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Report Highlights:

Australia's milk production is expected to continue to shrink in 2020, reaching the lowest level in 25 years. This decline is a result of continued drought conditions in parts of the country and consequently high input costs for feed and water allocations, as well as a shrinking cattle herd and high cow cull rates. The decline in milk production in 2020, however, is expected to be much less than the drop in 2019 as more rainfall and good pasture growth in parts of Victoria is expected to help support production there. Despite the shrinking milk supply, both fluid milk and cheese production are forecast to remain largely steady, while butter and milk powder production continue to fall.

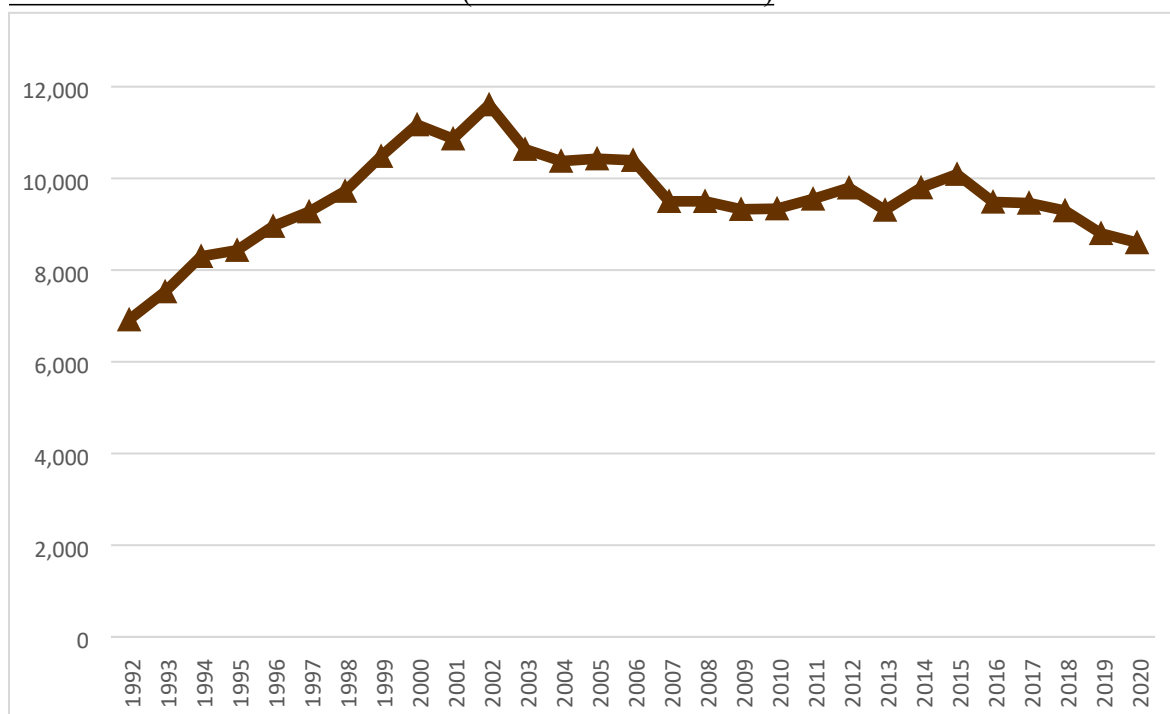
Executive Summary

Australia's milk production is expected to continue to shrink in 2020, reaching the lowest level in 25 years. This decline is a result of continued drought conditions in parts of the country, and consequently high input costs for feed and water allocations, as well as a shrinking cattle herd and high cow cull rates. The decline in milk production in 2020, however, is expected to be much less than the drop in 2019 as more rainfall and good pasture growth in parts of Victoria (which accounts for nearly two-thirds of dairy production in Australia) is expected to help support production there. Both the dairy industry and the Australian Government have launched initiatives to try and help support the dairy industry. Despite the shrinking milk supply, both fluid milk and cheese production are forecast to remain largely steady due to continued strong domestic demand for fluid milk, and processors prioritizing cheese production over other products. Butter and milk powder production, however, are forecast to continue to fall.

FLUID MILK

Production:

Total Milk Production in Australia (Thousand Metric Tons)



Source: FAS PSD online. 2019 is an FAS/Canberra estimate and 2020 is a forecast.

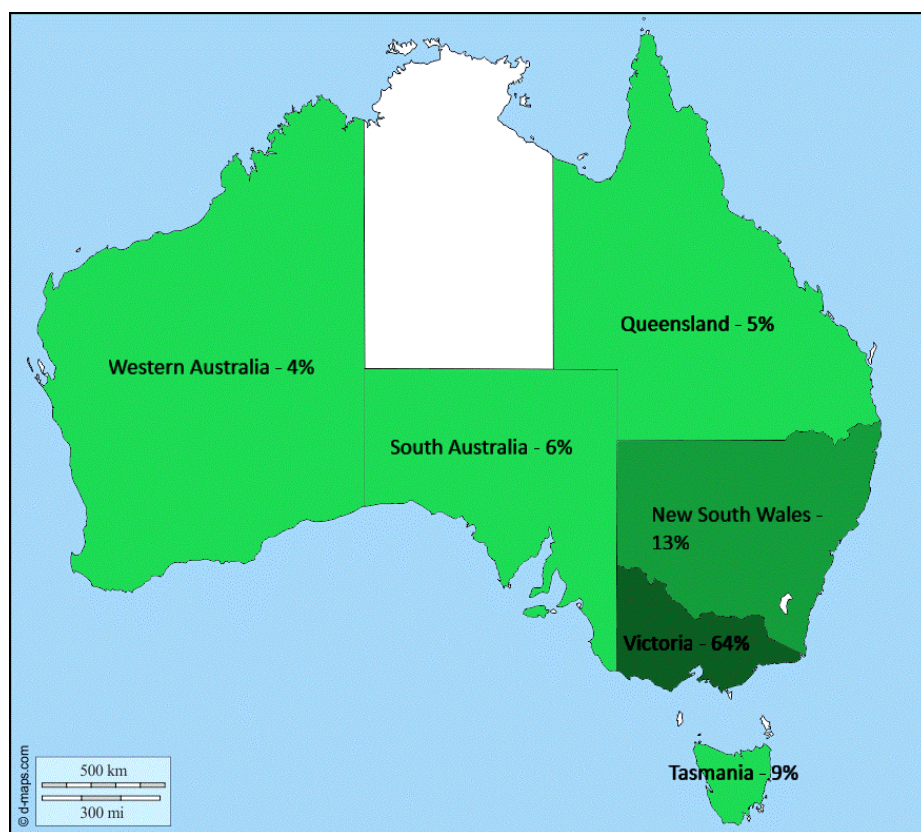
After a significant drop in 2019, Australia's milk production is forecast to continue to fall in 2020, albeit at a slower rate. Total milk production is forecast to decline just over two percent from the 2019 estimate to a 25-year low of 8.4 million metric tons (MMT). Although farm gate milk prices have reached historical levels, production prospects for Australia are mixed, with pasture-based areas in much

of Southern Victoria looking more positive as a result of beneficial rains, while other drought-impacted areas continue to suffer. Some more positive factors this year for the dairy industry include:

Key positive factors impacting Australian milk production

- 1) **Continued record farm gate milk prices:** Farm gate prices have been at record levels this year, which is a major positive for cash-strapped farmers. The combination of reduced milk supply and excess processing capacity and continued investment in processing has supported prices as processors compete for a shrinking milk pool. These higher farm gate prices, however, are impacting processors' margins and a number of companies have issued much reduced forecast earnings.
- 2) **Better rains in key pasture-based areas:** Nearly two-thirds of milk produced in Australia is in the State of Victoria (see map below) and a large part of this area (other than Northern Victoria) has seen much improved rainfall and pasture growth. This is expected to help boost production in these areas (see pasture charts below). Parts of Tasmania have also reportedly received good rains.

Milk Production Totals by State – 2018

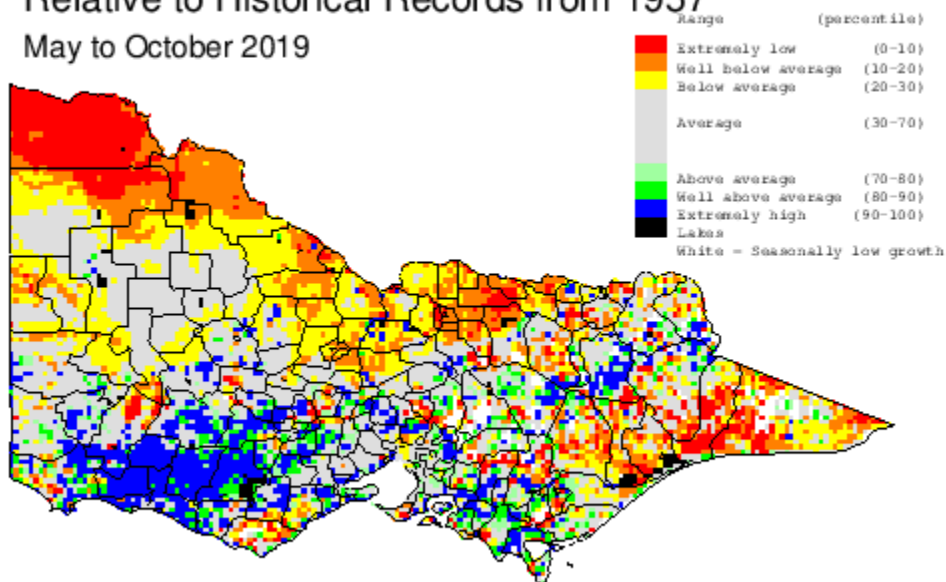


Source: Production Percentages from Dairy Australia.

Note: Totals may not add to 100 percent due to rounding

Pasture Growth Percentile Relative to Historical Records from 1957

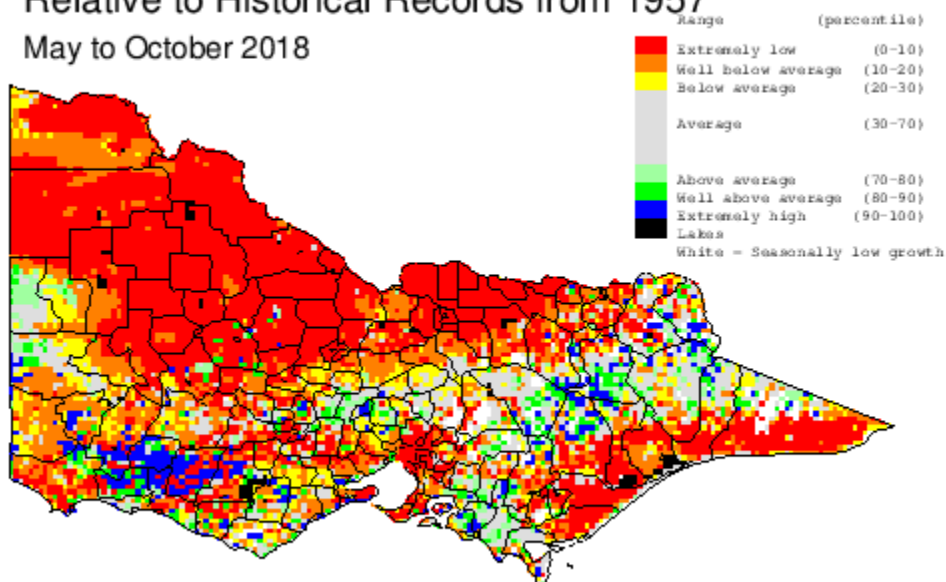
May to October 2019



www.LongPaddock.qld.gov.au

Pasture Growth Percentile Relative to Historical Records from 1957

May to October 2018



www.LongPaddock.qld.gov.au

- 3) **Increased farmer confidence in some areas:** This combination of high prices and improved pastures has boosted farmer confidence in those areas less impacted by the continuing drought.

Despite these positive factors, overall milk production is still forecast to fall as a number of negative factors continue to impact the dairy industry.

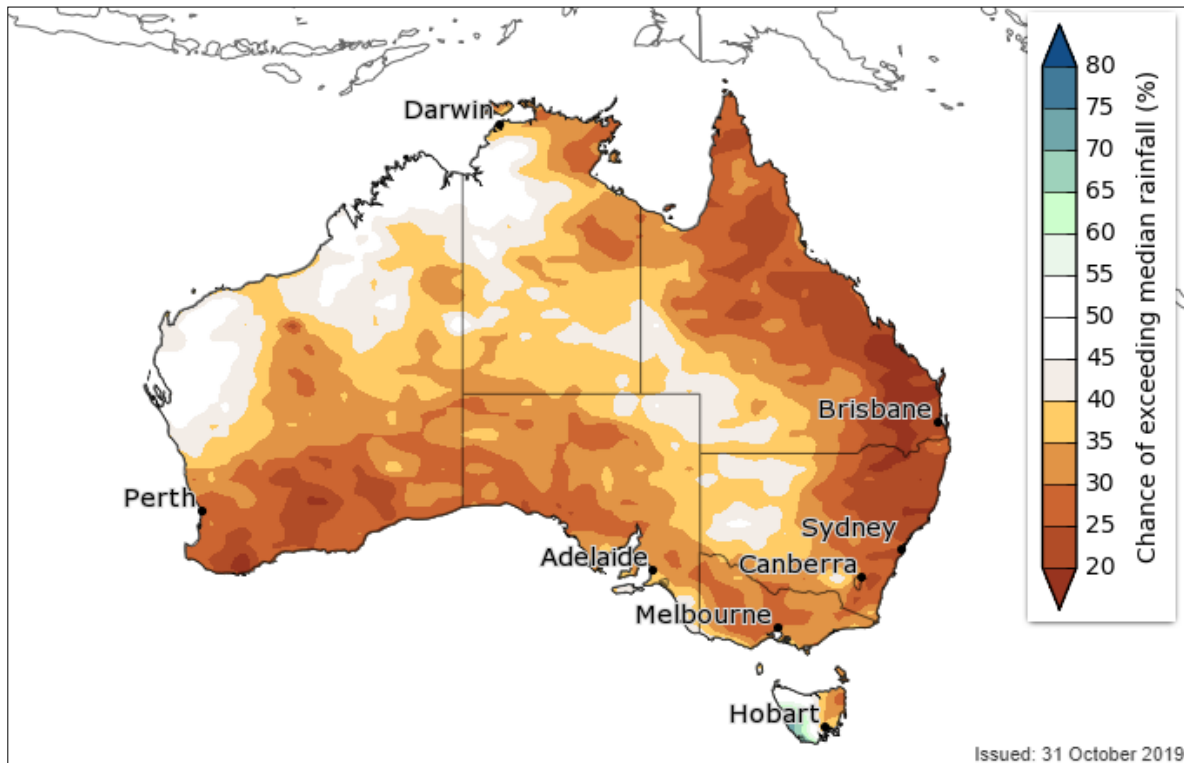
Key negative factors impacting Australian milk production:

- 1) **High Feed Costs:** Because of the continued drought through much of eastern Australia, feed and hay costs continue to be at elevated levels and resulting in high farmer input costs. Although the costs of most feed has retreated somewhat from this time last year, they remain far above average levels. For example:
 - Feed wheat prices in September 2019 were down \$53 AUD per MT from September 2018 but still \$114 AUD higher than in September 2017.
 - Barley prices in September 2019 were down \$77 AUD from September 2018 but still \$104 AUD higher than in September 2017.
 - Pasture hay prices in September 2019 were down \$28 AUD from September 2018 but still \$198 AUD higher than in September 2017.
 - Alfalfa hay prices, however, have continued to increase and were up \$65 AUD per MT from September 2018 and up \$508 AUD from September 2017. (Source: Dairy Australia production inputs monitor. Note: As of mid-November, exchange rate was approximately \$1.45 AUD to \$1 USD)

Grass hay prices have come down a little from last year as there has been increased availability, especially as some grain farmers have cut their crop for hay because of expected poor yields. Winter grain harvest prospects are expected to be even down from last year's poor crop, and this is expected to continue to support high grain prices. These high feed costs will continue to have a major negative impact on those farms that do not rely primarily on pasture.
- 2) **High Water Costs and Continued Dry Conditions in Much of Australia:** Although there have been plentiful rains in parts of Victoria and some of Tasmania, much of the country is still dry or in drought – and milk production has especially dropped in these areas. For those dairy farms paying for irrigation water, the huge run-up in water prices is boosting input costs significantly. For example, in Northern Victoria the average price for temporary water trades in September 2019 was \$699 AUD/ML, double the price in September 2018 and up nearly 600 percent compared to the price in September 2017. (Source: Dairy Australia production inputs monitor)
- 3) **Reduced Cow Numbers:** Because of poor pasture conditions in much of the country and high feed costs, cow culling has increased. This has also been driven by higher prices for cows (estimated to be up about 25 percent on average compared to last year) because of strong beef export demand, and has provided an avenue for needed revenue for some farmers. Because of this the dairy herd is smaller and this is a key factor in expected lower 2020 milk production. In addition, exports of dairy cattle have jumped this year, with exports from January-September 2019 of purebred dairy cattle reaching over 75,000 head, more than double the amount at this time last year. The vast majority of these have been going to China.

- 4) **Continued Negative Weather Outlook:** For nearly all of the country, the outlook continues to be for below-average rainfall for the next few months (see map below), and if realized then it will continue to put downward pressure on production.

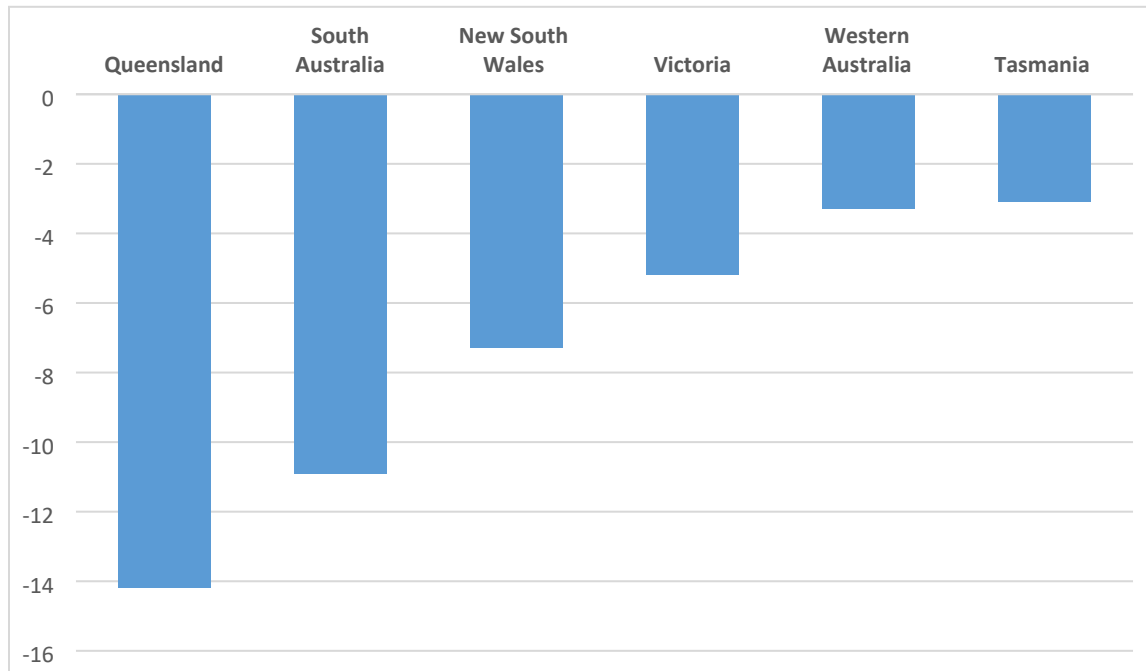
Rainfall – the chance of above median for November to January



Source: Australian Government Bureau of Meteorology

The 2019 production estimate is unchanged at 8.6 MMT, which if realized would be a nine percent drop from the revised 2018 production number. According to Dairy Australia, in the first nine months of 2019 total milk production was down 8.2 percent. Those areas that are being the hardest hit by the drought have also shown the most dramatic decline in milk production, while those that have received better rains earlier this year (Victoria and Tasmania) are showing less of a decline (see chart below).

3rd Quarter Milk Production Changes (July-Sept 2018 to July-Sept 2019) by State



Source: Dairy Australia

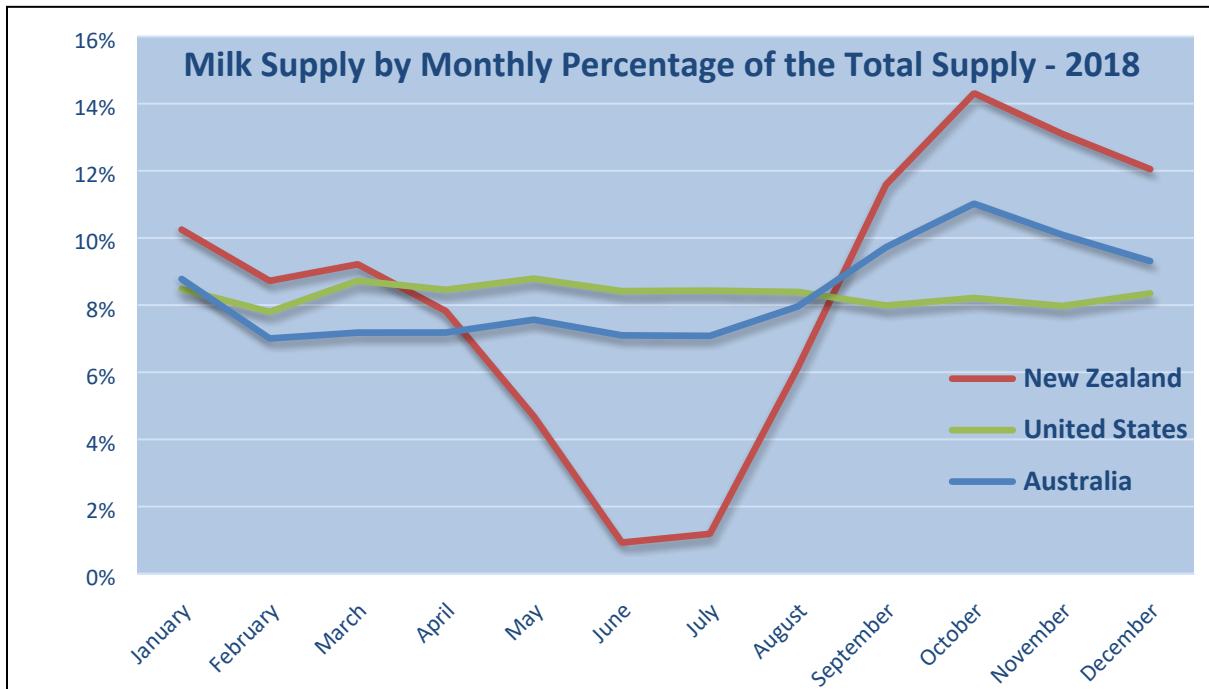
Because of the decline in dairy production, a number of initiatives have been undertaken to try and support the dairy industry and farmers. These include:

Mandatory Dairy Code of Conduct: The Government of Australia has announced a mandatory code of conduct regulating between processors and farmers. Currently the draft is available for comment until November 22nd with the code expected to come into effect in January 2020.

<https://haveyoursay.agriculture.gov.au/40871/documents/119068>

Australia Dairy Plan: Dairy Australia is collaborating with Australian Dairy Farmers, the Australian Dairy Products Federation and Gardiner Dairy Foundation to create a five year plan to improve the dairy sector. This has included consultations with farmers across Australia. A first draft the report is expected at the end of November, 2019 with the final plan expected to be released by the end of February 2020. On November 1, a “Key Directions Statement” was released to highlight the commitments of the plan and can be found at <https://www.dairyplan.com.au/media/key-directions-statement>.

Overall, Australian total dairy production in terms of seasonality falls between New Zealand -which is almost entirely pasture-based and extremely seasonal, and the United States - which has almost no seasonality (see below). This is because of the combination of strong domestic fluid milk consumption (which requires steady supplies throughout the year) as well as pasture-based production such as in Victoria which results in more seasonal milk yields depending on grass growth rates.



Source: DCANZ, Dairy Australia, USDA-NASS

Consumption:

Milk consumption is forecast to remain steady next year at 2.6 MMT, the same as 2019. Domestic fluid milk consumption is forecast to account for 31 percent all milk produced in Australia in 2020, up from 28 percent as recently as 2018 as total milk production declines but fluid milk consumption holds steady. In some states such as Queensland, almost 100 percent of production goes to fluid milk, while in Tasmania and Victoria it is less than 10 percent.

Estimated 2019 fluid milk consumption is down just under 1 percent from 2018. The major reasons for this dip in consumption was the rise in retail milk prices. While for a number of years many of the top retailers have maintained the price of fresh milk at \$1 AUD per liter (approximately \$US 0.69), these prices have increased because of the drought and pressure from farming groups, with key supermarket prices currently around \$1.20-\$1.29 AUD (\$US 0.83-0.89) per liter. According to Dairy Australia's milk sales report, in the first half of 2019 milk sales fell by 0.6 percent. However, with the increase in prices, the total value of milk sales was up.

Overall drinking milk consumption in Australia remains high compared to world levels, and has remained relatively steady. Consumers however, have shifted in the past decade to consuming more regular milk and less reduced/skim milk. For instance, according to Dairy Australia statistics, a decade ago regular milk made up 50 percent of milk sales with reduced/non-fat at 31 percent. However, last year regular milk had grown to 55 percent and reduced/non-fat had fallen to 23 percent (the remainder consists of flavored and UHT milk, whose proportions have remained relatively steady). The slight decline in consumption in 2019 is also predominately in reduced/non-fat milk.

Trade:

Despite another year of forecasted declining total milk production in 2020, fluid milk exports are still forecast to continue to rise to 255,000 MT, up from the revised 2019 estimate of 245,000. This is primarily as a result of expected strong demand from China. This has been the case in 2019, with total fluid milk export shipments in the first nine months of the year up 17 percent total, but up 45 percent to China. China is the largest market for Australian fluid milk exports, accounting for over 40 percent, with Singapore, Malaysia and Hong Kong the other markets. A number of Australian milk producers have formed joint-ventures to help expansion into China, and are also using online-marketing.

Overall, industry estimates that 36 percent of total milk production in Australia is exported in some form.

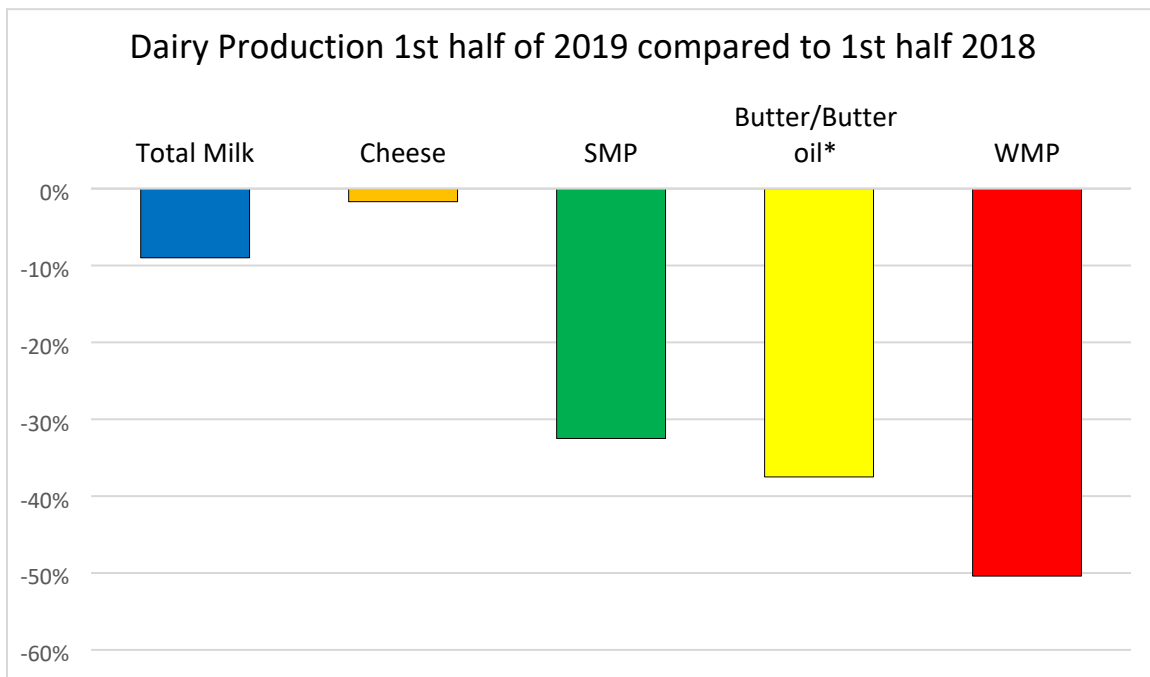
Dairy, Milk, Fluid Market Begin Year Australia	2018		2019		2020	
	Jan 2018		Jan 2019		Jan 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Cows In Milk	1525	1525	1475	1475	0	1450
Cows Milk Production	9297	9451	8600	8600	0	8400
Other Milk Production	0	0	0	0	0	0
Total Production	9297	9451	8600	8600	0	8400
Other Imports	6	6	6	6	0	5
Total Imports	6	6	6	6	0	5
Total Supply	9303	9457	8606	8606	0	8405
Other Exports	228	228	240	245	0	255
Total Exports	228	228	240	245	0	255
Fluid Use Dom. Consum.	2620	2620	2600	2600	0	2600
Factory Use Consum.	6455	6609	5766	5761	0	5500
Feed Use Dom. Consum.	0	0	0	0	0	0
Total Dom. Consumption	9075	9229	8366	8361	0	8100
Total Distribution	9303	9457	8606	8606	0	8355
(1000 HEAD) ,(1000 MT)						

Note: A conversion rate of 1.03 kg was used to convert production and trade from liters into MT.

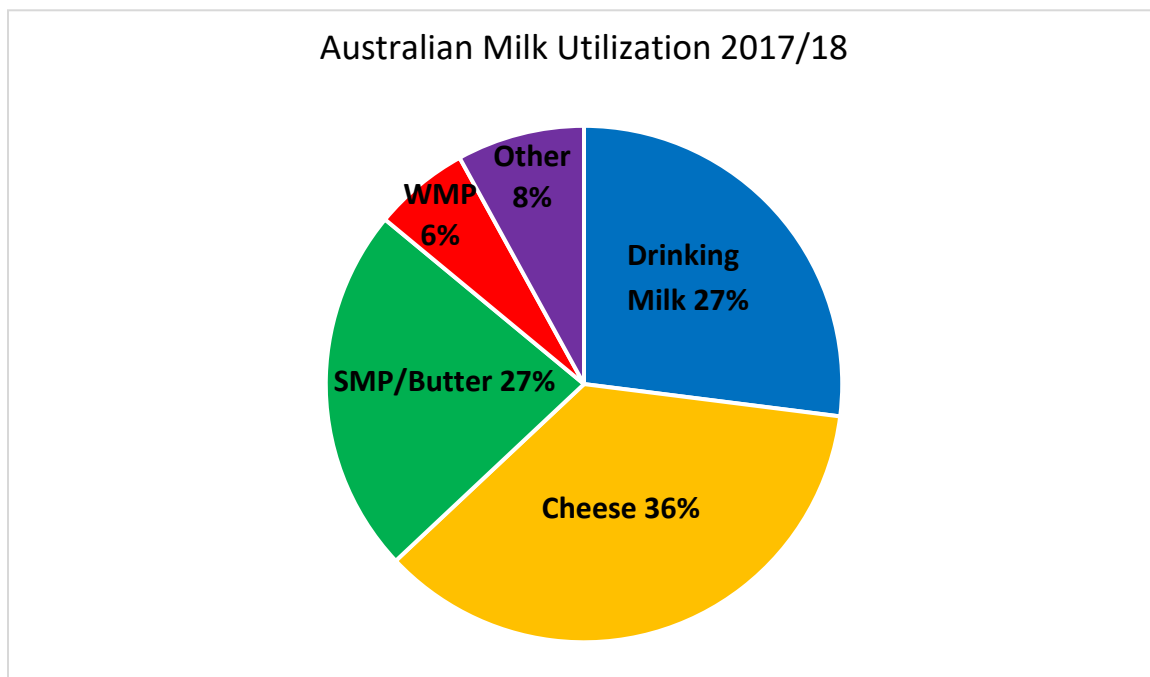
CHEESE

Production:

Cheese accounts for more milk usage in Australia than any other product, and Dairy Australia estimates that last year approximately 36 percent of milk utilization was for cheese. 2020 cheese production is forecast to remain steady at 365,000 MT, nearly unchanged from 2019. Despite a continued decline in milk production, processors are expected to continue to prioritize cheese production at the expense of other products such as butter and skim milk powder (SMP). This has also been the trend in 2019, and according to Dairy Australia statistics, while for the first half of 2019 total milk production was down over 9 percent, cheese production was down less than 2 percent, butter/butter oil was down over 38 percent, SMP down 33 percent, and whole-milk powder (WMP) down 50 percent (see chart below). One of the reasons for the focus on cheese production at the expense of other products has been robust domestic demand, the strong investment in cheese processing facilities, and the need to ensure capacity is utilized. Another reason is the attractive prices for cheese to Japan, which is by far the largest market for Australian cheese and accounts for about half of exports.



Source: Dairy Australia *Does not include butter blends. Butter oil converted to butter equivalent



Source: Dairy Australia

Approximately 80 percent of cheese production is in Victoria. Although cheddar continues to make up the majority of cheese production, the share of non-cheddar varieties continues to grow.

As part of Australia-EU FTA negotiations, the Australian Government opened public comments on a list of EU-proposed Geographical Indicators (GI), and the comment period closed November 13, 2019. The Government also held consultation forums around Australia during August-October. The EU-proposed list contains 56 cheese names from 10 different EU countries

<https://dfat.gov.au/trade/agreements/negotiations/aeufta/public-objections-gis/Pages/list-of-european-union-geographic-indications-gis.aspx>

Consumption:

Cheese consumption in 2020 is forecast to increase around 1 percent to 299,000 MT. Cheese consumption in Australia expanded rapidly during the 90s and 2000s, but in recent years overall growth has slowed. That being said, there has been a shift in consumer preferences from processed towards natural cheeses, and from cheddar to non-cheddar varieties.

2019 consumption is also estimated to be up slightly. Industry estimates indicate that supermarket sales have increased a little less than 1 percent, despite higher retail cheese prices.

Trade:

Australia is a net exporter of cheese, and it is the largest dairy product export. Nearly half of all cheese produced in Australia is exported. Cheese exports in 2020 are forecast to increase slightly to 170,000 MT, which has been around the average level of exports for the past five years. The export estimate for 2019 is revised down to 165,000 MT as a result of slower than expected shipments in the first three quarters of the year. Exports during this period are down 7 percent compared to the same period last year. Japan remains by far the largest market, accounting for half of all exports and shipments to both Japan and China (the second largest market) are down this year. Exports have also largely shifted away from cheddar, with an estimated more than 75 percent being non-cheddar varieties.

2020 cheese imports are forecast to be slightly higher at 95,000 MT, up from the revised 2019 estimate of 90,000 MT, but still below the levels of 2015-2018. The 2019 estimate is revised down because of the slow pace of imports to date (down 3 percent during the first nine months of 2019). New Zealand is the largest supplier to Australia, with the United States being the second largest supplier.

Dairy, Cheese Market Begin Year Australia	2018		2019		2020	
	Jan 2018		Jan 2019		Jan 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	51	51	50	50	0	45

Production	366	366	366	366	0	365
Other Imports	98	98	105	90	0	95
Total Imports	98	98	105	90	0	95
Total Supply	515	515	521	506	0	505
Other Exports	172	172	175	165	0	170
Total Exports	172	172	175	165	0	170
Human Dom. Consumption	293	293	305	296	0	299
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	293	293	305	296	0	299
Total Use	465	465	480	461	0	469
Ending Stocks	50	50	41	45	0	36
Total Distribution	515	515	521	506	0	505
(1000 MT)						

BUTTER

Production:

Butter production in 2020 is forecast to fall to 60,000 MT, down from a revised 2019 estimate of 65,000 MT. These estimates are the lowest butter production levels in at least half a century (FAS PSD Online statistics go back to 1964). Dairy Australia estimates that in 2017/18, butter/SMP production accounted for a little less than a quarter (23 percent) of milk utilization. This figure, however, is forecast to have declined in 2019 and in 2020. In fact, butter/butter oil production was down nearly 40 percent during the first half of 2019. As mentioned, with the shrinking milk pool, processors are prioritizing cheese production over butter, and as a result butter production has dropped.

Consumption:

Butter consumption is forecast to remain steady in 2020 from 2019. The consumption estimate for 2019, however, is revised down because of sharply lower domestic production and the slow pace of imports. Also, butter prices have been rising. Annual per capita consumption of butter in Australia is around 5 kilograms.

Trade:

Since 2017, Australia has been a net importer of butter and this is expected to continue into 2020 as a result of the sharply lower butter production. Exports are forecast to decline to 20,000 MT in 2019 (from 25,000 MT estimated in 2019) and imports to rise to a record 45,000 MT (from a revised estimate of 40,000 MT in 2019).

Despite the sharply lower production, butter exports in 2019 (while still small compared to historical levels) are still up 25 percent in the first nine months of the year, with trade mostly to Asian markets like Thailand but also an increase to the United States.

2019 estimated butter imports is raised to 40,000 MT as a result of stronger-than-expected pace of imports, which is almost entirely from New Zealand.

Dairy, Butter	2018	2019	2020
Market Begin Year	Jan 2018	Jan 2019	Jan 2020

Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	92	92	93	93	0	63
Production	93	93	75	65	0	60
Other Imports	42	42	30	40	0	45
Total Imports	42	42	30	40	0	45
Total Supply	227	227	198	198	0	168
Other Exports	17	17	25	25	0	20
Total Exports	17	17	25	25	0	20
Domestic Consumption	117	117	110	110	0	110
Total Use	134	134	135	135	0	130
Ending Stocks	93	93	63	63	0	38
Total Distribution	227	227	198	198	0	168
(1000 MT)						

SKIM MILK POWDER

Production:

Because of the continued expected decline in butter production in Australia (of which SMP is a by-product), SMP production is forecast to fall to 140,000 MT in 2020, down from a revised estimate of 150,000 MT in 2019. If realized, this would be the lowest production of SMP for nearly 30 years. The 2019 estimate is revised down as a result of very low SMP production during the first half of the year (down 33 percent compared to the same period last year).

Consumption:

SMP consumption is forecast to remain steady in 2020. This product is primarily used as a food ingredient and to manufacture infant formula.

Trade:

Typically around 70 percent of Australian SMP is exported, and with the declining production, 2020 exports are forecast to fall to 120,000 MT, down from the revised 140,000 MT in 2019. 2019 exports are revised down because of the slow pace of shipments during the first nine months of 2019, with exports down 15 percent during this period. Sales to China, however, have continued to climb and China continues to take a larger portion of the export share. For example while in 2016 only about 10 percent of Australian SMP exports went to China, this year it has risen to one-third of total exports. Meanwhile, shipments to most Southeast Asian markets have dropped.

SMP imports are forecast to remain steady and come primarily from New Zealand.

Dairy, Milk, Nonfat Dry Market Begin Year Australia	2018		2019		2020	
	Jan 2018		Jan 2019		Jan 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	52	52	63	63	0	43
Production	201	201	170	150	0	140
Other Imports	13	13	15	15	0	15
Total Imports	13	13	15	15	0	15
Total Supply	266	266	248	228	0	198

Other Exports	155	155	150	140	0	120
Total Exports	155	155	150	140	0	120
Human Dom. Consumption	48	48	50	45	0	45
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	48	48	50	45	0	45
Total Use	203	203	200	185	0	165
Ending Stocks	63	63	48	43	0	33
Total Distribution	266	266	248	228	0	198
(1000 MT)						

WHOLE MILK POWDER

Production:

2020 WMP production is forecast to remain steady at the low level of 40,000 MT, the same as the 2019 estimate, but only one-third the levels of earlier this decade. According to Dairy Australia production statistics, WMP production had the steepest drop of any dairy product during the first half of 2019, down 50 percent. In general, WMP production has been declining for the past decade.

Consumption:

WMP consumption is forecast to fall slightly in 2020 because of higher prices. WMP is primarily used in food manufacturing such as ice cream, ready-to-cook meals, confectionary, and infant formula.

Trade:

Australia exports nearly all of the WMP produced, with half typically going to China. Because of lower production, 2020 WMP exports are forecast to remain at the low level of 40,000 MT. The 2019 export estimate is revised down as a result of slow export pace, with shipments in the first nine months of 2019 down 31 percent.

2020 imports are also forecast to remain steady with 2019 and typically come almost entirely from New Zealand. Imports are up 19 percent in first nine months of 2019.

Dairy, Dry Whole Milk Powder Market Begin Year Australia	2018		2019		2020	
	Jan 2018		Jan 2019		Jan 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	24	24	25	25	0	23
Production	63	63	40	40	0	40
Other Imports	28	28	35	35	0	35
Total Imports	28	28	35	35	0	35
Total Supply	115	115	100	100	0	98
Other Exports	55	55	45	40	0	40

Total Exports	55	55	45	40	0	40
Human Dom. Consumption	35	35	37	37	0	35
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	35	35	37	37	0	35
Total Use	90	90	82	77	0	75
Ending Stocks	25	25	18	23	0	23
Total Distribution	115	115	100	100	0	98
(1000 MT)						

Attachments:

No Attachments