Northern Dairy Industry

Regional Industry Outlook

Update: June 2012

Introduction

- This information package has been prepared as an initiative of the Northern Dairy Industry Strategic Plan, facilitated by the Queensland Dairyfarmers' Organisation (QDO), on behalf of the Northern Dairy Industry, to improve the awareness of the situation and outlook facing the regional dairy supply chain.
- The QDO commissioned Freshlogic to undertake an independent assessment of the Northern Dairy Industry to analyse the current and future milk supply and demand prospects in Northern NSW and Queensland, and other significant industry issues.
- This is the 6th annual Northern Dairy Industry Outlook designed to provide analysis for the benefit of industry participants, service providers, input suppliers, investors and Governments.
- This study uses data provided by QDO, QDAS, milk processors and the 2012 Australian Dairy Situation and Outlook Report. The production of this report is supported by the Subtropical Dairy Program and Dairy Australia.

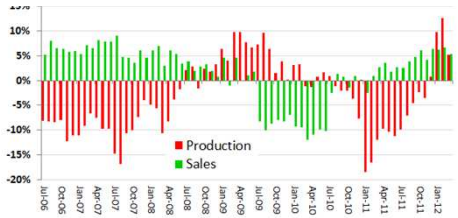
- This paper was compiled with co-operation from the production and processing sectors and has taken into consideration the regional industry challenges and the market outlook in the short to medium term.
- This report, compiled in June 2012, updates previous analyses and is an up to date adjunct to National Dairy 2012: Situation & Outlook report.
- This report contains:
  - A summary of highlights from Dairy 2012: Situation & Outlook released in May 2012
  - An outlook for supply and demand for milk in the northern dairy industry region
  - Factors affecting profitability of milk production
  - Future challenges for milk production in the region
- This report draws on farmer intentions and farm information from surveys undertaken by Dairy Australia in February 2012 (the National Dairy Farmer Survey – NDFS) and a survey undertaken by QDO of Queensland dairy farmers in May 2012 (QDFS).
- The analysis has identified a number of barriers and future uncertainties that may undermine the stability and sustainability in regional milk production.

Summary points

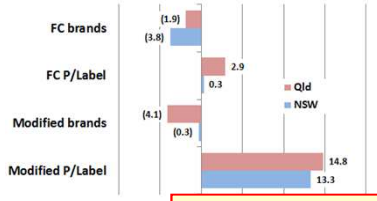
Highlights

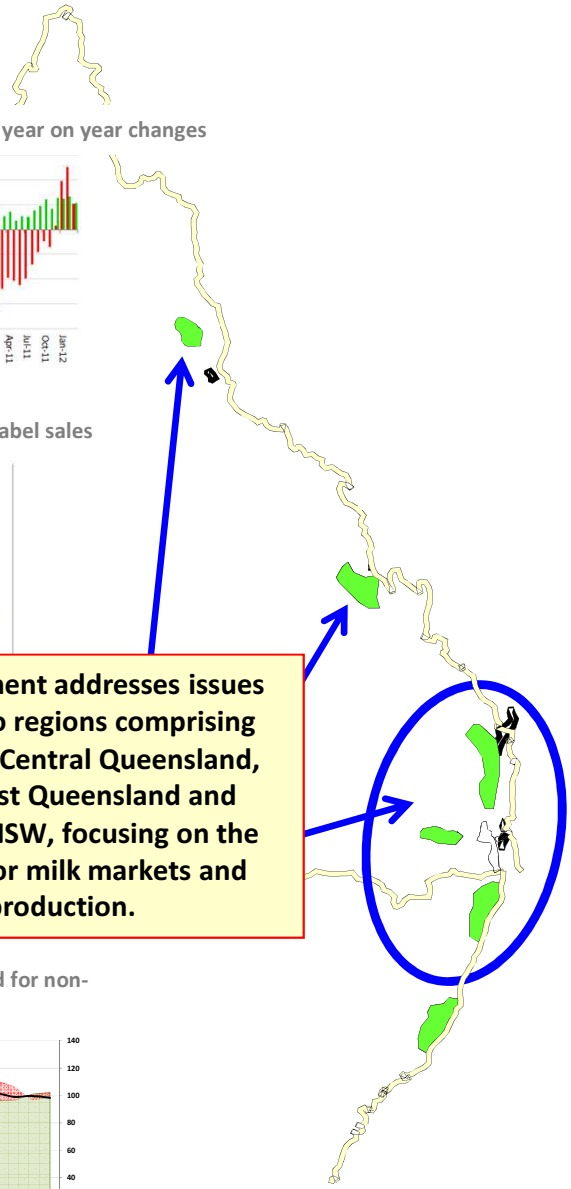
- The northern dairy region supplies a steadily expanding regional fresh milk market which is largely driven by population growth, and in the recent year, a gradual increase in per-capita consumption.
- Prevailing milk prices in recent years, good seasonal conditions and low bought-in feed costs helped stabilise regional milk supply and producer confidence in 2008 to 2010. However, devastating floods, cyclones and prolonged wet conditions disrupted production in 2011 and caused significant damage and losses to the industry. Supply has partly recovered in 2011/12.
- At the end of 2010 and the start of 2011, severe flooding and cyclones cost the northern dairy farm sector some $70 to $80 million dollars in lost production and damage, with Queensland losing 54 ML in milk production in 2011. Recovery from these impacts for some producers will take an extended period of time.
- Deep discounting of fresh white milk products by major supermarket retailers has caused a loss of processor brand share in milk sales, stripped wholesale value from the milk category, and commoditised a wider range of products.
- The changes in access to regional private label packing contracts for major supermarket chains has significantly altered the milk requirements of domestic focused processors such as Lion and Parmalat, affecting respective company margins, profits and the ability to maintain farmgate milk prices.
- Resulting price structures and signals threaten the stability of regional milk supply and producer confidence in the reliability of supply chain returns.
- Confidence levels across the dairy farming community are low and have the potential to put at risk a return to the medium-term stability of production.
- If trading and environmental conditions improve, there remains an underlying capacity to recover production, as shown in the past seasons, when higher farmgate prices and longer-term contracts were available to dairy farmers.
- With poor farm gate returns for many farmers and a questionable farmgate price outlook, there are threats to further investment in the capacity of farm structures and skill levels necessary to manage a wide range of risks including poor seasonal conditions, or to gain sufficient efficiency benefits from adoption of innovation. This risk will be amplified with the forecast adverse impacts of increased climate variability and other impacts on production costs.

Northern region production and sales year on year changes



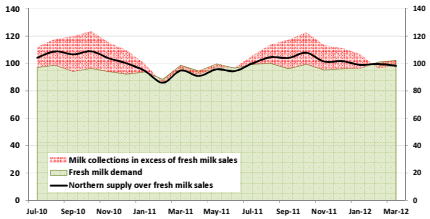
Annualised changes in brand v private label sales





This document addresses issues relevant to regions comprising North and Central Queensland, South East Queensland and northern NSW, focusing on the outlook for milk markets and production.

NSW & Qld milk supply and demand for non-manufactured products



2012 Situation & Outlook highlights

Australian dairy markets

- Significant regional variation remains a feature of the Australian dairy industry in 2012.
- Operating conditions for the Australian dairy industry in the southern states have generally remained favourable in 2011/12.
- Strong farmgate prices coupled with good weather in most export production regions has created a significant supply response, which has weakened dairy product prices since mid-2011.
- Southern hemisphere suppliers are currently clearing stocks in preparation for the northern hemisphere spring flush and the new 2012/13 season. Buyers are increasingly cautious, as recent more significant falls in spot commodity prices and increased supplies encourage more just-in-time purchases and less forward buying.
- While demand remains robust, the market is not likely to return to balance until late 2012 or early 2013.
- The Australian dairy market mixed volume and value growth throughout the past year, with continuing cautious spending by households affecting discretionary food spending, affecting the convenience sector and the route trade.
- Markets remain highly competitive in the face of low-growth in volumes and limited scope for price rises. Volume growth has been experienced in categories that are not exposed to discretionary spending by consumers.
- The intensification of retailer competition through deep-discounted staple food products including fresh white milk has reduced supply chain returns in directly affected areas, although the impacts vary across industry.

Fig 1 - Export spot prices from 2007 to 2012

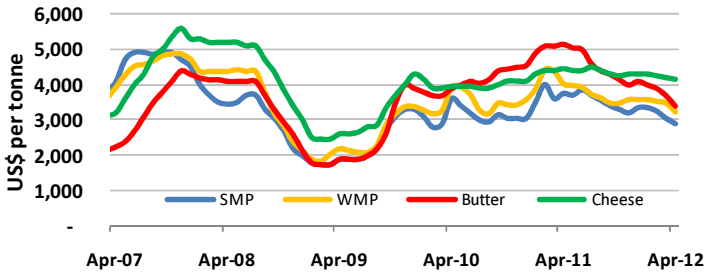


Fig 2 - Export returns & Victorian milk prices 1989 to 2012

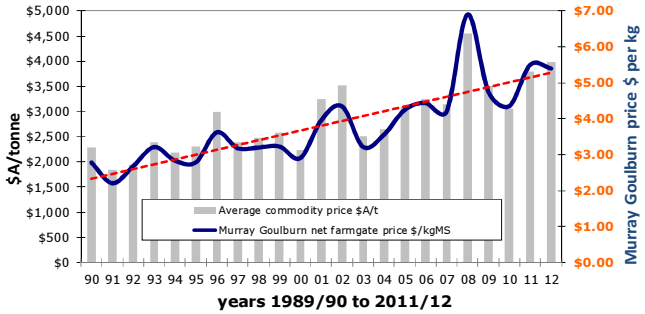


Fig 3 - Australian dairy company sales growth year to March 2012

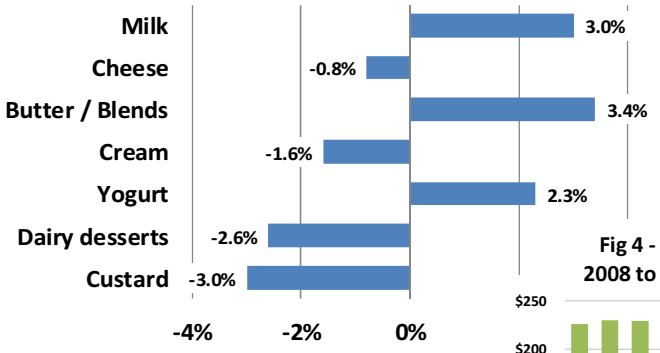
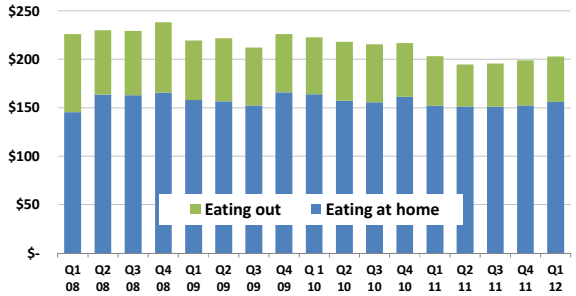


Fig 4 - Weekly household food spending in $ 2008 to 2012 (per Freshlogic's Mealpulse panel)

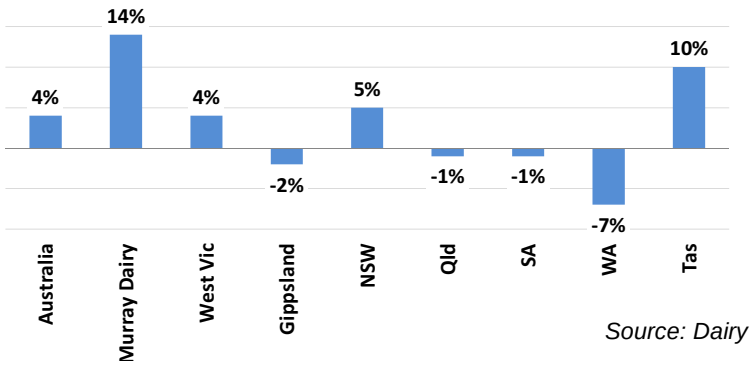


2012 Situation & Outlook highlights

Main points in the 2012 Australian outlook

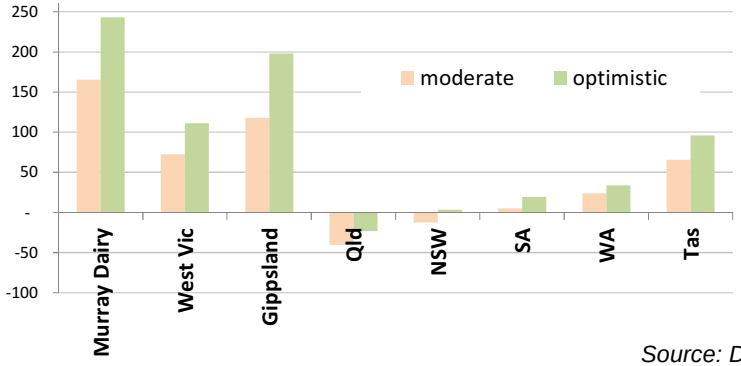
- National milk production increased in 2011/12 as a net result of a number of positive and negative factors affecting different regions.
- Full year milk prices in southern states have fallen just short of those of the prior year, but margins in some regions (excluding Western Victoria, Queensland, NSW and South Australia) have remained favourable with better feed availability and lower bought-in feed costs
- Market and margin volatility continues to undermine confidence and expansion plans for many dairy producers.
- The production forecast for 2012/13 is however forecast to rise 1-2% to about 9.5 to 9.65 billion litres. Southern exporting regions will again lead growth; however lower prices may constrain output. Domestic supply regions will likely be flat with some regions potentially declining, as reduced feed input costs partly offsetting farmgate price falls.
- The 3-year production intentions from the 2012 survey showed a slight decline in growth expectations compared with the 2011 survey, but those growing their businesses have increased the pace of expansion. Based on surveyed expectations and assuming reasonable seasonal conditions and prices, milk production could range between 9.8 and 10.1 billion litres by 2014/15.
- However, for export production regions, with expected ongoing strong global demand for dairy products, a sustained improvement in climate for the majority of producers, there is potential for production growth into the medium term. The fall in milk prices expected in the 2012/13 full season may adversely affect producer confidence and limit further short-term production growth.

Fig 5 - Changes in regional milk production expected in 2011/12

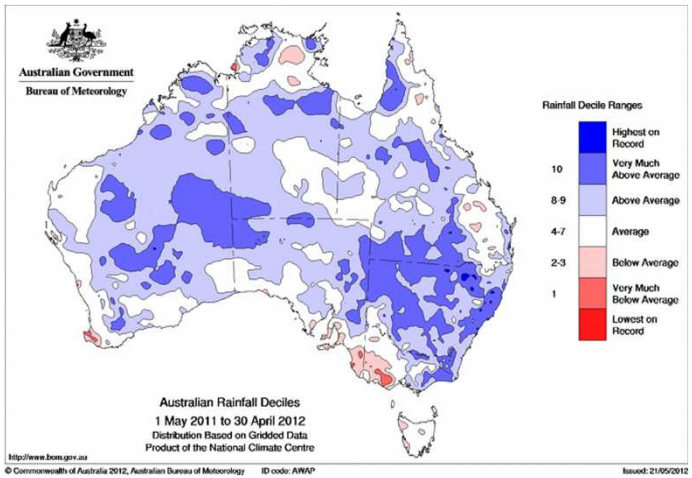


Source: Dairy Australia

Fig 6 - 3-year milk production scenarios based on 2012 NDFS intentions (million litre change from 2011/12 production)



Source: Dairy Australia



Australian industry snapshot

The snapshot view of the situation & outlook affecting each sector of the Australian dairy value chain shows prospects for the national industry of a rough road to recovery from the economic downturn.

Production & resource inputs

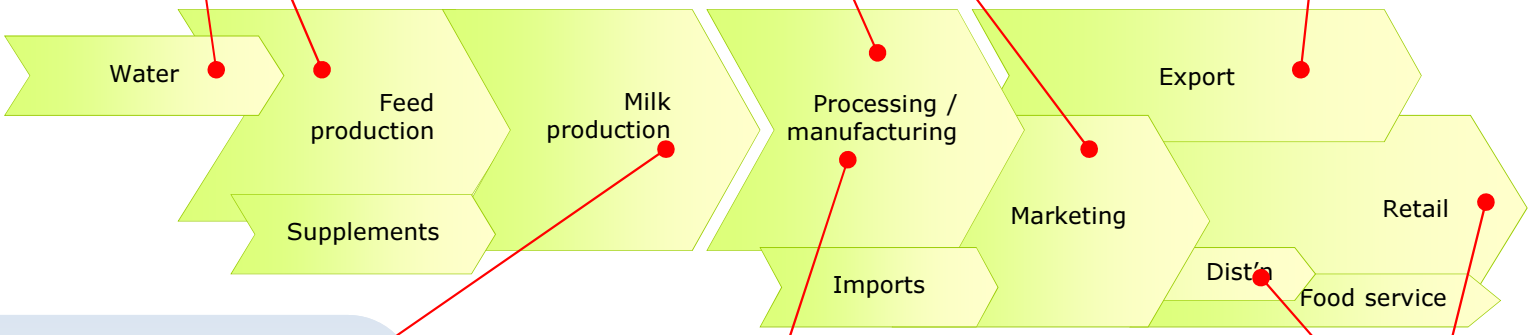
- High global grain production and plentiful stocks have kept prices low, with recent upward trends based on northern hemisphere crop fears
- High water allocations and carryover supplies mean short term security for irrigators but medium term policy concerns remain
- Limited supplies of milking cows and replacement heifers

Product manufacturers

- Clearing stocks following growth in milk production
- Strong competition for milk supplies to maintain factory throughput
- Increased investment and restructuring activity amongst manufacturers

Exporters

- Demand still solid led by China and south-east Asia
- Strong supply response from all major exporting regions as favourable seasonal conditions prevail.
- Currency movements affecting competitiveness
- Preparation for policy changes in the EU and to some extent the US
- Stable competing (substitute) ingredient prices



The Australian dairy industry value chain

Milk production

- A "two speed industry" – different regional demands and outlook for milk supply
- Mostly reasonable seasonal conditions, but areas of difficulty exist
- Pricing signals reflect weakening export market in southern states
- Retail price discounting and company rationalisations undermining confidence in domestic regions

Fresh dairy processors

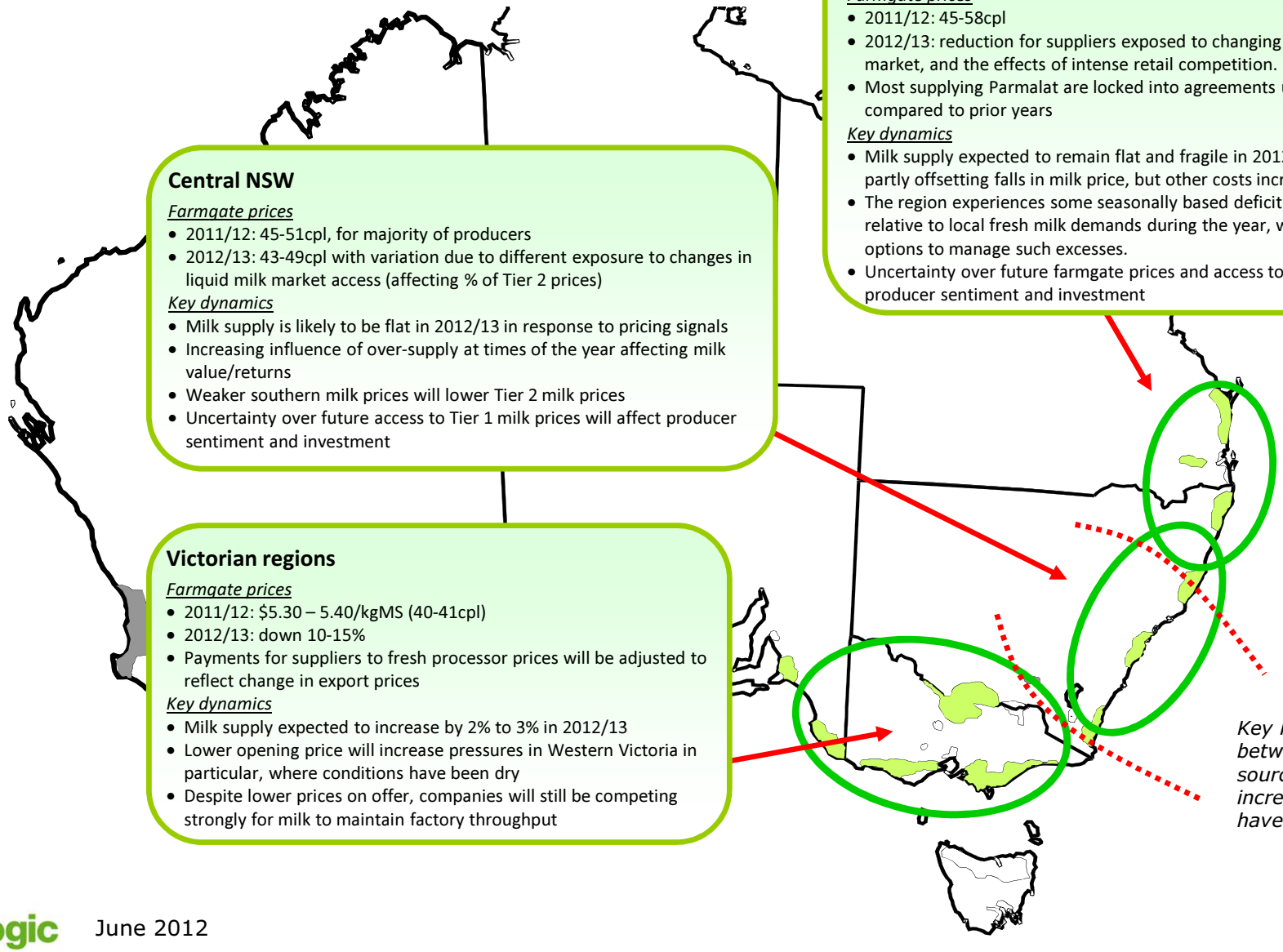
- Continuing to balance regional fresh demand and supply using sharper pricing signals
- Pressure maintained on domestic processor and manufacturer margins
- Grocery private label pricing has weakened profitability of domestic fresh milk supply chain
- Increased size of private label milk contracts is adding to the disruptions caused by any changeover in supplier

Domestic marketers

- Consumers are value focussed as uncertainty about the economy remains
- Low food price inflation, as retailers continue to compete on value
- Foodservice, convenience and route trade operators losing market share to major food retailers discounting
- International competition increasing in industrial sector

Farmgate market

A weakening of world dairy markets will be reflected in farmgate milk prices in southern regions in 2012/13, compared with 2011/12. Many Northern milk suppliers will see lower prices in 2012/13 due to the decline in processor margins from intensified price-based retail competition, and changes in market access for processors and signals in prices to address seasonal demand and supply imbalances.



Queensland and Northern NSW

Farmgate prices

- 2011/12: 45-58cpl
- 2012/13: reduction for suppliers exposed to changing processor liquid milk market, and the effects of intense retail competition.
- Most supplying Parmalat are locked into agreements until 2014 at a lower price compared to prior years

Key dynamics

- Milk supply expected to remain flat and fragile in 2012/13, with lower feed costs partly offsetting falls in milk price, but other costs increasing
- The region experiences some seasonally based deficit & excess supply issues relative to local fresh milk demands during the year, without local manufacturing options to manage such excesses.
- Uncertainty over future farmgate prices and access to Tier 1 milk prices will affect producer sentiment and investment

Central NSW

Farmgate prices

- 2011/12: 45-51cpl, for majority of producers
- 2012/13: 43-49cpl with variation due to different exposure to changes in liquid milk market access (affecting % of Tier 2 prices)

Key dynamics

- Milk supply is likely to be flat in 2012/13 in response to pricing signals
- Increasing influence of over-supply at times of the year affecting milk value/returns
- Weaker southern milk prices will lower Tier 2 milk prices
- Uncertainty over future access to Tier 1 milk prices will affect producer sentiment and investment

Victorian regions

Farmgate prices

- 2011/12: $5.30 – 5.40/kgMS (40-41cpl)
- 2012/13: down 10-15%
- Payments for suppliers to fresh processor prices will be adjusted to reflect change in export prices

Key dynamics

- Milk supply expected to increase by 2% to 3% in 2012/13
- Lower opening price will increase pressures in Western Victoria in particular, where conditions have been dry
- Despite lower prices on offer, companies will still be competing strongly for milk to maintain factory throughput

Sth Qld & Nth NSW region

Key milk movements between local market sourcing regions are increasing as local supplies have fallen.

Regional milk markets

Sales growth at lower retail prices

- The regional fresh milk market has grown slightly above population growth in the 2011/12 year after stagnating in 2009/10 and recovering slightly in late 2010. Sales growth for fresh milk products in the first 9 months of the 2011/12 year is better than 5% in Queensland and approaching 4% in NSW.
- Households have continued to be cautious in uncertain economic conditions by keeping a tight rein on food spending, and minimising discretionary outlays. They have retained a preference for eating more meals at home and economising on eating out.
- Milk processors compete in a national fresh milk retail market, wherein major supermarket chains use national uniform pricing policies. These policies do not take account of differential input costs to producers and suppliers.
- Queensland proprietary fresh branded milk retail prices are on average about 20% lower than branded products in the other states – reflecting the intensity of competition in supermarkets and convenience outlets. Processors in Queensland and Northern NSW also face the higher milk input costs.
- Major supermarkets have sustained aggressive price-based competition, keeping the focus on the value of staple food products and meal ingredients. As shown in the charts on the right and on the following page, the sustained pricing pressure has kept retail grocery prices of private label products flat over the period since late January 2011, while prices for company branded products through these outlets have fallen slightly in Queensland but more appreciably in NSW.
- A number of major milk processors that supply the domestic market have reported they are making little or no profit from major supermarket private label milk contracts.
- Prices dropped 6cpl in NSW and by about 1cpl in Queensland and Victoria for branded products in supermarkets. This does not include the impact on branded product prices in non-grocery outlets.

Future milk needs

- The region continues to demonstrate good population growth. The average annual population growth rate for Queensland over the past 5 years has been 2.3%. ABS projects that the population will grow by 2.4% per annum over the next 10 years, providing good scope for expanding demand as the economy provides consumers with greater confidence.
- At medium level population forecasts for Queensland the industry will need to produce another 110 million litres of milk per annum by the year 2022 to meet market demand. This is discussed further on page 11.

Fig 7 - Changes in milk sales volumes YTD March

Source: Dairy Australia

Fig 8 - Average 2L & 3L prices in $/litre for company branded fresh white milk 2010 to 2012

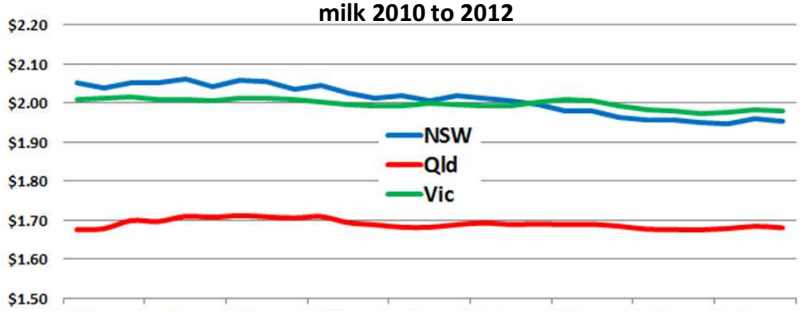
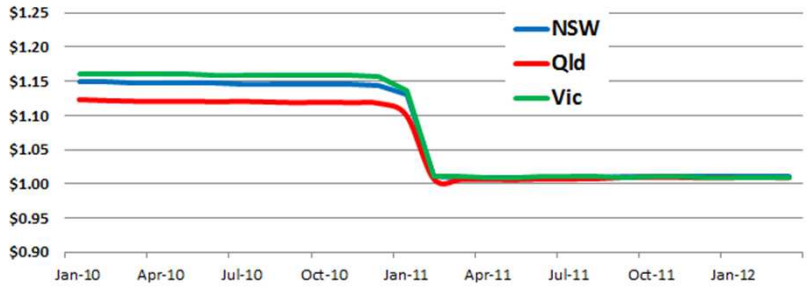


Fig 9 - Average 2L & 3L prices in $/litre for private label fresh white milk 2010 to 2012



Source: Dairy Australia

Intense retail competition

Retail competition is reducing returns

- Major grocery chains have sustained deep-discount promotional campaigns over the past sixteen months. The effect of this price competition has been:
  - A higher share of sales of lower-priced private label products (chiefly in modified milk products), at the expense of company brands, weakening the overall wholesale returns to processors. The chart on the right shows the estimated annualised effect on sales volumes since the campaigns commenced.
  - The shift in sales from convenience and food service outlets to major supermarkets, which has included food service outlets which source product direct from major supermarkets at prices which are cheaper than available through the "route trade".
  - Reduced prices for branded fresh milk prices has been seen in NSW and Victorian grocery sales, as well as in non-grocery channels as brands seek to retain volumes.
- The impact on retail sales and wholesale returns has varied state-to-state, due to the differences in retail prices and sales mix. The impacts on supply chain returns are potentially greatest in Queensland, where retail prices of branded lines are lower and over 95% of milk is produced for the domestic fresh milk market, without the availability of an alternative market.
- At the same time, grocery chains have changed the way in which they contract with processors for the toll-packing of private label lines. Woolworths has in recent years shifted from national to state-based supply of private label product volumes, switching from Lion to Parmalat in Queensland and NSW. This has reduced Lion's requirement for fresh milk, which has been reflected in the significantly lower tier 1 contract requirements from its own direct contract suppliers and from DFMC suppliers.
- These changes have caused reductions in milk prices for those suppliers, which vary case by case depending on individual contract volumes and Tier 2 exposures.
- One major milk processor (Lion) has reported they are making little or no profit their white milk processing business. The combined effect of lower overall wholesale margins and changes in market access has been passed onto farmers in reduced farmgate prices. This has lowered the regional average milk income to producers, and increased the range of prices being achieved at the farmgate.
- Lower overall wholesale prices as a result of an increased share of private label sales volumes will result in greater commoditization of the milk sector. This will weaken the brand proposition in fresh white milk undermining the viability of marketing and product innovation, and force changes in the respective roles and contributions that private label contracts and branded milk products have in processors' business models.

Fig 10 - Impact on sales volumes for product categories (Qld and NSW – the shift in sales by product type/brand, annualised effect in million litres to March 2012)

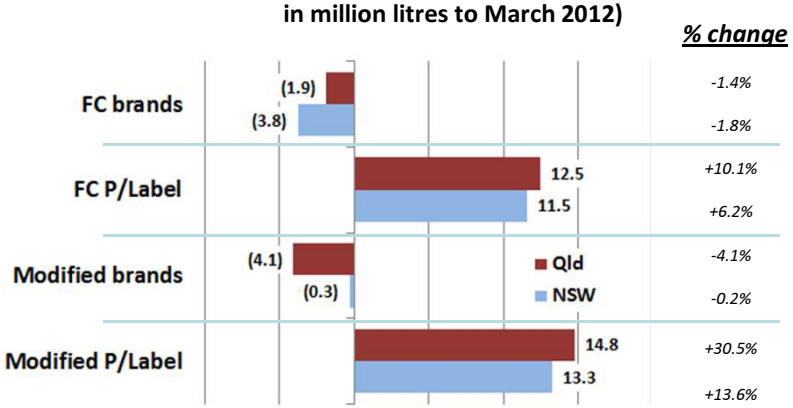
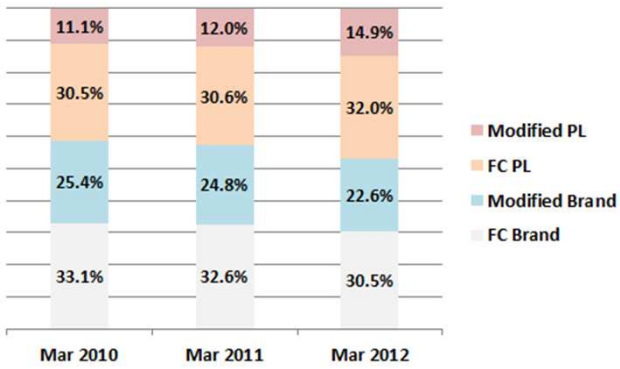


Fig 11 - Changes in the share of Qld fresh white milk sales (March 2012 v same month in each of the past 2 years)



Source: Dairy Australia

Regional milk supply v demand

Fluctuating supply chain conditions

- After almost a decade long decline in regional milk production until 2008, a combination of higher milk prices, longer term contracts, improvements in seasonal conditions and lower bought-in feed costs stabilised milk production.
- Slower milk sales ; a reduction in processing plant demand; and stronger milk supply created a surplus in regional milk supply until late 2010 when the effects of flooding cut milk supplies. This caused a deficit in fresh milk supply for a period of 2011 and part of 2012.
- The gradual recovery in milk supplies from the worst effect of flooding felt in January 2011 has been aided by low bought in feed prices. Milk supplies in the first quarter of 2012 have returned to similar levels reached in 2010.
- Fresh milk sales have meanwhile returned to good rates of growth in the region, as shown in Fig 7 on page 8, to help tighten the market balance in the cooler months of the year.
- Recent production data and producer intentions indicates that production in the northern region remains fragile, and could decline if farm returns do not improve in the short to medium term.
- In the wider context of the combined fresh milk supply regions of NSW and Queensland, which is becoming more relevant to processors , the balance between milk supply to processors and fresh milk demand is tight for 5 months of the year, as shown in Fig 14.
- This analysis excludes milk collected in southern NSW that is used in manufactured dairy products, to ensure a like-for-like comparison. With rationalisation of non-milk processing operations by Lion, the milk intake that is in excess of fresh milk plant demand incurs a higher cost to the processor (including sales of milk into southern manufacturers at seasonal manufacturing values), and earns a Tier 2 price for milk producers.
- With reducing Tier 1 and Tier 2 prices going forward due to domestic and global market conditions, the ongoing balance between fresh demand and supply in the northern region and across the two states will be dependent on the operating conditions affecting feed costs and other input costs.
- Producers' perceptions of operating at suitable cash margins in future will impact production responses. Given the wider variation in farmgate prices experienced between Parmalat and Lion supply bases, the impact on short-term milk production responses cannot be easily generalised.

Fig 12 - Northern region (Qld and Northern NSW) monthly fresh milk sales and farm milk supply (million litres, 2009 to 2012)

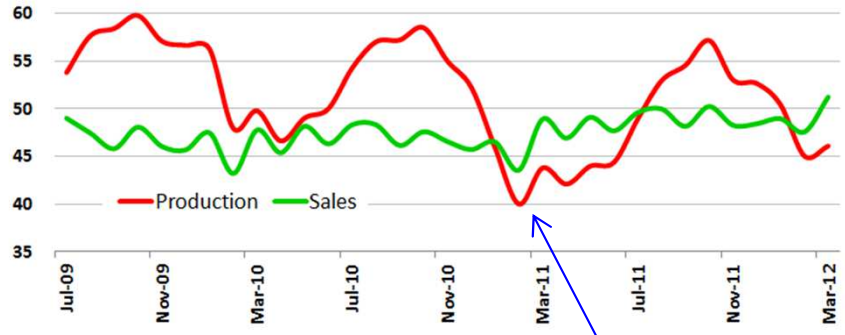
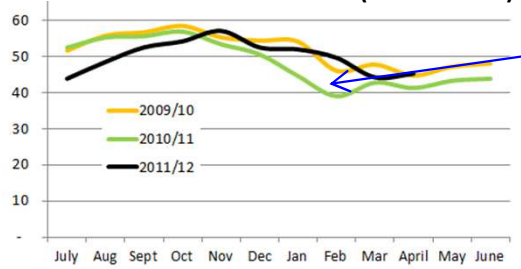
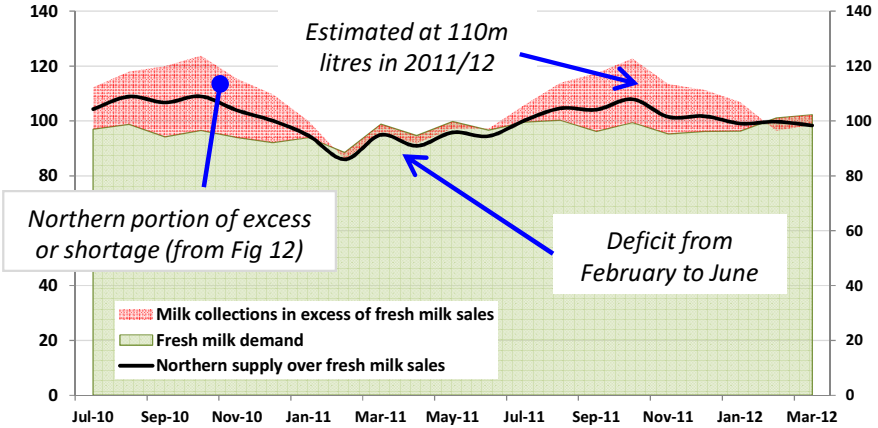


Fig 13 - Northern region monthly milk production for the last 3 seasons (million litres)



The effect of floods in southern Qld

Fig 14 - Combined NSW & Qld fresh milk sales v production (excluding intake of dairy product manufacturing, million litres)



Source: Freshlogic analysis of Dairy Australia data

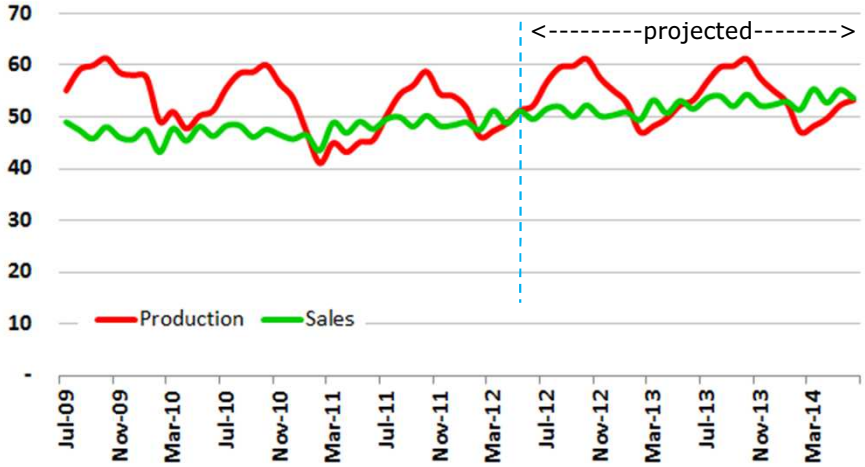
Projected demand v supply

A tight balanced supply chain in future

- A potential scenario for future milk supply & market demand has been prepared in Fig 15 to reflect feasible directions in milk supply and market demand. This scenario uses current growth rates as a basis for forward projections of sales and production.
- Milk sales reflect projected milk processing demand based on an estimated total milk sales requirement for the Qld and Nth NSW region. Milk production is shown as growing at a much slower rate than in the past year, flattening into 2013/14.
- The projection shows the periodic monthly shortfalls in the late summer and autumn months of the year, which gets progressively larger as milk sales outpaces production growth .
- Such an outlook will tighten (i.e. create a further milk shortage at times of the year) if there is a combination of:
  1. Faster milk sales growth rates in the region

     and one or more of the following
  2. A deterioration in climatic conditions leading to reduced pasture feed and increases in fodder costs
  3. An increase in the prices for feed grain and hay leading to lower use and less milk production
  4. A further loss of confidence in the adequacy of returns leading to more farm exits and or contraction in farm intensity
- The effect of shortages in supply to the northern region in the first half of each year has been mitigated to an extent by the fact that processors are effectively treating the wider region from central NSW to southern Queensland as a single milk pool and transporting milk longer distances to fill supply gaps.
- Queensland dairy farms exported some 16% of heifers in 2011/12 as farmers have sought to boost farm incomes. QDFS responses indicate this will increase in the coming year with tighter cashflow expectations & strong heifer market prices, which may have adverse affects on future production capacity.
- A longer-term view of the potential supply and demand in Fig 16 shows the challenge facing the region in terms of the changes in the mix of farms and investment that are likely to be required to supply fresh milk demands in future – if the region is to remain self sufficient. Given the usual rates of exits, average farm size will need to more than double in the next decade to meet market needs.

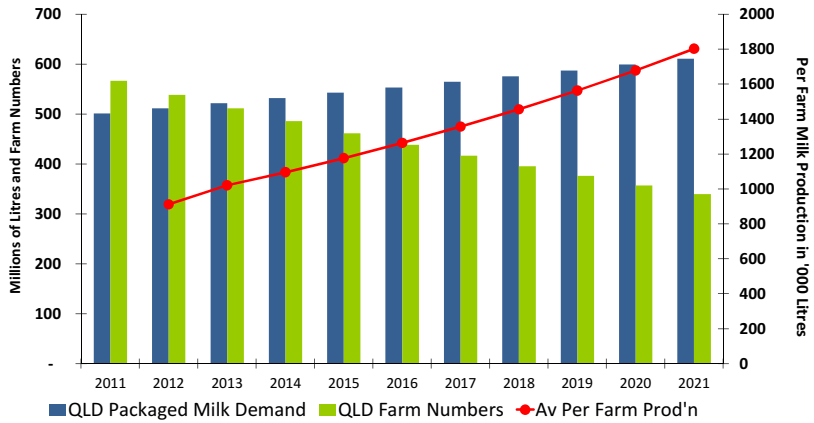
Fig 15 - Projected monthly Qld & Northern NSW milk sales and farm milk supply



Assumptions

- **Sales growth** is projected at 4% on the same month of the prior year from mid 2012 falling to 3% in 2013 and 2% in 2014.
- **Production** is assumed to slow in the remainder of 2012 and into 2013. From July 2013 it is assumed production will not grow over the same month of the prior year
- These are no further shocks to the production sector.

Fig 16 - Long term scenario for milk sales, farm numbers and per-farm production

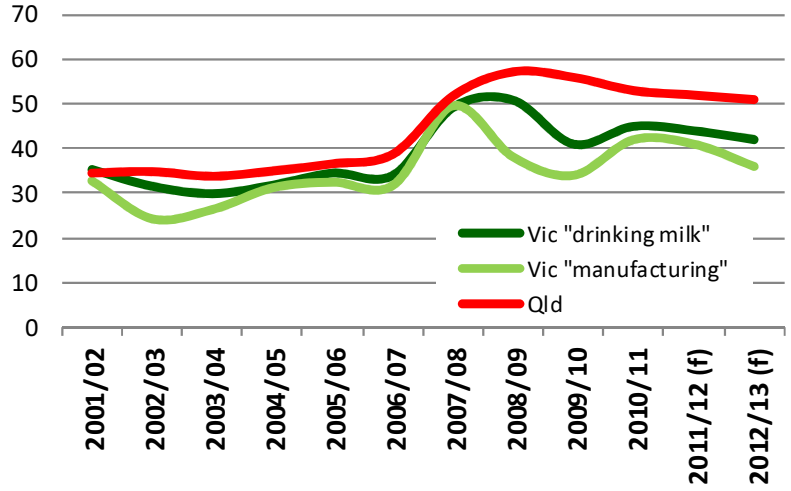


Farmgate prices – South Qld

2012/13 price expectations

- Milk supply contracts with incentives for commitment to longer-term supply have been used in recent years to underpin regional supply stability. The significant change in retail market returns and certainty of market access has generally shortened the contractual terms.
- Two-tiered pricing applies such that year-round fresh milk returns will drive tier 1 prices, while returns from the next best use of use of milk will drive the remainder.
- In 2011/12 prices have generally ranged between 45-58cpl covering most producers. However a number that hold longer term contracts can achieve an outcome greater than this due to their contractual position, while a number of producers on short term contracts have received a lower price. The bottom end of this range has declined for shorter-term contracts.
- The range of milk prices on offer in the coming year will widen.
- Lion has flagged further reductions in Anticipated Full Demand (AFD) in 2012/13 in the northern region. 2012/13 milk prices for Lion suppliers (direct and DFMC group) in the Northern region entering new contracts (under negotiation at the time of this report) are under pressure due to downward pressure on wholesale returns and lower manufacturing milk values. This follows price and AFD reductions in 2010.
- A majority of Pauls suppliers have entered new 3-year contractual arrangements as from January 2012 that replaced former PDA and POPS arrangements, with price reductions of 2-3 cents per litre. These also feature 2-tiered pricing reflecting the exposure to milk and other product returns.
- Respondents to the QDFS presented that recent farm gate price drops averaged 3.9 cents per litre and would cause a predicted drop in farm income on average of $39,955 this year (for QDFS respondents).
- Processors are also placing more stringent quality and volume supply conditions and seeking flatter year round supply commitments from farmers.

Fig 17 - Northern region v Victorian milk prices (cpl)



Source: Freshlogic, Dairy Australia

Fig 18 - Landed cost comparison – projected 2012-13 season

	2012/13 average prices - cents per litre			
	Sth Qld [1]	Nth NSW	Cent NSW	Nth Vic
Farmgate	**45-55**	**46-52**	**45-50**	**38-41**
Freight	**3-4**	**5-6**	**10**	**17-20**
Landed cost	**48-59**	**51-58**	**55-60**	**55-61**
* This assumes milk prices on a year-round basis, given likely pricing by fresh milk processors in that region				

Note

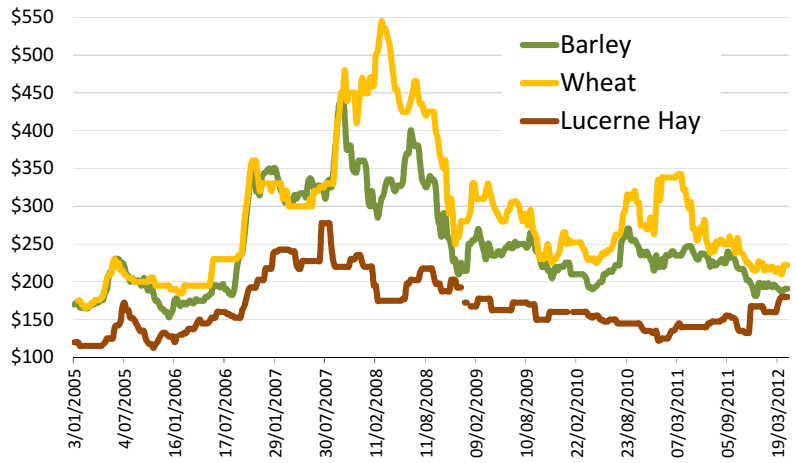
1. Tier 2 farmgate prices in Southern Queensland are expected to be in the range of 20-33cpl subject to negotiations which are ongoing at the date of this report.
2. The above price ranges may vary further depending on the allocation at farm level of the Tier 1 and Tier 2 volumes.

Costs of production

Costs of production inputs

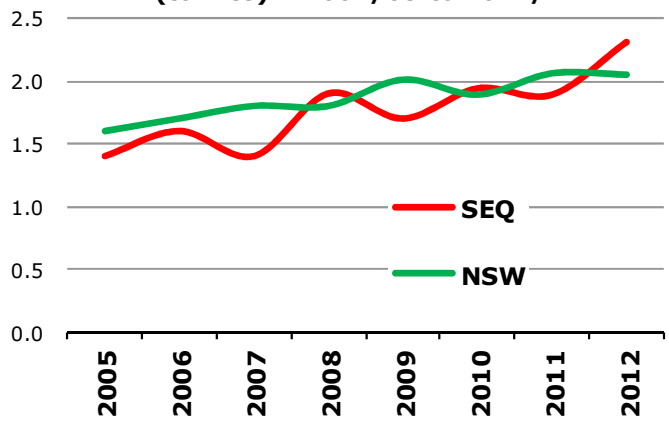
- Farms in the northern region are locked into production systems suited to contractual supply requirements which reflect daily fresh milk demand throughout the year. These systems incur higher production costs compared to seasonal production systems, common in southern Australia.
- There is a high dependence on irrigation to sustain these systems – about 74% of dairy farms in the region use irrigation; and 21% of dairy farm land (on average) is irrigated where it is available according to NDFS and QDFS.
- Bought-in feed costs remain well below levels seen in drought affected years . Lower costs assisted dairy farmers and grain usage has increased in the 2011/12 year according to the results of the NDFS and QDFS.
- Grain prices are driven by global supply and demand which has forced global prices down due to a glut in global grain supplies and a build-up of stocks due to good weather in all major growing regions. Recent fears of reduced northern hemisphere crop sizes has driven up prices in cash and futures markets.
- Regional grain prices in Australia are driven at present by local crop availability and remain subdued given the increased stocks as a result of a record crop and have further benefited from downgrades due to rain damage.
- Fertiliser prices are firming on the back of strong global demand for cropping inputs, and the outlook is for prices to increase steadily as demand affects the market balance. The outlook for these commodities suggests further growth in global crop demand will keep prices at long-term averages. However increases in the cost of fertiliser manufacture and transport will put upward pressure on prices, including impacts from Carbon Tax.
- Other costs of production are rising faster than the rate of inflation, with increases in fuel, energy, water usage charges, finance rising as the economic recovery and increased accountability for resource use continues. Additionally there will be direct and indirect effects of the Carbon Tax.
- Labour shortages and the inability to compete for labour remain an inhibitor for many producers with the strong sustained demand for workers in the mining and related services industries.
- Weather has significantly affected the feed requirements of beef cattle in feedlots, a competing grain use in Queensland. Late in 2011, beef cattle on feed in Queensland (which has about 60% of Australia's feedlot herd) are at about 74% of available feedlot capacity, an increase of 9% in number over the past year but well down on the peaks achieved in 2006/07.

Fig 19 - NSW grain and hay quotes ($/t – 2005 to 2012)



Source: Australian Crop Forecasters

Fig 20 - Average grain usage per cow per annum (tonnes) – 2004/05 to 2011/12



Source: Dairy Australia

Farm profitability

Lower milk prices pressuring margins

- QDAS farm accounting and benchmarking data on 62 farms in the region provides a guide as to the operating and financial situation affecting farmers.
- QDAS users represented 16% of milk production in 2010/11 however are not entirely representative of all producers, as users tend to operate farms that are larger than average Queensland dairy farms. The average QDAS farm had 211 cows and produced 1.22 million litres, while the Queensland average farm carried 160 cows and produced 857,000 litres in 2010/11 (lower than 2009/10 due to impacts from natural disasters).
- QDAS results show also that smaller farms are less profitable, operating with lower per-cow output; higher per-litre labour and overhead costs; and lower return on assets.
- QDAS results show that production margins have been sustained since 2007/08 through a combination of higher milk prices and improved seasonal conditions. Feed costs have on average fallen in the past two full production years and are expected to have continued this trend in 2011/12.
- However the fall in milk prices in the 2011/12 season is likely to have caused a decline in cash margins, although the effects of these income reductions is uneven across the region, depending on the customer exposures of individual farms. Within the QDAS data set (and across remaining non-participating farms), this will mean a larger number of farms will have incurred or extended losses.
- As a result, farm cash incomes and return on assets will likely show an decline over the full 2011/12 year, given an expected 2-4c/litre fall in milk prices for some suppliers in the second half of the year. It is apparent that many smaller farmers are experiencing negative returns in the 2011/12 year due to a cut in prices and higher input costs.
- The extent of the impact on dairy farming margins will vary from farm to farm depending on what options farmers have to source alternate income and manage feed inputs and costs.
- It is expected many producers experiencing poor or negative returns will revert to traditional responses to tighten cashflows- cutting input use such as fertiliser, sourcing cheaper fodder options, deferring repairs and capital replacement, reducing the use of hired labour and working longer hours themselves, and selling cows and replacement heifers to meet commitments.

Fig 21 - QDAS farm performance 2006 to 2012 (2011/12 is projected)

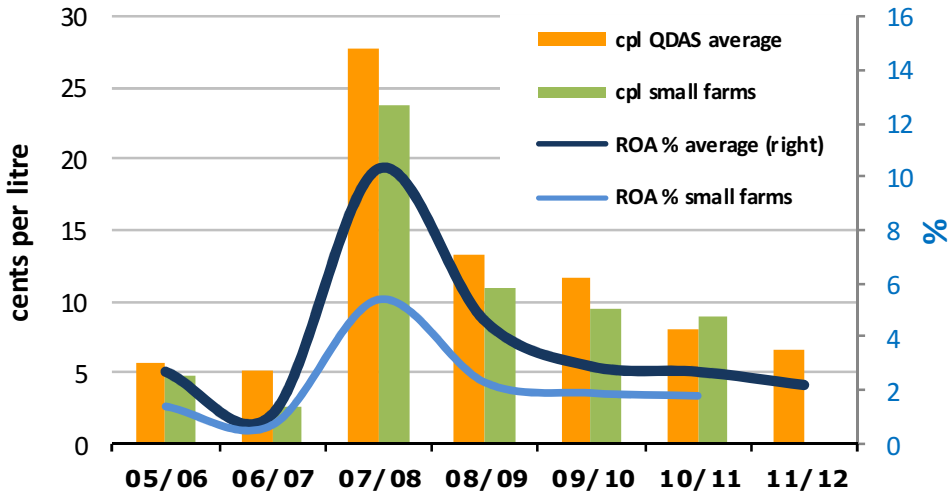
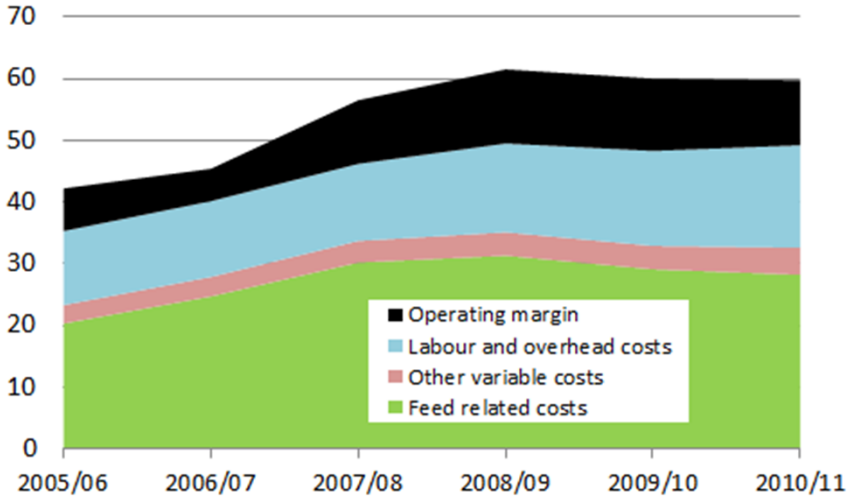


Fig 22 - Comparative farm performance 2006 to 2011 based on QDAS analysis (cents per litre)



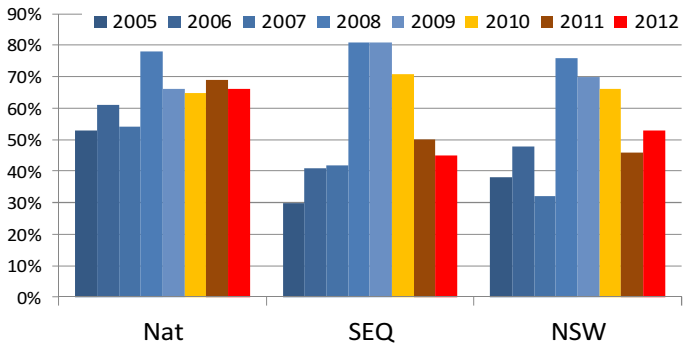
Source: QDAS/QDO

Challenges for milk producers

Farm structures and management practices

- Existing Queensland average farm size according to NDFS results in 2012 is 194 cows (201 in Southern Queensland and Northern NSW), which is higher than last year with better seasonal conditions. The average is currently well below averages for Australia (277) and NSW (239).
- Farms are based on traditional family-farm structures in terms of ownership and financial structure. 34% of farms rely solely on owner-operator and partner labour based according to NDFS results.
- QDFS results presented that while the use of company and trust structures has increased, the majority of farmers (55%) still operate in partnerships 55% or as sole traders (20%).
- QDFS results indicate that some 61% of current farmers do not have a succession plan for their farms.
- Low levels of debt are employed. Average equity was measured at 83% in 2011 by QDAS.
- Practices to deal with crisis management through drought and floods over the several years have led to a slight increase in the adoption of conventional feed risk management practices.
- The region is a relatively heavy user of feed grain per cow on average, yet past surveys have shown that about 66% of producers buy grain as required, only about a quarter in number buy forward.
- While grain prices have been weakening and markets remain over-supplied, feed grain users have been reluctant to lock-in price protection where it is available.

Fig 23 - % of farmers positive about the future of the industry



Source: Dairy Australia

Sentiment and intention

- The region suffered for many years from a mostly negative attitude to the industry's future. The improved milk prices and seasonal situation boosted confidence in the industry from 2008 to 2010, but the outlook for many has since changed dramatically.
- Confidence has fallen sharply in the past couple of years, as concerns regarding the security of market access and the adequacy of returns from the retail market affects the outlook.
- The national survey indicated that medium term growth intentions for northern region producers have weakened in recent years, while :
  - 38% of Queensland and Northern NSW producers intend to grow their business in 3 years if normal rainfall patterns are experienced – this is down on last year;
  - half of producers by number intend to operate in a static mode with the change in market outlook
  - Only 4% of producers planned to exit in the next 3 years when the NFDS was polled in February 2012.
- Only 16% of regional farms regard themselves to have been in expansion phase according to the NDFS results, whereas 45% are in "steady state" while 24% face expansion limits (from a variety of internal and external reasons)
- The survey undertaken by QDO in May indicates farmer confidence has declined since the earlier national survey. Fig 23 shows about 45% were positive in the NDFS, yet the QDO results taken in May show a fall in confidence to 33%.
- The QDFS showed close to 45% to 50% of farmers where unsure whether they will still be in the industry in 3-5 years. The survey also presented that some 5% of farmers would exit the industry in the next year and 7% to 12% of farmers presented that they would not be in the industry in 3 to 5 years time. This is a significant increase in uncertainty and planned exit rates compared to the QDFS undertaken in 2009.
- The QDFS Indicated 29% of producers in Queensland intend to grow their business, while 54% expected to stay at about current levels in future. 11% intend to exit the industry in the next few years.
- If proposed changes in the level and structure of milk prices are delivered in the coming years, these exit intentions may rise due to the risks to farmgate returns.

Challenges for milk producers

Investments

- The NDFS, undertaken in February, showed that there has been a further weakening in investment intentions since last year with only 30% of farms planning to invest in 2012/13, compared to 51% holding that intention last year. Note that investment intentions are always exceeded by actual investments, generally because of unplanned machinery purchases.
- It is expected that investment intentions have fallen further since this survey in line with the slide in sentiment indicated in QDO's survey.
- As shown in the chart on the right, investments were made across a range of asset types, but dairy plant was highest.
- There are relatively low intentions in the northern region to hire additional staff in 2012/13. QDFS results showed only 14% intended to hire more labour, but overall indicated they would have less labour on-farm by 2013.
- 45% of QDFS respondents indicated they where planning to make investments on farm, with the main categories being plant & equipment and dairy plant. This is a significant decline in investment intent from previous years survey results of 71% in 2009, and 54% in 2006.
- 80% of QDFS respondents rated the current milk price, farm gate returns and industry outlook as the most significant constraints to investment.

Fig 24 - Investments planned in 2012/12 - % of farms

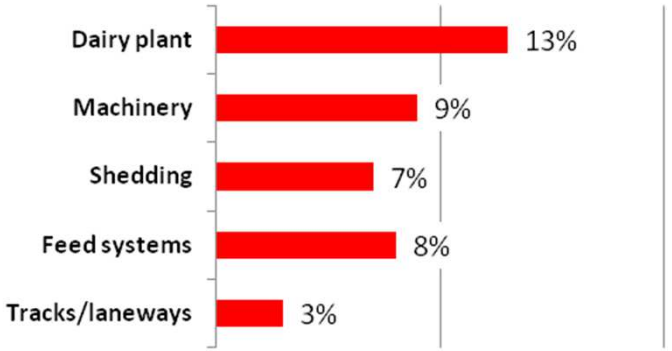
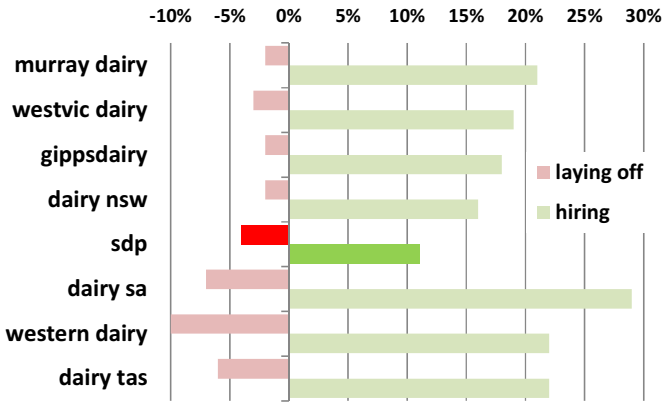


Fig 25 - Planned changes in labour in 2012/13 (% farms)



Source: Dairy Australia

Challenges for milk producers

Water

- Regional urban/coastal pressures have increased over many years due to shortages in urban potable water supplies and competing Government priorities such as environmental flows. Recent rainfall has significantly boosted urban water supplies.
- Agriculture remains affected by restrictions in several Queensland sub-systems. It will be some time before there is sufficient clarity in the market environment to enable investment in new production capacity.
- The draft MDB Basin Plan provides direction relevant to irrigation systems to the west of the Dividing Range, and will potentially contain a number of threats to the security of irrigation water access in the Basin.
- The Basin Plan is intended to:
    - Set and enforce sustainable diversion limits (SDLs) on surface and groundwater use.
    - Set Basin-wide environmental, water quality and salinity objectives.
    - Develop efficient water trading regimes.
    - Improve water security for all users.
- The draft Plan requires 2,750 GL to be recovered in the form of 'held' entitlements (that is, irrigator entitlements) or 'planned' environmental water. According to the Murray Darling Basin Authority, this will result in a 30% reduction in water diversions for agriculture.
- The Basin Plan is scheduled to be finalised later in 2012. The States are expected to implement the SDLs in their next State Water Resource Plans, which are expected to be aligned to come into effect in 2019.
- Water market operation and charging rules/costs developed by the Federal Government will define future trading arrangements in the Basin.
- Threats to security for water users and land impacts in the Darling Down and Burnett regions are also apparent from mining activities in the regions.
- These pressures guarantee an increasing cost for water use in future which will increase operating costs of dairies.
- Many other dairying region in Queensland are under similar pressures from water planning processes, allocation, security and water charges.

Labour

- There has been strong competition for labour due to the boom in the mining and services sectors which benefited from the energy and mineral commodities boom.
- The recent QDO survey indicates that 31% of farmers were having difficulty attracting and retaining staff in this environment. About 25% of farmers would be interested in hiring foreign workers should they be given the opportunity.

Carbon Emissions

- After an extended policy debate, the Australian dairy industry will operate with a price imposed on carbon emissions from July this year when the new Clean Energy Program takes effect.
- The program aims to ensure that Australia can reduce carbon emissions by 5% by 2020 through the combined effects of a direct tax on emissions and incentive schemes that will encourage the adoption of low emission technologies into future production systems.
- Direct carbon emissions from dairy farm operations (e.g. enteric methane produced by cows) are not subject to the new tax. These exempt emissions account for about 80% of estimated dairy emissions. Even so, the new tax will have some significant impacts on dairy cost structures in coming years.
- The price of key farm inputs (such as electricity) will rise under a carbon tax. Treasury estimates electricity prices will rise by around 10% at the initial tax rate of $23 per tonne. As electricity is a major energy source on dairy farms, the industry is more exposed to this expected rise in electricity prices under a carbon tax than other sectors of agriculture. Recent QCA report estimates impacts from the Carbon Tax causing a much higher impact than estimations by treasury.
- The Carbon Tax will directly affect the transport sector in two years and will subsequently have knock-on effects for farmers, processors and retailers.
- Dairy processing costs will also be affected by the new scheme. Input prices for electricity, natural gas, packaging and chemicals are all likely to rise. The introduction of carbon pricing will impact differently on individual farms and companies, but poses a challenge for all suppliers to maintain margins and cost competitiveness.

Where to from here?

A critical challenge for the region's future development is to maintain a balance in the supply chain where the milk supply will be contracted to a market requirement at prices which can ensure both sustainability for producers and suitable margins for processors. The industry in the northern region faces a number of opportunities and threats in future.

	Opportunity	Threat
Internal	• **Larger regional farms** have scope to earn reasonable operating margins over time. • **Feed costs** lower than historical averages due to abundant global grain supplies and adequate regional rainfall to ensure good pasture growth. • The industry has a **good understanding of production systems** used and cost structures in the region as a basis to better manage future change.	• **Confidence of producers has been weakened** due to falling milk values and changes in market access to the grocery channel affecting average returns. • These have weakened **investment** & **labour hiring** intentions. • A significant portion of milk is produced on dairy farms operating with slim margins, further pressured in 2012/13 with downward pressure on milk prices. • Added costs and risks to dairy farming systems for flatter supply requirements from processors. • Shorter term demands on suppliers and their farm systems by processors. • Continuous changes to Tier 1 volumes and pricing disrupting confidence and investment at farm level .
External	• If stronger **growth in fresh white milk sales** in 2011/12 can be sustained it may provide confidence for further investment in marketing and product innovation to support total market growth . • **Regional population growth** will ensure increasing demand for fresh dairy products. • Improved levels in water storages will reduce pressure on regional irrigation water supplies. • Retailer and consumer interest in supporting **niche milk products** with clear ethical and health propositions (providing growth for a small number of enterprises) • Growth in population and living standards in Asia will create more opportunities for high-value dairy opportunities which could advantage the region.	• **Weak retail returns** are a strong risk while consumer spending is cautious as major grocery chains and discounters are likely to continue to use milk as a "value" product to attract shopper traffic. • Increasing **threat of a return to an El Nino phenomenon later in 2012** which risks reducing reliability of rainfall and increasing feed input costs. • **Increasing community scrutiny** of the impact of livestock production systems and practices. • Due to the **large geographic area** in the region, Increasing transport costs (including Carbon Tax impacts), will add to input costs, and the cost of moving milk from farms to market.

Contacts and further information

Northern Dairy Industry Development Group
Ph: (07) 3236 2955 Email: qdo@dairypage.com.au
www.dairypage.com.au

Queensland Dairyfarmers' Organisation Ltd
Level 8, Primary Producer House, 183 North Quay, Brisbane
PO Box 13061, George Street, Queensland 4003
Ph: (07) 3236 2955 Email: qdo@dairypage.com.au
www.dairypage.com.au

Australian Dairy Farmers Ltd
Level 2, Swann House, 22 William Street, Melbourne, Victoria 3000, Ph: (03) 8621 4200

Subtropical Dairy Program Ltd
32 Waterview Avenue, Wynnum Qld, 4178, Ph: 0438 715 625, Email: neale@dairyinfo.biz
www.dairyinfo.biz

Dairy Australia
Locked Bag 104Flinders Lane, Victoria 8009Ph: (03) 9694 3777
www.dairyaustralia.com.au

Australian Dairy Industry Council
Level 2, Swann House22 William Street, Melbourne, Victoria 3000, Ph: (03) 8621 4200

Australian Dairy Products Federation
Level 2, Swann House22 William Street, Melbourne, Victoria 3000, Ph: (03) 8621 4260

Industry Association of Australia (DIAA), www.diaa.asn.au

Dairy Manufacturers
You can find a listing of processors on Dairy Australia's website under "who makes what".