

# IN FOCUS 2020

THE AUSTRALIAN DAIRY INDUSTRY



# ABOUT THE AUSTRALIAN DAIRY INDUSTRY

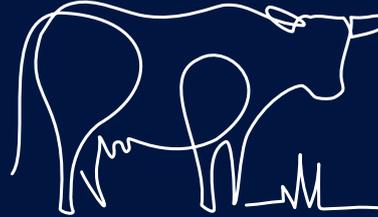


ANNUAL PER CAPITA CONSUMPTION

**97 litres**  
milk  
**13.6 kg**  
cheese



**29%**  
of milk production is exported



AVERAGE ANNUAL MILK PRODUCTION PER COW

**6,170**  
litres



**4<sup>th</sup>**

Dairy is Australia's fourth largest rural industry



MAJOR EXPORT MARKETS tonnes

**244,460 t**  
Greater China

**73,984 t**  
Singapore

**86,269 t**  
Japan

**61,858 t**  
Malaysia

**51,843 t**  
Indonesia



TOTAL ANNUAL MILK PRODUCTION

**8,776**  
million litres

VALUE OF FARMGATE PRODUCTION

**\$4.8 billion**



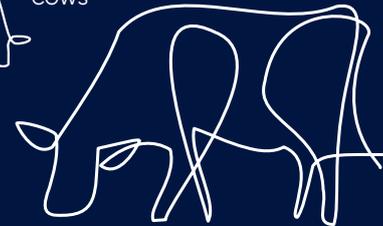
**43,500**

Dairy industry workforce



AVERAGE HERD SIZE

**279**  
cows



AUSTRALIAN DAIRY HERD

**1.41 million**  
cows

ANNUAL PRODUCTION OF MAIN COMMODITIES

**371,131 tonnes**  
Cheese

**185,316 tonnes**  
Milk powders

**72,548 tonnes**  
Butter



AUSTRALIAN MILK UTILISATION

**39%** Cheese

**4%** Whole milk powder

**32%** Drinking milk

**3%** Other

**22%** Skim milk powder and butter



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# FOREWORD

The dairy industry is the fourth largest rural industry in Australia and is a key sector of the agricultural economy. Dairy generated \$4.8 billion in farmgate value in the 2019/20 financial year.

*The Australian Dairy Industry In Focus 2020* report provides a snapshot of Australia's role in the global dairy industry, based on statistics for the 2019/20 year.

Dairy Australia has a key industry role in being able to quantify the flow of milk across Australia, which is processed into a wide range of dairy products and then sold into diverse markets in Australia and overseas.

Australia is a significant exporter of dairy products. It ranks fourth in terms of world dairy trade, with a 5% market share behind New Zealand, the European Union and the United States.

The first half of the 2019/20 season proved challenging for many dairy farmers in Australia, with ongoing dry seasonal conditions increasing the cost of feed and water.

However, following a return to more favourable farming conditions in December 2019, Australia's national milk pool started to recover. Higher rainfall combined with easing input costs and a relatively strong farmgate milk price improved farmer confidence in most regions.

This recovery was overshadowed by the COVID-19 pandemic, creating uncertainty in global and domestic markets.

Despite the pandemic, the global dairy market was relatively balanced over the past year and commodity prices proved resilient. Demand for dairy products remained strong in the face of lockdowns in Australia and abroad, however the pandemic did cause some change in domestic consumer behaviour.

With more people staying home than ever before, demand for dairy products used in cooking and baking has grown.

Consumers flocked to supermarkets during the first three months of the pandemic, and around 65% of domestic dairy spread sales were through supermarkets in 2019/20, up almost 10% compared to the year prior.

While fresh milk is the biggest dairy segment in Australia, in 2019/20 sales of UHT milk surged following the COVID-19 outbreak as consumers stockpiled products at home in fear that they might run out of milk. Once the initial panic-buying declined, sales of UHT milk reverted to the long-term trends.

Total drinking milk sales volumes (including flavoured and UHT) remained at about 2.5 billion litres.

Overall, national milk production for the 2019/20 season remained steady, down just 0.2% on the previous financial year at about 8.8 billion litres.

Greater China (including China, Hong Kong and Macau) is Australia's largest export market, accounting for 32% of exports by volume.

Australian exports are overwhelmingly concentrated in Asia, which accounted for around 88% of the total dairy export value of A\$3.4 billion.

An export success story was a strong 4% growth in liquid milk exports, with broader Asia accounting for around 90% of these exports and the remainder going towards the island countries of the Pacific and some markets in the Middle East. In 2019/20 Australia exported almost 245 million litres of liquid milk.

I trust you will find this latest issue of Australian Dairy Industry In Focus a valuable source of knowledge and information on one of Australia's most important industries. I would like to thank 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. Most of the statistics referred to in this report are updated monthly and are available at [dairyaustralia.com.au](http://dairyaustralia.com.au).



A handwritten signature in black ink, appearing to read 'D Nation'.

**David Nation** 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 \$4.8 billion in 2019/20, it currently ranks fourth, behind the beef, wheat and sheep industries. The dairy industry also acts as a major source of employment across regional areas. It is estimated that approximately 43,500 people were directly employed on dairy farms and by dairy companies. Associated transport, distribution, farm services and research and development activities represent further employment associated with the industry.

Dairy is one of Australia's leading rural industries in terms of adding value through further downstream processing. Much of this occurs close to farming areas, thereby generating significant economic activity and employment in regional areas.

Dairying is a well-established industry across the temperate and some subtropical regions of Australia. Whilst the bulk of milk production occurs in southeastern Australia, 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, yoghurts and specialty cheeses, are produced in most states. The manufacturing of dairy commodity

products for export has become more concentrated in the southeast. These products include cheddar and mozzarella cheese and specialised milk powders and butterfats.

Throughout the 1990s the dairy industry experienced strong growth, but this has stalled since deregulation. This period coincided with the latter half of the severe and prolonged 'Millennium drought'. Increased levels of market and margin volatility have undermined confidence in the outlook for many farmers, who are seeking reliable returns on which to build a longer-term future. As a result, there has been ongoing consolidation within both dairy farming and dairy processing. The number of dairy farms has continued to fall, down 3% in 2019/20 compared to the year prior, in line with long-term trends. While farm numbers have decreased, the average size of farms has increased. The number of large farms and their share of milk production has grown. Meanwhile the industry has seen continued consolidation amongst processors, and rationalisation has seen the closure of smaller facilities.

Figure 1 provides a comparison across the major agricultural industries in Australia—using farmgate and export sales values—and shows the relative importance of the dairy industry within the agricultural sector.

**Table 1** Australian dairy industry – long-term trends

At June 30	1980	1990	CAGR % 1980s	2000	CAGR % 1990s	2010	CAGR % 2000s	2020 (p)	CAGR % 2010s
Milk production (ML)	5,432	6,262	1.4	10,847	5.6	9,023	-1.8	8,776	-0.4
Dairy cows ('000)	1,880	1,654	-1.3	2,171	2.8	1,596	-3.0	1,411	-1.7
Farm numbers	21,994	15,396	-3.5	12,896	-1.8	7,511	-5.3	5,055	-5.5
Value of farm production* (\$M)	3,625	3,388	-0.7	4,297	2.4	3,366	-2.4	4,829	5.3
Per capita consumption – (milk equivalent)	239	245	0.2	274	1.1	301	0.9	319	0.9
Export value* (\$M)	1,094	613	-5.6	3,918	20.4	2,391	-4.8	3,378	5.1
Export share of production (%)	22	31		54		45		29	

\*Expressed in 2019/20 dollars.

CAGR = Compound Annual Growth Rate

Source: ABS, ADC, DA, state authorities



## A world competitive industry

Since the dairy industry underwent deregulation in 2000/01, Australian dairy farmers operate in an open market. The nature of this open market means Australia's domestic dairy market is linked to international trends with minimal government intervention. Australia is both a major exporter and importer (predominantly from New Zealand) of dairy products. Hence, although most Australian dairy is consumed domestically, international markets and events have a major influence on Australian farmgate milk prices.

Australian dairy farmers received an average of close to US\$41 per 100kg of milk in 2019/20, as strong competition for milk between processors resulted in a record high domestic farmgate price. This price is above the price farmers in New Zealand and the European Union got paid for their milk, reflecting the competitive forces at play, but below the price paid in the United States.

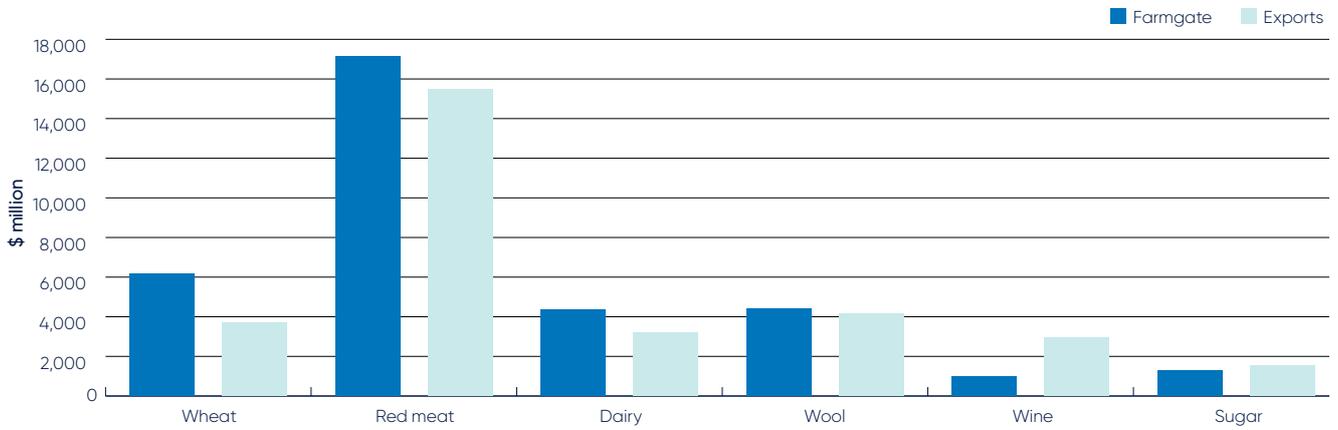
These indices represent milk receipts only, and do not include other components of total farm income such as decoupled government support, livestock sales or other activities.

Historically, Australia has been considered a low-cost producer of dairy products. In recent years, farm cost structures have increased in response to the need to adapt to drier conditions. This has resulted in increased expenditure on purchases of supplementary feed and temporary water allocations – particularly in northern Victoria and southern New South Wales. Total milk production and farm cost structures have not yet returned to levels of the early 2000s. While local milk production has contracted since deregulation, the size of the domestic market has increased, due to continued population growth. As a result, the share of milk that is exported, and Australia's share of international dairy trade, has contracted.

As shown in Figure 2, the price received by farmers around the world has continued to converge. Farmgate prices now more closely reflect global dairy commodity price trends due to the removal of many market distorting industry policies, progressive deregulation and increased global trade.

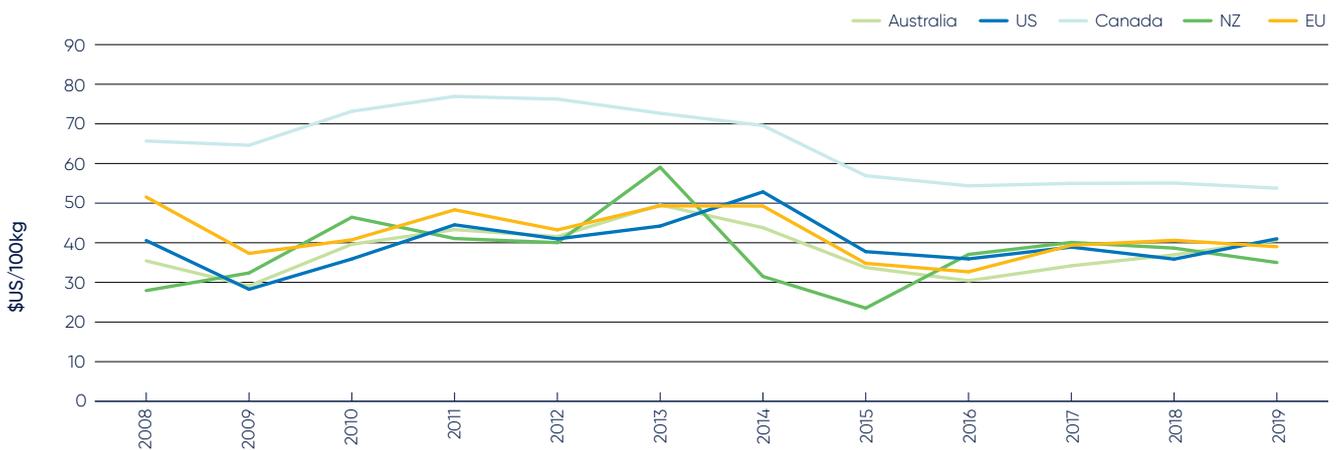
Whilst broadly tracking other producers, Canada's dairy farmers operate in a highly regulated environment. This system determines prices, production and imports according to a scheme known as supply management.

**Figure 1** Farmgate value vs export sales value in 2018/19



Source: ABARES Australian Commodities Quarterly Report

**Figure 2** International farmgate milk prices (USD/100kg)



Source: Dairy Australia

# FARM FACTS

There are dairy farms located in all states in Australia and most of milk production takes place in the southeast corner of the country. Southeast Australia's climate and natural resources are generally favourable to dairying and allow the industry to be predominantly pasture-based. In a year of 'normal' seasonal conditions, approximately 60%–65% of cattle feed requirements comes from grazing. This results in cost efficient, high-quality milk production.

Most farms are in coastal areas where pasture growth is generally reliant on rainfall. Nevertheless, there are several inland dairying areas reliant on irrigation schemes, most notably in northern Victoria and the New South Wales Riverina.

Total mixed ration (TMR) dairying continues to be less common in Australia, but the use of supplementary feed – grains, hay and silage – is widespread. Supplementary feeding has increased significantly over the past decade as farmers adapt to drier conditions. Such changes in production systems have introduced an added input cost and additional level of risk in the variability of farm returns.

The 2020 Dairy Australia National Dairy Farmer Survey showed that nearly all dairy farmers engaged in some level of supplementary feeding. In 2019/20 the national average was around 1.7 tonnes per cow per year, up slightly from the previous year. Feeding moderate to high levels of concentrates remains the most common feed system and in 2019/20 supplementary feeding increased in all regions. Supplementary feeding grew especially strongly in South Australia, to an average of 2.1 tonnes per cow per year.

*See Appendix 3 for detailed tables on grain prices by state dairying regions.*

Since 1979/80 the number of dairy farms in Australia has fallen by almost three quarters, to 5,055 in 2019/20. The trend in farm numbers has previously followed changes in farmgate milk prices from season to season. Strong prices tend to either slow the rate of attrition or even reverse the long-term trend. Periods of weaker farmgate prices and/or adverse seasonal conditions can accelerate the trend, as more farmers choose to sell their properties, or transition to other farming activities such as beef cattle production.

**Table 2** Number of registered dairy farms

	NSW	Vic	Qld	SA	WA	Tas	Aust
2006/07	924	5,346	734	354	222	475	<b>8,055</b>
2007/08	886	5,422	664	332	186	463	<b>7,953</b>
2008/09	860	5,462	648	320	183	451	<b>7,924</b>
2009/10	820	5,159	621	306	165	440	<b>7,511</b>
2010/11	807	4,588	595	286	170	437	<b>6,883</b>
2011/12	778	4,556	555	275	162	444	<b>6,770</b>
2012/13	731	4,284	518	268	160	437	<b>6,398</b>
2013/14	710	4,268	475	264	156	435	<b>6,308</b>
2014/15	704	4,127	448	252	157	440	<b>6,128</b>
2015/16	690	4,141	421	246	151	430	<b>6,079</b>
2016/17	661	3,889	406	240	148	427	<b>5,771</b>
2017/18	626	3,881	393	228	159	412	<b>5,699</b>
2018/19	575	3,516	356	212	150	404	<b>5,213</b>
2019/20	534	3,462	327	206	135	391	<b>5,055</b>

Source: State Milk Authorities and Dairy Australia

Nevertheless, falling farm numbers reflect a trend in agriculture around the world. Changing business practices have encouraged a shift to larger, more intensive operating systems with greater economies of scale.

While the number of farms across Australia has decreased, the average herd size is growing. In 1985 the average herd size was 93 cows and in 2019/20 it had grown to 279. There is also an emerging trend of large farm operations milking more than 1,000 cows.

Despite the increase in average herd sizes over the longer term, one of the variables placing a limitation on total milk production in recent years has been a decreasing national herd. One factor contributing to this situation is the increased volatility in farm cash incomes. This has led many farmers to participate in the export heifer trade or sell dairy cows for slaughter in an attempt to stabilise farm income. In 2019/20 the national herd decreased as a challenging start to the year resulted in an increase in farm exits and a move to smaller herd sizes on many farms.

The dominant breed in Australia is the Holstein, accounting for around two thirds 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 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.

Improved herd genetics, as well as advances in pasture management and supplementary feeding regimes, have seen average annual yield per cow increase. Over the past four decades yields have more than doubled from 2,900 litres in 1980 to 6,170 litres in 2019/20. The average yield figure varies by state and with seasonal conditions.

The genetic evaluation of dairy cattle was previously conducted by the Australian Dairy Herd Improvement Service (ADHIS). ADHIS has now been superseded by DataGene, an independent, industry-owned, not-for-profit organisation that focuses on pre-competitive herd improvement. DataGene is involved in several aspects of herd improvement including genetics, herd testing, herd recording, data systems, herd test standards and evaluation. DataGene goes beyond the ADHIS in seeking to drive genetic gain and herd improvement by combining research, development and extension within one organisation.

See Appendix 8 for detailed tables on heifer exports.

**Table 3** Number of dairy cows ('000 head)

	NSW	Vic	Qld	SA	WA	Tas	Aust
2006/07	210	1,150	121	114	60	140	<b>1,796</b>
2007/08	195	1,055	100	103	54	134	<b>1,641</b>
2008/09	201	1,061	107	106	52	149	<b>1,676</b>
2009/10	203	1,014	98	92	55	134	<b>1,596</b>
2010/11	195	1,010	97	90	59	138	<b>1,589</b>
2011/12	204	1,115	101	76	57	148	<b>1,700</b>
2012/13	210	1,096	96	77	62	148	<b>1,688</b>
2013/14	181	1,093	98	73	66	137	<b>1,647</b>
2014/15	177	1,147	91	68	59	147	<b>1,689</b>
2015/16	182	1,005	89	78	60	149	<b>1,562</b>
2016/17	164	975	86	71	64	160	<b>1,520</b>
2017/18	166	1,023	85	67	56	149	<b>1,547</b>
2018/19* (r)	149	898	78	72	56	175	<b>1,428</b>
2019/20 (e)	145	895	65	69	54	182	<b>1,411</b>

\* From 2018/19 SA and Tas data sourced from State milk authorities  
Source: ABS, State milk authorities, and Dairy Australia

## Farmgate milk prices

The price Australian dairy farmers are paid for their milk is based on the milkfat and protein content of the milk produced on farm, with different prices for each component. Unlike many countries around the world, the Australian Government has no legislative control over the farmgate milk price. Since deregulation in 2000/01 all prices within the industry are set by market forces. Farmgate milk prices will vary between processors. Individual company returns are affected by various factors including market and product mix, marketing strategies, 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.

Furthermore, payment structures from processors to individual farmers can vary significantly as companies provide a range of incentives for 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 processing plants to improve operating efficiencies, or loyalty incentives to guarantee supply for longer periods. These will all affect the final farmgate price received.

Australian dairy companies operate in an open and internationally competitive market. This includes free trade under the Closer Economic Relations Agreement with New Zealand, a major global dairy producer. Consequently, the returns that local processors can achieve are influenced by global dairy commodity prices, even if they do not directly participate in export trade. World dairy prices directly affect returns for the 29% of local milk exported as butter, cheese and milk powders, which must compete with other countries' exports. World dairy prices also influence the additional 43% of production that goes into locally consumed butter, cheese and milk powders, which must be competitively priced against imports. More than 70% of milk production in Australia is exposed to global dairy prices, while the remainder is consumed within Australia as liquid drinking milk.

The strength of the Australian dollar on foreign exchange markets also affects farmgate milk prices. Australian dairy companies benefit from a 'weaker' Australian dollar, which makes exports more competitive and imports relatively more expensive, all other things being equal.

**Table 4** Average annual milk production per cow (litres)

	NSW	Vic	Qld	SA	WA	Tas	Aust
1979/80	2,870	3,012	1,984	3,163	3,105	2,958	<b>2,848</b>
1989/90	3,602	3,920	3,122	3,934	4,205	3,791	<b>3,781</b>
1999/00	4,827	4,989	4,349	6,790	6,338	4,381	<b>4,996</b>
2005/06	5,039	5,221	4,076	5,791	5,369	4,581	<b>5,108</b>
2006/07	5,151	5,261	4,033	6,417	5,235	4,696	<b>5,182</b>
2007/08	5,031	5,393	4,163	5,799	5,907	4,961	<b>5,275</b>
2008/09	5,420	5,807	5,032	6,053	6,355	5,140	<b>5,691</b>
2009/10	5,329	5,518	5,052	5,907	6,641	4,640	<b>5,448</b>
2010/11	5,409	5,860	4,980	6,257	6,637	5,379	<b>5,758</b>
2011/12	5,760	6,027	5,008	6,646	5,967	5,636	<b>5,930</b>
2012/13	5,534	5,473	4,667	7,099	5,996	5,166	<b>5,498</b>
2013/14	5,542	5,639	4,640	6,896	5,443	5,578	<b>5,615</b>
2014/15	6,572	5,795	4,388	7,411	5,752	6,400	<b>5,917</b>
2015/16	6,721	5,621	4,644	7,634	6,669	5,981	<b>5,841</b>
2016/17	6,431	5,749	4,823	6,520	6,342	5,511	<b>5,812</b>
2017/18	6,948	6,058	4,670	7,196	6,199	5,805	<b>6,108</b>
2018/19 (r)	6,683	5,620	4,320	6,927	6,674	5,203	<b>5,714</b>
2019/20 (e)	7,067	6,261	4,443	7,033	6,560	5,212	<b>6,170</b>

Source: Dairy manufacturers, ABS, State milk authorities and Dairy Australia

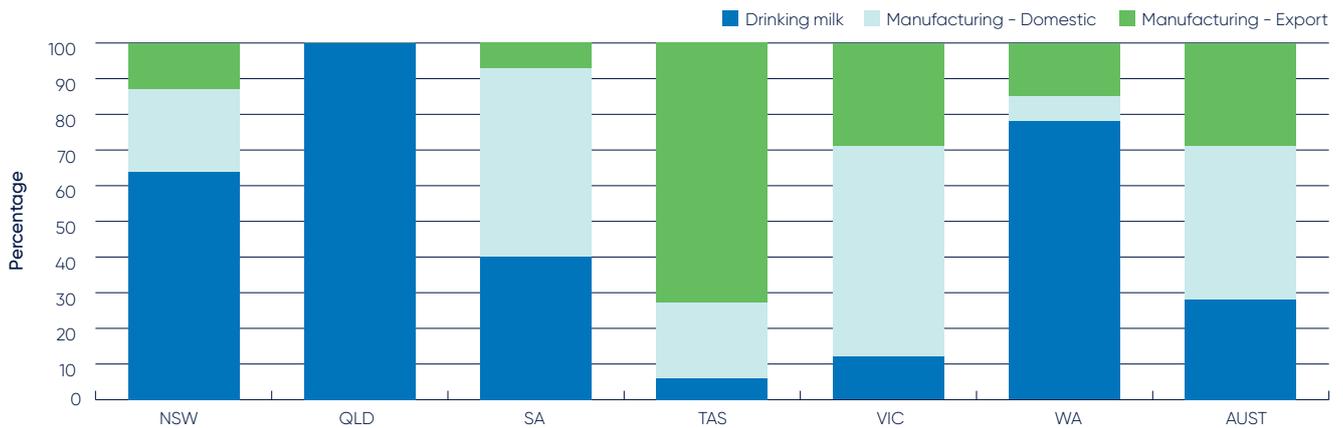
Thus, farmgate milk prices farmers receive can vary significantly around Australia, depending on how milk is used in the marketplace.

As shown in Figure 3, milk for processing accounts for most milk produced in the south-east of Australia.

Hence, the average farmgate milk price received in these regions will tend to follow global markets and export returns. Most farmers in exporting regions

receive a 'blended' price that incorporates returns from milk for manufacturing and the proportionately smaller local fresh drinking milk market. Conversely, in the northern and western dairy regions, fresh drinking milk makes up a larger proportion of the production mix. Farmers in these regions will receive farmgate milk prices tied to the drinking milk market, where a stable year-round supply of milk is more important.

**Figure 3** Use of Australian milk by state in 2019/20



Source: Dairy Australia

**Figure 4** Factory paid milk prices



Source: Dairy manufacturers and ABARES

**Table 5** Indicative factory paid milk prices by state

		2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
NSW	¢/litre	52.8	51.0	49.0	50.5	54.7	62.0
	\$/kg milk solids	7.31	7.06	6.81	6.99	7.67	8.55
Vic	¢/litre	47.1	42.8	38.0	44.2	48.2	53.6
	\$/kg milk solids	6.24	5.68	5.04	5.87	6.40	7.01
Qld	¢/litre	57.4	58.5	60.0	57.7	61.0	68.0
	\$/kg milk solids	7.84	7.99	8.22	7.84	8.31	9.31
SA	¢/litre	46.1	42.5	37.1	42.9	47.2	53.6
	\$/kg milk solids	6.53	6.03	5.19	6.06	6.62	7.40
WA	¢/litre	51.0	52.3	50.6	49.9	50.2	52.3
	\$/kg milk solids	7.17	7.32	7.06	6.97	7.05	7.27
Tas	¢/litre	49.6	43.7	39.0	47.0	50.3	53.3
	\$/kg milk solids	6.33	5.61	4.97	6.01	6.37	6.70
<b>Aust</b>	<b>¢/litre</b>	<b>48.5</b>	<b>44.9</b>	<b>40.9</b>	<b>46.0</b>	<b>49.7</b>	<b>54.7</b>
	<b>\$/kg milk solids</b>	<b>6.49</b>	<b>6.01</b>	<b>5.46</b>	<b>6.14</b>	<b>6.64</b>	<b>7.19</b>

Source: Dairy manufacturers

## Farm business performance

The Dairy Farm Monitor Project (DFMP) and the Queensland Dairy Accounting Scheme (QDAS) record financial and production data of participant dairy farms in all major dairying regions across Australia. The data allows for analysis of dairy farm productivity and profitability to support government and industry policy and service delivery. It also facilitates comparison and benchmarking by farmers and farm business consultants to improve farm business performance.

Participants are selected for the project in order to represent a distribution of farm sizes, herd sizes and geographical locations within each region. The results presented do not represent population averages, as the participant farms are not selected using random population sampling and may not be representative of the whole dairy industry.

DFMP began as a collaboration between Agriculture Victoria and Dairy Australia, gathering data from 75 model farms spread evenly across Victoria's three dairying regions in Gippsland, northern and southwest Victoria, and is in its thirteenth year.

**Table 6** Average farm working expenses by state (\$/kg MS)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
NSW	5.72	5.75	6.25	7.04	7.69
Vic	4.70	4.15	4.51	5.39	5.34
Qld	6.27	6.18	6.63	7.49	8.43
SA	5.31	5.09	4.89	5.32	6.13
WA	5.46	5.33	5.73	6.14	6.33
Tas*	4.70	4.19	4.36	4.65	

\* Tas data was not available at time of publication. It will be available to download from: [dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project](http://dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project)  
Source: Dairy Farm Monitor Project and Queensland Dairy Accounting Scheme

**Table 7** Average Victorian regional farm working expenses (\$/kg MS)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Eastern	4.33	3.74	4.24	5.03	4.74
Northern	5.09	4.73	4.74	6.12	6.02
Western	4.67	3.98	4.56	5.04	5.12

Source: Dairy Farm Monitor Project

**Table 8** Average farm operating cash surplus by state (\$/kg MS)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
NSW	2.34	2.01	1.66	1.60	2.13
Vic	1.34	1.58	1.76	1.30	2.50
Qld	2.36	2.59	2.05	1.79	1.99
SA	1.49	1.50	1.95	1.84	2.12
WA	2.76	2.51	2.28	2.13	2.28
Tas*	1.40	1.54	1.99	1.93	

\* Tas data was not available at time of publication. It will be available to download from: [dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project](http://dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project)  
Source: Dairy Farm Monitor Project and Queensland Dairy Accounting Scheme

**Table 9** Average Victorian regional farm operating cash surplus (\$/kg MS)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Eastern	1.49	1.72	1.91	1.42	2.71
Northern	1.06	1.11	1.51	0.73	1.95
Western	1.46	1.89	1.87	1.76	2.96

Source: Dairy Farm Monitor Project

Farmers in many regions faced several months of challenging conditions during the first half of 2019/20, as the lingering drought brought low rainfall and warm temperatures. Conditions improved significantly in most regions during the second half of the season. Late summer and early autumn rain resulted in greater pasture utilisation, lower feed costs and a lift in the average farm performance.

New South Wales began the 2019/20 year with 96.3% of the state continuing to experience widespread and longterm drought conditions. Late summer and early autumn brought significant rain to much of the state, particularly in the north eastern, central, and coastal parts. Some coastal areas experienced intense rain resulting in minor localised flooding but also a recovery of stock water supply in many dams on farm. Autumn rainfall generated opportunity for sowing and homegrown pasture utilisation in many areas across the state.

Queensland dairy farms experienced their third year of drought, high feed costs and low profitability. A hot dry spring in southern Queensland was followed by some localised rain in January and increased widespread rain in February. This resultant increase in forage production, decreased demand for purchased hay from southern states on many farms. North Queensland experienced good rainfall over summer and autumn which slightly reduced purchased feed costs.

In general, Victoria experienced dry conditions for the first half of the year, followed by excellent growing conditions in the second half of the season. Parts of Gippsland and northern Victoria were particularly affected by the dry start, which impacted overall farm

business performance. Overall rainfall was average to below average across most of the state, except for western Gippsland which reported well above the average moisture during the year.

Rainfall across South Australia during winter was below to very much below average which caused an early spring finish, resulting in a lower than average homegrown feed utilised. This continued to December, with high temperatures and below average rain affecting most of state. Seasonal conditions started to improve in January, with some regions (Fleurieu Peninsula and southeastern South Australia) reporting well above average rain and a strong seasonal break.

On average farm participants in Western Australia reported drier than average conditions, with a 19% reduction in rainfall for the year. An especially dry September reduced the traditionally strong spring growth. An improved autumn break, with rainfall in line with the historical average, provided much needed relief compared to the previous two autumns.

While some areas still face drought conditions, increased rainfall resulted in greater fodder production and less reliance on the feed market. This resulted in the average farm increasing their profitability over the 2019/20 season.

For a longer national time series, the annual ABARES Farm Survey estimates the financial performance of Australian dairy farms. It should be noted that there are several differences in methodology that mean that the series may not be directly comparable with those shown in the Dairy Farm Monitor Project.

**Table 10** Average earning before interest and tax by state (\$/kg MS)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
NSW	1.01	0.82	0.33	0.38	1.05
Vic	0.10	0.69	0.66	0.25	1.68
Qld	0.96	1.20	0.55	(0.17)	0.58
SA	0.74	0.70	1.17	1.09	1.79
WA	1.97	1.92	1.31	1.16	1.39
Tas*	0.90	0.94	1.32	1.44	

\* Tas data was not available at time of publication. It will be available to download from:  
[dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project](http://dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project)  
 Source: Dairy Farm Monitor Project and Queensland Dairy Accounting Scheme

**Table 11** Average Victorian regional earning before interest and tax (\$/kg MS)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Eastern	0.26	0.65	0.84	0.51	2.07
Northern	-0.07	0.37	0.67	(0.45)	1.22
Western	0.11	1.06	0.48	0.71	1.83

Source: Dairy Farm Monitor Project

**Table 12** Average return on assets by state (%)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
NSW	2.7	2.1	1.2	0.7	2.7
Vic	0.3	2.3	2.5	0.7	5.4
Qld	2.8	3.6	1.8	0.0	1.5
SA	2.9	2.6	4.4	3.5	5.9
WA	6.4	6.5	3.8	3.2	3.9
Tas*	3.8	3.6	5.1	5.2	

\* Tas data was not available at time of publication. It will be available to download from:  
[dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project](http://dairyaustralia.com.au/industry-statistics/dairy-farm-monitor-project)  
 Source: Dairy Farm Monitor Project and Queensland Dairy Accounting Scheme

**Table 13** Average Victorian regional return on assets (%)

	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Eastern	1.0	2.1	3.0	1.7	6.6
Northern	-0.5	1.0	2.6	-1.7	4.1
Western	0.3	3.9	1.9	2.3	5.8

Source: Dairy Farm Monitor Project

# MILK PRODUCTION

Farm numbers in Australia have steadily decreased over the past three decades while the average farm size has grown. This has been due to an increase in cow numbers and improved cow yields – up until the major widespread ‘Millennium drought’ in 2002/03. The next decade saw a period of consolidation for the industry, with falling cow numbers and dry seasonal conditions constraining production, particularly in northern Victoria.

In recent years, volatility in farmgate milk prices and farm incomes have impacted farmer confidence and the industry’s ability to grow. Following the industry disruption caused by the late season step-downs in 2015/16, lower average milk prices and challenging seasonal conditions in the subsequent years, many farmers focused on cost control, refinancing and business consolidation, rather than longer term investments to increase production. In many cases, farmers culled extensively during these years, taking advantage of higher beef prices to maintain cashflow.

The first half of the 2019/20 season proved challenging for many dairy farmers in Australia. Ongoing dry seasonal conditions increased the cost of feed and water which substantially impacted milk production. However, following a good autumn break, Australia’s national milk pool started to recover. Favourable seasonal conditions combined with easing input costs and a relatively high farmgate milk price improved farmer confidence in most regions. The weather also allowed farmers to grow more feed on farm and milk production increased in many regions. This led to a national rebound in Australia’s milk pool, which ended the season down just 0.2%, at 8,776 million litres.

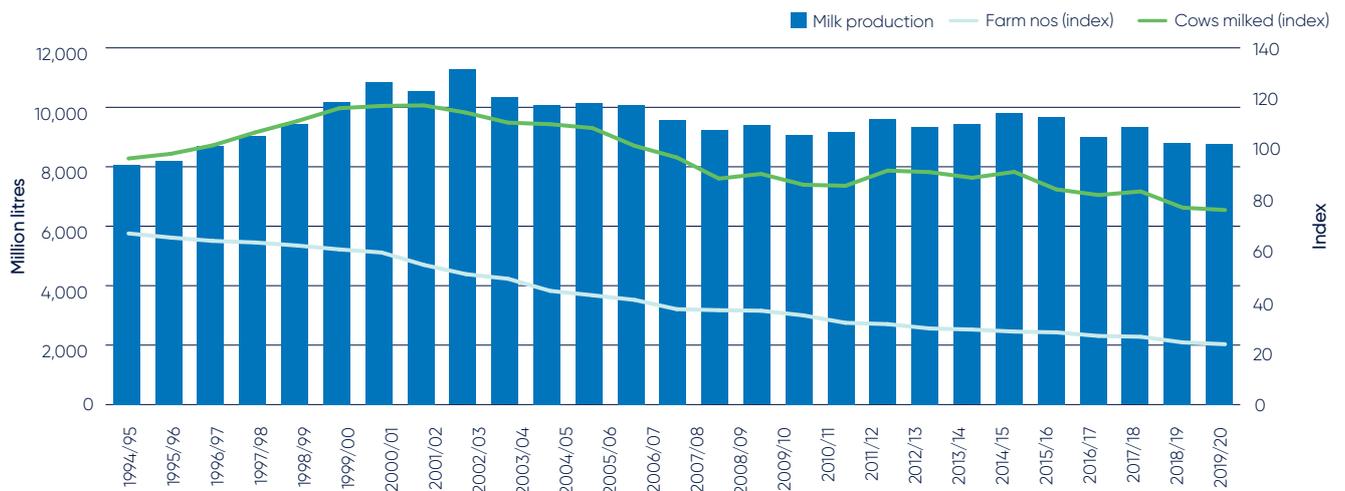
*As Figure 5 indicates, the underlying trend has continued towards fewer farms, larger herds and increasing levels of milk production per farm.*

**Table 14** Milk production by state (million litres)

	NSW	Vic	Qld	SA	WA	Tas	Aust
2006/07	1,104	6,297	537	655	349	641	<b>9,583</b>
2007/08	1,048	6,102	486	606	319	661	<b>9,223</b>
2008/09	1,064	6,135	513	628	340	709	<b>9,388</b>
2009/10	1,099	5,813	530	605	359	677	<b>9,084</b>
2010/11	1,087	5,936	487	572	372	726	<b>9,180</b>
2011/12	1,136	6,246	491	575	349	792	<b>9,589</b>
2012/13	1,137	6,076	465	542	349	765	<b>9,334</b>
2013/14	1,124	6,174	446	525	342	810	<b>9,421</b>
2014/15	1,184	6,411	422	530	367	891	<b>9,805</b>
2015/16	1,198	6,249	421	538	392	883	<b>9,681</b>
2016/17	1,141	5,732	425	497	385	836	<b>9,016</b>
2017/18	1,144	5,979	399	505	385	913	<b>9,325</b>
2018/19 (r)	1,082	5,574	357	496	374	910	<b>8,793</b>
2019/20 (p)	1,044	5,619	311	488	364	950	<b>8,776</b>

Source: Dairy manufacturers

**Figure 5** Australian milk production vs indices of farms and cows milked



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

**Figure 6** Seasonality of milk production in Australia in 2019/20 (million litres)



Source: Dairy manufacturers



Dairy farming is concentrated in the temperate zone of Australia, as can be seen in Table 14. Australian milk production remains strongly seasonal in key south-eastern dairying regions, reflecting the predominantly pasture-based nature of the industry. Production peaks in October, tapers off until late-summer, and then flattens out into the cooler winter months (refer to Figure 6). 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. Farmers in these states manage calving and feed systems to ensure flatter, year-round milk production.

*See Appendix 4 for more details on the seasonality of milk production by state dairying regions.*

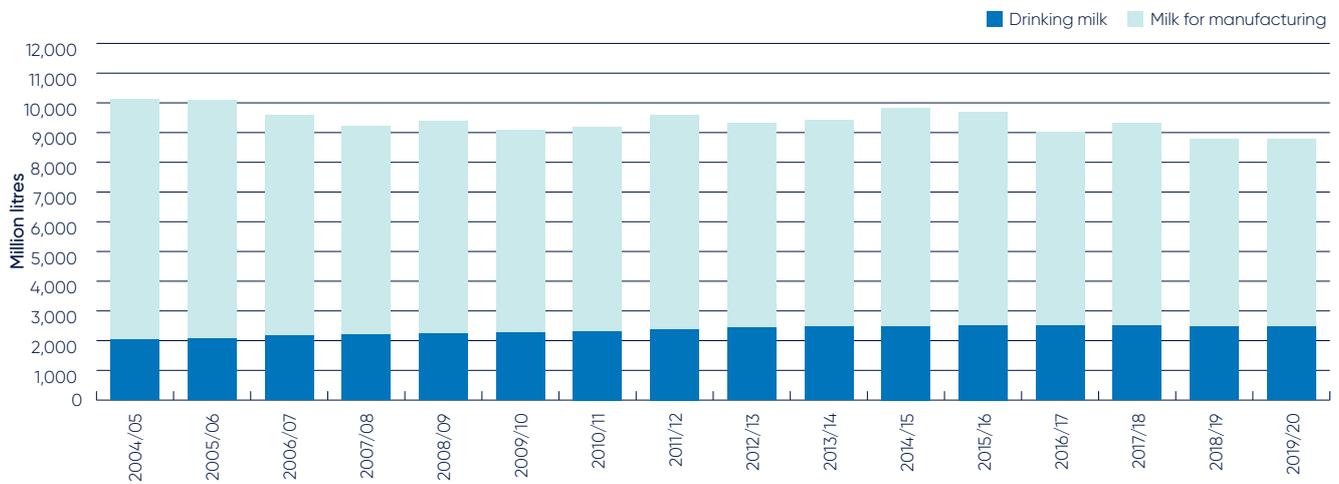
Cows' milk consists of solids (milkfat, protein, lactose and minerals) in water, which makes up about 87% of the volume. The milkfat and protein components are those on which companies base their farmgate milk prices.

Milk composition can vary between regions and seasons, as shown in Table 15. This may be due to several factors, such as cow breed, age, nutrition and feed quality.

With ongoing population growth since 2001/02, the amount of milk destined for domestic consumption, as either drinking milk or manufactured products (e.g. cheese and butter), has increased. In 2019/20, 28% of Australia's production was used for drinking milk, compared to 18% in 2001/02. Last financial year, 43% of milk produced was used for domestically consumed manufactured products; up from 26% in 2001/02.

Conversely, the proportion of milk available for export, as manufactured product, has declined from 56% in 2001/02 to around 29% in 2019/20, as shown in Figure 7. Over recent years Australia's imports of dairy products for local consumption have increased. This has enabled the Australian dairy industry to continue to export a significant share of its milk production, despite having a larger domestic market and lower milk production.

**Figure 7** Drinking and manufacturing milk production



Source: Dairy manufacturers

**Table 15** Average protein/fat composition by state (%)

	NSW	Vic	Qld	SA	WA	Tas	Aust
<b>Milkfat</b>							
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	3.91	4.10	3.98	3.80	3.88	4.30	4.07
2014/15	3.93	4.15	4.01	3.77	3.89	4.35	4.11
2015/16	3.92	4.12	4.00	3.77	3.92	4.30	4.08
2016/17	3.91	4.13	4.00	3.84	3.92	4.34	4.10
2017/18	3.93	4.12	4.05	3.80	3.91	4.31	4.09
2018/19	3.89	4.12	4.05	3.84	3.90	4.39	4.10
2019/20 (p)	3.95	4.18	4.01	3.90	3.91	4.37	4.15
<b>Protein</b>							
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	3.28	3.39	3.29	3.27	3.18	3.47	3.37
2014/15	3.29	3.40	3.32	3.29	3.22	3.49	3.38
2015/16	3.29	3.40	3.32	3.28	3.23	3.48	3.38
2016/17	3.28	3.41	3.30	3.31	3.24	3.50	3.39
2017/18	3.30	3.41	3.31	3.28	3.24	3.51	3.39
2018/19	3.25	3.40	3.29	3.29	3.22	3.50	3.38
2019/20 (p)	3.30	3.47	3.30	3.35	3.28	3.58	3.45

Source: Dairy manufacturers

# DAIRY MANUFACTURING

There is a wide range of companies operating in the Australian dairy industry. This includes national and multinational companies, both privately owned and publicly listed. Farmer owned cooperative no longer dominate the Australian industry.

The decline in total milk production over the past two decades has reduced the need for Australian dairy companies to invest in processing capacity, at least in the short to medium term. At the same time, the age of existing plants and the need to rationalise production has seen some processors close plants to reduce costs. Others have chosen to upgrade or increase capacity at remaining sites.

As Australia's milk pool contracted during the first half of 2019/20, incremental consolidation in processing capacity also continued. In August, Nestle announced plans to close its Tongala factory in Victoria, which primarily produces tinned milk products. Fonterra Australia sold their Dennington factory in southwest Victoria in early 2020 to ProviCo, a company specialising in animal nutrition.

In addition to these consolidations, some major manufacturing developments also took place during the year. In October, Saputo Dairy Australia's bid to acquire Lion Dairy & Drinks speciality cheese brand

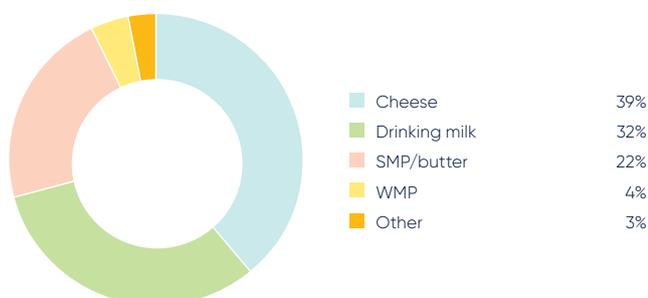
and production facilities was approved. Beston Global Food Company announced plans to invest in a major expansion of its lactoferrin production, through a refurbishment of its whey based plant in Jervois, South Australia. Furthermore, the new Dairy Mandatory Code of Conduct came into effect on the 1st of January, prescribing the introduction of minimum pricing announcements occurring on the 1st of June each year.

Large multinational companies have operated in the Australian dairy industry for many years and currently include Fonterra (New Zealand), Kirin (Japan) – owner of Lion Dairy and Drinks, Lactalis (France) and Saputo (Canada).

Around 41% of manufactured product (in milk equivalent terms) was exported and the remaining 59% sold on the Australian market in 2019/20. This contrasts with drinking milk, where most was consumed in the domestic market.

Cheese is consistently the major product stream, accounting for 39% of Australia's milk production. Recent increases in cheese production capacity suggest that this will become the case even more so in the future. Drinking milk and skim milk powder/butter production were the two next largest users of milk, accounting for 32% and 22% of Australian milk.

**Figure 8** Australian milk utilisation in 2019/20



Source: Dairy Australia

# DAIRY MARKETS

Australia's milk production exceeds the volume required for domestic consumption and this has traditionally created a marketable surplus destined for export markets. The share of total production destined for export has ranged from around 30%-60% over the period shown in Figure 9. Over recent years Australia has exported around one third of its milk. The share of milk exported has contracted following a decline in overall milk production, and a larger domestic market due to population growth.

Australia accounts for less than 2% of the world's estimated milk production but remains a significant exporter of dairy products. Australia currently ranks fourth in terms of world dairy trade – with a 5% share, behind New Zealand, the European Union as a bloc and the United States.

For a number of years, Greater China (including China, Hong Kong and Macau) has been Australia's largest market, accounting for 32% of exports by volume. Japan remains a vital trade partner for Australian exporters, as a mature, high-value market with long-established business relationships. Australian exports to Asia account for more

than 87% of the country's total exports and in 2019/20 the total value of Australian exports was around A\$3.4 billion.

Australia's concentration of exports in Asia reflects the 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). Increased competition in key importing markets has also played a role in creating this concentration. Asian markets have considerable potential for consumption growth as incomes rise and diets become more 'westernised'. Australian dairy companies also have proven track records in supplying these markets over several decades.

Australia's top five export markets by value in 2019/20 were Greater China, Japan, Indonesia, Malaysia and Singapore. The top five by volume differed only slightly by order: Greater China, Japan, Singapore, Malaysia and Indonesia. Greater China remains one of Australia's fastest growing export markets by volume.

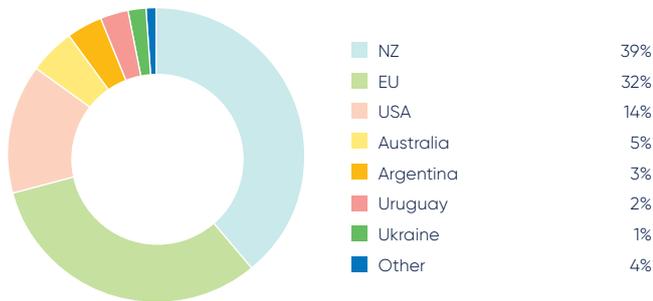
See Appendix 8 for detailed tables of Australia's export markets.

**Figure 9** Australian production and exports (milk equivalents)



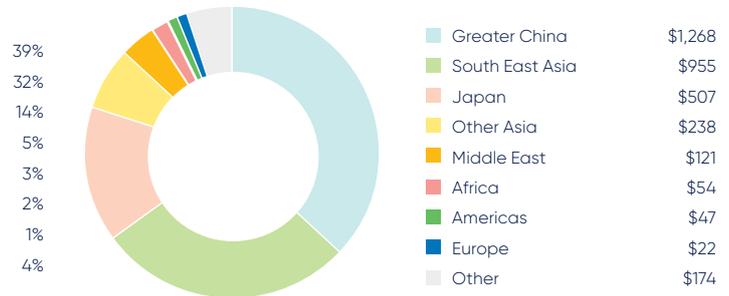
Source: Dairy manufacturers and ABS

**Figure 10** Exporters' share of world dairy trade in 2019 (milk equivalents)



Source: Dairy Australia

**Figure 11** Australian exports by region in 2019/20 (A\$ million)



Source: ABS

**Table 16** Australian dairy exports by product by region in 2019/20 (A\$ million)

	SE Asia	Other Asia	Europe	Middle East	Africa	Americas	Other	Total
Butter/AMF	47	35	1	0	2	4	1	90
Cheese	214	671	2	45	12	17	34	995
Milk	128	168	0	0	0	0	25	322
SMP	219	187	0	49	0	0	9	463
WMP*	66	405	0	3	0	3	6	483
Other	281	548	19	24	38	23	98	1,033
<b>Total</b>	<b>955</b>	<b>2,013</b>	<b>22</b>	<b>121</b>	<b>54</b>	<b>47</b>	<b>174</b>	<b>3,386</b>

\*Also includes infant powder.

Other includes buttermilk powder, casein, condensed milk, ice cream, lactose, whey powder, yoghurt and mixtures.

Source: ABS

**Table 17** Top 10 Australian export destinations in 2019/20

Country	Volume (tonnes)	% of total	Country	Value (A\$ million)	% of total
Greater China*	244,460	32	Greater China*	1,268	37
Japan	86,269	11	Japan	507	15
Singapore	73,984	10	Indonesia	232	7
Malaysia	61,858	8	Malaysia	196	6
Indonesia	51,843	7	Singapore	195	6
Philippines	40,404	5	New Zealand	129	4
New Zealand	30,641	4	Thailand	126	4
Thailand	27,114	4	Philippines	118	3
Taiwan	23,368	3	Taiwan	108	3
Vietnam	22,950	3	South Korea	85	3

\*Includes China, Hong Kong and Macau

Source: Dairy Australia and ABS

# AUSTRALIAN CONSUMPTION OF DAIRY PRODUCTS

The main Australian consumer dairy products are drinking milk, cheese, butter/butter blends, and yoghurt. Per capita consumption trends over the past two decades have varied quite significantly by individual product. These trends reflect changes in consumer tastes in response to multicultural influences on food trends, health perceptions around dairy products, as well as flavour and packaging innovations.

Per capita consumption of drinking milk is currently estimated at 97 litres. This marks a small decline over recent years: however, consumption remains high compared to other developed countries. This is possibly thanks to the expansion of the 'coffee culture' in Australia and growth in flavoured milk products. In 2019/20 sales of UHT milk increased strongly, following the initial COVID-19 outbreak. Despite this surge in demand for UHT products, fresh milk remains the most popular variety amongst consumers.

Cheese consumption increased marginally in 2019/20, to 13.6 kg per person. While cheddar types remain the most popular variety of cheese, non-cheddar cheese varieties available in Australia have increased. These varieties have grown in popularity due to increased demand for mozzarella cheese in foodservice and retail stores, as well as growth in specialist cheese varieties.

Annual per capita consumption of butter in Australia is around 4.1 kg. Consumers are attracted to the natural characteristics of butter, along with its superior taste and

cooking functionality. Findings in health and nutritional science have also led to a changing consumer perception of the health risks associated with saturated fats and butter. This has been important in underpinning sales volumes of the category.

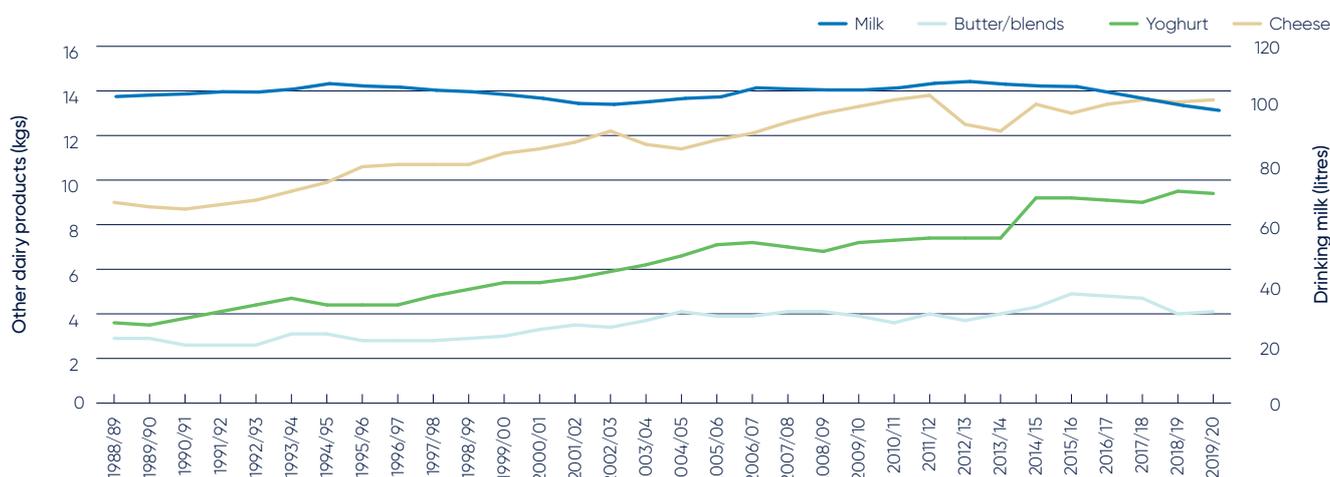
Yoghurt is a healthy snack for consumers, combining both convenience and health attributes, with per capita consumption of 9.4 kg per year. Per capita consumption of yoghurt has grown over the last few years. A greater desire for more natural healthy products and increased awareness around the health risks of sugar has seen consumers transition away from sweetened and flavoured yoghurt varieties towards Greek and natural style yoghurts.

**Table 18** Per capita consumption of major dairy products (litres/kg)

	Milk (l)	Cheese (kg)	Butter/ blends (kg)	Yoghurt* (kg)
2015/16	104.9	13.6	4.9	9.2
2016/17	102.8	13.4	4.8	9.1
2017/18	100.7	13.6	4.7	9.0
2018/19	98.6	13.5	4.0	9.5
2019/20 (p)	97.0	13.6	4.1	9.4

\*From 2014–15 Per capita consumption of yoghurt includes dairy snacks  
Source: Dairy manufacturers and Dairy Australia

**Figure 12** Per capita consumption (litres/kg)



Source: Dairy manufacturers and Dairy Australia

# DRINKING MILK

Drinking milk is a widely consumed, convenient and versatile dairy product containing an outstanding package of protein, vitamins and minerals. Milk remains a staple item in almost all Australian households.

Australian consumers overwhelmingly prefer fresh, pasteurised milk (heated to 74 degrees for 15 seconds). This preference for fresh milk generally requires dairy farming close to major population centres and extensive cold-chain logistics to provide reliable, year-round fresh milk. While fresh milk accounts for the vast majority of milk sales in Australia, UHT milk (heated to 140 degrees for two seconds) has seen an increase in its share of supermarket sales by volume over the past two decades. In 2019/20 sales of UHT milk surged following the COVID-19 outbreak as consumers stockpiled products at home in fear that they might run out of milk. Since the initial panic-buying has receded, sales of UHT milk have reverted back to long term trends.

Regular or full cream milk has a milkfat content of 3.4% to 3.6%. Low-fat and skim milks are modified to contain less than 1.5% and 0.15% milkfat respectively. The cream removed during modification can be bottled as table cream or is manufactured into butter and other dairy products. As the composition of milk produced changes through the course of a season, most milk is standardised to ensure a consistent taste and nutritional profile year-round. Drinking milk generally undergoes further processing in the form of homogenisation, which disperses the fat equally throughout the milk, rather than allowing it to separate at the top.

The share of fresh white full cream milk, as a percentage of the total fresh white milk market, has increased, while sale volumes of modified milk have declined. While white (unflavoured) milk still accounts for most of drinking milk

sold, flavoured milk has grown in importance. Flavoured milk is an important source of revenue due to its higher unit prices. Flavoured milk sales remain distinctly regional, with strong local brands and varying consumption patterns. South Australia has historically consumed between two and three times the national average of flavoured milk, with a much flatter year-round demand, whilst demand in states like Victoria tends to be seasonal.

There are several major players in the Australian drinking milk market, with the two largest being Lion Dairy & Drinks (with the Pura and Dairy Farmers brands) and Lactalis (with the Pauls and Harvey Fresh brands). Fonterra Australia and Saputo Dairy Australia (previously Murray Goulburn) entered the drinking milk market after 2011, by taking major supermarket private label contracts in Victoria and New South Wales. Some major retailers are now also directly sourcing milk for private label supermarket sales. Brownes (Western Australia) and Norco (Queensland and northern New South Wales) have more localised distribution.

*See Appendix 7 for more details of supermarket milk sales and average prices.*

Historically, Australia only exported relatively small volumes of liquid milk. However, in recent years export volumes have grown significantly. In 2019/20 Australia exported almost 245 million litres of milk, a 4% increase compared to last year. This product was predominantly UHT, although some companies are now freighting containerised fresh milk to customers in Asia. Around 90% of the total volume exported went into Asia, with the remainder going towards the island countries of the Pacific and some markets in the Middle East.

*See Appendix 8 for more details of drinking milk exports.*

**Table 19** Drinking milk sales by type (million litres)

	Regular	Reduced	No fat	Flavoured	UHT	Total
1989/90	1,257	322	–	111	40	<b>1,730</b>
1999/00	1,099	498	–	173	164	<b>1,933</b>
2009/10	1,134	592	117	215	211	<b>2,269</b>
2010/11	1,140	632	109	227	208	<b>2,316</b>
2011/12	1,160	679	104	236	208	<b>2,387</b>
2012/13	1,172	690	100	240	243	<b>2,445</b>
2013/14	1,193	690	93	240	250	<b>2,466</b>
2014/15	1,244	661	87	240	257	<b>2,489</b>
2015/16	1,311	617	80	246	266	<b>2,520</b>
2016/17 (r)	1,365	567	71	247	257	<b>2,507</b>
2017/18 (r)	1,397	538	64	242	252	<b>2,493</b>
2018/19 (r)	1,411	519	63	234	249	<b>2,476</b>
2019/20 (p)	1,400	513	69	227	268	<b>2,477</b>

(Dairy Australia estimates that this collection covers over 95% of milk sales)  
Source: Milk processors and State Milk Authorities

**Table 20** Drinking milk sales by state (million litres)

	NSW	Vic	Qld	SA	WA	Tas	Aust
1979/80	531	437	249	127	119	41	<b>1,504</b>
1989/90	582	449	316	150	164	47	<b>1,730</b>
1999/00	597	440	383	185	190	48	<b>1,933</b>
2009/10	708	545	499	213	247	57	<b>2,269</b>
2010/11	715	566	502	213	262	58	<b>2,316</b>
2011/12	721	582	531	221	274	58	<b>2,387</b>
2012/13	719	600	563	222	280	61	<b>2,445</b>
2013/14	711	612	584	221	279	59	<b>2,466</b>
2014/15	715	625	581	222	285	61	<b>2,489</b>
2015/16	732	637	583	222	285	61	<b>2,520</b>
2016/17	722	635	579	227	284	60	<b>2,507</b>
2017/18 (r)	719	627	583	223	281	60	<b>2,493</b>
2018/19 (r)	709	637	578	218	276	58	<b>2,476</b>
2019/20 (p)	690	654	578	215	285	55	<b>2,477</b>

State figures exclude interstate traded milk prior to 2001, NSW includes ACT after June 2000.  
(Dairy Australia estimates that this collection covers over 95% of milk sales)  
Source: Milk processors and State Milk Authorities

# CHEESE

Australia produced approximately 371,000 tonnes of cheese in 2019/20, down 3% from the year prior. This is close to the production volumes of the early to mid-2000s. A significant factor affecting production volumes in more recent years has been dairy companies adjusting export product mixes to take advantage of favourable movement in international commodity prices. This tends to result in increased cheese production when international price trends made it an attractive stream for revenue, which it has been for the last few years.

Cheese is a major product for the Australian dairy industry, utilising more than a third of Australian milk.

In 2019/20 Australia exported close to 158,000 tonnes of cheese, worth approximately \$995 million. Australia is also a major importer of cheese and over the past ten years imports have grown more than 30%. Imports from New Zealand totalled almost 44,000 tonnes, with the European Union and United States largely accounting for the balance.

There has been a long-term trend in production away from cheddar cheeses and towards non-cheddar cheese types. The non-cheddar share of total production volumes has steadily increased from 30% three decades ago, to 47% in 2019/20.

Australian cheese was exported to 55 countries around the world last year. Japan continues to be Australia's most important overseas cheese market and accounted for around 49% of cheese exports in 2019/20. Most of this cheese is fresh or cream cheese varieties for processing. Other important overseas markets include Greater China, Malaysia, South Korea, the Philippines and Singapore.

The long-term trend away from cheddar cheeses and toward non-cheddar varieties 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 close to 79% in 2019/20.

**Table 21** Australian cheese production by type of cheese (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Cheddar	178,836	171,590	186,145	202,032	196,013	198,284
Semi hard	43,938	49,559	51,703	60,511	64,467	66,286
Hard grating	9,885	5,040	5,993	4,022	8,417	10,005
Fresh	104,992	110,767	97,054	103,510	104,586	89,781
Mould	6,491	7,300	7,757	7,652	7,628	6,775
<b>Total cheese</b>	<b>344,142</b>	<b>344,257</b>	<b>348,652</b>	<b>377,727</b>	<b>381,111</b>	<b>371,131</b>

(Dairy Australia estimates that this collection covers over 90% of cheese production)  
Source: Dairy manufacturers

# BUTTER

Australia produced approximately 73,000 tonnes of butter and anhydrous milkfat (AMF) in commercial butter equivalent terms (CBE) in 2019/20. AMF is butter with the water removed, like ghee. It is primarily produced for export and domestic food manufacturing applications, such as bakery and confectionery. While these sectors also use butter, most domestic butter sales are through retail and foodservice outlets. The manufacture of butter results in the creation of skim milk powder as a co-product, utilising the solids nonfat components of the milk.

In 2019/20, around 65% of domestic dairy spread sales were through supermarkets, up almost 10% compared to the year prior. As the COVID-19 pandemic and restrictions implemented to curb the spread of the virus impacted consumers habits, grocery sales surged as many foodservice outlets had to temporarily close. This shifted overall demand from the foodservice sector

to the retail sector and contributed to this increase in supermarket sales of dairy blends. Butter imports to Australia accounted for more than a quarter of the butter market by volume in 2019/20. A majority, around 85%, of the 42,000 tonnes of butter and butteroil imported into Australia came from New Zealand. Most remaining butter was sourced from various European countries.

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 decreased roughly 40% in 2019/20, down to 11,000 tonnes. Australia's most important overseas markets for butter and AMF were Thailand, Greater China, Malaysia and Singapore; out of 34 countries

*See Appendix 8 for more details of butter and AMF exports.*

**Table 22** Butter and AMF production (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Butter/butter blends (CBE)	101,641	99,015	85,459	79,749	61,177	63,567
AMF (CBE)	16,943	19,610	14,539	12,949	12,145	8,981

(Dairy Australia estimates that this collection covers over 75% of milkfat production)  
Source: Dairy manufacturers

**Table 23** Australian exports of butter and AMF (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Butter	30,755	23,051	14,409	9,721	13,183	8,044
AMF (CBE)	11,867	10,404	6,896	6,354	8,089	3,809

Source: ABS

## OTHER FRESH AND FROZEN DAIRY PRODUCTS

Australian manufacturers produce a range of fresh dairy products, including yoghurts, dairy desserts, chilled custards and creams, dairy dips and frozen products such as ice-cream.

Over the past two decades, yoghurt production has grown considerably. This has been the result of the product category's ability to meet consumer requirements for convenient, healthy snacks in an environment of time-poor lifestyles. Following the COVID-19 outbreak retail sales of yoghurt have remained strong as consumers have consumed more products when cooking and baking at home. The segment includes strong international brands, such as Ski, Yoplait and Chobani. In the yoghurt market there is an ongoing trend away from sweetened and flavoured varieties towards more traditional, unflavoured types of yoghurt, such as Greek-style yoghurt. These unflavoured varieties are perceived to be healthier, more 'natural' and attractive to health-conscious consumers. Yoghurt sales of the unflavoured, traditional types have overtaken those of sweetened and flavoured yoghurts, to be the most commonly sold yoghurt product.

Growth in yoghurt sales has been underpinned by regular product innovation. Innovation has taken place in the areas of packaging, flavour combinations and the use

of probiotic cultures. New products, such as drinking yoghurts and single snack servings in convenience outlets, have also helped drive growth.

Dairy desserts are a low volume and high value dairy category. These products include mousses, crème caramels and fromage frais. They are marketed as an indulgence or treat item and generally targeted to adult consumers. 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 increases in sales in recent years as manufacturers expand their product offerings into new flavours and small, snack-sized, single-serve plastic cups sold in multi-packs.

Cream sales decreased in 2019/20, however remain an important fresh dairy product and widely used in cooking. Regular and sour creams are both used extensively as accompaniments or ingredients. Like with butter, consumers remain interested in cream's superior taste and cooking functionality.

*See Appendix 6 for more details on cream, custard and dairy dessert sales.*

# MILK POWDERS

Australian manufacturers produce a wide 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 customer needs.

Historically, whole milk powder (WMP) production used to account for a larger share of total milk powder production. However, since 2001/02 this trend has reversed and skim milk powder (SMP) production has become the predominant milk powder. In 2019/20 SMP accounted for more than two thirds of milk powders produced. Following several challenging years for the dairy industry, manufacturers have had access to a smaller national milk pool and a wider variety of markets. As a result, companies have been more flexible with their product mixes to take advantage of relative movements in international commodity prices. Differing market access arrangements also impact the competitiveness of product pricing. For example, local producers will be at a competitive disadvantage where Australia may not have negotiated a Free Trade Agreement, but a competitive supplier country has done so. This impacts local production mixes because the bulk of Australia's milk powders is exported overseas.

Only a small portion of Australia's powder production is sold domestically, with local usage mainly as an ingredient in food manufacturing. Infant formula is a high-value product that has shown considerable growth in the past five years. Infant formula growth is generated through Australian supermarket sales (partly due to the demand from informal re-export trades, such as the Diagon-trade), as well as through direct exports.

Australia also imported roughly 101 million tonnes of milk powders in 2019/20. Imports of milk powders have increased over the past few years, and rose strongly, up around 30%, this year. Most of the imported milk powder is sourced from New Zealand.

Exported milk powder is often recombined into liquid milk products, particularly in tropical climates where fresh milk supplies are not readily available due to insufficient local production and/or limited 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, yoghurt, health foods and reduced-fat milks. Industrial grade powder is used for stockfeed.

The major export markets for Australian milk powders are concentrated in Asia, where around 90% of SMP and WMP exports were destined in 2019/20.

*See Appendix 8 for more details on milk powder exports.*

Greater China was the largest single export market for Australian-produced SMP in 2019/20, followed by Indonesia, Thailand, Middle East, Philippines and Singapore; out of some 24 export destinations.

Greater China was the largest single export market for Australian-produced WMP, followed by Thailand, Singapore, Sri Lanka, Taiwan and the Middle East; out of a total of 32 export destinations.

**Table 24** Australian production of milk powders (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Skim milk powder	242,266	255,792	222,109	190,926	176,573	141,480
Whole milk powder*	96,840	66,125	63,242	82,499	47,534	43,836

\*Includes infant powders.  
(Dairy Australia estimates that this collection covers over 75% of powder production)  
Source: Dairy manufacturers

**Table 25** Australian exports of skim milk powder by region (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Asia	150,124	147,843	135,998	137,629	136,669	94,677
Middle East	26,927	23,249	14,057	11,630	12,559	11,140
Africa	386	5,829	1,428	5,761	236	25
Pacific	5,376	3,857	1,775	1,586	1,737	1,924
Americas	1,473	552	47	0	0	0
Europe	540	43	0	0	0	0
<b>Total</b>	<b>184,825</b>	<b>181,374</b>	<b>153,305</b>	<b>156,606</b>	<b>151,201</b>	<b>107,766</b>

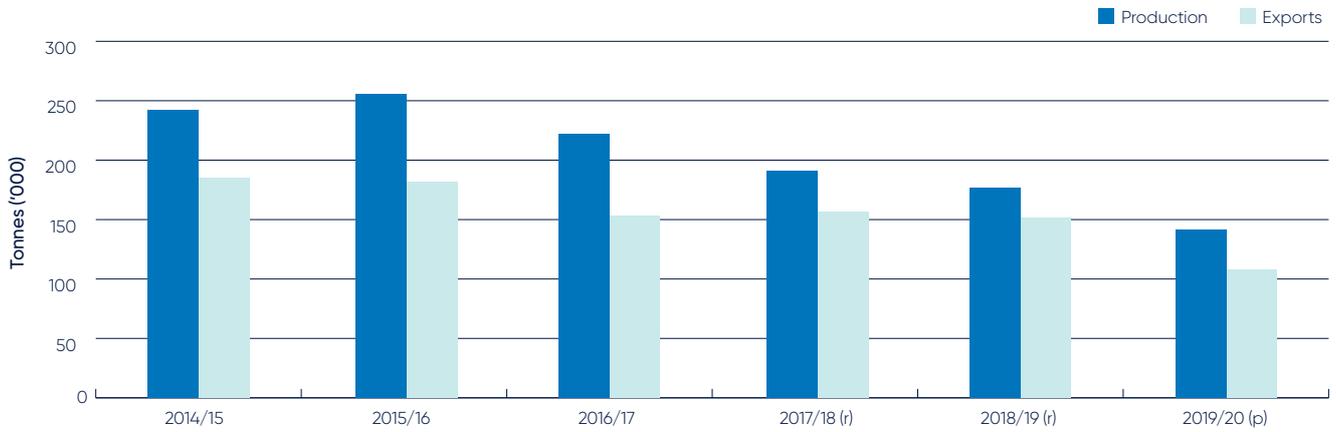
Source: ABS

**Table 26** Australian exports of whole milk powder by region\* (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Asia	57,963	62,548	77,157	73,851	49,508	44,197
Middle East	6,510	5,050	4,158	4,467	1,953	846
Africa	2,761	368	243	5,558	67	13
Pacific	1,634	4,348	2,083	2,170	1,860	1,035
Americas	6,031	4,227	3,063	1,315	1,324	491
Europe	230	511	104	200	0	0
<b>Total</b>	<b>75,129</b>	<b>77,052</b>	<b>86,808</b>	<b>87,561</b>	<b>54,712</b>	<b>46,582</b>

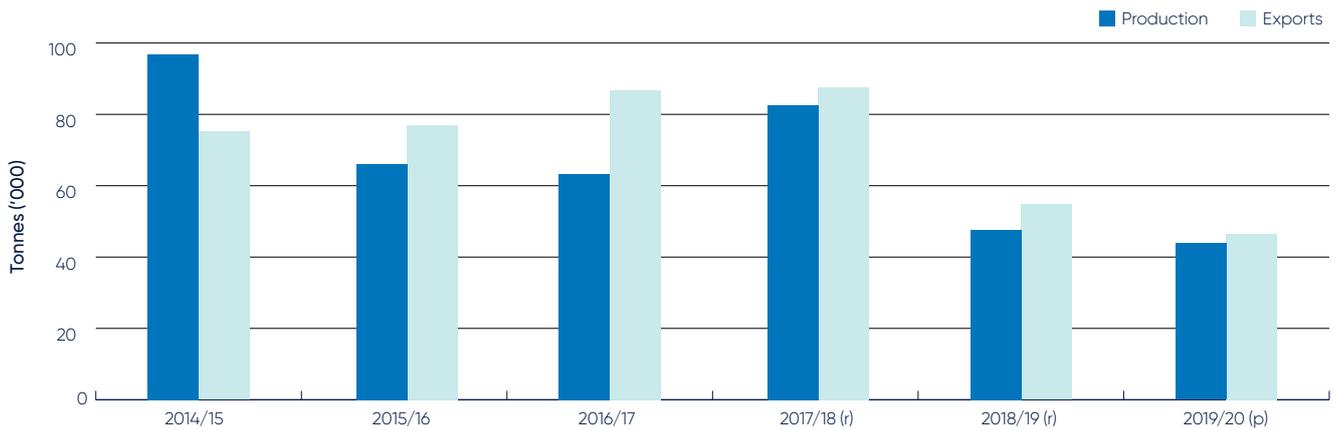
\*Includes infant powders  
Source: ABS

**Figure 13** Australian production and exports of skim milk powder (tonnes)



(Dairy Australia estimates that this collection covers over 75% of SMP production)  
 Source: Dairy manufacturers and ABS

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



(Dairy Australia estimates that this collection covers over 75% of WMP production)  
 Source: Dairy manufacturers and ABS

# WHEY PRODUCTS AND CASEIN

Whey is a by-product of the cheese making process. Traditionally this product used to be disposed of in liquid form. However, recognition of the value of whey's components and properties has seen the utilisation of whey powder and protein concentrates increase over the past decades.

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

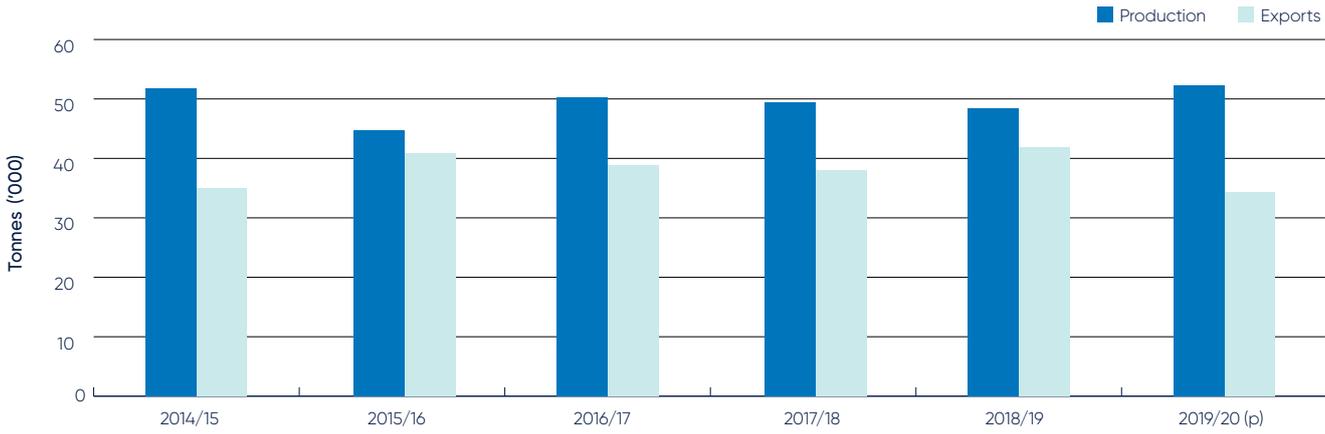
Whey protein concentrates are used in snack foods, juices, confectionery, ice-cream, biscuits, processed meats, (milk) protein drinks, desserts, infant foods and dietetic products. Furthermore, products such as cosmetics, skin creams, bath salts and detergents also contain protein concentrates.

In Australia whey is used domestically in the manufacture of infant formula, biscuits and ice-cream, while the remainder is exported. In 2019/20, Indonesia, Greater China, Malaysia, Singapore and Thailand were the largest export markets for Australian whey powders.

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

Australia is no longer a significant producer of casein and imports the vast majority of its requirements. Imports are mainly from New Zealand (approximately 60% of the total volume), with the balance from Europe and the United States in 2019/20.

**Figure 15** Australian production and exports of whey products (tonnes)



(Dairy Australia estimates that this collection covers over 95% of whey production)  
Source: Dairy manufacturers and ABS

# INDUSTRY ORGANISATIONS AND STRUCTURE

## Dairy Australia

- is the dairy industry's national service body
- is funded through the Dairy Service Levy with matching funding from the Australian Government on research and development activities
- invests in essential activities across the supply chain to deliver the best outcomes for dairy farmers, the dairy industry and the broader community
- focuses investment on pre- and post-farmgate research, development, extension and industry services. This includes education, trade policy, information, issues management, technological innovation, promoting the health and nutrition benefits of dairy products and marketing of the industry.

Dairy Australia is one of several regional and national organisations that support the Australian dairy industry. It is essential that these organisations work together to help achieve the dairy industry vision. Dairy Australia contributes funding, planning and management to the eight Regional Development Programs. Additionally, Dairy Australia is committed to working closely with state and national representational bodies to collectively deliver the dairy industry's goal.

**Figure 16** The structure of Australian dairy industry organisations





# INDUSTRY LEVIES

## Dairy Service

Dairy Australia is the national service body for the Australian dairy industry. Dairy Australia is funded by a combination of levies paid by dairy farmers, calculated on the fat and protein content of milk, and matching payments from the Commonwealth Government for eligible research and development (R&D) activities.

## Animal Health Australia

Australian dairy farmers also contribute funding to 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, 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.

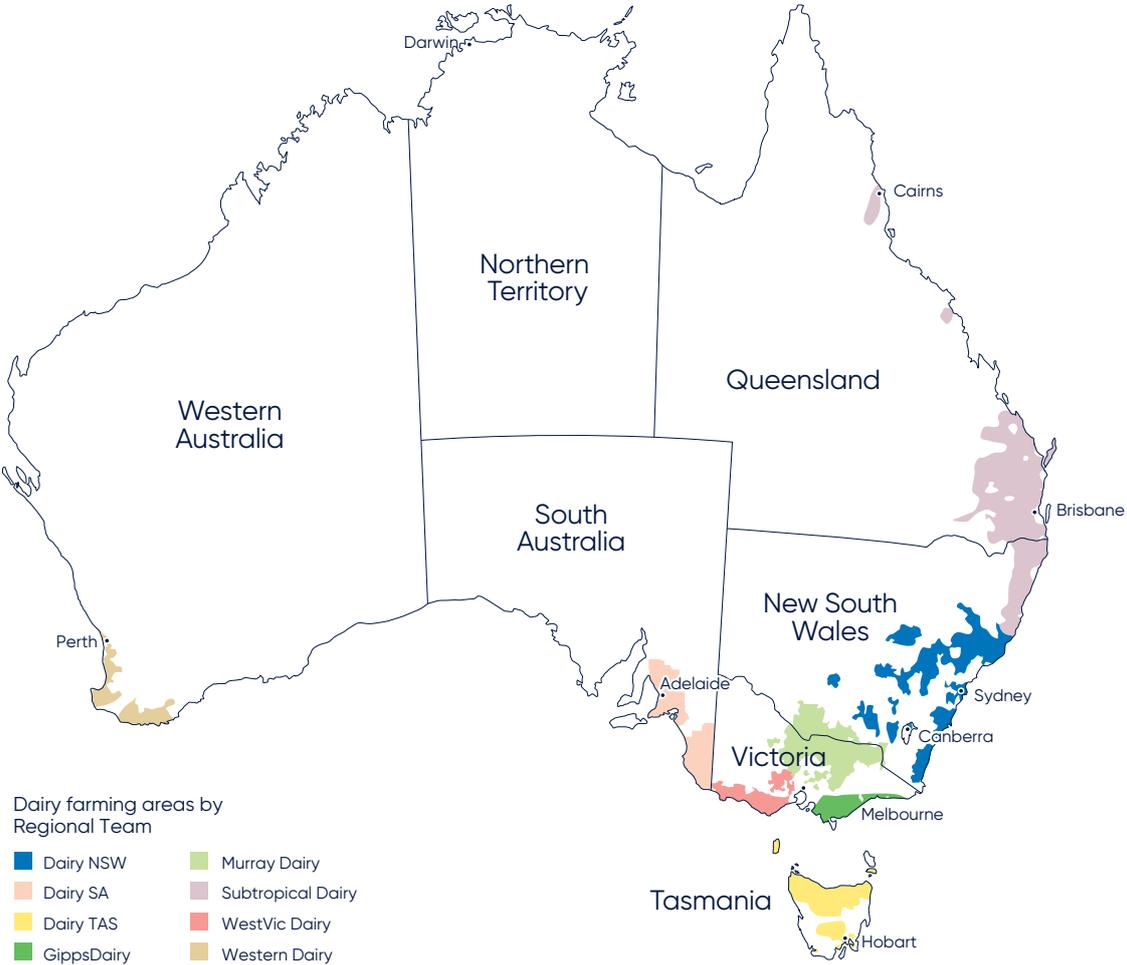
**Table 27** Average rate of milk levies for 2019/20

	Milkfat (¢/kg)	Protein (¢/kg)	Milk* (¢/litre)	Milk solids (¢/kg)
Animal Health Australia	0.0580	0.1385	0.007	0.09
Dairy Service	2.8683	6.9914	0.359	4.74

\* Based on average 2019/20 Australian milk composition of 4.13% milkfat and 3.44% protein

# APPENDICES

## Appendix 1 Dairying regions



## Appendix 2 Australian industry footprint

**Table A1** Australian state/region breakdown 2019/20

	Qld	NSW	Vic	SA	WA	Tas	Aust
Dairy farms <sup>1</sup>	327	534	3,462	206	135	391	<b>5,055</b>
Cows in milk and dry ('000) <sup>2</sup>	65	145	895	69	54	182	<b>1,411</b>
People employed on farm (full time and part-time) <sup>3</sup>	2,200	2,200	14,800	900	1,500	1,600	<b>23,200</b>
People employed in processing (full time and part-time) <sup>3</sup>	2,200	3,400	11,300	600	1,400	1,400	<b>20,300</b>
People directly working in dairy (full time and part-time) <sup>3</sup>	4,400	5,600	26,100	1,500	2,900	3,000	<b>43,500</b>
Volume of milk produced (ML) <sup>4</sup>	311	1,044	5,619	488	364	950	<b>8,776</b>
Share of national milk production (%)	3.5	11.9	64	5.6	4.2	10.8	
Value of milk leaving farms (\$m)	212	647	3,012	262	190	506	<b>4,829</b>
Value of dairy products exported (\$m) <sup>5</sup>	70	403	2,110	180	67	555	<b>3,386</b>
Share of national dairy exports – value (%)	2	12	62	5	2	16	
Volume of dairy products exported ('000)	17	52	526	40	52	70	<b>758</b>
Share of national dairy exports – volume (%)	2	7	69	5	7	9	

Source: <sup>1</sup> State milk authorities and Dairy Australia; <sup>2</sup> ABS and Dairy Australia; <sup>3</sup> Employment derived from a three-yearly median state level figures from ABS Labor Force Statistics, May 2020 Quarter publication: split on the basis of milk production within states; <sup>4</sup> dairy manufacturers; <sup>5</sup> ABS export data; split on the basis of milk production

	Subtropical Dairy	Dairy NSW	Gipps Dairy	Murray Dairy	WestVic Dairy	DairySA	Western Dairy	Dairy Tas	Aust
Dairy farms <sup>1</sup>	444	354	1,202	1,167	1,156	206	135	391	<b>5,055</b>
Cows in milk and dry ('000) <sup>2</sup>	84	95	316	300	310	69	54	182	<b>1,411</b>
People employed on farm (full time and part-time) <sup>3</sup>	2,300	2,000	5,000	4,700	5,200	900	1,500	1,600	<b>23,200</b>
People employed in processing (full time and part-time) <sup>3</sup>	2,300	3,100	4,000	3,800	3,700	600	1,400	1,400	<b>20,300</b>
People directly working in dairy (full time and part-time) <sup>3</sup>	4,600	5,100	9,000	8,500	8,900	1,500	2,900	3,000	<b>43,500</b>
Volume of milk produced (ML) <sup>4</sup>	444	787	2,027	1,776	1,940	488	364	950	<b>8,776</b>
Share of national milk production (%)	5.1	9.0	23.1	20.2	22.1	5.6	4.2	10.8	
Value of milk leaving farms (\$m)	302	488	1,086	955	1,040	262	190	506	<b>4,829</b>
Value of dairy products exported (\$m) <sup>5</sup>	78	395	781	633	696	180	67	555	<b>3,386</b>
Share of national dairy exports – value (%)	2	12	23	19	21	5	2	16	
Volume of dairy products exported ('000)	20	49	200	158	168	40	52	70	<b>758</b>
Share of national dairy exports – volume (%)	3	7	26	21	22	5	7	9	

Source: <sup>1</sup> State milk authorities and Dairy Australia; <sup>2</sup> ABS and Dairy Australia; <sup>3</sup> Employment derived from a three-yearly median state level figures from ABS Labor Force Statistics, May 2020 Quarter publication: split on the basis of milk production within states; <sup>4</sup> dairy manufacturers; <sup>5</sup> ABS export data; split on the basis of milk production

## Appendix 3 Grain prices

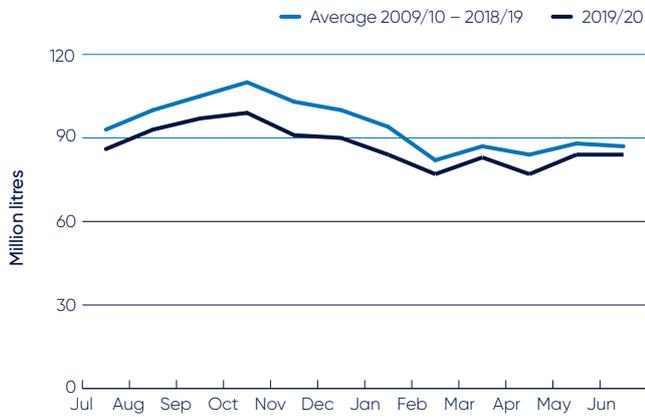
**Table A2** Indicative Australian grain prices (\$ per tonne)

		Wheat	Barley	Maize	Sorghum	Canola meal	Oats
Atherton Tablelands	2017/18	365	493	430	345		
	2018/19	453	567	564	408		
	2019/20	434	522	562	421		
Darling Downs	2017/18	347	343	368	328		
	2018/19	437	415	558	393		
	2019/20	422	386	557	406		
North Coast NSW	2017/18	343	338	375	319		
	2018/19	425	415	559	398		
	2019/20	426	404	567	413		
Central West NSW	2017/18	286	271	327	286		
	2018/19	360	351	461	383		
	2019/20	363	331	457	400		
Bega Valley	2017/18	335	320	378		434	
	2018/19	447	446	506		516	
	2019/20	418	376	487		456	
Goulburn/Murray Valley	2017/18	278	266	320		404	
	2018/19	397	398	456		484	
	2019/20	359	320	479		416	
Gippsland	2017/18	314	302	368		423	
	2018/19	442	432	496		510	
	2019/20	375	339	486		436	
South West Victoria	2017/18	283	270	378		433	
	2018/19	397	371	504		519	
	2019/20	367	321	488		431	
South East South Australia	2017/18	270	257	398		457	
	2018/19	368	347	520		448	
	2019/20	323	285	503		311	
Central Districts SA	2017/18	265	254	382		462	
	2018/19	343	312	505		475	
	2019/20	301	264	488		405	
South West WA	2017/18	291	281	321			188
	2018/19	320	329	391			337
	2019/20	305	269	380			389
North West Tasmania	2017/18	343	337	398		462	
	2018/19	464	456	584		545	
	2019/20	454	392	506		469	

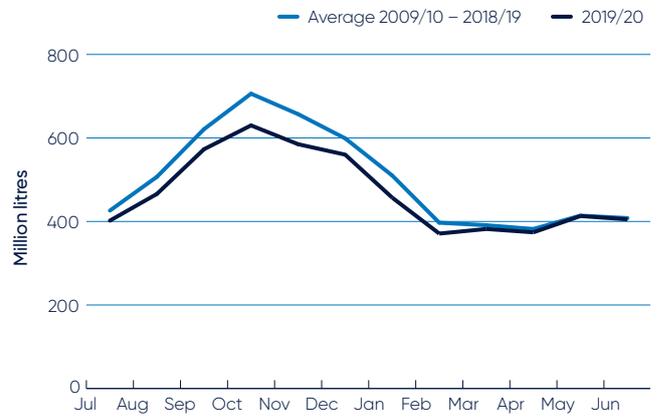
(Data represents a simple average of yearly data in each region)  
Source: *Profarmer*

## Appendix 4 Milk production

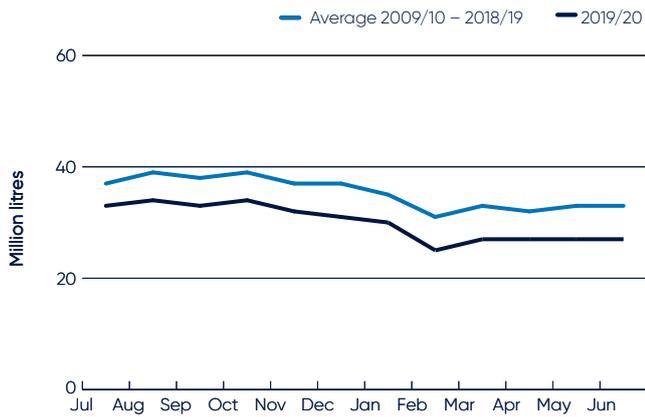
**Figure A1** Seasonality of milk production in 2019/20  
New South Wales



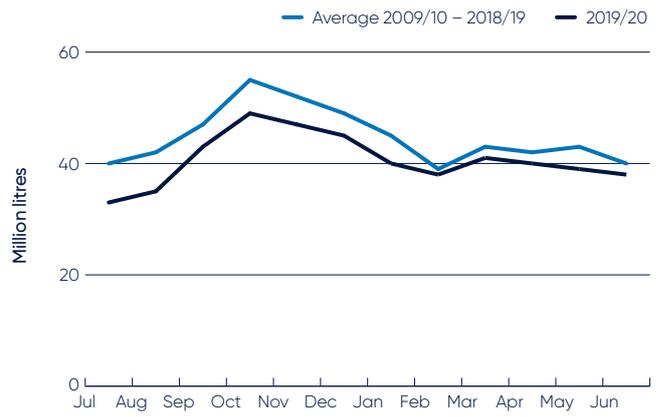
Victoria



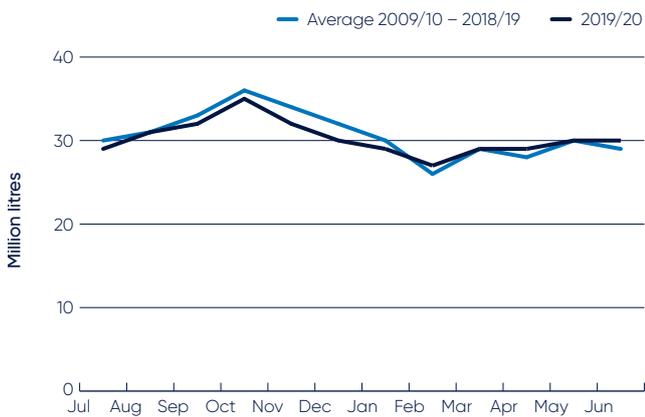
Queensland



South Australia



Western Australia



Tasmania



## Appendix 5 Manufacturing processes

**Figure A2** Product yield from 10,000 litres of milk 2019/20



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, numerous 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 the standardisation of milk for whole milk powder, casein and cheddar production can be used to make butter and BMP.

**Table A3** 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

**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	101,705	14,417	210,964	126,322	55,506
2014/15	101,641	16,943	242,266	96,840	51,806
2015/16	99,015	19,610	255,792	66,125	44,669
2016/17	85,459	14,539	222,109	63,242	50,209
2017/18	79,749	12,949	190,926	82,499	49,469
2018/19	61,177	12,145	176,573	47,534	48,385
2019/20 (p)	63,567	8,981	141,480	43,836	52,251

\*Includes butter blends as CBE. \*\*Includes infant powders.

Source: Dairy manufacturers

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

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
<b>Cheddar and cheddar types</b>						
Cheddar <sup>1</sup>	153,208	149,863	148,649	159,361	155,345	165,429
Reduced fat cheddar	18,275	15,360	14,384	15,804	12,955	13,270
Other cheddar type cheese <sup>2</sup>	7,353	6,366	23,111	26,867	27,713	19,584
<b>Total cheddar</b>	<b>178,836</b>	<b>171,589</b>	<b>186,144</b>	<b>202,032</b>	<b>196,013</b>	<b>198,283</b>
<b>Semi hard cheese</b>						
Mozzarella and pizza	36,148	41,133	44,986	52,419	56,869	59,351
Other stretch curd and shredding	769	1,796	2,546	2,465	2,717	1,619
Other semi hard cheese <sup>3</sup>	7,020	6,631	4,171	5,628	4,881	5,317
<b>Total semi hard cheese</b>	<b>43,937</b>	<b>49,560</b>	<b>51,703</b>	<b>60,511</b>	<b>64,467</b>	<b>66,287</b>
<b>Hard grating cheese</b>						
All types <sup>4</sup>	9,885	5,040	5,993	4,022	8,417	10,005
<b>Total</b>	<b>9,885</b>	<b>5,040</b>	<b>5,993</b>	<b>4,022</b>	<b>8,417</b>	<b>10,005</b>
<b>Fresh types</b>						
Cream cheese and neufchatel	90,443	93,403	79,285	86,446	87,909	82,691
Fetta	4,773	7,229	8,211	8,175	8,111	4,926
Ricotta	5,987	7,373	6,600	6,266	5,956	2,061
Other fresh types <sup>5</sup>	3,789	2,762	2,957	2,622	2,610	103
<b>Total</b>	<b>104,993</b>	<b>110,767</b>	<b>97,053</b>	<b>103,510</b>	<b>104,586</b>	<b>89,781</b>
<b>Mould ripened</b>						
Blue vein	536	603	664	716	550	332
Brie and camembert	5,539	5,960	6,452	6,297	6,437	5,945
Other mould ripened	416	737	641	639	641	498
<b>Total mould ripened</b>	<b>6,491</b>	<b>7,300</b>	<b>7,757</b>	<b>7,652</b>	<b>7,628</b>	<b>6,775</b>
<b>Total cheese</b>	<b>344,142</b>	<b>344,256</b>	<b>348,650</b>	<b>377,727</b>	<b>381,111</b>	<b>371,131</b>

<sup>1</sup> Includes Vintage<sup>2</sup> Includes Cheedam, Colby, Cheshire, Gloucester, Lancashire, Leicester, Nimbin and semi processed cheddar<sup>3</sup> Includes Edam, Gouda, Swiss, Emmenthal, Fontina, Raclette, Havarti, Samsoe, Tilsit, Buetten, Vacherin, Bakers, Casalinga, Goya<sup>4</sup> Includes Parmesan, Pecorino, Romano, Fresh Pecorino, Melbourne, Pepato, Parmagiano<sup>5</sup> Includes Cottage, Quark, Stracchino, Mascarpone

(Dairy Australia estimates that this collection covers 90% of cheese production)

Source: Dairy manufacturers

## Appendix 6 Domestic sales

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

Major dairy products (excl drinking milk)	Sales channel	2017/18	2018/19 (r)	2019/20 (p)
Butter	Grocery	53,549	42,358	43,988
	Non-grocery	26,327	35,564	24,074
<b>Butter total</b>		<b>79,876</b>	<b>77,922</b>	<b>68,062</b>
Cheese	Grocery	147,124	149,318	137,306
	Non-grocery	125,903	148,837	125,775
<b>Cheese total</b>		<b>273,026</b>	<b>298,155</b>	<b>263,081</b>
Cream	Grocery	62,798	64,337	72,822
	Non-grocery	82,581	86,151	70,471
<b>Cream total</b>		<b>145,379</b>	<b>150,488</b>	<b>143,293</b>
Custard	Grocery	21,181	19,933	20,236
	Non-grocery	2,034	1,744	1,620
<b>Custard total</b>		<b>23,215</b>	<b>21,677</b>	<b>21,856</b>
Dairy desserts	Grocery	10,175	9,498	9,204
	Non-grocery	125	125	124
<b>Dairy desserts total</b>		<b>10,300</b>	<b>9,623</b>	<b>9,328</b>
Milk powder	Grocery	13,691	11,747	7,205
	Non-grocery	52,265	70,147	78,585
<b>Milk powder total</b>		<b>65,956</b>	<b>81,894</b>	<b>85,790</b>
Yoghurt	Grocery	112,460	112,335	117,050
	Non-grocery	11,522	11,089	11,225
<b>Yoghurt total</b>		<b>123,983</b>	<b>123,424</b>	<b>128,275</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 food service and industrial channels.

Source: Dairy manufacturers

## Appendix 7 Supermarket sales

### Milk

**Table A7** Supermarket milk sales by state ('000 litres)

	NSW	Vic	Qld	SA	WA	Tas and NT	Aust
MAT 14 Jul 2019	437,808	329,141	300,739	101,959	151,648	48,476	1,369,772
MAT 12 Jul 2020	445,119	342,435	307,836	107,209	162,023	47,841	1,412,463

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

**Table A8** Supermarket milk sales by type ('000 litres)

	Regular	Reduced fat	No fat	UHT
MAT 14 Jul 2019	785,365	324,031	22,955	237,421
MAT 12 Jul 2020	821,493	313,869	23,530	253,572

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

**Table A9** Supermarket milk sales – flavoured vs unflavoured ('000 litres)

	Flavoured	Unflavoured	Total
MAT 14 Jul 2019	113,811	1,255,961	1,369,772
MAT 12 Jul 2020	119,503	1,292,961	1,412,463

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

**Table A10** Supermarket milk sales – branded vs private label

	MAT 14 Jul 2019			MAT 12 Jul 2020		
	Volume	Value	Price/Litre	Volume	Value	Price/Litre
	'000 litres	'000 dollars		'000 litres	'000 dollars	
Total branded milk	576,487	1,189,552	\$2.06	603,091	1,321,410	\$2.19
Total private label milk	793,285	893,251	\$1.13	809,372	1,020,490	\$1.26
<b>Total milk</b>	<b>1,369,772</b>	<b>2,082,803</b>	<b>\$1.52</b>	<b>1,412,463</b>	<b>2,341,901</b>	<b>\$1.66</b>

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

## Dairy spreads

**Table A11** Supermarket dairy spreads sales by type (tonnes)

	MAT 14 Jul 2019			MAT 12 Jul 2020		
	Volume	Value	Price/Litre	Volume	Value	Price/Litre
	Tonnes	'000 dollars		Tonnes	'000 dollars	
Butter	25,142	294,807	\$11.73	29,349	337,470	\$11.50
Margarine	63,366	465,363	\$7.34	64,920	498,437	\$7.68
<b>Total dairy spreads</b>	<b>88,509</b>	<b>760,169</b>	<b>\$8.59</b>	<b>94,269</b>	<b>835,906</b>	<b>\$8.87</b>

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

**Table A12** Retail sales of butter by pack size (tonnes)

	MAT 14 Jul 2019			MAT 12 Jul 2020		
	Volume	Value	Price/kg	Volume	Value	Price/kg
	Tonnes	'000 dollars		Tonnes	'000 dollars	
250 gram	11,241	144,648	\$12.87	11,066	144,966	\$13.10
500 gram	13,209	142,732	\$10.81	15,644	169,628	\$10.84
Other sizes	692	7,427	\$10.74	2,639	22,876	\$8.67
<b>Total butter sales</b>	<b>25,142</b>	<b>294,807</b>	<b>\$11.73</b>	<b>29,349</b>	<b>337,470</b>	<b>\$11.50</b>

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

**Table A13** Retail sales of margarine by pack size (tonnes)

	MAT 14 Jul 2019			MAT 12 Jul 2020		
	Volume	Value	Price/kg	Volume	Value	Price/kg
	Tonnes	'000 dollars		Tonnes	'000 dollars	
250 gram	1,757	27,086	\$15.42	2,001	31,048	\$15.52
500 gram	39,023	299,516	\$7.68	39,457	310,359	\$7.87
Other sizes	22,586	138,760	\$6.14	23,462	157,030	\$6.69
<b>Total butter sales</b>	<b>63,366</b>	<b>465,363</b>	<b>\$7.34</b>	<b>64,920</b>	<b>498,437</b>	<b>\$7.68</b>

Source: DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 12/07/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

## Appendix 8 Australian exports

**Table A14** Australian exports of cheese (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
<b>Asia</b>						
China, Hong Kong	17,945	21,207	24,530	22,555	22,762	21,645
Indonesia	2,757	2,809	3,989	4,527	3,701	4,006
Japan	85,808	90,635	81,351	86,793	84,770	76,776
Korea, South	5,318	7,942	10,400	9,112	8,782	8,140
Malaysia	7,536	7,841	8,325	8,081	7,743	9,128
Philippines	3,556	4,922	4,278	7,062	5,663	6,682
Singapore	5,381	5,401	5,310	4,902	4,860	4,933
Taiwan	3,638	3,863	4,183	3,541	3,069	3,235
Thailand	3,016	2,845	3,495	4,093	4,389	5,211
Other Asia	1,312	1,579	1,620	2,209	2,442	3,034
<b>Total Asia</b>	<b>136,267</b>	<b>149,044</b>	<b>147,481</b>	<b>152,875</b>	<b>148,181</b>	<b>142,790</b>
<b>Middle East</b>						
Saudi Arabia	3,005	2,076	761	1,520	1,003	1,278
U.A.E.	1,697	1,529	1,492	1,577	1,474	1,254
Other Middle East	5,026	4,591	4,421	4,176	4,475	3,974
<b>Total Middle East</b>	<b>9,728</b>	<b>8,196</b>	<b>6,674</b>	<b>7,273</b>	<b>6,952</b>	<b>6,506</b>
<b>Africa</b>						
Egypt	157	34	0	0	0	0
Other Africa	2,579	3,168	2,741	2,403	2,903	1,649
<b>Total Africa</b>	<b>2,736</b>	<b>3,202</b>	<b>2,741</b>	<b>2,403</b>	<b>2,903</b>	<b>1,649</b>
<b>Pacific</b>						
New Zealand	2,267	2,960	3,434	4,059	3,489	3,526
Others	826	1,057	1,134	1,279	1,289	1,202
<b>Total Pacific</b>	<b>3,093</b>	<b>4,017</b>	<b>4,568</b>	<b>5,338</b>	<b>4,778</b>	<b>4,728</b>
<b>Americas</b>						
Caribbean	589	69	42	28	34	0
United States	4,577	6,163	4,745	1,944	1,709	1,323
Others	445	365	225	351	654	1,366
<b>Total Americas</b>	<b>5,611</b>	<b>6,597</b>	<b>5,012</b>	<b>2,323</b>	<b>2,397</b>	<b>2,689</b>
<b>Europe</b>						
Eastern Europe	81	0	0	0	0	0
European Union	162	265	203	605	633	380
<b>Total Europe</b>	<b>243</b>	<b>265</b>	<b>203</b>	<b>605</b>	<b>633</b>	<b>380</b>
<b>Total</b>	<b>157,678</b>	<b>171,321</b>	<b>166,679</b>	<b>170,817</b>	<b>165,844</b>	<b>158,742</b>

Source: ABS

**Table A15** Australian exports of whole milk powder\* (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
<b>Asia</b>						
Bangladesh	8,581	6,225	4,814	5,663	4,211	716
China, Hong Kong	6,896	26,365	32,990	47,084	28,330	28,998
Indonesia	2,414	795	917	299	312	154
Japan	12	2	2	1	80	8
Malaysia	3,322	1,919	2,978	1,227	878	535
Philippines	690	252	396	275	111	7
Singapore	13,528	8,138	8,933	4,990	3,554	3,511
Sri Lanka	12,097	12,776	10,547	407	3,139	1,638
Taiwan	2,477	1,982	1,955	2,197	2,061	1,398
Thailand	2,061	1,387	3,617	9,000	5,563	5,658
Others	5,885	2,707	10,008	2,708	1,269	1,574
<b>Total Asia</b>	<b>57,963</b>	<b>62,548</b>	<b>77,157</b>	<b>73,851</b>	<b>49,508</b>	<b>44,197</b>
<b>Africa</b>	<b>2,761</b>	<b>368</b>	<b>243</b>	<b>5,557</b>	<b>67</b>	<b>13</b>
<b>Americas</b>	<b>6,031</b>	<b>4,227</b>	<b>3,063</b>	<b>1,315</b>	<b>1,324</b>	<b>491</b>
<b>Europe</b>	<b>230</b>	<b>511</b>	<b>104</b>	<b>200</b>	<b>0</b>	<b>0</b>
<b>Middle East</b>	<b>6,510</b>	<b>5,050</b>	<b>4,158</b>	<b>4,467</b>	<b>1,953</b>	<b>846</b>
<b>Pacific</b>	<b>1,634</b>	<b>4,349</b>	<b>2,082</b>	<b>2,170</b>	<b>1,860</b>	<b>1,035</b>
<b>Total</b>	<b>75,129</b>	<b>77,053</b>	<b>86,807</b>	<b>87,560</b>	<b>54,712</b>	<b>46,582</b>

\*Also includes infant powder

Source: ABS.

**Table A16** Australian exports of butter\* (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
<b>Asia</b>						
China, Hong Kong	4,924	4,441	3,130	2,758	3,714	2,386
Japan	587	437	381	236	507	175
South Korea	1,477	2,334	1,531	470	932	574
Malaysia	2,650	2,446	2,048	1,662	1,809	1,206
Singapore	5,199	3,476	2,611	1,666	1,418	1,275
Taiwan	1,871	1,623	1,124	712	992	868
Others	1,197	1,335	963	762	732	961
<b>Total Asia</b>	<b>17,904</b>	<b>16,092</b>	<b>11,789</b>	<b>8,266</b>	<b>10,104</b>	<b>7,445</b>
<b>Middle East</b>	<b>7,310</b>	<b>3,658</b>	<b>1,002</b>	<b>695</b>	<b>115</b>	<b>1</b>
<b>Africa</b>	<b>2,039</b>	<b>1,026</b>	<b>306</b>	<b>217</b>	<b>211</b>	<b>152</b>
<b>Pacific</b>	<b>1,252</b>	<b>691</b>	<b>847</b>	<b>264</b>	<b>215</b>	<b>108</b>
<b>Americas</b>	<b>995</b>	<b>1,225</b>	<b>270</b>	<b>277</b>	<b>2,519</b>	<b>320</b>
<b>Europe</b>	<b>1,257</b>	<b>360</b>	<b>196</b>	<b>2</b>	<b>20</b>	<b>20</b>
<b>Total</b>	<b>30,757</b>	<b>23,052</b>	<b>14,410</b>	<b>9,721</b>	<b>13,184</b>	<b>8,046</b>

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

Source: ABS.

**Table A17** Australian exports of skim milk powder (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
<b>Asia</b>						
China, Hong Kong	17,746	19,873	23,930	30,311	43,354	32,489
Indonesia	39,684	40,812	36,430	33,828	32,352	24,698
Japan	8,359	1,637	3,110	8,287	4,973	3,019
Malaysia	17,641	19,179	18,880	13,368	9,139	2,825
Philippines	13,973	10,304	8,612	8,403	5,026	7,864
Singapore	15,368	14,422	14,571	11,573	9,636	6,068
Taiwan	1,442	1,563	1,536	1,900	1,404	2,022
Thailand	11,317	10,471	6,728	10,882	9,261	8,550
Others	24,594	29,583	22,201	19,077	21,526	7,142
<b>Total Asia</b>	<b>150,124</b>	<b>147,844</b>	<b>135,998</b>	<b>137,629</b>	<b>136,671</b>	<b>94,677</b>
<b>Africa</b>	<b>386</b>	<b>5,829</b>	<b>1,428</b>	<b>5,761</b>	<b>236</b>	<b>25</b>
<b>Americas</b>	<b>1,473</b>	<b>552</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Europe</b>	<b>540</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Middle East</b>	<b>26,927</b>	<b>23,249</b>	<b>14,057</b>	<b>11,630</b>	<b>12,559</b>	<b>11,140</b>
<b>Pacific</b>	<b>5,376</b>	<b>3,857</b>	<b>1,775</b>	<b>1,586</b>	<b>1,737</b>	<b>1,924</b>
<b>Total</b>	<b>184,826</b>	<b>181,374</b>	<b>153,305</b>	<b>156,606</b>	<b>151,203</b>	<b>107,766</b>

Source: ABS

**Table A18** Australian exports of butter oil (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
<b>Asia</b>						
Bangladesh	101	218	151	101	151	0
Indonesia	410	86	84	67	118	0
Malaysia	907	974	554	823	50	134
Philippines	101	50	134	286	84	185
Singapore	128	69	193	101	28	0
Others	3,013	3,039	3149	3112	4,297	2,268
<b>Total Asia</b>	<b>4,660</b>	<b>4,436</b>	<b>4,265</b>	<b>4,490</b>	<b>4,728</b>	<b>2,587</b>
<b>Middle East</b>	<b>829</b>	<b>446</b>	<b>101</b>	<b>0</b>	<b>101</b>	<b>18</b>
<b>Africa</b>	<b>101</b>	<b>67</b>	<b>66</b>	<b>32</b>	<b>44</b>	<b>0</b>
<b>Americas</b>	<b>3,512</b>	<b>3,007</b>	<b>671</b>	<b>287</b>	<b>1,155</b>	<b>262</b>
<b>Europe</b>	<b>433</b>	<b>363</b>	<b>436</b>	<b>303</b>	<b>314</b>	<b>197</b>
<b>Pacific</b>	<b>19</b>	<b>54</b>	<b>11</b>	<b>4</b>	<b>171</b>	<b>1</b>
<b>Total</b>	<b>9,554</b>	<b>8,375</b>	<b>5,550</b>	<b>5,116</b>	<b>6,513</b>	<b>3,065</b>

Actual product weight (not CBE)

Source: ABS.

**Table A19** Australian exports of liquid milk ('000 litres)

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
<b>Asia</b>						
Singapore	33,254	36,590	40,101	42,538	42,074	48,527
Philippines	7,937	10,273	13,703	19,329	17,763	16,697
Malaysia	4,454	13,572	15,680	19,753	22,362	27,046
Indonesia	367	370	310	241	144	152
Hong Kong	13,716	14,077	14,665	15,297	17,367	15,011
China	54,507	70,971	68,087	82,304	94,146	90,661
Other Asia	17,403	15,702	18,802	21,004	23,273	27,338
<b>Total Asia</b>	<b>131,638</b>	<b>161,555</b>	<b>171,348</b>	<b>200,466</b>	<b>217,129</b>	<b>225,432</b>
<b>Africa</b>	<b>766</b>	<b>606</b>	<b>593</b>	<b>487</b>	<b>519</b>	<b>425</b>
<b>Pacific</b>	<b>14,650</b>	<b>16,115</b>	<b>15,617</b>	<b>16,008</b>	<b>17,931</b>	<b>18,851</b>
<b>Others</b>	<b>645</b>	<b>1,002</b>	<b>1,036</b>	<b>334</b>	<b>219</b>	<b>99</b>
<b>Total</b>	<b>147,699</b>	<b>179,278</b>	<b>188,594</b>	<b>217,295</b>	<b>235,798</b>	<b>244,807</b>

Source: ABS

**Table A20** Australian exports of whey products\* (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
Asia	29,708	35,065	35,288	34,895	38,374	30,755
Europe	579	16	20	571	327	198
Other	4,769	5,740	3,501	2,535	3,123	3,294
<b>Total</b>	<b>35,056</b>	<b>40,821</b>	<b>38,809</b>	<b>38,001</b>	<b>41,824</b>	<b>34,247</b>

\*Includes whey protein concentrate

Source: ABS.

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

	2014/15	2015/16	2016/17	2017/18	2018/19 (r)	2019/20 (p)
<b>Asia</b>						
China	62,574	56,145	59,109	28,412	74,963	77,588
Indonesia	1,514	1,307	1,203	4,118	1,933	1,746
Japan	0	303	437	2,936	2,193	1,657
Malaysia	2,124	2,132	1,346	2,201	3,002	2,403
Pakistan	1,989	3,507	6,502	5,620	2,428	4,860
Taiwan	3	628	1,793	1,813	1,827	434
Vietnam	3,383	2,755	1,735	958	231	0
Other Asia	1,335	1,627	289	531	467	3,136
<b>Total Asia</b>	<b>72,922</b>	<b>68,404</b>	<b>72,414</b>	<b>46,589</b>	<b>87,044</b>	<b>91,824</b>
Europe	0	0	0	0	0	0
Middle East	283	3,503	633	275	5,303	2,837
Africa	0	0	0	0	0	0
Others	0	0	4	15	0	0
<b>Total</b>	<b>73,205</b>	<b>71,907</b>	<b>73,051</b>	<b>46,879</b>	<b>92,347</b>	<b>94,661</b>

Source: ABS

**Table A22** Australian exports of live dairy heifers (cows) by state

	NSW	Vic	Qld	SA	WA	Tas	Aust
2010/11	219	61,817	978		12,081	103	<b>75,198</b>
2011/12	806	57,926	304	3,130	2,656	454	<b>65,276</b>
2012/13	305	69,359	620	2,282	12,188	2,668	<b>87,422</b>
2013/14		89,640	1,171	4	1,525		<b>92,340</b>
2014/15	910	64,638	122		7,535		<b>73,205</b>
2015/16	242	69,486		230	1,949		<b>71,907</b>
2016/17	647	70,395	240		1,769		<b>73,051</b>
2017/18	1,612	43,258	345	48	1,616		<b>46,879</b>
2018/19 (r)	719	90,869	459	24	276		<b>92,347</b>
2019/20 (p)		86,203	2,842		5,616		<b>94,661</b>

Source: ABS

## Appendix 9 Australian imports

**Table A23** Australian imports of dairy products from New Zealand and other countries (tonnes)

	New Zealand	Other	Total 2018/19	New Zealand	Other	Total 2019/20 (p)
Skim milk powder	8,003	5,098	13,101	11,896	4,395	16,291
Buttermilk powder	1,685	1,677	3,362	294	1,966	2,260
Whole milk powder*	54,443	10,678	65,121	73,114	11,982	85,096
Whey powder and concentrates	524	12,226	12,750	740	14,552	15,292
Condensed milk	32	3,550	3,582	124	4,483	4,607
Milk	2,045	349	2,394	2,252	235	2,487
Cream	3,218	42	3,260	2,852	93	2,945
Yoghurt	447	1,128	1,575	640	1,132	1,772
Butter**	28,409	2,553	30,962	28,578	5,671	34,249
Butter oil	5,121	1,448	6,569	6,955	1,058	8,013
Cheese	42,734	51,451	94,185	44,131	53,464	97,595
Casein	192	296	488	92	484	576
Caseinates	1216	403	1,619	1159	259	1,418
Lactose	860	16,548	17,408	1,736	14,164	15,900
Ice cream ('000 lts)	1,860	21,726	23,586	1,831	20,704	22,535

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

Source: ABS

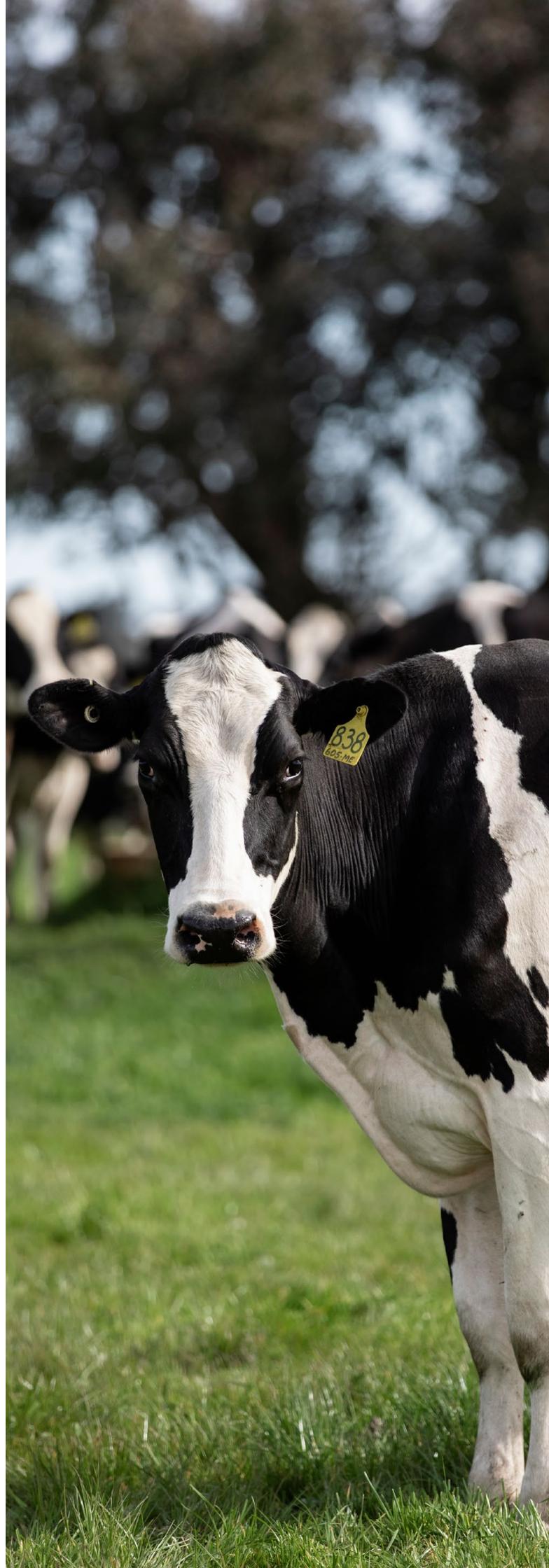
**Table A24** Australian cheese imports by country (tonnes)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 (p)
Austria	584	678	600	640	893	540
Bulgaria	1,476	1,293	1,276	1,241	809	1,031
Denmark	1,529	2,042	1,990	2,275	2,241	2,351
France	1,775	1,911	2,047	2,482	2,427	2,520
Germany	1,566	2,271	2,481	2,359	2,430	2,812
Greece	2,110	2,104	2,068	2,027	2,117	2,199
Italy	4,222	4,150	4,834	4,829	4,920	5,116
Netherlands	2,024	2,601	2,979	2,880	3,410	3,219
Poland	595	795	840	1,126	1,070	1,128
United Kingdom	625	1,129	1,438	1,026	1,316	1,288
Other	1,764	2,112	3,294	3,920	3,493	4,074
<b>Total EU</b>	<b>18,270</b>	<b>21,086</b>	<b>23,847</b>	<b>24,805</b>	<b>25,126</b>	<b>26,278</b>
<b>New Zealand</b>	<b>45,235</b>	<b>55,030</b>	<b>65,723</b>	<b>56,571</b>	<b>42,734</b>	<b>44,131</b>
<b>United States</b>	<b>16,709</b>	<b>11,658</b>	<b>20,987</b>	<b>28,147</b>	<b>24,504</b>	<b>25,488</b>
<b>Norway</b>	<b>1,745</b>	<b>1,134</b>	<b>1,090</b>	<b>916</b>	<b>1,264</b>	<b>1,085</b>
<b>Switzerland</b>	<b>180</b>	<b>208</b>	<b>210</b>	<b>232</b>	<b>244</b>	<b>207</b>
<b>Other</b>	<b>257</b>	<b>210</b>	<b>272</b>	<b>287</b>	<b>313</b>	<b>406</b>
<b>Total cheese imports</b>	<b>82,396</b>	<b>89,326</b>	<b>112,129</b>	<b>110,958</b>	<b>94,185</b>	<b>97,595</b>

Source: ABS (excludes goats cheese)

## ACRONYMS

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ABS	Australian Bureau of Statistics
ADHIS	Australian Dairy Herd Improvement Service
AMF	Anhydrous milk fat
Aust	Australia
BMP	Buttermilk powder
CAGR	Compound annual growth rate
CBE	Commercial butter equivalent, a unit of conversion of AMF to butter (1kg butter = 0.805kg AMF)
DA	Dairy Australia
DFMP	Dairy Farm Monitor Project
(e)	Estimated data
EU	European Union
ML	Million litres
NCE	Natural cheddar equivalent – unit of conversion of processed cheddar, pastes and spreads to natural cheddar (1 kg processed product weight = 0.806 kg natural cheddar)
(p)	Provisional data
QDAS	Queensland Dairy Accounting Scheme
(r)	Revised data
SMP	Skim milk powder
SNF	Solids non fat
TMR	Total mixed ration
UHT	Milk subjected to ultra-high temperature treatment to extend shelf life
USD	US dollar
WMP	Whole milk powder
WPC	Whey protein concentrate





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