1,408	\$2,676	\$369	\$289	\$16,423	\$6,857	\$3,870	\$9,565	58%

TABLE A9

Historical data - North

Average farm income, costs and profit per kilogram of milk solids

	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	\$5.44	\$5.48	\$6.43	\$0.21	\$0.25	\$0.17	\$0.20	\$3.60	\$4.23	\$4.03	\$4.73
2007-08	\$6.53	\$7.33	\$7.86	\$8.83	\$0.23	\$0.25	\$0.15	\$0.17	\$4.37	\$4.91	\$4.70	\$5.28
2008-09	\$5.32	\$5.88	\$6.06	\$6.70	\$0.21	\$0.23	\$0.13	\$0.15	\$3.47	\$3.84	\$3.81	\$4.22
2009-10	\$4.46	\$4.78	\$5.19	\$5.57	\$0.23	\$0.25	\$0.15	\$0.16	\$2.71	\$2.91	\$3.09	\$3.32
2010-11	\$5.69	\$5.90	\$6.74	\$6.98	\$0.31	\$0.32	\$0.19	\$0.19	\$2.66	\$2.76	\$3.16	\$3.27
2011-12	\$5.64	\$5.78	\$6.06	\$6.21	\$0.26	\$0.26	\$0.18	\$0.18	\$2.52	\$2.58	\$2.95	\$3.02
2012-13	\$5.05	\$5.05	\$5.53	\$5.53	\$0.25	\$0.25	\$0.24	\$0.24	\$2.85	\$2.85	\$3.34	\$3.34
Average		\$5.74		\$6.61		\$0.26		\$0.18		\$3.44		\$3.88

	OVERHEAD COSTS					PROFIT								
	Cash overhead costs		Non-cash overhead costs		Total overhead costs	Earnings before interest & tax		Interest & lease charges		Net farm income		RETURN ON ASSETS	RETURN ON EQUITY	
	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	\$0.82	\$0.96	\$1.10	\$1.29	\$1.92	\$2.26	-\$0.47	-\$0.55	\$0.57	\$0.66	-\$1.04	-\$1.22	-1.6%	-6.9%
2007-08	\$0.78	\$0.88	\$0.90	\$1.01	\$1.57	\$1.77	\$1.59	\$1.78	\$0.55	\$0.62	\$1.04	\$1.17	7.9%	7.6%
2008-09	\$0.74	\$0.82	\$0.82	\$0.91	\$1.56	\$1.73	\$0.59	\$0.65	\$0.54	\$0.60	\$0.05	\$0.05	2.7%	-0.7%
2009-10	\$0.82	\$0.88	\$1.01	\$1.09	\$1.83	\$1.97	\$0.20	\$0.22	\$0.51	\$0.55	-\$0.31	-\$0.34	0.8%	-3.1%
2010-11	\$1.01	\$1.05	\$1.05	\$1.09	\$2.06	\$2.14	\$1.52	\$1.57	\$0.65	\$0.67	\$0.87	\$0.90	7.0%	7.6%
2011-12	\$0.90	\$0.93	\$0.85	\$0.87	\$1.75	\$1.79	\$1.36	\$1.39	\$0.57	\$0.59	\$0.78	\$0.80	7.6%	8.4%
2012-13	\$0.94	\$0.94	\$0.87	\$0.87	\$1.81	\$1.81	\$0.39	\$0.39	\$0.58	\$0.58	-\$0.19	-\$0.19	2.2%	7.6%
Average		\$0.92		\$1.02		\$1.92		\$0.78		\$0.61		\$0.17	3.8%	2.9%

Note: 'Real' dollar values are the nominal values converted to 2012/13 dollar equivalents by the consumer price index (CPI) to allow for inflation
All historic data is sourced from the Dairy Industry Farm Monitor Project

TABLE A10

Historical data - North

Average farm physical information

	Total useable area	Milking area	Water used	Number of milking cows	Milking cows per useable area	Milk sold	Milk sold	Estimated grazed pasture*	Estimated conserved feed*	Home grown feed as % of ME consumed	Concentrate price	
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	T DM/ HA	T DM/ HA	% OF ME	NOMINAL (\$/ T DM)	REAL (\$/ T DM)
2006-07	336	331	539	365	1.4	430	636	4.3	0.5	48%	\$316	\$371
2007-08	294	258	490	321	1.1	511	559	3.1	0.7	47%	\$398	\$447
2008-09	245	195	528	322	1.6	500	784	4.3	0.7	46%	\$347	\$384
2009-10	216	195	811	282	1.6	515	806	5.0	0.6	51%	\$256	\$275
2010-11	196	171	1,089	261	1.5	495	762	5.1	2.6	58%	\$286	\$296
2011-12	193	128	1,035	304	1.9	516	957	7.1	1.1	53%	\$267	\$273
2012-13	193	123	901	300	1.8	518	961	8.1	1.4	55%	\$311	\$311
Average	239	200	771	308	1.6	498	781	5.3	1.1	51%		\$337

* 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

TABLE B1
Main Financial Indicators - South West

Farm number	Milk income (net)	All other income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest & Tax	Return on assets (excl. capital apprec.)	Interest & lease charges	Debt servicing ratio	Net farm income	Return on equity	Return on equity (incl. capital apprec.)
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	%	\$/ KG MS	%	\$/ KG MS	% OF INCOME	\$/ KG MS	%	%
SW001	\$5.04	\$0.02	\$5.05	\$2.75	\$1.69	62%	\$0.61	1.5%	\$1.45	29%	-\$0.84	-4.2%	-4.1%
SW007	\$4.68	\$0.16	\$4.84	\$2.91	\$3.83	43%	-\$1.90	-11.5%	\$0.01	0%	-\$1.91	-11.7%	-11.3%
SW008	\$5.21	\$0.45	\$5.66	\$3.07	\$1.77	63%	\$0.81	3.5%	\$0.49	9%	\$0.32	2.1%	2.2%
SW009	\$4.70	\$0.74	\$5.44	\$2.76	\$2.27	55%	\$0.41	1.5%	\$0.52	10%	-\$0.11	-0.6%	-0.6%
SW011	\$5.02	\$0.49	\$5.51	\$3.51	\$1.53	70%	\$0.46	2.1%	\$0.77	14%	-\$0.31	-5.1%	-5.0%
SW014	\$4.69	\$0.27	\$4.97	\$3.22	\$1.75	65%	-\$0.01	-0.0%	\$0.54	11%	-\$0.55	-4.4%	-4.4%
SW015	\$5.61	\$0.14	\$5.75	\$3.63	\$2.12	63%	-\$0.01	-0.0%	\$1.30	23%	-\$1.31	-33.2%	-24.4%
SW020	\$4.94	\$0.39	\$5.33	\$3.33	\$2.20	60%	-\$0.21	-0.8%	\$1.02	19%	-\$1.22	-14.9%	-14.3%
SW021	\$5.28	\$0.57	\$5.86	\$3.02	\$1.47	67%	\$1.37	6.0%	\$0.20	3%	\$1.17	5.9%	6.2%
SW022	\$5.35	\$1.07	\$6.41	\$3.55	\$1.93	65%	\$0.93	4.1%	\$1.00	16%	-\$0.07	-0.5%	-0.5%
SW025	\$4.86	\$0.82	\$5.68	\$2.52	\$2.08	55%	\$1.09	3.4%	\$0.76	13%	\$0.32	1.8%	1.9%
SW027	\$4.57	\$0.14	\$4.71	\$2.52	\$2.17	54%	\$0.02	0.1%	\$0.65	14%	-\$0.63	-4.1%	11.5%
SW030	\$5.09	\$0.65	\$5.75	\$3.74	\$2.26	62%	-\$0.25	-0.7%	\$1.01	18%	-\$1.26	-5.7%	-12.4%
SW032	\$4.51	\$0.48	\$4.99	\$2.55	\$3.22	44%	-\$0.77	-1.8%	\$1.17	23%	-\$1.94	-8.9%	-8.7%
SW033	\$4.54	-\$0.07	\$4.47	\$2.46	\$3.52	41%	-\$1.51	-2.7%	\$0.21	5%	-\$1.72	-5.0%	-13.2%
SW035	\$4.87	\$0.00	\$4.87	\$2.61	\$1.47	64%	\$0.79	2.5%	\$1.28	26%	-\$0.50	-8.2%	-7.6%
SW036	\$4.45	\$0.72	\$5.17	\$3.38	\$2.45	58%	-\$0.65	-1.3%	\$0.40	8%	-\$1.05	-2.3%	-2.3%
SW037	\$5.11	\$0.35	\$5.46	\$3.41	\$1.85	65%	\$0.20	1.1%	\$0.46	8%	-\$0.26	-3.3%	-5.8%
SW038	\$4.84	\$0.28	\$5.12	\$2.94	\$2.64	53%	-\$0.47	-2.0%	\$0.59	12%	-\$1.06	-7.3%	-7.3%
SW039	\$5.05	-\$0.20	\$4.85	\$3.31	\$1.95	63%	-\$0.41	-1.3%	\$1.92	40%	-\$2.33	-93.3%	-75.0%
SW040	\$4.75	\$0.20	\$4.95	\$3.36	\$2.06	62%	-\$0.47	-2.1%	\$0.78	16%	-\$1.25	-13.1%	-12.4%
SW041	\$5.12	\$0.42	\$5.53	\$3.39	\$1.76	66%	\$0.38	1.7%	\$1.23	22%	-\$0.85	-92.4%	-74.2%
SW042	\$4.61	\$0.33	\$4.94	\$3.25	\$1.40	70%	\$0.28	1.3%	\$0.79	16%	-\$0.51	-5.1%	-4.9%
SW043	\$4.63	\$0.30	\$4.93	\$2.87	\$2.60	52%	-\$0.54	-1.9%	\$0.23	5%	-\$0.76	-3.7%	-3.7%
SW044	\$5.06	-\$0.21	\$4.85	\$2.50	\$1.77	58%	\$0.58	2.8%	\$0.72	15%	-\$0.14	-1.2%	-1.2%
Average	\$4.90	\$0.34	\$5.24	\$3.06	\$2.15	59%	\$0.03	0.2%	\$0.78	15%	-\$0.75	-12.7%	-10.9%
Top 25%*	\$5.11	\$0.45	\$5.55	\$2.88	\$1.75	62%	\$0.93	3.7%	\$0.74	14%	\$0.18	-0.0%	0.1%

* Top 25% are bold and italicised

TABLE B2
Physical Information - South West

Farm number	Total usable area	Milking area	Water used	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	%	%
SW001	458	250	592	380	0.8	476	395	4.2%	3.1%
SW007	116	116	452	123	1.1	374	397	5.2%	4.1%
SW008	532	250	806	802	1.5	543	819	4.0%	3.4%
SW009	160	125	597	230	1.4	537	772	3.8%	3.1%
SW011	610	450	562	890	1.5	540	788	4.2%	3.5%
SW014	214	193	819	242	1.1	517	584	3.8%	3.2%
SW015	741	400	512	980	1.3	527	696	4.1%	3.4%
SW020	252	161	743	325	1.3	555	715	3.5%	3.2%
SW021	603	400	576	665	1.1	579	639	3.9%	3.3%
SW022	517	410	520	656	1.3	504	639	3.9%	3.5%
SW025	331	140	574	255	0.8	558	430	4.3%	3.3%
SW027	127	99	707	176	1.4	463	641	5.4%	3.9%
SW030	264	180	566	290	1.1	446	490	3.8%	3.3%
SW032	171	130	569	179	1.0	323	338	5.1%	3.8%
SW033	146	56	562	107	0.7	350	257	4.3%	3.5%
SW035	250	183	725	301	1.2	527	634	3.8%	3.3%
SW036	272	216	522	160	0.6	489	287	4.4%	3.4%
SW037	407	252	747	580	1.4	608	866	3.5%	3.3%
SW038	125	100	805	163	1.3	592	771	4.0%	3.3%
SW039	274	163	566	273	1.0	504	502	4.0%	3.4%
SW040	345	235	478	405	1.2	573	673	3.8%	3.2%
SW041	347	219	768	470	1.4	533	722	3.8%	3.2%
SW042	157	157	849	218	1.4	524	727	4.0%	3.3%
SW043	131	86	849	154	1.2	460	541	4.3%	3.5%
SW044	152	152	712	195	1.3	546	700	3.8%	3.3%
Average	308	205	647	369	1.2	506	601	4.1%	3.4%
Top 25%	398	256	652	479	1.2	543	644	3.9%	3.3%

TABLE B2

Physical Information - South West

(Continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Home grown 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	HD/ FTE	KG MS/ FTE
SW001	3.6	2.5	69%	49.4	1.7	14.4	2.3	117	55,822
SW007	2.4	0.0	57%	0.0	0.0	0.0	0.0	56	20,833
SW008	3.7	0.0	53%	196.8	10.5	49.1	18.8	122	66,114
SW009	5.0	2.4	61%	154.2	18.2	18.2	5.8	43	23,078
SW011	3.7	1.2	42%	90.5	14.4	0.0	18.0	122	66,075
SW014	3.5	1.0	52%	75.9	12.8	39.7	17.4	109	56,474
SW015	4.5	1.0	48%	180.0	17.3	33.3	21.5	95	49,946
SW020	5.8	0.8	50%	73.7	14.6	40.2	18.2	82	45,548
SW021	4.6	1.1	50%	116.3	9.0	30.8	1.7	135	78,278
SW022	2.1	4.4	65%	124.1	14.3	15.9	12.6	125	62,844
SW025	6.0	0.7	75%	47.9	20.2	42.9	8.2	76	42,694
SW027	5.1	1.4	68%	72.2	26.8	68.1	34.0	80	37,078
SW030	3.4	1.1	58%	67.5	12.7	31.7	16.3	92	41,062
SW032	3.0	0.5	54%	0.0	12.4	23.8	15.3	77	24,965
SW033	3.4	1.2	63%	33.7	2.5	8.0	3.1	62	21,883
SW035	4.3	1.4	58%	78.0	18.6	25.0	7.2	115	60,457
SW036	2.6	1.2	70%	37.6	10.0	32.4	8.2	59	28,998
SW037	4.9	2.8	48%	142.2	12.3	36.9	20.4	92	55,909
SW038	5.7	1.1	59%	46.8	33.0	5.1	18.6	61	36,353
SW039	2.0	2.6	58%	56.0	7.8	20.6	12.8	85	42,634
SW040	4.1	1.2	55%	46.3	0.0	0.0	0.0	87	49,694
SW041	3.7	3.2	51%	71.2	10.5	54.1	15.6	110	58,558
SW042	4.6	1.5	58%	101.5	7.1	35.6	20.4	126	65,775
SW043	3.9	1.0	63%	117.6	19.0	79.1	54.7	62	28,778
SW044	4.3	1.2	58%	115.3	6.4	20.8	8.0	96	52,270
Average	4.0	1.5	58%	83.8	12.5	29.0	14.4	91	46,885
Top 25% area	4.2	1.5	60%	113.1	13.2	30.8	9.4	111	60,443

**on milking area

TABLE B3

Purchased feed - South West

Farm number	Purchased feed per milker	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Average ME of purchased feed	Average purchased feed price	Percent of total energy imported
	T DM/HD	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	MJ ME/ KG	C/ MJ	% OF ME
SW001	1.7	\$362	-	\$266	\$197	\$316	11.7	2.8	31%
SW007	1.6	\$371	-	\$200	\$200	\$335	12.2	2.8	43%
SW008	3.0	\$269	-	\$188	-	\$202	12.6	1.7	47%
SW009	2.4	\$374	-	\$79	\$79	\$302	11.8	2.7	39%
SW011	3.9	\$350	-	\$180	\$180	\$268	11.3	2.6	58%
SW014	2.8	\$351	-	\$226	\$226	\$317	11.6	2.9	48%
SW015	2.8	\$349	-	\$361	\$335	\$351	12.4	2.9	52%
SW020	2.9	\$359	\$72	-	-	\$312	12.0	2.7	50%
SW021	2.6	\$305	-	-	-	\$305	13.0	2.4	50%
SW022	2.3	\$328	-	\$285	-	\$322	12.4	2.7	35%
SW025	1.8	\$360	-	\$215	\$215	\$342	12.2	2.9	25%
SW027	1.8	\$364	-	\$196	\$196	\$299	11.6	2.7	32%
SW030	2.9	\$309	-	\$249	\$249	\$291	10.4	2.9	42%
SW032	1.6	\$307	-	\$186	\$186	\$280	12.2	2.4	46%
SW033	1.1	\$330	-	-	-	\$330	13.6	2.5	37%
SW035	2.5	\$322	-	\$300	\$300	\$321	12.4	2.6	42%
SW036	1.5	\$361	-	-	-	\$361	12.5	2.9	30%
SW037	3.0	\$338	-	-	-	\$338	12.1	2.8	52%
SW038	2.5	\$366	-	\$298	\$298	\$356	11.6	3.2	41%
SW039	2.4	\$338	-	\$343	\$343	\$338	12.4	2.8	42%
SW040	2.9	\$363	-	\$266	\$266	\$354	12.3	3.0	45%
SW041	3.1	\$344	-	\$215	\$230	\$291	11.3	2.7	49%
SW042	3.0	\$382	-	\$190	\$190	\$322	11.6	2.9	42%
SW043	2.0	\$346	-	\$205	\$205	\$327	12.6	2.7	37%
SW044	2.5	\$308	-	\$318	\$318	\$309	11.8	2.7	42%
Average	2.4	\$342	\$72	\$238	\$222	\$316	12.1	2.7	42%
Top 25%	2.5	\$315	-	-	-	\$300	12.4	2.5	40%

TABLE B4
Variable costs - South West

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
SW001	\$0.07	\$0.07	\$0.04	\$0.12	\$0.09	\$0.38	\$0.24	\$0.01	\$0.27
SW007	\$0.14	\$0.17	\$0.02	\$0.17	\$0.06	\$0.56	\$0.00	\$0.01	\$0.00
SW008	\$0.05	\$0.17	\$0.00	\$0.18	\$0.09	\$0.49	\$0.41	\$0.00	\$0.07
SW009	\$0.07	\$0.12	\$0.00	\$0.10	\$0.06	\$0.35	\$0.32	\$0.05	\$0.09
SW011	\$0.10	\$0.14	\$0.11	\$0.10	\$0.09	\$0.54	\$0.22	\$0.00	\$0.14
SW014	\$0.11	\$0.06	\$0.00	\$0.08	\$0.06	\$0.32	\$0.47	\$0.00	\$0.24
SW015	\$0.11	\$0.24	\$0.00	\$0.19	\$0.09	\$0.63	\$0.48	\$0.00	\$0.05
SW020	\$0.15	\$0.13	\$0.00	\$0.13	\$0.20	\$0.61	\$0.24	\$0.00	\$0.13
SW021	\$0.09	\$0.13	\$0.06	\$0.09	\$0.07	\$0.45	\$0.45	\$0.00	\$0.21
SW022	\$0.11	\$0.15	\$0.11	\$0.10	\$0.10	\$0.56	\$0.48	\$0.00	\$0.20
SW025	\$0.09	\$0.12	\$0.09	\$0.12	\$0.04	\$0.45	\$0.44	\$0.00	\$0.12
SW027	\$0.07	\$0.05	\$0.00	\$0.08	\$0.11	\$0.30	\$0.30	\$0.00	\$0.25
SW030	\$0.11	\$0.13	\$0.01	\$0.15	\$0.13	\$0.53	\$0.40	\$0.01	\$0.04
SW032	\$0.03	\$0.12	\$0.00	\$0.09	\$0.09	\$0.34	\$0.18	\$0.00	\$0.06
SW033	\$0.11	\$0.09	\$0.00	\$0.05	\$0.12	\$0.37	\$0.32	\$0.00	\$0.32
SW035	\$0.11	\$0.08	\$0.00	\$0.08	\$0.06	\$0.33	\$0.38	\$0.00	\$0.05
SW036	\$0.18	\$0.19	\$0.02	\$0.11	\$0.18	\$0.69	\$0.60	\$0.02	\$0.38
SW037	\$0.08	\$0.16	\$0.05	\$0.15	\$0.12	\$0.57	\$0.50	\$0.00	\$0.12
SW038	\$0.10	\$0.16	\$0.05	\$0.10	\$0.09	\$0.50	\$0.38	\$0.00	\$0.11
SW039	\$0.05	\$0.14	\$0.00	\$0.16	\$0.16	\$0.51	\$0.33	\$0.00	\$0.26
SW040	\$0.11	\$0.20	\$0.00	\$0.09	\$0.15	\$0.56	\$0.11	\$0.00	\$0.18
SW041	\$0.05	\$0.17	\$0.05	\$0.09	\$0.03	\$0.40	\$0.46	\$0.00	\$0.26
SW042	\$0.08	\$0.15	\$0.00	\$0.14	\$0.10	\$0.47	\$0.38	\$0.00	\$0.16
SW043	\$0.07	\$0.04	\$0.00	\$0.17	\$0.10	\$0.39	\$0.75	\$0.00	\$0.03
SW044	\$0.01	\$0.07	\$0.00	\$0.06	\$0.07	\$0.21	\$0.38	\$0.00	\$0.18
Average	\$0.09	\$0.13	\$0.02	\$0.12	\$0.10	\$0.46	\$0.37	\$0.00	\$0.16
Top 25%	\$0.08	\$0.12	\$0.04	\$0.11	\$0.07	\$0.41	\$0.42	\$0.00	\$0.14

Farm number	Fuel and oil	Pasture improvement/ cropping	Other feed costs	Fodder purchases	Grain/ concentrates/ other	Agistment costs	Total feed costs	Total variable costs
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
SW001	\$0.24	\$0.19	\$0.00	\$0.33	\$1.11	\$0.00	\$2.37	\$2.75
SW007	\$0.04	\$0.01	\$0.00	\$0.33	\$1.43	\$0.53	\$2.35	\$2.91
SW008	\$0.12	\$0.12	\$0.24	\$0.26	\$1.37	\$0.00	\$2.58	\$3.07
SW009	\$0.10	\$0.12	\$0.00	\$0.25	\$1.48	\$0.00	\$2.41	\$2.76
SW011	\$0.03	\$0.10	\$0.00	\$0.75	\$1.46	\$0.28	\$2.97	\$3.51
SW014	\$0.10	\$0.07	\$0.01	\$0.46	\$1.57	\$0.00	\$2.91	\$3.22
SW015	\$0.22	\$0.08	\$0.08	\$0.34	\$1.75	\$0.01	\$3.01	\$3.63
SW020	\$0.18	\$0.09	\$0.02	\$0.19	\$1.89	\$0.00	\$2.73	\$3.33
SW021	\$0.10	\$0.24	\$0.00	\$0.00	\$1.58	\$0.00	\$2.57	\$3.02
SW022	\$0.09	\$0.27	\$0.17	\$0.20	\$1.59	\$0.00	\$2.99	\$3.55
SW025	\$0.13	\$0.12	\$0.00	\$0.13	\$1.14	\$0.00	\$2.07	\$2.52
SW027	\$0.09	\$0.18	\$0.00	\$0.34	\$1.06	\$0.00	\$2.21	\$2.52
SW030	\$0.19	\$0.19	\$0.07	\$0.73	\$1.58	\$0.02	\$3.22	\$3.74
SW032	\$0.03	\$0.02	\$0.00	\$0.29	\$1.62	\$0.00	\$2.21	\$2.55
SW033	\$0.07	\$0.21	\$0.00	\$0.00	\$1.16	\$0.00	\$2.09	\$2.46
SW035	\$0.08	\$0.04	\$0.01	\$0.07	\$1.64	\$0.00	\$2.28	\$2.61
SW036	\$0.20	\$0.23	\$0.01	\$0.00	\$1.25	\$0.00	\$2.69	\$3.38
SW037	\$0.13	\$0.03	\$0.10	\$0.00	\$1.97	\$0.00	\$2.84	\$3.41
SW038	\$0.10	\$0.14	\$0.01	\$0.21	\$1.49	\$0.00	\$2.45	\$2.94
SW039	\$0.07	\$0.03	\$0.30	\$0.08	\$1.73	\$0.00	\$2.81	\$3.31
SW040	\$0.13	\$0.12	\$0.20	\$0.20	\$1.87	\$0.00	\$2.80	\$3.36
SW041	\$0.08	\$0.16	\$0.00	\$0.62	\$1.35	\$0.07	\$3.00	\$3.39
SW042	\$0.01	\$0.14	\$0.00	\$0.43	\$1.65	\$0.00	\$2.78	\$3.25
SW043	\$0.07	\$0.05	\$0.01	\$0.14	\$1.43	\$0.00	\$2.48	\$2.87
SW044	\$0.08	\$0.02	\$0.02	\$0.16	\$1.46	\$0.00	\$2.29	\$2.50
Average	\$0.11	\$0.12	\$0.05	\$0.26	\$1.50	\$0.04	\$2.60	\$3.06
Top 25%	\$0.10	\$0.14	\$0.07	\$0.13	\$1.46	\$0.00	\$2.46	\$2.88

TABLE B5

Overhead costs - South West

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
SW001	\$0.05	\$0.01	\$0.08	\$0.30	\$0.01	\$0.10	\$0.36	\$0.91	\$0.19	\$0.59	\$1.69
SW007	\$0.06	\$0.01	\$0.08	\$0.55	\$0.02	\$0.14	\$0.00	\$0.86	\$0.09	\$2.88	\$3.83
SW008	\$0.03	\$0.01	\$0.04	\$0.34	\$0.00	\$0.16	\$0.72	\$1.28	\$0.22	\$0.27	\$1.77
SW009	\$0.08	\$0.01	\$0.03	\$0.21	\$0.02	\$0.05	\$0.83	\$1.23	\$0.15	\$0.89	\$2.27
SW011	\$0.03	\$0.01	\$0.04	\$0.18	\$0.01	\$0.18	\$0.97	\$1.42	\$0.11	\$0.00	\$1.53
SW014	\$0.04	\$0.09	\$0.05	\$0.35	\$0.01	\$0.05	\$0.21	\$0.79	\$0.12	\$0.84	\$1.75
SW015	\$0.04	\$0.04	\$0.03	\$0.43	\$0.12	\$0.06	\$1.05	\$1.78	\$0.20	\$0.14	\$2.12
SW020	\$0.03	\$0.03	\$0.06	\$0.39	\$0.03	\$0.12	\$0.35	\$1.00	\$0.37	\$0.83	\$2.20
SW021	\$0.01	\$0.01	\$0.06	\$0.35	\$0.00	\$0.15	\$0.51	\$1.09	\$0.15	\$0.22	\$1.47
SW022	\$0.10	\$0.01	\$0.07	\$0.38	\$0.05	\$0.15	\$0.32	\$1.07	\$0.22	\$0.64	\$1.93
SW025	\$0.04	\$0.03	\$0.04	\$0.37	\$0.00	\$0.13	\$0.45	\$1.06	\$0.14	\$0.87	\$2.08
SW027	\$0.06	\$0.04	\$0.09	\$0.15	\$0.01	\$0.15	\$0.22	\$0.72	\$0.11	\$1.34	\$2.17
SW030	\$0.10	\$0.01	\$0.03	\$0.18	\$0.03	\$0.10	\$0.00	\$0.45	\$0.37	\$1.45	\$2.26
SW032	\$0.06	\$0.02	\$0.06	\$0.22	\$0.02	\$0.31	\$0.13	\$0.81	\$0.12	\$2.29	\$3.22
SW033	\$0.08	\$0.03	\$0.07	\$0.25	\$0.00	\$0.12	\$0.07	\$0.62	\$0.35	\$2.55	\$3.52
SW035	\$0.00	\$0.01	\$0.03	\$0.23	\$0.01	\$0.13	\$0.09	\$0.49	\$0.09	\$0.89	\$1.47
SW036	\$0.09	\$0.08	\$0.09	\$0.20	\$0.01	\$0.12	\$0.48	\$1.08	\$0.06	\$1.30	\$2.45
SW037	\$0.03	\$0.06	\$0.05	\$0.51	\$0.01	\$0.04	\$0.55	\$1.24	\$0.18	\$0.43	\$1.85
SW038	\$0.05	\$0.00	\$0.05	\$0.69	\$0.00	\$0.06	\$0.08	\$0.94	\$0.15	\$1.56	\$2.64
SW039	\$0.05	\$0.00	\$0.05	\$0.18	\$0.05	\$0.14	\$0.61	\$1.08	\$0.30	\$0.57	\$1.95
SW040	\$0.05	\$0.03	\$0.09	\$0.37	\$0.01	\$0.12	\$0.77	\$1.44	\$0.15	\$0.48	\$2.06
SW041	\$0.02	\$0.02	\$0.06	\$0.18	\$0.01	\$0.22	\$0.75	\$1.27	\$0.18	\$0.31	\$1.76
SW042	\$0.05	\$0.01	\$0.05	\$0.23	\$0.00	\$0.08	\$0.02	\$0.43	\$0.10	\$0.88	\$1.40
SW043	\$0.04	\$0.03	\$0.00	\$0.02	\$0.02	\$0.13	\$0.03	\$0.27	\$0.30	\$2.03	\$2.60
SW044	\$0.05	\$0.01	\$0.06	\$0.17	\$0.01	\$0.08	\$0.00	\$0.38	\$0.25	\$1.14	\$1.77
Average	\$0.05	\$0.02	\$0.05	\$0.30	\$0.02	\$0.12	\$0.38	\$0.95	\$0.19	\$1.01	\$2.15
Top 25%	\$0.04	\$0.01	\$0.05	\$0.31	\$0.01	\$0.13	\$0.35	\$0.90	\$0.18	\$0.67	\$1.75

TABLE B6

Variable costs % - South West

Percentage of total farm costs

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
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
SW001	1.6%	1.5%	0.8%	2.6%	2.0%	8.6%	5.3%	0.2%	6.0%
SW007	2.0%	2.5%	0.2%	2.6%	0.9%	8.3%	0.0%	0.1%	0.0%
SW008	0.9%	3.6%	0.1%	3.8%	1.8%	10.2%	8.4%	0.0%	1.5%
SW009	1.4%	2.4%	0.0%	2.1%	1.1%	7.0%	6.4%	1.0%	1.7%
SW011	2.0%	2.7%	2.2%	2.0%	1.8%	10.7%	4.3%	0.0%	2.9%
SW014	2.2%	1.3%	0.0%	1.7%	1.2%	6.3%	9.4%	0.0%	4.9%
SW015	1.9%	4.2%	0.0%	3.3%	1.5%	10.9%	8.4%	0.0%	0.8%
SW020	2.6%	2.4%	0.0%	2.3%	3.6%	10.9%	4.3%	0.0%	2.3%
SW021	2.1%	2.8%	1.4%	2.1%	1.5%	9.9%	10.0%	0.0%	4.6%
SW022	1.9%	2.7%	2.0%	1.8%	1.9%	10.2%	8.7%	0.0%	3.6%
SW025	2.0%	2.5%	1.9%	2.5%	0.8%	9.7%	9.5%	0.0%	2.5%
SW027	1.6%	1.0%	0.0%	1.6%	2.3%	6.5%	6.3%	0.0%	5.3%
SW030	1.8%	2.2%	0.2%	2.5%	2.1%	8.8%	6.6%	0.1%	0.7%
SW032	0.6%	2.0%	0.0%	1.6%	1.6%	5.9%	3.2%	0.0%	1.1%
SW033	1.8%	1.5%	0.1%	0.9%	2.0%	6.2%	5.3%	0.0%	5.3%
SW035	2.8%	1.9%	0.0%	2.0%	1.4%	8.1%	9.3%	0.0%	1.3%
SW036	3.1%	3.2%	0.4%	1.9%	3.1%	11.8%	10.3%	0.4%	6.5%
SW037	1.5%	3.1%	0.9%	2.9%	2.4%	10.8%	9.6%	0.0%	2.3%
SW038	1.8%	2.9%	0.9%	1.8%	1.6%	8.9%	6.7%	0.0%	2.0%
SW039	1.0%	2.6%	0.0%	3.1%	3.0%	9.7%	6.3%	0.0%	4.8%
SW040	2.1%	3.8%	0.0%	1.7%	2.7%	10.3%	2.0%	0.0%	3.2%
SW041	1.0%	3.3%	1.0%	1.8%	0.6%	7.7%	9.0%	0.0%	5.0%
SW042	1.7%	3.2%	0.0%	3.1%	2.1%	10.1%	8.2%	0.0%	3.5%
SW043	1.3%	0.8%	0.0%	3.1%	1.8%	7.0%	13.7%	0.0%	0.6%
SW044	0.3%	1.5%	0.0%	1.5%	1.6%	4.9%	8.8%	0.0%	4.1%
Average	1.7%	2.5%	0.5%	2.2%	1.9%	8.8%	7.2%	0.1%	3.1%
Top 25%	1.7%	2.5%	0.9%	2.3%	1.5%	8.8%	9.1%	0.0%	3.0%

TABLE B6
Variable costs % - South West
 Percentage of total farm costs (Continued)

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Total feed costs	Total variable costs
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
SW001	5.3%	4.3%	0.0%	7.3%	24.9%	0.0%	53.4%	62.0%
SW007	0.5%	0.2%	0.0%	4.9%	21.2%	7.9%	34.9%	43.1%
SW008	2.5%	2.5%	4.9%	5.3%	28.2%	0.0%	53.2%	63.4%
SW009	2.0%	2.4%	0.0%	5.0%	29.4%	0.0%	48.0%	54.9%
SW011	0.5%	1.9%	0.0%	14.8%	28.9%	5.6%	58.9%	69.6%
SW014	2.0%	1.3%	0.1%	9.2%	31.6%	0.0%	58.5%	64.8%
SW015	3.8%	1.3%	1.4%	5.8%	30.4%	0.2%	52.3%	63.1%
SW020	3.2%	1.6%	0.4%	3.4%	34.2%	0.0%	49.3%	60.2%
SW021	2.1%	5.4%	0.0%	0.0%	35.2%	0.0%	57.3%	67.3%
SW022	1.7%	4.9%	3.0%	3.6%	28.9%	0.0%	54.5%	64.7%
SW025	2.8%	2.6%	0.0%	2.9%	24.7%	0.0%	45.1%	54.8%
SW027	1.8%	3.8%	0.0%	7.3%	22.7%	0.0%	47.2%	53.6%
SW030	3.1%	3.1%	1.2%	12.2%	26.3%	0.3%	53.6%	62.4%
SW032	0.6%	0.4%	0.0%	5.0%	28.1%	0.0%	38.3%	44.2%
SW033	1.2%	3.5%	0.0%	0.0%	19.4%	0.0%	34.9%	41.1%
SW035	1.9%	1.0%	0.3%	1.7%	40.3%	0.0%	55.8%	63.9%
SW036	3.5%	3.9%	0.2%	0.0%	21.5%	0.0%	46.2%	58.0%
SW037	2.4%	0.5%	1.9%	0.0%	37.4%	0.0%	54.1%	64.9%
SW038	1.8%	2.6%	0.1%	3.8%	26.7%	0.0%	43.8%	52.7%
SW039	1.4%	0.6%	5.6%	1.6%	32.9%	0.0%	53.3%	62.9%
SW040	2.4%	2.3%	3.7%	3.7%	34.4%	0.0%	51.7%	62.0%
SW041	1.5%	3.1%	0.0%	12.0%	26.1%	1.4%	58.1%	65.8%
SW042	0.3%	3.0%	0.0%	9.3%	35.4%	0.0%	59.7%	69.8%
SW043	1.3%	0.9%	0.1%	2.5%	26.2%	0.0%	45.4%	52.5%
SW044	1.9%	0.5%	0.4%	3.6%	34.2%	0.0%	53.6%	58.5%
Average	2.1%	2.3%	0.9%	5.0%	29.2%	0.6%	50.4%	59.2%
Top 25%	2.2%	2.8%	1.4%	2.8%	31.9%	0.0%	53.3%	62.1%

TABLE B7
Overhead costs % - South West
 Percentage of total farm costs

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
SW001	1.1%	0.2%	1.7%	6.8%	0.3%	2.3%	8.1%	20.5%	4.3%	13.3%	38.0%
SW007	0.9%	0.2%	1.2%	8.2%	0.3%	2.0%	0.0%	12.8%	1.4%	42.7%	56.9%
SW008	0.6%	0.1%	0.8%	6.9%	0.0%	3.3%	14.8%	26.5%	4.6%	5.5%	36.6%
SW009	1.5%	0.2%	0.6%	4.2%	0.3%	1.1%	16.5%	24.5%	3.0%	17.6%	45.1%
SW011	0.7%	0.2%	0.7%	3.5%	0.3%	3.6%	19.2%	28.2%	2.2%	0.0%	30.4%
SW014	0.8%	1.9%	0.9%	7.0%	0.1%	0.9%	4.2%	15.9%	2.5%	16.9%	35.2%
SW015	0.7%	0.7%	0.6%	7.5%	2.0%	1.1%	18.2%	30.9%	3.5%	2.4%	36.9%
SW020	0.5%	0.5%	1.1%	7.0%	0.5%	2.2%	6.3%	18.1%	6.6%	15.0%	39.8%
SW021	0.3%	0.2%	1.4%	7.7%	0.0%	3.4%	11.3%	24.3%	3.4%	5.0%	32.7%
SW022	1.8%	0.2%	1.2%	7.0%	0.8%	2.7%	5.8%	19.5%	4.1%	11.7%	35.3%
SW025	0.9%	0.6%	0.8%	8.1%	0.0%	2.9%	9.7%	23.1%	3.1%	19.0%	45.2%
SW027	1.3%	0.9%	1.9%	3.2%	0.3%	3.1%	4.7%	15.4%	2.3%	28.6%	46.4%
SW030	1.7%	0.1%	0.5%	2.9%	0.5%	1.7%	0.0%	7.4%	6.1%	24.1%	37.6%
SW032	1.0%	0.4%	1.0%	3.8%	0.3%	5.3%	2.2%	14.0%	2.1%	39.7%	55.8%
SW033	1.4%	0.4%	1.1%	4.2%	0.0%	2.0%	1.1%	10.3%	5.9%	42.6%	58.9%
SW035	0.0%	0.2%	0.6%	5.7%	0.2%	3.2%	2.2%	12.1%	2.3%	21.8%	36.1%
SW036	1.5%	1.3%	1.6%	3.4%	0.3%	2.1%	8.3%	18.5%	1.1%	22.4%	42.0%
SW037	0.5%	1.1%	0.9%	9.7%	0.2%	0.7%	10.5%	23.6%	3.5%	8.1%	35.1%
SW038	0.9%	0.0%	1.0%	12.3%	0.1%	1.1%	1.5%	16.8%	2.7%	27.8%	47.3%
SW039	0.9%	0.1%	1.0%	3.3%	0.9%	2.6%	11.7%	20.6%	5.7%	10.8%	37.1%
SW040	1.0%	0.6%	1.6%	6.8%	0.3%	2.2%	14.2%	26.6%	2.7%	8.8%	38.0%
SW041	0.5%	0.4%	1.2%	3.4%	0.3%	4.3%	14.6%	24.6%	3.6%	6.0%	34.2%
SW042	1.0%	0.2%	1.1%	4.8%	0.0%	1.8%	0.3%	9.2%	2.1%	18.8%	30.2%
SW043	0.8%	0.5%	0.1%	0.3%	0.3%	2.3%	0.6%	4.9%	5.6%	37.1%	47.5%
SW044	1.2%	0.3%	1.3%	3.9%	0.3%	1.8%	0.0%	8.9%	5.9%	26.7%	41.5%
Average	0.9%	0.5%	1.0%	5.7%	0.3%	2.4%	7.4%	18.3%	3.6%	18.9%	40.8%
Top 25%	0.8%	0.3%	1.0%	6.6%	0.2%	2.9%	7.3%	19.1%	3.9%	15.0%	37.9%

TABLE B8

Capital structure - South West

	FARM ASSETS				OTHER FARM ASSETS (PER USABLE HECTARE)					LIABILITIES		EQUITY	
	Land value	Land value	Permanent water value	Permanent water value	Plant and equipment	Livestock	Hay and grain	Other assets	Total assets	Liabilities	Liabilities	Equity	Average equity
	\$/HA	\$/COW	\$/HA	\$/COW	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/COW	\$/HA	%
Average	\$11,714	\$8,732	\$35	\$22	\$1,288	\$1,891	\$101	\$128	\$13,109	\$5,448	\$4,605	\$7,661	59%
Top 25%	\$9,106	\$8,121	\$134	\$93	\$1,324	\$1,935	\$200	\$454	\$13,228	\$4,702	\$4,127	\$8,526	65%

TABLE B9

Historical data - South West

Average farm income, costs and profit per kilogram of milk solids

	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	\$5.06	\$5.05	\$5.93	\$0.19	\$0.22	\$0.13	\$0.15	\$2.61	\$3.06	\$2.97	\$3.49
2007-08	\$6.56	\$7.37	\$7.91	\$8.88	\$0.21	\$0.24	\$0.14	\$0.16	\$2.95	\$3.32	\$3.32	\$3.73
2008-09	\$5.40	\$5.98	\$6.13	\$6.78	\$0.22	\$0.24	\$0.15	\$0.17	\$2.55	\$2.83	\$2.93	\$3.24
2009-10	\$4.55	\$4.88	\$5.23	\$5.62	\$0.21	\$0.22	\$0.16	\$0.17	\$2.00	\$2.14	\$2.37	\$2.54
2010-11	\$5.62	\$5.83	\$6.34	\$6.57	\$0.21	\$0.22	\$0.18	\$0.19	\$2.10	\$2.17	\$2.48	\$2.57
2011-12	\$5.56	\$5.69	\$5.97	\$6.12	\$0.23	\$0.24	\$0.21	\$0.22	\$2.35	\$2.41	\$2.79	\$2.86
2012-13	\$4.90	\$4.90	\$5.24	\$5.24	\$0.24	\$0.24	\$0.21	\$0.21	\$2.60	\$2.60	\$3.06	\$3.06
Average		\$5.67		\$6.45		\$0.23		\$0.18		\$2.65		\$3.07

	OVERHEAD COSTS						PROFIT							
	Cash overhead costs		Non-cash overhead costs		Total overhead costs		Earnings before interest & tax		Interest & lease charges		Net farm income		RETURN ON ASSETS	RETURN ON EQUITY
	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	\$0.79	\$0.93	\$0.99	\$1.16	\$1.78	\$2.09	\$0.30	\$0.35	\$0.59	\$0.70	-\$0.29	-\$0.34	1.0%	-3.3%
2007-08	\$0.95	\$1.07	\$0.84	\$0.95	\$1.69	\$1.90	\$2.89	\$3.25	\$0.72	\$0.81	\$2.17	\$2.43	11.2%	14.8%
2008-09	\$0.92	\$1.02	\$0.89	\$0.98	\$1.81	\$2.00	\$1.32	\$1.47	\$0.69	\$0.77	\$0.63	\$0.70	4.5%	3.7%
2009-10	\$0.89	\$0.96	\$1.03	\$1.11	\$1.92	\$2.07	\$0.91	\$0.97	\$0.80	\$0.86	\$0.10	\$0.11	3.0%	1.3%
2010-11	\$1.06	\$1.10	\$1.08	\$1.12	\$2.14	\$2.22	\$1.71	\$1.77	\$0.95	\$0.98	\$0.77	\$0.79	5.5%	5.8%
2011-12	\$1.11	\$1.13	\$1.29	\$1.32	\$2.40	\$2.46	\$0.78	\$0.80	\$0.90	\$0.92	-\$0.12	-\$0.12	3.3%	-0.2%
2012-13	\$0.95	\$0.95	\$1.20	\$1.20	\$2.15	\$2.15	\$0.03	\$0.03	\$0.78	\$0.78	-\$0.75	-\$0.75	0.2%	-12.7%
Average		\$1.02		\$1.12		\$2.13		\$1.23		\$0.83		\$0.40	4.1%	1.3%

Note: 'Real' dollar values are the nominal values converted to 2012/13 dollar equivalents by the consumer price index (CPI) to allow for inflation

TABLE B10

Historical data - South West

Average farm physical information

	Total useable area	Milking area	Water used	Number of milking cows	Milking cows per useable area	Milk sold	Milk sold	Estimated grazed pasture*	Estimated conserved feed*	Home grown feed as % of ME consumed	Concentrate price	
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	T DM/ HA	T DM/ HA	% OF ME	NOMINAL (\$/ T DM)	REAL (\$/ T DM)
2006-07	286	285	622	386	1.4	500	688	4.8	1.1	61%	\$332	\$390
2007-08	320	317	728	387	1.2	489	591	5.1	1.3	71%	\$425	\$477
2008-09	330	328	719	384	1.3	510	649	5.3	1.2	68%	\$390	\$432
2009-10	302	298	868	366	1.3	503	665	6.0	1.0	71%	\$287	\$308
2010-11	322	319	1,099	369	1.2	491	585	5.1	1.6	67%	\$302	\$313
2011-12	327	225	687	387	1.2	507	605	4.2	1.0	55%	\$309	\$316
2012-13	308	205	647	369	1.2	506	601	4.0	1.5	58%	\$342	\$342
Average	314	282	767	378	1.2	501	626	4.9	1.2	64%		\$368

* 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

TABLE C1
Main Financial Indicators - Gippsland

Farm number	Milk income (net)	All other income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest & Tax	Return on assets (excl. capital apprec.)	Interest & lease charges	Debt servicing ratio	Net farm income	Return on equity	Return on equity (incl. capital apprec.)
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	%	\$/ KG MS	%	\$/ KG MS	% OF INCOME	\$/ KG MS	%	%
GI004	\$4.45	-\$0.60	\$3.85	\$2.44	\$3.40	42%	-\$1.99	-6.7%	\$0.74	19%	-\$2.73	-17.4%	-16.5%
GI005	\$4.55	-\$0.10	\$4.44	\$2.62	\$3.02	46%	-\$1.20	-2.5%	\$1.11	25%	-\$2.31	-11.7%	-11.8%
GI011	\$5.02	\$0.02	\$5.03	\$3.21	\$1.78	64%	\$0.04	0.1%	\$0.92	18%	-\$0.88	-5.5%	-5.5%
GI012	\$4.57	\$0.04	\$4.61	\$2.26	\$2.81	45%	-\$0.46	-0.7%	\$0.69	15%	-\$1.15	-3.4%	-3.6%
GI017	\$4.46	\$0.49	\$4.95	\$2.98	\$3.08	49%	-\$1.10	-3.3%	\$0.21	4%	-\$1.31	-6.7%	-6.5%
GI020	\$5.03	\$0.19	\$5.22	\$2.65	\$1.55	63%	\$1.03	3.9%	\$0.44	8%	\$0.59	3.2%	-0.8%
GI021	\$4.72	\$0.07	\$4.78	\$2.95	\$1.96	60%	-\$0.12	-0.5%	\$0.99	21%	-\$1.11	-12.0%	-11.6%
GI022	\$4.88	\$0.52	\$5.41	\$2.57	\$2.26	53%	\$0.58	1.7%	\$0.74	14%	-\$0.15	-0.8%	-0.8%
GI025	\$4.43	\$0.40	\$4.84	\$2.70	\$2.03	57%	\$0.11	0.3%	\$0.90	19%	-\$0.79	-4.4%	-7.3%
GI028	\$5.01	\$0.10	\$5.11	\$3.82	\$1.72	69%	-\$0.42	-1.6%	\$0.98	19%	-\$1.40	-14.9%	-19.1%
GI031	\$4.63	\$0.32	\$4.95	\$3.78	\$1.56	71%	-\$0.39	-2.4%	\$0.36	7%	-\$0.74	-5.8%	-5.8%
GI032	\$4.51	\$0.45	\$4.96	\$3.12	\$2.70	54%	-\$0.86	-2.8%	\$0.19	4%	-\$1.05	-4.0%	-4.9%
GI035	\$4.55	\$0.43	\$4.98	\$4.40	\$5.15	46%	-\$4.57	-9.7%	\$1.39	28%	-\$5.96	-25.7%	-25.3%
GI037	\$4.80	\$0.24	\$5.04	\$2.50	\$2.01	55%	\$0.53	1.9%	\$0.65	13%	-\$0.12	-0.8%	-0.7%
GI039	\$4.62	\$0.33	\$4.95	\$2.81	\$1.49	65%	\$0.65	2.1%	\$0.98	20%	-\$0.33	-13.0%	-13.9%
GI040	\$4.77	\$0.48	\$5.25	\$3.43	\$2.19	61%	-\$0.37	-1.0%	\$1.83	35%	-\$2.20	-20.1%	-19.5%
GI041	\$4.74	\$0.68	\$5.41	\$2.51	\$1.66	60%	\$1.25	4.1%	\$0.26	5%	\$0.99	3.9%	3.9%
GI042	\$4.70	\$0.21	\$4.91	\$1.81	\$2.61	41%	\$0.49	2.0%	\$0.31	6%	\$0.18	1.1%	3.5%
GI043	\$4.95	\$0.46	\$5.40	\$2.50	\$1.97	56%	\$0.94	3.9%	\$0.40	7%	\$0.54	2.9%	-5.2%
GI044	\$4.34	\$0.21	\$4.55	\$2.01	\$2.48	45%	\$0.05	0.0%	\$0.20	5%	-\$0.15	-0.3%	-0.3%
GI045	\$5.40	\$0.42	\$5.81	\$2.66	\$1.75	60%	\$1.40	4.3%	\$0.67	12%	\$0.73	15.2%	15.4%
GI046	\$4.54	\$0.26	\$4.80	\$2.86	\$1.96	59%	-\$0.02	-0.1%	\$1.23	26%	-\$1.25	-11.5%	-10.9%
GI047	\$5.49	\$0.16	\$5.64	\$3.22	\$2.03	61%	\$0.39	1.0%	\$0.59	11%	-\$0.20	-0.8%	-0.8%
GI048	\$5.04	\$0.17	\$5.21	\$2.55	\$1.65	61%	\$1.01	2.7%	\$0.38	7%	\$0.63	3.3%	-0.9%
GI049	\$4.62	-\$0.06	\$4.55	\$2.80	\$2.09	57%	-\$0.34	-1.6%	\$1.04	23%	-\$1.38	-24.6%	-28.6%
Average	\$4.75	\$0.23	\$4.99	\$2.85	\$2.28	56%	-\$0.14	-0.2%	\$0.73	15%	-\$0.86	-6.2%	-7.1%
Top 25%*	\$4.96	\$0.37	\$5.33	\$2.61	\$1.68	61%	\$1.05	3.5%	\$0.52	10%	\$0.52	2.6%	-0.2%

* Top 25% are bold and italicised

TABLE C2
Physical Information - Gippsland

Farm number	Total usable area	Milking area	Water used	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	%	%
GI004	126	101	1,027	166	1.3	358	471	4.6%	3.5%
GI005	123	91	787	179	1.5	307	447	4.0%	3.2%
GI011	119	85	1,013	153	1.3	523	672	3.9%	3.3%
GI012	100	70	873	142	1.4	533	757	4.1%	3.5%
GI017	203	161	817	220	1.1	397	430	4.1%	3.2%
GI020	410	322	917	800	2.0	504	984	4.3%	3.4%
GI021	270	163	619	410	1.5	496	753	5.2%	4.0%
GI022	481	280	864	553	1.1	427	491	4.1%	3.5%
GI025	135	85	871	255	1.9	374	707	4.6%	3.3%
GI028	150	94	992	250	1.7	487	812	4.0%	3.4%
GI031	73	73	1,254	280	3.8	508	1,949	4.3%	3.4%
GI032	130	110	932	238	1.8	526	962	4.2%	3.4%
GI035	39	38	1,212	80	2.1	311	639	4.0%	3.1%
GI037	236	173	749	366	1.6	617	958	4.0%	3.5%
GI039	169	127	787	240	1.4	479	681	4.0%	3.4%
GI040	323	220	752	450	1.4	412	574	3.7%	3.2%
GI041	286	153	847	395	1.4	468	646	4.4%	3.6%
GI042	187	130	1,052	380	2.0	445	905	4.1%	3.2%
GI043	110	67	1,322	230	2.1	549	1,148	4.3%	3.4%
GI044	137	101	721	162	1.2	382	452	4.2%	3.2%
GI045	205	140	914	350	1.7	491	838	4.7%	3.8%
GI046	185	122	619	234	1.3	508	642	4.0%	3.5%
GI047	256	198	899	265	1.0	576	596	3.8%	3.4%
GI048	333	174	863	430	1.3	501	647	4.2%	3.4%
GI049	72	72	944	255	3.5	383	1,355	4.6%	3.5%
Average	194	134	906	299	1.7	462	781	4.2%	3.4%
Top 25%	252	164	942	408	1.6	499	824	4.3%	3.5%

TABLE C2

Physical Information - Gippsland

(Continued)

Farm number	Estimated grazed pasture**	Estimated conserved feed**	Home grown 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	HD/ FTE	KG MS/ FTE
GI004	4.2	1.5	64%	30.1	17.2	39.4	12.9	62	22,068
GI005	5.3	0.3	73%	15.0	3.9	7.5	0.1	80	24,479
GI011	5.1	0.0	48%	162.0	16.9	46.3	21.1	124	65,046
GI012	8.1	1.0	70%	112.4	16.3	54.0	23.9	62	33,096
GI017	4.5	0.0	61%	23.5	9.0	12.3	10.2	74	29,529
GI020	7.9	1.1	67%	252.4	16.9	31.6	16.0	113	56,841
GI021	4.0	0.0	51%	53.1	5.5	8.2	5.2	97	48,097
GI022	5.8	0.3	52%	11.5	8.8	24.8	10.9	146	62,351
GI025	8.3	0.1	67%	247.2	0.0	28.6	20.2	119	44,372
GI028	5.9	0.3	52%	150.4	12.8	66.0	11.2	105	51,227
GI031	10.1	0.3	46%	146.6	0.0	0.0	0.0	139	70,696
GI032	7.2	1.2	63%	245.9	22.8	44.0	28.4	69	36,169
GI035	4.3	0.9	64%	74.9	24.9	33.3	11.7	58	18,171
GI037	8.3	1.1	63%	221.2	26.6	55.7	39.1	90	55,627
GI039	5.7	0.4	61%	158.4	8.5	13.8	8.0	112	53,488
GI040	4.9	0.6	60%	38.3	0.0	1.7	0.0	118	48,575
GI041	6.4	0.5	63%	73.6	4.3	4.8	5.4	126	58,902
GI042	14.7	1.0	68%	75.3	22.3	51.1	27.8	86	38,417
GI043	11.5	0.5	70%	185.7	37.0	69.4	42.2	92	50,689
GI044	4.9	0.4	64%	12.6	1.4	2.8	1.8	77	29,598
GI045	6.6	0.8	63%	139.1	4.8	9.3	6.0	114	56,075
GI046	5.4	1.2	64%	60.2	22.5	46.7	25.4	109	55,109
GI047	4.4	1.2	60%	161.1	16.5	5.5	15.2	78	44,848
GI048	6.6	0.2	60%	168.3	0.0	0.0	0.0	90	45,105
GI049	11.2	0.0	66%	182.1	0.0	38.2	0.0	138	52,612
Average	6.8	0.6	62%	120.0	12.0	27.8	13.7	99	46,047
Top 25% area	7.4	0.6	64%	162.9	11.9	21.5	12.9	108	53,517

**on milking area

TABLE C3

Purchased feed - Gippsland

Farm number	Purchased feed per milker	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Average ME of purchased feed	Average purchased feed price	Percent of total energy imported
	T DM/HD	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	MJ ME/ KG	C/ MJ	% OF ME
GI004	1.2	\$341	-	-	-	\$341	12.5	2.8	36%
GI005	1.1	\$346	\$90	-	-	\$305	11.7	2.7	27%
GI011	3.0	\$326	-	\$296	\$296	\$323	11.8	2.8	52%
GI012	1.4	\$338	-	-	-	\$338	13.0	2.6	30%
GI017	1.9	\$357	\$166	\$269	\$269	\$309	10.9	3.0	39%
GI020	1.5	\$335	-	\$175	\$175	\$281	11.8	2.5	33%
GI021	1.8	\$381	-	-	\$151	\$362	13.2	2.8	49%
GI022	1.5	\$314	-	-	\$70	\$308	12.7	2.5	48%
GI025	1.1	\$322	-	\$271	\$271	\$314	12.3	2.6	33%
GI028	3.1	\$363	\$267	\$288	\$288	\$337	11.4	3.1	48%
GI031	2.9	\$413	-	\$200	\$321	\$365	11.9	3.2	54%
GI032	1.7	\$378	-	\$284	\$284	\$367	11.6	3.2	37%
GI035	1.9	\$297	-	\$151	\$151	\$283	11.6	2.5	36%
GI037	1.7	\$323	\$155	\$300	\$300	\$316	12.3	2.6	37%
GI039	1.9	\$291	-	\$290	\$236	\$284	11.9	2.4	39%
GI040	2.2	\$368	-	\$265	\$264	\$365	12.4	3.0	40%
GI041	2.0	\$337	-	\$280	\$280	\$332	12.7	2.7	37%
GI042	0.3	\$576	-	\$286	\$286	\$345	9.9	3.9	32%
GI043	1.6	\$380	-	-	-	\$380	13.0	3.0	30%
GI044	1.3	\$352	-	-	-	\$352	12.0	3.0	36%
GI045	1.7	\$290	-	\$280	\$280	\$289	12.7	2.3	37%
GI046	1.9	\$398	-	\$295	\$295	\$387	12.7	3.1	36%
GI047	2.2	\$308	-	\$280	\$280	\$307	12.8	2.4	40%
GI048	1.5	\$383	\$155	\$290	\$290	\$366	12.2	3.1	40%
GI049	1.4	\$376	-	\$190	\$279	\$334	12.5	2.8	34%
Average	1.8	\$356	\$167	\$261	\$253	\$332	12.1	2.8	38%
Top 25%	1.7	\$336	-	-	-	\$322	12.4	2.7	36%

TABLE C4
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
GI004	\$0.07	\$0.17	\$0.02	\$0.13	\$0.08	\$0.47	\$0.31	\$0.00	\$0.12
GI005	\$0.11	\$0.06	\$0.01	\$0.22	\$0.13	\$0.54	\$0.24	\$0.00	\$0.27
GI011	\$0.04	\$0.04	\$0.02	\$0.12	\$0.13	\$0.35	\$0.62	\$0.00	\$0.00
GI012	\$0.08	\$0.12	\$0.04	\$0.11	\$0.07	\$0.42	\$0.50	\$0.05	\$0.03
GI017	\$0.10	\$0.11	\$0.00	\$0.14	\$0.13	\$0.47	\$0.22	\$0.02	\$0.03
GI020	\$0.07	\$0.10	\$0.06	\$0.13	\$0.03	\$0.40	\$0.44	\$0.35	\$0.23
GI021	\$0.35	\$0.12	\$0.03	\$0.10	\$0.12	\$0.71	\$0.20	\$0.00	\$0.15
GI022	\$0.11	\$0.25	\$0.06	\$0.12	\$0.04	\$0.58	\$0.23	\$0.00	\$0.02
GI025	\$0.00	\$0.06	\$0.04	\$0.17	\$0.14	\$0.40	\$0.60	\$0.00	\$0.12
GI028	\$0.14	\$0.14	\$0.03	\$0.13	\$0.09	\$0.53	\$0.55	\$0.00	\$0.09
GI031	\$0.21	\$0.25	\$0.06	\$0.15	\$0.13	\$0.80	\$0.11	\$0.26	\$0.01
GI032	\$0.12	\$0.16	\$0.10	\$0.11	\$0.04	\$0.53	\$0.79	\$0.00	\$0.01
GI035	\$0.17	\$0.30	\$0.01	\$0.25	\$0.21	\$0.94	\$0.49	\$0.70	\$0.04
GI037	\$0.13	\$0.20	\$0.12	\$0.08	\$0.08	\$0.60	\$0.52	\$0.00	\$0.06
GI039	\$0.08	\$0.18	\$0.03	\$0.10	\$0.09	\$0.47	\$0.55	\$0.01	\$0.09
GI040	\$0.34	\$0.11	\$0.17	\$0.16	\$0.12	\$0.90	\$0.11	\$0.02	\$0.14
GI041	\$0.15	\$0.25	\$0.01	\$0.08	\$0.03	\$0.51	\$0.20	\$0.00	\$0.12
GI042	\$0.09	\$0.10	\$0.00	\$0.07	\$0.13	\$0.39	\$0.40	\$0.36	\$0.12
GI043	\$0.09	\$0.07	\$0.01	\$0.04	\$0.03	\$0.24	\$0.40	\$0.26	\$0.12
GI044	\$0.15	\$0.07	\$0.01	\$0.15	\$0.04	\$0.41	\$0.05	\$0.00	\$0.14
GI045	\$0.11	\$0.16	\$0.06	\$0.15	\$0.11	\$0.58	\$0.29	\$0.00	\$0.19
GI046	\$0.12	\$0.13	\$0.03	\$0.08	\$0.04	\$0.39	\$0.38	\$0.00	\$0.17
GI047	\$0.11	\$0.32	\$0.04	\$0.06	\$0.22	\$0.75	\$0.58	\$0.00	\$0.34
GI048	\$0.08	\$0.11	\$0.05	\$0.10	\$0.08	\$0.41	\$0.42	\$0.00	\$0.16
GI049	\$0.08	\$0.14	\$0.02	\$0.23	\$0.06	\$0.53	\$0.25	\$0.21	\$0.00
Average	\$0.12	\$0.15	\$0.04	\$0.13	\$0.10	\$0.53	\$0.38	\$0.09	\$0.11
Top 25%	\$0.09	\$0.14	\$0.04	\$0.10	\$0.06	\$0.44	\$0.38	\$0.10	\$0.15

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Total feed costs	Total variable costs
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
GI004	\$0.11	\$0.16	\$0.01	\$0.00	\$1.27	\$0.00	\$1.97	\$2.44
GI005	\$0.08	\$0.05	\$0.10	\$0.13	\$1.21	\$0.00	\$2.08	\$2.62
GI011	\$0.11	\$0.02	\$0.01	\$0.26	\$1.85	\$0.00	\$2.87	\$3.21
GI012	\$0.09	\$0.06	\$0.09	\$0.00	\$1.02	\$0.00	\$1.84	\$2.26
GI017	\$0.07	\$0.03	\$0.00	\$0.96	\$1.17	\$0.00	\$2.50	\$2.98
GI020	\$0.11	\$0.13	\$0.02	\$0.21	\$0.75	\$0.01	\$2.25	\$2.65
GI021	\$0.18	\$0.15	\$0.05	\$0.00	\$1.50	\$0.00	\$2.24	\$2.95
GI022	\$0.16	\$0.18	\$0.03	\$0.00	\$1.37	\$0.00	\$1.98	\$2.57
GI025	\$0.09	\$0.19	\$0.02	\$0.23	\$0.98	\$0.07	\$2.29	\$2.70
GI028	\$0.10	\$0.08	\$0.01	\$0.76	\$1.69	\$0.00	\$3.28	\$3.82
GI031	\$0.05	\$0.02	\$0.01	\$0.18	\$1.96	\$0.37	\$2.98	\$3.78
GI032	\$0.15	\$0.16	\$0.00	\$0.14	\$1.33	\$0.00	\$2.59	\$3.12
GI035	\$0.20	\$0.07	\$0.00	\$0.10	\$1.85	\$0.00	\$3.45	\$4.40
GI037	\$0.11	\$0.05	\$0.00	\$0.13	\$1.02	\$0.00	\$1.90	\$2.50
GI039	\$0.06	\$0.15	\$0.00	\$0.11	\$1.34	\$0.03	\$2.34	\$2.81
GI040	\$0.05	\$0.00	\$0.04	\$0.04	\$2.13	\$0.00	\$2.53	\$3.43
GI041	\$0.06	\$0.00	\$0.01	\$0.12	\$1.48	\$0.00	\$2.00	\$2.51
GI042	\$0.07	\$0.02	\$0.01	\$0.26	\$0.18	\$0.00	\$1.42	\$1.81
GI043	\$0.10	\$0.05	\$0.00	\$0.00	\$1.23	\$0.11	\$2.26	\$2.50
GI044	\$0.08	\$0.01	\$0.00	\$0.00	\$1.32	\$0.00	\$1.60	\$2.01
GI045	\$0.16	\$0.03	\$0.14	\$0.14	\$1.12	\$0.00	\$2.08	\$2.66
GI046	\$0.10	\$0.07	\$0.10	\$0.14	\$1.49	\$0.01	\$2.47	\$2.86
GI047	\$0.07	\$0.01	\$0.13	\$0.09	\$1.24	\$0.00	\$2.47	\$3.22
GI048	\$0.08	\$0.11	\$0.08	\$0.14	\$1.15	\$0.00	\$2.14	\$2.55
GI049	\$0.03	\$0.01	\$0.04	\$0.05	\$1.47	\$0.21	\$2.27	\$2.80
Average	\$0.10	\$0.07	\$0.04	\$0.17	\$1.33	\$0.03	\$2.31	\$2.85
Top 25%	\$0.10	\$0.08	\$0.04	\$0.12	\$1.18	\$0.02	\$2.18	\$2.61

TABLE C5

Overhead costs - Gippsland

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
GI004	\$0.07	\$0.03	\$0.07	\$0.26	\$0.03	\$0.12	\$0.00	\$0.58	\$0.17	\$2.64	\$3.40
GI005	\$0.10	\$0.01	\$0.09	\$0.09	\$0.03	\$0.17	\$0.00	\$0.50	\$0.11	\$2.41	\$3.02
GI011	\$0.04	\$0.02	\$0.05	\$0.34	\$0.01	\$0.11	\$0.10	\$0.68	\$0.30	\$0.81	\$1.78
GI012	\$0.07	\$0.03	\$0.04	\$0.40	\$0.00	\$0.13	\$0.06	\$0.73	\$0.35	\$1.73	\$2.81
GI017	\$0.04	\$0.03	\$0.05	\$0.36	\$0.00	\$0.04	\$0.87	\$1.40	\$0.30	\$1.38	\$3.08
GI020	\$0.04	\$0.01	\$0.01	\$0.23	\$0.00	\$0.06	\$0.47	\$0.83	\$0.15	\$0.57	\$1.55
GI021	\$0.07	\$0.01	\$0.06	\$0.24	\$0.00	\$0.10	\$0.68	\$1.17	\$0.19	\$0.61	\$1.96
GI022	\$0.12	\$0.00	\$0.08	\$0.78	\$0.00	\$0.11	\$0.68	\$1.78	\$0.15	\$0.34	\$2.26
GI025	\$0.06	\$0.00	\$0.11	\$0.32	\$0.00	\$0.06	\$0.12	\$0.68	\$0.20	\$1.16	\$2.03
GI028	\$0.06	\$0.02	\$0.08	\$0.16	\$0.01	\$0.08	\$0.43	\$0.83	\$0.07	\$0.82	\$1.72
GI031	\$0.03	\$0.00	\$0.04	\$0.08	\$0.00	\$0.15	\$1.18	\$1.47	\$0.09	\$0.00	\$1.56
GI032	\$0.06	\$0.06	\$0.02	\$0.56	\$0.01	\$0.06	\$0.43	\$1.21	\$0.38	\$1.11	\$2.70
GI035	\$0.11	\$0.06	\$0.11	\$0.89	\$0.03	\$0.08	\$0.45	\$1.73	\$0.55	\$2.87	\$5.15
GI037	\$0.03	\$0.01	\$0.05	\$0.45	\$0.01	\$0.12	\$0.63	\$1.30	\$0.20	\$0.51	\$2.01
GI039	\$0.05	\$0.02	\$0.02	\$0.16	\$0.00	\$0.08	\$0.12	\$0.46	\$0.08	\$0.94	\$1.49
GI040	\$0.08	\$0.00	\$0.18	\$0.27	\$0.01	\$0.12	\$0.67	\$1.32	\$0.27	\$0.61	\$2.19
GI041	\$0.06	\$0.01	\$0.05	\$0.39	\$0.01	\$0.11	\$0.32	\$0.93	\$0.12	\$0.61	\$1.66
GI042	\$0.04	\$0.01	\$0.06	\$0.83	\$0.01	\$0.09	\$0.41	\$1.44	\$0.25	\$0.92	\$2.61
GI043	\$0.05	\$0.03	\$0.04	\$0.16	\$0.06	\$0.09	\$0.50	\$0.92	\$0.18	\$0.87	\$1.97
GI044	\$0.33	\$0.01	\$0.05	\$0.05	\$0.00	\$0.04	\$0.54	\$1.03	\$0.15	\$1.30	\$2.48
GI045	\$0.02	\$0.01	\$0.01	\$0.37	\$0.00	\$0.18	\$1.01	\$1.60	\$0.15	\$0.00	\$1.75
GI046	\$0.06	\$0.01	\$0.01	\$0.45	\$0.01	\$0.18	\$0.23	\$0.94	\$0.14	\$0.88	\$1.96
GI047	\$0.06	\$0.01	\$0.03	\$0.32	\$0.00	\$0.11	\$0.25	\$0.77	\$0.21	\$1.05	\$2.03
GI048	\$0.05	\$0.01	\$0.05	\$0.32	\$0.00	\$0.05	\$0.50	\$0.98	\$0.10	\$0.57	\$1.65
GI049	\$0.04	\$0.02	\$0.12	\$0.47	\$0.01	\$0.22	\$1.04	\$1.91	\$0.12	\$0.06	\$2.09
Average	\$0.07	\$0.02	\$0.06	\$0.36	\$0.01	\$0.11	\$0.47	\$1.09	\$0.20	\$0.99	\$2.28
Top 25%	\$0.04	\$0.01	\$0.03	\$0.27	\$0.01	\$0.09	\$0.49	\$0.95	\$0.13	\$0.59	\$1.68

TABLE C6

Variable costs % - Gippsland

Percentage of total farm costs

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
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
GI004	1.2%	2.9%	0.3%	2.3%	1.4%	8.1%	5.3%	0.0%	2.0%
GI005	2.0%	1.0%	0.2%	3.9%	2.4%	9.5%	4.2%	0.0%	4.8%
GI011	0.8%	0.7%	0.5%	2.3%	2.6%	6.9%	12.4%	0.0%	0.0%
GI012	1.6%	2.5%	0.7%	2.1%	1.5%	8.3%	9.9%	1.0%	0.6%
GI017	1.6%	1.8%	0.1%	2.3%	2.1%	7.8%	3.6%	0.3%	0.5%
GI020	1.6%	2.3%	1.5%	3.2%	0.8%	9.4%	10.5%	8.4%	5.4%
GI021	7.1%	2.4%	0.6%	2.0%	2.4%	14.4%	4.2%	0.0%	3.1%
GI022	2.3%	5.3%	1.2%	2.4%	0.9%	12.1%	4.7%	0.0%	0.3%
GI025	0.0%	1.4%	0.7%	3.6%	2.9%	8.6%	12.6%	0.0%	2.6%
GI028	2.5%	2.5%	0.6%	2.4%	1.6%	9.6%	10.0%	0.0%	1.6%
GI031	3.9%	4.8%	1.0%	2.8%	2.4%	14.9%	2.1%	4.9%	0.3%
GI032	2.1%	2.8%	1.7%	1.8%	0.8%	9.2%	13.6%	0.0%	0.2%
GI035	1.8%	3.1%	0.1%	2.7%	2.2%	9.9%	5.1%	6.7%	0.4%
GI037	2.8%	4.5%	2.6%	1.7%	1.7%	13.4%	11.6%	0.0%	1.3%
GI039	1.9%	4.2%	0.6%	2.2%	2.1%	11.0%	12.9%	0.1%	2.0%
GI040	6.1%	2.0%	3.0%	2.8%	2.2%	16.0%	2.0%	0.3%	2.5%
GI041	3.5%	6.0%	0.1%	1.9%	0.7%	12.3%	4.8%	0.0%	3.0%
GI042	1.9%	2.4%	0.1%	1.6%	2.8%	8.8%	9.0%	7.8%	2.7%
GI043	1.9%	1.7%	0.2%	1.0%	0.6%	5.4%	8.9%	5.9%	2.7%
GI044	3.3%	1.6%	0.2%	3.2%	0.9%	9.2%	1.2%	0.0%	3.2%
GI045	2.4%	3.6%	1.4%	3.3%	2.5%	13.2%	6.6%	0.0%	4.3%
GI046	2.4%	2.7%	0.6%	1.6%	0.8%	8.2%	8.0%	0.1%	3.5%
GI047	2.0%	6.2%	0.8%	1.1%	4.3%	14.4%	11.0%	0.0%	6.5%
GI048	1.8%	2.6%	1.1%	2.3%	1.9%	9.7%	10.1%	0.0%	3.9%
GI049	1.7%	2.9%	0.4%	4.6%	1.2%	10.8%	5.2%	4.3%	0.0%
Average	2.4%	2.9%	0.8%	2.5%	1.8%	10.4%	7.6%	1.6%	2.3%
Top 25%	2.2%	3.4%	0.8%	2.3%	1.4%	10.2%	9.0%	2.4%	3.5%

TABLE C6

Variable costs % - Gippsland

Percentage of total farm costs (Continued)

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Total feed costs	Total variable costs
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
GI004	1.8%	2.7%	0.1%	0.0%	21.8%	0.0%	33.8%	41.8%
GI005	1.5%	0.8%	1.8%	2.3%	21.5%	0.0%	36.9%	46.4%
GI011	2.3%	0.4%	0.1%	5.2%	37.1%	0.0%	57.4%	64.3%
GI012	1.8%	1.3%	1.7%	0.0%	20.1%	0.0%	36.3%	44.6%
GI017	1.1%	0.4%	0.0%	15.9%	19.4%	0.0%	41.3%	49.2%
GI020	2.7%	3.2%	0.5%	5.0%	17.8%	0.3%	53.7%	63.1%
GI021	3.7%	3.0%	1.0%	0.0%	30.6%	0.0%	45.6%	60.0%
GI022	3.3%	3.7%	0.6%	0.0%	28.5%	0.0%	41.1%	53.2%
GI025	2.0%	4.0%	0.4%	4.8%	20.7%	1.4%	48.5%	57.0%
GI028	1.8%	1.5%	0.2%	13.7%	30.6%	0.0%	59.3%	69.0%
GI031	1.0%	0.4%	0.2%	3.3%	36.8%	7.0%	55.9%	70.8%
GI032	2.6%	2.8%	0.0%	2.5%	22.8%	0.0%	44.5%	53.7%
GI035	2.1%	0.7%	0.0%	1.1%	19.4%	0.0%	36.2%	46.1%
GI037	2.5%	1.2%	0.0%	2.9%	22.6%	0.0%	42.1%	55.5%
GI039	1.5%	3.5%	0.0%	2.6%	31.1%	0.7%	54.4%	65.4%
GI040	0.9%	0.0%	0.7%	0.8%	37.9%	0.0%	45.0%	61.0%
GI041	1.3%	0.0%	0.4%	2.9%	35.6%	0.0%	48.0%	60.2%
GI042	1.7%	0.5%	0.1%	5.9%	4.1%	0.0%	32.0%	40.9%
GI043	2.3%	1.0%	0.0%	0.0%	27.4%	2.4%	50.5%	55.9%
GI044	1.8%	0.1%	0.0%	0.0%	29.3%	0.0%	35.6%	44.8%
GI045	3.7%	0.7%	3.3%	3.1%	25.4%	0.0%	47.1%	60.4%
GI046	2.1%	1.5%	2.1%	3.0%	31.0%	0.1%	51.2%	59.4%
GI047	1.4%	0.2%	2.5%	1.7%	23.7%	0.0%	47.0%	61.3%
GI048	1.9%	2.5%	2.0%	3.3%	27.4%	0.0%	51.0%	60.8%
GI049	0.5%	0.3%	0.8%	1.0%	30.0%	4.4%	46.5%	57.3%
Average	2.0%	1.5%	0.7%	3.2%	26.1%	0.7%	45.6%	56.1%
Top 25%	2.2%	1.8%	1.0%	2.8%	27.4%	0.6%	50.8%	61.0%

TABLE C7

Overhead costs % - Gippsland

Percentage of total farm costs

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
GI004	1.1%	0.6%	1.3%	4.4%	0.5%	2.1%	0.0%	10.0%	3.0%	45.2%	58.2%
GI005	1.8%	0.2%	1.6%	1.7%	0.5%	3.1%	0.0%	8.8%	2.0%	42.7%	53.6%
GI011	0.9%	0.5%	1.1%	6.7%	0.1%	2.3%	2.0%	13.6%	5.9%	16.2%	35.7%
GI012	1.4%	0.6%	0.8%	7.8%	0.1%	2.6%	1.2%	14.5%	6.9%	34.0%	55.4%
GI017	0.7%	0.5%	0.8%	6.0%	0.0%	0.7%	14.4%	23.1%	4.9%	22.9%	50.8%
GI020	0.9%	0.1%	0.3%	5.6%	0.0%	1.5%	11.3%	19.7%	3.5%	13.6%	36.9%
GI021	1.4%	0.1%	1.3%	5.0%	0.0%	2.0%	13.9%	23.7%	3.9%	12.4%	40.0%
GI022	2.5%	0.1%	1.7%	16.2%	0.0%	2.3%	14.0%	36.8%	3.1%	7.0%	46.8%
GI025	1.3%	0.0%	2.2%	6.8%	0.0%	1.3%	2.6%	14.3%	4.2%	24.5%	43.0%
GI028	1.0%	0.4%	1.4%	2.9%	0.1%	1.4%	7.8%	15.0%	1.2%	14.8%	31.0%
GI031	0.5%	0.0%	0.7%	1.5%	0.0%	2.8%	22.1%	27.6%	1.6%	0.0%	29.2%
GI032	1.1%	1.0%	0.4%	9.6%	0.1%	1.1%	7.5%	20.7%	6.5%	19.1%	46.3%
GI035	1.2%	0.7%	1.1%	9.3%	0.3%	0.9%	4.7%	18.2%	5.8%	30.0%	53.9%
GI037	0.7%	0.3%	1.1%	10.0%	0.1%	2.7%	14.0%	28.9%	4.3%	11.3%	44.5%
GI039	1.2%	0.5%	0.5%	3.8%	0.0%	1.9%	2.9%	10.7%	2.0%	21.9%	34.6%
GI040	1.4%	0.0%	3.2%	4.8%	0.1%	2.0%	11.9%	23.4%	4.8%	10.8%	39.0%
GI041	1.4%	0.1%	1.2%	9.3%	0.1%	2.6%	7.6%	22.4%	2.8%	14.6%	39.8%
GI042	0.9%	0.3%	1.3%	18.8%	0.2%	1.9%	9.2%	32.6%	5.6%	20.9%	59.1%
GI043	1.0%	0.6%	0.8%	3.7%	1.3%	1.9%	11.2%	20.6%	4.0%	19.5%	44.1%
GI044	7.4%	0.3%	1.2%	1.0%	0.1%	0.9%	12.1%	23.0%	3.3%	28.9%	55.2%
GI045	0.3%	0.3%	0.3%	8.4%	0.0%	4.1%	22.8%	36.3%	3.4%	0.0%	39.6%
GI046	1.2%	0.1%	0.1%	9.4%	0.3%	3.7%	4.7%	19.5%	3.0%	18.2%	40.6%
GI047	1.1%	0.1%	0.5%	6.1%	0.0%	2.0%	4.8%	14.7%	4.0%	20.0%	38.7%
GI048	1.2%	0.2%	1.1%	7.7%	0.0%	1.2%	11.8%	23.3%	2.4%	13.5%	39.2%
GI049	0.7%	0.4%	2.5%	9.5%	0.1%	4.4%	21.3%	39.0%	2.4%	1.3%	42.7%
Average	1.4%	0.3%	1.1%	7.0%	0.2%	2.1%	9.4%	21.6%	3.8%	18.5%	43.9%
Top 25%	1.0%	0.3%	0.7%	6.4%	0.2%	2.2%	11.3%	22.2%	3.0%	13.9%	39.0%

TABLE C8

Capital structure - Gippsland

	FARM ASSETS				OTHER FARM ASSETS (PER USABLE HECTARE)					LIABILITIES		EQUITY	
	Land value	Land value	Permanent water value	Permanent water value	Plant and equipment	Livestock	Hay and grain	Other assets	Total assets	Liabilities	Liabilities	Equity	Average equity
	\$/HA	\$/COW	\$/HA	\$/COW	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/COW	\$/HA	%
Average	\$15,925	\$9,033	\$1,392	\$598	\$1,386	\$2,497	\$172	\$294	\$18,873	\$6,319	\$3,669	\$12,554	67%
Top 25%	\$11,034	\$5,544	\$1,610	\$879	\$1,026	\$2,551	\$191	\$561	\$15,067	\$3,324	\$1,898	\$11,743	78%

TABLE C9

Historical data - Gippsland

Average farm income, costs and profit per kilogram of milk solids

	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	\$5.24	\$5.16	\$6.06	\$0.23	\$0.27	\$0.15	\$0.17	\$2.31	\$2.71	\$2.72	\$3.20
2007-08	\$6.62	\$7.44	\$7.58	\$8.52	\$0.27	\$0.31	\$0.13	\$0.15	\$2.80	\$3.15	\$3.30	\$3.70
2008-09	\$5.32	\$5.89	\$6.05	\$6.70	\$0.25	\$0.28	\$0.15	\$0.17	\$2.61	\$2.88	\$3.01	\$3.34
2009-10	\$4.38	\$4.71	\$5.07	\$5.44	\$0.22	\$0.23	\$0.17	\$0.18	\$1.95	\$2.09	\$2.33	\$2.50
2010-11	\$5.59	\$5.79	\$6.34	\$6.57	\$0.28	\$0.29	\$0.19	\$0.19	\$2.06	\$2.13	\$2.52	\$2.61
2011-12	\$5.37	\$5.50	\$5.89	\$6.03	\$0.29	\$0.29	\$0.18	\$0.19	\$2.12	\$2.17	\$2.59	\$2.65
2012-13	\$4.75	\$4.75	\$4.99	\$4.99	\$0.31	\$0.31	\$0.22	\$0.22	\$2.31	\$2.31	\$2.85	\$2.85
Average		\$5.62		\$6.33		\$0.28		\$0.18		\$2.49		\$2.98

	OVERHEAD COSTS						PROFIT							
	Cash overhead costs		Non-cash overhead costs		Total overhead costs		Earnings before interest & tax		Interest & lease charges		Net farm income		RETURN ON ASSETS	RETURN ON EQUITY
	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	\$0.69	\$0.81	\$1.44	\$1.69	\$2.13	\$2.50	\$0.31	\$0.36	\$0.57	\$0.67	-\$0.26	-\$0.30	0.8%	-2.1%
2007-08	\$0.80	\$0.89	\$0.90	\$1.01	\$1.59	\$1.79	\$2.69	\$3.03	\$0.61	\$0.69	\$2.08	\$2.34	9.7%	14.9%
2008-09	\$0.78	\$0.87	\$0.93	\$1.03	\$1.71	\$1.89	\$1.28	\$1.41	\$0.51	\$0.57	\$0.76	\$0.85	4.0%	3.4%
2009-10	\$0.80	\$0.86	\$1.09	\$1.17	\$1.90	\$2.04	\$0.80	\$0.85	\$0.70	\$0.75	\$0.10	\$0.11	2.6%	0.7%
2010-11	\$0.93	\$0.97	\$0.93	\$0.96	\$1.86	\$1.93	\$1.96	\$2.03	\$0.67	\$0.69	\$1.29	\$1.34	6.1%	9.9%
2011-12	\$0.95	\$0.98	\$1.05	\$1.08	\$2.01	\$2.05	\$1.30	\$1.33	\$0.65	\$0.67	\$0.64	\$0.66	4.4%	5.1%
2012-13	\$1.09	\$1.09	\$1.19	\$1.19	\$2.28	\$2.28	-\$0.14	-\$0.14	\$0.73	\$0.73	-\$0.86	-\$0.86	-0.2%	-6.2%
Average		\$0.92		\$1.16		\$2.07		\$1.27		\$0.68		\$0.59	3.9%	3.7%

Note: 'Real' dollar values are the nominal values converted to 2012/13 dollar equivalents by the consumer price index (CPI) to allow for inflation

TABLE C10

Historical data - Gippsland

Average farm physical information

	Total useable area	Milking area	Water used	Number of milking cows	Milking cows per useable area	Milk sold	Milk sold	Estimated grazed pasture*	Estimated conserved feed*	Home grown feed as % of ME consumed	Concentrate price	
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	T DM/ HA	T DM/ HA	% OF ME	NOMINAL (\$/ T DM)	REAL (\$/ T DM)
2006-07	191	187	668	282	1.4	405	579	5.6	1.2	71%	\$339	\$398
2007-08	181	174	838	289	1.6	464	741	7.2	1.1	74%	\$451	\$507
2008-09	182	172	814	276	1.6	483	803	7.2	0.8	71%	\$385	\$426
2009-10	172	160	1,022	268	1.7	472	792	7.6	0.9	73%	\$273	\$293
2010-11	190	187	1,123	285	1.6	494	811	7.1	1.7	69%	\$315	\$326
2011-12	189	126	1,182	291	1.7	501	843	7.4	0.9	62%	\$311	\$318
2012-13	194	134	906	299	1.7	462	781	6.9	0.6	62%	\$356	\$356
Average	185	163	936	284	1.6	469	764	7.0	1.0	69%		\$375

* 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

TABLE D1
Main Financial Indicators - Statewide

Farm number	Milk income (net)	All other income	Gross farm income	Total variable costs	Total overhead costs	Cost structure (variable costs / total costs)	Earnings Before Interest & Tax	Return on assets (excl. capital apprec.)	Interest & lease charges	Debt servicing ratio	Net farm income	Return on equity	Return on equity (incl. capital apprec.)
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	%	\$/ KG MS	%	\$/ KG MS	% OF INCOME	\$/ KG MS	%	%
Average	\$4.90	\$0.35	\$5.25	\$3.08	\$2.08	60%	\$0.09	0.7%	\$0.70	13%	-\$0.60	-7.3%	-8.3%
Top 25%	\$5.14	\$0.60	\$5.74	\$2.92	\$1.73	63%	\$1.10	5.3%	\$0.54	9%	\$0.56	5.2%	3.6%

TABLE D2
Physical Information - Statewide

Farm number	Total usable area	Milking area	Water used	Number of milking cows	Milking cows per usable area	Milk sold	Milk sold	Fat	Protein
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	%	%
Average	232	154	818	323	1.6	495	781	4.2%	3.4%
Top 25%	266	174	889	391	1.6	541	893	4.2%	3.4%

Farm number	Estimated grazed pasture*	Estimated conserved feed*	Home grown 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	HD/ FTE	KG MS/ FTE
Average	6.2	1.2	58%	99.3	15.8	22.7	14.8	99	49,558
Top 25%	7.5	1.4	61%	122.0	23.6	22.1	15.6	113	61,195

*on milking area

TABLE D3
Purchased feed - Statewide

Farm number	Purchased feed per milker	Concentrate price	Silage price	Hay price	Other feed price	Average purchased feed price	Average ME of purchased feed	Average purchased feed price	Percent of total energy imported
	T DM/HD	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	\$/ T DM	MJ ME/ KG	C/ MJ	% OF ME
Average	2.2	\$336	\$128	\$226	\$220	\$309	12.0	2.7	42%
Top 25%	2.2	\$318	-	-	-	\$296	12.1	2.5	39%

TABLE D4
Variable costs - Statewide

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
Average	\$0.11	\$0.13	\$0.03	\$0.13	\$0.10	\$0.49	\$0.33	\$0.15	\$0.13
Top 25%	\$0.09	\$0.13	\$0.03	\$0.12	\$0.07	\$0.44	\$0.29	\$0.22	\$0.15

Farm number	Fuel and oil	Pasture improvement/ cropping	Other feed costs	Fodder purchases	Grain/ concentrates/ other	Agistment costs	Total feed costs	Total variable costs
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
Average	\$0.11	\$0.12	\$0.05	\$0.29	\$1.35	\$0.06	\$2.59	\$3.08
Top 25%	\$0.11	\$0.13	\$0.06	\$0.26	\$1.18	\$0.08	\$2.48	\$2.92

TABLE D5

Overhead costs - Statewide

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS	\$/ KG MS
Average	\$0.05	\$0.02	\$0.06	\$0.31	\$0.01	\$0.11	\$0.43	\$0.99	\$0.19	\$0.90	\$2.08
Top 25%	\$0.04	\$0.02	\$0.05	\$0.28	\$0.01	\$0.11	\$0.44	\$0.96	\$0.17	\$0.59	\$1.73

TABLE D6

Variable costs % - Statewide

Percentage of total farm costs

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
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
Average	2.1%	2.6%	0.6%	2.4%	1.9%	9.6%	6.5%	2.1%	2.7%
Top 25%	2.0%	2.8%	0.7%	2.6%	1.5%	9.6%	6.3%	3.1%	3.2%

Farm number	Fuel and oil	Pasture improvement/cropping	Other feed costs	Fodder purchases	Grain/concentrates/other	Agistment costs	Total feed costs	Total variable costs
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
Average	2.1%	2.3%	0.9%	5.5%	26.4%	1.1%	50.4%	60.0%
Top 25%	2.3%	2.7%	1.3%	5.5%	25.5%	1.7%	53.1%	62.7%

TABLE D7

Overhead costs - Statewide

Percentage of total farm costs

Farm number	Rates	Registration and insurance	Farm insurance	Repairs and maintenance	Bank charges	Other overheads	Employed labour	Total cash overheads	Depreciation	Imputed owner/operator & family labour	Total overheads
	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS	% OF COSTS
Average	1.0%	0.4%	1.1%	6.0%	0.2%	2.2%	8.5%	19.4%	3.7%	16.9%	40.0%
Top 25%	0.9%	0.4%	1.1%	6.0%	0.3%	2.4%	9.5%	20.6%	3.7%	13.0%	37.3%

TABLE D8

Capital structure - Statewide

	FARM ASSETS				OTHER FARM ASSETS (PER USABLE HECTARE)					LIABILITIES		EQUITY	
	Land value	Land value	Permanent water value	Permanent water value	Plant and equipment	Livestock	Hay and grain	Other assets	Total assets	Liabilities	Liabilities	Equity	Average equity
	\$/HA	\$/COW	\$/HA	\$/COW	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/HA	\$/COW	\$/HA	%
Average	\$11,609	\$7,173	\$1,370	\$699	\$1,372	\$2,348	\$174	\$203	\$15,516	\$6,066	\$3,952	\$9,450	61%
Top 25%	\$9,545	\$6,612	\$1,765	\$1,031	\$1,342	\$2,418	\$283	\$354	\$15,784	\$5,442	\$3,649	\$10,341	65%

TABLE D9

Historical data - State

Average farm income, costs and profit per kilogram of milk solids

	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	\$5.24	\$5.23	\$6.14	\$0.21	\$0.24	\$0.15	\$0.17	\$2.83	\$3.33	\$3.23	\$3.79
2007-08	\$6.57	\$7.38	\$7.80	\$8.77	\$0.24	\$0.27	\$0.14	\$0.16	\$3.39	\$3.81	\$3.79	\$4.26
2008-09	\$5.35	\$5.92	\$6.08	\$6.73	\$0.23	\$0.25	\$0.15	\$0.16	\$2.85	\$3.16	\$3.23	\$3.57
2009-10	\$4.46	\$4.79	\$5.17	\$5.55	\$0.22	\$0.23	\$0.16	\$0.17	\$2.20	\$2.36	\$2.58	\$2.77
2010-11	\$5.64	\$5.84	\$6.47	\$6.70	\$0.26	\$0.27	\$0.18	\$0.19	\$2.27	\$2.35	\$2.71	\$2.81
2011-12	\$5.52	\$5.65	\$5.97	\$6.12	\$0.26	\$0.26	\$0.19	\$0.20	\$2.33	\$2.38	\$2.78	\$2.84
2012-13	\$4.90	\$4.90	\$5.25	\$5.25	\$0.27	\$0.27	\$0.22	\$0.22	\$2.59	\$2.59	\$3.08	\$3.08
Average		\$5.67		\$6.46		\$0.26		\$0.18		\$2.85		\$3.30

	OVERHEAD COSTS						PROFIT							
	Cash overhead costs		Non-cash overhead costs		Total overhead costs		Earnings before interest & tax		Interest & lease charges		Net farm income		RETURN ON ASSETS	RETURN ON EQUITY
	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	\$0.77	\$0.90	\$1.17	\$1.37	\$1.94	\$2.27	\$0.06	\$0.07	\$0.58	\$0.68	-\$0.52	-\$0.61	0.1%	-4.1%
2007-08	\$0.84	\$0.94	\$0.88	\$0.99	\$1.62	\$1.83	\$2.39	\$2.68	\$0.63	\$0.71	\$1.75	\$1.97	9.8%	12.4%
2008-09	\$0.82	\$0.91	\$0.88	\$0.97	\$1.70	\$1.88	\$1.08	\$1.20	\$0.59	\$0.65	\$0.49	\$0.55	3.8%	2.2%
2009-10	\$0.84	\$0.90	\$1.05	\$1.12	\$1.89	\$2.03	\$0.65	\$0.70	\$0.68	\$0.73	-\$0.03	-\$0.03	2.2%	-0.3%
2010-11	\$1.00	\$1.04	\$1.02	\$1.06	\$2.02	\$2.09	\$1.73	\$1.79	\$0.76	\$0.78	\$0.98	\$1.01	6.2%	7.8%
2011-12	\$0.99	\$1.01	\$1.07	\$1.09	\$2.06	\$2.11	\$1.14	\$1.17	\$0.71	\$0.73	\$0.43	\$0.44	5.0%	4.4%
2012-13	\$0.99	\$0.99	\$1.09	\$1.09	\$2.08	\$2.08	\$0.09	\$0.09	\$0.70	\$0.70	-\$0.60	-\$0.60	0.7%	-7.3%
Average		\$0.96		\$1.10		\$2.04		\$1.10		\$0.71		\$0.39	4.0%	2.2%

Note: 'Real' dollar values are the nominal values converted to 2012-13 dollar equivalents by the consumer price index (CPI) to allow for inflation. All historic data is sourced from the Dairy Industry Farm Monitor Project

TABLE D10

Historical data - State

Average farm physical information

	Total useable area	Milking area	Water used	Number of milking cows	Milking cows per useable area	Milk sold	Milk sold	Estimated grazed pasture*	Estimated conserved feed*	Home grown feed as % of ME consumed	Concentrate price	
	HA	HA	MM/HA	HD	HD/HA	KG MS/ COW	KG MS/ HA	T DM/ HA	T DM/ HA	% OF ME	NOMINAL (\$/T DM)	REAL (\$/ T DM)
2006-07	271	268	610	345	1.4	447	636	4.9	1.0	60%	\$329	\$386
2007-08	265	250	683	332	1.3	489	612	4.8	1.0	64%	\$425	\$477
2008-09	256	237	691	330	1.5	498	741	5.6	0.9	62%	\$375	\$415
2009-10	232	219	903	307	1.5	496	752	6.2	0.8	66%	\$273	\$293
2010-11	236	227	1,104	305	1.4	493	719	5.8	1.9	65%	\$301	\$312
2011-12	237	160	967	328	1.6	508	800	6.2	1.0	57%	\$296	\$303
2012-13	232	154	818	323	1.6	495	781	6.2	1.2	58%	\$336	\$336
Average	247	216	825	324	1.5	490	720	5.7	1.1	62%		\$360

* 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

All other income

Income to the farm from all sources except milk. Includes livestock trading profit, feed inventory change, dividends, interest payments received, rents from cottages, rebates and grants.

Annual hours

Total hours worked by a person during the given twelve month period.

Appreciation

An increase in the value of an asset in the market place. Often only applicable to land value.

Asset

Anything managed by the farm, whether it is owned or not. Assets include land and buildings, plant and machinery, fixtures and fittings, trading stock, investments, debtors, and cash.

Break-even price required

Cost of production minus income only sourced from the main enterprise output. Allows for direct comparison with price received of main output.

Cash overheads

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

Cost of production

Variable costs plus overhead costs. Usually expressed in terms of the main enterprise output ie kilograms of milk solids.

Cost structure

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

Debt servicing ratio

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

Depreciation

Decrease in value over time of capital asset, usually as a result of using the asset. Depreciation is not cash, but reduces the book value of the asset and is therefore a cost.

Earnings before interest and tax (EBIT)

Gross income minus total variable costs, total overhead costs.

EBIT %

The ratio of EBIT compared to gross income. Indicates the percentage of each dollar of gross income that is retained as EBIT.

Employed labour cost

Cash cost of any paid employee, including on-costs such as superannuation, workcover etc.

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 managed. The proportion of the total assets owned by the business.

Farm income

See gross farm income.

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.

Finance costs

Total interest plus total lease costs paid.

Full time equivalent (FTE)

Standardised people unit. Equal to 2400 hours a year. Calculated as 50 hours a week, 48 weeks a year.

Grazed area

Total usable area minus any area used only for fodder production during the year.

Grazed pasture

Calculated using the energetics method. Grazed pasture is calculated as the gap between total energy required by livestock over the year and amount of energy available from other sources (hay, silage, grain and concentrates).

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

Total energy available is the sum of energy available 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 and feed trading gains and other income such as income from grants and rebates.

Gross margin

Gross income minus total variable costs.

Herd costs

Cost of 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 cost of owner/operator, family and sharefarmer time in the business, taken as the greater of \$400 per cow less employed labour or \$25 per hour.

Liability

Money owed to someone else, eg family or an institute such as a bank.

Metabolisable energy

Energy available to livestock in feed, expressed in megajoules per kilogram of dry matter (MJ/kg DM).

Milk income

Income through the sales of milk.

Milking area

Total usable area minus outblocks or run-off areas.

**Net farm income
(Previously reported as business profit)**

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

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 external sources. Includes dividends, interest payments received, rents from cottage, rebates and grants.

Overhead costs

All fixed costs incurred by the farm business e.g. rates, administration, depreciation, insurance, imputed labour. Interest, leases, capital expenditure, principal repayments and tax are not included.

Labour cost

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

Labour efficiency

FTEs per cow and per kilogram of milk solid. Measures of productivity of the total labour resources in the business.

Labour resource

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

Livestock trading profit

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

Return on assets (RoA)

Earnings before interest and tax divided by the value of total assets under management.

Return on equity (RoE)

Net farm income divided by the value of total equity.

Shed costs

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

Total income

See gross farm income.

Total usable area

Total hectares managed minus that area of land which is of little or no value for livestock production eg house and shed area.

Total water used

Total rainfall plus average irrigation water used expressed as millimetres per hectare, where irrigation water is calculated as: (total megalitres of water used/total usable area) x 100.

Variable costs

All costs that vary with the size of production in the enterprise eg herd, shed and feed costs.

List of abbreviations

AI	Artificial insemination.
BPR	Break-even price required.
CH₄	Methane gas.
CO₂	Carbon dioxide gas.
CO₂-e	Carbon dioxide equivalent.
CoP	Cost of production.
DFMP	Dairy Farm Monitor Project.
DM	Dry matter of feed stuffs.
DEPI	Department of Environment and Primary Industries Victoria.
EBIT	Earnings before interest and tax.
FTE	Full time equivalent.
GWP	Global Warming Potential.
ha	Hectares.
hd	Head of cattle.
HRWS	High Reliability Water Shares.
kg	Kilograms.
LRWS	Low Reliability Water Shares.
ME	Metabolisable energy (MJ/kg).
MJ	Megajoules of energy.
mm	Millimetres. 1 mm is equivalent to 4 points or 1/25th of an inch of rainfall.
MS	Milk solids (proteins and fats).
N₂O	Nitrous oxide gas.
Q1	First quartile, i.e. the value of which one quarter, or 25%, of data in that range is less than.
Q3	Third quartile, i.e. the value of which one quarter, or 25%, of data in that range is greater than.
RoA	Return on assets.
RoE	Return on equity.
t	Tonne = 1,000 k.

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