



Dairy Situation and Outlook

February 2019

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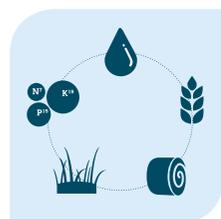
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Six key drivers of the Australian dairy industry

Key

- Positive
- Neutral
- Negative

Inputs



Situation: ●
Outlook: ●

Demand for purchased feed has eased from its peak as late rain in November and December helped to rejuvenate pasture. BOM downgraded the ENSO outlook from El Niño alert to watch in January. The prolonged shortage of water has led to prices surging and decreased trade volumes.

Global supply



Situation: ■
Outlook: ■

A strong New Zealand season continues to dominate global milk supply patterns. Localised challenges have weakened but not reversed European and US production growth, whilst weather and cost challenges continue to impact Australian farmers.

Global economy



Situation: ●
Outlook: ●

The global economy has started to slow and in 2019 economic output is forecast to reach 3.5%, a downwards revision to previous projections. This is the result of increasing financial concerns created by the ongoing trade war between the US and China. Slower than anticipated growth in developed countries also contributed to the worsened outlook.

Australian market



Situation: ■
Outlook: ■

Supermarket sales of milk and yoghurt have remained fairly steady over the past twelve months. A higher average retail price of specific types of milk and yoghurts drove value growth for both categories. Cheese sales continued to expand and over the past twelve months butter sales grew 0.9%, marking the first increase in sales volume since the global butter price rally.

Global demand



Situation: ●
Outlook: ■

Global demand for dairy is strong and over the past twelve months exports from the six major exporters grew 3.9%. Exports to Greater China continue to drive this demand growth. The US has expanded their market share in southeast Asia with exports growing rapidly over the past months. Increasing purchases of dairy product in Algeria also acted to support global markets.

Exchange rates



Situation: ●
Outlook: ■

Over the course of 2018 the AUD continued to depreciate against the USD. This has improved cost competitiveness of Australian exports. The AUD is forecast to remain low for the first half of the year. Over the same period the NZD and the Euro are also forecast to depreciate against the USD. This could lessen the effect of a lower AUD in terms of export competitiveness.

Executive summary

- › **High costs are putting continued pressure on Australian farmers, resulting in lower milk production due to reduced supplementary feeding, herd size reductions, and farm exits**
- › **Global markets remain well balanced and offer the potential for further farmgate price increases in 2019, albeit with continued growth in milk supply evident**
- › **Premium offerings continue to drive unit value growth in the domestic market, even as private label products grow market share.**

High grain, hay and irrigation water prices continue to impact Australian dairy farmers, with consequences for the broader industry. Farmers in southern regions have experienced a better-than-expected late spring and early summer period, prolonging pasture growth, and reducing exposure to feed markets. However, these offsets have not been universal, and many farmers (especially in east Gippsland, northern Victoria, New South Wales, and Queensland) have faced significant difficulties this season. Across Australia, the combination of elevated costs and relatively steady milk prices has eroded profitability. This is driving milk production lower in year-on-year terms, as farmers reduce herd sizes, supplementary feeding rates, and in some cases exit the industry.

Globally, dairy markets have entered the new calendar year well balanced. Milk production in New Zealand, Europe and the United States continues to grow, but with signs of slowing in some areas as economic, environmental and seasonal headwinds emerge. Conversely, global dairy demand appears robust, with key markets including China, Japan and southeast Asia continuing to grow imports, despite the disruption of ongoing trade disputes. In addition, the successful liquidation of the European Commission's skim milk powder stockpile has removed a major factor overhanging dairy protein markets.

Back home, supermarket sales of milk and yoghurt have remained fairly steady over the past twelve months. Despite this, healthy growth in higher value subcategories such as flavoured milk, premium dairy desserts and probiotic yoghurts drove value growth for these major categories. Cheese sales continued to expand and butter sales grew 0.9% over the past twelve months, marking the first increase in sales volume since the global butter price rally. Amidst the success of premium offerings, private label products continue to increase market share across the dairy segment. In recent news, Woolworths announced plans to increase private label fresh milk prices by 10 cents per litre, passing that amount directly to farmers who supply the product. With milk production under pressure, further increases in imports to supply these contracts are likely as priority domestic and export branded products will attract a higher proportion of Australian milk.

Prices for key farm inputs are likely to remain high in the coming months. Global grain markets are facing turbulent geopolitical forces and volatile commodity prices. Domestically, a challenging growing season in the eastern states has shorted the market, despite a record crop in Western Australia. Overall, Australia's 2018/19 winter crop production is expected to be down 23% year-on-year.

Hay prices peaked in mid-spring and despite easing since then across most regions, prices are likely to remain firm. Stocks have been heavily depleted over the past year, and given the dry conditions most regions faced through the growing season, supplies remain tight. Failed grain crops have provided some offset, with large areas baled this season. Highly variable quality, regional differences in season, and a wider range of sellers than normal are all likely to drive a high degree of price volatility and spread in the months to come.

For irrigators, traded water prices exceeding \$500/ML in the Goulburn-Murray Irrigation District, there is a zero allocation of General Security water in the Murray Irrigation District, and a likely shortfall for most in the Macalister Irrigation District. A lack of water in these districts has exacerbated feed cost challenges.

Australian milk production continues to lag behind 2017/18 levels, tracking 4.8% lower for the current season to December. The year-on-year gap has also increased, with December intakes down 7.8% compared to December 2017.

The late spring to early summer period brought varying degrees of rainfall relief, especially for much of southern Victoria and Tasmania where it extended the growing season, reducing fodder demand. In other areas, such as northern Victoria, rainfall was not received, or arrived at

inopportune times. The new calendar year has reverted to drier and hotter conditions in most regions. Queensland and New South Wales continue to be impacted by high feed costs and profitability challenges. Northern Victoria has seen a particularly large drop in milk production, due to the confluence of dry conditions, high purchased feed prices, and expensive irrigation water. Against a strong second half of 2017/18, this fall in production looks set to continue, not least due to ongoing exits in the short term, indicating further downside risk.

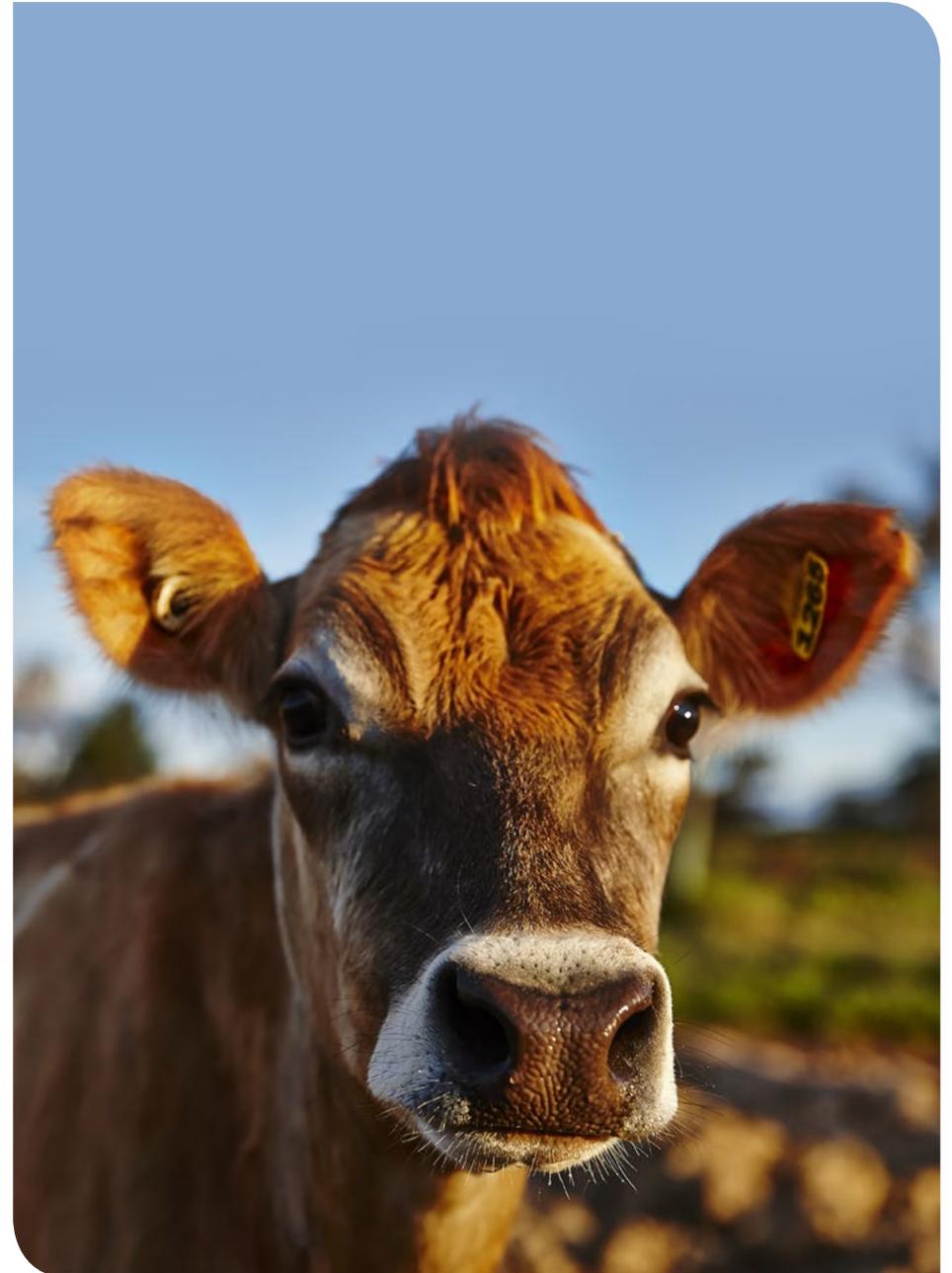
Gippsland and southwest Victoria have both tracked above expectations in terms of milk flows. Purchased feed costs mean margins are still tight however, and many farmers have significantly reduced their herd sizes. Parts of South Australia (especially around Mount Gambier) are also experiencing a good season, and the state is in a reasonable position in terms of hay and grain availability – albeit at very high prices.

Milk production in Western Australia has tracked below last season for 2018/19 to date, although seasonal conditions have improved and farmers have reported excellent hay and silage yields. Despite early concerns, the winter crop harvest looks set to break records. As foreshadowed in October, dry conditions took hold in Tasmania over spring, slowing milk production growth rapidly

from November. Purchased feed costs have also escalated as the impacts of mainland market developments are felt, compressing margins.

Dairy Australia's forecast for 2018/19 milk production has been updated to reflect the continuing challenges on-farm. The current forecast is for a national decrease of between 7% and 9% relative to 2017/18, implying a total of between 8.45 and 8.65 billion litres for the full season.

With the high costs that are suppressing margins expected to persist through the remainder of 2019, many are looking to international indicators for signs of an improved farmgate milk price to ease the pressure. The combination of a weaker Australian dollar (around 9% lower than a year ago), and strong international demand bodes well for commodity prices and local currency returns. This is likely to provide some room to move in 2019, as a shrinking milk pool drives competitive pressure to pass returns through to the farmgate in order to continue accessing milk. At the same time, potential for resurgent global milk production, and a price-constrained retail market at home will present limitations. Amongst the market influences, the significance of a timely and effective autumn break is difficult to overstate.



Inputs



Fertiliser

Urea (granular Black sea)

277 US\$/t

 +29% LY

 -11% 5Y

DAP (US Gulf)

390 US\$/t

 +9% LY

 +4% 5Y

MOP (granular Vancouver)

216 US\$/t

 0% LY

 -4% 5Y

Price is December 2018 average, compared to the 2017 December average (LY) and 5-year (5Y) December average.

Source: World Bank

Water and weather

Northern Victoria

233 \$/ML

 +188% LY

 +61% 5Y

2,087,114 ML

 -17% LY

 +8% 5Y

Murray irrigation System

219 \$/ML

 +204% LY

 +71% 5Y

151,237 ML

 -40% LY

 -11% 5Y

Price of water traded is 12 month average and volume of water is 12 month total, both to December, 2018, and compare to year earlier (LY) and last 5 years (5Y).

Source: Victorian Water Register, Murray Irrigation Ltd

Key

 Positive

 Neutral

 Negative

Cows

Cull cows

340 c/kg

 -23% LY

 -11% 5Y

75,259 head

 +5% LY

 -7% 5Y

Dairy cattle exports

59,672 head

 -4% LY

 -17% 5Y

Price is December 2018 average, compared to December last year (LY) and 5-year (5Y) averages. Number of head is last 12 months (cull cows to December dairy cattle exports to October 2018) compared to year earlier (LY) and 5-year (5Y) averages.

Source: NLRS, ABS

The late rains in November and December did little to improve water storage levels around the country.

Weather

Concluding what has been a very dry and warm year for the country, the last quarter of 2018 brought diverse weather patterns with many extreme weather events. Following the driest September on record, October and November received slightly more rain than the average, resulting in near average overall spring rainfall. Rainfall in November was above average for Western Australia and South Australia, although this rain was delivered in a few wet days rather than extended rain events. This was brought on by multiple large storms and resulted in flash flooding in some areas. Progressing into summer, Australia's rainfall dropped below the monthly average. The northern half of the country was particularly dry throughout December, excluding the northeast coast of Queensland, which received well above the average due to Ex-Tropical Cyclone Owen.

Overall, 2018 was Australia's third warmest year on record; both mean and maximum temperatures were above average for all states and territories. November and December were no exception to this trend; November started and finished with extreme heat while December was the hottest on record. The north experienced prolonged heatwaves in early December while the south received multiple hot days spaced apart. This followed the long term trend which shows nine out of the last ten years have been warmer than average in Australia.

After exceeding El Niño levels in

October, the Bureau of Meteorology (BOM) retained their ENSO outlook at El Niño alert for November and December. Since then tropical Pacific Ocean surface water cooled, which is normally a sign it may be receding. Despite this, BOM was reluctant to lower its outlook due to a combination of the Madden Julian oscillation increasing trade winds and a lack of data coming from US sources due to the government shutdown. By the end of January, the immediate risk of El Niño had passed, and BOM downgraded their outlook to El Niño watch. This still reflects an increased chance of an El Niño event in 2019, at approximately 50%.

Water

The late rains in November and December did little to improve water storage levels around the country. Following the driest September on record and high evaporation rates in October, many sites are well below the level they were the same time last year. Currently Lake Eppalock and the Hume Dam are severely affected, down year-on-year 42% and 46% respectively. Sites such as the Dartmouth Dam, Lake Eildon and the Waranga Basin are also significantly down compared to this time last year.

Drought conditions and the low availability of water allocations for irrigation have driven competition in northern Victorian and southern New South Wales irrigation systems. Irrigation affordability has restricted production this season as prices remain at record levels. In northern Victoria, the average

price for water in 2018 was \$233/ML, up 188% on last year. The limited water availability steadily increased water premiums throughout the year. By December, the spot price reached \$411/ML, the highest it has been since August 2009. This had a significant impact on the volume of water traded which was down 17% compared to last year.

Meanwhile, trading volumes in the Murray Irrigation System dropped significantly year-on-year as premiums climbed 204%. It must be noted that prices were lower in 2017, although the average price of \$219/ML this year is 71% above the long term trend. This resulted in water trades dropping by 40%, to a total of 151,237 ML in 2018. These premiums combined with high feed costs restricted on-farm production.

Fertiliser

Fertiliser prices continue to rise from the record lows of 2017 as demand increases. The World Bank's Fertilizer Price Index is predicted to rise a further 2% this year on the back of an estimated 9% increase in 2018. Overall agricultural demand is beginning to catch supply with increased demand in some countries and reduced supply from China. Fertiliser demand is projected to improve in Brazil where corn and soybean production has doubled in the last decade and expected to further increase in 2019/20. China placed upward pressure on nitrogen and phosphate markets as they temporarily shut down fertiliser plants in a crackdown on heavy polluters. China's

exports of urea declined significantly in early 2018, placing a gap in the market and minimising oversupply.

Locally, urea and phosphates fertilisers (DAP) prices have increased year-on-year, up 29% and 9% respectively. Prices fell slightly at the end of 2018 as demand eased. Still trading above the five-year average, urea has been recorded at US\$277/tonne and DAP US\$390/tonne. An oversupply of Potassium Chloride (MOP) has suppressed the market with no change in prices throughout the year. If weather permits, it is expected fertiliser demand in the west of the country will increase throughout 2019, after producing near a record winter crop and combined with high grain prices. While in the eastern states an El Niño watch together with low production is expected to keep demand low.

Cull cows

Poor seasonal conditions is most dairy regions ultimately saw an increase in the number of cull cows in 2018. Lack of rain, poor pasture availability and a surge in feed prices all contributed to an overall reduction in the national herd. During 2018, 75,259 cows were culled, a 5% increase year-on-year. This figure tracked 7% below the five year average following the vast national destocking in 2015/2016. Easing from its peak in August, October had the lowest cull rates since February. Numbers spiked again in November before easing in December. The rise in November could be attributed to a late start to the northern wet season that increased destocking in parts of

Queensland. The overall increase in culling rates helped support farm income, particularly in light of relatively high prices in historical terms.

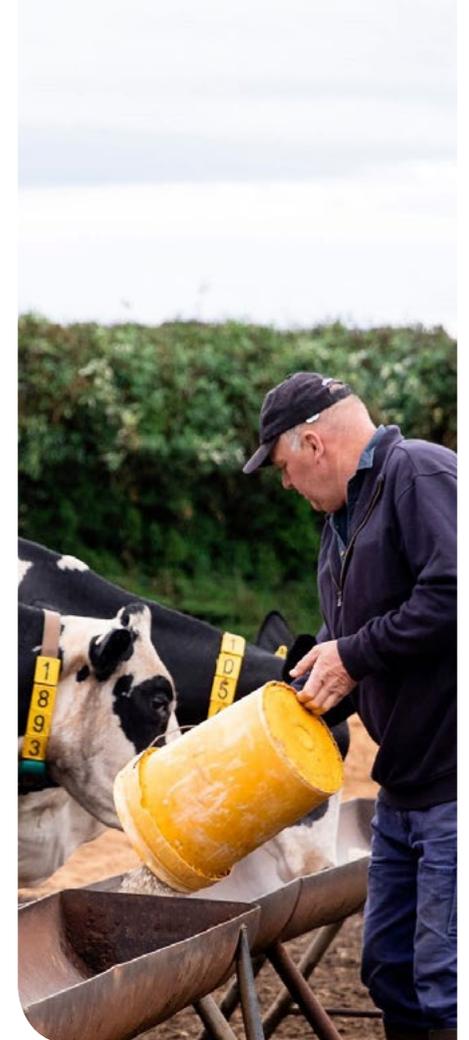
Cull cow prices reached a peak in July before showing some volatility for the remainder of the year. Following October prices climbed to 363c/kg in November before dropping to 340c/kg in December. Prices received this year were down 23% year-on-year and 11% below the five year average, although still remain above the historical trend. Prices for cull cows have been steadily declining since the pronounced foreign demand and a smaller US beef herd increased domestic values in 2015/16. While Meat and Livestock Australia (MLA) has highlighted the possibility of higher prices if sustained rain events are received on the eastern states, they also warn the opposite could occur. If prolonged rain deficits continue throughout early 2019 then we can expect more destocking and therefore downward pressure on the market.

An increased appetite for Australian beef in Japan, Korea and China combined with the weak Australian dollar facilitated an estimated 9% increase in beef exports in 2018. Notwithstanding an increase in international competition as beef production and exports were at record levels, exports to China have surged year-on-year with an estimated increase of 55% for the first nine months of 2018 according to MLA. As southeast Asian countries such as the Philippines and Indonesia continue to develop and the average household income increases, demand for imported meat does as well. In terms of dairy cattle, exports in 2018

were down 4% year-on-year (October to October) and 17% less than the five year average. It is suggested prices will remain strong as export demand is expected to remain at record levels and supply tightens. Farmers will look to manage herd sizes and restock if seasonal conditions permit, further reducing export supply.

Hay

On the back of record high fodder prices throughout 2018, the hay market has softened slightly since October. After stocks began to deplete in May, demand surged, leaving buyers with a hefty price premium. Prices remain higher than average although they have reduced slightly in most areas due to some late rain in November and December which rejuvenated pasture and reduced demand. Growers are now looking at their supplies and calculating requirements to secure feed until the autumn break. There is large variation of demand across the nation as some areas experienced a more productive season than others. Demand in the north remains steady as the drought continues to affect areas of NSW and QLD, and fodder will continue to be transported from all over the country. Overall demand eased in western and southern Australia as hay continues to enter the market with many keeping product for their own use before distributing it on the open market. Reports suggest that drier conditions are beginning to create uncertainty and increase demand while an increased number of hay fires have reduced the stockpile in the supply chain.



Grain and hay prices



Australian dairy regions

Grain and hay



The relevant stockfeed wheat available in a region (ASW, AGP, SFW1 or FED1).

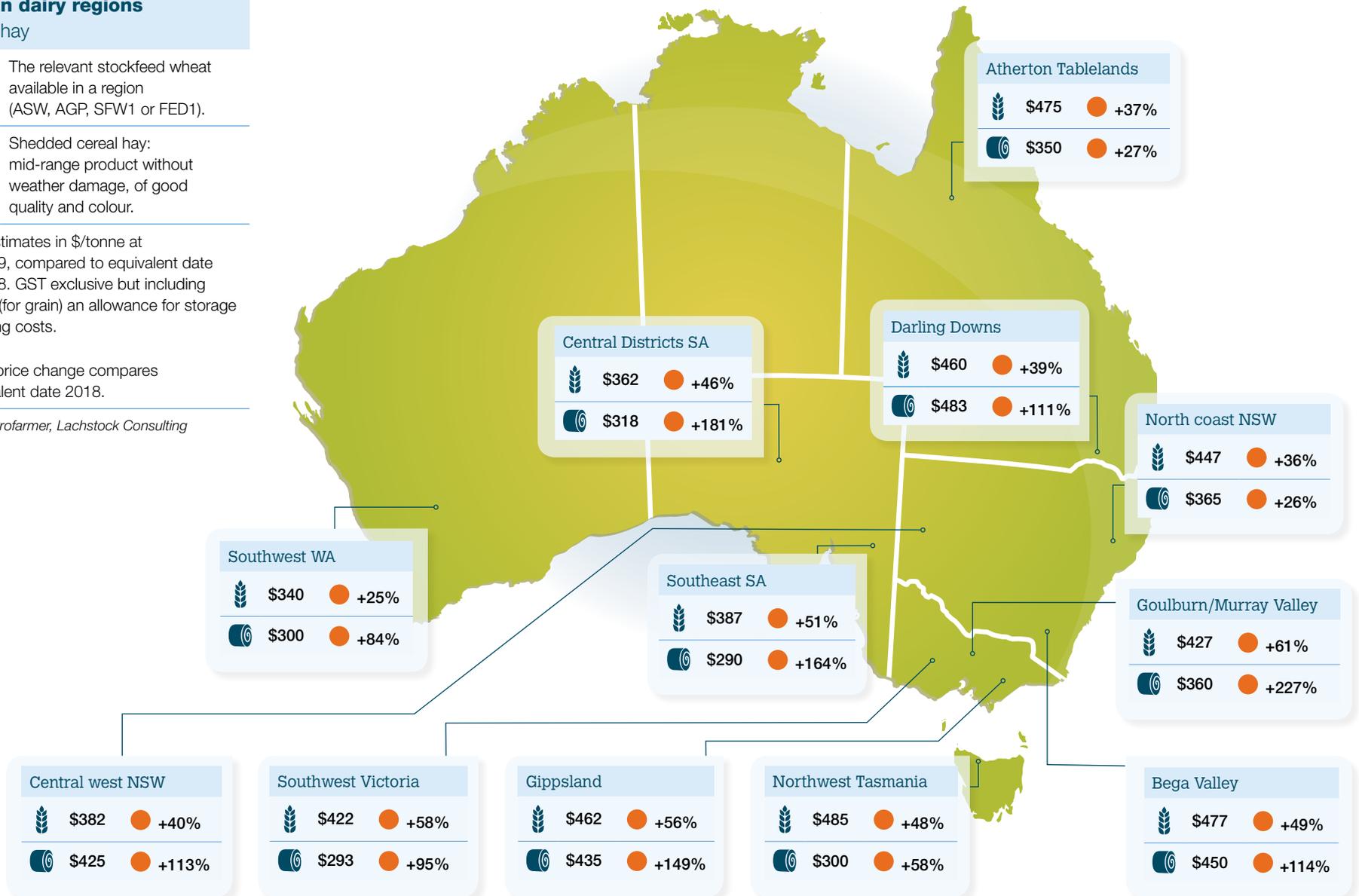


Shedded cereal hay: mid-range product without weather damage, of good quality and colour.

Prices are estimates in \$/tonne at January 2019, compared to equivalent date January 2018. GST exclusive but including delivery and (for grain) an allowance for storage and marketing costs.

Percentage price change compares to the equivalent date 2018.

Source: AFIA, Profarmer, Lachstock Consulting



Northern Australia

It was a challenging year for northern Australia, with drought resulting in a hay market dominated by demand. Hay moved from all areas of the country including Western Australia and Tasmania to meet requirements in the northern and eastern states. Demand has slowed but is still coming from New South Wales and Queensland as the drought persists through summer. Recent high temperatures have dried soils and affected summer crops and pasture growth. There have been many alternative feed supplies entering the market to ensure demand is met. Reports suggest that demand will decline this year although is still expected to exceed supply. Destocking rates may reduce to need for recent feed volumes as farmer look to cut costs, although this is not expected to have a major influence on price trends. The upcoming weather will be the main driving factor for demand ahead of an autumn break.

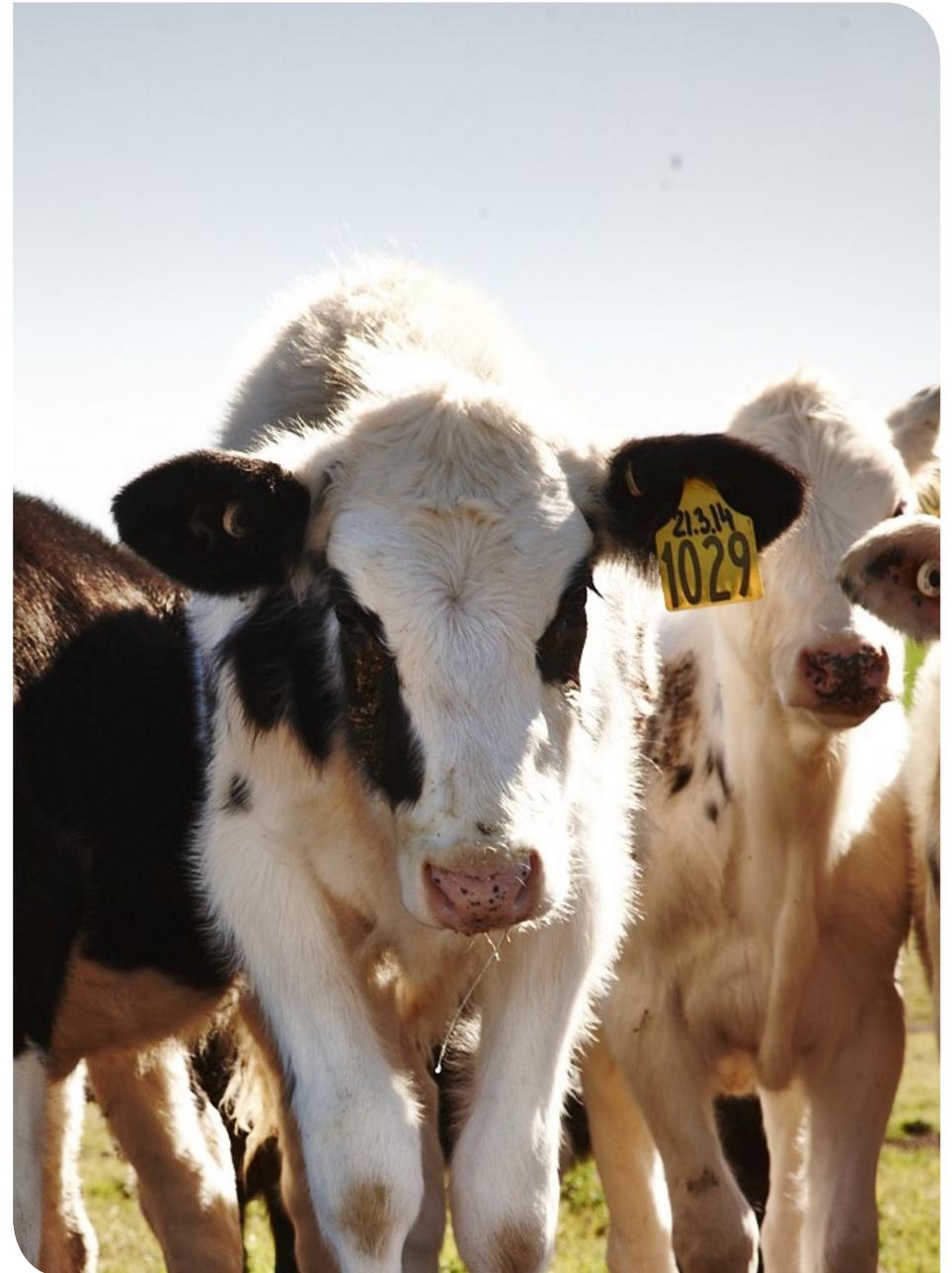
Southern Australia

There have been mixed reports in southern Australia for the last three months. Following spring, areas of Victoria and South Australia received good rainfall. This, combined with fertiliser application led to decent pasture growth and silage production. Southwest Victoria and areas of Gippsland have reported great growth as opposed to the low production rates in northern Victoria. Demand has eased from its peak, although demand is still coming from the north. Prices have eased slightly

in most areas although still remain well above the long-term trend. There have been large areas of failed crops turned into hay and silage this season, most of which is testing well. There was a lot of high moisture hay baled in the southern regions with inoculants. In Tasmania, the cereal hay market went somewhat dormant in November after the season appeared to be ordinary. Demand was high and supply was limited after stockpiles were depleted by the eastern states of the mainland. Silage was mainly being trading at a low cost to farmers. As late rain improved, the outlook and helped rejuvenate pasture. New season hay entered the market, dropping the price by approximately 50%. With hay sheds full, more demand is expected to come from the drought affected areas of the mainland.

Western Australia

Western Australia had a lot of demand coming from the eastern states this year, which kept prices elevated and stockpiles low. In November and December, new season hay entered the market which was of high quality. This drove prices up as exporters sought good quality hay and set the market price. Western Australia is currently quite dry for this time of the year, and farmers are looking towards the autumn break to provide some demand respite. This combined with little carryover stock means prices are expected to remain steady or potentially firm if demand from the eastern states ramps up.



Grain

In a year affected by geopolitical factors resulting in trade turmoil and volatile commodity prices, world grain was no exception. Locally, a challenging growing season in the eastern states resulted in feed grain shortages in turn placing upward pressure on domestic grain prices. These prices remained higher than international standards and reduced cost competitiveness internationally. This somewhat reduced overall international demand for Australian grain, slightly improving the amount in the Australian supply chain. A sharp decrease in domestic grain production facilitated in an overall reduction in global grain (wheat and coarse grain) forecast. According to the International Grain Council, total grain production is predicted to decline by 1% to 2,079 million tonnes compared the previous harvest. Maize has improved significantly to 26 million tonnes, offset by reductions in wheat (-39 million) and barley (-6 million). Total grain consumption is expected to increase by 1% since 2017/18 hitting a record 2,137 million tonnes. Maize continues to increase its prominence as a source of food, feed and industrial use while wheat

looks to have little change with higher food demand balancing out reduced feeding. With total grain demand expected to outweigh production, global grain stocks look to endure their second consecutive reduction, down 9.3% year-on-year. Overall global trade of grain is expected to remain steady at record levels as improvements in maize and barley are offset but reductions in wheat and sorghum.

Australia's winter crop harvest is all but done and production is expected to be down 29.3 million tonnes, or 23% year-on-year. After an unfavourable spring in most cropping areas, Australia's winter crop prospects deteriorated. The onset of frost in many areas further damaged crops, which when combined with the premiums received for hay this season, encouraged many farmers to cut their failed crops for hay or silage. This will be the smallest national yield since 2007/08 and estimated to be 20% below the 20-year average. Western Australia on the other hand experienced a successful growing season in most areas, overall accounting for 56% of national production, the first time in 20 years WA has contributed over 50%. It is anticipated that the severity of grain

shortages on the east coast will continue to keep prices elevated even in the event of substantial rain and pasture development. Despite the large stocks being transported over from Western Australia the export price is likely to be outweighed by domestic sales as the world benchmark catches up.

Extreme protectionism from the United States and retaliation measures from China have dominated headlines of world trade. The latest ray of optimism has stemmed from productive talks in Beijing around the resolution of the trade wars, this combined with the weaker US dollar supported Chicago Board of Trade (CBOT) wheat futures. Oilseed markets, specifically soybeans were the worst affected from the trade negotiations. It is expected that US stocks will double year-on-year as world stocks increase by nearly 30%. US politics and the partial government shutdown placed the market in a state uncertainty with many describing it as flying blind. The United States Department of Agriculture (USDA) was unable to publish most key reports and analysts are relying on hearsay, which is expected to bring a level of volatility to the market.

The Hay and Grain Reports provide a comprehensive overview of the market and indicative pricing by dairy region, and are published 40 weeks per year.

The Production Inputs Monitor provides statistics and commentary for grain, hay, fertiliser, weather, water and cull cows on a monthly basis.



For ongoing information and updates on farm inputs, access Dairy Australia's monthly Production Inputs Monitor, or the weekly Hay and Grain Report, found on the Dairy Australia website at: dairyaustralia.com.au/industry/farm-inputs-and-costs

Australian market

Milk

Supermarket sales of milk have remained fairly steady over the twelve months to January 2019 at 1.5 billion litres. Over this period sales of UHT milk eased which in part halted the expansion of total milk sales. UHT milk represents 12.5% of total milk sold in supermarkets and is trade exposed. Total UHT milk sales contracted 6.4% in volume driven by a drop in sales of company branded products. In stark contrast, private label UHT milk sales grew 11.1% and accounted for 43.9% of total UHT milk sales. The value of UHT milk sold only contracted 1.1%, due to the higher average retail price of private label UHT milk. The sales value of private label UHT milk increased 20.1% to \$83 million. Notwithstanding this increase, private label UHT milk continued to be offered at a significant discount to company branded milk.

Supermarket sales of fresh white milk, Australia's largest dairy segment, expanded 1.1% over the year and helped to offset contracting UHT sales. This is consistent with a moderate long-term growth rate. Full cream milk varieties continued to grow at the expense of modified milk types and made up 75.7% of total fresh white milk sales.

The flavoured milk market generated value growth for dairy companies over the year. Flavoured milk sales grew 1.5% to 155 million litres and 3.6% in value to

\$563 million. Flavoured milk is generally sold at a higher price point as consumers are open to paying a premium for these products. The average retail price of flavoured milk increased 2.1% to \$3.63/litre, well above the average price of white fresh milk (\$1.41/litre).

Over the year the sales value of milk sold in Australia grew 1.8%, to \$2.4 billion while the value of fresh white milk grew 1.7%. A proportion of this growth was generated in the latter part of 2018 following several companies' decision to introduce a drought levy. Woolworths, Coles and Lion Drinks and Dairy introduced this levy in October to support dairy farmers in drought affected regions in Australia. Each company chose to implement the levy in different ways. Coles placed the levy on sales of three-litre milk while Woolworths introduced the levy on two and three-litre milk sold under their private label brand. In stores the companies advertised this milk as a way to support dairy farmers battling the drought and consumers chose to show their support by buying this milk. In October sales of fresh white milk grew, especially private label sales which increased 3.5%. The average retail price of milk also rose as a result of this levy and contributed to an overall value growth for milk. In October the average retail price of private label milk increased 2.6% which also expanded private label sales share of total fresh milk sales. Since October sales

of private label milk have eased back to pre-levy levels. According to data from Coles and Woolworths about \$8 million was generated by the drought levy and as of January 2019 is currently in the process of being distributed to dairy farmers.

Following on from the drought levy, Woolworths announced plans on the 18th of February to increase private label fresh milk prices by 10 cents per litre. This increase will be passed on directly to farmers who supply the product. It is too early to quantify the full implications of this decision, but for farmers this has been a welcome one.

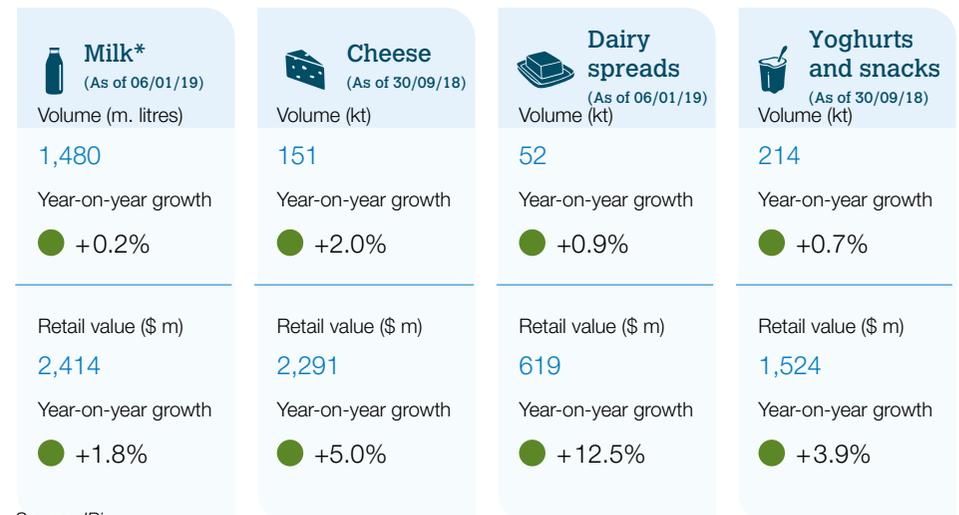
Key

- Positive
- Neutral
- Negative

Cheese

Demand for cheese grew over the twelve months to October, with sales rising 2.0%. Sales of chilled cheese varieties remained largely unchanged overall as growing sales of ingredient cheese and sliced cheese countered falling block cheese sales. Whilst chilled cheese made up 83% of cheese sold in supermarkets, deli-styled cheeses contributed to most of the growth in supermarket sales. Deli-styled cheeses are specialist cheeses usually retailed for a higher price and sold through at the deli-section of supermarkets. Deli-styled

Figure 1 Australian supermarket sales



Source: IRI

Note: Available data is taken from differing periods; milk and dairy spreads from MAT 06/01/2019; cheese and yoghurt and snacks from MAT 30/09/2018. *Milk sales represent supermarket sales and exclude other sales channels

cheeses are becoming more popular with Australians and more consumers have over the year opted for larger pack sizes of the product. When consumers buy deli-styled cheeses they have traditionally bought the 200 to 300 gram variety, which still is the most popular pack size. Over the past year however sales of the 300 to 400 gram size and the 650 to 999 gram size grew 20.3% and 42.4% respectively. The average retail price of deli-styled cheese varieties rose, up 1.5% to \$25.4/kg. This saw the overall sales value of deli-styled cheese rising 9.2%.

Whilst sale volumes of chilled cheese remained steady over the year, the value of chilled cheese sold in supermarkets increased. Chilled cheese sales value grew for the first time in three years, up 3.4% to \$1.6 billion. In the years prior supermarkets discounted larger pack sizes of cheese which resulted in the

Selected pack sizes	Price \$	Price growth %
100–199g	29.55	-0.1
200–299g	17.81	0.3
400–649g	11.97	-0.7
650–999g	8.93	3.4
1–1.49kg	7.84	4.4
Total chilled cheese	13.15	2.5

decrease in sales value. Over the past year the average retail price of medium-to-large sizes of cheese has increased, which contributed to this recovery. Private label sales of cheese increased 1.6% in volume over the year, whilst the value grew even more quickly, up 8.2%. As private label cheese is offered at a significant discount to company branded cheese, it is likely to continue to expand its market share in the future.

Yoghurts and dairy snacks

Supermarket sales of yoghurt and dairy snacks have moderated over the twelve months to October 2018. While sales still grew to 214,000 tonnes, the growth rate of 0.7% was lower than previously reported. Slower increases in the sales of traditional style yoghurts (such as Greek yoghurt) contributed to the easing in overall growth. The average retail price of traditional style yoghurts increased resulting in the sales value of these yoghurts rising 7%. As consumers continued to avoid sugary yoghurts several companies relied on product and package innovation to generate demand. This involved different kinds of premiumisation processes which contributed to the average retail price of sweetened yoghurt products growing 11%. This helped counter contracting sales and saw the value of sweetened yoghurt sales increase 10%.

In contrast to other dairy products sold in supermarkets, private label sales only account for a small proportion of the yoghurt market. While most manufacturers increased the average price of their yoghurts, the private label

sector saw a drop in the per kilogram price of yoghurts. This resulted in a strong increase of private label sales, up 44.7%. It is however worth noting that private label only made up 7.0% of total sales over the year.

A continued focus on healthy products keeps driving demand and product innovation within the yoghurt category. Consumers increasingly choose products which advertise various health benefits, both on the package and via social media posts. These products are often retailed at a higher price and have become of increasing importance to dairy companies. Over the year sales of yoghurts with a higher protein content and probiotic yoghurts grew strongly. This is a trend that is likely to grow in importance for dairy companies in the future.

Dairy spreads

For the first time since the global butter price rally supermarket sales of dairy spreads have increased. Over the twelve months to January 2019, dairy spread sales grew 0.9% to 52,000 tonnes led by strong blend sales. The global price rally of butter resulted in a close to 40% increase in the average price of butter. Despite relatively inelastic demand for butter, some customers chose to substitute the more expensive product for blends. Over the past year blend sales have increased 6.8% to 27,000 tonnes. This is also the first time since 2010 blend sales exceeded butter sales within the dairy spreads category. The value of blend sales increased, up 8.3% as the per-kilogram price of blends grew

1.3%. Blends continued to be sold at a discount, with an average retail price 17% lower than the price of butter. Most of the blends sold are company branded products, while private label products only made up 1.2% of the total dairy spreads market.

Whilst blend sales contributed to the volume growth of dairy spreads, butter sales saw the value of dairy spreads increase 12.5% to \$619 million. The value of butter sales increased 16.4% to \$332 million, despite a drop in volume sold. The increase in value resulted from the spike in the average retail price of butter. In the twelve months to January the average retail price was elevated by 21.9% on the year prior. This is considerably less compared to previous reports. As global butter prices have declined, the supermarket price of butter has also come off its peak. If global butter prices continue to ease, this is likely to result in further downside pressure on supermarket prices.

Private label butter sales contracted more over the period, down 12.1%, despite being sold at a discount compared to company branded butter. Company branded butter sales increased 2.1% to 15,000 tonnes, and accounted for 57% of total butter sales.

Australian economic settings

Towards the end of 2018 negative economic news dominated the media. House prices were falling in major cities, share markets edged downwards and concerns over potential trade wars grew. Despite a steady stream of negative news, consumers in Australia remained positive. During 2018, optimists have outnumbered pessimists every month among Australian consumers. This is the longest sustained period of optimism in close to four years according to the Westpac-Melbourne Institute Consumer Sentiment Index. Low interest rates, a drop in petrol prices and a record low unemployment rate were main factors supporting the positive consumer sentiment.

Despite the positive sentiment, Australian consumers were more anxious towards the end of 2018, as indicated in the NAB Q3 Quarterly Consumer Behaviour Survey. The main contributor to this anxiety was the rising cost of living in Australia. When consumers are concerned about the rising cost of living they tend to eat more meals at home in lieu of visiting restaurants and cafes. Despite an increase in consumer anxiety many Australians increased purchases on essential items during the quarter and overall spending grew. At the same time consumers were less willing to increase consumption of 'non-essential items'.

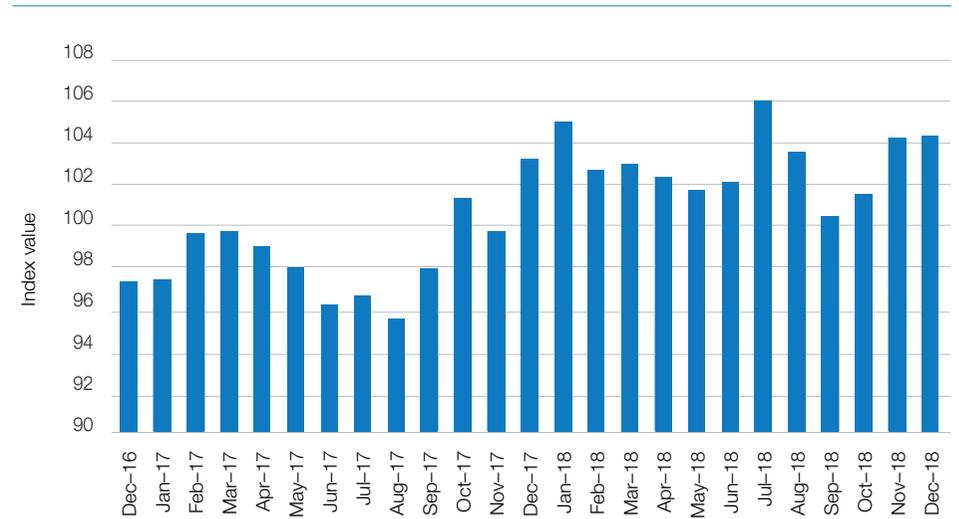
Dairy Australia's Food Service Index observed an overall increase in consumer spending on food and food service across major channels in the past year. As consumer anxiety has grown in the last few months, consumers

seem to have cut back on their spending of 'non-essential services'. This can be observed in the slowdown in consumer spending on restaurants and cafes in the past six months to November 2018, compared to the previous 12-month period. Specifically, consumer spending in restaurants and cafes eased in the past three months, reflecting this anxiety. While consumers have been less willing to spend money on 'non-essential' items, consumer consumption of essentials has increased. The Food Service Index captured this increase in the continued growth in supermarkets sales. Over the past six months supermarket sales have grown 4.0%, compared to 3.5% over the past year. Much of this growth occurred in the past three months as consumer continued to eat at home in favour of dining out.

The inflation rate grew 0.4% in September according to the latest data from the ABS September Quarter CPI report. The annual CPI growth rate was 1.9% and main contributor to this growth was increased spending on holiday travel and accommodation, both domestic and overseas. Over the quarter to September the food component of CPI grew 0.5%. The dairy food groups fell 0.4%, due to a fall in both milk and cheese prices.

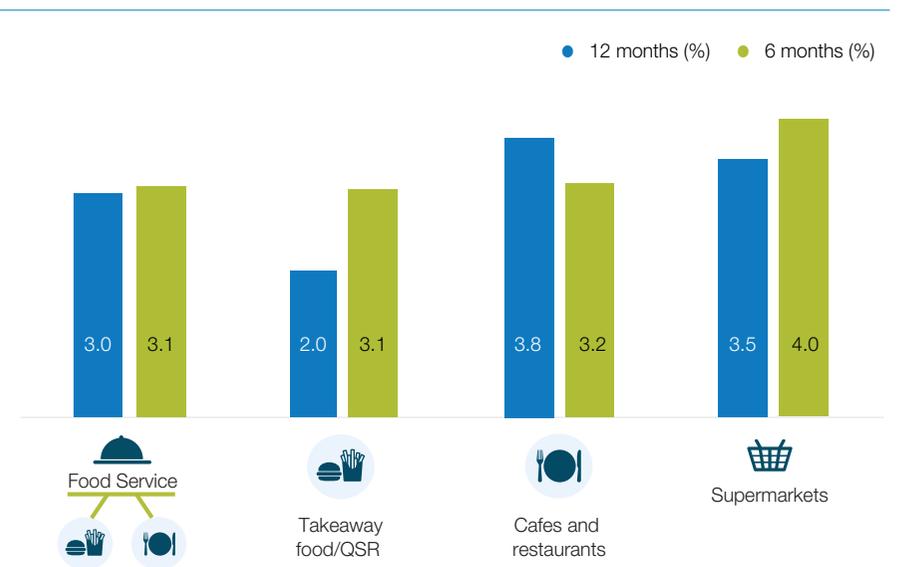
Consumers continue to increase spending in supermarkets, suggesting growing demand in the domestic market, which accounts for a large proportion of Australian dairy products. This is a positive signal for future demand growth for dairy products. The increase in consumer anxiety is however likely to somewhat dampen this growth.

Figure 2 Australian consumer confidence



Source: www.tradingeconomics.com, Westpac Banking Corporation, Melbourne Institute

Figure 3 DA Food Service Index (YoY turnover growth to July 2018)



Source: Dairy Australia, ABS

Global economy and exchange rates

In the latest World Economic Outlook report (January) the International Monetary fund (IMF) revealed global economic growth had started to slow. Economic growth in 2018 is projected to reach 3.7%, while growth in 2019 is estimated at 3.5%, representing a 0.2% and 0.1% downwards revision respectively. These revisions were a result of slower than anticipated growth in Asia and in Europe, due to natural disasters in Japan and a new fuel emissions law in Germany. These events transpired at a time when concerns about financial markets and trade disruptions kept growing.

Concerns about China's future economic growth have also acted to

increase uncertainty in the market. The trade dispute between China and the US is posing a significant risk to global growth and is one of the main reasons economic output is set to contract in 2019. This trade dispute is affecting investor confidence in developed economies. Large central banks have adopted more conservative approaches in the past months in responses to these diminishing levels of confidence. If the trade dispute goes unresolved for some time to come, global growth might contract further.

The Australian dollar continued to depreciate over the course of 2018, down to 0.72 AUD/USD in December 2018. The lower exchange

rate has improved Australia's cost competitiveness overseas for exports which has helped support the Australian farmgate price against falling global commodity prices. The AUD is expected to remain low for the first half of the year, before appreciating. A rise in trade tensions tends to result in investors opting to invest in safer currencies. This is likely to support demand for USD and in turn lead to the USD appreciating against major currencies. Over the next six months the USD is forecast to appreciate against the NZD and the Euro. Towards the latter half of the year the NZD and Euro is also forecast to regain strength.



Global supply and demand overview

Growing demand across most major markets has helped support commodity prices.

United States

US exports continue to recover as growth in the domestic market lags that of milk production. Trade disputes have yet to affect overall volumes - just the destination.

Export volume trends

Total volume change:

▲ 13%

Significant product shifts

- ▲ SMP/NDM (24%)
- ▲ Lactose (14%)
- ▲ Whey powder (7%)
- ▲ Cheese (4%)

Mexico

Exports to Mexico have started to increase again. Retaliatory tariffs against the US remain in place on cheese, which has seen cheese shipments decline.

Import volume trends

Total volume change:

▲ 6.0%

Significant market shifts

- ▼ European Union (-48.5%)
- ▲ South America (66.7%)
- ▲ North America (16.3%)
- ▼ New Zealand (-33.8%)
- ▼ Australia (-86.5%)

European Union

Cheese is the product of choice for EU manufacturers at the moment, whilst ex-Intervention SMP is likely to continue emerging from private stocks.

Export volume trends

Total volume change:

▲ 3%

Significant product shifts

- ▲ WMP (9%)
- ▲ SMP (5%)
- ▲ Whey powder (4%)
- ▲ Cheese (2%)

Russia

Trade embargoes on dairy imports are still in place, making Russia a fairly immaterial market for dairy exports.

Import volume trends

Total volume change:

▼ -21.3%

Significant market shifts

- ▲ European Union (6.6%)
- ▲ North America (35.9%)
- ▲ South America (124.4%)
- ▲ Australia (30.0%)
- ▼ New Zealand (-6.1%)

Greater China

Exports to Greater China have started to increase, supporting global demand growth of dairy products.

Import volume trends

Total volume change:

▲ 3.4%

Significant market shifts

- ▲ Australia (4.3%)
- ▲ New Zealand (4.1%)
- ▲ South America (46.5%)
- ▲ European Union (2.0%)
- ▲ North America (2.2%)

Southeast Asia

Exports to southeast Asia have grown over the year. Exports from the US has increased significantly in the last few months as the US redirects product into this market.

Import volume trends

Total volume change:

▲ 5.9%

Significant market shifts

- ▲ South America (2.8%)
- ▲ European Union (1.5%)
- ▼ New Zealand (-0.5%)
- ▲ North America (30.8%)
- ▼ Australia (-1.3%)

Japan

The ratification of the new CPTPP agreement is set to expand dairy quotas into Japan and further lower tariffs on some dairy products.

Import volume trends

Total volume change:

▲ 5.3%

Significant market shifts

- ▲ North America (8.2%)
- ▲ European Union (5.3%)
- ▲ New Zealand (2.9%)
- ▲ Australia (7.1%)
- ▼ South America (-58.3%)

Australia

Australian manufacturers are focusing on priority markets and products, making the most of a limited milk pool.

Export volume trends

Total volume change:

▲ 2%

Significant product shifts

- ▲ Liquid milk (11%)
- ▲ Cheese (3%)
- ▼ WMP (1%)
- ▼ SMP (-5%)

Middle East and North Africa

Demand for dairy has continued to grow in the region, buoyed by strong demand from Algeria.

Import volume trends

Total volume change:

▲ 8.2%

Significant market shifts

- ▲ European Union (6.6%)
- ▲ North America (35.9%)
- ▼ New Zealand (-6.1%)
- ▲ Australia (30.0%)
- ▲ South America (124.4%)

New Zealand

Exports from NZ are expected to accelerate in the coming months due to milk output growth.

Export volume trends

Total volume change:

▼ -1%

Significant product shifts

- ▼ Liquid milk (9%)
- ▼ WMP (-1%)
- ▼ Cheese (-7%)
- ▼ SMP (-10%)

Changes 12 months to October
Source: GTIS, Dairy Australia

Four largest exporters

Global demand

Overview

Global dairy exports from the six largest suppliers (New Zealand, the EU, US, Australia, Argentina and Uruguay) grew 3.9% over the twelve months to October 2018. Healthy demand from Greater China and the MENA region is keeping the market fairly balanced. Whilst demand for dairy is strong, competition has intensified in some regions due to the current trade tension between the US and China.

Greater China

In the twelve months to October 2018, 29% of the world's dairy exports were shipped to Greater China (PRC, Macau and Hong Kong). Greater China's import capacity greatly affects the global market balance due to its position as the single largest market for dairy exports in the world. Greater China is Australia's largest export market for dairy products.

Domestic milk production in China has only grown modestly over the past twelve months due to hot summer weather and expensive input costs. The US-China trade war has been challenging for Chinese dairy farmers as tariffs have increased the price of feed. Some reports suggest feed costs have already grown 6% as a direct result of these tariffs. Over the year exports to the market has been subdued, with imports growing 3.4% in volume. This has resulted in a rundown of stocks. In the past couple of months, however, Greater China has once again started to increase imports. Going forward demand for dairy products in the market is anticipated to support ongoing export growth. During a year when global supply is forecast to increase, Greater China looks set to at least partly absorb some of this surplus.

The ongoing trade dispute between China and the US has also seen a slowdown in US exports to the market. In the three months to October 2018, US exports to the market has contracted 29.8%. As a result US market share of total exports to China has eased 1% to 14%. The EU is the largest exporter to the market with a 39% market share.

Australian exports to Greater China continued to outpace exports from EU and New Zealand. Over the year exports grew 4.3% to 214,000 tonnes.

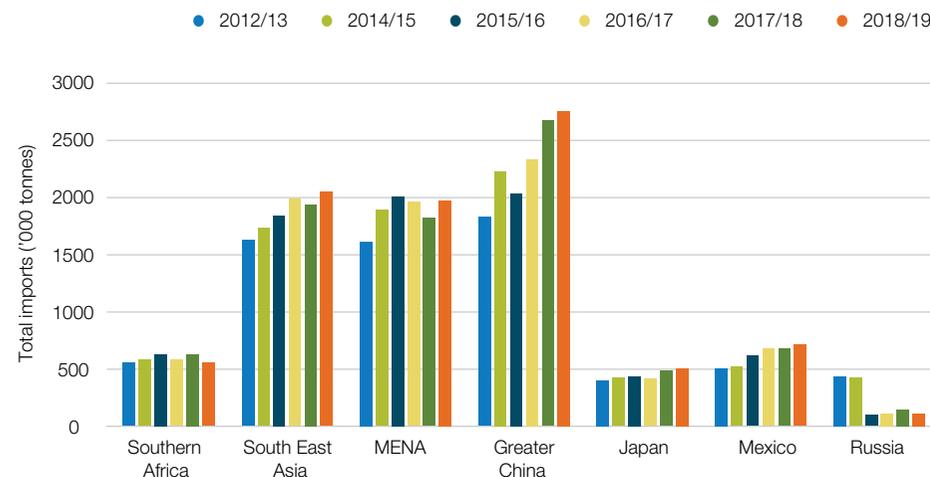
In value terms butter exports to Greater China grew 26.7%, reflecting the higher price of dairy fats. Liquid milk exports continued to expand, up 10% in volume. Five years ago, milk exports made up 40% of total exports to the market, but this has since grown to 45%.

Japan

Dairy exports to Japan have continued to increase over the twelve months to October, up 5.3% to 504,000 tonnes. Butter exports to the market expanded significantly, growing 94.8% to 16,000 tonnes and making up 3% of total exports. Cheese accounted for over 50% of exports to Japan and over the year cheese exports grew 7.5%. Japan's dairy market is highly developed and significant for major exporters due to the nature of the products sold to this market. These products are usually premium priced and over the year the value of dairy exports to Japan grew 6.9% to US\$1.7 billion.

Since abolishing milk production quotas, the EU has become the largest dairy exporter to the Japanese market. In July 2018, Japan and the EU finalised negotiation on a new free trade agreement which is set to give the EU favourable tariffs for many major dairy products. Over the past twelve months, EU's export to Japan increased 5.3%.

Figure 4 Exports to key markets



Source: Dairy Australia, GTIS
Data represents 12 months to October

Australia remains the largest exporter of cheese to Japan, with cheese accounting for approximately 85% of Australian exports. Over the year Australian cheese exports grew 8.2% to 90,000 tonnes. Australian cheese exports are predominately natural-style cheeses which are used by food service customers, such as bakeries and ice-cream manufacturers. Australian cheese exports accumulated US\$375 million in revenue, of the total export value of US\$426 million.

Japan's dairy industry is heavily protected with a complex network of laws and quotas controlling production and importation. In December 2018, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) entered into force. This trade agreement includes both Australia and Japan and is set to expand existing dairy quotas in Japan and lower tariffs on dairy imports. This is likely to increase demand for dairy in the market and further increase exports to Japan.

Southeast Asia

Following a slight decrease in imports early 2018, demand for dairy rose in southeast Asia over the twelve months to October. Dairy exports to this region grew 5.9% to two million tonnes, worth US\$4.6 billion. Increasing demand for WMP was the premier driver of this growth, with sales increasing 13.1%

to 284,000 tonnes. Rising sales of whey powder, SMP, milk and lactose also contributed to the increase. Of the southeast Asian countries exports to Vietnam grew the fastest, up 11.9% to 289,000 tonnes. Demand for dairy also rose in Singapore and the Philippines, up 8.1% and 7.7% respectively. The Philippines remains the largest importer of dairy in the region, closely followed by Indonesia.

The EU is the dominant exporter to the region with a 32% market share, followed by New Zealand with a 31% market share. Dairy exports from the US has grown significantly over the past twelve months, up 30.8% to 464,000 tonnes. Most of this growth occurred in the latter part of the year as the US seemed to shift product originally destined for China into this region, due to the trade dispute between these countries. In the three months to October US exports to China decreased 29.8% while US exports to the southeast Asian region spiked, up 45.0%. This has seen the US market share increase to 23%, up from 18% last year. As long as trade tensions remain, the US is projected to continue to try to expand its market share in this region.

Over the past year, exports from Uruguay also increased by 19.6%. This comes following a year of strong dairy production growth in the South American country. Toward the latter half of the year, milk production started to

decrease in Uruguay and culling rates spiked. This is projected to lead to a decrease in dairy exports from Uruguay to southeast Asia in the year to come.

Whilst other major dairy producers have increased exports to the region, Australian exports eased 1.3% to 265,000 tonnes. The value of Australian exports to the market contracted more, down 4.3% to US\$546 million. A volume drop in Australia's powder exports was the main factor behind this drop. SMP exports dropped 20.1% while WMP exports contracted 17.5%. The value of Australia's powder exports also decreased, with SMP and WMP sales down 25.2% and 14.3% respectively. Demand for dairy is forecast to grow in southeast Asia and competition is likely to intensify. Australia's ability to compete in this region will in part depend on how much milk is produced this year.

Mexico

Over the past twelve months, dairy exports to Mexico increased, up 6.0% to 711,000 tonnes. The US is Mexico's largest dairy exporter, accounting for roughly 80% of total exports. Since the US announced the withdrawal from the North American Free Trade Agreement (NAFTA), dairy exporters in the US have been concerned about potential fallout for dairy trade. In November the new US, Canada and Mexico free trade agreement (USMCA) was signed.



Over the past year the US increased exports to the market, up 16.3% in volume terms. Some reports suggest this increase was for Mexico to re-export dairy products to Venezuela and did not reflect growing demand within the market. Mexico's retaliatory cheese tariffs against the US are also (as of January 2019) still in place due to the trade dispute over the US steel and aluminium tariffs. This has seen a 1% decrease in US cheese exports to Mexico over the past twelve months. Any significant demand growth is unlikely as long as the trade dispute continues.

Middle East and North Africa

Dairy exports to the Middle East and North Africa (MENA) region grew 8.2% to 2.0 million tonnes, worth US\$5.7 billion. This increase was first reported in the October Situation and Outlook report and comes after several years of contracting imports. Algeria has been driving this increase, having imported 16% more dairy in the twelve months to October 2018, compared to previous year. The Algerian government has introduced a 70% import tariff on dairy products, such as cheese and butter. SMP and WMP, the main dairy products imported to the country, are not subject to this tariff. SMP and WMP exports increased 13% and 25% respectively and accounted for 86% of total imports over the year. When Algeria enters the world market to buy dairy the country usually buys large quantities of products. As this is an election year, it is likely Algeria will remain an active buyer until the election

in April. Part of the election budget also introduces an increase in food subsidies for basic foods, including milk, to 21%, suggesting demand for milk may continue to grow.

Australian exports to the MENA region grew 30.0% in volume to 33,000 tonnes over the past year, worth US\$100 million. Most of this increase was a result of Algerian demand growth. Milk powders made up the majority of Australian exports to Algeria. Australia exported roughly 8,000 tonnes of WMP and 17,000 tonnes of SMP to the region. This made SMP Australia's most valuable export product to the region.

Russia

Russia remains a fairly immaterial market for dairy exports and accounts for roughly 1% of total dairy trade. This has been the case since Russia placed trade embargoes on dairy imports from the EU, US, Australia, Canada and Norway. Anecdotal reports suggest Russian dairy production has in some regions flourished following the trade embargoes. There is no indication as to when these trade embargoes will be lifted. As long as they remain in place, Russia's significance as a dairy importer will remain low. Over the twelve months to October, Russia imported 111,000 tonnes of dairy products, a 21.3% drop from last year.



Indonesia – the next big market for dairy exports?

Indonesia is the fourth most populous country in the world and one of the fastest growing economies in southeast Asia. It is also a country of increasing importance and interest amongst major dairy exporters. Indonesia is the seventh largest importer of dairy in the world and over the past five years imports to the market have grown 7.8%. Whilst some suggest Indonesia could be the next big demand market for dairy products, several challenges remain for exporters looking to capitalise.

Indonesia's economy has expanded rapidly over the past decade, leading to rising household incomes and a growing middle class. This, combined with a surge in urbanisation, has resulted in an increase in household food expenditure and consumption of dairy products. Dairy products are considered a convenient way to stay healthy and demand for products that are perceived to be healthy has grown in recent years in Indonesia. Sweetened drinking yoghurts are become more and more popular as they are perceived to be healthy. Sweetened and flavoured single-serve yoghurts have grown substantially in popularity over the past five years, with both local producers and exporters increasing production capabilities, exports and sales. Dairy products are primarily sold in small, single-use pack sizes as cold chains

and storage opportunities are still largely under-developed.

Australia is the fourth largest supplier of dairy products to Indonesia, and Australian exports to the market have grown almost 20% in the past five years. Skim milk powder make up roughly 65% to 70% of Australian exports to Indonesia. Over the past five years, whey powder exports and cheese exports to Indonesia have grown significantly, up 72% and 31% respectively. Australian dairy products are both sold in supermarkets and used as ingredients in local production.

Whilst dairy exports from all major dairy exporters have increased 7.8% in volume in the past five years, Indonesia remains an under-developed market. A combination of reduced consumer purchasing, government trade restrictions and importer uncertainty has seen dairy imports fall over the past year. Exporters wishing to capture the forecast growing demand for dairy products face a number of challenges in doing business in the market. Primarily the distribution of the population in Indonesia across numerous islands and the often poor infrastructure make distribution difficult. Most companies are limited to Java (which contains both Jakarta and Surabaya) and Bali (which is more focused on tourism

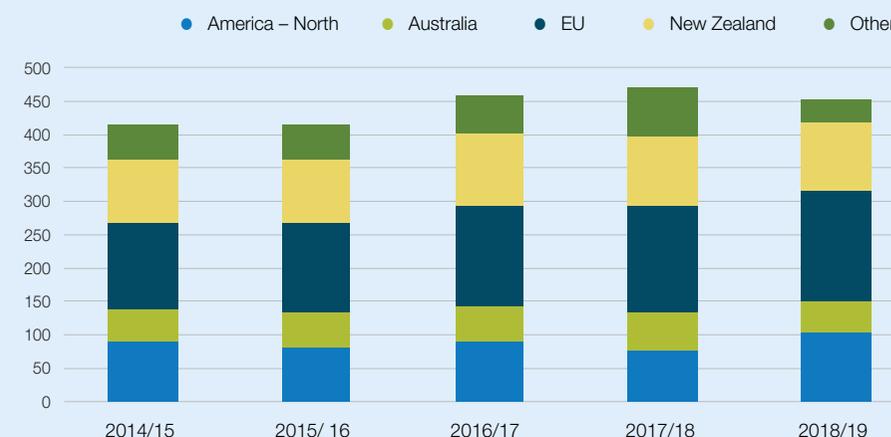
and hotel channels). Cold chains necessary for the distribution of chilled and fresh dairy products are also under-developed. Political uncertainty and large capital account imbalances increase the possibility of capital flight and further exchange rate volatility.

Domestic policy setting may also present challenges for exporters. The Indonesian Government has committed to improving port processing times and streamlining inspection and approval processes for agricultural imports. Nonetheless, the Indonesian Government also remains subject to protectionist and economic nationalist influences and has been known to place non-tariff restriction on

trade with little prior consultations.

Indonesia is forecast to experience further economic growth over the next five years, which will increase local demand for different dairy products. Australia's ability to capture this demand will not just depend on our domestic milk production, but on overcoming non-tariff and technical barriers to trade in Indonesia. The recently-agreed CEPA (Indonesian-Australian-Comprehensive-Economic-Partnership-Agreement) initiative aims to do just this. This trade agreement is set to improve market access for Australian exporters to the Indonesian market. The agreement is as of February 2019 not yet ratified.

Figure 5 Dairy exports to Indonesia by source



Source: GTA

Global affordability and substitutes

Global Dairy Import Affordability

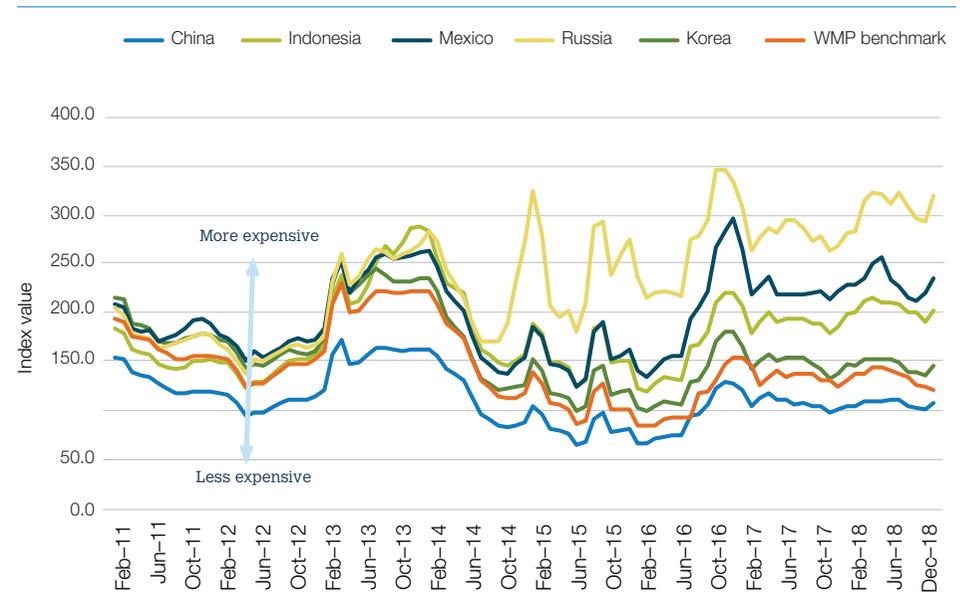
Dairy Australia's Import Affordability Index serves as a leading indicator of purchasing activity in major dairy import markets across the world. The index tracks changes in affordability for local customers in import markets, taking both global dairy commodity prices and local currency movements into account. The index uses WMP as the underlying basis for dairy commodity prices. A decrease in the index reflects improved affordability for importing countries. This could indicate a potential increase in import volumes, particularly in price sensitive markets. The increase could be a result of importers increasing the size of their orders or ordering more products while the price is favourable.

Since the latest report in October, Dairy Australia's benchmark monthly WMP spot price increased 3.4% to US\$3,000/tonne. This contributed to worsened affordability across all major importers observed in the index. Over the same

period the USD depreciated against all major importers' currencies, except against the Indonesian rupiah and the Russian ruble. This helped to partly offset the worsening affordability in each market as an appreciation makes USD denominated dairy imports relatively more affordable. Thus a stronger local currency can offset increases in global dairy prices. The most notable currency appreciation took place in Mexico where the local price grew 5.8%.

The Indonesian rupiah has depreciated 2.5% against the USD since the last report. Combined with a higher price of WMP import affordability worsened in the country. Despite this Indonesia increased imports over the last three months, with imports growing 20.2%, compared to the previous quarter. Over the year imports to Indonesia increased 1.5% signalling growing demand for dairy in the country despite the increase in price. This growing demand could result in exports to Indonesia expanding further in coming months.

Figure 6 Dairy affordability



Source: Dairy Australia, Bloomberg

Dairy price premiums and substitutes

Dairy and food manufacturers use different types of mixes depending on the relative price of products. This includes swapping dairy fats for vegetable oils or milk protein for soy protein depending on which product offers the most favourable price. Over the past decade the protein premium remained well above the butter premium, however in March 2017 the trend inverted and a 'new normal' was introduced. Subdued SMP prices and record high butter prices kept the trend like this for almost two years. In December 2018 the protein and butter premium reverted back with the protein premium again above the butter premium.

The milk protein premium is measured as the difference in US\$/kg prices between soy protein and skim milk powders. Since 2015, global SMP prices have been subdued, resulting in the low protein premium. The European SMP stockpile created a market disruption and has been one of the main

contributors to the low price. Sales from the intervention storage were initially slower than anticipated, however in the past few months healthy volumes of powder have been sold. The entire stockpile was cleared in early 2019. As SMP sales started to increase, so did the SMP price. Over the past year, the Australian price of SMP grew 25.7% and was in December 7.3% higher than at the time of the latest Situation and Outlook report. As a result the milk protein premium has grown and surpassed the butter premium.

In contrast to SMP, butter fat prices have started to contract over the last few months. Since the last report prices have dropped 20.0% to US\$4,800/tonne, following an overall easing of global butter fat prices. As a result the butter fat premium has declined and reached US\$5.34/kg in December 2018. Forecasts suggest that following the last SMP being sold from the intervention storage, global butter prices will continue to fall. This is likely to affect the butter premium in the months to come.

Figure 7 Dairy price premium vs palm/soy substitutes



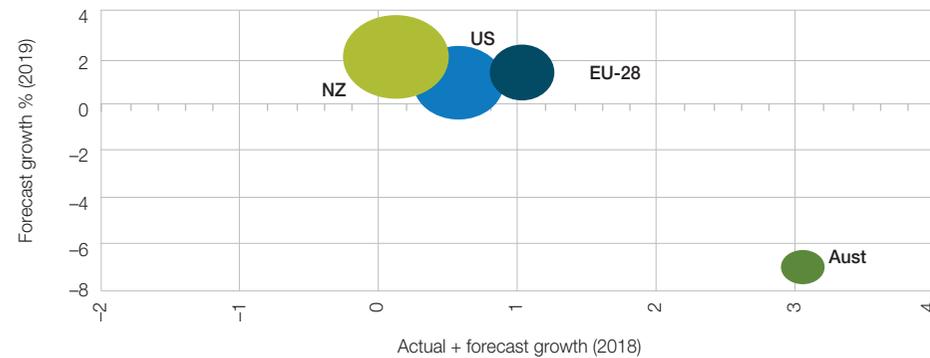
Source: Dairy Australia, Oil World

Global supply

Overview

A strong New Zealand season continues to dominate global milk supply patterns. Localised challenges have weakened but not reversed European and US production growth, whilst severe weather and cost challenges continue to impact Australian farmers.

Figure 8 Actual and forecast milk production growth – four largest exporters



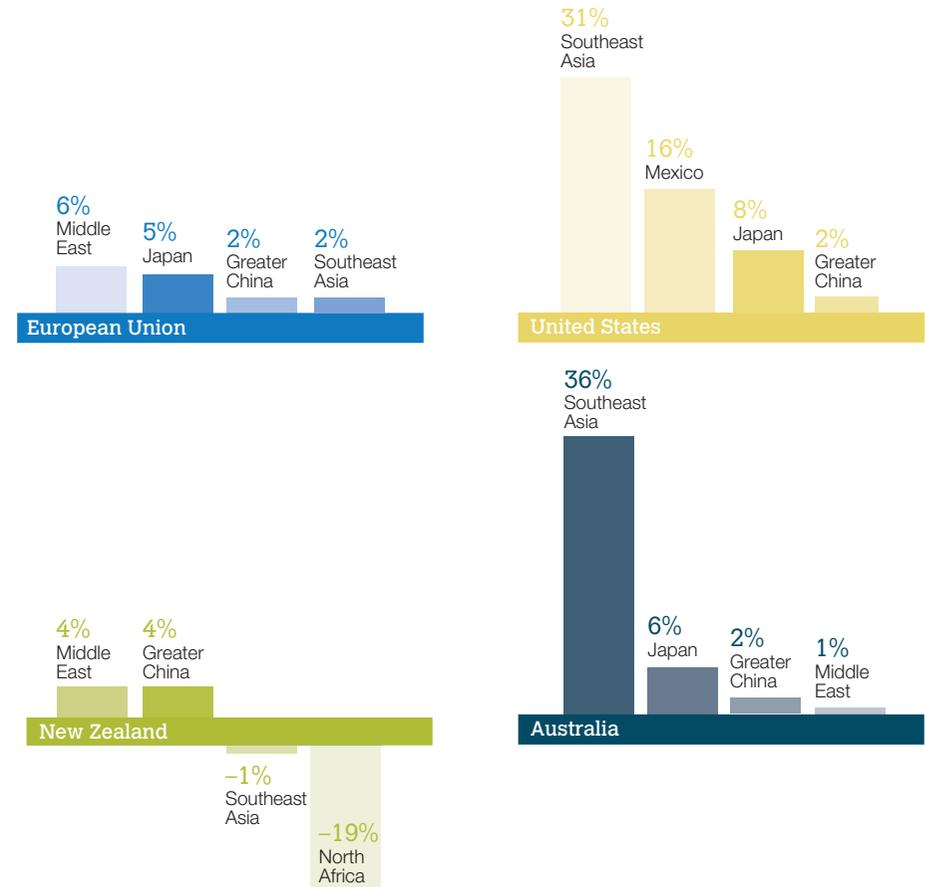
Note: Size of bubble represents share of global dairy exports. Data covers production seasons for Aust and NZ, calendar years for US and EU.

Source: USDA, DCANZ, Eurostat, Dairy Australia

Figure 9 Farmgate price movements – four largest exporters

Change in indicative farmgate price	NZ	EU-28	US	Australia
Compared to last report (Oct 2018)	∨ -4%	∧ 4%	∧ 4%	∧ 1%
Compared to prior year (Feb 2017)	∨ -4%	∧ 5%	∧ 1%	∧ 5%

Figure 10 Market volume trends – four largest exporters



Source: GTIS, Dairy Australia
Data represents 12 months to October 2018

European Union

European milk production weakened slightly over the northern hemisphere autumn, according to official data; down 0.2% for October 2018, compared to October 2017. The calendar year-to-date growth rate sits at 1.1%, having eased each month since January 2018, and local reports suggest this decreasing trend continued to the end of the calendar year.

Difficult summer conditions across a swathe of north-western Europe were largely to blame. Drier and hotter than average weather impacted north-eastern France, Belgium, the Netherlands and parts of Germany, reducing pasture and forage production. For these countries, production was collectively down 2.3% in October. Germany and France recovered quickly, whilst others are lagging – including the Netherlands, where phosphate controls are constraining production.

Further east, Poland had more favourable rainfall patterns (up 2.8% in October). Ireland had been bracing for a severe feed shortage but timely late summer rain appears to have reduced this risk, with milk production continuing to grow at double digits in year on year terms (up 20% for October). The UK has also seen production track above prior year levels, however this is expected to moderate as the seasonal peak approaches. Amidst a shortfall of forage in many parts of Europe, supplementary feeding is required to maintain production. The level to which this is pursued is a function of margins, which

are modest at present. Production is therefore particularly sensitive to farmgate prices.

One of the most notable developments in the European dairy market over recent months has been the speed at which the European Commission's substantial stockpile of skim milk powder (SMP) has been sold. At the time of writing the October Situation and Outlook, 282,000 tonnes remained in storage; this has since been reduced to 22,000 tonnes via aggressive selling, particularly in the later months of the year. The speed of the drawdown has been welcomed as removing a key downside influence overhanging the market, but most traders are cognisant of the fact that the product has been sold more quickly than it is likely to be consumed. Hence, much of the product has simply moved from public to private balance sheets. Nonetheless, recent sales have been at progressively higher prices, and fresh SMP prices are also moving up, to the point where SMP and butter are currently offering better returns than cheese. This is, in turn, beginning to impact butter pricing.

Cheese is still expected to be the product of choice for European milk in 2019, and the European Commission anticipates that extra product will predominantly be exported. Whilst this presents a continued competitive challenge, the impact of unfavourable weather in 2018 has reduced the volume of milk expected to be produced. The Commission has revised its 2018 outlook to an increase of 0.6% relative to 2017, followed by growth of

0.8% in 2019, to a total of close to 154 billion litres.

United States

Milk production in the United States has continued to grow, albeit at a variable rate through 2018. Data for the calendar year to November suggests an increase of 1% relative to the same time in 2017, but since September, monthly growth has slowed. In addition, November's growth of 0.6% masks a re-emergence of the 'two speed' dairy industry with varied fortunes from east to west.

Continuing a trend reported in the October 2018 Situation and Outlook, the Midwest and north-eastern regions have seen numerous farm exits as a prolonged period of low milk prices and oversupply weighs on farms in the more traditional dairying regions. Other regions in states to the west (such as South Dakota, Kansas, Colorado and Washington) with larger farms and closer export linkages are growing. In California, milk production was up nearly 3% in November, compared to 0.1% in Wisconsin. The national dairy herd has stopped growing, and in year-on-year terms has begun to shrink, with the last five months of growth entirely from increases in per-cow yields.

Late in December, the US Congress passed the latest Farm Bill, including a revamped margin insurance program. The 'Margin Protection Program' (MPP) of the previous Farm Bill was not well regarded by farmers, and the main impact of the new 'Dairy Margin Coverage' will effectively be more

money paid out to enrolled farmers. Farmer advocacy group the National Milk Producers Federation (NMPPF) have stated that for 2018, margin payments to enrolled milk producers would have been four times higher had the DMC been in place, relative to MPP. The new program increases the available scope of coverage; increases the maximum margin over feed costs (MOFC) that can be insured; reduces premiums; and allows farmers to concurrently enrol in the DMC program, as well as other government-sponsored dairy income protection insurance programs.

Although the revised North American Free Trade Agreement (NAFTA), renamed as the United States Mexico Canada Agreement, has been negotiated, US trade disputes with Europe and China continue to weigh on agricultural markets. Accordingly, President Donald Trump has authorised the second and final round of payments under the 'Trade Mitigation Program'. For dairy farmers, this will form a payment of US\$0.12 for each 100 pounds of 2018 milk production (around A0.37c/L), up to a total of US\$125,000 (A\$176,000) per farm. An initial payment of the same amount was made in September 2018.

In the market, the US domestic market continues to perform well, driving rapid drawdowns of cheese and butter stocks. Liquid milk sales have continued their perennial downwards trend, whilst yoghurt sales have also been falling recently. Exports have been mixed, with prospects for SMP/non-fat dry milk improving in line with a more lively 'post-intervention stockpile' market, at the

same time as the global cheese market wobbles. Prices of whey powders and concentrates (of which the US is a major supplier) have recently begun to firm, which is likely to support further US exports in the months ahead.

The USDA has stuck with its forecast of 1.1% growth for the full 2018 year, but reduced its initial 2019 forecast in December. Despite the issues facing farmers in numerous states, the current calendar year is expected to generate another modest increase in milk production, 1.3% above the anticipated 2018 total of 99 billion litres.

New Zealand

New Zealand experienced a very favourable start to the 2018/19 season, with weather conditions across most dairy regions remaining supportive of pasture growth through the spring. For the (June to May) season to December, milk production was up 4.4% on a volume basis, and while November itself slowed to 1% growth, December production rebounded to a monthly total 4.4% higher than December 2017. Commentary concerning dry conditions has begun to appear, but apart from central Otago (mildly dry), most areas appear to be well-placed in terms of soil moisture. The rainfall outlook through the balance of summer offers little cause for concern, with rainfall totals expected to be around average.

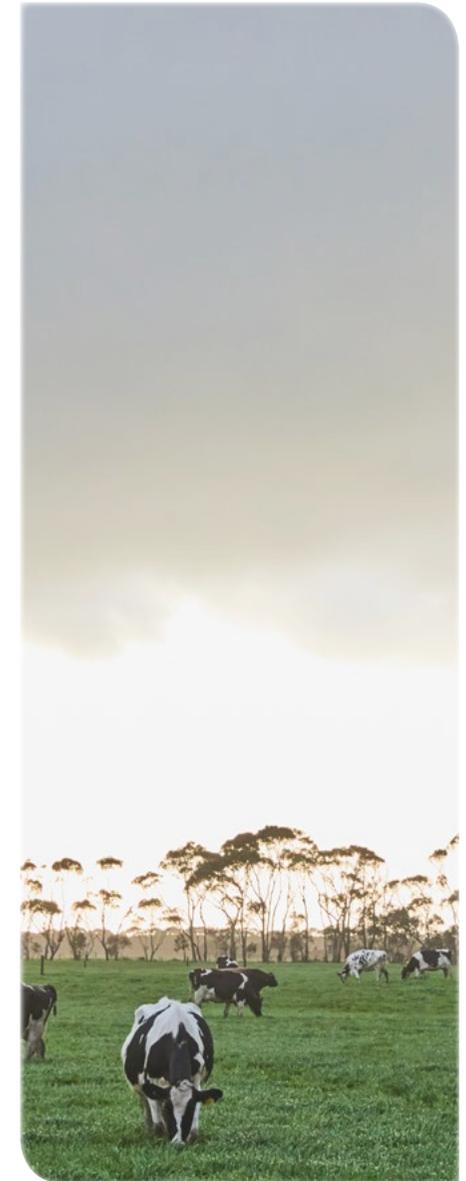
Farmgate milk prices have continued

to fall, with Fonterra's most recent forecast anticipating a range of NZ\$6.00 to \$6.30/kg MS (midpoint around \$5.98/kg MS in Australian terms), well below the initial forecast of NZ\$7.00/kg MS at the beginning of the season. Despite recent Global Dairy Trade (GDT) results breaking a months-long string of commodity price falls, few are expecting upward revisions amidst buoyant global milk supplies. Westland Milk Products is currently forecasting a NZ\$6.10 to \$6.50kg/MS range whilst Synlait's latest (November) forecast flags a NZ\$6.75/kg MS full season price. Current values are still profitable for the majority of New Zealand farmers, however high supplementary feed prices mean that the margin generated by their use is tight. Under such conditions, an unexpected deterioration in pasture growth through the season shoulder would more likely result in farmers culling or drying cows off early.

The New Zealand dairy industry is also facing renewed pressure on environmental grounds, with several NGOs campaigning to reduce the overall herd size, and restrict nitrogenous fertiliser use. With water quality and greenhouse gas emissions being issues that reach the highest levels of government, further regulatory impositions are likely, adding cost and reducing business flexibility for New Zealand farmers. The Dairy Industry Restructuring Act (DIRA) that allowed Fonterra's formation is

also under its periodic review, adding further uncertainty to the regulatory environment.

Nonetheless, the short-term outlook is for further, incremental growth in milk production. A January forecast from NZX predicts a modest full season increase of 1.9% relative to 2017/18. This implies a total of around 21.8 billion litres, just shy of the 2014/15 record of 21.9 billion litres.



The Australian industry

Milk production

Australian milk production has continued to lag 2017/18 levels, tracking 4.8% lower for the current season to December. The year-on-year gap has also increased as the season progresses, with December intakes down 7.8% compared to November 2017.

After a period of widespread dry conditions, the late spring-early summer period brought varying degrees of relief. Much of southern Victoria and Tasmania saw good rainfall through November and into December, extending the growing season and reducing fodder demand. In other areas, such rainfall was not received, or arrived at inopportune times. Nonetheless, it has provided relief to the beneficiaries, and likely reduced buyer activity in the hay market in the short term, helping ease the price pressure for others. In addition, the rain in December kept green grass in milking rations for longer than usual, supporting per-cow production and the economics of retaining marginal cows for longer, relative to culling.

The new calendar year has reverted to drier and hotter conditions in most regions. Queensland and NSW continue

to be impacted by high feed costs and profitability challenges. Rainfall across the east coast has eased drought conditions for many regions, although dry conditions persist in northern NSW, southeast Queensland, and the Darling Downs. As a result, milk volumes are expected to continue to fall year-on-year. Current year-to-date comparisons are ahead of the previous full year forecast, but the year to date trend on a monthly basis is worsening.

Northern Victoria has seen a particularly large drop in volumes in year-on-year terms, due to the confluence of dry conditions, high purchased feed prices, and expensive irrigation water. The latter continues to dominate sentiment. Against a strong second half of 2017/18, substantial year-on-year declines look set to continue, not least due to ongoing exits in the short term, indicating further downside risk.

Gippsland and southwest Victoria have both so far tracked above expectations in terms of milk flows. Many parts of these regions have had a very favourable season through the majority of spring and early summer, boosting home grown fodder availability. This has

allowed an improvement to the outlook for both regions. Purchased feed costs mean margins are still tight however, and central (particularly the Macalister Irrigation District where many irrigators have insufficient water remaining) and east Gippsland are still struggling.

Parts of South Australia (especially around Mount Gambier) are also experiencing a good season, and the state is in a reasonable position in terms of hay and grain availability. Broader feed market dynamics mean prices are still high however, and farm exits have been reported. For these reasons, current growth in milk production is expected to moderate from current levels against strong comparables in the second half.

Milk production in Western Australia has tracked below last season for 2018/19 to date, struggling with a wet end to winter and late start to the spring flush. As spring has progressed, seasonal conditions have improved and farmers have reported excellent hay and silage yields. Despite availability not being an issue, hay prices have continued to increase as pressure from other markets (including exports) is maintained.

Similarly, despite early concerns the winter crop harvest looks set to break records. Grain prices have eased as the harvest has progressed, but are expected to remain high.

As foreshadowed in October, dry conditions took hold in Tasmania over spring, slowing milk production growth rapidly from November. Purchased feed costs have also escalated as the impacts of mainland market developments are felt, compressing margins. Uncertainty in the corporate farming and processing sectors also has the potential to impact confidence and the appetite for further expansion after last season's rapid growth. With a very strong second half to compare against, it is expected that growth will continue to slow, ultimately producing a steady full season result.

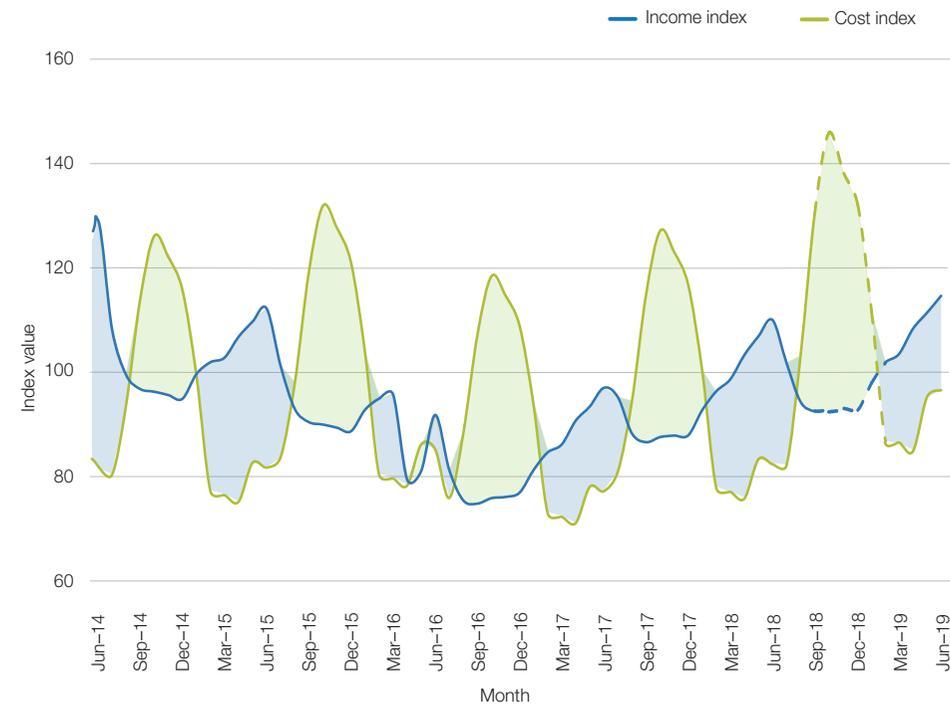
Dairy Australia's forecast for 2018/19 milk production has been revised to reflect the ongoing risk downside associated with these challenges. The current forecast is for a decrease of between 7% and 9% relative to 2017/18, implying a total of between 8.45 and 8.65 billion litres.

Export region weighted cost and income indices

The weighted cost and income indices consider the near-term outlook and highlight the net impact of market changes. The latest update suggests:

- › A better milk price this season has provided some relief on the income front, although many southern farmers remain financially stretched and are looking for further improvements
- › The cost of inputs has risen substantially – despite grain and hay prices easing slightly in recent months, prices for these remain at multi-year highs, whilst irrigators have also experienced continued increases in water prices
- › With the outlook for costs offering only limited potential for short term relief, favourable rainfall patterns and an improved dairy market offer the best chance of stabilising margins over the second half of 2018/19. In the event that either of these does not deliver at the farmgate, further exits and another significant drop in milk production are likely.

Figure 11 Export region weighted cost and income indices



Australian Dairy Plan

The Australian dairy industry continues to be challenged with rising costs of production, retail price stagnation, tough seasons and changing global markets. There is opportunity for the industry to more effectively navigate the new operating environment.

This year will see the whole industry come together to develop the Australian Dairy Plan. A plan that sets the agenda for the industry on a national scale, will provide further direction and a clear focus to help ensure dairy remains competitive and successful.

The collective contribution of farmers and people connected with the industry to developing a national plan will be key to its success. The process will involve industry-wide consultation to identify challenges and opportunities for dairy in the short, medium and long-term, and allocate priorities and responsibility.

The output will be a single industry plan that sets a course for the next five years and beyond, providing guidance for all. It will also include measurable goals to plot how we are going along the way.

The Australian Dairy Plan is supported and endorsed by the Australian Dairy Industry Council, Dairy Australia, Australian Dairy Farmers, Australian Dairy Products Federation, the Gardiner Foundation and Dairy Moving Forward.

Policy updates

Pain relief for disbudding

Aligning farming practices, particularly in relation to animal welfare, to community and consumer expectations is a key focus for Dairy Australia. An area of recent focus is providing pain relief to animals for painful procedures, including the process of disbudding calves.

Most dairy animals grow horns, as there is only a limited amount of polled (non-horn growing) genetics available. These are dangerous to their herd mates and to people working with these animals, and therefore dairy animals are generally disbudded under two months of age using a cautery iron before the horns are able to grow.

Providing pain relief for disbudding has been shown to improve growth rates and result in better welfare outcomes for calves.

The ADIC has recently endorsed the policy statement that 'pain relief should be provided for disbudding and dehorning'. This follows the affordable and non-veterinary prescribed pain relief product Tri-Solfen® becoming

registered for this purpose, which provides access for contractors and farmers to pain relief for disbudding calves. As awareness of the improved welfare and growth outcomes grows amongst dairy farmers, many are choosing to use veterinary services to provide comprehensive sedation and longer acting pain relief for the disbudding process.

PASE Funding

The Commonwealth Government through the Department of Agriculture and Water Resources offered a funding program to agricultural commodities, aiming to improve market access for small exporters. Dairy Australia secured some of this funding on behalf of the dairy industry.

Expanding business operations to international markets can be daunting and requires specific skills. Dairy Australia has developed a series of tools and resources to assist small exporters, and those considering expansion into the export arena, in understanding what is involved to enhance the probability of success.

There are a number of tools which combine to form an online resource for dairy manufacturers, the Dairy Manufacturing Resource Centre. Here, users will discover self-assessment tools, and resources which can allow them to determine their current readiness for export, and actually determine if it is the correct path for them at this time. The website features education modules, links, videos, webinars on a broad range of topics aimed at upskilling would-be exporters. There is particular emphasis on the area of dairy food safety, reflecting how essential maintaining a safe food status is to the success of the individual exporter, but also the broader reputation of the Australian dairy industry.

For many, the initial interest will be to take advantage of the booming demand for high quality, safe dairy products in China. This is a challenging market with an ever changing regulatory. A specific module has been designed to assist in navigating the registration and approval processes required to access this market.

For more information, visit manufacturing.dairyaustralia.com.au



Dairy Australia Limited ABN 60 105 227 987
Level 3, HWT Tower
40 City Road, Southbank VIC 3006 Australia
T + 61 3 9694 3777 F + 61 3 9694 3701
E enquiries@dairyaustralia.com.au
dairyaustralia.com.au