Dairy Australia

DAIRY SITUATION AND OUTLOOK

OCTOBER 2020

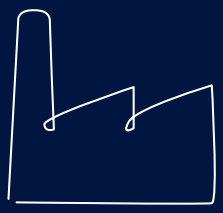
SEVEN KEY DRIVERS

OF THE AUSTRALIAN DAIRY INDUSTRY

Global supply

Situation: Neutral | Outlook: Neutral

Global milk supply continues to grow, as incentives to curb production in the US and EU have been phased out, and the southern hemisphere enters its peak production months. Whilst global commodity prices have been cushioned from severe impact so far, increased supply is likely to weigh on the market balance.



Australian production

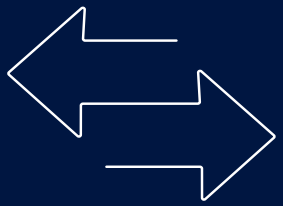
Situation: Positive | Outlook: Positive

Australia's national milk pool continues to improve. Milk supply is now increasing in most regions, as farmers look to recover some lost ground. Dairy Australia's preliminary forecast suggest milk production will grow between 1% to 3% in 2020/21.

Global economy

Situation: Negative | Outlook: Negative

The economic fallout from the COVID-19 pandemic is expected to eclipse many previous market shocks, with most countries now in a recession. Restrictions implemented to stop the spread of the virus have especially affected consumer consumption through foodservice channels.



Australian market

Situation: Neutral | Outlook: Negative

With people staying home more than ever before, retail demand for dairy products used in cooking and baking has grown, whilst demand remains subdued through non-grocery channels. Retail sales of butter, everyday style cheese and yoghurt continue to increase, as sales of single-serve products have decreased.

Inputs

Situation: Positive | Outlook: Positive

There seems to be a level of cautious optimism trickling through as feed production and weather outlooks improve. Fodder, grain and purchased water costs have eased in most regions and the weather-to-date has allowed farmers to grow more feed on farm.

Global demand

Situation: Neutral | Outlook: Negative

Global demand has been relatively uneven over winter. Whilst demand in some countries, such as China, grew, it remains weak in many price-sensitive markets. With a worsening economic outlook and growing unemployment, demand is expected to be impacted throughout the year.

Exchange rates

Situation: Negative | Outlook: Neutral

A comparably weaker $US has seen the Australian dollar appreciate over winter, up 6% since June and more than 17% since the low in March, to 0.73 $AU/$US. A relatively weak exchange rate has made US dairy products more cost-competitive in key export markets and increased global competition.

Positive | Neutral | Negative

EXECUTIVE SUMMARY

When speaking about the dairy industry in 2020, two very different stories are likely to be told. One tells the tale of consistently improving conditions at the farmgate in most regions as the season progresses. Favourable weather, easing input costs and relatively strong competition for milk have further boosted confidence, and generated a positive flow-on impact on milk production. The other speaks about the ongoing pandemic and the market challenges it creates by depressing global economic growth and disrupting dairy demand. As the broader industry works through these different narratives, farmers are busy focusing their efforts on the spring milk flush.

In most regions, there seems to be a level of cautious optimism trickling through as the outlook turns more favourable. Soil moisture levels have significantly improved compared to last year, and fodder production is set to increase. Whilst many regions have benefitted from rain, parts of Queensland (Qld) have started to dry and more moisture is needed. Given the expected increase in national fodder supply this season, hay prices have eased in most regions. Fodder costs still remain above the long term average in Western Australia (WA), parts of New South Wales (NSW) and Tasmania. However, as the weather to date has allowed farmers to grow more grass on farm, it has decreased many businesses reliance on the purchased feed market.

Australia's grain harvest is also looking promising and prices have dropped in all regions since the start of winter. With international wheat production expected to break a new record this season, global grain values have eased, further alleviating pressure on domestic prices. The cost of temporary water has dropped significantly, with prices in northern Victoria and southern NSW more than halving in August compared to last year. Recent announcements from the federal Water Minister, pledging to avoid additional irrigation buybacks in the Murray Darling Basin, have been welcomed by irrigators as a boost to future water security.

Preliminary Dairy Farm Monitor Project (DFMP) data shows that the cost of production across the country remained relatively firm in 2019/20. This was partly due to the poor seasonal conditions in 2019, which kept input costs elevated. In addition, a relatively high milk price also incentivised increased feeding at a time when feed supply was limited. Easing input costs since the start of winter are expected to translate into an overall drop in average cost of production this year, even if higher volumes of concentrate inputs are maintained.

Comparatively fierce competition for milk resulted in another set of relatively firm opening farmgate milk prices in most regions, offering many businesses hope for financial recovery after recent challenging seasons. It has also contributed to a further increase in milk production, with Australia's national milk pool growing 2.9% in July and preliminary figures indicate a further increase in August.

Tasmania, Gippsland and South Australia (SA) continue to lead the charge with strong growth in the first two months of the new season. In NSW, favourable weather reduced farmers' reliance on the purchased feed market, which has improved sentiment. This is having a positive impact on milk production, however as the last years of drought forced many to destock, overall cow numbers have decreased. Similarly, herd and farm numbers are down in western and northern Victoria, although with improved availability of affordable feed, per-cow yields have increased. In WA, milk production has been off to a slower start as the weather took longer to improve. Following some winter rain, the outlook has now turned more favourable. The exception to production growth remains Qld, where dry conditions, a contracting dairy herd, and relatively weak confidence remain in evidence.

These improvements come as the Australian Dairy Plan is launched, with the stated goal of driving a more profitable, confident and united dairy industry.

With the economic fallout from the COVID-19 pandemic expected to eclipse previous market shocks, most countries are now in a recession. Due to the strategies implemented to stop the spread of the virus, consumer consumption (especially through channels such as foodservice), has been significantly affected. Whilst dairy commodity prices have proved resilient so far, global demand has been uneven. In China, demand has remained stronger than many initially predicted,

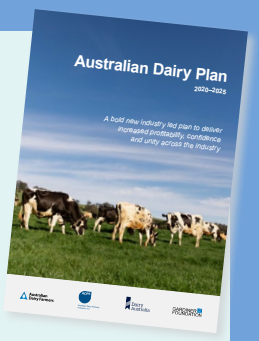
supported by an increased prioritisation of food security. Since the initial COVID-19 outbreak, there has been a global push to boost domestic food supplies with several governments increasing purchases of storable products, such as milk powders, citing food security reasons. Not all countries have been able to financially support these measures, and weaker demand for dairy overall has been observed in price-sensitive countries in southeast Asia and other emerging markets. The increase in unemployment rates is also likely to subdue demand in some regions where dairy is priced at a premium relative to incomes.

Dairy demand within Australia has also been affected, as consumer habits and purchasing behaviour have changed. With more people staying home than ever before, demand for dairy products used in cooking (and baking) has grown. This includes sales of butter, which grew 18.2% in volume in retail stores in the 12 months to August, as well as retail sales of everyday style cheese and plain Greek yoghurt[1]. Before the pandemic, premium dairy products like flavoured yoghurt or speciality cheese, usually sold in individual packsizes to be consumed on-the-go, were a major growth driver for the industry. Now consumers seem to be increasingly focusing on buying dairy products in value packs to be consumed at home. Disruption to the domestic market has flipped the longstanding cream deficit into a surplus, exacerbated by continued growth in butter imports. With domestic cream values having spent much of 2020 heavily discounted, the significant local price premium that has incentivised such growth is likely to remain subdued as the market rebalances.

At the same time as consumer demand is changing, and under pressure in some markets, global supply of dairy is mounting. In the northern hemisphere supply growth has picked up as government and processor incentives to curb milk production were phased out over winter. Milk supply in the US has particularly exceeded expectations, growing 1.8% in August compared to last year. Similarly, in New Zealand (NZ) a mild winter has boosted pasture growth with experts predicting the season to finish 2% higher this season. This global milk production growth is likely to weigh on the market balance unless resurgent demand can soak up the additional milk.

This potential market imbalance remains a risk, particularly in light of the slow economic recovery ahead, even under a favourable COVID-19 scenario. Given already-announced 2020/21 minimum milk prices, the shift in market fundamentals is not expected to undermine farmer returns in the current season. It may, however, cap further upside potential, especially following the recent strength in the Australian dollar. From a farmgate perspective several things are going well, as input costs ease, confidence rebounds, and milk production continues to grow. Whilst the story is far from finished, this year could finally provide the industry a much needed breathing window and farmers the time to build up equity again.

Australian Dairy Plan



On the 28th of September, the dairy industry launched a new strategic plan, the Australian Dairy Plan. This plan aims to drive a turnaround in the industry's outlook over the next five years by increasing profitability, confidence and unity.

The plan's key commitments are to:

- Reform industry structures to create a more cohesive dairy industry and strengthen the influence with key stakeholders.
- Attract and support new people and investment to build the industry.
- Increase efforts in marketing and promotion to build greater levels of trust and improve the value of dairy.
- Intensify the focus on farm business skills to improve profitability and better manage risks.
- Restore trust and transparency between farmers and processors to strengthen industry confidence.

In addition to these commitments, the plan highlights the importance of ongoing programs to ensure the dairy industry can prosper long term. To access the complete plan, please visit **dairyplan.com.au**

1 Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 09/08/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company

AUSTRALIAN MARKET: THE ISO-COASTER

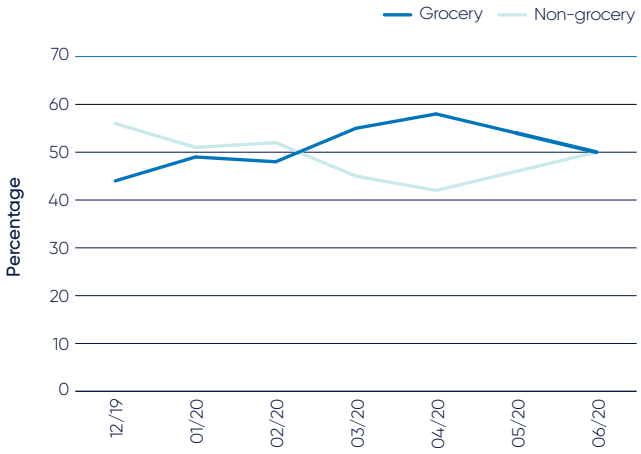
THE PANDEMIC IS SHIFTING DOMESTIC DEMAND FOR DAIRY BY CHANGING CONSUMER HABITS

According to a much quoted rule, a new habit is formed over 21 days while it takes 90 days to make a permanent lifestyle change. Although the science behind this claim is difficult to substantiate, the consequences of new habits have probably never been quite as apparent as during 2020. With people stuck at home more than ever before, consumers are fundamentally changing their behaviour, as well as the products they buy. Whilst the panic-buying of toilet paper and long life milk proved temporary, consumers have started to get used to a new way of living, with implications for domestic dairy demand.

Through the roller-coaster that was the first wave of COVID-19 infections, dairy demand remained relatively resilient, in part demonstrating the industry's ability to quickly adjust. In many instances the supply chain was flexible and able to adapt, for example by shifting products destined for foodservice channels into the retail sector. This helped to mitigate revenue loss when foodservice demand was virtually wiped out overnight. Data from Dairy Australia's domestic sales database shows that sales of cheese through grocery channels surged during the first three months of the pandemic. This increase did not manage to fully offset the decrease in non-grocery sales, which plummeted over the same period. From May onwards, as different states eased lockdown restrictions, sales reverted back to longer term averages.

The strength in demand also showed just how valued certain products are, as consumers were willing to change purchasing behaviours when pandemic-induced restrictions upset supply chains. As people no longer travelled to work or school, sales of products usually purchased on-the-go, in convenience or petrol stores, dropped. Flavoured milk was one example, with the volume sold through non-grocery (route trade) channels down 19% in 2019/20.

Figure 1 Share of domestic cheese sales



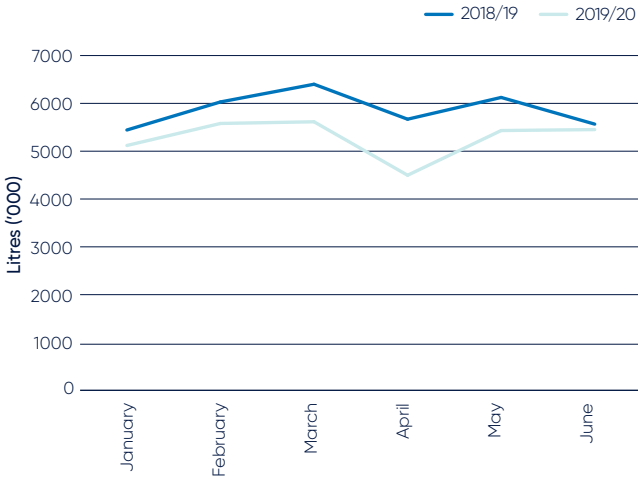
Source: : Dairy Australia Domestic Sales Database

Fortunately, many consumers turned to supermarkets for their flavoured milk fix. This resulted in an increase in grocery demand, with Dairy Australia's domestic sales database showing sales grew 6% in 2019/20. Whilst consumers were quick to change purchasing habits, the increase in grocery sales did not manage to completely offset the loss from non-grocery outlets. Nationally across all channels, flavoured milk sales ended 3% down for the financial year.

This is significant, because flavoured milk is a key profit driver for the industry due to its relatively high average retail price. According to data from Nielsen Homescan flavoured milk was retailed at $3.45/litre on average, in the 12 months to the 9th of August, while fresh white milk was sold for $1.50/litre. Flavoured milk accounts for about 20% of the retail value of fresh milk, whilst only making up 10% of the volume.[2]

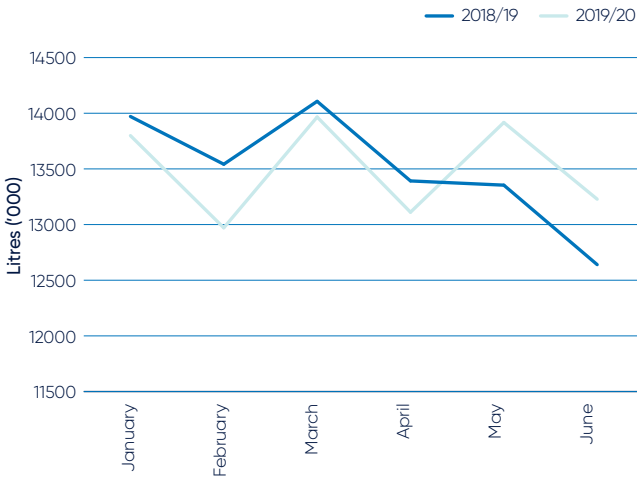
2 Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 09/08/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company

Figure 2 Non-grocery sales of flavoured milk



Source: : Dairy Australia Domestic Sales Database

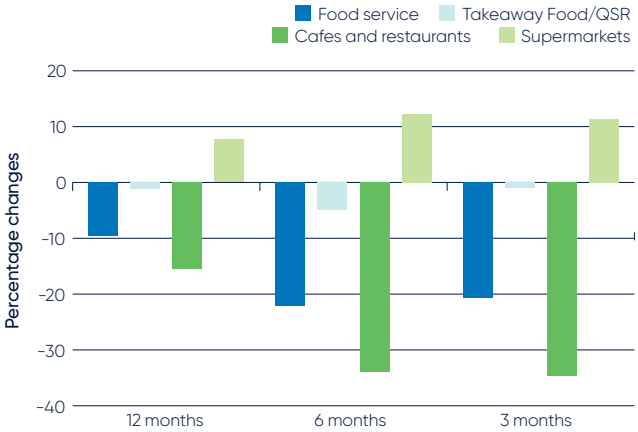
Figure 3 Grocery sales of flavoured milk



Source: Dairy Australia Domestic Sales Database

Whilst flavoured milk has been one product where a significant shift in consumer buying behaviours between channels largely protected sales, there have been winners and losers from the COVID-19 pandemic. Not surprisingly, as consumers spend more time at home, restaurant revenue has fallen. Although restaurants and cafés have reopened in many states, sales remain considerably weaker than last year, especially in Victoria. In comparison, takeaway sales have surged to account for most foodservice demand. Traditionally takeaway outlets tend to utilise more dairy in their menus, supporting demand for products such as cheese, used on pizzas. Whilst food ordering apps may have been a go-to for many in this time of reduced freedom, the home kitchen has also receiving a solid workout.

Figure 4 Foodservice Index – July 2020



Source: Dairy Australia Foodservice Index

Cooking (and baking) at home has experienced a renaissance. This has helped drive a continued increase in supermarket sales, with Dairy Australia's Foodservice Index showing a 11.3% growth during the three months to July. As consumers eat more meals at home, dairy products used in cooking (and baking) are the ones that have grown the fastest since the start of the pandemic.

Demand for butter has surged with retail sales growing 18.2% in volume and 16.3% in value in the 12 months to the 9th of August 2020. Much of this growth occurred from March onwards, when COVID-19 was declared a pandemic. Households also appear to be buying larger packsizes, with sales of 500gram packs growing 21.8% in volume, whilst sales of 250gram packs decreased 2.4%.[3]

Similarly, retail sales of cheese have increased, up 6.4% in volume in the 12 months to the 27th of June 2020. Everyday style cheese, such as cheddar blocks or shredded cheese, made up a large portion of this growth. Conversely, as people have not been entertaining visitors at home, the growth in sales of other cheese types, such as feta, parmesan, and halloumi, has slowed. These types of cheeses are usually retailed at a higher average price, around $16.60/kg, compared to everyday cheeses, sold at $12.40/kg.[4]

Yoghurt sales in supermarkets have also grown, with plain Greek yoghurt leading the charge, up 7% in volume in the 12 months to the 27th of June. This type of yoghurt is usually sold in larger packs and retailed at a lower average price ($5.50/kg) compared to flavoured Greek yoghurts or kids' yoghurt.

3 Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 09/08/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

4 Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 27/06/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company

Sales of these other types of yoghurts have also increased, however at a slower growth rate compared to plain Greek yoghurt.[5]

Before the COVID-19 outbreak, premium dairy products, usually sold in individual or small packsizes, were a major growth driver for the industry. This included sales of single-serve yoghurts or single-serve cheese packs consumers grabbed on-the-go. As people have settled into new habits, working from home, and moving around less, convenience has taken a back seat. A key focus instead seems to be buying big-packs and affordable products to be consumed at home.

It is encouraging that dairy is a key ingredient in many recipes since consumers are cooking and baking more than ever before. This helps support domestic demand for dairy and shows growth opportunities available for the industry. As the pandemic is cementing new consumer habits over many months, it is likely some of these new habits will become permanent lifestyle changes. If realised, the industry's ability to capitalise on new growth trends will be key to ensure strong ongoing demand for Australian dairy, as we settle into a new normal.

So what?

Australian consumer habits have changed significantly in the past year as a result of the pandemic. Whilst the dairy supply chain has been able to adapt to these changes, the economic challenge created by this pandemic is impacting higher value product lines. As some of the new consumer purchasing behaviours can be expected to linger for the short to medium term, the industry's growth opportunity appears to be in the home-cooking direction.

5 Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 27/06/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

FARMGATE PRICING: FAT'S FORTUNE VERSUS PROTEIN'S PROSPECTS

CHANGING THE RELATIVE VALUE OF DIFFERENT DAIRY COMPONENTS?

Overview

It is well established that cow's milk consists of solids (fat, protein, lactose and minerals) and water, the latter of which accounts for about 87% of the volume. The specific composition for milk can vary widely within and between regions, due to longer term influences such as cow breed and genetics, as well as shorter term factors like seasonal conditions and animal nutrition.

In the short term, the ability of farmers to make changes to relative milkfat and protein composition in milk is largely limited to ration formulation, with more significant changes requiring different breeding and management decisions. Targeted investments in herd genetics and farm infrastructure tend to be made in support of longer term farm planning and strategic considerations.

This has traditionally been reflected at the farmgate, where the changes to the relativities of milkfat and protein components that make up the basis for Australian milk prices have generally been limited and infrequent. In short, dairy commodity price fluctuations have a limited impact on the underlying relative value of different components in the farmgate pricing formulas, and they tend to change once per year at the most – and in reality, much less frequently.

Longer term market pressures have emerged at times. Whilst much of history saw the protein component disposed of (for example as stockfeed), in recent decades it became more valuable, attracting a higher price per kilogram than milkfat. Over the past six years, the tables have again turned, and milkfat has seen a resurgence driven by a steady increase in the global value of, and demand for, fat-based products such as butter.

This has prompted the adjustment of farmgate price formulas in favour of higher milkfat pricing, and as a result, raised questions around the extent to which farmers and their supporting industries should adapt. Is higher fat pricing a 'new normal', and are we likely to see further incentives to favour milkfat production, over protein?

Farmgate pricing has diverged, and placed increasing value on milkfat

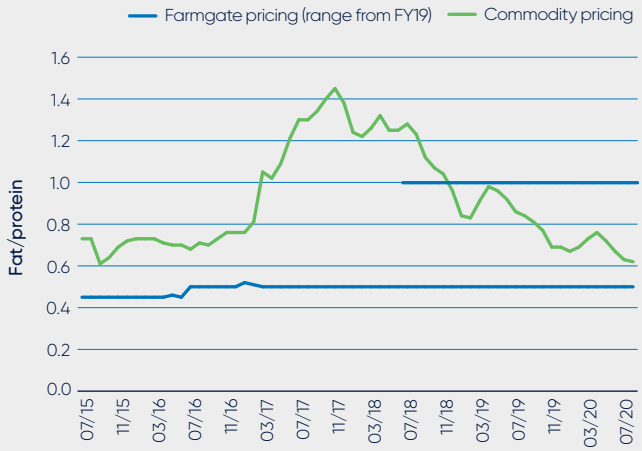
Since the dairy industry underwent full deregulation in 2000, farmgate milk pricing has been determined primarily by market forces. Deregulation of the industry also removed barriers for interstate milk movement, and over time a growing volume of milk from export-oriented southern states has serviced markets in northern states. This has increased the indirect exposure of these regions to global market forces, even where they do not themselves export significant volumes of product.

Whilst Australia's processing sector has changed significantly in the past decade, milk pricing mechanisms have been slower to adjust. An opening price is still announced at the start of each milk year, that the farmer will be paid throughout the season. Generally, this is a conservative starting point, and 'step ups' (increases to the original price) are announced and paid throughout the year based on the company's performance, and competitive dynamics in the farmgate milk market. In many ways, the recently implemented Dairy Code of Conduct has further entrenched this system as supply

contracts limit milk movement during the season. The Code has also increased the significance of the opening price (and pressure to maximise it), by concentrating farmgate supply competition into the pre-contract period.

Over the past two decades the relative pricing of protein and milkfat has remained fairly stable. However, in recent years, processors have altered the ratio to better reflect the global market at the time. On average this has seen the fat component move to being paid at half the per-kilogram value of protein, compared to the previous standard of 0.4 (the 2.5:1 ratio). Some have made further changes, and the ratio has diverged between processors; farmers supplying some processors are now offered a choice of protein:fat pricing ratios. From 2018/19, these options are depicted as a range on the chart below (where protein pricing is the denominator).

Figure 5 Fat/protein commodity vs farmgate price ratios



Source: Dairy Australia

Commodity relativities have fluctuated, but tend to normalise

In recent decades, the unit price of dairy protein on commodity markets (as calculated from the price of skim milk powder (SMP) on a protein content basis) has been above that of milkfat (derived from butter pricing).

Since the early 2010s, however, pressure on this equilibrium began to mount. The foundation for this included renewed growth in consumer appetite for butter, at the expense of the vegetable oil substitutes that had eroded the former's market share since the 1940s.

In part this is due to an evolving understanding of the risks posed by consumption of saturated fats (suggesting they may not be directly responsible for cardiovascular disease), and also the health-risks posed by modified or fat-free products containing either highly refined carbohydrates or trans-fats. A growing preference for more natural, less processed foods in home cooking has also contributed to growing consumer demand for butter, both in Australia and in countries such as the United States (US). This has resulted in a decline in sales of margarine substitutes, even in the face of higher butter prices.

In addition to this underlying growth in demand for dairy fats, the global supply/demand relationship for butter became fundamentally out of balance from 2015, as a result of European Union market intervention programs, contributing to lower butter production despite strengthening price signals.

With suppressed commodity prices and increased milk production, following the elimination of the EU production quota, in 2015 the European Commission implemented measures to stabilise markets and create a price floor for dairy commodities. This included activating intervention purchasing and storage of SMP, accumulating at its peak reached over 400,000 tonnes, representative of more than six months of EU SMP exports. This intervention stockpile impacted commodity values and kept SMP prices suppressed for several years as the European Commission struggled to sell the stock. In addition to establishing a price floor, the intervention stock thus effectively created a price ceiling, as traders were unwilling to purchase any volumes for prices too far above the minimum intervention sale tender price.

As butter and SMP are co-products, utilising the fat and protein components in milk respectively, the commodity price of each product affects total returns of the butter/SMP manufacturing stream. Hence, over-supply and artificially low prices of SMP created an extra impact for the fat to protein ratio, in the form of higher butter prices. As the SMP price trough wore on, many processors focused on producing other dairy products offering better returns, including cheese and whole milk powder (WMP). Butter prices reached record highs, but the incentive for manufacturers to increase production was muted. This extended period of high fat and low protein prices also resulted in food manufacturers focusing on developing fat-filled products (SMP with vegetable fats added) as a way to substitute expensive milkfat for a cheaper alternative, whilst capitalising on the abundant and price-constrained SMP.

At the start of 2019, the entire stockpile of SMP was finally cleared from intervention. As SMP demand started to increase so did the SMP price (and hence the value of dairy protein). Conversely, increases in butter production, combined with weaker purchasing from some fat-dominant markets and the now-established preference for fat-filled products in others, saw milkfat values steadily weaken through the second half of 2019.

As alluded to above, market values and applications of other commodities, such as soy protein and vegetable oils, play an important role in influencing the pricing equilibrium of milkfat and protein. If the cost of one component rises too far, food and ingredient manufacturers with the option to do so, will generally alter their product formulations to capture favourable price movements. This includes substituting milkfat, when butter prices increase, for cheaper vegetable oils or swapping between milk protein and soy protein.

Short term commodity price fluctuations will continue

Commodity prices ultimately ended the 2019 calendar year having returned close to the long-term average protein:fat ratio, but a higher, and varied, protein to milkfat price ratio persists today at the farmgate. For many manufacturers, the standard ratio remains 2:1, whilst some continue to offer options of 1:1 protein to milkfat pricing.

Whilst current farmgate price constructs have limited agility to shift protein and milkfat ratios regularly through the year, global markets continue to move. The ongoing outbreak of COVID-19 has seen dairy markets again come under pressure, as short-term consumer activity is interrupted and the global economic outlook deteriorates.

The initial impacts hit protein prices hardest, in part due to resurgent supply growth from the US and EU, but also on speculation that the EU might reopen intervention buying. As the year has progressed, dairy fats have become the bigger victim, as foodservice demand dries up – particularly in locked down markets such as Victoria.

The commodity price fluctuations of 2020 alone are evidence that if farmgate price ratios are to be changed on an infrequent basis, as necessary to support longer term decision making on farm, the real drivers to consider are longer term fundamental shifts.

Longer term, commodity values will equilibrate, while farmgate price variety (not variability) is the new normal

Despite the short-term volatility observed in the market, there are underlying trends. Some are already well established, as seen in recent years. This includes increasing consumer demand for butter and fat products and a willingness to pay higher prices at the retail level. It also includes the ongoing development of fat-filled products, which have become more sophisticated and flexible in their application.

The development of synthetic dairy ingredients is another factor that will challenge the traditional equilibrium between protein and fat values. Technology advancements are driving innovation in labs to re-create protein molecules found in food, including the re-creation of the protein found in cow's milk. If commercialisation challenges are overcome, this is likely to compete for protein market share in the future. On the other hand, reproducing milkfat in a lab has proved far more difficult, leaving vegetable fat products as the more likely alternative to dairy fat.

Ongoing product innovation, including fat-filled products, highlights the replaceable nature of fats when prices move too high. Consumers may demand more of the 'real thing' at retail level, as ever more sophisticated solutions become available to displace industrial and foodservice. Synthetic proteins may erode the value of dairy equivalents as they reach commercialisation, but based on the responses to previous shocks, the market seems readily able to come up with responses that keep the ratio in check over the long term.

Back at the farmgate level, ongoing pressure to simplify farmgate pricing is likely to discourage frequent changes to protein and milkfat price ratios within a pricing structure. Even as supply chain divergence between milk processors leads to the creation of new pricing offers aimed at retaining suppliers and supporting specialisation to suit processor needs. In addition, industry-supported risk management tools will require a level of standardisation to reduce basis risk between a farmer's own price structure and the reference index.

Hence, whilst there will be ongoing pressure to change farmgate ratios to suit one or another party, the combination of demonstrated market equilibrium and political economy are likely to keep such fluctuations far less frequent than the broader market gyrations.

GLOBAL MARKETS: ON BORROWED TIME?

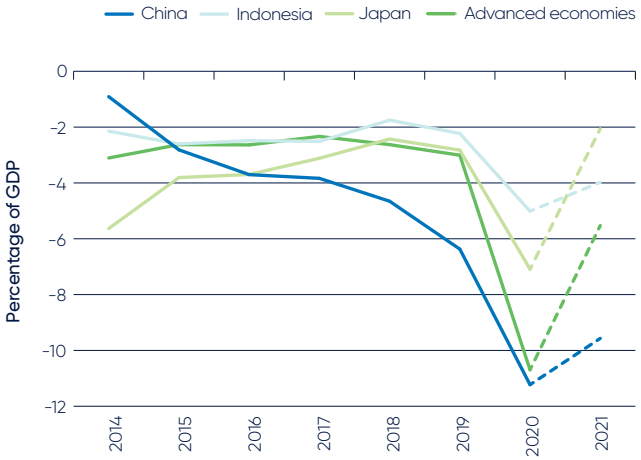
RECEDING GOVERNMENT SUPPORT AND FLEETING PRODUCTION LIMITATIONS RISK UPSETTING THE DAIRY BALANCE

There is no question that in the relatively short time the novel coronavirus (COVID-19) pandemic has been with us, the world has fundamentally changed.

Ongoing quarantine measures and increasing unemployment rates have bitten hard, with governments across the globe rolling out an unprecedented level of fiscal stimulus to combat the imminent recession. So far, the dairy industry has fared better than expected, with commodity prices remaining relatively well supported, through a combination of increased retail and (somewhat artificial) government demand. However, with global milk supply growing, government stimulus waning and consumption easing in key markets, the question remains, how long is this support likely to last?

During past recessions, consumer consumption has generally been less affected than financial markets and investments. However, due to the nature of this pandemic and the strategies implemented to slow transmission, consumer consumption and services have been at the forefront of the downturn. This includes sales of dairy products through foodservice outlets. To mitigate the economic fallout, more than two-thirds of governments across the world have activated financial stimulus packages, to the extent that public debt is expected to reach an all-time high. Several governments also chose to actively regulate markets to soften the blow on specific sectors. For the dairy industry, these initiatives have altered both global supply and demand fundamentals, particularly throughout the northern hemisphere spring flush. Current market expectations suggest that these stimulus packages are likely to be short-lived, which poses risks to the market balance going forward.

Figure 6 Net lending/borrowing

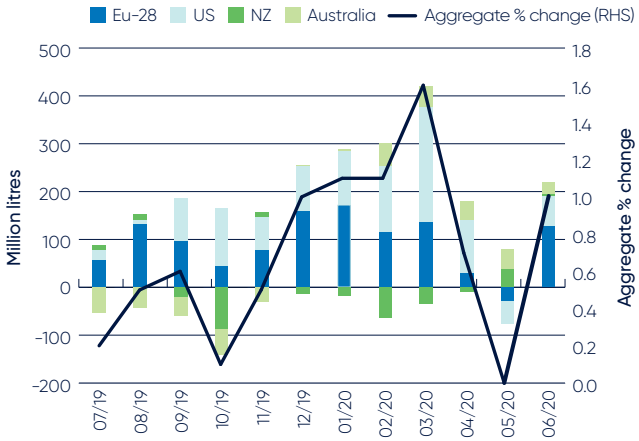


Source: International Monetary Fund

In the northern hemisphere, nationwide lockdowns coincided with the start of the peak milk production season. This left local dairy industries in a precarious situation, as on-farm production increased whilst high-volume dairy demand channels, such as schools and restaurants, shutdown. In the EU, the European Commission and processors implemented incentives to slow milk production. Combined with dry conditions in parts of northern Europe, these appears to have been fairly effective, especially in April and May. Overall, Europe has seen a reasonably steady increase in milk production so far, with forecasts suggesting growth will be relatively flat through the rest of the year.

Similarly, in the US, the onset of the pandemic resulted in processing initiatives to subdue milk supply. Farmers responded by curbing production; however, culling was limited by the ongoing challenges facing meatworks. Many had to rely on drying off cows earlier and cutting feed rations, strategies that were more easily undone. This meant that production was quick to pick up again once limitations were phased out and exceeded market expectations in July and August (up 2% and 1.8% respectively).

Figure 7 Milk production year-on-year changes



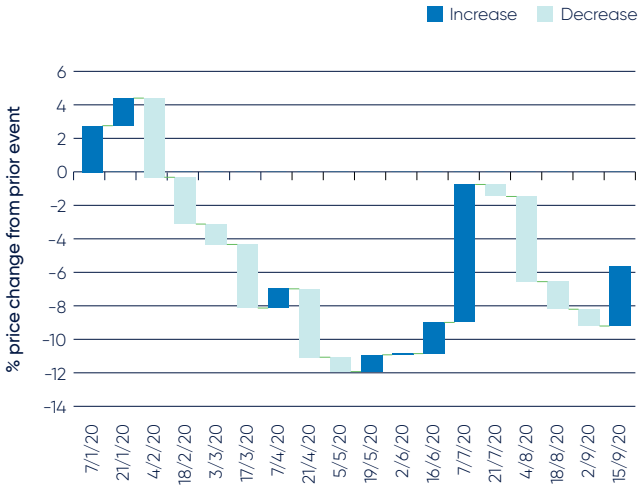
Source: USDA, DCANZ, Eurostat, Dairy Australia

The US government also attempted to support demand for dairy, with the US Department of Agriculture directly purchasing products and redistributing them to food banks. This purchase scheme provided additional support for commodity prices and saw cheddar pricing on a roller-coaster trajectory. Nearly five months from the initial package an additional support program has been announced, despite reports indicate that the US budget deficit is set to exceed the size of the entire country's economy next year.

As the southern hemisphere enters its spring flush period, milk production is also expected to increase in Australia and NZ. Relatively mild weather throughout winter saw Australia's milk pool recovery gain momentum; with growth reported in all regions except Queensland. Favourable seasonal conditions combined with improved feed production outlooks and easing input prices are driving further optimism. Similarly, in NZ, a mild winter provided drier than average conditions and favourable pasture growth. In July and August milk production rose 4.6% and 4.7% respectively, with initial forecasts suggesting 2% overall growth this season, driven by increased per-cow production and incentives for winter milk. If realised, this production growth is sufficient to weigh on the market balance unless resurgent global demand can soak up the additional supply.

Measures implemented to mitigate the spread of COVID-19 have impacted demand from the foodservice sector and adversely affected the economic growth in price-sensitive markets. This has raised concerns about the robustness of global demand and its ability to support the current market balance. Since the start of the pandemic, price volatility has been a feature of the GlobalDairyTrade (GDT) auction. After the initial prices drop, buyers were quick to purchase cheaper product left on the market. Throughout August prices continued to drop as buying from many price sensitive markets, in southeast Asia and the Middle East North Africa region, remained subdued. Whilst more participants returned the market in the latest GDT auction (event #268), buying has generally been in a hand-to-mouth manner with significant hesitation around taking on stock.

Figure 8 Global dairy trade - price index movements



Source: Global Dairy Trade

In comparison to other markets, Chinese buyers have remained active on GDT. This seems to be supported by the country's aim to maintain large inventories for reasons of food security. Whilst China has been able to financially support these larger stockpiles, southeast Asia and other emerging market have not had the finance for these sorts of buying programs.

The loss of foodservice demand has especially impacted milkfat products, such as butter and anhydrous milk fat (AMF), resulting in easing commodity prices. Whilst weaker overall, butter demand has been quite inconsistent, with sales destined for the retail sector holding strong. As unemployment levels rise and incomes fall, there could be additional substitution pressure towards cheaper fat alternatives, which if realised may see prices remain suppressed.

Whilst market shocks are not new, the measures taken to combat this virus, such as lockdown restrictions and social isolation, are what differentiates the current economic downturn from previous recessions. With supply and demand fundamentals out of balance, governments all over the world introduced major economic support packages, which artificially helped to support dairy demand while aiming to subdue milk production growth. Although these measures have proved relatively effective, they are temporary, with governments expected to begin to tail off support. If this occurs, at a time when milk supply grows, there are significant risks weighing on the market balance in the months ahead.

So what?

Government interventions in dairy producing and exporting countries have so far played a key role in stabilising the global market during the COVID-19 outbreak. Whilst these interventions have kept prices at an even keel, the underlying market balance has begun to shift. Global milk supply is gaining momentum at a time when several export markets are reducing purchases due to worsened economic outlooks. This risks tipping the market balance in the wrong direction, especially if government stimulus packages are withdrawn. Australia's COVID-19 cases may be coming down, but a third wave is not the only cause for caution.

The Dairy Australia Trade Agreement Comparison Guide

Australia is an active participant in negotiating international trade agreements. Currently Australia is a partner in 14 active bilateral and regional trade agreements covering most of our major export markets and is in the process of negotiating several additional agreements.

The benefits of these trade agreements include reduced tariffs and improved access for our dairy exports into international markets. But it can be hard to keep track of the changing benefits under these agreements, and to identify where Australian dairy has a competitive advantage over our key competitors.

For some time, Dairy Australia has provided handy and accessible information about where these trade agreements provide reduced tariff benefits for dairy products via the 'Export Market Dairy Tariffs Guide'. This annual guide allows exporters to check tariffs for their products into a range of export markets.

Now Dairy Australia has developed a new tool for exporters - The 'Dairy Australia Trade Agreement Comparison Guide 2020'. The guide provides 'at a glance' comparison of tariffs and quotas under active trade agreements for Australian dairy exporters compared to our main competitors – the EU, USA and NZ. The guide provides up to date information on current trade agreements for all of the top 10 export markets for the Australian dairy industry.

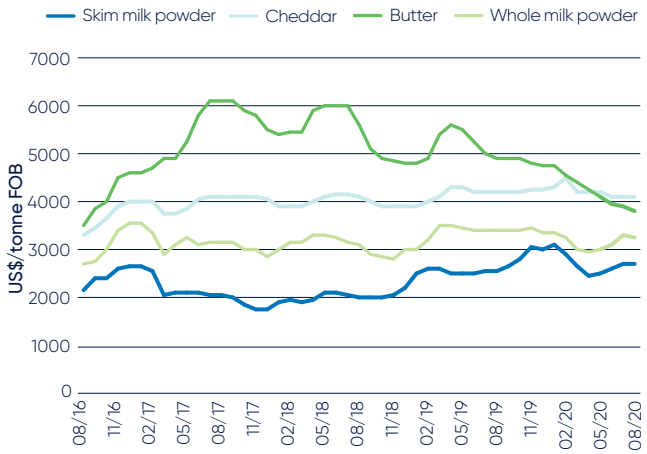
The guide reveals a positive story, with Trade Agreements providing Australian dairy exporters with more competitive market access in a majority of our export markets. However, the guide also clearly identifies that in the two key markets of South Korea and Taiwan, Australian exporters are faced with a competitive disadvantage to our major competitors. In the case of South Korea - the USA, the EU and NZ all have trade agreements in place which are superior in terms of dairy market access when compared to the Korea Australia Free Trade Agreement. In the case of Taiwan only New Zealand has a trade agreement in place, but that gives them a significant competitive advantage over all other dairy suppliers including Australia.

A copy of the Dairy Australia Trade Agreement Comparison Guide can be downloaded from: **dairyaustralia.com.au/tradeagreement**

MARKET DASHBOARD

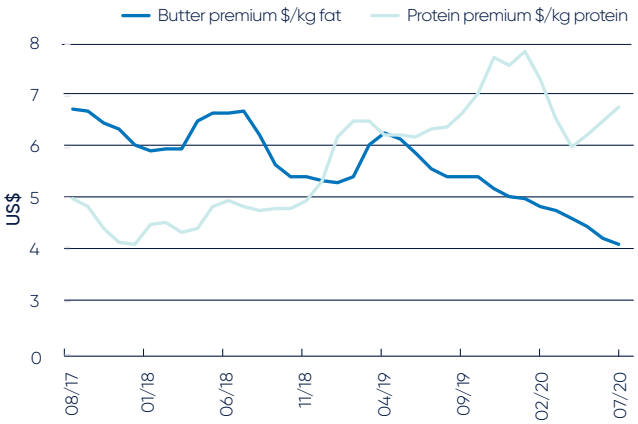
Commodity prices

Figure 9 Key dairy commodity price indicators



Source: Dairy Australia

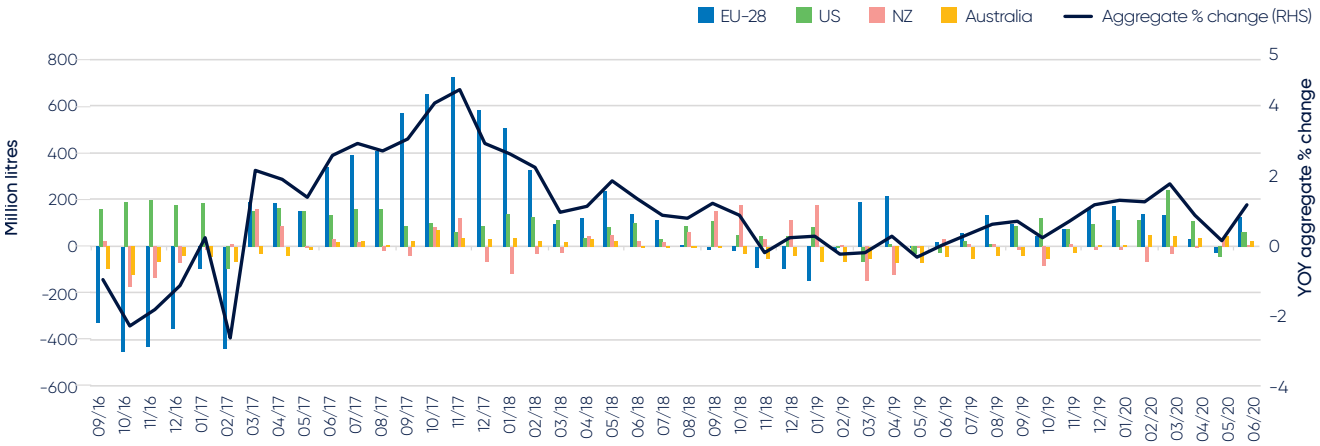
Figure 10 Dairy fat and protein – pricing relative to substitutes



Source: Dairy Australia, Oil World

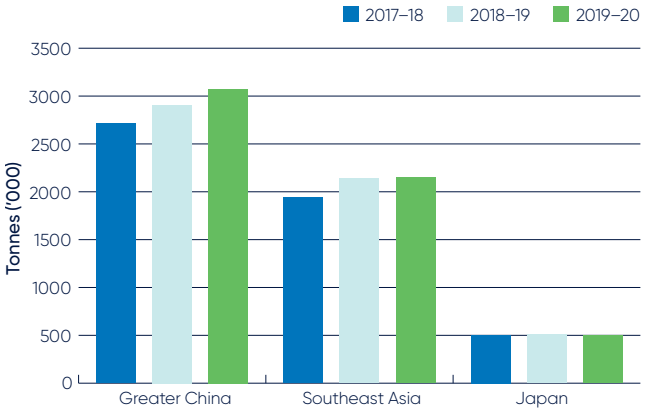
Global supply and demand

Figure 11 Milk production year-on-year changes



Source: USDA, DCANZ, Eurostat, Dairy Australia

Figure 12 Global exports to key markets



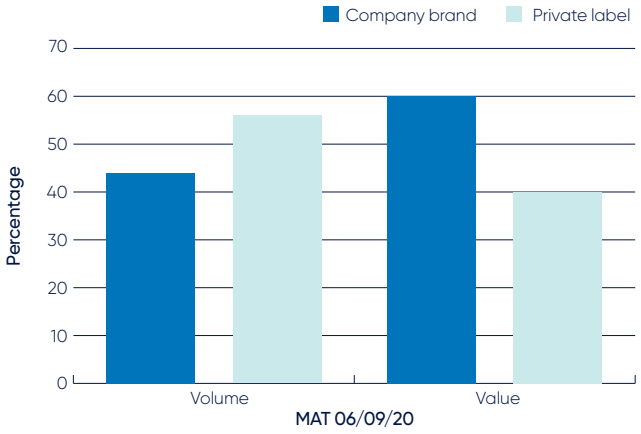
Source: Dairy Australia, TDM. Data represents 12 months to June 2020.

Figure 13 Australian retail sales

	Take Home Volume	YoY growth	Take Home Value	YoY growth
Milk (As of 06/09/20)	1,531 m. litres	↑ 4.2%	2,628	↑ 13.4%
Cheese (As of 27/06/20)	163kt	↑ 6.4%	2,275	↑ 14.1%
Yellow spreads (As of 06/09/20)	95.7kt	↑ 8.0%	854.1	↑ 12.0%
Yoghurt (As of 27/06/20)	173kt	↑ 5.3%	1,150	↑ 7.5%

Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 27/06/2020 and 06/09/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

Figure 14 Australian market - private label



Source: Nielsen Homescan based on a continuous panel of 10,000 households; excludes non-private dwellings & businesses, non-permanently occupied households & out-of-home/impulse purchasing. DAIRY AUSTRALIA calculation based in part on data reported by Nielsen through its Homescan Service for the dairy category for the 52-week period ending 06/09/2020, for the total Australian market, according to the Nielsen standard product hierarchy. Copyright (c) 2020, The Nielsen Company.

Inputs

Hay and grain prices

Australian dairy regions			%			%
1	South-west WA	$308 ↑	+19	$350	↑	+3
2	Central districts SA	$290 ↑	+5	$225	↓	-52
3	South-east SA	$310 ↑	+3	$235	↓	-45
4	South-west Victoria	$299 ↓	-19	$220	↓	-42
5	Goulburn/Murray Valley	$318 ↓	-8	$205	↓	-46
6	Gippsland*	$309 ↓	-26	$305	↓	-42
7	North-west Tasmania	$414 ↓	-4	$250	↑	+8
8	Bega Valley	$388 ↓	-1	$375	↓	-35
9	Central west NSW	$314 ↓	-7	$330	↓	-43
10	North coast NSW	$374 ↓	-7	$325	↓	-38
11	Darling Downs	$394 ↑	+4	$310	↓	-48
12	Atherton Tablelands*	$399 -	0	$290	↓	-18

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

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

Prices are estimates in $/tonne at August 2020. Compared to equivalent date August 2019.
* Note that all regions other than Atherton Tablelands and Gippsland is cereal hay.
* Atherton Tablelands and Gippsland is pasture hay.

Source: Australian Fodder Industry Association (AFIA), Profarmer

Fertiliser

Urea (granular Black Sea)	DAP (US Gulf)	MOP (granular Vancouver)
250 US$/t	342 US$/t	203 US$/t
↓ -5% LY	↑ +17% LY	↓ -24% LY
↑ +6% 5Y	↓ -4% 5Y	↓ -16% 5Y

Price is August 2020 average, compared to the 2019 August average (LY) and 5-year (5Y) August average.

Source: World Bank

Cows

Cull cows	
545 c/kg	70,273 head
↑ +15% LY	↓ -17% LY
↑ +19% 5Y	↓ -17% 5Y
Dairy cattle exports	↓ -5% LY
91,645 head	↑ +23% 5Y

Price is August 2020 average, compared to August last year (LY) and 5-year (5Y) average. Number of head is last 12 months (cull cows to August 2020, dairy cattle exports to July 2020) compared to year earlier (LY) and 5-year (5Y) average.

Source: NLRS, ABS

Water

Northern Victoria	Murray Irrigation System
264 $/ML	174 $/ML
↓ -53% LY	↓ -72% LY
↓ -1% 5Y	↓ -7% 5Y
2,237,878 ML	36,881 ML
↑ +10% LY	↓ -56% LY
↑ +9% 5Y	↓ -71% 5Y
Monthly average (12 months)	
506 $/ML	453 $/ML
186,490	3,073

Price of water traded is August average compared to August last year (LY) and 5-year (5Y) average. Volume of water is 12 month total, to August 2020, and compared to same period last year (LY) and last 5 year (5Y) average. Monthly average is the average price and colume over the past 12 months to August. .

Source: Victorian Water Register, Murray Irrigation Ltd

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