



**Australian  
Dairy Industry  
In Focus 2014**



**Table 1 Australian dairy industry at a glance**

National dairy herd 1.69 million cows	Dairy: major export industry \$3.21 billion (2013/14) 7% of world dairy trade
Average herd size 268 Cows	Percentage of Australian milk production—exported 38% (2013/14)
Milk production 9.24 billion litres	Major markets for Australian dairy products (tonnes)
Average annual milk production per cow 5,471 Litres	Australia 3,022,000 (including 2,560,600 of drinking milk)
Dairy: Australia's third-largest rural industry \$13 billion farm, manufacturing and export industry	Greater China 143,200
Milk utilisation	Japan 89,200
Cheese 30%	Singapore 79,100
SMP/BMP 27%	Malaysia 51,500
Drinking milk 27%	Indonesia 48,300
WMP 11%	Annual per capita consumption
Other 5%	Drinking milk 106 litres
Annual production of main commodities (tonnes)	Cheese 13 kilograms
Milk powders 337,200	Dairy industry workforce
Cheese 311,500	Direct employment of approximately 43,000
Butter 116,100	

**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	NDFS National Dairy Farmers' Survey 2013
AMF Anhydrous milk fat	(e) Estimated data
AUST Australia	(p) Provisional data
BMP Buttermilk powder	(r) Revised data
CAGR Compound annual growth rate	SEQ South-east Queensland/north-east New South Wales
CBE Commercial butter equivalent, a unit of conversion of AMF to butter (1kg butter = 0.805kg AMF)	SMP Skim milk powder
cpl Cents per litre	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 Whole milk powder
Gipps Gippsland	WPC Whey protein concentrate
MD Murray Dairy (including northern Victoria and NSW Riverina)	WV Western Victoria

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## Foreword



**Dairy Australia is committed to the industry's future by providing farmers with vital programmes that support farm profitability, promote and protect the industry and its reputation, and grow people skills and capability.**

Australia's dairy industry is one of the three most important local rural industries, with a farmgate value of \$4.7 billion in season 2013/14.

Australian milk production increased 0.4% to 9.24 billion litres, with farmers in the country's export-focused southeast regions experiencing significantly higher average farmgate milk prices and favourable seasonal conditions. Dairy ranks fourth in agricultural exports—valued at \$3.2 billion—with a 16.7% increase in export value offsetting a 7.3% decline in total export volumes over the year. Value-added processing activities delivered an agricultural industry with a wholesale value of dairy products in excess of \$10 billion last year. In the local market, estimated total per capita consumption of the major dairy products of milk, cheese, butter / blends and yogurt remained around 300 litres per person (in milk equivalent terms).

The 2013/14 season was one of consolidation for many dairy farmers. After the prior season challenges of unfavourable seasonal conditions, lower farmgate milk prices and higher input costs, the tenor of the 2013/14 season only picked up from December 2013. But with more favourable weather and strong farmgate milk prices for most regions, farm profitability and production recovered. Most of this recovery came from southern exporting regions, however, as milk production in northern dairying regions continued to struggle given adverse seasonal conditions and higher input costs.

In southern, export-focused regions, improved margins enabled most farmers to reduce short-term debts and make incremental investments in their production systems. Domestic-focused northern regions have not seen the same farmgate benefits of high international commodity prices and with climatic challenges added to the mix, profitability and confidence remain under pressure.

Nevertheless, in exporting regions, opening farmgate milk prices for the 2014/15 season were offered in a context of higher global dairy prices, and face considerable downside risk given the supply response in other major dairy regions suppressing pricing and more uncertainty flowing from geopolitical issues into international markets. Despite the short-term uncertainty and volatility, there is significant ongoing investment in the processing sector of the southern region of the Australian industry resulting in competition for milk supply. This reflects the positive medium- to long-term demand outlook, particularly in key export markets.

Dairy Australia is the industry's farmer-owned service organization, funded by farmer levies, with matching research and development funds from the Australian Government.

With our ongoing focus on supporting farmers to improve profitability, we have continued to develop and deliver innovative on-farm and market support activities, including programmes to boost herd reproduction and fertility, save on-farm costs and develop regional and international markets.

We continue to deliver activities that build our credibility within the farming sector and the broader Australian community, including the industry's new Sustainability Strategic Framework for delivering improved sustainability practices.

We have stepped up our focus on attracting, retaining and developing people through new initiatives including managing the transition to a new national extension delivery model that sees us working with many farmers, partners and service providers across our regions.

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 28.

I would like to extend Dairy Australia's thanks to the dairy processors 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](http://www.dairyaustralia.com.au)

The website also features the Dairy 2014: Situation & Outlook series of reports.

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

## 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 \$4.7 billion in 2013/14, it ranks third behind the beef and wheat industries. It is estimated that approximately 43,000 people are directly employed on dairy farms and by dairy companies within Australia. 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.

Dairying is a well-established industry across the temperate and some subtropical zones of Australia. Although 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. 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 ongoing dry conditions; with the resulting low water storage levels significantly limiting water allocations in irrigated dairying regions over a number of years. However, the rains have returned in recent years and water storages have been replenished and irrigation allocations restored. Nevertheless, the increasing level of market and margin volatility within the industry in the last five to six 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 1 provides a comparison across the 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	2014(p)	CAGR 2000s	CAGR 34 yrs
Milk production (m. lts)	5,432	6,262	1.4%	10,847	5.6%	9,239	-1.1%	1.6%
Dairy cows (000)	1,880	1,654	-1.3%	2,171	2.8%	1,690	-1.8%	-0.3%
Farm numbers	21,994	15,396	-3.5%	12,896	-1.8%	6,314	-5.0%	-3.6%
Value of farm production* (\$m.)	\$3,431	\$3,207	-0.7%	\$4,068	2.4%	\$4,730	-1.1%	0.9%
Per capita consumption (milk equiv)	239	244	0.2%	274	1.2%	301	0.7%	0.7%
Export value* (\$m.)	\$1,036	\$581	-5.6%	\$3,709	20.4%	\$3,211	-1.0%	3.4%
Export share of production	22%	31%		54%		38%		

Sources: ABS, ADC, DA, state authorities  
CAGR = compound annual growth rate  
\*Expressed in 2013/14 dollars



## 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.

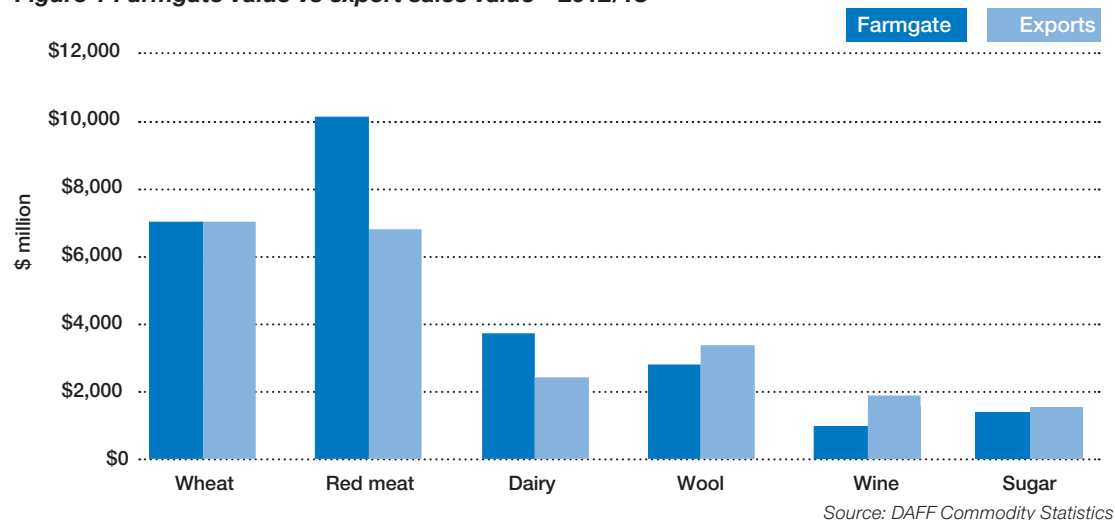
At an average of approximately US\$50 per 100kg of milk last year, Australian dairy farmers generally received a price comparable to many of the major producing countries. This represents quite a change in the trend apparent earlier in the decade where local prices received were among the lowest in the 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.

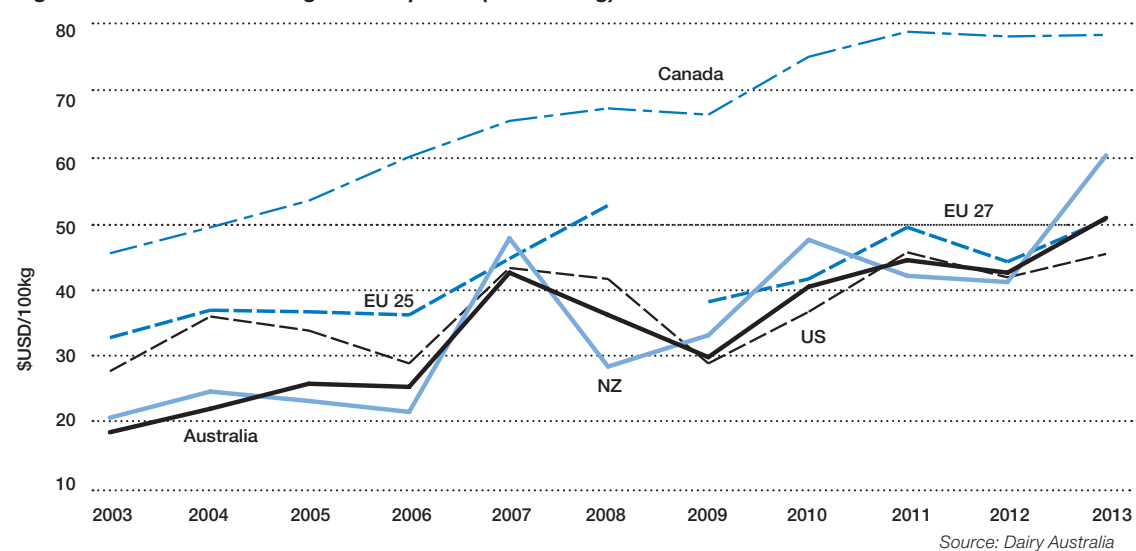
However, this has become increasingly difficult in recent years. Farm cost structures have increased in response to the need to adapt to drier conditions where rain fed pastures were regularly contributing a lower proportion of the total feed available to the national herd. Despite the increased rainfall in recent seasons, farm cost structures have not returned to those of a decade ago for many reasons. As a result, Australia's share of international trade has trended lower as local milk production has contracted over the past decade.

As shown in Figure 2, the convergence of prices received by farmers around the world during the commodity price boom in 2007 has continued, as prices appear to more closely reflect dairy commodity price trends in most of the major producing countries.

**Figure 1 Farmgate value vs export sales value—2012/13**



**Figure 2 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 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 inland 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. Such changes in production systems have introduced an additional level of risk in the variability of farm returns.

According to the 2014 National Dairy Farmer Survey, 95% of dairy farms fed an average of 1.6 tonnes of grain, grain mixes or feed concentrates per cow during the 2013/14 season. This was unchanged from the average tonnage used in the previous season, primarily

due to supplementary feed costs remaining at relatively elevated levels during the season, and with grain costs increasing by as much as 15% to 25% in northern dairying regions. See Appendix 2 for detailed tables on grain prices by state dairying regions.

Owner-operated farms dominate the Australian dairy industry. Share farming was employed on 18% of farms in 2013/14, while corporate farms make up just 3% of the total.

The number of farms has fallen by more than two-thirds over the last three decades from 20,060 in 1983 to 6,314 in mid 2014. 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 farmgate milk prices, farmers do choose to leave the industry or else cease dairying operations until market conditions improve.

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.

**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
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	807	4,588	595	286	170	437	6,883
2011/12	778	4,556	555	275	162	444	6,770
2012/13	731	4,284	518	268	160	437	6,398
2013/14 (p)	710	4,268	475	270	156	435	6,314

Source: State milk authorities

Average herd size has increased from 90 cows in 1983 to an estimated 268 currently. There is also a trend emerging to very large farm operations of more than 1,000 head of dairy cattle.

The dominant breed in Australia is the Holstein, accounting for some 65-70% of all dairy cattle. Other important breeds include the Jersey, the Holstein/Jersey cross, Brown Swiss, Ayrshire and local breeds, the Australian Red and 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.

See [www.adhis.com.au](http://www.adhis.com.au) for further details and statistics.

Improved herd genetics, as well as advances in pasture management and supplementary feeding regimes, have seen average annual yield per cow double from 2,900 litres to as high as 5,900 litres over the past three decades. Nevertheless, the average yield figure does vary with seasonal conditions.

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 295,000 litres to 1,460,000 litres per year over the same period.

Despite the strong increase in cow yields over the longer term, one of the variables placing a limit on total milk production in recent years has been a fairly static national herd size. One factor contributing to this situation is that the increased volatility in farm cash incomes has led many farmers to participate in the export heifer trade in an attempt to stabilise farm income.

See Appendix 7 for detailed tables on heifer exports.

**Table 4 Number of dairy cows (000 head)**

	NSW	VIC	QLD	SA	WA	TAS	AUST
<b>At March 31</b>							
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
<b>New Series***</b>							
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	203	1,014	98	92	55	134	1,596
2010/11	195	1,010	97	90	59	138	1,589
2011/12 (r)	204	1,115	101	76	57	148	1,700
2012/13 (r)	210	1,096	96	77	62	148	1,688
2013/14 (e)	197	1,114	92	75	60	152	1,690

\* 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

**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
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	5,329	5,518	5,052	5,907	6,641	4,640	5,448
2010/11	5,203	5,836	4,966	6,257	6,466	5,349	5,708
2011/12 (r)	5,507	5,996	4,945	6,589	5,773	5,609	5,863
2012/13 (r)	5,210	5,440	4,591	7,025	5,784	5,136	5,419
2013/14 (e)	5,002	5,566	4,574	6,724	5,336	5,400	5,471

Source: Dairy manufacturers, ABS and Dairy Australia

### Farmgate milk prices

Australian farmgate milk prices are based on the milkfat and protein solids content of the milk supplied off farm. Unlike many countries around the world, there is no legislative control over the price milk processing companies pay farmers for their milk, with all prices within the industry set by market forces.

Australian dairy farmers operate in an open and deregulated market, an environment that includes effectively a free trade agreement with New Zealand: a major regional low-cost dairy producing country. Consequently, local Australian prices are driven by world dairy commodity prices which determine local export returns. Therefore, world dairy prices directly impact on the company returns for the roughly 40% of local milk production that finds its way into export products such as butter, cheese and milk powders; as well as the additional 30-35% of production that goes into locally consumed butter, cheese and milk powders. This means that around 73% of milk production is exposed to world prices for butter, cheese and milk powders; while only the remaining 27% is consumed within Australia as liquid drinking milk.

Hence average Australian farmgate milk prices are strongly correlated with export returns, and over the last three decades more than 90% of the annual variation in farmgate milk prices is explained by movements in average export returns.

Apart from Australia's actual export product mix and prevailing world dairy commodity prices, another layer of complexity is the value of the Australian dollar against the US dollar and the euro in foreign exchange markets, as it is critical in determining company returns.

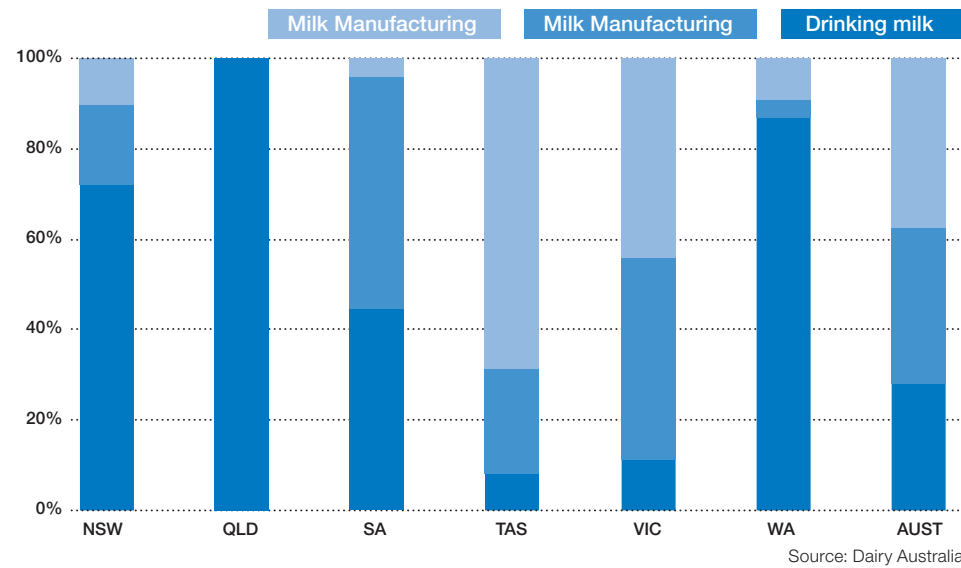
Australian dairy industry returns benefit from a 'lower' Australian dollar (compared to the US dollar) as was the case early last decade when it was as low as USD\$0.52 to \$0.55. However, the local currency has been much 'stronger' in recent years (around and even above parity with the US dollar) and this has significantly lowered the Australian dollar returns despite relatively strong export markets over much of this period. Consequently, the exchange rate can significantly affect what the companies can pay for milk.

Farmgate milk prices will vary between manufacturing companies, with individual company returns being affected by factors such as market and product mix, marketing strategies, the utilisation and efficiencies in factory processing capacity, and exchange rate hedging policies. Competition for milk among processors will also influence farmgate milk prices from season to season, as can the dividend policies of farmer-owned cooperatives.

Furthermore, payments from processors to individual farmers can also vary significantly as companies operate a range of incentive / penalty payments related to milk quality, productivity or volume levels and for year-round milk supply. There may be volume growth incentives in place to encourage milk supply to particular processing plants to improve operating efficiencies.

Thus, farmgate milk prices farmers receive can vary significantly around Australia and simply reflect how milk is used in the marketplace, as illustrated in Figure 3 – Use of Australian milk by state – 2013/14. This chart shows the relative importance of how raw milk is used, showing the split between drinking milk, manufacturing for locally consumed product and manufacturing of export products across the different regions around Australia.

**Figure 3 Use of Australian milk by state—2013/14**



From this chart, one can see how farmgate milk prices in southern regions are primarily driven by international commodity prices and competition for milk supply. The majority of farmers in these exporting regions receive a ‘blended’ price that incorporates returns from the milk used in manufacturing dairy products such as butter, cheese and milk powders which are exposed to international prices whether as exports or consumed locally (over 90% in Tasmania and Victoria).

Conversely, in the northern and western dairy regions, fresh drinking milk makes up a much larger proportion of the production mix (100% in Queensland and over 80% in Western Australia), and so higher farmgate milk prices are generally paid to ensure the year-round supply of milk.

**Table 6 Typical factory paid prices by state**

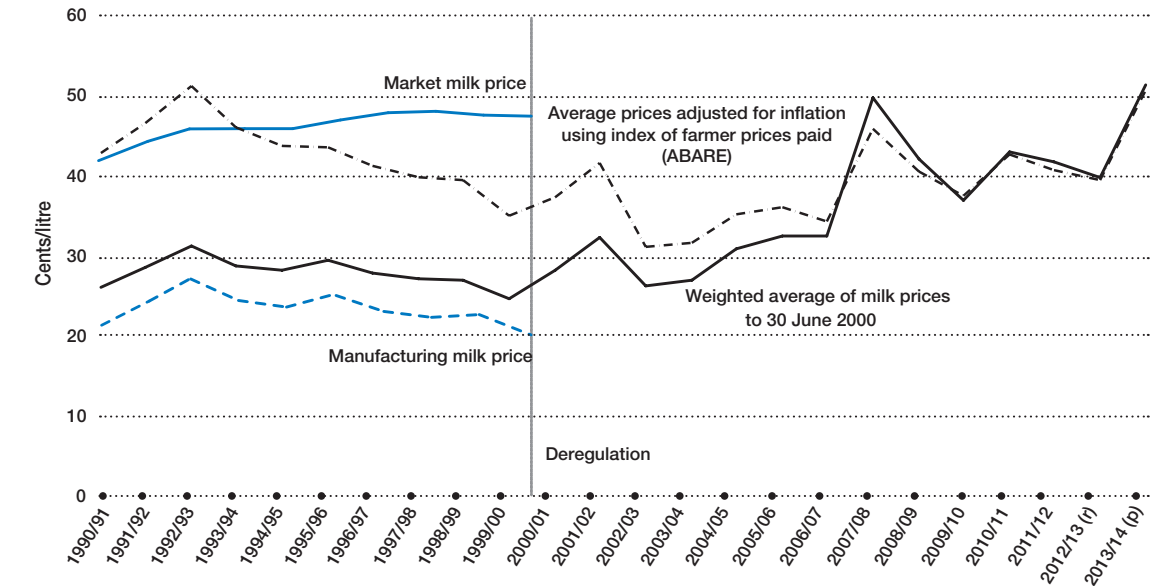
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 (p)
NSW	cents/litre	48.6	52.4	48.7	48.3	47.4	46.4	51.0
	\$/kg milk solids	6.73	7.29	6.72	6.74	6.60	6.45	7.1
VIC	cents/litre	50.0	39.1	33.9	42.0	40.6	37.8	51.0
	\$/kg milk solids	6.68	5.14	4.49	5.58	5.46	5.05	6.81
QLD	cents/litre	51.8	57.2	55.8	53.1	53.6	53.6	53.4
	\$/kg milk solids	7.14	7.89	7.57	7.26	7.33	7.33	7.36
SA	cents/litre	48.6	44.6	34.6	38.0	41.0	38.3	49.6
	\$/kg milk solids	6.75	6.19	4.73	5.36	5.76	5.42	7.02
WA	cents/litre	41.4	49.0	42.4	43.4	41.9	45.0	46.8
	\$/kg milk solids	5.80	6.77	5.96	6.03	5.97	6.37	6.63
TAS	cents/litre	50.2	41.3	34.6	43.2	39.9	40.2	54.1
	\$/kg milk solids	6.63	5.40	4.46	5.59	5.19	5.16	6.96
AUST	cents/litre	49.6	42.4	37.3	43.2	42.0	40.2	51.2
	\$/kg milk solids	6.68	5.66	4.98	5.80	5.69	5.41	6.89

Source: Dairy manufacturers

The long-term downward trend in inflation-adjusted farmgate milk prices (Figure 4) until early last decade is in line with returns from most other agricultural commodities. Despite the occasional peaks—in 1992/93, 2001/02, 2007/08 and 2013/14—the line has traditionally returned to trend and clearly illustrates the imperative to continually improve productivity

throughout the industry. While it does appear that the international dairy market might be undergoing a structural realignment in recent years to support stronger farmgate milk prices, the level of volatility has also increased significantly over this time.

**Figure 4 Factory paid milk prices USD/100kg**



**Farm business performance**

The annual ABARES Farm Survey estimates the financial performance of Australian dairy farms. The two main measures are farm cash income (FCI) (defined as total cash receipts less total cash costs) and farm business profit (FBP) (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.

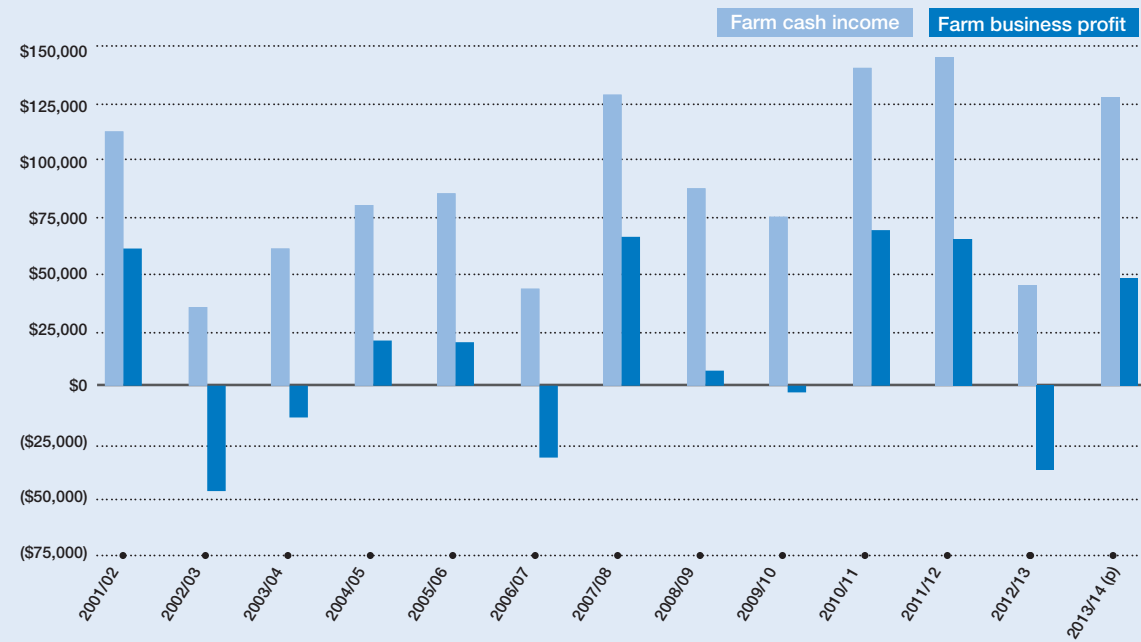
Figure 5 illustrates how both farm business profit and farm cash income were strong in the year of record high milk production volumes in 2001/02, encouraged by a combination of favourable climatic and market conditions; fell due to the dramatic impact of the drought in the 2002/03 season; slowly recovered and consolidated over the following three years, before another financially significant 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 farmgate milk prices. Two years of relatively strong farm cash incomes in 2010/11 and 2011/12 were offset by significant falls in 2012/13. However, adverse seasonal conditions in major exporting regions subsequently supported higher

international dairy commodity prices, which in turn lifted farmgate milk prices to record or near record levels in 2013/14. Consequently, despite input costs remaining at relatively elevated levels, significantly higher farm cash income supported a bounce-back in farm business profit in 2013/14.

ABARES estimates that average farm cash income increased to \$129,000 in 2013/14, approximately 27% above the 10-year average of \$101,600 to 2012/13. Across all regions, higher farmgate milk prices offset increased cash costs to deliver significantly improved financial performance. It was estimated that 17% of farms had negative farm cash income (down markedly from 33% last year). Dairy farm businesses in all states other than Queensland and Western Australia were expected to see substantial increases in farm cash incomes with the largest rise expected in Tasmania from \$34,700 to \$210,000.

**Figure 5 Australian dairy farm financial performance**



Source: ABARES

After changes in trading stocks, depreciation and imputed family management and labour costs, these figures translated to a national average farm business profit estimated at \$48,000 in 2013/14, compared to a loss of \$33,500 in 2012/13. Farm businesses in New South Wales, Victoria, South Australia and Tasmania were expected to record positive profits after having seen negative average farm business profit in 2012/13. Meanwhile, farm businesses in Western Australia were expected to record lower but still positive average profits while those in Queensland were expected to record a second consecutive year of negative average profits given fodder expenditure in view of prevailing drier conditions, as drought affected the majority of the state's dairying regions.

Along with increased farm cash incomes, ABARES farm survey data estimates a slight reduction of between 1% to 2% in average debt from \$783,700 in 2012/13 to an estimated \$771,000 in 2013/14. Over recent years, the composition of farm debt has reflected a marked trend towards the use of debt for working capital purposes, to manage climate and market volatility.

The average level of farm business equity, as estimated by ABARES, remained around the long-term average of 80%. Once again, the range is very wide across dairying regions, from 89% in Queensland (where average farm debt is \$306,000) to 69% in Tasmania (where average farm debt is \$1,636,000), and within individual regions.

More new investment has been occurring in larger dairy farms in Tasmania, Western Victoria and South Australia in recent years. This has contributed to greater concentration of debt with an estimated 10% of farms accounting for approximately 45% of total dairy farm sector debt.

## 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—up until the major widespread 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.

Although recent seasons have seen generally improved seasonal conditions across most dairying and grain growing regions, volatility in farmgate milk prices and farm incomes have constrained farmer confidence with lower cow numbers limiting growth in milk production.

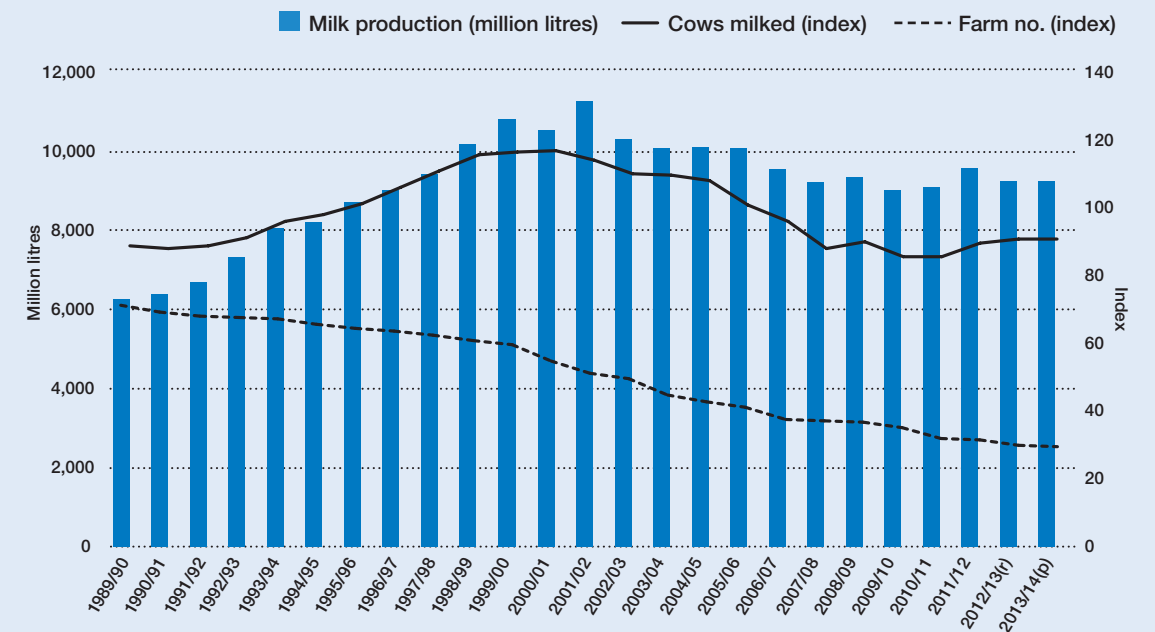
There have been significant on-farm adaptation strategies employed to manage the highly variable seasonal conditions of the last decade, particularly in the inland irrigation regions of northern Victoria, and central and southern inland New South Wales where water allocations were very low for a number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

Interestingly, with much improved water supplies in the last four years, many farmers have re-adjusted their production systems back towards the more traditional pasture-based systems while others continue to leverage investments made during drought years.

As Figure 6 indicates, the underlying trend has continued towards 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 and the use of animal nutritionists to balance cow diets, 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.

**Figure 6 Australian milk production vs indices of farms and cows milked**



Source: Dairy manufacturers, ABS, state authorities and Dairy Australia



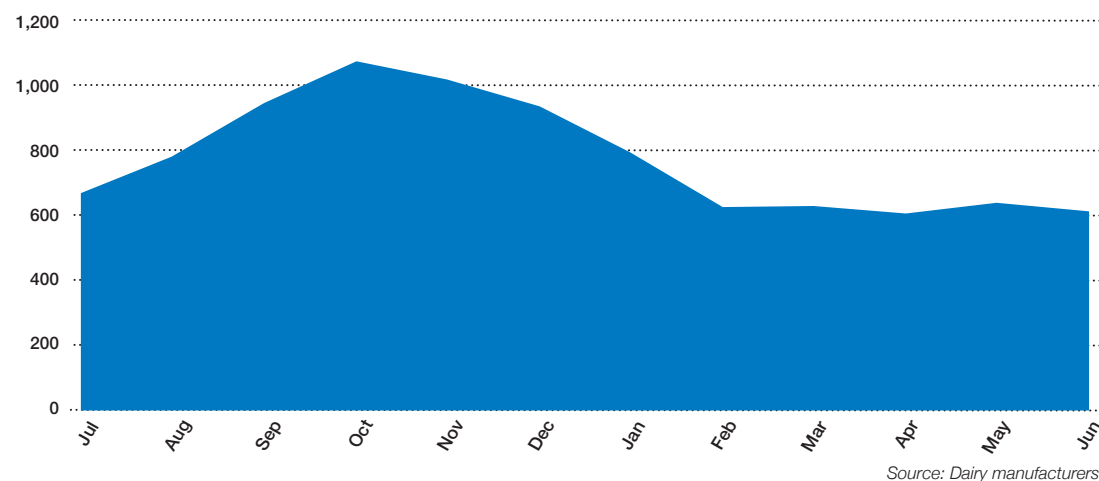
Milk production is concentrated in the temperate zone of Australia, as can be seen in Table 7 and the map of dairying regions in Appendix 3. Australian milk production remains strongly seasonal in the key south-eastern dairying regions, reflecting the predominantly pasture-based nature of the industry.

Milk production peaks in October, tapers off until late-summer, and then flattens out into the cooler winter months (refer to Figure 7). 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 3 for more details on the seasonality of milk production by state dairying regions.

**Figure 7 Seasonality of milk production in Australia, 2013/14 (million litres)**



**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
2005/06	1,197	6,651	597	646	377	622	10,089
2006/07	1,104	6,297	537	655	349	641	9,583
2007/08	1,048	6,102	486	606	319	661	9,223
2008/09	1,064	6,135	513	628	340	709	9,388
2009/10	1,074	5,790	529	605	350	674	9,023
2010/11	1,046	5,912	485	572	362	722	9,100
2011/12	1,086	6,213	485	570	338	788	9,480
2012/13	1,071	6,039	458	536	337	760	9,200
2013/14 (p)	1,035	6,123	433	516	327	805	9,239

\* From July 2005, data collection based on farm location rather than factory location  
Source: Dairy manufacturers

Australian milk production increased by just under 40 million litres, or 0.4%, to 9.24 billion litres in 2013/14 – reflecting improved conditions on a difficult prior year for many dairy farmers. Although seasonal conditions remained drier and generally unfavourable in northern regions, broadly more favourable rainfall and temperatures prevailed across the south-eastern dairying regions which combined with higher farmgate

milk prices to support significantly improved conditions for farm businesses. Dairy farmers were able to consolidate their financial positions after the difficult production conditions of 2012/13.

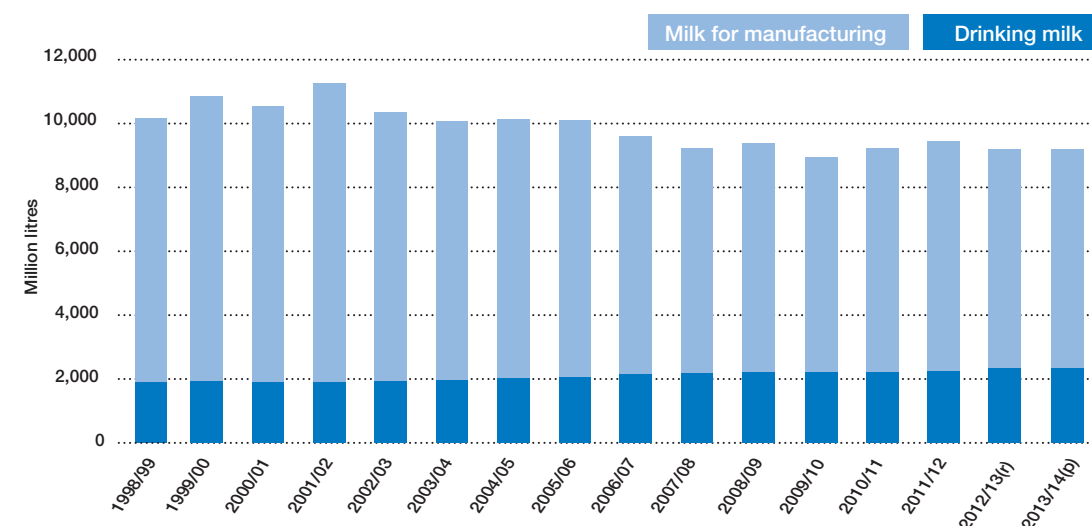
Cows' milk consists of solids (milkfat, protein, lactose and minerals) in water, with water making up about 87% of the volume. The milkfat and protein components are those on which companies base their farmgate milk prices.

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

	NSW	VIC	QLD	SA	WA	TAS	AUST
<b>Milkfat</b>							
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	3.92	4.15	4.00	3.82	3.96	4.28	4.10
2011/12	3.90	4.08	4.00	3.85	3.86	4.25	4.05
2012/13	3.92	4.12	4.02	3.81	3.87	4.32	4.08
2013/14 (p)	3.91	4.10	3.98	3.80	3.88	4.30	4.07
<b>Protein</b>							
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	3.26	3.38	3.31	3.28	3.23	3.44	3.35
2011/12	3.28	3.36	3.31	3.27	3.16	3.44	3.34
2012/13	3.27	3.36	3.29	3.26	3.20	3.47	3.35
2013/14 (p)	3.28	3.39	3.29	3.27	3.18	3.47	3.37

Source: Dairy manufacturers

**Figure 8 Drinking and manufacturing milk production (million litres)**



Source: Dairy manufacturers



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.

With total milk output lifting only modestly year on year, growth in the volumes of milk going into the drinking milk sector over the years 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 27% in 2013/14. Conversely, the volume and proportion of milk used for manufactured dairy products, and hence available for export, has declined over the decade, as shown in Figure 8.

The use of milk varies significantly around the states and was mentioned previously in the discussion around what drives farmgate milk prices (see page 7) and graphically illustrated in Figure 3 Use of Australian milk by state – 2013/14 (page 8). This chart showed the relative importance raw milk usage has between drinking milk, manufacturing for locally consumed product and manufacturing of export products across the different regions around Australia.



## 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 had 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 had been to remove surplus capacity and to utilise the existing capacity as profitably as possible. However, there is some ongoing investment by manufacturers focused particularly on meeting demand from key export markets.

The Australian dairy manufacturing sector is diverse and includes farmer-owned cooperative, public, private and multinational companies.

Farmer-owned cooperatives no longer dominate the industry and now account for around 38% of Australia's milk production. The largest cooperative is Murray Goulburn (MG) accounting for more than 36% of national milk output.

Other Australian dairy companies cover a diverse range of markets and products, from the publicly listed Bega Cheese Limited and Warrnambool Cheese & Butter WCB (controlled by major Canadian dairy company Saputo since early 2014) to the privately owned Regal Cream (Bulla Dairy Foods), Burra Foods and Longwarry Food Park to name just a few, together with many highly specialised cheese manufacturers.

Prior to the takeover of WCB by Saputo, there had already been a number of large multinational companies operating in the Australian dairy industry for many years including Fonterra (New Zealand), Kirin (Japan) and Lactalis (France).

Saputo's acquisition of WCB came after a protracted three-way contest for the Western Victorian-based export-focused manufacturer that saw the Canadian major outbid local competitors Bega Cheese and MG and prompted many to look at Australian dairy in a new light.

There were a number of other significant changes in the ownership of dairy companies in the Australian industry during the 2013/14 season:

- > Parmalat purchased West Australian dairy company Harvey Fresh, thereby establishing a nationwide footprint and becoming a fully national player.
- > Fonterra acquired Tasmanian yoghurt specialist Tamar Valley Dairy, thus securing continuity in supply arrangements and expanding its presence in Tasmania.
- > Hong Kong investor William Hui purchased Victorian-based milk broking and cheese manufacturing company United Dairy Power (UDP), reflecting the heightened Asian interest in investing in dairy.
- > R&R Ice Cream (Europe's second largest ice cream manufacturer) purchased Peters Ice Cream from Pacific Equity Partners (PEP), growing its business with Peters' brand portfolio.
- > PZ Cussons (the local unit of the food and household goods multinational) purchased Victorian-based organic yogurt specialist 5am, expanding the company's local food brand portfolio.

Other significant corporate and business developments during the year included:

- > MG opened daily pasteurised milk plants in Sydney and Melbourne.
- > Norco, Peloris Global Sourcing and Dairy Connect NSW succeeded in getting fresh milk to China within seven days.
- > Freedom Foods Group-Australian Consolidated Milk joint venture Pactum Dairy Group opened its northern Victorian plant.
- > Fonterra Australia was selected by Woolworths to process Woolworths Own Brand milk in Victoria. Lion held onto contracts in South Australia, Northern Territory and Tasmania; Brownes Dairy secured the contract in Western Australia; while Parmalat will supply Queensland and New South Wales stores.

For further details, see the Industry Value Chain section of the Dairy 2014 Situation & Outlook series of reports from [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)

The major manufactured product streams are:

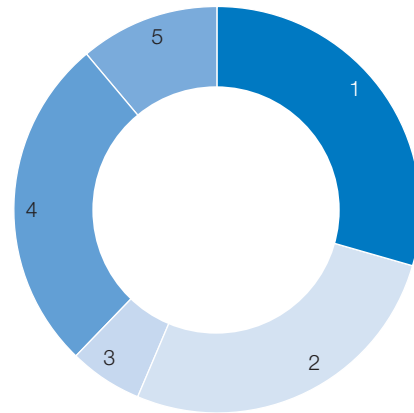
- > drinking milk—fresh and UHT long-life;
- > skim milk powder (SMP)/buttermilk powder (BMP)/butter;
- > butter/casein;
- > cheese;
- > whole milk powder (WMP);
- > other consumer products, such as yogurts, custards and dairy desserts; and
- > specialised ingredients, such as whey proteins, nutraceuticals,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

Cheese is consistently the major product stream, utilising just under a third of Australia's milk production in 2013/14 and has remained around this level for a number of years.

Drinking milk and skim milk powder / butter production were the two next largest users of milk, each taking just over a quarter of the total milk produced in Australia.

Nearly 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 95% is consumed in the domestic market.

**Figure 9 Utilisation of Australian milk in 2013/14**



- 1 Cheese (30%)
- 2 Drinking milk (27%)
- 3 Other (5%)
- 4 SMP/BMP/butter (27%)
- 5 WMP (11%)

Source: Dairy Australia



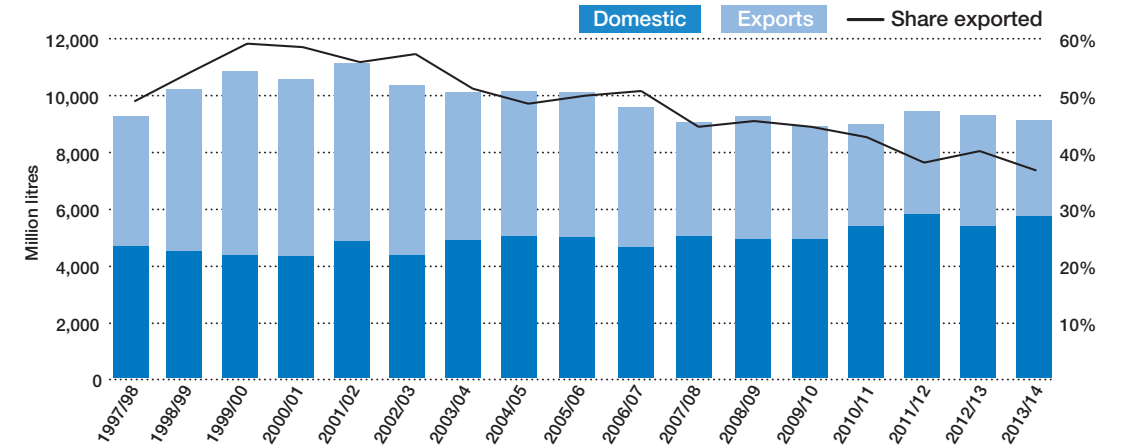
## Dairy markets

Over recent 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 around 40–60% over the period shown in Figure 10. Over recent years Australia has exported closer to 40% of its milk production—the lowest proportion since the mid-1990s, due to the

reduced availability of product from a declining milk production base.

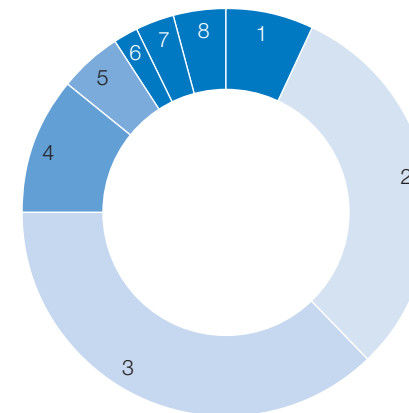
Although Australia accounts for an estimated 2% of the world's milk production, it is a significant exporter of dairy products. Australia currently ranks fourth in terms of world dairy trade— with a 7% share—behind New Zealand, the European Union as a bloc and the United States.

**Figure 10 Australian consumption and exports (milk equivalents)**



Source: Dairy manufacturers and ABS

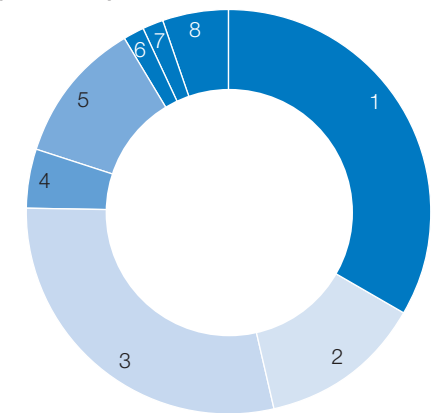
**Figure 11 Exporters' share of world dairy trade (milk equivalents)**



- 1 Australia (7%)
- 2 EU (30%)
- 3 NZ (36%)
- 4 USA (15%)
- 5 Argentina (3%)
- 6 Ukraine (1%)
- 7 Uruguay (3%)
- 8 Other (5%)

Source: Dairy Australia and ABS

**Figure 12 Australia exports by region, 2013/14 (A\$ million)**



- 1 South East Asia (\$1071)
- 2 Japan (\$425)
- 3 Other Asia (\$927)
- 4 Europe (\$149)
- 5 Middle East (\$369)
- 6 Africa (\$50)
- 7 Americas (\$58)
- 8 Other (\$162)

Source: Dairy Australia and ABS



Greater China (including China, Hong Kong and Macau) is now the single most important export market for Australia, accounting for 19% of exports by both volume and value. Australian exports are concentrated in Asia, which represented 75% of the total dairy export value of \$3.21 billion in 2013/14.

This concentration of exports in Asia reflects both Australia's geographic proximity to these markets and the extent to which Australia has been 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 value in 2013/14 were Greater China, Japan, Singapore, Indonesia and Malaysia. The top five by volume differed only slightly by order: Greater China, Japan, Singapore, Malaysia and Indonesia.

The fastest growing export market for Australia in the last five years has been Greater China.

See Appendix 7 for detailed tables of Australia's export markets.

**Table 9 Australian dairy markets by product, 2013/14 (A\$ million)**

	Sth East Asia	Other Asia	Europe	Middle East	Africa	Americas	Other	Total
Butter/AMF	73	37	101	21	3	3	5	243
Cheese	133	484	31	66	19	13	19	765
Milk	55	69	2	4	1	1	19	150
SMP	349	185	3	156	7	1	8	708
WMP*	173	380	2	20	18	11	9	613
Other	288	197	12	102	2	29	102	732
<b>Total</b>	<b>1,071</b>	<b>1,351</b>	<b>149</b>	<b>369</b>	<b>50</b>	<b>58</b>	<b>162</b>	<b>3,211</b>

Source: Dairy Australia estimates and ABS

\*Also includes infant powder

Row and total columns may not add due to rounding

**Table 10 Top 10 Australian export destinations, 2013/14**

Country	Volume - Tonnes	% of Total	Country	Value— A\$ million	% of Total
Greater China*	143,246	19%	Greater China*	594	19%
Japan	89,164	12%	Japan	425	13%
Singapore	79,090	11%	Singapore	276	9%
Malaysia	51,501	7%	Indonesia	239	7%
Indonesia	48,261	7%	Malaysia	217	7%
Thailand	43,805	6%	Thailand	190	6%
Philippines	33,994	5%	New Zealand	128	4%
New Zealand	27,174	4%	United Arab Emirates	117	4%
United Arab Emirates	24,396	3%	Philippines	112	3%
Taiwan	22,165	3%	Russian Federation	112	3%

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 around 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 106 litres, growing strongly over recent years, and at very high levels compared to many countries—thanks in no small part to the relentless expansion of the 'coffee culture' in Australia during the last decade.

Cheese consumption has stabilised in recent years at around 13.5 kg per person, as has the split between cheddar to non-cheddar varieties, with nearly 55% being cheddar types and the remaining 45% spread across the wide range of non-cheddar cheese varieties available in Australia.

Annual per capita consumption of butter in Australia is around 3.9 kgs. Consumers continue to remain interested in the 'naturalness' of butter, together with its superior taste and cooking functionality.

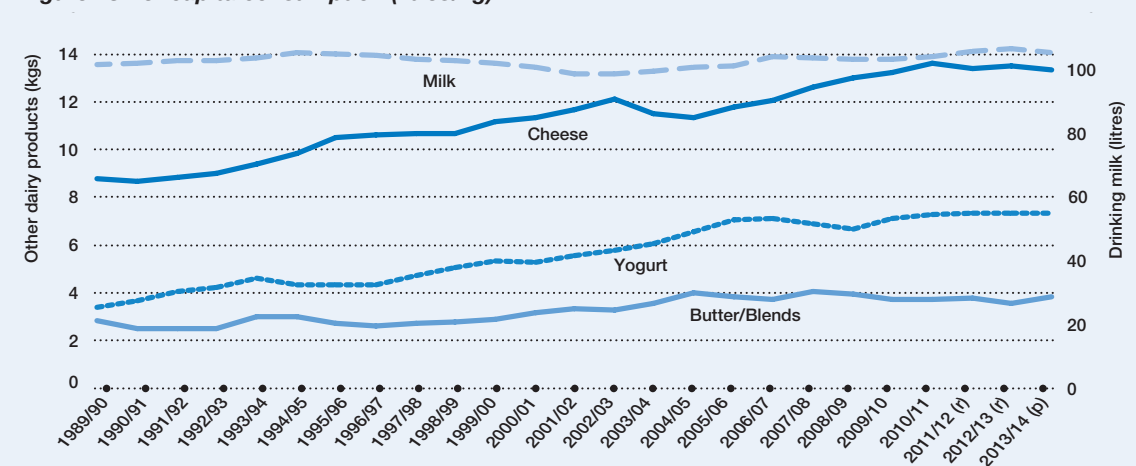
Yogurt is the ultimate 'healthy snack' for time-pressed consumers, combining both convenience and health attributes, with per capita consumption close to 7.5 kg per year.

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

	Milk (lts)	Cheese (kgs)	Butter / Blends (kgs)	Yogurt (kgs)
2009/10 (r)	103.8	13.3	3.9	7.2
2010/11 (r)	104.5	13.7	3.9	7.3
2011/12 (r)	106.1	13.5	3.9	7.4
2012/13 (p)	106.9	13.5	3.7	7.4
2013/14 (p)	105.7	13.4	3.9	7.4

Source: Dairy manufacturers and Dairy Australia

**Figure 13 Per capita consumption (litres/kg)**



Source: Dairy manufacturers and Dairy Australia



## 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 full cream milk to modified milks, such as reduced and low-fat milks, over many years. Over the last two decades, full cream white milk volumes have consistently lost share in a steadily growing market from 67% in the early-1990's to 48% share of total drinking milk in 2013/14. The share trends across the other segments have all been upwards; with total modified milks' share up from 23% to 32%; fresh flavoured milks increasing share from 7% to 10%; and the UHT milk volume share increasing from 3% to 10% over the 20 years.

There are now two major players in the Australian drinking milk market: Lion Dairy & Drinks (with the Pura and Dairy Farmers brands) and Parmalat (with the Pauls brand). MG and Fonterra Australia have also recently increased their presence in the milk market with supply contracts for private label milk, and with the former also launching its own Devondale branded milk. In addition, there is also an increasing number of smaller players in the marketplace with strong specialty and regional brands, with most showing significant growth in recent years as consumers have chosen to support local brands.

The supermarket channel's share of Australian drinking milk sales has been relatively steady over the last three years at 52.9% in 2013/14. 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 per litre for both full cream milks and modified milks. This was immediately followed by all major supermarket competitors and led to a shift of sales of around 1.5% market share points from convenience and other outlets to supermarkets.

Supermarket sales volumes grew by 1.2% in 2013/14; with the comparative sales performance between private label milks (+4.9%) and dairy company branded milks (-2.8%) delivering market share growth to private label milks of 1.9% share points to 53.6% and thereby recovering the loss of share in the previous year. Dairy companies started marketing their branded milks as 'permeate free' from mid-2012, approximately six-months ahead of the private label milks following the same strategy. The year saw a slight deterioration in branded fresh white milk prices as some companies also used price promotions as part of their marketing strategy to regain market share.

Permeate is a collection of milk components (lactose, vitamins, minerals and water) naturally found in milk according to the variety.

Private label brands account for 53.6% of total supermarket milk volumes, only marginally above the 53.5% level of two years ago, and up from around 25% back in 1999/2000. Looking more closely at the fresh white milk segments, where the majority of the pricing activity of the past two and a half years has occurred, private label brands currently account for 68% of fresh white regular full cream milk and 53% of modified fresh white milk sales.

The average price of private label products is significantly less than company branded products, due to a combination of product and pack size mix—with a greater proportion of private label purchases being larger plastic bottles of regular full cream milk.

On the packaging front, plastic bottles account for nearly 80% of all milk sales in supermarkets, with the balance split between gable-top cartons (7%) and UHT cartons (14%).

There have been significant movements within the pack sizes bought by consumers in supermarkets over the last decade. While the 2-litre plastic bottle remains the most popular size, with 45% share, this is down from close to 50% ten years ago. Similarly, the combined share of 1-litre cartons and plastic bottles has slipped from 33% to 18%. 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% when it first appeared in June 1998 to around 32% currently.

In 2013/14, the average price of branded milk increased slightly from \$2.14 to \$2.17 per litre, with increases in fresh white and UHT milks offsetting a fall in the average prices of flavoured milks. Higher private label but lower branded volumes were sold, however; and so the average supermarket price remained unchanged from the prior year at \$1.56 per litre. When combined with the modest volume growth seen during the year, this meant that the retail value of supermarket milk sales increased by 0.6% to more than \$2.036 billion.

See Appendix 6 for more details of supermarket milk sales and average prices.

Australia exports relatively small volumes of liquid milk—predominantly as UHT product—with around 87% of the total going into the Asian region and most of the balance into the island countries of the Pacific region.

See Appendix 7 for more details of drinking milk exports.

**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
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	1,140	630	110	228	208	2,316
2011/12	1,161	674	108	236	208	2,388
2012/13 (r)	1,164	684	105	240	249	2,441
2013/14 (p)	1,187	691	98	239	259	2,474

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
2005/06	660	499	444	192	216	50	2,061
2006/07	692	510	474	201	226	53	2,156
2007/08	682	524	485	205	237	55	2,188
2008/09	696	533	495	208	241	56	2,229
2009/10	709	545	499	213	247	57	2,269
2010/11	716	566	502	213	262	57	2,316
2011/12	722	583	531	221	273	58	2,388
2012/13 (r)	731	600	547	222	280	61	2,441
2013/14 (p)	737	621	554	222	280	60	2,474

State figures exclude interstate traded milk prior to 2001, NSW includes ACT after June 2000.  
Source: Milk processors and state milk authorities

## Cheese

Australia produced 311,460 tonnes of cheese in 2013/14—a decline of 8% on the previous year. Production volumes were significantly less than earlier in the 2000s as the availability of milk has trended downward since that time. Another significant factor in more recent years, as milk production has stabilised at lower levels, has been the impact of dairy companies opportunistically changing their export product mixes to take advantage of favourable movements in international dairy commodity prices.

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 between 45% and 50% in recent years.

Cheese is a major product for the Australian dairy industry, with sales of around 253,194 tonnes of domestic product within Australia, for an estimated value approaching A\$1.8 billion; and export sales of a further 150,575 tonnes, worth A\$765 million in 2013/14.

It is estimated that nearly half 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 food service sector and in food processing applications.

Total cheese sales volumes through the supermarket channel in 2013/14 declined by around -1.8%. However, average retail prices increased 3.9% on the previous year, so that retail sales values showed growth of 2.1% to more than \$2.0 billion.

Imports accounted for an estimated 25% of the Australian cheese market. In 2013/14, approximately 52% of the 76,046 tonnes of cheese imported into Australia was sourced from New Zealand. The remaining cheese imports came from Europe (over 25%) and the United States (nearly 21%).

Japan remained Australia's most important overseas cheese market in 2013/14 and accounted for nearly 50% of product exports, followed by Greater China, Malaysia, Singapore and South Korea. Australian cheeses were exported to nearly 60 countries around the world last year.

The 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 around 60% two decades ago, to more than 70% in recent years.

**Table 14 Australian cheese production by type of cheese**

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 (e)
Cheddar	171,260	178,360	164,220	154,720	160,683	157,996	151,721
Semi hard	73,854	61,754	82,504	68,176	67,023	57,190	44,714
Hard grating	16,908	17,924	12,238	13,591	13,871	14,681	13,762
Fresh	90,934	75,650	82,004	95,431	99,024	102,342	95,760
Mould	7,966	8,915	8,673	6,739	5,930	6,103	5,503
<b>Total cheese</b>	<b>360,922</b>	<b>342,603</b>	<b>349,639</b>	<b>338,657</b>	<b>346,530</b>	<b>338,312</b>	<b>311,460</b>

Source: Dairy manufacturers

## Butter

In 2013/14, Australia produced 116,122 tonnes of butter and anhydrous milkfat (AMF) or butteroil in commercial butter equivalent terms (CBE)—a small 1% decrease on the previous year.

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 contracted 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 last decade, as dairyspreads' share of the category has steadily increased from 30% in 2000/01 to approach 45% in recent years.

It is estimated that around 64% of the domestic sales of Australian dairyspreads were through supermarkets. Supermarket sales volumes increased around 7% in 2013/14, together with a marginal increase in average retail prices during the year, delivering an increase in retail sales value of 6.7% over the previous year to more than \$380 million.

See Appendix 6 for more details of supermarket butter and dairy blend sales.

Imports accounted for an estimated 30% of the Australian butter market last year. In 2014/15, over 85% of the 20,500 tonnes of butter and butteroil imported into Australia was sourced from New Zealand.

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 4% last year to 49,200 tonnes although higher prices delivering a 35% increase in value to \$242 million.

Australia's most important overseas markets for butter/AMF were the Russian Federation, Singapore, Greater China and Malaysia, out of a total of some 45 countries.

See Appendix 7 for more details of butter and AMF exports.

**Table 15 Butter and AMF production (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 (p)
Butter/Butter Blends (CBE)	109,753	100,134	96,326	100,551	99,035	101,705
AMF (CBE)	38,742	28,245	26,160	19,164	19,193	14,417

Source: Dairy manufacturers

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

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
Butter	43,968	41,691	33,403	33,602	39,357	39,796
AMF (CBE)	26,529	31,995	22,440	14,978	14,316	9,460

Source: Dairy Australia and 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. Nevertheless, there has also been steady growth coming out of a range of brands such as Jalna, Vaalia and Chobani in recent times.

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 increased slightly in recent years—with economic uncertainty seeing more people preparing meals at home and hence supporting sales. Regular and sour creams are both used extensively as accompaniments or ingredients; but face significant competition on the health front, often from other dairy products, such as natural yogurt. Nevertheless, like butter, consumers remain interested in cream's superior taste and cooking functionality.

See Appendix 5 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 (recently acquired by R&R Ice Cream) 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 local milk powder production was a steady increase in the share of whole milk powder (WMP) output—from a low of 25% in the early-to-mid 1980s to a peak of nearly 50% share of all milk powders produced in Australia in 2001/02. Thereafter the trend reversed with skim milk powder (SMP) production regaining share to approach 70% of total milk powder production in 2012/13, before easing back towards 60% in the latest season.

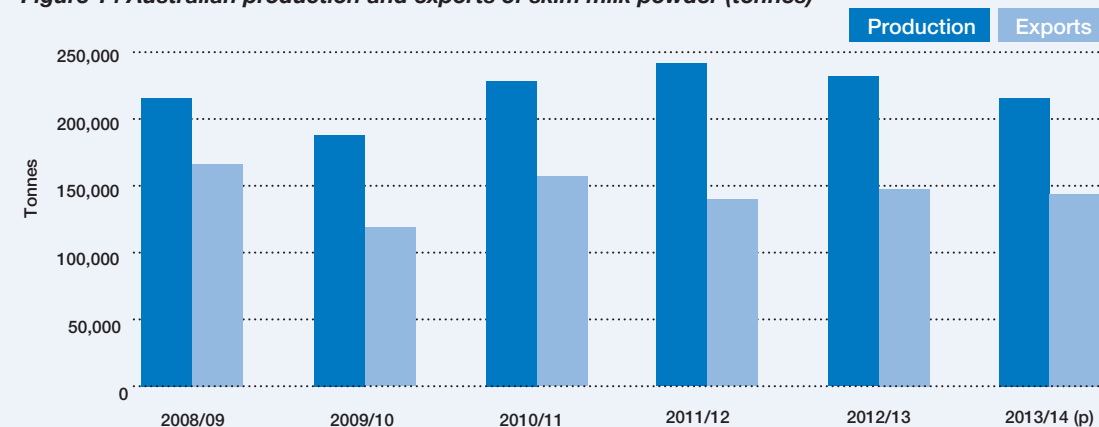
The limited availability of milk during the first half of the last decade and a stabilisation of milk production volumes in recent years has seen local dairy companies opportunistically changing their product mixes to take advantage of the relative movements in international dairy commodity prices. Differing market access arrangements also impact on the competitiveness of product pricing. For example, local producers will be at a competitiveness disadvantage where Australia may not have negotiated a Free Trade Agreement, but a competitive supplier country has already done so. This impacts on local production mixes because the bulk of Australia's milk powder production volumes are sold into export markets.

**Table 17 Australian production of milk powders (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 (p)
Skim milk powder	212,030	190,233	222,484	230,286	224,061	210,964
Whole milk powder*	147,544	126,024	151,269	140,424	108,838	126,322

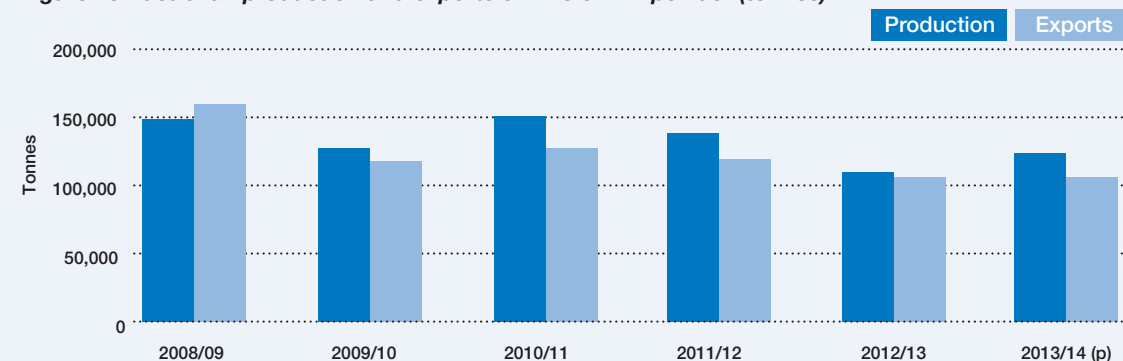
\* Includes infant powders  
Source: Dairy manufacturers

**Figure 14 Australian production and exports of skim milk powder (tonnes)**



Source: Dairy manufacturers and ABS

**Figure 15 Australian production and exports of whole milk powder (tonnes)**



Source: Dairy manufacturers and ABS



Only about 25-30% of Australia's powder production is sold domestically, with local usage mainly as a food ingredient and retail outlets accounting for only a small percentage of domestic sales.

Exported milk powder is often recombined into liquid milk products, particularly in tropical climates where fresh milk supplies are not readily available due to limited local production and / or restricted development of cold chain distribution facilities. 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 75% of SMP export volumes and almost 90% of WMP destined for the region in 2013/14.

See Appendix 7 for more details on milk powder exports.

Indonesia was the largest single export market for Australian-produced SMP in 2013/14, followed by Greater China, Singapore, Kuwait, Malaysia and Saudi Arabia out of some 35 export destinations.

Greater China was the largest single export market for Australian-produced WMP, followed by Singapore, Sri Lanka, Bangladesh and Indonesia, out of a total of 40 export destinations.

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

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 (p)
Asia	127,699	100,669	124,176	111,396	109,232	108,095
Middle East	20,906	17,829	21,496	23,529	28,313	31,447
Africa	6,180	1,462	2,307	2,083	3,830	1,392
Pacific	514	3,957	4,385	2,612	3,478	1,584
Americas	6,257	1,462	1,461	889	1,331	244
Europe	525	244	1,510	810	732	563
<b>Total</b>	<b>162,081</b>	<b>125,623</b>	<b>155,335</b>	<b>141,319</b>	<b>147,243</b>	<b>143,326</b>

Source: Dairy Australia and ABS

**Table 19 Australian exports of whole milk powder by region (tonnes)\***

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
Asia	102,025	80,271	84,468	68,022	76,572	91,232
Middle East	30,889	17,180	21,329	31,619	9,487	3,872
Africa	13,221	6,867	9,344	4,629	5,743	3,344
Pacific	2,330	2,226	1,447	1,629	1,995	1,371
Americas	9,548	10,001	8,458	9,782	8,544	2,089
Europe	20	204	807	429	1,468	345
<b>Total</b>	<b>158,033</b>	<b>116,749</b>	<b>125,853</b>	<b>116,110</b>	<b>103,809</b>	<b>102,253</b>

\*Includes infant powders  
Source: Dairy Australia and ABS

## Whey products and casein

Whey is a byproduct 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.

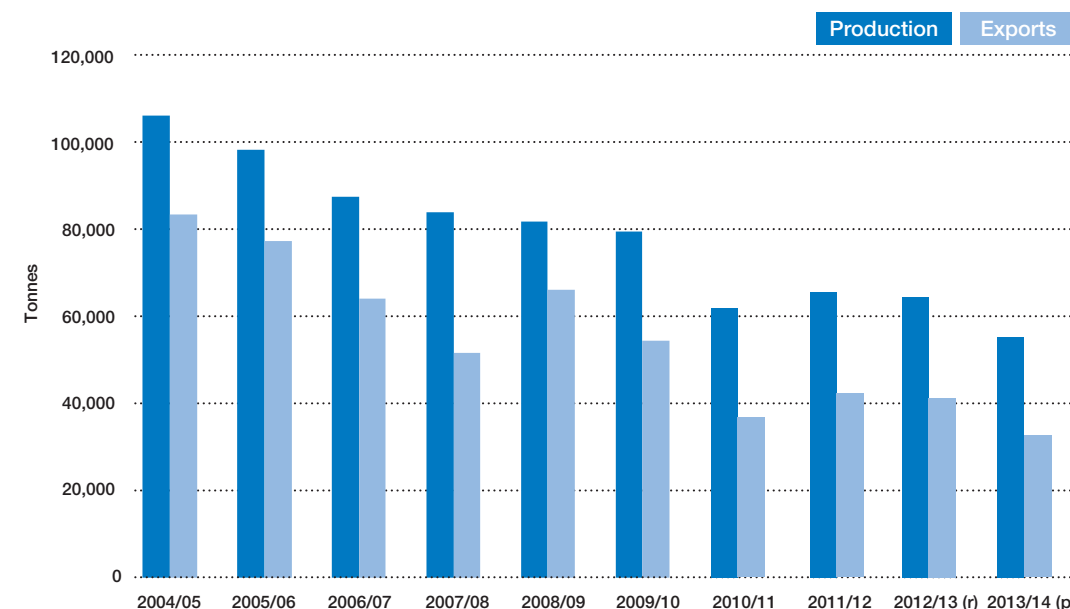
Whey protein concentrates are used in snack foods, juices, confectionery, ice-cream, biscuits, processed meats, (milk) protein drinks, desserts, infant foods and dietetic products. Products such as cosmetics, skin creams, bath salts and detergents also contain protein concentrates.

Around 40% of Australia's whey production is used domestically in the manufacture of infant formula, biscuits and ice-cream. The remainder is exported, with Indonesia, Japan, Greater China, Malaysia, and Thailand being the largest export markets for Australian whey powders in 2013/14.

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, with Japan, Indonesia and the United States as the largest export markets in recent years.

**Figure 16 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 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, industry 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.

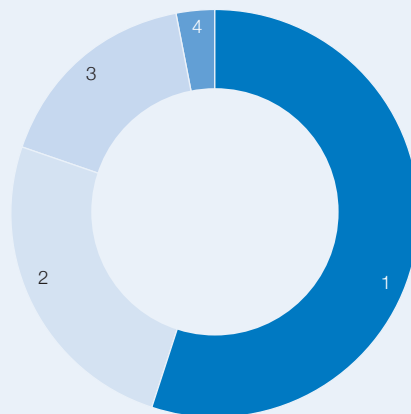
Dairy Australia has recognised the inter-dependence between the farm and non-farm sectors by developing core business objectives that operate across the dairy supply chain to deliver on-going value and improved margins for levy payers.

For the current 2013/14–15/16 three-year planning cycle, Dairy Australia's strategic priorities are to:

- > (Develop tools for) profitable and competitive dairy farms;
- > Promote and protect dairy's value and integrity; and
- > Grow skills and capability within the dairy industry.

The organisation prepares an annual rolling three-year Strategic Plan and the current plan can be downloaded from [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)

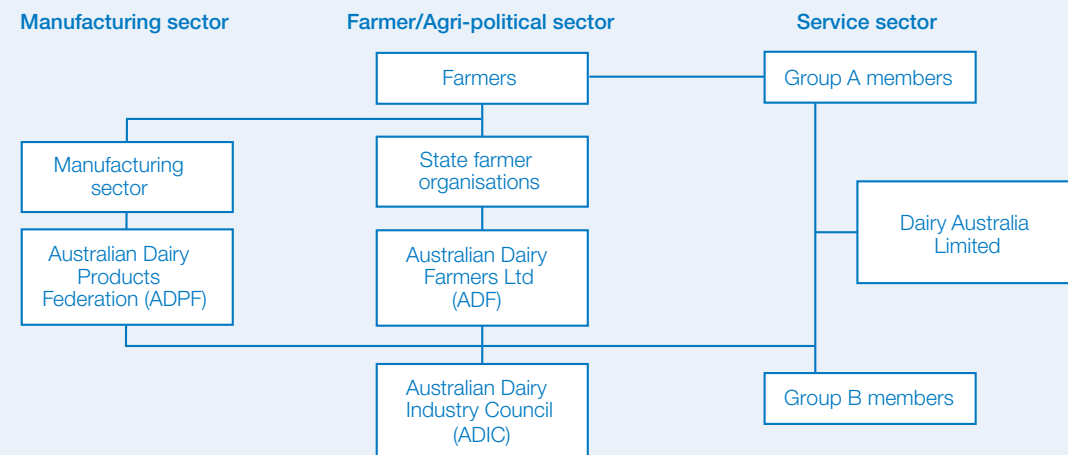
**Figure 17 Dairy Australia's planned expenditure by strategic priorities for 2013/14 to 2015/16**



- 1 SP1: Profitable and competitive dairy farms (59%)
- 2 SP2: Protect and promote our industry (20%)
- 3 SP3: Grow capability and skills (18%)
- 4 SP4: DA supporting activity (3%)

Source: Dairy Australia

**Figure 18 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.

The organisation has recently undergone a significant restructure, delivering the opportunity for individual farmers to become members of the ADF. More information on this aspect, together with details of a smaller governing board of directors focused on strategy and oversight of ADF operations through a set of Policy Advisory Groups is available from

[www.australiandairyfarmers.com.au](http://www.australiandairyfarmers.com.au)

Its members currently include the state dairy farmer organisations of:

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

Other state industry organisations include the South Australian Dairyfarmers' Association (SADA) (ADF member for part of 2014) and Dairy Connect NSW.

### 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 relevant State dairy and food regulatory authorities are:

- > NSW 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.

Dairy Authorities Technical Advisory Committee (DTAC) aims to achieve greater uniformity and consistency in the application of dairy legislation, standards and management practices across Australia and with New Zealand.



## 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.

### 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 2013/14**

	Milkfat (cents/kg)	Protein (cents/kg)	Milk* (cents/litre)	Milk solids (cents/kg)
Animal Health	0.058	0.139	0.007	0.09
Dairy Services	2.868	6.991	0.352	4.74

*\* Based on average 2013/14 Australian milk composition of 4.07% milkfat and 3.37% protein*

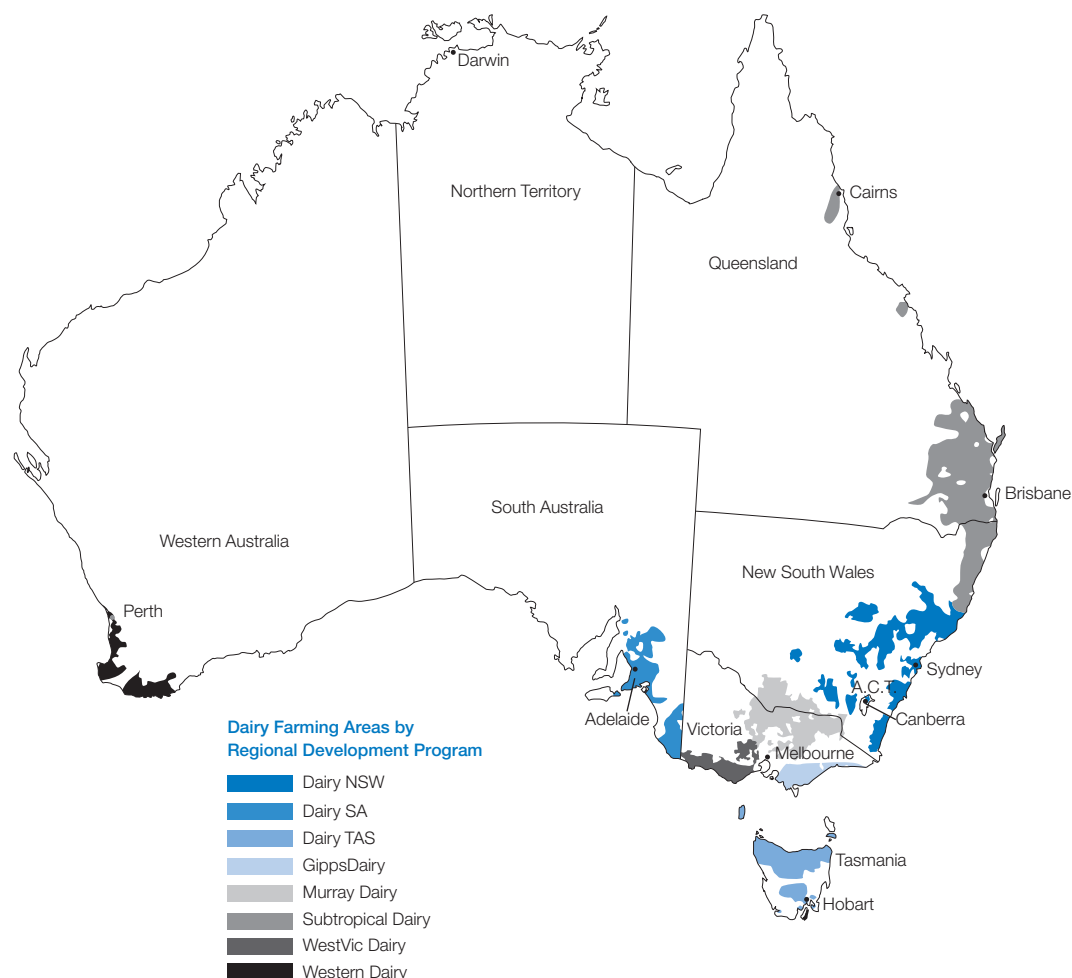




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## Appendix 1 Dairying regions



## Appendix 2 Grain prices

**Table A1 Typical Australian grain prices (\$ per tonne)**

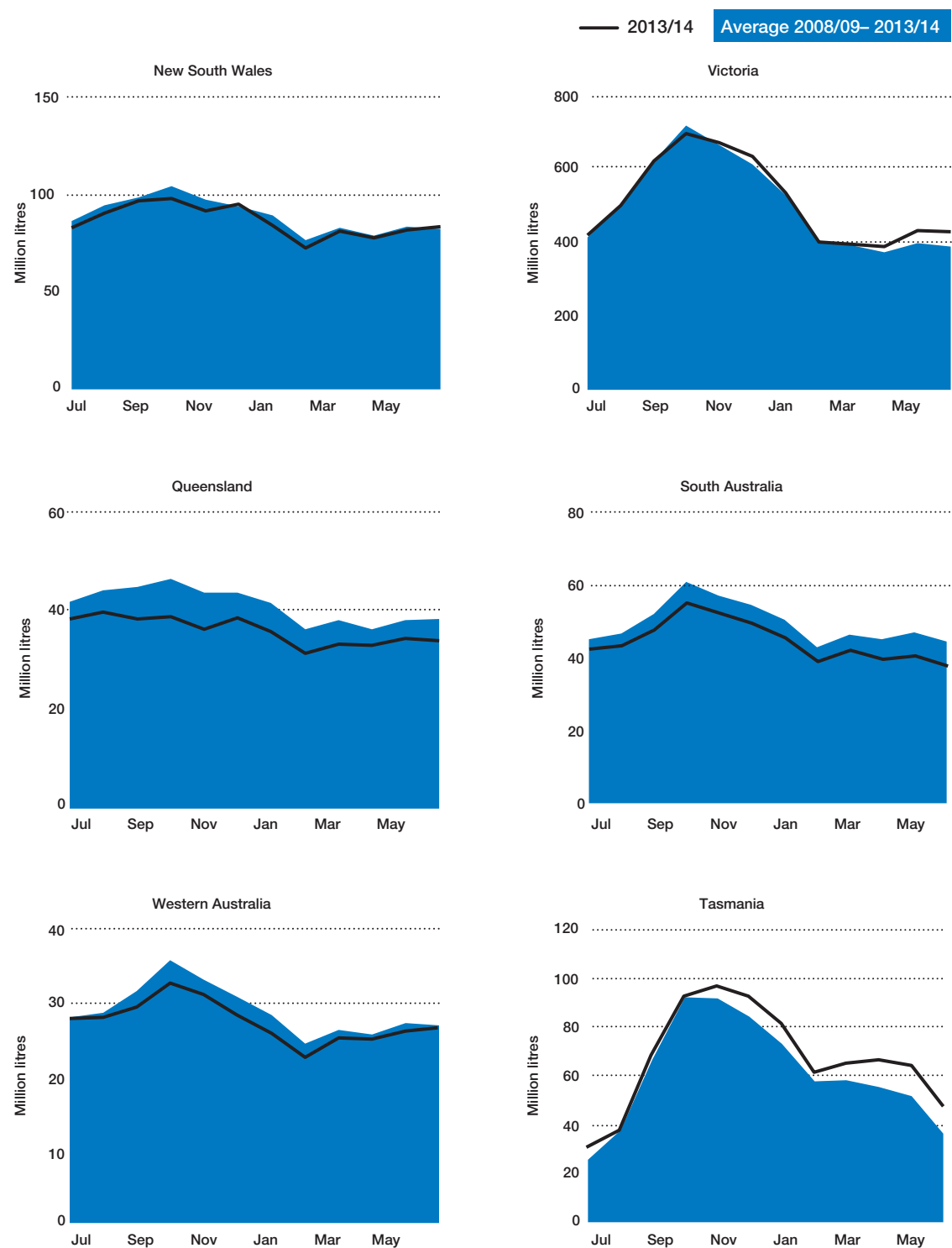
Barley	NSW	VIC	QLD	SA	WA	TAS
1989/90	\$158	\$157	\$152			
1999/00	\$141	\$140	\$136	\$135	\$138	
2005/06	\$183	\$173	\$182	\$143	\$157	\$234
2006/07	\$292	\$280	\$302	\$215	\$212	\$361
2007/08	\$346	\$364	\$346	\$303	\$301	\$469
2008/09	\$268	\$265	\$253	\$212	\$214	\$367
2009/10	\$220	\$170	\$234	\$145	\$151	\$236
2010/11	\$238	\$225	\$251	\$222	\$251	\$290
2011/12	\$208	\$210	\$220	\$201	\$230	\$266
2012/13	\$284	\$258	\$297	\$238	\$270	\$342
2013/14	\$282	\$253	\$345	\$222	\$250	\$325
Sorghum	NSW	VIC	QLD			
1989/90	\$154	\$169	\$143			
1999/00	\$130	\$152	\$125			
2005/06	\$172	\$198	\$173			
2006/07	\$268	\$308	\$272			
2007/08	\$341	\$382	\$309			
2008/09	\$244	\$283	\$208			
2009/10	\$226	\$250	\$211			
2010/11	\$256	\$292	\$234			
2011/12	\$219	\$267	\$210			
2012/13	\$284	\$293	\$279			
2013/14	\$327	\$322	\$336			
Triticale	NSW	VIC	QLD	SA	WA	
1989/90	\$161	\$164	\$154			
1999/00	\$139	\$141		\$136	\$133	
2005/06	\$189	\$193		\$153	\$163	
2006/07	\$293	\$283		\$220	\$202	
2007/08	\$377	\$391		\$318	\$310	
2008/09	\$298	\$309		\$235	\$241	
2009/10	\$227	\$204		\$157	\$169	
2010/11	\$234	\$228		\$216	\$242	
2011/12	\$215	\$202		\$194	\$215	
2012/13	\$296	\$273		\$252	\$274	
2013/14	\$295	\$266		\$237	\$259	
Wheat	NSW	VIC	QLD	SA	WA	TAS
1989/90	\$175	\$175	\$175			
1999/00	\$154	\$158	\$141	\$152	\$146	
2005/06	\$193	\$188	\$202	\$165	\$177	\$240
2006/07	\$285	\$285	\$302	\$229	\$214	\$363
2007/08	\$425	\$411	\$411	\$360	\$351	\$522
2008/09	\$312	\$326	\$292	\$292	\$303	\$429
2009/10	\$235	\$221	\$235	\$203	\$219	\$285
2010/11	\$266	\$253	\$271	\$247	\$301	\$320
2011/12	\$226	\$211	\$232	\$203	\$239	\$273
2012/13	\$306	\$286	\$305	\$270	\$301	\$360
2013/14	\$310	\$286	\$357	\$258	\$284	\$353

Source: Dairy Australia



## Appendix 3 Milk production

Figure A1 Seasonality of milk production (million litres)



Source: Dairy manufacturers

## Appendix 4 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.

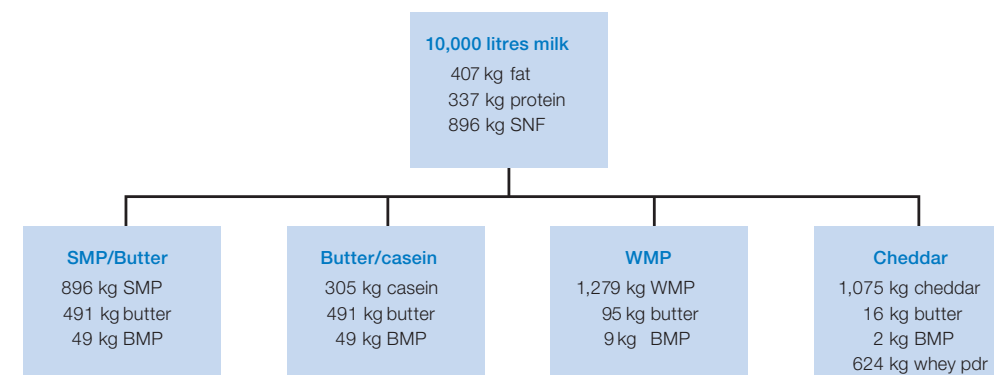
The liquid whey extracted during cheese manufacture contains protein, lactose and a little fat. It can be dried to make products for pharmaceutical purposes, as a useful supplement in stock feed, and in the manufacture of ice-cream.

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

Table A2 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
Whole milk 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 2013/14



Source: Dairy Australia

## Appendix 5 Domestic sales

**Table A3 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
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	245,028	2,273	16,774	3,985	47,959	342,603
2009/10	26,138	260,060	1,111	14,736	4,240	43,354	349,639
2010/11	28,297	247,806	1,467	15,304	3,638	42,144	338,657
2011/12	25,174	260,342	909	12,192	1,656	46,257	346,530
2012/13	24,073	266,493	831	5,865	2,102	38,948	338,312
2013/14 (e)	23,382	239,594	671	7,280	1,988	38,545	311,460

Source: Dairy manufacturers

**Table A4 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
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	96,326	26,160	222,484	151,269	61,488
2011/12	100,551	19,164	230,286	140,424	64,645
2012/13	99,035	19,193	224,061	108,838	63,440
2013/14 (p)	101,705	14,417	210,964	126,322	55,506

Source: Dairy manufacturers  
\*Includes butter blends as CBE  
\*\* Includes infant powders

**Table A5 Australian cheese production by variety (tonnes)**

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14 (e)
<b>Cheddar &amp; Cheddar Types</b>							
Cheddar (1)	135,929	149,267	138,099	126,888	135,540	126,551	132,669
Reduced fat cheddar	26,754	23,689	21,414	22,799	18,885	25,708	12,681
Cheedam	28	260	447	389	438	111	235
Other cheddar type cheese (2)	8,549	5,144	4,260	4,644	5,820	5,626	6,136
<b>Total Cheddar</b>	<b>171,260</b>	<b>178,360</b>	<b>164,220</b>	<b>154,720</b>	<b>160,683</b>	<b>157,996</b>	<b>151,721</b>
<b>Semi Hard Cheese</b>							
Mozzarella	55,208	42,262	54,349	50,028	44,929	38,616	31,696
Pizza	4,957	5,017	6,905	5,402	5,502	5,316	3,537
Other stretch curd and shredding	1,970	1,359	3,285	1,585	1,852	1,143	763
Edam	709	305	207	621	347	423	408
Gouda	8,040	8,909	13,111	8,963	12,757	10,615	7,279
Other eye type cheese (3)	2,344	2,145	2,051	1,154	1,334	972	928
Other Semi Hard Cheese (4)	626	1,757	2,596	423	302	105	103
<b>Total Semi Hard Cheese</b>	<b>73,854</b>	<b>61,754</b>	<b>82,504</b>	<b>68,176</b>	<b>67,023</b>	<b>57,190</b>	<b>44,714</b>
<b>Hard Grating Types</b>							
Parmesan	9,981	10,633	7,360	9,225	8,906	9,156	3,522
Pecorino	2,039	946	1,443	1,315	1,066	938	704
Romano	1,637	1,957	2,014	1,219	1,460	1,526	5,804
Other (5)	3,251	4,388	1,421	1,832	2,439	3,061	3,732
<b>Total</b>	<b>16,908</b>	<b>17,924</b>	<b>12,238</b>	<b>13,591</b>	<b>13,871</b>	<b>14,681</b>	<b>13,762</b>
<b>Fresh Types</b>							
Cottage	2,582	2,529	2,507	4,600	2,204	2,502	1,717
Cream cheese	62,267	47,399	53,702	66,631	76,390	79,343	72,874
Fetta	5,875	6,138	6,503	6,681	5,707	5,684	7,850
Neufchatel	9,521	8,730	7,844	4,489	4,820	5,170	4,101
Ricotta	6,892	7,396	7,993	9,130	6,487	6,965	5,730
Other fresh types (6)	3,797	3,458	3,455	3,900	3,416	2,678	3,488
<b>Total</b>	<b>90,934</b>	<b>75,650</b>	<b>82,004</b>	<b>95,431</b>	<b>99,024</b>	<b>102,342</b>	<b>95,760</b>
<b>Mould Ripened</b>							
Blue Vein	1,434	1,707	1,751	791	679	626	512
Brie and Camembert	5,971	6,489	6,148	5,457	4,914	5,114	4,588
Other mould ripened	561	719	774	491	337	363	403
<b>Total</b>	<b>7,966</b>	<b>8,915</b>	<b>8,673</b>	<b>6,739</b>	<b>5,930</b>	<b>6,103</b>	<b>5,503</b>
<b>Total Cheese</b>	<b>360,922</b>	<b>342,603</b>	<b>349,639</b>	<b>338,657</b>	<b>346,531</b>	<b>338,312</b>	<b>311,460</b>

(1) Includes: Vintage (2) Includes: Colby, Cheshire, Gloucester, Lancashire, Leicester, Nimbin and semi-processed cheddar  
(3) Includes: Swiss, Emmenthal, Fontina, Havarti, Samsoe, 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 6 Supermarket sales

### Milk

**Table A6 Dairy company domestic sales (tonnes)\***

Major dairy products - excl drinking milk	Sales Channel	2010/11 (r)	2011/12 (r)	2012/13 (r)	2013/14 (p)
Butter	Grocery	41,358	42,828	45,061	47,721
	Non-Grocery	13,308	12,742	15,137	21,499
<b>Butter Total</b>		<b>54,666</b>	<b>55,570</b>	<b>60,198</b>	<b>69,220</b>
Cheese	Grocery	126,134	117,273	130,600	129,352
	Non-Grocery	127,974	131,331	126,835	123,842
<b>Cheese Total</b>		<b>254,108</b>	<b>248,603</b>	<b>257,435</b>	<b>253,194</b>
Cream	Grocery	53,975	54,959	56,336	59,961
	Non-Grocery	50,018	48,529	55,954	73,129
<b>Cream Total</b>		<b>103,994</b>	<b>103,488</b>	<b>112,290</b>	<b>133,090</b>
Custard	Grocery	22,931	21,595	21,233	20,968
	Non-Grocery	2,332	2,612	2,674	2,393
<b>Custard Total</b>		<b>25,263</b>	<b>24,207</b>	<b>23,907</b>	<b>23,361</b>
Dairy Desserts	Grocery	18,931	18,092	16,643	14,162
	Non-Grocery	357	512	373	217
<b>Dairy Desserts Total</b>		<b>19,288</b>	<b>18,605</b>	<b>17,016</b>	<b>14,379</b>
Milk Powder	Grocery	5,392	6,205	7,665	8,303
	Non-Grocery	3,614	6,119	18,129	51,429
<b>Milk Powder Total</b>		<b>9,006</b>	<b>12,324</b>	<b>25,794</b>	<b>59,732</b>
Yogurt	Grocery	135,681	134,324	124,413	118,715
	Non-Grocery	14,188	16,236	15,701	18,114
<b>Yogurt Total</b>		<b>149,870</b>	<b>150,560</b>	<b>140,114</b>	<b>136,828</b>

\* 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  
This data excludes specialty cheese sales from smaller scale specialty cheese companies

Source: Dairy Manufacturers

**Table A7 Supermarket milk sales by state (million litres)**

	NSW	VIC	QLD	SA	WA	TAS	AUST
2011/12	364	321	301	116	125	33	1,259
2012/13	374	323	312	117	134	34	1,294
2013/14	374	323	319	120	138	35	1,309

Source: IRI-Aztec Australia

**Table A8 Supermarket milk sales by type (million litres)**

	Regular	Reduced Fat	No Fat	Flavoured	UHT	AUST
2011/12	536	416	56	91	161	1,259
2012/13	551	421	55	95	171	1,294
2013/14	561	412	52	104	180	1,309

Source: IRI-Aztec Australia

**Table A9 Supermarket milk sales—branded vs private label (million litres)**

	2011/12		2012/13		2013/14 (p)	
	Million litres	Price/Litre	Million litres	Price/Litre	Million litres	Price/Litre
<b>Branded Milk</b>						
Regular Whole	152	\$1.83	186	\$1.81	180	\$1.84
Reduced Fat	175	\$2.02	188	\$2.00	172	\$2.01
No Fat	50	\$1.99	49	\$1.98	46	\$2.00
Flavoured	86	\$3.81	89	\$3.91	99	\$3.79
UHT	122	\$1.55	113	\$1.60	111	\$1.61
<b>Total Branded Milk</b>	<b>585</b>	<b>\$2.13</b>	<b>625</b>	<b>\$2.14</b>	<b>608</b>	<b>\$2.17</b>
<b>Private Label</b>						
Regular Whole	383	\$1.03	365	\$1.02	381	\$1.01
Reduced Fat	241	\$1.01	234	\$1.01	240	\$1.01
Low Fat	6	\$1.25	6	\$1.25	6	\$1.25
Flavoured	5	\$1.98	5	\$2.01	5	\$1.88
UHT	39	\$1.14	59	\$1.01	69	\$1.02
<b>Total Private Label Milk</b>	<b>674</b>	<b>\$1.04</b>	<b>669</b>	<b>\$1.02</b>	<b>701</b>	<b>\$1.02</b>
<b>Total Milk</b>	<b>1,259</b>	<b>\$1.55</b>	<b>1,294</b>	<b>\$1.56</b>	<b>1,309</b>	<b>\$1.56</b>

Source: IRI-Aztec Australia

## Appendix 7 Australian exports

### Dairy spreads

**Table A10 Supermarket dairy spreads sales by type (tonnes)**

	2011/12		2012/13		2013/14 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
<b>Dairy</b>						
Butter	20,621	\$8.50	21,481	\$8.51	22,584	\$8.45
Blends	18,912	\$9.10	18,872	\$9.21	20,608	\$9.22
Ghee	49	\$13.74	52	\$15.21	21	\$14.19
<b>Total Dairy Spreads</b>	<b>39,582</b>	<b>\$8.80</b>	<b>40,406</b>	<b>\$8.84</b>	<b>43,213</b>	<b>\$8.82</b>

Source: IRI-Aztec Australia

**Table A11 Supermarket dairy spreads sales by pack size (tonnes)**

	2011/12		2012/13		2013/14 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
250 gram	10,538	\$9.13	11,328	\$8.95	12,028	\$9.01
375 gram	5,085	\$12.30	5,175	\$12.23	5,251	\$12.69
500 gram	23,500	\$7.82	23,459	\$7.95	25,731	\$7.88
Other sizes	460	\$12.34	445	\$13.77	203	\$17.42
<b>Total Dairy Spreads</b>	<b>38,827</b>	<b>\$8.48</b>	<b>39,582</b>	<b>\$8.80</b>	<b>43,213</b>	<b>\$8.82</b>

Source: IRI-Aztec Australia

**Table A12 Supermarket dairy spreads sales by form (tonnes)**

	2011/12		2012/13		2013/14 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
Pats	17,606	\$7.51	18,248	\$7.47	19,260	\$7.35
Tubs	21,976	\$9.83	22,158	\$9.97	23,953	\$10.00
<b>Total Dairy Spreads</b>	<b>39,582</b>	<b>\$8.80</b>	<b>40,406</b>	<b>\$8.84</b>	<b>43,213</b>	<b>\$8.82</b>

Source: IRI-Aztec Australia

**Table A13 Australian exports of cheese (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
China, Hong Kong	7,410	10,851	9,708	11,482	14,474	19,552
Indonesia	2,547	4,197	3,708	3,256	3,296	2,875
Japan	74,140	89,810	84,450	95,558	103,870	73,618
Korea, South	7,045	7,204	8,845	7,302	6,979	4,843
Malaysia	3,858	4,462	7,103	6,762	5,819	7,947
Philippines	3,174	4,067	3,792	2,344	3,041	2,727
Singapore	4,098	4,135	5,789	5,773	4,900	5,367
Taiwan	3,778	5,158	5,302	3,759	4,048	3,072
Thailand	1,993	1,859	2,276	2,700	2,333	2,848
Other Asia	630	763	1,656	1,337	1,149	1,218
<b>Total Asia</b>	<b>108,673</b>	<b>132,506</b>	<b>132,629</b>	<b>140,273</b>	<b>149,909</b>	<b>124,067</b>
<b>Middle East</b>						
Saudi Arabia	5,359	6,705	6,870	3,917	2,952	4,203
U.A.E.	1,735	1,712	2,177	1,284	1,315	1,588
Other Middle East	4,051	6,433	4,029	5,235	5,794	6,082
<b>Total Middle East</b>	<b>11,145</b>	<b>14,850</b>	<b>13,076</b>	<b>10,436</b>	<b>10,061</b>	<b>11,873</b>
<b>Africa</b>						
Algeria	935	340	1,580	0	0	0
Egypt	2,135	1,730	1,915	675	122	138
Other Africa	1,430	3,555	2,529	2,729	3,485	2,971
<b>Total Africa</b>	<b>4,500</b>	<b>5,625</b>	<b>6,024</b>	<b>3,404</b>	<b>3,607</b>	<b>3,109</b>
<b>Pacific</b>						
New Zealand	2,652	3,337	2,892	2,035	2,283	2,177
Others	506	457	388	522	816	704
<b>Total Pacific</b>	<b>3,158</b>	<b>3,794</b>	<b>3,280</b>	<b>2,557</b>	<b>3,099</b>	<b>2,881</b>
<b>Americas</b>						
Caribbean	953	1,089	1,252	1,071	399	508
United States	9,327	4,132	2,325	572	2,753	1,891
Others	831	683	507	329	370	349
<b>Total Americas</b>	<b>11,111</b>	<b>5,904</b>	<b>4,084</b>	<b>1,972</b>	<b>3,522</b>	<b>2,748</b>
<b>Europe</b>						
Eastern Europe	386	381	828	550	804	2,110
EU 27	5,691	5,053	3,076	1,671	3,060	3,789
Other Europe	0	0	0	0	0	0
<b>Total Europe</b>	<b>6,077</b>	<b>5,434</b>	<b>3,904</b>	<b>2,221</b>	<b>3,864</b>	<b>5,899</b>
<b>Total</b>	<b>144,664</b>	<b>168,113</b>	<b>162,997</b>	<b>160,863</b>	<b>174,062</b>	<b>150,577</b>

Source: Dairy Australia and ABS



**Table A14 Australian exports of whole milk powder\* (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
Bangladesh	10,740	6,354	6,557	4,708	4,941	9,180
China, Hong Kong	21,635	16,545	17,847	5,935	17,598	31,733
Indonesia	16,979	9,084	10,338	9,357	5,469	6,930
Japan	482	324	404	2,572	5,767	326
Malaysia	9,050	3,290	2,426	4,857	4,827	3,885
Philippines	3,607	887	471	570	471	385
Singapore	18,195	19,475	16,671	17,926	14,298	16,238
Sri Lanka	6,051	9,798	11,219	11,120	11,459	13,453
Taiwan	5,538	4,126	4,749	2,977	3,920	3,125
Thailand	5,012	3,342	4,240	2,132	2,804	2,740
Others	4,736	7,045	9,546	5,868	5,018	3,237
<b>Total Asia</b>	<b>102,025</b>	<b>80,270</b>	<b>84,468</b>	<b>68,022</b>	<b>76,572</b>	<b>91,232</b>
<b>Africa</b>	<b>13,221</b>	<b>6,867</b>	<b>9,344</b>	<b>4,629</b>	<b>5,743</b>	<b>3,344</b>
<b>Americas</b>	<b>9,548</b>	<b>10,001</b>	<b>8,458</b>	<b>9,782</b>	<b>8,544</b>	<b>2,089</b>
<b>Europe</b>	<b>20</b>	<b>204</b>	<b>807</b>	<b>429</b>	<b>1,468</b>	<b>345</b>
<b>Middle East</b>	<b>30,889</b>	<b>17,180</b>	<b>21,329</b>	<b>31,619</b>	<b>9,487</b>	<b>3,872</b>
<b>Pacific</b>	<b>2,330</b>	<b>2,227</b>	<b>1,447</b>	<b>1,629</b>	<b>1,995</b>	<b>1,371</b>
<b>Total</b>	<b>158,033</b>	<b>116,749</b>	<b>125,853</b>	<b>116,110</b>	<b>103,809</b>	<b>102,253</b>

\*Also includes infant powder  
Source: Dairy Australia and ABS

**Table A15 Australian exports of butter\* (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
China, Hong Kong	3,236	4,114	3,024	4,099	3,622	3,944
Japan	2,374	392	876	1,960	1,136	348
Korea, South	2,623	2,364	2,073	1,578	1,551	1,181
Malaysia	1,828	2,042	1,717	2,303	1,385	2,082
Singapore	3,901	4,651	4,575	4,048	4,292	5,600
Taiwan	1,119	1,199	1,204	1,758	1,594	1,159
Others	1,705	2,690	1,612	1,823	2,248	1,475
<b>Total Asia</b>	<b>16,786</b>	<b>17,452</b>	<b>15,081</b>	<b>17,569</b>	<b>15,828</b>	<b>15,789</b>
<b>Middle East</b>	<b>7,145</b>	<b>8,365</b>	<b>7,101</b>	<b>6,499</b>	<b>10,728</b>	<b>4,137</b>
<b>Africa</b>	<b>11,129</b>	<b>10,470</b>	<b>2,294</b>	<b>2,662</b>	<b>2,739</b>	<b>587</b>
<b>Pacific</b>	<b>855</b>	<b>871</b>	<b>339</b>	<b>848</b>	<b>356</b>	<b>657</b>
<b>Americas</b>	<b>1,207</b>	<b>619</b>	<b>144</b>	<b>20</b>	<b>811</b>	<b>72</b>
<b>Europe</b>	<b>6,847</b>	<b>3,915</b>	<b>8,444</b>	<b>6,007</b>	<b>8,835</b>	<b>18,554</b>
<b>Total</b>	<b>43,969</b>	<b>41,691</b>	<b>33,403</b>	<b>33,602</b>	<b>39,297</b>	<b>39,796</b>

\* Includes butter blends converted at the rate of 1kg butter blend = 0.7kg butter  
Source: Dairy Australia and ABS

**Table A16 Australian exports of skim milk powder (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
China, Hong Kong	12,470	8,587	13,165	16,632	10,708	22,832
Indonesia	12,924	16,439	24,689	20,919	21,578	25,586
Japan	6,985	1,071	454	579	1,553	3,222
Malaysia	14,912	8,311	8,268	10,830	13,392	11,378
Philippines	25,426	18,932	9,817	10,348	10,861	8,301
Singapore	17,134	17,228	15,709	18,772	18,446	12,567
Taiwan	6,264	7,422	7,824	6,474	4,890	3,542
Thailand	9,511	9,888	11,462	9,552	12,115	10,241
Others	22,073	12,791	32,788	17,290	15,688	10,427
<b>Total Asia</b>	<b>127,699</b>	<b>100,669</b>	<b>124,176</b>	<b>111,396</b>	<b>109,231</b>	<b>108,096</b>
<b>Africa</b>	<b>6,180</b>	<b>1,462</b>	<b>2,307</b>	<b>2,083</b>	<b>3,830</b>	<b>1,392</b>
<b>Americas</b>	<b>6,257</b>	<b>1,462</b>	<b>1,461</b>	<b>889</b>	<b>1,331</b>	<b>244</b>
<b>Europe</b>	<b>525</b>	<b>244</b>	<b>1,510</b>	<b>810</b>	<b>732</b>	<b>563</b>
<b>Middle East</b>	<b>20,906</b>	<b>17,829</b>	<b>21,496</b>	<b>23,529</b>	<b>28,313</b>	<b>31,447</b>
<b>Pacific</b>	<b>514</b>	<b>3,957</b>	<b>4,385</b>	<b>2,612</b>	<b>3,478</b>	<b>1,584</b>
<b>Total</b>	<b>162,081</b>	<b>125,623</b>	<b>155,335</b>	<b>141,319</b>	<b>146,915</b>	<b>143,326</b>

Source: Dairy Australia and ABS

**Table A17 Australian exports of butter oil (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
Bangladesh	252	168	70	202	50	202
Indonesia	1,444	934	756	72	50	302
Malaysia	1,521	2,656	1,645	1,210	545	687
Philippines	1,446	1,970	4,914	1,150	50	102
Singapore	969	1,075	925	332	166	240
Others	4,172	7,908	4,389	4,723	2,724	3,476
<b>Total Asia</b>	<b>9,804</b>	<b>14,711</b>	<b>12,699</b>	<b>7,689</b>	<b>3,585</b>	<b>5,009</b>
<b>Middle East</b>	<b>1,767</b>	<b>1,933</b>	<b>1,147</b>	<b>720</b>	<b>1,008</b>	<b>386</b>
<b>Africa</b>	<b>1,344</b>	<b>601</b>	<b>1,005</b>	<b>198</b>	<b>429</b>	<b>86</b>
<b>Americas</b>	<b>7,823</b>	<b>6,906</b>	<b>3,171</b>	<b>3,152</b>	<b>5,015</b>	<b>517</b>
<b>Europe</b>	<b>450</b>	<b>1,460</b>	<b>19</b>	<b>254</b>	<b>1,432</b>	<b>1,530</b>
<b>Pacific</b>	<b>168</b>	<b>145</b>	<b>23</b>	<b>44</b>	<b>55</b>	<b>87</b>
<b>Total</b>	<b>21,356</b>	<b>25,756</b>	<b>18,064</b>	<b>12,057</b>	<b>11,524</b>	<b>7,615</b>

Source: Dairy Australia and ABS

**Table A18 Australian exports of liquid milk (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
Singapore	19,036	20,970	24,620	30,919	31,762	30,483
Philippines	2,722	3,653	4,134	4,423	2,901	8,307
Malaysia	3,346	3,902	3,406	3,960	5,689	7,267
Indonesia	635	516	366	342	386	426
Hong Kong	17,325	15,333	14,459	15,047	16,520	14,440
China	1,924	1,284	2,402	7,154	21,035	25,142
Other Asia	4,120	6,761	10,856	13,214	13,139	16,646
<b>Total Asia</b>	<b>49,108</b>	<b>52,419</b>	<b>60,243</b>	<b>75,059</b>	<b>91,432</b>	<b>102,711</b>
<b>Africa</b>	<b>538</b>	<b>386</b>	<b>347</b>	<b>732</b>	<b>1,023</b>	<b>659</b>
<b>Pacific</b>	<b>9,710</b>	<b>10,491</b>	<b>9,325</b>	<b>10,712</b>	<b>11,285</b>	<b>12,595</b>
<b>Others</b>	<b>593</b>	<b>907</b>	<b>1,002</b>	<b>1,220</b>	<b>2,737</b>	<b>2,271</b>
<b>Total</b>	<b>59,949</b>	<b>64,203</b>	<b>70,917</b>	<b>87,723</b>	<b>106,477</b>	<b>118,236</b>

Source: Dairy Australia and ABS

**Table A19 Whey product exports (tonnes)\***

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
Asia	53,917	44,221	30,891	33,765	32,415	26,365
Europe	436	436	593	1,793	2,219	1,462
Other	10,808	9,064	6,331	6,181	6,282	5,559
<b>Total</b>	<b>65,161</b>	<b>53,721</b>	<b>37,815</b>	<b>41,739</b>	<b>40,916</b>	<b>33,386</b>

\* Includes whey protein concentrate  
Source: Dairy Australia and ABS

**Table A20 Australian exports of live dairy heifers (cows) by market**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
<b>Asia</b>						
China	15,448	50,465	48,688	55,114	59,235	78,896
Indonesia	1,129	16,079	1,345	658	3,406	800
Pakistan	2,860	1,774	4,225	2,785	8,327	6,425
Other Asia	3,355	1,923	3,358	1,662	3,958	2,884
<b>Total Asia</b>	<b>22,792</b>	<b>70,241</b>	<b>57,616</b>	<b>60,219</b>	<b>74,926</b>	<b>89,005</b>
<b>Europe</b>	<b>13,836</b>	<b>7,991</b>	<b>10,488</b>	<b>4,855</b>	<b>8,385</b>	<b>3,595</b>
<b>Middle East</b>	<b>7,269</b>	<b>1,910</b>	<b>7,088</b>	<b>202</b>	<b>4,111</b>	<b>29</b>
<b>Africa</b>		<b>1,000</b>				
<b>Others</b>	<b>1</b>	<b>8</b>	<b>6</b>			
<b>Total</b>	<b>43,898</b>	<b>81,150</b>	<b>75,198</b>	<b>65,276</b>	<b>87,422</b>	<b>92,629</b>

Source: Dairy Australia and ABS

**Table A21 Australian exports of live dairy heifers (cows) by state**

	NSW	VIC	QLD	SA	WA	TAS	AUST
<b>2003/04</b>	337	54,762	6,605	529	1,718		63,951
<b>2004/05</b>	373	60,126		3,900	6,408		70,807
<b>2005/06</b>	1,008	30,396		2,106	4,411		37,921
<b>2006/07</b>	385	26,077		1,276	3,812		31,550
<b>2007/08</b>	36	50,395	76	4,255	4,543		59,305
<b>2008/09</b>	434	38,896	523	3,426	619		43,898
<b>2009/10</b>	932	73,640	27	765	5,786		81,150
<b>2010/11</b>	219	61,817	978		12,081	103	75,198
<b>2011/12</b>	806	57,926	304	3,130	2,656	454	65,276
<b>2012/13 (r)</b>	305	69,359	620	2,282	12,188	2,668	87,422
<b>2013/14 (p)</b>		89,929	1,171	4	1,525		92,629

Source: Dairy Australia and ABS



## Appendix 8 Australian imports

**Table A22 Australian imports of dairy products from New Zealand and other countries (tonnes)**

	New Zealand	Other	Total 2012/13	New Zealand	Other	Total 2013/14 (p)
Skim milk powder	3,262	355	3,617	4,136	1,840	5,976
Buttermilk powder	232	1,538	1,770	182	1,843	2,025
Whole milk powder*	7,894	7,470	15,364	13,232	8,866	22,098
Whey powder & concentrates	2,128	11,340	13,468	1,649	14,142	15,791
Condensed milk	81	2,147	2,228	30	2,155	2,185
Milk	1,258	72	1,330	1,204	94	1,298
Cream	2,164	1	2,165	2,115	22	2,137
Yogurt	649	479	1,128	1,037	1109	2,146
Butter**	13,475	1,108	14,583	15,581	2,010	17,591
Butter oil	2,607	440	3,047	2,178	679	2,857
Cheese	43,573	30,120	73,693	39,623	36,423	76,046
Casein	600	257	857	709	198	907
Caseinates	170	5	175	273	33	306
Lactose	4,026	7,627	11,653	2,126	17,747	19,873
Ice cream ('000 lts)	2,527	18,216	20,743	2,176	21,012	23,188

\* Includes infant powder

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

Source: ABS

**Table A23 Australian cheese imports by country (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13 (r)	2013/14 (p)
Austria	359	405	486	812	796	746
Bulgaria	1,345	1,340	1,392	1,246	1,470	1,312
Denmark	2,072	2,186	2,076	1,924	2,071	2,362
France	799	688	886	1,076	1,391	1,690
Germany	251	369	693	1,034	1,791	1,326
Greece	1,504	1,201	1,380	1,513	1,941	1,761
Italy	2,756	2,972	3,170	3,557	3,693	3,981
Netherlands	1,227	1,353	1,568	2,164	2,364	2,307
Poland	452	464	466	506	414	530
United Kingdom	185	234	296	233	375	463
Other	611	627	731	814	1264	1543
<b>Total EU</b>	<b>11,561</b>	<b>11,839</b>	<b>13,144</b>	<b>14,879</b>	<b>17,570</b>	<b>18,021</b>
<b>New Zealand</b>	<b>42,758</b>	<b>55,596</b>	<b>49,674</b>	<b>46,741</b>	<b>43,573</b>	<b>39,623</b>
<b>United States</b>	<b>2,358</b>	<b>2,157</b>	<b>7,523</b>	<b>12,079</b>	<b>10,246</b>	<b>16,200</b>
<b>Norway</b>	<b>1,770</b>	<b>1,472</b>	<b>2,014</b>	<b>1,990</b>	<b>1,789</b>	<b>1,787</b>
<b>Switzerland</b>	<b>115</b>	<b>150</b>	<b>126</b>	<b>170</b>	<b>185</b>	<b>196</b>
<b>Other</b>	<b>279</b>	<b>311</b>	<b>391</b>	<b>385</b>	<b>330</b>	<b>219</b>
<b>Total Cheese Imports</b>	<b>58,841</b>	<b>71,525</b>	<b>72,872</b>	<b>76,244</b>	<b>73,693</b>	<b>76,046</b>

Source: ABS (Excludes goats cheese)



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