

IN THE AUSTRALIAN COMPETITION TRIBUNAL

of 2013

MURRAY GOULBURN CO-OPERATIVE CO LIMITED

**RE: PROPOSED ACQUISITION OF WARRNAMBOOL CHEESE
AND BUTTER FACTORY COMPANY HOLDINGS LIMITED**

Certificate identifying annexure

This is the annexure marked **MB12** now produced and shown to Maldwyn Beniston at the time of signing his statement on 28 November 2013.

Annexure MB12

Dairy Australia – Australian Dairy Industry in Focus 2011

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Australian Dairy Industry
In Focus 2011



Table 1. Australian dairy at a glance (2010/11)

National dairy herd	1.6 million cows	
Average herd size	230 cows	
Milk production	9,101 million litres	
Average annual milk production per cow	5,700 litres	
Dairy—Australia's 3rd largest rural industry	\$3.9 billion value at farmgate	
Milk utilisation	Cheese	33%
	SMP/Butter	27%
	Drinking milk	25%
	WMP	12%
	Casein/butter	2%
	Other	1%
Production of main commodities (tonnes)	Milk powders	373,750
	Cheese	338,600
	Butter (CBE)	122,500
Dairy—major export industry	\$2.75 billion	
	8% of world dairy trade	
Percentage of Aust milk production—exported	43%	
Major markets for Australian dairy products (tonnes)	Australia	2,825,700
	(including 2,385,000 of drinking milk)	
	Japan	103,500
	Greater China	103,000
	Singapore	83,900
	Indonesia	54,100
	Philippines	40,300
Per capita consumption	Drinking milk	103 lts
	Cheese	13 kgs
Dairy industry workforce	Direct employment of approximately 40,000 ABARES estimates a regional economic multiplier of 2.5 from the dairy industry	

Abbreviations

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences	n.a.	Data not available
ABS	Australian Bureau of Statistics	NCE	Natural cheddar equivalent—unit of conversion of processed cheddar, pastes and spreads to natural cheddar (1kg processed product weight = 0.806kg natural cheddar)
ADC	Australian Dairy Corporation		
AMF	Anhydrous milk fat		
AUST	Australia	NDFS	National Dairy Farmers' Survey 2011
BMP	Buttermilk powder	(p)	Provisional data
CAGR	Compound annual growth rate	(r)	Revised data
CBE	Commercial butter equivalent, a unit of conversion of AMF to butter (1kg butter = 0.805kg AMF)	SEQ	South-east Queensland/north-east New South Wales
cpl	Cents per litre	SMP	Skim milk powder
(e)	Estimated data	SNF	Solids non fat
DA	Dairy Australia	UHT	Milk subjected to ultra high temperature treatment to extend shelf life
EU	European Union	USD	US dollar
FNQ	Far north Queensland	WMP	Wholemilk powder
Gipps	Gippsland	WPC	Whey protein concentrate
MD	Murray Dairy (including northern Victoria and NSW Riverina)	WV	Western Victoria

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Contents

2	Foreword
3	Dairy 2011: Situation & Outlook
9	The Australian dairy industry
11	Farm facts
17	Milk production
21	Dairy manufacturing
22	Dairy markets
24	Australian consumption of dairy products
25	Drinking milk
27	Cheese
28	Butter
29	Other fresh and frozen dairy products
30	Milk powders
32	Whey products and casein
33	Industry organisations and structure
35	Industry levies

Appendices

38	Appendix 1. Dairying regions
39	Appendix 2. Milk production
40	Appendix 3. Manufacturing processes
43	Appendix 4. Domestic sales
44	Appendix 5. Supermarket sales
46	Appendix 6. Australian exports
51	Appendix 7. Australian imports
52	Index

Foreword



Australia's dairy industry is one of the three most important rural industries, with a farmgate value of over \$3.9 billion in 2010/11. Dairy ranks fourth in agricultural exports—valued at \$2.75 billion after export volumes lifted nearly 4% and the value of exports increased 15%, reflecting strong international dairy commodity prices. In the local market, supermarket sales of dairy products increased in both volume and value—with the retail value of the major dairy categories increasing by 2% to nearly \$5.2 billion in 2010/11.

Operating conditions for most in the Australian dairy industry improved dramatically in 2010/11. However, differences in price signals and demand outlooks highlight the significant regional variation across the country. While the benefit of higher commodity prices for Australian exporters was again constrained by the strong Australian dollar, farmgate prices for southern producers did improve strongly in the 2010/11 season.

Improved milk prices, combined with low grain prices and generally favourable seasonal conditions have provided southern region farmers with arguably the best production conditions for more than a decade.

Meanwhile, farmers in the northern and western regions of Australia continue to be affected by the fall-out from supermarket private label supply contract changeovers and heavy retail supermarket price discounting. This is impacting on confidence and the future production prospects in these regions. A large proportion of farmers surveyed in these domestically-focused states cited milk price as their main challenge in coming months.

Nevertheless, overall farmer confidence in the medium to long-term prospects for the industry remained relatively strong as reflected in the National Dairy Farmer Survey of 2011; and this was confirmed in a follow-up survey recently conducted. The feature article will follow the trend set in recent years and provide a *September Update* to the annual *Dairy 2011: Situation & Outlook* report. This year marks the eighth edition of this annual industry report which provides a comprehensive overview of the Australian and global dairy scene.

Dairy Australia is the industry's farmer-owned service organisation. Funded by farmer levies, with matching research and development funds from the Australian Government, Dairy Australia's role is to boost the long-term sustainability and viability of local farm businesses and the regional communities that depend on the dairy industry. The organisation works across the dairy supply chain in areas that benefit the entire industry—from farming through manufacturing, to domestic and export markets. More detail on the strategic priorities and the way Dairy Australia interacts with the other industry organisations is available in the Industry Organisations and Structure section on page 33.

I would like to extend Dairy Australia's thanks to the dairy farmer co-operatives and dairy companies that contribute to our regular data collections. Without their participation, *Australian Dairy Industry In Focus* could not maintain its reputation as the most comprehensive and credible collection of Australian dairy industry statistics available. Regular monthly updates of much of the industry production data included in this publication are available from www.dairyaustralia.com.au

The website also features *Dairy 2011: Situation & Outlook*, together with the *September 2011 Update*.

I trust you will find that this latest issue of *Australian Dairy Industry In Focus* remains a valuable source of knowledge and information on this important industry.

Ian Halliday, Managing Director

Dairy 2011: Situation & Outlook

Background

The *Situation & Outlook* report is prepared each year to provide a clear and timely picture of what is happening in the Australian dairy industry, key drivers of the industry and expectations for the future. It draws on the National Dairy Farmer Survey results, plus the views and opinions of global dairy market analysts, retail analysts, dairy company management, farm consultants and farm leaders.

As well as informing farmers, the report aims to provide factual insights into dairy for banks, governments, regional communities and suppliers of products and services to the dairy industry.

The full *Situation & Outlook* report was published in May; with an *Update* released in September.

The industry in September 2011

Operating conditions for most in the Australian dairy industry improved dramatically in 2010/11. However, differences in price signals and demand outlooks highlight some significant regional variations across the country.

Tentative signs of global economic recovery appeared early in the year and strong regional growth underpinned steady demand expansion

in key markets; while lower-than expected international supplies saw dairy commodity prices rise sharply in US dollar terms through 2010 and into early-2011.

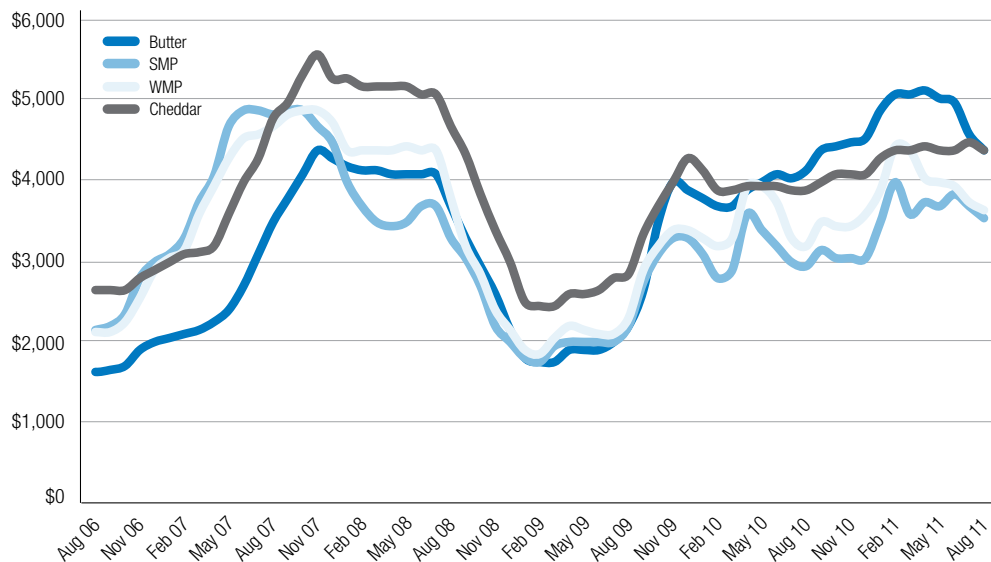
While the benefit of higher commodity prices for Australian exporters was again constrained by the strong Australian dollar, farmgate prices for southern producers did improve strongly in the 2010/11 season.

Improved milk prices, combined with low grain prices and generally favourable seasonal conditions have provided southern region farmers with arguably the best production conditions for more than a decade. However, in some regions the excessively wet conditions have actually curtailed feed production and herd productivity.

While cashflows have generally improved, this has merely enabled many producers to restore their financial positions following the shocks of the previous two seasons, while the finance sector is also now generally operating with much tighter controls on debt exposures.

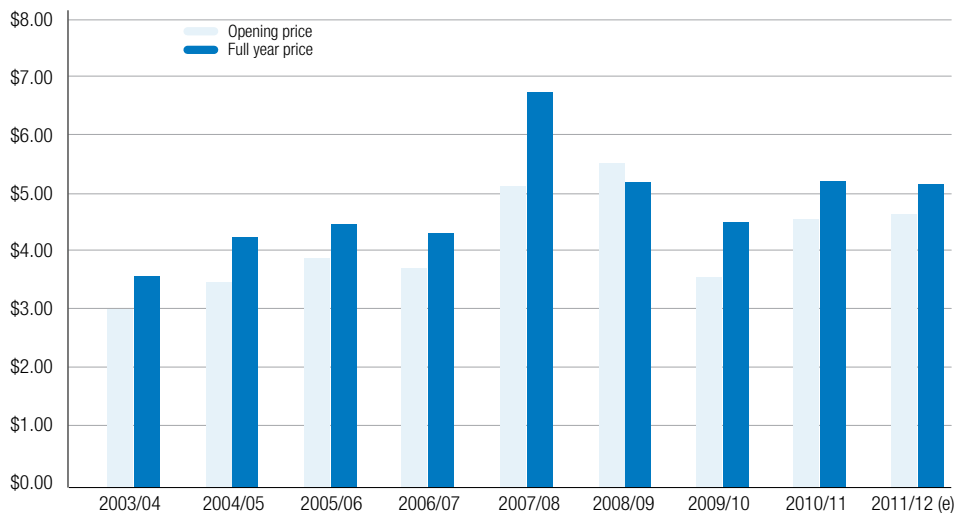
Farmers in NSW, Queensland and Western Australia continue to be affected by the fall-out from supermarket private label supply contract changeovers and the heavy retail price

Figure 1. Surveyed spot prices of Australian exporters (USD/tonne)



Source: Dairy Australia

Figure 2. Estimated milk prices paid to VIC/SA/TAS dairy farmers—AUD/kg MS



Source: Dairy Australia

discounting implemented from late-January 2011. This is impacting on confidence and the short and long term production prospects in these regions. A large proportion of farmers surveyed in these domestically-focused states cited milk price as their main challenge for the coming six months.

For farmers in southern exporting regions, the focus is always on the international market; which has been remarkably steady given the growing turmoil in international finance circles.

By mid-2011, the faltering US economic recovery was dealt a high profile blow with a credit rating downgrade highlighting and compounding debt problems. Unity for Eurozone countries is also being threatened by the magnitude of the debt crisis in a growing number of member countries, and their inability to effectively trade their way out of trouble.

There has been increasing talk of another financial crisis, which should it occur, could have serious implications for commodity markets. Credit and currency markets are already being affected, adding to the uncertainty in the current economic outlook.

Given the conditions affecting the world's major developed economies the relative stability of international dairy markets is remarkable.

While international dairy commodity prices have softened in recent months—with increasing supplies from New Zealand and Latin America in prospect and production growth in the US and

EU—prices remain historically high, and after initial falls from their peaks, price movements have been limited.

Spot prices for cheese—Australia's most important export product—have remained stable, with neither the earlier peaks nor the recent falls affecting spot prices.

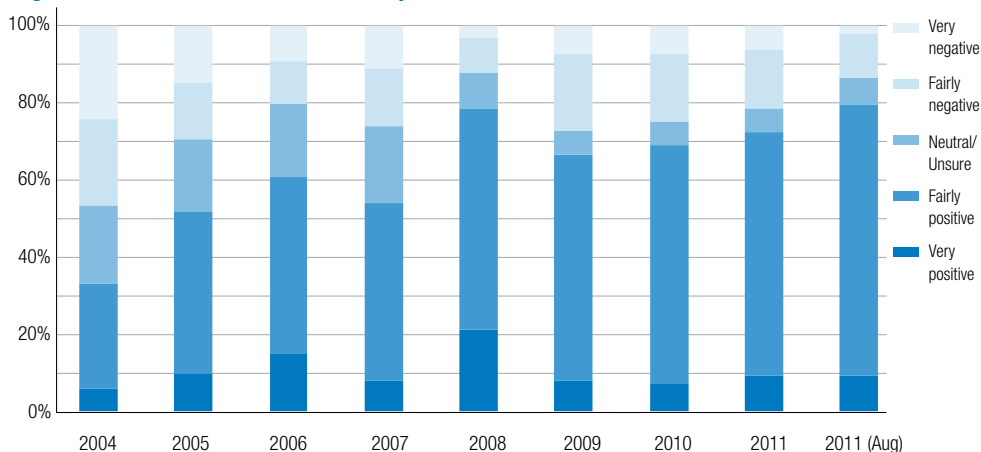
Based on the current outlook for the international dairy market, Dairy Australia's forecast range for southern prices full year farmgate prices is for \$5–10 to \$5–50 per kg milksolids (39 to 42 cents per litre).

However, given the softening in commodity prices and the strengthening of the Australian dollar since the forecast was originally made in May, expectations are now at the lower end of the range.

While dairy market fundamentals support this price outlook, developments in the wider global economy and currency movements will be major influencers on returns to Australian dairy manufacturers. Current major bank forecasts point to trading range for the Australian dollar between 85 and 105 US cents by the end of the year. Should this forecast be achieved it would be some improvement for exporters.

Given season opening prices were generally 3 to 5% higher, this forecast would suggest limited step up payments to farmers for the remainder of the season. However, competitive pressures between the processors seeking milk supply; the market / product mix and the exchange

Figure 3. Farmers' attitude to industry future—% of farms



Source: NDFS 2011

rate strategies of individual dairy companies will determine the final outcome for full year prices.

While this price outlook is slightly down on final 2010/11 milk prices, improved seasonal conditions and lowered feed costs should preserve profit margins, making the current season one of consolidation for most dairy farmers.

The local dairy market has performed well in a climate of increasing pessimism around cost of living increases and fears around weakening employment prospects. Consumers continue to be cautious in their spending and food prices remain under pressure. These conditions will maintain pressure on margins for domestically-focused processors and the farmgate prices paid to their farmer suppliers.

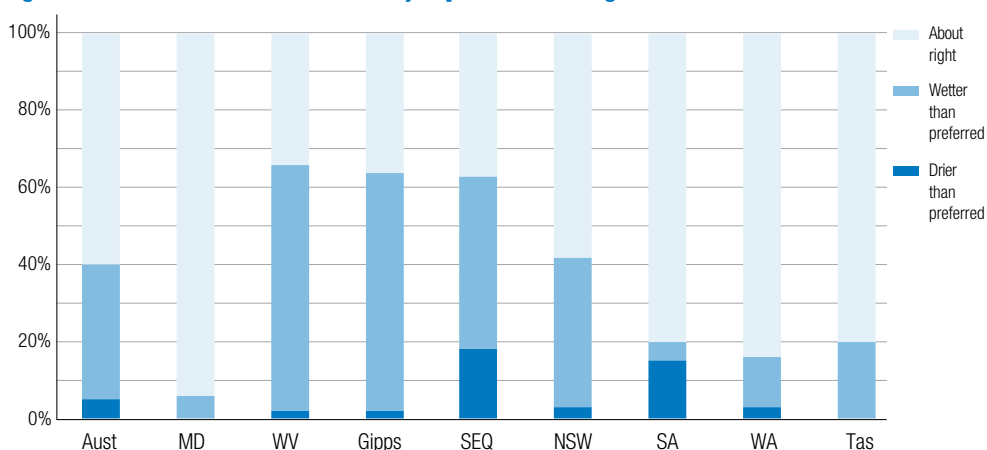
What did farmers say in August 2011?

Confidence in the future of the industry

The late-August update of the 2011 National Dairy Farmer Survey found 78% of farmers felt positive about the future of the industry—up from the 72% level in the main survey earlier in the year. Nevertheless, as always, there were significant differences across the various dairying regions of Australia based on seasonal and market factors.

All regions—with the exception of New South Wales—were more positive in August than they reported in the earlier survey; primarily due to strong dairy commodity prices and the prospect of positive seasonal conditions for the months ahead.

Figure 4. Seasonal conditions currently experienced—August 2011



Source: NDFS 2011

It is worth remembering that the main survey was conducted in February–March this year after a period of particularly heavy flooding across virtually all of Queensland, many areas of both northern and southern coastal New South Wales, and both northern and eastern Victoria. Western Australia was also experiencing on-going drought across the south-west corner of the state.

In the August update, 60% of farmers contacted described their season as “about where they would like it to be”. As one would expect, the survey results highlighted significant regional differences—from 94% of Murray Dairy region farmers who are happy with the season—because they have ample irrigation water for the first time in many years; to just 35% of western Victorian and Gippsland farmers enjoying favourable conditions—with two-thirds saying that it is too wet. In a full turnaround from last season, 84% of Western Australian farmers are happy with the season at the present time, 13% say it is too wet and only 3% said that it is drier than preferred.

Expectations of growth in production

Despite an overall high level of confidence, the outlook for milk production is mixed, with a slight drop in herd size reported by farmers in August. Earlier in the year respondents predicted their herds would average 285 milking cows in 2011/12; and this forecast has been revised down slightly in August to 282 cows. This is in line with the number of cows milked by this group in 2010/11.

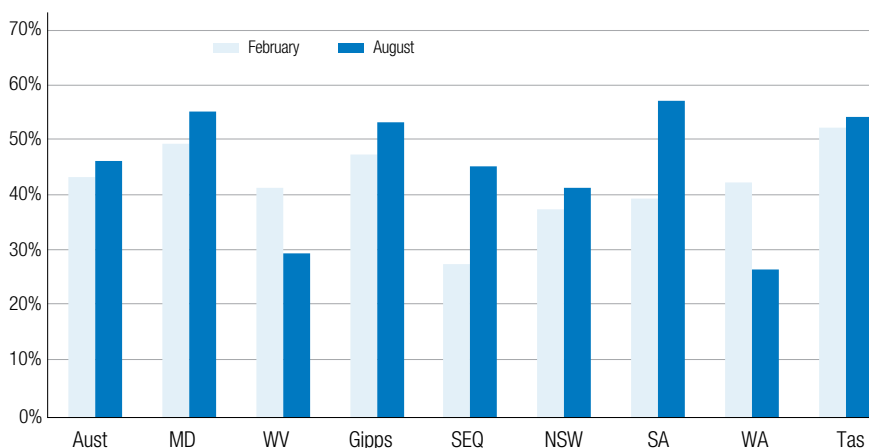
While some 60% of respondents anticipated their herd numbers to remain the same as predicted in March, 25% expect a smaller herd size and 14% a larger herd.

Looking ahead three years, expectations for growth have changed little since the early-2011 survey. Overall 47% of farms expect to increase production by 2013/14; 43% expect to remain the same; 3% to decrease; 6% don't know and 1% won't be in business.

However, there were significant regional shifts with fewer farmers expecting to increase production in western Victoria and Western Australia than previously; while more farmers were contemplating growth in south-east Queensland and South Australia.

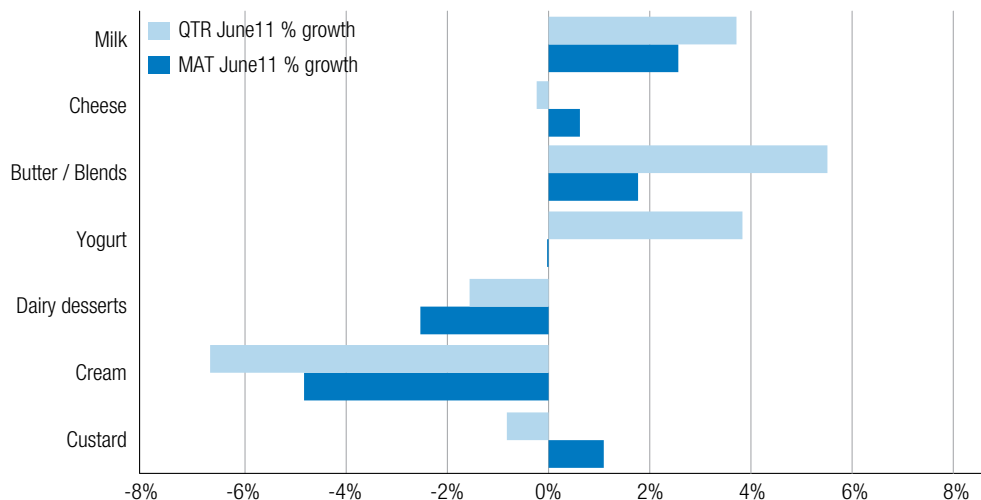
Increasing herd sizes and the availability of home grown feed are the main reasons behind increased production. Static production levels are often linked to farms currently operating at capacity; perceptions of unstable or unfavourable milk price are the key reasons given for reducing production.

Figure 5. Expected production growth in three years time—% of farms



Source: Dairy Australia

Figure 6. Domestic sales growth by dairy category—% volume change on last year



Source: Dairy Australia

International market outlook remains uncertain

World financial markets are in turmoil again amid renewed concerns that both the fragile US economy and a debt-ridden Eurozone could plunge the wider world back into recession—just three years after the last one.

Critically for international dairy commodities, demand for dairy imports remains strong, supported by China, Asia and the Middle East. Calls for emergency imports by Korea, Japan, Taiwan and India underline the tightness of these markets.

China will continue to be an important driver of dairy demand in the outlook period in two ways. Directly through imports of wholemilk powder [WMP] and other dairy ingredients; and indirectly, by supporting economic growth in the region and the wider global economy.

Such an outcome assumes the Chinese government's efforts to curb domestic inflation do not impact too heavily on economic growth, incomes and demand for dairy products.

And while the emerging markets in central and south-east Asia—major buyers of Australian dairy products—are somewhat insulated from the Eurozone fiscal problems, they remain vulnerable to an economic slowdown in China and to rising inflation.

Australian market situation & outlook

Consumer confidence has slipped over recent months to two-year lows on rising concerns about the global economy; share market volatility; fear of rising interest rates; softening house prices; and widening job losses.

Households remain cautious—with the Australian household savings rate now at 11.5%—a more traditional savings pattern not seen since the early-1980's.

ABS retail sales are generally sluggish—recording slowing growth in the food service sector.

While CPI-measured food inflation jumped to 6.1% for 2010/11, driven by flood and cyclone impacts on food production in early-2011, dairy prices were down 4.6%.

Nevertheless, against this background of growing economic uncertainty, the Australian dairy market has performed well for the quarter to June.

Domestic sales volumes lifted for the key milk, butter and yogurt categories. At the same time, wholesale prices have lifted across all product categories—with the exception of drinking milk which has been caught up in the supermarkets' 'milk price wars' since late-January 2011.

World supply

US milk production has been slowing over the past 10 months—from falling yields per cow due to extreme heat in the midwest, flooding from a hurricane in the northeast, and a deteriorating milk:feed price ratio as corn prices increase. Nevertheless, 2011 US milk production is still forecast to increase 1.5% to 86.1bn litres.

EU milk deliveries in the first half of 2011 were up 2% on last year—as farmers responded to higher milk prices this year. Nevertheless, EU supply is expected to be impacted by increased costs and production growth to slow to between 1 and 2% in 2011.

Milk production in Argentina has been very strong—increasing 16% to YTD July. Milk powder production in Argentina is at capacity, suggesting strong WMP availability on export markets. Excess milk will flow into cheese production and, while some will be absorbed within the region, product is also likely to be sold into export markets. Brazilian milk production is forecast to grow a comparatively modest 3%.

The Chinese dairy industry is still re-structuring following the 2008 melamine crisis. Milk production is expected to grow by around 3%, and with most local production destined for drinking milk, China is likely to rely on imports to meet demand for some time into the future.

Favourable conditions early in the new season suggest NZ milk production could grow by as much as 8% this year. With the first two months already up 10%, this forecast is supported by good pastures and dairy cows generally in good condition. If this rate of growth is maintained it would significantly impact market balance.

Australian milk production has started slowly in 2010/11, with very wet conditions in southern Victorian regions hindering production. However, a favourable seasonal outlook and opportunities for profitable production should see momentum build in coming months. Consequently, Dairy Australia is forecasting a 1.5% increase in 2011/12 milk production to 9.25 billion litres.

The Australian dairy industry

An important rural industry

The dairy industry continues to be one of Australia's major rural industries. Based on a farmgate value of production of \$3.9 billion in 2010/11, it ranks third behind the beef and wheat industries. It is estimated that approximately 40,000 people are directly employed on dairy farms and manufacturing plants. Related transport and distribution activities, and research and development projects, represent further employment associated with the industry.

Dairy is also one of Australia's leading rural industries in terms of adding value through further downstream processing. Much of this processing occurs close to farming areas, thereby generating significant economic activity and employment in country regions. Previous ABARES work estimates this regional economic multiplier effect to be in the order of 2.5 from the dairy industry.

Dairying is a well-established industry across temperate and some subtropical areas of Australia. While the bulk of milk production occurs in south-east seaboard states, all states have dairy industries that supply fresh drinking milk to nearby cities and towns. A range of high-quality consumer products, including fresh milks, custards, yogurts and a wide variety of specialty

cheeses, are produced in most Australian states. Nevertheless, the manufacturing of longer shelf life products, such as cheese and specialised milk powders, is steadily becoming more concentrated in the south-east region of Australia.

Strong growth characterised the dairy industry through the 1990s, but that growth has stalled in the last decade. The industry has experienced a slow recovery from the severe widespread drought of 2002/03, only to experience on-going dry conditions; with the resulting low water storage levels significantly limiting water allocations in irrigated dairying regions until a couple of seasons ago. The increasing level of market and margin volatility of the industry in recent years has served to undermine confidence in the outlook for many farmers who are seeking reliable returns on which to build a longer term future.

Table 2 details the long-term trends for a number of key industry measures.

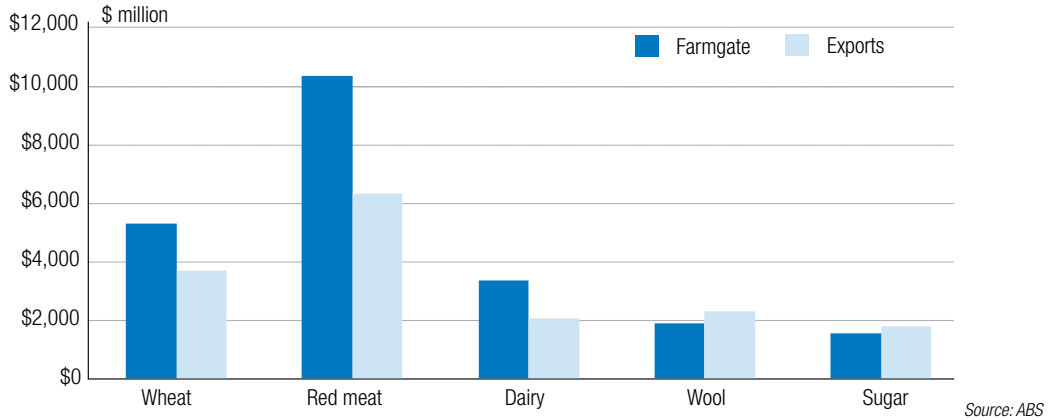
Figure 7 provides a comparison across the five major agricultural industries in Australia—comparing farmgate and export sales values—and shows the relative importance of the dairy industry within the agricultural sector.

Table 2. Australian dairy industry—long term trends

At June 30	1980	1990	CAGR 1980s	2000	CAGR 1990s	2011(p)	CAGR 2000s	CAGR 31 yrs
Milk production (m. lts)	5,432	6,262	1.4%	10,847	5.6%	9,101	-1.6%	1.7%
Dairy cows ('000)	1,880	1,654	-1.3%	2,171	2.8%	1,600	-2.7%	-0.5%
Farm numbers	21,994	15,396	-3.5%	12,896	-1.8%	6,883	-5.5%	-3.7%
Value of Farm Production*(\$m.)	\$3,325	\$3,099	-0.7%	\$3,788	2.4%	\$3,932	0.0%	0.5%
Per capita consumption (milk equiv)	239	244	0.2%	274	1.2%	298	0.8%	0.7%
Export Value*(\$m.)	\$1,004	\$561	-5.7%	\$3,454	20.4%	\$2,747	-2.0%	3.3%
Export Share of Production	22%	31%		54%		43%		

Sources: ABS, ADC, DA, State Authorities
CAGR = Compound Annual Growth Rate
*Expressed in 2010/11 dollars.

Figure 7. Farmgate value vs Export sales value—2009/10



A world-competitive industry

Australian dairy farmers operate in a deregulated and open market and have done so for over a decade; the only government involvement being in the administration of food standards and food safety assurance systems. Consequently, international markets and prices are the major factors determining the price received by farmers for their milk.

At an average of approximately US\$40 per 100kg of milk last year, Australian dairy farmers generally received a price comparable to many of the major producing countries. This represents quite a change in the trend apparent earlier in the decade where local prices received were among the lowest in the world; with the resultant imperative to operate highly cost-efficient production systems. Nevertheless, this was regularly borne out by international comparisons; where Australian farms consistently had costs of production in the lower cost category of all farms in such surveys. The fact that around

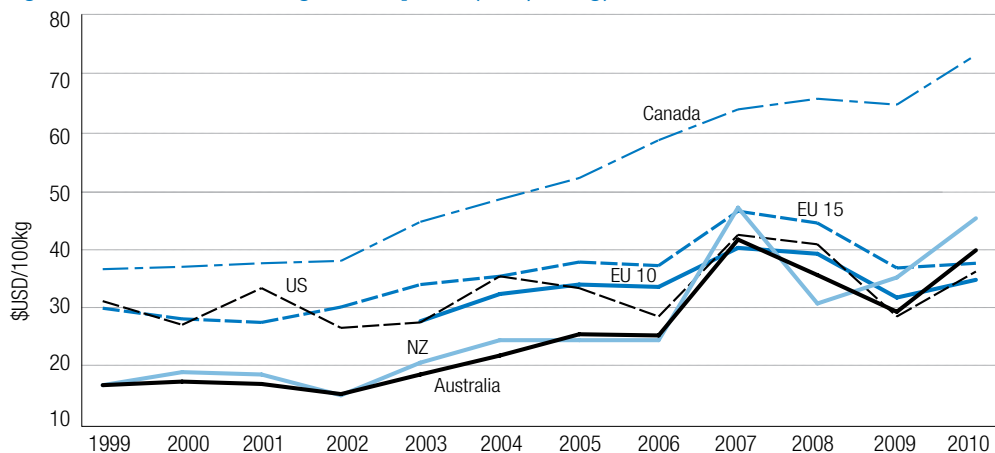
half of Australia's milk production has been exported over the last decade reflects this high level of competitiveness.

However, this has become increasingly difficult in recent years. Farm cost structures have increased in response to the need to adapt to drier conditions where rain fed pastures are regularly contributing a lower proportion of the total feed available to the herd. Consequently, Australia's share of international trade has trended lower as local milk production has contracted over the past decade.

As shown in figure 8, the convergence of prices received by farmers around the world during the commodity price boom in 2007 has continued, as prices appear to be more closely reflecting dairy commodity price trends in most of the major producing countries.

Exchange rates have also had an impact in the last year or two with the US dollar weaker against all major competing producer currencies lifting US competitiveness.

Figure 8. International Farmgate milk prices (USD/100kg)



Farm facts

South-east Australia's climate and natural resources are generally favourable to dairying and allow the industry to be predominantly pasture-based, with approximately 70–75% of the cattle feed requirements coming from grazing in a year of 'normal' seasonal conditions. This results in efficient, high-quality milk production.

Most dairy production is located in coastal areas where pasture growth generally depends on natural rainfall. Nevertheless, there are several inland irrigation schemes—most notably in northern Victoria and southern New South Wales.

Feedlot-based dairying remains the exception in Australia, although the use of supplementary feed—grains, hay and silage—is widespread and has increased significantly in recent seasons as farmers have had to adapt to drier conditions in many dairying regions.

According to the 2011 National Dairy Farmer Survey, 95% of dairy farms fed an average of 1.7 tonnes of grain, grain mixes or feed concentrates per cow during the 2010/11 season—marginally up from an average of 1.6 tonnes in the previous season. Feeding rates have increased steadily in most dairying regions around Australia.

Owner-operated farms dominate the Australian dairy industry. Share farming was employed on 16% of farms in 2010/11. Corporate farms make up just 2% of the total.

The number of farms has fallen by two-thirds over the last three decades from 22,000 in 1980 to just below 7,000 in mid-2011. The trend in farm numbers will often follow the trend in farmgate milk prices from season to season; with strong prices either slowing the rate of attrition or even reversing the long-term trend. At times of low milk prices farmers can choose to leave the industry or else cease dairying operations until market conditions improve.

Table 3. Number of registered dairy farms

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	3,601	11,467	3,052	1,730	622	1,522	21,994
1989/90	2,220	8,840	1,970	969	496	901	15,396
1999/00	1,725	7,806	1,545	667	419	734	12,896
2000/01	1,391	7,559	1,305	587	359	638	11,839
2001/02	1,323	7,079	1,152	538	344	612	11,048
2002/03	1,290	6,801	1,125	516	325	597	10,654
2003/04	1,096	6,242	967	458	305	543	9,611
2004/05	1,063	6,108	885	402	278	507	9,243
2005/06	1,024	5,892	802	383	245	498	8,844
2006/07	924	5,346	734	354	222	475	8,055
2007/08	886	5,422	664	332	186	463	7,953
2008/09	860	5,462	648	320	183	451	7,924
2009/10	820	5,159	621	306	165	440	7,511
2010/11 (p)	807	4,588*	595	286	170	437	6,883

Source: State Milk Authorities

* The licensing authority in Victoria conducted a comprehensive review of the operational status of dairy farms during the 2010/11 season at the expiry of their last three-year license period. This revealed a number of farm consolidations, transfers of ownership and cancellations over the three-year period—rather than the latest season as is suggested by the data in Table 3.

Nevertheless falling farm numbers do reflect a long-term trend observed in agriculture around the world, as reduced price support and changing business practices have encouraged a shift to larger, more efficient operating systems.

Average herd size has increased from 85 cows in 1980 to an estimated 230 currently. There is also a trend emerging to very large farm operations of more than 1,000 head of dairy cattle.

Analysis of the 2011 National Dairy Farmer Survey indicated that 11% of dairy farms had herd sizes of more than 500 cows and produced 33% of the total milk produced in Australia. At the other end of the spectrum, 26% of farms had fewer than 150 cows and produced just 8% of the milk.

The dominant breed in Australia is the Holstein Friesian, accounting for some 70% of all dairy cattle. Other important breeds include the Jersey, and Australia's own breed, the Illawarra.

Most breeding is by artificial insemination and so Australian farmers have access to some of the best genetic material in the world. Herd recording is widely practiced, with around half of all dairy farms regularly recording herd performance.

The genetic evaluation of dairy cattle is conducted by the Australian Dairy Herd Improvement Service (ADHIS), using one of the most sophisticated evaluation systems available.

Improved herd genetics, as well as advances in pasture management and supplementary feeding regimes, have seen average annual yield per cow double from 2,850 litres to around 5,700 litres over the past three decades.

Combining this increase in yields per cow with average herd sizes that are over two and a half times larger, the average milk production per farm has increased from 250,000 litres to 1,320,000 litres per year over the same period.

Table 4. Number of dairy cows (000 head)

	NSW	VIC	QLD *	SA	WA	TAS	AUST
At March 31							
1979/80	311	1,047	247	103	71	103	1,880
1989/90	238	968	201	89	64	92	1,654
1999/00	289	1,377	195	105	65	139	2,171
At June 30							
2000/01**	268	1,377	186	124	72	148	2,176
2001/02	264	1,363	174	110	75	134	2,123
2002/03	250	1,303	159	117	77	142	2,050
2003/04	248	1,297	171	116	74	133	2,038
2004/05 (e)	245	1,295	150	115	70	135	2,010
New Series***							
2005/06	222	1,217	127	104	67	143	1,880
2006/07	210	1,150	121	114	60	140	1,796
2007/08	195	1,055	100	103	54	134	1,641
2008/09	201	1,061	107	106	52	149	1,676
2009/10 (r)	203	1,014	98	92	55	134	1,596
2010/11 (e)	200	1,020	90	90	55	145	1,600

* For 1999 and 2000, Qld state figure includes Northern Territory cow numbers.

** From 2001 census date is June 30, NT and ACT numbers are included in national total

*** Change in ABS data collection

Source: ABS and Dairy Australia

Unlike many countries around the world, there is no legislative control over the price milk processing companies pay farmers for their milk. Farmgate prices vary between manufacturers, with individual company returns being affected by factors such as product and market mix, marketing strategies and processing efficiencies. Australian milk prices are based on the milkfat and protein solids content of the milk. Payments from processors to individual farmers can also vary significantly, as firms operate a range of incentive/penalty payments related to milk quality, productivity and out-of-season supplies. There are also volume incentives in place to encourage milk supply to particular processing plants to improve operating efficiencies.

The price farmers receive also varies across states, reflecting how milk is used in the marketplace. For example, many farmers in the southern regions receive a 'blended' price, incorporating returns from both drinking and manufacturing milk. However, higher prices are

generally received for year-round supply of milk under commercial contract arrangements in the northern dairy regions, where fresh drinking milk makes up a much larger proportion of the production mix.

Farmgate milk prices in southern regions are primarily driven by international commodity prices and competition for milk supply.

The 2010/11 season saw milk prices follow international dairy commodity prices up again to the second highest nominal farmgate milk prices on record.

Apart from the many factors affecting the milk prices received by individual farmers, as outlined above, the value of the Australian dollar in foreign exchange markets against the US dollar and the Euro is also critical in determining company returns. In the past decade, the Australian dollar has ranged in value against the US dollar from US\$ 0.52 to over US\$1.10.

Table 5. Average annual milk production per cow

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	2,870	3,012	1,984	3,163	3,105	2,958	2,848
1989/90	3,602	3,920	3,122	3,934	4,205	3,791	3,781
1999/00	4,827	4,989	4,349	6,790	6,338	4,381	4,996
2000/01	4,687	4,977	3,943	6,369	5,903	4,177	4,859
2001/02	5,030	5,391	4,067	5,933	5,402	4,646	5,215
2002/03	4,996	4,885	4,230	6,556	5,348	4,304	4,913
2003/04	5,093	4,944	4,162	6,021	5,285	4,219	4,925
2004/05	4,925	5,101	3,735	5,862	5,418	4,497	4,983
2005/06	5,039	5,221	4,076	5,791	5,369	4,581	5,108
2006/07	5,151	5,261	4,033	6,417	5,235	4,696	5,182
2007/08	5,031	5,393	4,163	5,799	5,907	4,961	5,275
2008/09	5,420	5,807	5,032	6,053	6,355	5,140	5,691
2009/10 (r)	5,329	5,518	5,052	5,907	6,641	4,640	5,448
2010/11 (e)	5,164	5,824	5,056	6,256	6,584	5,280	5,699

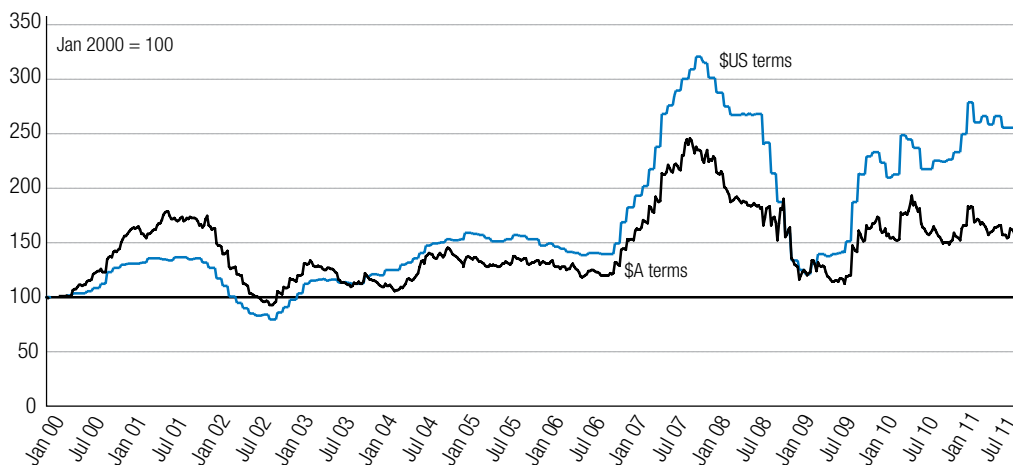
Source: Dairy manufacturers, ABS and Dairy Australia

The impact of currency changes on local returns is clearly shown in Figure 9. The Australian Export Index represents the weighted average value of a 'basket' of Australia's major dairy exports compared to a baseline set at January 2000.

The products included in the Index are butter, cheese, skim milk powder and wholemilk powder, and they are weighted by their contribution to Australia's dairy export volumes. The Index takes into consideration individual dairy product export price fluctuations and movements in the Australian/US dollar exchange rate.

The Index shows that early in the decade Australian industry returns benefited from a low Australian dollar compared to the US dollar. However export returns were relatively weaker in Australian dollar terms during 2007/08, where the Australian dollar was 'stronger' and averaged US\$0.90 over the season. In more recent times, an even stronger Australian dollar—well over parity with the US dollar for many months—has once again significantly lowered local currency returns from strong export markets.

Figure 9. Australian Export Index



Source: Dairy Australia and ABS

Table 6. Typical factory paid prices by state

		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11 (p)
NSW	cents/litre	34.3	35.7	48.6	52.4	48.7	48.3
	\$/kg milk solids	4.80	5.02	6.73	7.29	6.72	6.74
VIC	cents/litre	32.9	32.0	50.0	39.1	33.9	42.0
	\$/kg milk solids	4.44	4.32	6.68	5.14	4.49	5.58
QLD	cents/litre	36.6	38.8	51.8	57.2	55.8	53.1
	\$/kg milk solids	4.99	5.38	7.14	7.89	7.57	7.26
SA	cents/litre	32.0	32.6	48.6	44.6	34.6	38.0
	\$/kg milk solids	4.49	4.57	6.75	6.19	4.73	5.36
WA	cents/litre	29.1	32.4	41.4	49.0	42.4	43.4
	\$/kg milk solids	4.12	4.55	5.80	6.77	5.96	6.03
TAS	cents/litre	33.6	36.5	50.2	41.3	34.6	43.2
	\$/kg milk solids	4.39	4.79	6.63	5.40	4.46	5.59
AUST	cents/litre	33.1	33.2	49.6	42.4	37.3	43.2
	\$/kg milk solids	4.50	4.51	6.68	5.66	4.98	5.80

Source: Dairy manufacturers

The long-term downward trend in inflation-adjusted farmgate prices (Figure 10) is in line with returns from other agricultural industries over the past two decades. Despite the occasional peaks—in 1992/93, 2001/02, 2007/08 and 2010/11—the line has traditionally returned to trend and clearly illustrates the imperative to continually improve productivity throughout the industry. It does appear that the international dairy market might be under-going a structural realignment in recent years to support stronger milk prices, however the level of volatility has also increased significantly.

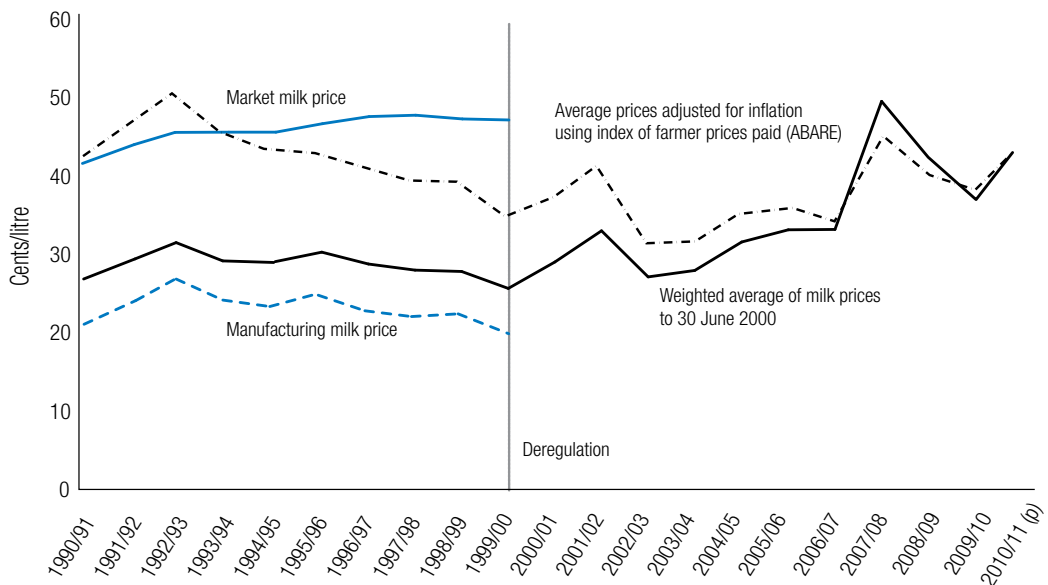
The average milk price in the dominant southern Australian dairying regions opened strongly at the beginning of the 2010/11 season as world dairy prices remained strong and finished the season about 16% ahead of the previous year. Australian milk production costs remained fairly steady in the latest season; with better seasonal conditions reducing bought-in fodder costs, but being offset by increasing interest costs as interest rates increased in the first half of the season.

The annual ABARES Farm Survey estimates the financial performance of Australian dairy farms. The two main measures are farm cash income (defined as total cash receipts less total cash costs) and farm business profit (which takes into account any build-up in trading stocks, less depreciation

and the value of farm labour). Trends in farm cash income and farm business profit have shown significant variability over the past decade. Figure 11 illustrates how they were strong in the year of record high milk production volumes in 2001/02—encouraged by a combination of favourable climatic and market conditions; fell due to the dramatic impact of the drought in the 2002/03 season; slowly recovered and consolidated over the following three years, before another financially crippling drought in 2006/07. Significant financial recovery occurred in 2007/08 driven by high farmgate milk prices; only to be reversed again in 2009/10 by sharply falling milk prices. Despite further improvement in farm cash incomes in 2010/11, this did not flow through to the farm business profit 'bottom line'.

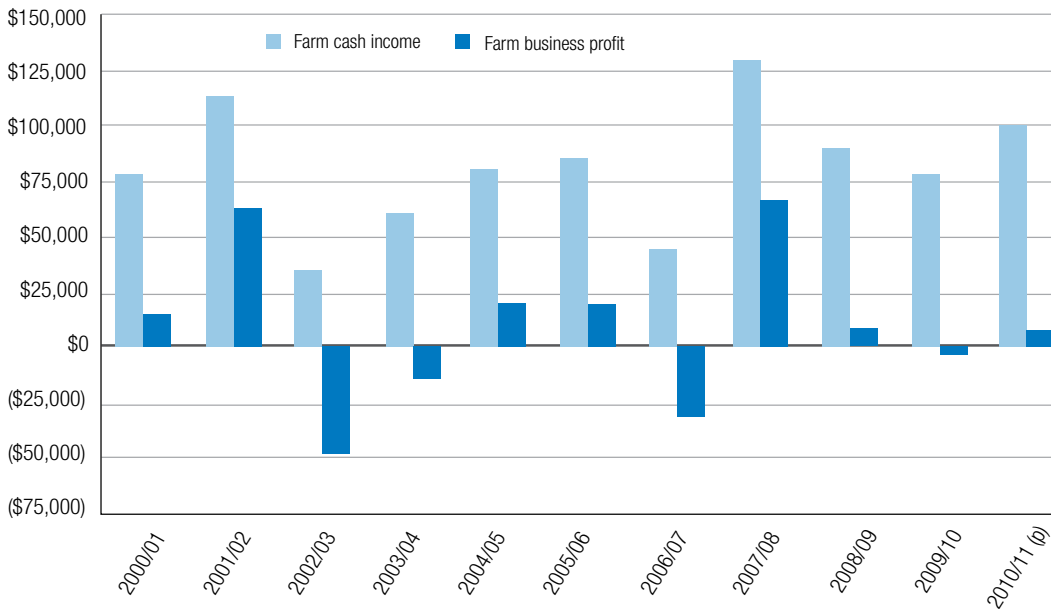
ABARES estimates that the average farm cash income rose nearly 30% to \$100,000 in 2010/11—9% above the ten-year average of \$91,000. The range of financial performance is very wide across Australia's dairying regions—from a low of \$59,800 in the north-east NSW / south-east Queensland region to a high of \$184,500 in South Australia. While all regions had positive average farm cash incomes last season, there would be very wide variations within regions—with 22% of dairy farms experiencing a negative cash income.

Figure 10. Factory Paid Prices (cents/litre)



Source: Dairy manufacturers and ABARES

Figure 11. Australian dairy farm financial performance



Source: ABARES

The national average farm business profit was estimated at just \$5,000 in 2010/11; compared to a marginal farm business loss of \$1,400 in 2009/10. Once again, the figures varied across regions, ranging from \$38,400 in north-east NSW/South-east Queensland to \$67,200 in South Australia.

Despite the significant financial pressures on dairy farming operations in recent years average, debt levels eased slightly last year—down \$24,000 to an average of \$664,000. Nevertheless, the level of farm business equity, as estimated by ABARES, remained around the long-term average of 80% as the capital value of farming land assets has also eased in recent times.

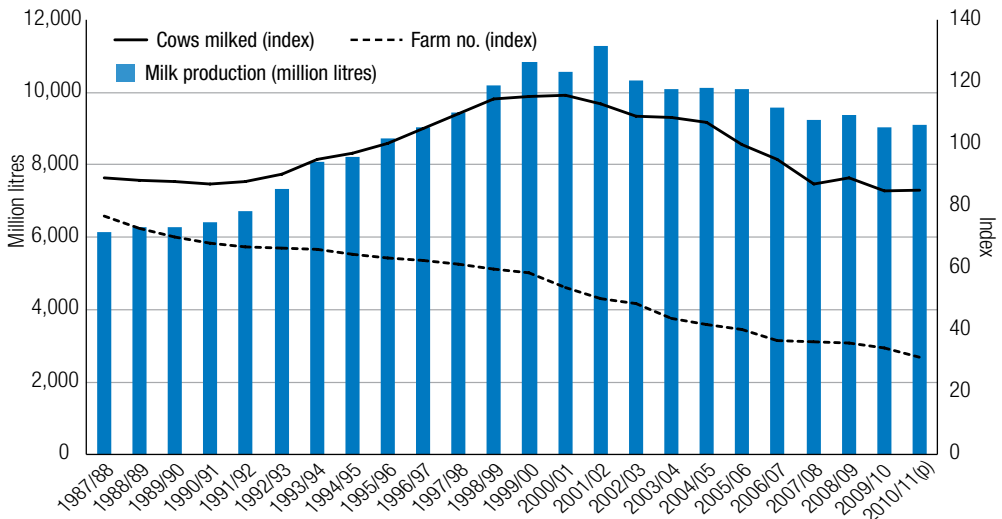
Milk production

While farm numbers have steadily decreased over the past three decades, milk output generally increased, due to increasing cow numbers and improved cow yields, that is up until the major drought of 2002/03. The following decade has been a period of consolidation for the industry, with falling cow numbers and dry seasonal conditions constraining production. While the last couple of seasons have seen a marked improvement in seasonal conditions across many dairying

and grain growing regions, volatility in milk prices and lower cow numbers have limited growth in milk production.

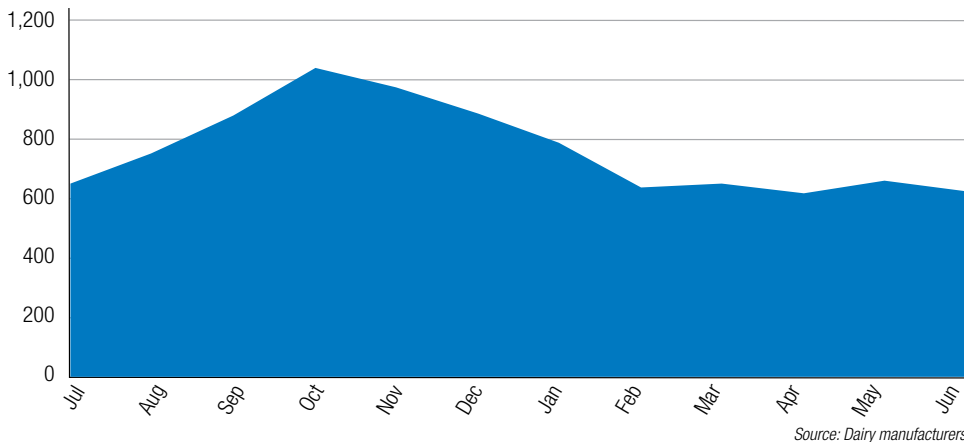
There have been significant on-farm adaptation strategies employed to manage the highly variable conditions of recent years, particularly in the inland irrigation regions of northern Victoria, and central and southern inland New South Wales where water allocations were very low for a number of years.

Figure 12. Australian milk production vs indices of farms and cows milked



Source: Dairy manufacturers, ABS, State Authorities and Dairy Australia

Figure 13. Seasonality of milk production in Australia, 2010/11 (million litres)



Source: Dairy manufacturers

As Figure 12 indicates, the underlying trend has continued to fewer farms, larger herds and increasing levels of milk production per farm. Farmers have made many changes to their general farm management practices and adopted a range of improved technologies, including soil testing, fodder conservation, supplementary feeding, improved animal genetics, artificial insemination programs, the use of new milking equipment and techniques, and the widespread use of computers to record and monitor herd and individual cow performance.

Milk production is concentrated in the temperate zone of Australia; as can be seen in Table 7 and the map of dairying regions in Appendix 1. Australian milk production remains strongly seasonal in the key south-eastern dairying regions, reflecting the predominantly pasture-based nature of the industry. Milk production peaks in October, tapers off until late-summer,

and then flattens out into the cooler winter months (refer to Figure 13). The production of long shelf-life manufactured products in these parts of the country has enabled maximum milk utilisation within the seasonal cycle. However, the seasonality of milk output in Queensland, New South Wales and Western Australia is much less pronounced, due to a greater focus on drinking milk and fresh products in these states. Farmers in these states manage calving and feed systems to ensure more even year-round milk production.

See Appendix 2 for more details on the seasonality of milk production by state.

Australian milk production increased by nearly 80 million litres, or 0.9%, to 9,101 million litres in 2010/11. This reflected a second consecutive season of improved conditions with plentiful water, lower input costs and strong milk prices. However, conditions did vary significantly

Table 7. Milk Production by state (million litres)

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	907	3,151	508	329	222	315	5,432
1989/90	879	3,787	629	356	267	344	6,262
1999/00	1,395	6,870	848	713	412	609	10,847
2000/01	1,326	6,784	760	699	388	590	10,546
2001/02	1,343	7,405	744	715	393	671	11,271
2002/03	1,302	6,584	720	733	404	585	10,328
2003/04	1,271	6,434	674	703	404	590	10,076
2004/05	1,218	6,613	619	679	398	600	10,127
New series*							
2005/06	1,197	6,651	597	646	377	622	10,089
2006/07	1,105	6,297	537	655	350	642	9,583
2007/08	1,049	6,102	486	606	319	662	9,223
2008/09	1,065	6,135	513	628	340	708	9,388
2009/10	1,074	5,790	529	605	350	673	9,023
2010/11 (p)	1,044	5,914	485	572	362	722	9,101

* From July 2005, data collection is based on farm location
Source: Dairy manufacturers

around the country; from very dry conditions in south-west Western Australia over most of the season, to a major cyclone and severe flooding across most of Queensland from late-2010 into early-2011. Parts of the New South Wales coast, northern and eastern Victoria also experienced widespread flooding during the year; with recovery efforts still underway in many regions.

Cows' milk consists of solids (milkfat, protein, lactose and minerals) in water, with water making up about 87% of the volume. The milkfat and protein components are those on which companies base their farmgate milk prices. Milk composition varies between regions due to a number of factors, such as cow breed and age, nutrition and feed quality, as shown in Table 8.

Total milk output has stabilised in recent years. Steady growth in the volumes of milk going into the drinking milk sector has seen its share of total milk production increase from a low point of 17% in 2001/02—the year of peak milk production—to over 25% in the 2010/11 season. Conversely, the proportion of milk used for manufacturing dairy products, and hence available for export, has been steadily declining over the decade, as shown in Figure 14.

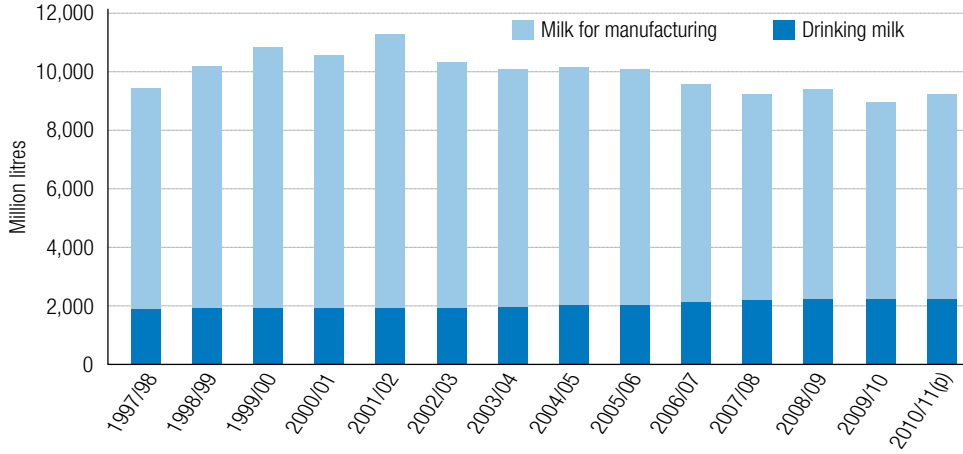
The differential in the proportion of drinking milk to manufacturing milk by state is shown in Figure 15. It graphically illustrates the much greater focus on drinking milk in the product mix of the dairying industries within Queensland, New South Wales and Western Australia.

Table 8. Average protein/fat composition by state (%)

	NSW	VIC	QLD	SA	WA	TAS	AUST
Milkfat							
2005/06	3.91	4.08	4.00	3.88	3.91	4.29	4.05
2006/07	3.88	4.09	3.98	3.90	3.92	4.25	4.05
2007/08	3.97	4.14	4.01	3.95	3.95	4.20	4.10
2008/09	3.93	4.22	3.97	3.93	3.99	4.25	4.15
2009/10	3.97	4.20	4.05	4.05	3.91	4.34	4.15
2010/11 (p)	3.92	4.15	4.00	3.82	3.96	4.28	4.10
Protein							
2005/06	3.25	3.33	3.33	3.25	3.15	3.37	3.31
2006/07	3.24	3.33	3.22	3.25	3.19	3.37	3.30
2007/08	3.25	3.34	3.25	3.25	3.19	3.39	3.32
2008/09	3.26	3.38	3.28	3.28	3.24	3.39	3.35
2009/10	3.27	3.35	3.33	3.27	3.20	3.41	3.34
2010/11 (p)	3.26	3.38	3.31	3.28	3.23	3.44	3.35

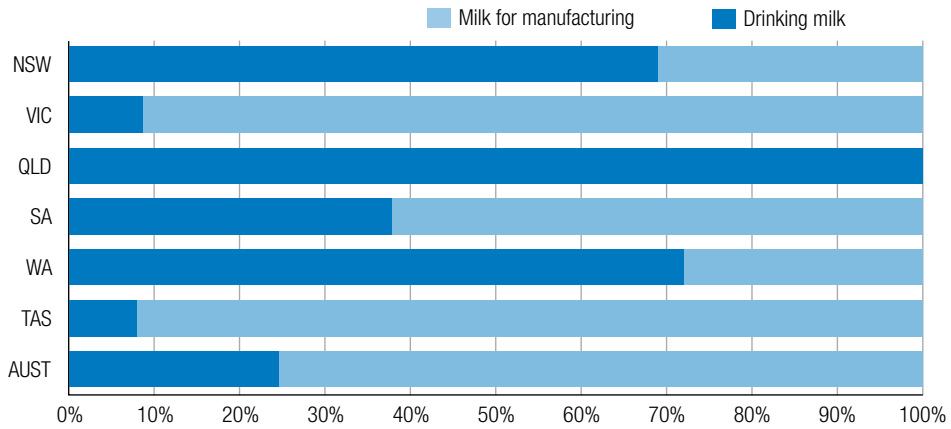
Source: Dairy manufacturers

Figure 14. Drinking and manufacturing milk production (million litres)



Source: Dairy manufacturers

Figure 15. Milk Production—shares by state, 2010/11



Source: Dairy manufacturers

Dairy manufacturing

As in the farm sector, the milk processing sector is undergoing continuing rationalisation. This has resulted in improved factory capacity, as larger operations have improved their efficiency and economies of scale. The lack of growth in milk production over the past decade has relieved the pressure on Australian dairy companies to continue to invest in increasing processing capacity—at least in the short to medium term. Instead, the challenge has been to remove surplus capacity and to utilise the existing capacity as profitably as possible.

The Australian dairy manufacturing sector is diverse and includes farmer-owned co-operatives, public, private and multi-national companies.

Farmer-owned co-operatives no longer dominate the industry and now account for less than 35% of Australia's milk production. The largest remaining co-operative is Murray Goulburn accounting for over 30% of national milk output. Smaller regional co-operatives include Norco and Hastings Valley; both situated along the north coast of New South Wales.

Other Australian dairy companies cover a diverse range of markets and products, from the publicly listed Warrnambool Cheese & Butter and Bega Cheese Limited (who now own Tatura Milk Industries and De Cicco); to the privately owned Regal Cream, Burra Foods and Longwarry Food Park to name a few; together with many highly specialised cheese manufacturers.

Large multi-national dairy companies have operated in the Australian dairy industry for many years and currently include Fonterra (New Zealand), Kirin (Japan) and Lactalis (France)—who took over Italy's Parmalat in mid-2011.

There were a number of changes in the ownership of dairy companies in the Australian industry during the 2010/11 season.

- Bega Cheese took a 15% share in Warrnambool Cheese and Butter.
- Murray Goulburn withdrew a merger proposal with Warrnambool Cheese and Butter—but retained their 10% stake in the company.
- Challenge Dairy, one of Western Australia's four major dairy processors, went into voluntary administration and closed down in late-2010.
- Harvey Fresh subsequently purchased Challenge's assets including land, buildings, plant and equipment.

- Private equity firm Archer Capital purchased Fonterra's Brownes [WA] dairy business through a company called the DairyWest Group.
- Lion—Dairy & Drinks (formerly National Foods) announced a major rationalisation of its national cheese processing capacity, concentrating the majority of its operations in Tasmania.
- Bega Cheese obtained shareholder approval and listed on the Australian stock exchange in August 2011 and soon after acquired the remaining 30% of Tatura Milk Industries that they didn't previously own.

The major manufactured product streams are:

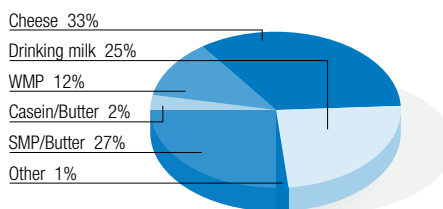
- drinking milk—fresh and UHT long-life;
- skim milk powder (SMP)/buttermilk powder (BMP)/butter;
- butter/casein;
- cheese;
- wholemilk powder (WMP);
- other consumer products, such as yogurts, custards and dairy desserts; and
- specialised ingredients, such as whey proteins, nutraceuticals, etc.

Cheese is consistently the major product stream; utilising around one third of Australia's milk production in 2010/11, and has remained around this level for a number of years.

Skim milk powder/buttermilk powder and drinking milk production were the two next largest users of milk; each taking about a quarter of the total milk produced in Australia.

Around 60% of manufactured product (in milk equivalent terms) is exported and the remaining 40% is sold on the Australian market. This contrasts with drinking milk, where some 97% is consumed in the domestic market.

Figure 16. The utilisation of Australian milk in 2010/11



Source: Dairy Australia

See Appendix 3 for more details on the manufacturing processes.

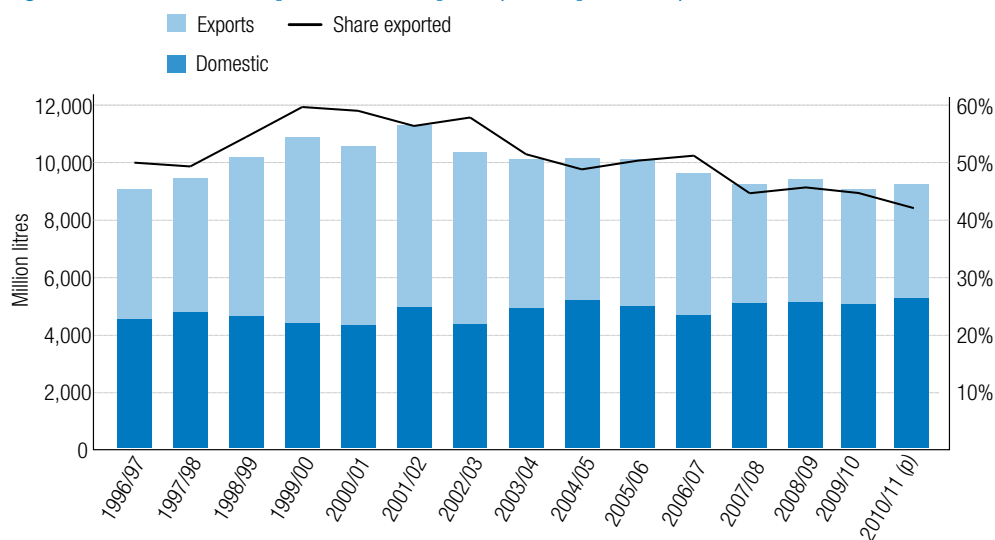
Dairy markets

Over the past two decades Australian milk production has been well above the volume required for domestic consumption, so that a significant proportion is destined for export markets. The share of total production exported has ranged from 40–60% over the period shown in Figure 17. Over the last four years Australia has exported around 45% of its milk production—the lowest proportion since the mid-1990s, due to the reduced availability of product.

While Australia accounts for an estimated 2% of the world's milk production, it is a significant exporter of dairy products. Australia currently ranks fourth in terms of world dairy trade—with an 8% share—behind New Zealand, the European Union as a bloc and the United States.

Japan is the single most important export market for Australia, accounting for 16% of exports by value. Australian exports are concentrated in Asia, which represented 74% of the total dairy export value of A\$2.75 billion in 2010/11.

Figure 17. Australian composition and exports (milk equivalents)



Source: Dairy manufacturers and ABS

Table 9. Australian dairy markets by product, 2010/11 (A\$ million)

	Sth East Asia	Other Asia	Europe	Middle East	Africa	Americas	Other	Total
Butter/AMF	101	32	36	36	15	16	3	237
Cheese	103	473	16	68	29	20	22	731
Milk	31	30	0	1	0	0	12	73
SMP	234	174	5	65	7	5	15	504
WMP*	148	193	3	76	35	30	9	494
Other	214	301	8	55	4	42	85	708
Total	829	1,202	67	301	91	112	146	2,747

Source: Dairy Australia estimates and ABS

*Also includes infant powder

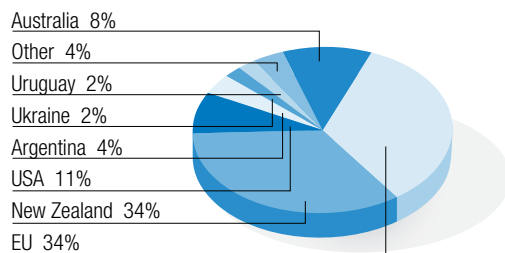
This concentration of exports in Asia/East Asia reflects both Australia's geographic proximity to these markets and the extent to which Australia is excluded from other major markets by direct restrictions (as in the case of the European Union) or the impact of the export subsidy programs of major competitor countries.

Asian markets have considerable potential for consumption growth as incomes rise and diets become more 'westernised'. Australian dairy companies have proven track records in supplying these markets over a number of decades. The Middle East and the Americas are also becoming increasingly important markets for many Australian exporters.

Australia's top five export markets by volume in 2010/11 were Greater China, Japan, Singapore, Indonesia and the Philippines; while the top five export markets by value were slightly different in Japan, Greater China, Singapore, Indonesia and Malaysia. The fastest growing export market for Australia in recent years has been Greater China; which is made up of mainland China, Hong Kong and Macau.

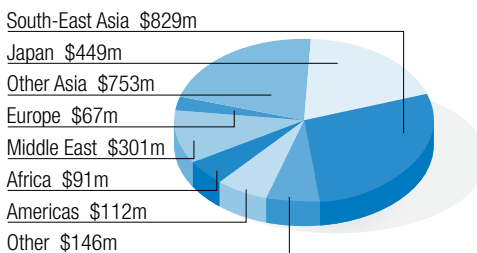
See Appendix 5 for detailed tables of Australia's export markets.

Figure 18. Exporters' share of world trade in 2010 (milk equivalents)



Source: Dairy Australia and ABS

Figure 19. Australian exports by region, 2010/11 (A\$ million)



Source: ABS

Table 10. Top 10 Australian export destinations, 2010/11

Country	Volume—Tonnes	% of Total	Country	Value—A\$ million	% of Total
Japan	103,483	13%	Japan	449	16%
Greater China*	103,013	13%	Greater China*	360	13%
Singapore	83,862	11%	Singapore	222	8%
Indonesia	54,134	7%	Indonesia	187	7%
Philippines	40,340	5%	Malaysia	134	5%
Malaysia	38,751	5%	Philippines	127	5%
Thailand	35,753	5%	Thailand	125	5%
New Zealand	31,810	4%	South Korea	123	4%
Taiwan	29,414	4%	New Zealand	116	4%
South Korea	29,066	4%	Saudi Arabia	103	4%

Source: Dairy Australia and ABS

* includes China, Hong Kong and Macau

Australian consumption of dairy products

The major Australian consumer dairy products are drinking milk, cheese, butter and butter blends, and yogurt.

Per capita consumption trends over the past two decades have varied quite significantly by individual product. These trends reflect changes in consumer tastes and preferences in response to a multitude of variables, such as multicultural influences on food trends, health perceptions about dairy products and manufacturers' responses (with low-fat variants), new product development, flavour and packaging innovations, competitive category offerings, and the distribution and hence availability of products.

Per capita consumption of drinking milk is currently estimated at around 103 litres, marginally up from last year, and at very high levels compared to many countries—thanks in no small part to the expansion of the 'coffee-culture' in Australia during the last decade.

Cheese consumption has stabilised in recent years at nearly 13kg per person; as has the split between cheddar to non-cheddar varieties—with approximately 60% being cheddar types and the remaining 40% spread across the wide range of non-cheddar cheese varieties available in Australia.

Annual per capita consumption of butter in Australia is just below 4 kgs. The introduction of butter and vegetable oil based dairy blends in the early-1990's—which are easier to spread and lower in saturated fats—helped stabilise a long-term decline in butter sales. Consumers are also interested in the 'naturalness' of butter, together with its superior taste and cooking functionality.

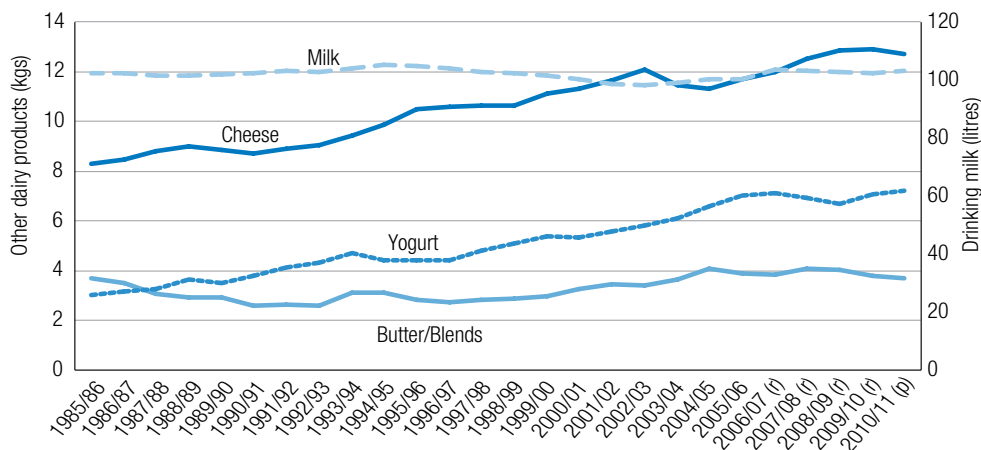
Yogurt is the ultimate 'healthy snack' for time-pressed consumers, combining both convenience and health attributes; with per capita consumption at just over 7kg per year.

Table 11. Per capita consumption of major dairy products (litres/kg)

	Milk (lts)	Cheese (kgs)	Butter / Blends (kgs)	Yogurt (kgs)
2006/07 (r)	103.4	12.0	3.8	7.1
2007/08 (r)	103.0	12.5	4.1	6.9
2008/09 (r)	102.6	12.9	4.0	6.7
2009/10 (r)	102.4	12.9	3.8	7.1
2010/11 (p)	103.0	12.7	3.7	7.2

Source: Dairy manufacturers and Dairy Australia

Figure 20. Per capita consumption (litres/kg)



Drinking milk

Regular or full cream milk is standardised to a milkfat content of around 3.4 to 3.6%. Modified, reduced and low-fat milks are standardised to other specifications, with varying milkfat and solids non-fat levels. The cream removed during standardisation can be bottled as table cream or manufactured into butter or other dairy products.

Australian milk consumption has been steadily shifting from regular milk to modified milks, such as reduced and low-fat milks, over many years. This trend reversed for a period during 2008, as consumers responded to rapidly increasing retail prices by switching to the relatively lower-priced regular full cream milks. Nevertheless, the long-term trend in this category resumed the

Table 12. Drinking milk sales by type (million litres)

	Regular	Reduced	No Fat	Flavoured	UHT	Total
1989/90	1,257	322		111	40	1,730
1999/00	1,099	498		173	164	1,933
2000/01	1,094	415	95	165	165	1,934
2001/02	1,074	435	105	170	140	1,924
2002/03	1,055	440	120	174	153	1,942
2003/04	1,057	462	118	190	154	1,981
2004/05	1,063	492	116	199	154	2,024
2005/06	1,093	488	124	201	155	2,061
2006/07	1,107	530	125	213	181	2,156
2007/08	1,119	551	123	213	183	2,188
2008/09	1,136	569	118	210	196	2,229
2009/10	1,133	590	119	215	211	2,269
2010/11 (p)	1,140	630	110	228	208	2,316

Source: Milk processors and State Milk Authorities

Table 13. Drinking milk sales by state (million litres)

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	531	437	249	127	119	41	1,504
1989/90	582	449	316	150	164	47	1,730
1999/00	597	440	383	185	190	48	1,933
2000/01	633	456	393	201	201	50	1,934
2001/02	625	460	403	186	200	50	1,924
2002/03	620	475	404	183	208	52	1,942
2003/04	627	476	418	196	212	52	1,981
2004/05	641	486	429	200	215	53	2,024
2005/06 (r)	660	499	444	192	216	50	2,061
2006/07 (r)	692	510	474	201	226	53	2,156
2007/08 (r)	682	524	485	205	237	55	2,188
2008/09 (r)	696	533	495	208	241	56	2,229
2009/10 (r)	709	545	499	213	247	57	2,269
2010/11 (p)	716	566	502	213	262	57	2,316

Source: Milk processors and State Milk Authorities

following year with full cream white milk volumes again losing share in a growing market to settle marginally above 49% share of total drinking milk in 2010/11. The trends across the other segments were mixed; with total modified milks up 4% and fresh flavoured milks up by over 5% for the year; while UHT milks were marginally down around 1% following two years of very strong growth.

There are now just two major players in the Australian drinking milk market: the enlarged Lion—Dairy & Drinks (formerly National Foods)—after their takeover of the Dairy Farmers Group in late-2008—(with the Pura and Dairy Farmers brands) and Parmalat (with the Pauls brand). Nevertheless, there are also a number of smaller players in the marketplace with strong regional brands and showing significant growth in recent years.

The supermarket channel's share of Australian drinking milk sales has continued to trend steadily up over recent years—to 52.5% in 2010/11. In late-January 2011 the supermarket channel saw an outbreak of 'milk price wars' as one of the major chains reduced its private label milk price to just \$1.00 per litre. This was immediately followed by competitors and has led to further shifting of sales from convenience and other outlets to supermarkets.

Supermarket sales volumes grew by 4.6% in 2010/11; with the comparative sales performance between branded (+2.3%) and private label milks (+6.9%) reversing the trends of the previous year.

Private label brands account for over 51% of total supermarket milk volumes, up from around 25% in 1999/2000. Their average price is significantly less than company branded products. This lower average price is due to a combination of product and pack size mix—with a greater proportion of private label purchases being bulk regular full cream milk.

On the packaging front, plastic bottles now account for around 80% of all milk sales in supermarkets, with the balance split evenly between gable-top cartons and UHT packs.

There have also been significant movements within the pack sizes bought by consumers in supermarkets. While the 2-litre plastic bottle remains the most popular size, with just over 40% share, this is down from close to 50% eight years ago. Similarly, the combined share of 1-litre cartons and plastic bottles has slipped from 33% to 20%. The major change has been in the rapid growth of the 3-litre plastic bottle, increasing its share of all supermarket milk sales from 13% to over 35% since it first appeared in June 1998.

In 2010/11, the average price of branded milk remained steady at \$2.11 per litre. When combined with a 9% decrease in the average private label price to \$1.11 per litre, delivered a fall in the average supermarket price of 5 cents per litre to \$1.60 per litre.

This has been due to the impact of price reductions since late-January 2011.

Australia exports relatively small volumes of milk—predominantly as UHT product—with over 80% of the total going into the Asian region and nearly 15% into the island countries of the Pacific region.

See Appendix 6 for more details of drinking milk exports.

Cheese

Australia produced 338,600 tonnes of cheese in 2010/11 – a decline of 3% on the previous year. Production volumes are significantly less than earlier in the decade as the availability of milk trended downward since that time. Another factor in more recent years, as milk production has stabilised, has been the impact of dairy companies changing their export product mixes to take advantage of favorable movements in international dairy commodity prices.

The product mix continues to steadily change; with non-cheddar cheese varieties consistently increasing share of total production in Australia. In the latest season, production of cheddar cheeses fell for the fourth year out of the last five; with very strong growth in fresh cheeses offsetting a fall in semi hard cheeses from an unusually high figure in the previous year.

There has been a long term trend in production away from cheddar cheeses and toward non-cheddar cheese types. The non-cheddar share of total production volumes has steadily increased from 30% three decades ago, to 45% a decade ago, to around 55% in recent years.

Cheese is a major product for the Australian dairy industry; with sales of around 213,000 tonnes of domestic product within Australia, valued at an estimated A\$1.6 billion; and export sales of a further 163,000 tonnes, worth A\$731 million in 2010/11.

It is estimated that around 55% of the domestic sales of Australian cheese are through the major supermarket chains. Consequently, a significant proportion—of predominantly specialty cheeses—are sold through the smaller independent retail trade made up of delicatessens and specialty food stores; with the remainder used in the foodservice sector and in food processing applications.

Sales volumes through the supermarket channel have increased marginally in 2010/11. However, retail sales values remained unchanged, implying that average retail prices decreased slightly over the year.

Imports accounted for an estimated 25% of the Australian cheese market. In 2010/11, 68% of the 72,900 tonnes of cheese imported into Australia was sourced from New Zealand. The bulk of the remaining cheese imports came from the US and Europe.

Japan remained Australia's most important overseas cheese market in 2010/11 and accounted for nearly 50% of product exports; followed by China, South Korea, Saudi Arabia and Malaysia. Australian cheeses were exported to nearly 70 countries around the world last year.

A long-term trend away from cheddar cheeses and toward non-cheddar cheese types is also evident in Australia's cheese exports; with the non-cheddar share of total export sales steadily increasing from 60% two decades ago, to just over 70% in recent years.

Table 14. Australian cheese production by type of cheese

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Cheddar	191,694	179,159	171,260	178,360	164,218	154,718
Semi hard	76,813	75,529	73,854	61,659	82,494	68,176
Hard grating	23,022	18,477	16,908	17,924	12,215	13,590
Fresh	75,441	84,443	90,934	75,435	81,709	95,431
Mould	5,847	6,030	7,966	8,915	8,663	6,665
Total cheese	372,816	363,638	360,922	342,293	349,298	338,580

Source: Dairy manufacturers

Butter

In 2010/11, Australia produced 122,500 tonnes of butter and anhydrous milkfat (AMF) or butteroil in commercial butter equivalent terms (CBE)—a 5% decrease on the previous year as manufacturers changed their product mixes to take advantage of strong international milk powder prices.

AMF is butter with the water removed. It is primarily produced for export and domestic food processing applications, such as bakery and confectionery. While these sectors also use butter, the majority of domestic butter sales are through retail and foodservice outlets.

The introduction of spreadable butters and vegetable oil-based dairy blends, which are easier to spread and lower in saturated fat, has helped to stabilise domestic market sales in the last two decades, after a sustained decline through the 1970s and 1980s.

Nevertheless, Australia's total retail market for tablespreads has generally shrunk over the last decade. Consumer concerns about margarine consumption have meant a continuing decline in share; with dairy spreads taking further retail market share from margarine. This has been a continuing trend over the decade, as dairyspreads' share of the category has

steadily increased from 30% in 2000/01 to approach 45% by the end of the decade.

It is estimated that around 55% of the domestic sales of Australian dairyspreads are through supermarkets. Supermarket sales volumes contracted slightly in 2010/11; together with an increase of around 4% in average retail prices during the year, delivering an increase in retail sales value of around 3%.

See Appendix 5 for more details of supermarket butter and dairy blend sales.

Australian exports of butter and AMF can vary significantly from year to year, depending on milk availability during the season and local dairy company responses to international prices for competing products.

Export volumes were down 23% last year to 55,900 tonnes—with strong prices delivering a 19% increase in value to A\$251 million.

Australia's most important overseas markets for butter/AMF were the Russian Federation, Singapore, the Philippines, South Korea and Malaysia—out of a total of nearly 50 countries.

See Appendix 6 for more details of butter and AMF exports.

Table 15. Butter and AMF production

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11 (p)
Butter/Butter Blends (CBE)	92,850	101,666	99,202	109,753	100,134	96,326
AMF (CBE)	52,904	31,434	28,416	38,742	28,245	26,160

Source: Dairy manufacturers

Table 16. Australian exports of butter and AMF (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Butter	35,525	44,279	34,636	43,968	41,691	33,463
AMF (CBE)	46,816	36,689	22,516	26,529	31,995	22,440

Source: Dairy Australia & ABS

Other fresh and frozen dairy products

Australian manufacturers produce a range of fresh dairy products, including yogurts, dairy desserts, chilled custards and creams, dairy dips and frozen products such as ice-cream. To cater for the health concerns of modern consumers—a major driver in food choices—the majority of dairy products are available in low fat formulations.

Yogurts have been a category of considerable growth for the dairy industry over the past two decades, due to their ability to meet consumer requirements for convenient, healthy snacks in an environment of time-poor lifestyles. The segment is dominated by strong international brands, such as Ski, Yoplait and Nestlé. The Danone brand re-entered the local market in 2010/11.

Growth in yogurt sales has been underpinned by regular product innovation in the areas of packaging, flavour combinations and the use of probiotic cultures, as well as new products, such as drinking yogurts.

Marketing support in terms of advertising new product ranges and flavour innovations is important in encouraging consumer trial and subsequent category growth.

Dairy desserts are a low volume / high value dairy category with slowly declining volumes in recent years. Marketed as an indulgence or treat item, these products are generally targeted to adult consumers and include mousses, crème caramels and fromage frais. Children's products include fromage frais and flavoured custards that often feature popular cartoon characters on-pack.

Chilled custards, a traditional favourite, have shown marginal growth in recent years as manufacturers have expanded their product offerings into small, snack-sized single-serve plastic cups sold in multi-packs.

The overall market for cream has declined in recent years—although recent economic uncertainty saw more people preparing meals at home and hence supporting sales. Regular and sour creams are both used extensively as accompaniments or ingredients, but are facing significant competition on the health front, often from other dairy products, such as natural yogurt.

See Appendix 4 for more details on cream, custard and dairy dessert sales.

Dairy dips are another low volume / high value dairy category; this one showing steady volume growth in recent years. Flavour innovations have been particularly successful in maintaining the consumer appeal of another traditional favourite in the dairy case.

Australia's consumption of ice-cream is relatively high by world standards—around 18 litres per head and third only to New Zealand and the United States. The market is stable in volume terms, if highly seasonal in certain stick line, or single serve, segments.

The major market development in recent years has been in premium indulgent treats, in both stick lines and smaller-sized take-home tubs. Refreshing fruit-based products are also popular with consumers seeking a healthy option within the category.

Nevertheless, sales of larger tubs (2-litre or greater) and multi-packs of stick lines continue to make up the majority of sales in supermarkets, while mid-range stick lines and ice-cream cones are the major volume products in the route trade.

Once again, strong international brands, such as Streets (from Unilever), Peters (from Nestlé) and Cadbury (from Kraft) dominate the category.

Milk powders

Australian manufacturers produce a range of milk powders. The technology used in both the production and use of powders has seen the range of specifications available from Australian manufacturers expand in line with customers' needs.

In the years up until the peak milk production season of 2001/02, the most obvious trend in milk powder production was a steady increase in the share of wholemilk powder (WMP) output—from a low of 25% in the early-to-mid 1980s to a peak of 50% share of all milk powders produced in Australia in 2001/02. Thereafter the trend has reversed again, with skim milk powder (SMP) production regaining share to make up some 60% of total milk powder production in the last couple of seasons.

As has been mentioned elsewhere, the limited availability of milk during the first half of the last decade and a stabilisation of milk production volumes in recent years has seen local dairy companies changing their product mixes to take advantage of the relative movements in international dairy commodity prices. This happens because the bulk of Australia's milk powder production volumes are sold into export markets.

Less than 20% of Australia's powder production is sold domestically. Retail outlets account for only a small percentage of domestic sales, with local usage mainly as a food ingredient.

Strong international prices saw skim milk powder production increase by 17% and wholemilk powder volumes increase by 20% in 2010/11.

Exported milk powder is often recombined into liquid milk products, particularly in tropical climates where fresh milk supplies are not available. It is also used in bakery products (improving the volume and binding capacity of bread, and ensuring crisper pastry and biscuits), confectionery and milk chocolates, processed meats, ready-to-cook meals, baby foods, ice-cream, yogurt, health foods and reduced-fat milks. Industrial-grade powder is used for animal fodder.

The major export markets for Australian milk powders are concentrated in Asia; with 80% of SMP export volumes and some 67% of WMP destined for the region in 2010/11. The Middle East is a growing market; now taking around 15% of Australia's milk powder exports.

See Appendix 6 for more details on milk powder exports.

Indonesia was the largest single export market for Australian-produced SMP in 2010/11, followed by India, Singapore, China and Thailand—out of some 50 export destinations.

Singapore was the largest single export market for Australian-produced WMP, followed by China, Sri Lanka, Indonesia and Saudi Arabia—out of a total of 65 export destinations.

Table 17. Australian production of milk powders (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11 (p)
Skim milk powder	205,495	191,475	164,315	212,030	190,233	222,484
Wholemilk powder*	158,250	135,364	141,974	147,544	126,024	151,269

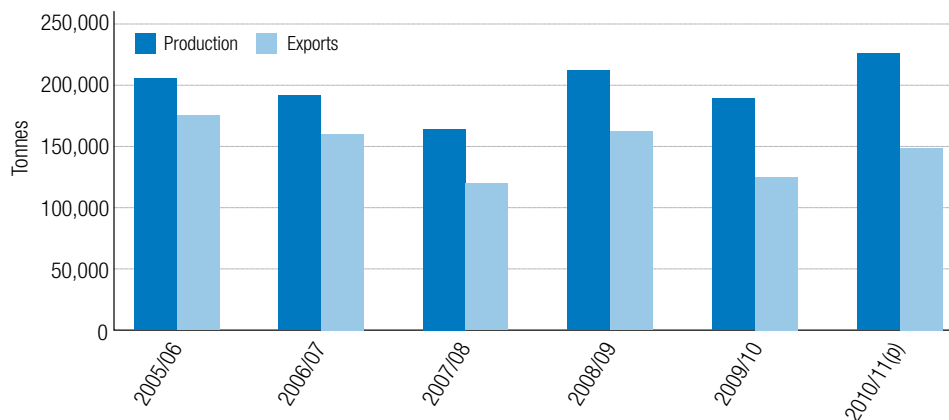
* includes infant powders

Source: Dairy manufacturers

Table 18. Australian exports of skim milk powder by region (tonnes)

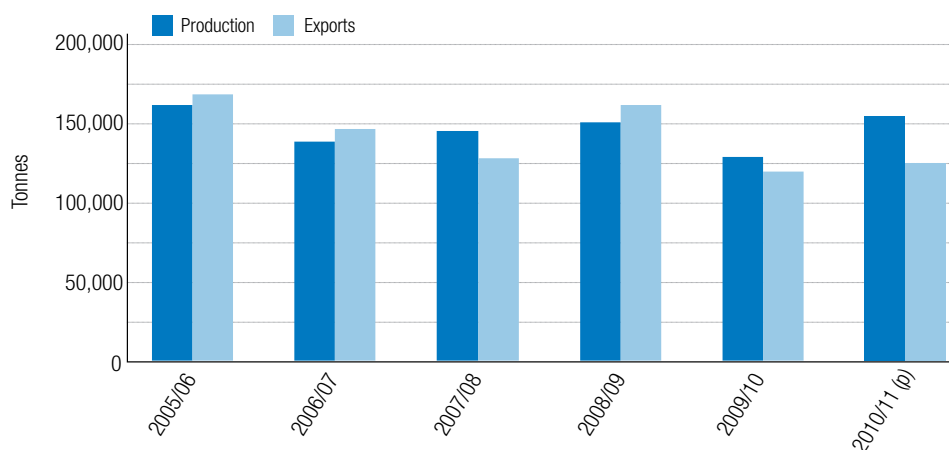
	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia	147,508	126,793	92,590	127,699	100,669	124,289
Middle East	19,042	19,878	22,010	20,906	17,829	21,496
Africa	3,704	6,023	2,353	6,180	1,462	2,307
Pacific	1,032	1,258	509	514	3,957	4,385
Americas	4,067	5,266	1,983	6,257	1,462	1,461
Europe	235	1,111	313	525	244	1510
Others	17	0	0	0	0	0
Total	175,605	160,329	119,758	162,081	125,623	155,448

Figure 21. Australian production and exports of skim milk powder (tonnes)



Source: Dairy manufacturers and ABS

Figure 22. Australian production and exports of wholemilk powder (tonnes)



Source: Dairy manufacturers and ABS

Table 19. Australian exports of wholemilk powder by region (tonnes)*

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia	123,036	99,840	90,208	102,025	80,271	84,468
Middle East	10,420	18,499	12,151	30,889	17,180	21,329
Africa	12,404	10,069	9,504	13,221	6,867	9,344
Pacific	5,879	3,474	2,759	2,330	2,226	1,447
Americas	13,068	11,111	10,327	9,548	10,001	8,458
Europe	26	450	198	20	204	809
Total	164,833	143,443	125,147	158,033	116,749	125,855

*Includes infant powders
Source: Dairy Australia & ABS

Whey products and casein

Whey is a by-product of the cheese making process. Traditionally this product was disposed of in liquid form. However, recognition of the value of whey's components has seen the production and utilisation of whey powders and protein concentrates increase significantly in recent years.

Food-grade whey powder is used in the manufacture of ice-cream, bakery products (cakes, biscuits), chocolate flavouring, infant formula, yogurt, beverages and processed meat. Industrial uses include animal feed (for pigs, horses and poultry), calf milk replacer and even as a carrier for herbicides.

Whey protein concentrates are used in snack foods, juices, confectionery, ice-cream, biscuits, processed meats, (milk) protein drinks, desserts, infant foods and dietetic products. Products such as cosmetics, skin creams, bath salts and detergents also contain protein concentrates.

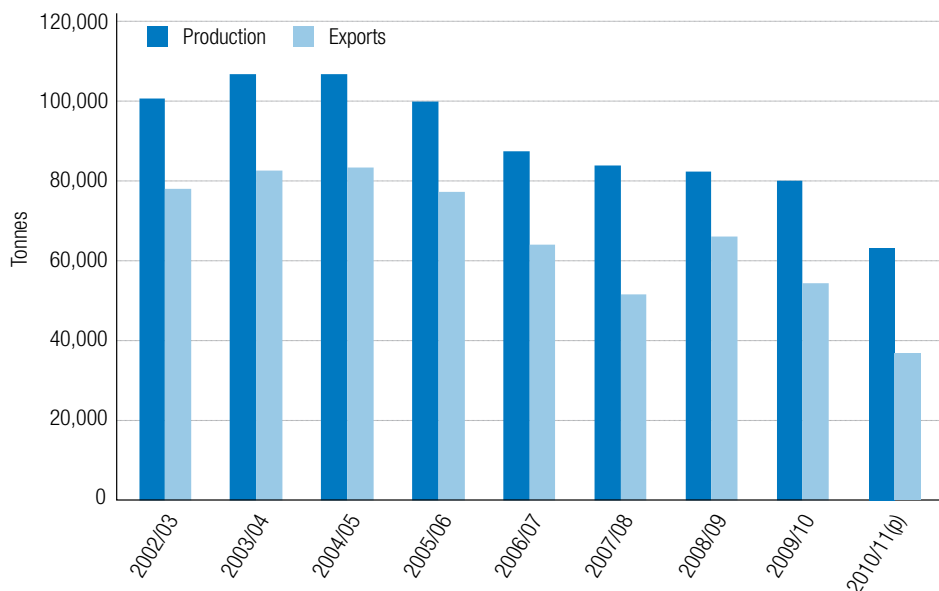
Approximately 35% of Australia's whey production is used domestically in the manufacture of infant formula, biscuits

and ice-cream. The remainder is exported; with China, Singapore, Indonesia, Japan and Malaysia, and being the largest export markets for Australian whey powders in 2010/11.

Casein and caseinates are ingredients in noodles, chocolate, sweets, mayonnaise, ice-cream and cheese manufacture. They are used as binding ingredients, emulsifiers and milk substitutes in processed foods. Industrial uses of casein and caseinates include: plastics (buttons, knitting needles); the manufacture of synthetic fibres and chemicals (plants, glues, glazed paper, putty and cosmetics); as a reinforcing agent and stabiliser for rubber in automobile tyres; a nutritional supplement and binder in calf milk replacers; and a range of other technical applications.

The majority of Australia's production of casein and caseinates is for export markets. The United States and Japan have been the largest export markets in recent years.

Figure 23. Production and exports of whey products (tonnes)



Source: Dairy manufacturers and ABS

Industry organisations and structure

The Australian dairy industry is diverse, incorporating primary production, manufacturing and marketing. Accordingly, a number of bodies represent the various sectors and provide a framework for the industry to work together.

Dairy Australia

Dairy Australia is the industry-owned national service organisation. Formed on 1 July 2003, Dairy Australia replaced the Australian Dairy Corporation and the Dairy Research and Development Corporation.

Dairy Australia is a company limited by guarantee, operating under the *Corporations Act 2001*. It is fully accountable to its members—those levy payers who elect to become members—and the peak industry bodies.

The structure provides farmers, as members, with a direct say in the activities of the organisation. To help the Australian dairy industry achieve its vision of growing an internationally competitive, innovative and sustainable industry, the organisation coordinates and delivers practical help to provide value for farmers' levy investment. Together with the farmer-paid levy, the company receives matching Federal Government research and development funds.

Dairy Australia invests the Dairy Service Levy, matching government funds and other money in activities across the dairy supply chain—from paddock to plate—to get the best outcomes for farmers, the dairy industry and the broader community. The company targets areas where there is a market failure or significant under-investment, such as human resource skills for retaining and developing staff, research, development and extension, trade policy, information, issues management and marketing

of the health benefits of dairy products and the industry itself.

Consequently, Dairy Australia's main role is to facilitate profitable partnerships, industry collaboration and collective action that pools and aligns industry funds, resources, expertise and in-kind support to meet critical industry needs.

Due to the integrated nature of the dairy industry, success of the farm and non-farm sectors is highly interdependent. While the bottom line for farmers is a profitable farming business, they also need an industry that can support them by buying their milk, processing it efficiently, and selling it to consumers in Australia and overseas. The dairy industry also needs strong domestic and international markets, continual innovation, and community support of its production processes and products.

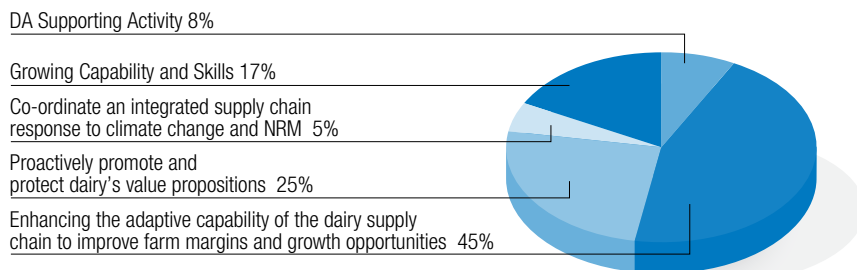
Dairy Australia has recognised the interdependence between the farm and non-farm sectors by developing core business objectives that operate across the dairy supply chain to deliver on-going value and improved margins for levy payers.

For the current 2012–16 planning cycle, Dairy Australia's strategic priorities are to:

- Improve farm margins and growth opportunities;
- Proactively promote and protect dairy's value and integrity;
- Co-ordinate an integrated supply chain response to climate change and natural resource management; and
- Grow skills and capability.

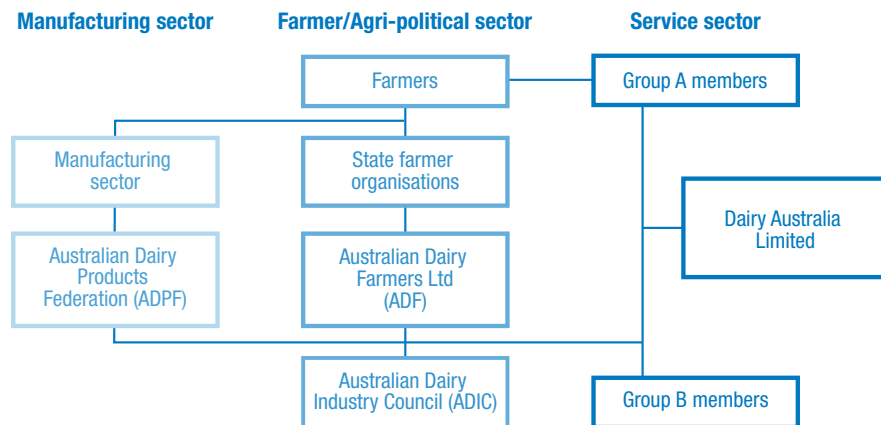
The organisation prepares an annual rolling five-year Strategic Plan. The current plan can be downloaded from www.dairyaustralia.com.au.

Figure 24. Dairy Australia's planned expenditure by strategic priorities for 2012 to 2016



Source: Dairy Australia Strategic Plan 2012–16

Figure 25. Australian dairy industry organisations



Australian Dairy Industry Council

The Australian Dairy Industry Council (ADIC) is the dairy industry's peak policy body. It coordinates industry policy and represents all sectors of the industry on national and international issues.

The ADIC represents farmers, dairy product manufacturers and milk processors through its constituent organisations:

- Australian Dairy Farmers Limited; and
- Australian Dairy Products Federation.

The ADIC has the task of bringing these bodies together to form a united view on issues affecting the dairy industry.

Australian Dairy Farmers Limited

Australian Dairy Farmers Limited (ADF) provides national representation for dairy farmers and forms the dairy commodity council of the National Farmers' Federation.

Its members include the six dairy farmer organisations, representing each state:

- New South Wales Farmers' Association's Dairy Committee (NSWFA);
- Queensland Dairyfarmers' Organisation (QDO);
- South Australian Dairyfarmers' Association (SADA);
- Tasmanian Farmers and Graziers Association's Dairy Council (TFGA);
- United Dairyfarmers of Victoria (UDV); and
- Western Australian Farmers' Federation's Dairy Council (WAFF).

Australian Dairy Products Federation

The Australian Dairy Products Federation (ADPF) is the national organisation representing the interests of dairy product manufacturers and traders. The ADPF's primary purpose is to promote the interests of its members, and the dairy industry in general, to the Australian and State Governments and other sectors of the community.

State dairy regulatory authorities

State dairy regulatory authorities are statutory authorities established under State legislation. They are responsible for all regulatory matters relating to the safety of milk and dairy foods produced and manufactured in their state.

The Australia New Zealand Dairy Authorities Committee (ANZDAC), with representatives from each state food safety organisation, AQIS, FSANZ and the New Zealand Food Safety Authority, aims to achieve greater uniformity and consistency in the application of dairy legislation, standards and management practices across Australia and with New Zealand.

The relevant State dairy and food regulatory authorities are:

- New South Wales Food Authority;
- Safe Food Production Queensland;
- Dairy Authority of South Australia;
- Tasmanian Dairy Industry Authority;
- Dairy Food Safety Victoria;
- Health Department of Western Australia; and
- Territory Health Services.

Industry levies

Dairy Services

Dairy Australia is funded by farmer-paid levies that are imposed on the fat and protein content of all milk produced in Australia.

The Australian Government matches expenditure on the industry's research and development activities that meet established criteria.

All Australian dairy farmers had the opportunity to participate, by mail, in the Dairy Services Poll 2007 conducted during February and March 2007. Compared to levy polls in other agricultural industries, a high participation rate of 53% was achieved. Some 68% of votes were cast in favour of maintaining the Dairy Service Levy at its current rate. The next Dairy Services Poll will take place early in 2012.

Animal Health Australia

Australian dairy farmers also contribute to the funding of Animal Health Australia (AHA), as do farmers in all other livestock industries. AHA is a non-profit public company limited by guarantee. Members include the Australian, state and territory governments, and key commodity and interest groups. AHA's task is to facilitate partnerships between governments and livestock industries, and provide a national approach to animal health systems. The Animal Health Levy is the dairy industry's contribution to AHA programs.

Table 20. Average rate of milk levies for 2011/12

	Milkfat (cents/kg)	Protein (cents/kg)	Milk* (cents/litre)	Milksolids (cents/kg)
Animal Health	0.0373	0.0880	0.004	0.06
Dairy Services	2.6075	6.3558	0.320	4.29

** Based on average 2010/11 Australian milk composition of 4.10% milkfat and 3.35% protein*

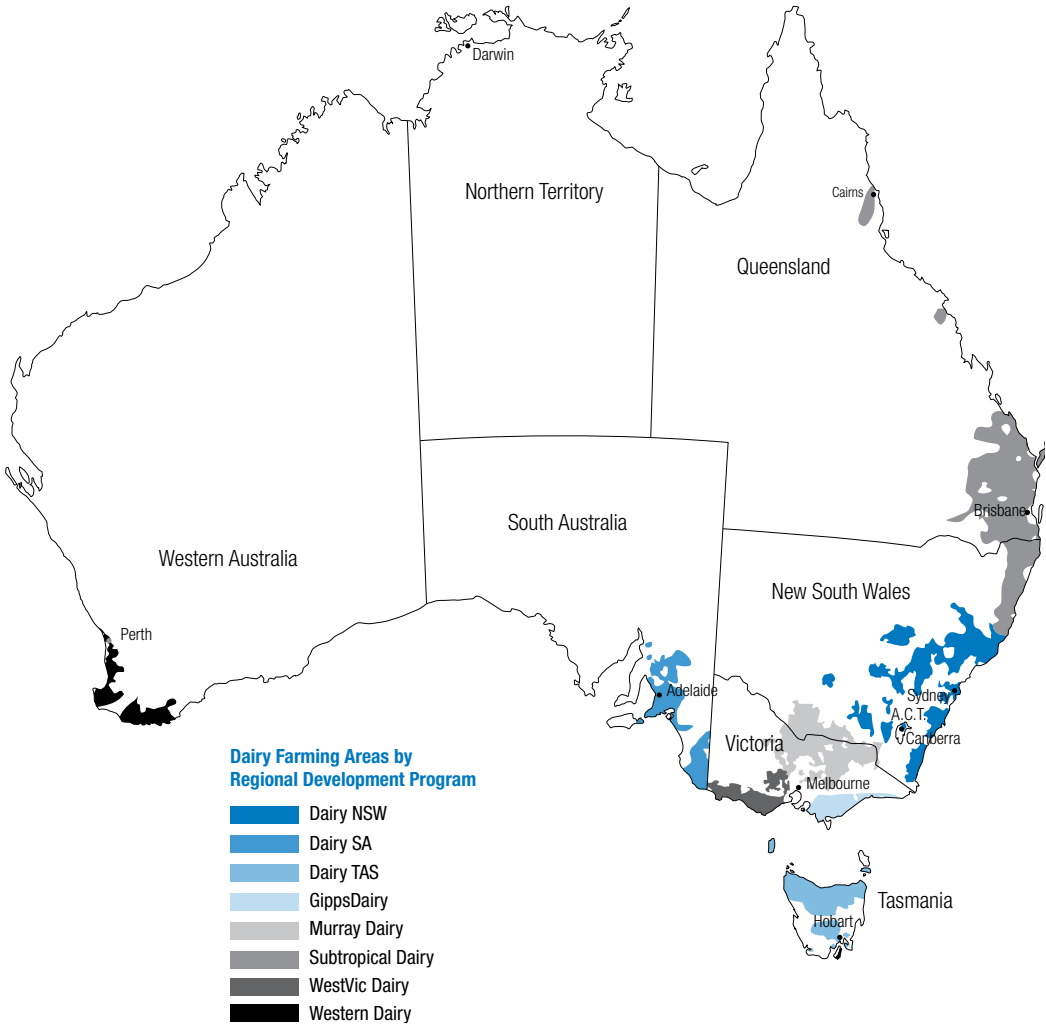


Appendices

- 38** Appendix 1. Regions
- 39** Appendix 2. Milk production
- 40** Appendix 3. Manufacturing processes
- 43** Appendix 4. Domestic sales
- 44** Appendix 5. Supermarket sales
- 46** Appendix 6. Australian exports
- 51** Appendix 7. Australian imports
- 52** Index

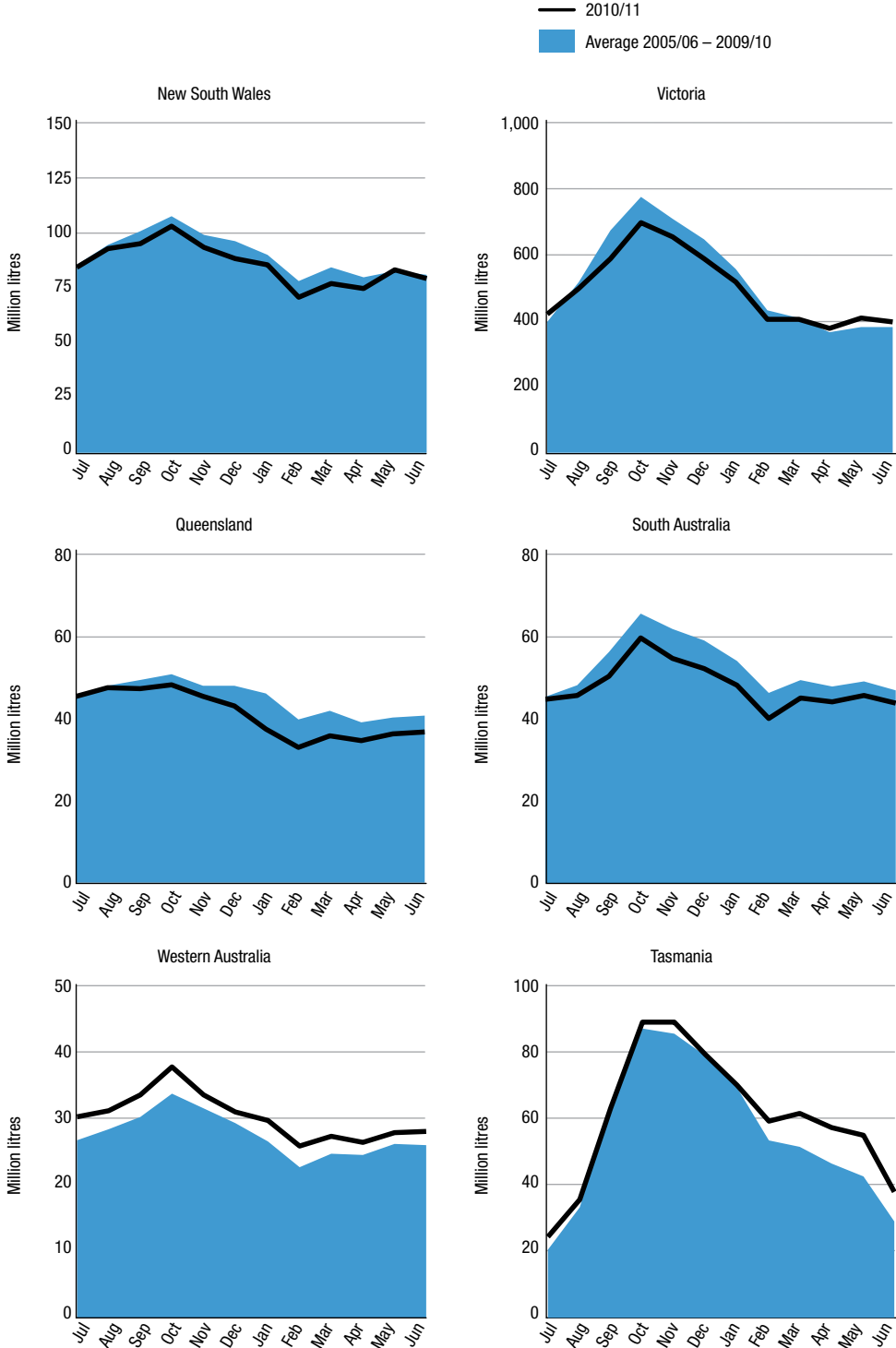


Appendix 1. Dairying regions



Appendix 2. Milk production

Figure A1. Seasonality of milk production (million litres)



Source: Dairy manufacturers

Appendix 3. Manufacturing processes

The milkfat and solids contained in manufacturing milk can be used to produce a wide variety of dairy products. There are four major production processes. The first two are for butter / skim milk powder production and butter / casein production which are joint product processes. The other two are whole milk powder production and cheese production. Furthermore, for each of these separate product lines, other dairy products can be made from the residual milk components.

The first step in making butter is to separate whole milk into cream and skim milk. The liquid skim milk is evaporated and spray dried to produce skim milk powder (SMP). The cream is churned until the fat globules form into solid butter, and leaving a liquid by-product, buttermilk. This liquid can be dried to make buttermilk powder (BMP).

There are various ways of making casein. A common method is to set the skim milk by mixing with acid to produce curd. The curd is shaken to remove large clumps. The remaining liquid whey by-product is removed and the curd is repeatedly rinsed in water and then drained. Excess moisture is extracted by pressing the curd. It is then milled and dried. The curd is broken down to particle size by grinding it and passing it through a sieve.

Whole milk powder (WMP) is made by evaporating milk that has had some of the cream removed. The evaporated milk is concentrated and dried either by roller or spray process to form a powder. Spray drying is more commonly used and involves spraying a fine mist of concentrated milk into a current of hot air to form granules of powder. The granules can be treated with steam to “instantise” the powder and make it easier to reconstitute into milk.

Cheese production techniques vary substantially. To make cheddar cheese, some of the cream is removed from the pasteurised milk. Starter culture is added to the milk to produce both acid and flavour. Then rennet is added to form curd and whey. The curd is cut, heated and stirred to allow the whey to drain. A process called cheddaring then takes place, and involves the curd being allowed to mat together, before it is milled, salted, pressed and packed. The cheese is stored to develop the desired maturity and flavour. The longer it is stored, the stronger the flavour. Mild cheddar is matured for about three months, semi-matured cheddar for three to six months and mature or tasty cheddar for up to a year.

The liquid whey extracted during cheese manufacture contains protein, lactose and a little fat. It can be dried to make products for pharmaceutical purposes, as a useful supplement in stock feed, and in the manufacture of ice-cream.

The cream from standardisation of milk for wholemilk powder, casein and cheddar production can be used to make butter and BMP.

Table A1. Product composition

	% fat	%SNF
Skim milk powder	1.0	94.5
Butter	80.5	2.0
Ghee	99.6	0.1
Casein	1.5	88.5
Wholemilk powder	26.0	70.4
Cheddar cheese	33.0	31.0
Gouda	31.5	23.5
Edam	21.2	31.8
Parmesan	21.8	46.2
Cottage cheese	4.0	16.0
Brie	25.0	25.0
Mozzarella	23.1	30.9

Figure A2. Product yield from 10,000 litres of milk 2010/11

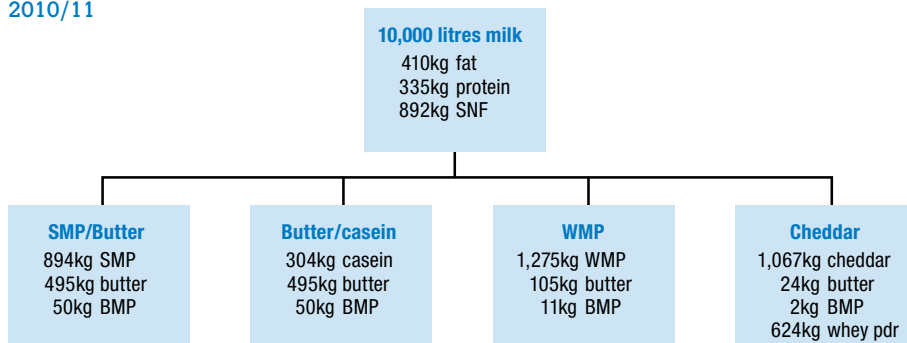


Table A2. Australian cheese production by state (tonnes)

	NSW	VIC	QLD	SA	WA	TAS	AUST
1989/90	14,198	103,216	12,842	22,774	4,129	18,172	175,331
1999/00	26,441	239,029	26,011	40,782	7,680	33,399	373,342
2000/01	23,443	257,006	22,672	33,541	7,305	32,510	376,477
2001/02	24,836	285,239	24,618	36,120	8,473	32,776	412,063
2002/03	22,686	259,399	22,569	28,364	8,411	37,538	378,966
2003/04	19,748	268,433	23,520	26,463	8,481	37,117	383,762
2004/05	22,453	270,651	18,447	33,562	7,357	35,880	388,350
2005/06	21,140	268,925	7,308	31,394	6,411	37,638	372,816
2006/07	22,690	266,102	4,542	29,503	2,618	38,183	363,638
2007/08	24,591	268,206	2,888	18,350	2,547	44,340	360,922
2008/09	26,584	245,034	1,958	16,774	3,985	47,958	342,293
2009/10 (r)	26,129	259,778	1,092	14,705	4,240	43,354	349,298
2010/11 (p)	28,279	247,763	1,467	15,299	3,638	42,134	338,581

Source: Dairy manufacturers

Table A3. Australian production of dairy products (tonnes)

	Butter*	AMF (CBE)	SMP	WMP**	Whey Products
1989/90	78,053	26,105	130,976	56,476	19,895
1999/00	110,325	71,295	236,322	186,653	66,258
2000/01	103,145	69,175	244,442	205,449	61,452
2001/02	108,308	70,045	239,489	238,684	88,785
2002/03	103,377	60,343	196,608	198,306	99,384
2003/04	104,143	44,754	182,056	186,860	105,390
2004/05	105,131	41,528	189,113	189,220	105,225
2005/06	92,850	52,904	205,495	158,250	98,436
2006/07	101,666	31,434	191,475	135,364	86,198
2007/08	99,202	28,416	164,315	141,974	82,652
2008/09	109,753	38,742	212,030	147,544	81,136
2009/10	100,134	28,245	190,233	126,024	79,094
2010/11 (p)	96,326	26,160	222,484	151,269	61,488

Source: Dairy manufacturers

*includes butter blends as CBE

** includes infant powders

Table A4. Australian cheese production by variety (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Cheddar & Cheddar Types						
Cheddar (1)	159,921	148,845	135,929	149,267	138,097	126,887
Reduced fat cheddar	26,943	22,287	26,754	23,689	21,414	22,799
Cheedam	833	541	28	260	447	389
Other cheddar type cheese (2)	3,996	7,486	8,549	5,144	4,258	4,643
Total Cheddar	191,693	179,159	171,260	178,360	164,217	154,718
Semi Hard Cheese						
Mozzarella	52,603	54,117	55,208	42,167	54,374	50,028
Pizza	5,581	4,573	4,957	5,017	6,905	5,402
Other stretch curd and shredding	4,807	2,835	1,970	1,359	3,285	1,585
Edam	123	158	709	305	207	621
Gouda	6,450	6,818	8,040	8,909	13,111	8,963
Other eye type cheese (3)	3,607	3,552	2,344	2,145	2,048	1,154
Other Semi Hard Cheese (4)	3,642	3,476	626	1,757	2,596	424
Total Semi Hard Cheese	76,813	75,529	73,854	61,659	82,525	68,176
Hard Grating Types						
Parmesan	8,462	8,631	9,981	10,633	7,344	9,225
Pecorino	892	1,536	2,039	946	1,437	1,315
Romano	2,854	2,028	1,637	1,957	2,014	1,219
Other (5)	10,814	6,282	3,251	4,388	1,419	1,831
Total	23,022	18,477	16,908	17,924	12,215	13,590
Fresh Types						
Cottage	2,490	2,488	2,582	2,529	2,507	4,600
Cream cheese	50,022	58,161	62,267	47,399	53,702	66,631
Fetta	5,195	5,668	5,875	6,073	6,514	6,686
Neufchatel	8,681	9,270	9,521	8,730	7,844	4,489
Ricotta	4,402	5,376	6,892	7,276	7,881	9,130
Other fresh types (6)	4,651	3,480	3,797	3,428	3,261	3,894
Total	75,441	84,443	90,934	75,435	81,709	95,431
Mould Ripened						
Blue Vein	1,062	1,025	1,434	1,707	1,749	727
Brie and Camembert	2,247	4,602	5,971	6,489	6,142	5,448
Other mould ripened	2,538	403	561	719	774	490
Total	5,847	6,030	7,966	8,915	8,665	6,665
Total Cheese	372,816	363,638	360,922	342,293	349,331	338,580

(1) Includes: Vintage (2) Includes: Colby, Cheshire, Gloucester, Lancashire, Leicester, Nimbin and semi processed cheddar

(3) Includes: Swiss, Emmenthal, Fontina, Havarti, Samsøe, Tilsit, Buetten, Vacherin. (4) Includes: Bakers, Casalinga, Goya.

(5) Includes: Fresh Pecorino, Melbourne, Pepato, Parmigiano. (6) Includes: Quark, Stracchino, Mascarpone.

Revisions due to reclassification of cheeses and revisions of specialty cheese production Source: Dairy manufacturers

Appendix 4. Domestic sales

Table A5. Dairy company domestic sales (tonnes)*

Major dairy products—excl drinking milk	Sales channel	2008/09 (t)	2009/10 (t)	2010/11 (t)
Butter	Grocery	41,387	40,475	41,357
	Non-Grocery	12,888	13,156	13,309
Butter total		54,275	53,630	54,666
Cheese	Grocery	127,403	126,719	126,128
	Non-Grocery	117,623	126,994	129,526
Cheese total		245,026	253,713	255,654
Cream	Grocery	49,711	51,365	53,103
	Non-Grocery	56,275	57,577	50,712
Cream total		105,986	108,943	103,815
Custard	Grocery	21,882	22,259	22,572
	Non-Grocery	2,930	2,719	2,691
Custard total		24,812	24,977	25,263
Dairy desserts	Grocery	18,395	19,384	18,929
	Non-Grocery	403	399	359
Dairy desserts total		18,798	19,783	19,288
Milk powder	Grocery	4,543	4,655	5,393
	Non-Grocery	5,834	5,770	3,614
Milk powder total		10,376	10,425	9,007
Yogurt	Grocery	128,741	135,198	135,484
	Non-Grocery	15,483	14,686	14,385
Yogurt total		144,224	149,885	149,870

* This data is dairy company wholesale sales to distributors / warehouses / retailers.

Grocery refers to major supermarket chains.

Non-Grocery refers to other retailers including convenience stores, the foodservice and industrial channels.

Source: Dairy manufacturers

Appendix 5. Supermarket sales

Milk

Table A6. Supermarket milk sales by state (million litres)

	NSW	VIC	QLD	SA	WA	TAS	AUST
2008/09	327	284	269	105	106	28	1,119
2009/10	340	297	280	108	109	29	1,163
2010/11 (p)	355	310	292	113	115	31	1,216

Source: Synovate Aztec

Table A7. Supermarket milk sales by type (million litres)

	Regular	Reduced Fat	No Fat	Flavoured	UHT	AUST
2008/09	509	346	62	70	133	1,119
2009/10	507	363	63	78	152	1,163
2010/11 (p)	521	388	59	88	161	1,216

Source: Synovate Aztec

Table A8. Supermarket milk sales—branded vs private label (million litres)

	2008/09		2009/10		2010/11 (p)	
	Million litres	Price/Litre	Million litres	Price/Litre	Million litres	Price/Litre
Branded Milk						
Regular Whole	152	\$1.86	148	\$1.83	152	\$1.82
Reduced Fat	178	\$2.10	185	\$2.03	183	\$2.04
No Fat	59	\$2.14	59	\$2.07	54	\$2.05
Flavoured	67	\$3.71	74	\$3.71	83	\$3.64
UHT	86	\$1.90	112	\$1.61	120	\$1.56
Total Branded Milk	542	\$2.20	578	\$2.11	591	\$2.11
Private Label						
Regular Whole	357	\$1.18	359	\$1.12	369	\$1.07
Reduced Fat	167	\$1.35	177	\$1.30	205	\$1.14
Low Fat	3	\$1.64	4	\$1.63	5	\$1.42
Flavoured	3	\$2.12	5	\$2.01	5	\$1.98
UHT	46	\$1.19	40	\$1.15	41	\$1.13
Total Private Label Milk	577	\$1.24	584	\$1.19	625	\$1.11
Total Milk	1,119	\$1.71	1,162	\$1.65	1,216	\$1.60

Source: Synovate Aztec

Dairy spreads

Table A9. Supermarket dairy spreads sales by type (tonnes)

	2008/09		2009/10		2010/11 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
Dairy						
Butter	18,737	\$8.01	19,545	\$8.18	19,791	\$8.22
Blends	20,283	\$8.19	19,508	\$8.15	19,009	\$8.74
Ghee	36	\$11.71	27	\$12.51	28	\$13.65
Total Dairy Spreads	39,055	\$8.10	39,081	\$8.17	38,828	\$8.48

Source: Synovate Aztec

Table A10. Supermarket dairy spreads sales by pack size (tonnes)

	2008/09		2009/10		2010/11 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
250 gram	9,172	\$8.13	9,690	\$8.62	10,222	\$8.93
375 gram	6,527	\$10.49	5,432	\$11.20	5,361	\$11.66
500 gram	22,552	\$7.33	23,252	\$7.22	22,697	\$7.46
Other sizes	804	\$10.12	706	\$10.05	547	\$11.10
Total Dairy Spreads	39,055	\$8.10	39,081	\$8.17	38,828	\$8.48

Source: Synovate Aztec

Table A11. Supermarket dairy spreads sales by form (tonnes)

	2008/09		2009/10		2010/11 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
Pats	14,801	\$6.90	15,688	\$7.09	16,669	\$7.20
Tubs	24,229	\$8.82	23,371	\$8.88	22,147	\$9.43
Others	25	\$25.63	21	\$26.38	12	\$26.28
Total Dairy Spreads	39,055	\$8.10	39,081	\$8.17	38,828	\$8.48

Source: Synovate Aztec

Appendix 6. Australian exports

Table A12. Australian exports of cheese (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia						
China, Hong Kong	8,180	10,123	11,079	7,410	10,851	9,714
Indonesia	6,061	7,678	4,028	2,547	4,197	3,708
Japan	81,047	95,879	96,846	74,140	89,810	84,470
Korea, South	8,936	8,327	6,859	7,045	7,204	8,845
Malaysia	3,476	3,465	3,877	3,858	4,462	7,103
Philippines	3,381	3,316	4,390	3,174	4,067	3,810
Singapore	2,832	3,667	3,814	4,098	4,135	5,789
Taiwan	5,399	5,464	5,842	3,778	5,158	5,302
Thailand	1,215	1,587	1,958	1,993	1,859	2,276
Other Asia	1,522	1,144	1,040	630	763	1,659
Total Asia	122,049	140,650	139,733	108,673	132,506	132,676
Middle East						
Saudi Arabia	20,708	18,066	16,355	5,359	6,705	6,870
U.A.E.	4,130	4,057	3,619	1,735	1,712	2,177
Other Middle East	11,499	10,468	8,877	4,051	6,433	4,142
Total Middle East	36,337	32,591	28,851	11,145	14,850	13,189
Africa						
Algeria	4,417	2,342	1,460	935	340	1,580
Egypt	1,921	2,784	1,948	2,135	1,730	1,915
Other Africa	2,865	2,794	2,510	1,430	3,555	2,529
Total Africa	9,203	7,920	5,918	4,500	5,625	6,024
Pacific						
New Zealand	2,761	2,665	4,352	2,652	3,337	2,892
Others	765	604	660	506	457	390
Total Pacific	3,526	3,269	5,012	3,158	3,794	3,282
Americas						
Caribbean	940	540	201	953	1,089	1,252
United States	11,807	14,044	8,719	9,327	4,132	2,325
Others	2,135	1,820	1,066	831	683	507
Total Americas	14,882	16,404	9,986	11,111	5,904	4,084
Europe						
Eastern Europe	139	424	831	386	381	842
EU	15,566	11,056	12,073	5,691	5,053	3,076
Other Europe	0	0	0	0	0	0
Total Europe	15,705	11,480	12,904	6,077	5,434	3,918
Total	201,702	212,314	202,404	144,664	168,113	163,173

Source: Dairy Australia and ABS

Table A13. Australian exports of wholemilk powder by region* (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia	123,036	99,840	90,208	102,025	80,271	84,468
Middle East	10,420	18,499	12,151	30,889	17,180	21,329
Africa	12,404	10,069	9,504	13,221	6,867	9,344
Pacific	5,879	3,474	2,759	2,330	2,226	1,447
Americas	13,068	11,111	10,327	9,548	10,001	8,458
Europe	26	450	198	20	204	809
Others	0	0	0	0	0	0
Total	164,833	143,443	125,147	158,033	116,749	125,855

*Also includes infant powder
Source: Dairy Australia and ABS

Table A14. Australian exports of SMP (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia						
China, Hong Kong	7,284	8,754	9,737	12,470	8,587	13,236
Indonesia	17,232	15,394	15,500	12,924	16,439	24,714
Japan	3,914	1,329	610	6,985	1,071	454
Malaysia	25,648	24,265	14,223	14,912	8,311	8,268
Philippines	25,407	15,828	13,345	25,426	18,932	9,817
Singapore	20,128	22,961	15,859	17,134	17,228	15,709
Taiwan	10,284	9,580	5,827	6,264	7,422	7,824
Thailand	26,844	17,897	11,642	9,511	9,888	11,462
Others	10,767	10,785	5,848	22,073	12,791	32,805
Total Asia	147,507	126,793	92,590	127,699	100,669	124,289
Africa	3,704	6,023	2,353	6,180	1,462	2,307
Americas	4,067	5,266	1,983	6,257	1,462	1,461
Europe	235	1,111	313	525	244	1,510
Middle East	19,042	19,878	22,010	20,906	17,829	21,496
Pacific	1,032	1,258	509	514	3,957	4,385
Others	17	0	0	0	0	0
TOTAL	175,605	160,329	119,758	162,081	125,623	155,448

Source: Dairy Australia and ABS

Table A15. Australian exports of butter* (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia						
China, Hong Kong	2,251	3,393	3,692	3,236	4,114	3,044
Japan	1,550	2,279	4,389	2,373	392	876
Korea, South	3,018	4,810	3,955	2,623	2,364	2,073
Malaysia	1,490	1,470	1,640	1,828	2,042	1,757
Singapore	3,256	4,142	4,918	3,901	4,651	4,575
Taiwan	1,321	1,178	1,211	1,119	1,199	1,204
Others	1,518	1,905	1,176	1,705	2,690	1,612
Total Asia	14,404	19,177	20,980	16,785	17,452	15,141
Middle East						
Saudi Arabia	1,256	1,742	1,357	679	1,626	1,953
U.A.E.	939	2,494	1,355	1,881	1,174	617
Others	1,135	1,488	1,043	4,585	5,565	4,531
Total Middle East	3,330	5,724	3,755	7,145	8,365	7,101
Africa						
Mauritius	189	219	227	149	198	171
North Africa	3,926	6,273	1550	10,674	9,552	1,948
Others	140	156	60	306	720	175
Total Africa	4,255	6,648	1,837	11,129	10,470	2,294
Pacific	1,084	999	462	855	871	339
Americas	4,233	1,952	423	1,207	619	144
Europe	8,219	9,779	7,179	6,847	3,915	8444
Total	35,525	44,279	34,636	43,968	41,691	33,463

* Includes butter blends converted at the rate of 1kg butter blend = 0.7kg butter

Source: Dairy Australia and ABS

Table A16. Australian exports of AMF (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia						
Bangladesh	151	119	85	252	168	70
Indonesia	1,975	1,025	571	1,444	934	756
Malaysia	2,682	2,385	2,621	1,521	2,656	1,645
Philippines	1,210	885	294	1,446	1,970	4,914
Singapore	3,932	2,181	1,623	969	1,075	925
Others	6,168	7,389	4,735	4,172	7,908	4,389
Total Asia	16,118	13,984	9,929	9,804	14,711	12,699
Middle East						
Kuwait	137	0	14	202	101	0
United Arab Emirates	2,060	2,029	1,958	321	69	0
Others	2,394	1,515	678	1,244	1,763	1,147
Total Middle East	4,591	3,544	2,650	1,767	1,933	1,147
Africa	2,100	1,979	69	1,344	601	1,005
Americas	13,240	9,061	4,329	7,823	6,906	3,171
Europe	1,518	838	972	450	1,460	19
Pacific	120	129	176	168	145	23
Total	37,687	29,535	18,125	21,356	25,756	18,064

Actual product weight (not CBE)
Source: Dairy Australia and ABS

Table A17. Australian exports of liquid milk (tonnes)

	2005/06 (r)	2006/07(r)	2007/08 (r)	2008/09 (r)	2009/10 (r)	2010/11 (p)
Asia						
Singapore	18,012	18,281	17,277	19,036	20,970	24,620
Philippines	9,600	9,763	5,809	2,722	3,653	4,134
Malaysia	3,650	4,531	3,246	3,346	3,902	3,412
Indonesia	1,386	1,635	1,544	635	516	366
Hong Kong	17,075	17,326	15,600	17,325	15,333	14,459
China	694	344	384	1,924	1,284	2,422
Other Asia	6,575	6,823	4,842	4,120	6,761	10,856
Total Asia	56,992	58,701	48,702	49,108	52,419	60,269
Africa	1,059	928	792	538	386	347
Pacific	12,033	9,305	10,308	9,710	10,491	9,314
Others	0	238	115	570	680	460
Total	70,085	69,173	59,918	59,926	63,976	70,390

Source: Dairy Australia and ABS

Table A18. Whey product exports (tonnes)*

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia						
Malaysia	5,385	4,281	3,594	5,166	4,257	2,973
Indonesia	12,419	12,486	8,024	5,040	4,675	5,237
Philippines	9,099	5,419	4,878	7,796	5,315	2,819
Japan	1,906	2,251	2,257	3,483	4,281	2,995
China	8,759	8,108	6,630	12,240	10,526	6,918
Hong Kong	975	596	361	363	317	148
Singapore	9,846	7,470	5,279	8,052	7,197	5,276
Taiwan	2,322	1,595	1,117	1,366	1,518	540
Thailand	8,824	7,369	5,885	6,125	3,937	2,912
Other Asia	5,128	3,065	3,340	4,286	2,198	1,073
Total Asia	64,663	52,641	41,364	53,917	44,221	30,891
Europe	2,404	1,407	467	436	436	593
Other	9,115	9,169	9,099	10,808	9,064	6,331
Total	76,182	63,217	50,930	65,161	53,721	37,815

* Includes whey protein concentrate
Source: Dairy Australia and ABS

Table A19. Australian exports of other milk products (tonnes)*

	2005/06	2006/07	2007/08	2008/09	2009/10 (r)	2010/11 (p)
Asia						
China	1,157	1,134	7,608	852	6,045	3,562
Japan	3,249	4,842	4,132	2,659	3,035	2,281
Indonesia	2,661	3,140	2,194	2,403	3,491	2,956
Malaysia	1,006	1,295	1,214	584	846	178
Philippines	7,327	4,206	3,116	4,012	4,525	6,769
Singapore	7,384	3,748	3,566	2,400	4,963	4,762
Thailand	1,371	3,070	1,416	1,099	1,401	800
Other Asia	3,253	4,278	5,539	2,527	2,143	1,258
Total Asia	27,409	25,713	28,784	16,536	26,449	22,566
Americas	7,305	7,228	5,285	2,933	7,107	7,230
Europe	4,086	5,345	2,045	700	1,009	173
Other	2,151	2,701	2,764	4,494	6,045	7,365
Total	40,951	40,988	38,879	24,663	40,610	37,334

* Includes buttermilk powder, casein, milk protein concentrate, lactose and milk powder combinations
Source: Dairy Australia and ABS

Appendix 7. Australian imports

Table A20. Australian imports of dairy products from New Zealand and other countries (tonnes)

	New Zealand	Other	Total 2009/10	New Zealand	Other	Total 2010/11
Skim milk powder	3,781	119	3,900	3,527	294	3,821
Buttermilk powder	98	1,705	1,803	372	951	1,323
Wholemilk powder*	11,648	5,774	17,422	12,492	5,700	18,192
Whey powder & concentrates	2,584	10,217	12,801	3,101	10,842	13,943
Condensed milk	168	1,318	1,486	31	1,532	1,563
Milk	7,351	255	7,606	8,485	0	8,485
Cream	1,481	3	1,484	1,553	41	1,594
Yogurt	359	67	426	565	54	619
Butter**	16,836	1,275	18,111	14,892	1,316	16,208
Butter oil	1,065	480	1,545	1,090	495	1,585
Cheese	55,596	15,929	71,525	49,674	23,198	72,872
Casein	501	128	629	749	106	855
Caseinates	209	11	220	252	7	259
Lactose	3,098	7,686	10,784	1,475	13,844	15,319
Ice cream ('000 lts)	3,305	14,582	17,887	3,730	16,359	20,089

* Includes infant powder

** Includes butter blends converted at the rate of 1kg butter blend = 0.7kg butter

Source: ABS

Table A21. Australian cheese imports by country (tonnes)

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11 (p)
Austria	202	315	330	359	405	486
Bulgaria	1,615	1,655	1,700	1,345	1,340	1,392
Denmark	2,464	2,163	2,068	2,072	2,186	2,076
France	762	884	933	799	688	886
Germany	356	463	194	251	369	693
Greece	1,146	1,296	1,298	1,504	1,201	1,380
Italy	2,401	2,401	2,803	2,756	2,972	3,170
Netherlands	1,139	1,291	1,157	1,227	1,353	1,568
Poland	374	463	412	452	464	466
United Kingdom	172	222	153	185	234	296
Other	416	272	589	611	627	731
Total EU	11,047	11,425	11,637	11,561	11,839	13,144
New Zealand	47,195	50,529	49,230	42,758	55,596	49,674
United States	20	51	6,718	2,358	2,157	7,523
Norway	1,817	1,831	1,857	1,770	1,472	2,014
Switzerland	112	104	128	115	150	126
Other	150	330	175	279	311	391
Total cheese imports	60,341	64,270	69,745	58,841	71,525	72,872

Source: ABS (Excludes goats cheese)

Index

- ABARES Farm Survey 15–16
 anhydrous milk fat (AMF) 28, 41
 Animal Health Australia 35
 Animal Health Levy 35
 Argentina dairy sector 8
 Asian dairy sector 23
 Australian Dairy Farmers Limited (ADF) 34
 Australian Dairy Herd Improvement Scheme (ADHIS) 12
 Australian Dairy Industry Council (ADIC) 34
 Australian Dairy Products Federation (ADPF) 34
 Australian Export Index 14
 Australian market situation and outlook 7
 butter 21, 22, 28, 40
 consumption 24
 domestic sales 28, 43
 exports 28, 48
 imports 51
 production 28, 40, 41
 supermarket sales 28, 45
 buttermilk powder (BMP) 21, 40, 51
 butteroil 28, 49, 51
 casein 21, 32, 40, 51
 caseinates 32, 51
 cheddar cheese, production 27, 42
 cheese 21, 27, 41
 consumption 24
 domestic sales 27, 43
 exports 46
 imports 27, 51
 markets 22
 production by state 41
 production by type 27, 42
 production techniques 40
 supermarket sales 27
 China dairy sector 8
 condensed milk, imports 51
 confidence in the future of the industry 5
 consumption
 dairy products 24
 long term trends 9
 co-operatives 21
 cows
 average annual milk production 13
 breeds 12
 long term trends 9
 numbers by state 12
 yield 12
 cream 29, 40, 43, 51
 custards 21, 29, 43
Dairy 2011: Situation & Outlook report 2, 3–8
 challenges facing the local industry 6
 confidence in the future of the industry 5
 expectations of growth in production 5–6
 Industry in September 2011 3–4
 Dairy Australia 2, 33–4
 planned expenditure by business objectives 33
 strategic priorities 33
 dairy blends 24, 28, 45
 dairy breeds 12
 dairy companies 21
 dairy desserts 21, 29, 43
 dairy dips 29
 dairy farm financial performance 15–16
 dairy farming areas 38
 dairy farms, number registered 11
 dairy industry 9–10
 dairy industry organisations 34
 dairy manufacturing 21
 dairy markets 22–3
 dairy products
 composition 40
 consumption 24
 fresh 29
 frozen 29
 imports 51
 production 41
 Dairy Service Levy 33, 36
 dairy spreads 28, 45
 domestic market 24
 domestic sales 7
 butter 28, 43
 cheese 27, 43
 cream 43
 custard 43
 dairy desserts 43
 growth by dairy category 7
 milk powder 43
 yogurt 43
 drinking milk 19, 21, 25–6
 consumption 24
 exports 26, 49
 pack size 26
 packaging 26
 price 26
 production 20
 sales by state 25
 sales by type 25
 supermarket sales 26, 44
 drought 9, 16, 17
 European Union (EU) dairy sector 8
 export markets 22–3
 exporters, surveyed spot prices 3
 exports
 anhydrous milk fat (AMF) 28
 butter 28, 48
 butteroil 49
 cheese 46
 drinking milk 49
 liquid milk 49
 long term trends 9
 milk 26
 other milk products 50
 share of production 9
 skim milk powder (SMP) 30, 31, 47
 value 9
 whey products 32, 50
 wholemilk powder (WMP) 30, 31, 47
 factory paid prices 14, 15
 farm business returns 15–16
 farm cash income 15–16
 farm facts 11–16
 farm management 18
 farmers, attitude to industry future 5
 farmgate milk prices 3–4, 11–12, 13, 15
 international 10
 farmgate value versus export sales value 10
 farms 11–12
 average annual milk production 12
 long term trends 9
 number registered 11
 foreign exchange rates 14
 fresh dairy products 29
 fresh type cheeses, production 27, 42
 frozen dairy products 29
 ghee 40, 45
 hard grating cheeses, production 27, 42
 herd size 12
 ice-cream 29, 51
 imports
 cheese 27, 51
 dairy products 51
 industry levies 35
 international farmgate milk prices 10
 international market outlook 7
 lactose, imports 51
 levies 36
 liquid milk, exports 49
 long term trends 9
 manufactured product streams 21
 manufacturing milk 20, 40
 manufacturing milk price 15
 manufacturing processes 40–2
 margarine 28
 market milk price 15
 milk
 composition 19
 condensed 49
 consumption 22, 25–6
 drinking 25–6
 exports 22, 26, 49
 imports 51
 for manufacturing 20, 40
 product yield from 40
 protein/fat composition 19
 supermarket sales 26, 44
 utilisation 21
 volumes to drinking milk 19
 milk levies 35
 milk powders 21, 30–1, 40
 domestic sales 43
 exports 30, 31, 47
 production 31
 milk production 17–20, 22
 average annual per cow 13
 average annual per farm 12
 costs 15
 forecast 8
 versus indices of farms and cows milked 17
 long term trends 9
 seasonality 17, 18
 by state 18, 20, 39
 milk products, exports 50
 milkfat composition by state 19
 mould ripened cheeses, production 27, 42
 National Dairy Farmer Survey, 2011 2, 11, 12
 National Foods 21
 New Zealand
 dairy sector 8
 imports from 51
 product yield from 10,000 litres of milk 40
 production
 cheese 42
 dairy products 41
 expected growth 5–6
 regulatory authorities 34
 retail dairy prices 8
 semi-hard cheeses, production 27, 42
 skim milk powder (SMP) 21, 40
 exports 30, 31, 47
 imports 51
 markets 22
 production 30, 31, 40, 41
 State food and dairy regulatory authorities 34
 supermarket sales
 butter 28, 45
 cheese 27
 dairy spreads 28, 45
 drinking milk 26, 44
 surveyed spot prices of Australian exporters 3
 tablespreads 28
 UHT milk 25, 26, 44
 United States (US) dairy sector 8
 whey products 21, 32
 exports 32, 50
 imports 51
 production 32, 40, 41
 whey protein concentrates 32
 wholemilk powder (WMP) 21, 40
 exports 30, 31, 47
 imports 51
 markets 22
 production 30, 31, 40, 41
 world supply 8
 yield per cow 13
 yogurt 29
 consumption 24
 domestic sales 43
 imports 51



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