

# Queensland Dairy Accounting Scheme Financial and production trends - 2004

## Central Queensland summary



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Queensland dairy accounting scheme (QDAS) collected the physical and financial data from 164 farms and includes data from all dairy regions in Queensland and Northern New South Wales.

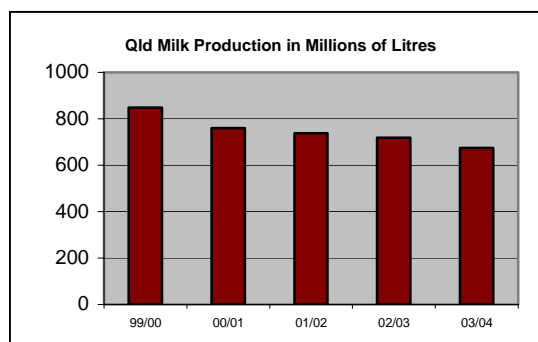
This report provides a summary of the data collected in 2003-04 and trends in indicators. It must be noted that participation in QDAS is voluntary and therefore results and trends will need to be interpreted carefully.

A copy of the **full QDAS report** can be found at [www.dairyinfo.com.au](http://www.dairyinfo.com.au)

For more information on QDAS contact Graeme Busby on 07 4688 1254

## Production from Queensland dairy farms

Dairy Australia's records show that Queensland's annual milk production declined to 674 million litres in 2003-04. The decline is predicted to continue with estimated annual production for 2004-05 likely to be 615 million litres. The number of dairy farms in Queensland has also decreased over the last four years from 1,545 to 970. However, there has been an increase in milk production at farm level by 6.7 percent per year, over the last four years. This has been achieved through farms increasing cow numbers and production per cow.



## Summary of the 2004 QDAS results

### Additional debt repayment capacity remains low

The average additional debt repayment capacity (ADC) for all QDAS farms was again negative (-\$6,609), which indicates that short term debt is probably being financed from off farm income, government payments, subsidies or transfers from other accounts. For the top 25 percent of farms surveyed, their ADC was a healthy \$56,005 indicating capacity to cover depreciation of equipment and have funds for re-investment.

### Milk production

Average production of all QDAS farms was 936,250 litres. This was produced from 175 cows milking 5,350 litres per cow.

### Variable costs down

QDAS farmers were able to produce their milk at a lower variable cost this year, down 2.2 cents per litre to 22.3 cents, largely due to the reduction in grain and concentrate prices. The average total cash cost of production was 37.4 cents per litre while the top 25% of farms produced milk for 33.4 cents per litre.

### Land values and debts rising

The average asset value for all QDAS farms increased by \$140,000 on the prior year. Debts also rose by \$341 per cow. The result was a slight drop in equity percentage to 80 percent.

## Central Queensland trends

The trends in the table below are the averages of farms with a minimum of four years past data.

	2000-2001	2001-2002	2002-2003	2003-2004
<b>Total milk income (c/L)</b>	35.3	37.2	40.2	42.0
<b>Average herd size</b>	116	116	140	147
<b>Production per cow (L)</b>	5,073	4,951	4,913	4,723
<b>Feed related costs (c/L)</b>	12.5	17.7	19.9	17.0
<b>Total variable costs (c/L)</b>	19.8	24.6	27.6	25.6
<b>Gross margin (c/L)</b>	7.8	6.3	12.6	16.3
<b>Equity* (%)</b>	69	67	69	72
<b>Return on assets (%)</b>	4.5	1.7	10.4	4.1
<b>Operating profit margin (%)</b>	17	6	13	15
<b>Dairy operating profit (\$/cow)</b>	304	111	257	297

## Drivers of farm production and profitability

### Increasing production per cow

The detailed operational costs obtained from farmers has provided information that consistently shows that as you improve a cow's diet, thereby utilising her genetic potential, you increase the margin over feed costs and the gross margin per cow and per farm. QDAS found that the group of surveyed farms who produced 6-7000 litres per cow had the highest margin over feed costs per cow at \$1,099, as well as highest gross margin. The group of farms over 7000 litres show drops in these indicators but the significance of this is inconclusive due the small number in this group.

Production group	<4000 L	4-5000 L	5-6000 L	6-7000 L	>7000 L
Margin over FRC (c/L)	17.2	17.5	17.7	17.2	13.8
Margin over FRC/cow (\$)	628	793	962	1,099	1,027
Gross margin/farm (\$)	60,988	89,139	127,823	142,142	118,705

### Increasing herd size

More cows, managed effectively, increase milk sales but does this lead to more profit? 2003-04 data shows that surveyed farms producing over two million litres had higher production per cow, and while the gross margin per cow tapers off, the gross margin per farm increases.

	<750 000 L	750 000 – 1.25mil L	1.25 – 2.0mil L	>2.0mil L
Herd Size	114	178	268	433
Production per cow (L)	4,731	5,338	5,801	5,849
Gross Margin/cow (\$)	562	621	672	641
Gross Margin/farm (\$)	64,761	111,198	180,728	278,324

### Optimising milk production from home grown feed

Past reports and research have shown that optimising utilisation of home grown feed can control feed related costs and improve gross margins. Farms with high paddock feed utilisation can also maintain acceptable individual cow production. 2003-04 data again shows that farms with low variable cost had the highest litres from home grown feeds. Furthermore, farms with the highest production from pastures had the highest dairy operating profit per cow.

### Strategic nitrogen fertiliser application

As nitrogen fertiliser use per cow increases we have higher production per cow, higher gross margins per farm and more milk produced from home grown feed. In high rainfall areas, farms using 150 units of nitrogen per cow had higher gross margins than farms using less nitrogen since this milk is produced from low cost pasture.

Units of N per cow (kg)	33 (Low)	84 (Medium)	150 (High)
Production per cow (L)	4,765	5,338	5,816
Gross margin per farm (\$)	90,601	95,711	141,300

### Increasing the stocking rate

QDAS data indicates producing larger volumes of milk per hectare by utilising higher stocking rates on the milking cows areas will improve farm gross margins significantly.

- In the high rainfall area, as stocking rate increases from 1.40 to 3.55 cows per hectare the milk produced increases from 6,968 litres to 19,208 litres per hectare. Farm gross margin rose from \$86,546 to \$136,945.

In the low rainfall areas, as stocking rate increases from 0.56 to 1.93 cows per hectare the milk produced increases from 2,814 litres to 10,941 litres per hectare. Farm gross margin rose from \$69,199 to \$95,907.

# Cash flow and profit indicators – Central Queensland

Queensland Dairy Accounting Scheme		Period ending 6/2004	
<b>Group cash gross margin</b>			
CQ Farms			

Income	Cents/litre	Dollars/cow	Total \$ earned	
Milk	39.5	1,824.7	288,772	
Milk bonuses/incentives/rebates/other	2.3	107.1	16,962	
<b>Milk income</b> (730665 l)	<b>41.8</b>	<b>1,931.9</b>	<b>305,734</b>	
Stock sales - dairy	3.8	176.0	27,865	
Stock sales - other	0.0	0.0	0	
Produce sales	0.0	3.5	564	
Other income	1.3	62.8	9,943	
<b>Non-milk income</b>	<b>5.2</b>	<b>242.4</b>	<b>38,373</b>	
<b>Total farm income</b>	<b>47.0</b>	<b>2,174.4</b>	<b>344,107</b>	

Production costs	Cents/litre	Dollars/cow	% Milk income	Total \$ spent
Purchased feeds	12.8	592.1	30.6	93,710
Fertiliser	1.2	55.5	2.8	8,796
Fuel & oil	0.9	44.5	2.3	7,053
Seed	0.4	19.1	0.9	3,036
Irrigation costs	0.7	32.5	1.6	5,143
Other feed costs	0.5	27.4	1.4	4,349
<b>Feed related costs</b>	<b>16.7</b>	<b>771.4</b>	<b>39.9</b>	<b>122,089</b>
<b>Margin over feed related costs</b>	<b>25.1</b>	<b>1,160.4</b>	<b>60.0</b>	<b>183,645</b>

Heifer feeds	0.3	14.3	0.7	2,267
Animal health	1.1	51.1	2.6	8,098
Herd improvement	0.5	23.8	1.2	3,780
<b>Herd costs</b>	<b>1.9</b>	<b>89.3</b>	<b>4.6</b>	<b>14,146</b>
Dairy shed costs - electricity	0.5	24.2	1.2	3,834
Dairy shed costs - chemicals	0.4	21.7	1.1	3,447
<b>Shed costs</b>	<b>0.9</b>	<b>46.0</b>	<b>2.3</b>	<b>7,281</b>
Cartage	1.9	91.5	4.7	14,481
Levies	0.3	16.5	0.8	2,620
Repairs & maintenance	1.9	89.7	4.6	14,200
Sundry variable costs	0.1	4.8	0.2	765
<b>Other variable costs</b>	<b>4.3</b>	<b>202.6</b>	<b>10.4</b>	<b>32,067</b>
<b>Total variable costs</b>	<b>24.0</b>	<b>1,109.5</b>	<b>57.4</b>	<b>175,584</b>

<b>Gross margins: milk only</b>	<b>17.8</b>	<b>822.4</b>	<b>42.5</b>	<b>130,149</b>
<b>whole farm</b>	<b>23.0</b>	<b>1,064.9</b>	<b>55.1</b>	<b>168,522</b>

Permanent wages	2.3	106.3	5.5	16,835
Personal drawings etc	5.5	258.4	13.3	40,896

Labour inputs		Areas (ha)		Stock		Production	
Permanent unpaid	1.6	Milking cow	116	Milking cows	134	Fed to calves (l)	8800 1%
Permanent paid	0.5	Effective dairy	225	Dry cows	24	Protein total (kg)	23012 3.14%
Casual paid	0.1	Agistment	5.0	Heifers 15+	32	Butterfat total (kg)	29343 3.99%
		Winter irrigation	18	Heifers <15	51	Total solids (kg)	52356
		Summer irrigation	19	Adult equivalents	200	Litres / cow	4617
						Total solids / cow (kg)	330

Farms in report 8

Total Operating Costs	\$274,047
Dairy Operating Surplus (EBIT)	\$50,840
ROA	4.5%
Asset value	\$1,119,007
Equity	76%