

OCTOBER 2022

Global Dairy UPDATE



- Production down in New Zealand and Australia. US monthly production continues to improve.



- New Zealand monthly exports show strong growth and US exports continue to increase. Australia and EU monthly exports decline.



- China imports continue to decline. Middle East & Africa and Asia monthly imports decline. Latin America imports continue to grow.



- Fonterra New Zealand milk collections in September were 166.3 million kgMS, down 3.9% on the prior season.
- Fonterra Australia milk collections for September were 10.0 million kgMS, down 4.7% on last season.



- Fonterra announces sustainable finance framework.



- Fonterra trials world first in organic electricity storage.

Key Dates



10 November 2022
Fonterra Co-operative Group
Annual Meeting

14 November 2022
Fonterra Shareholders' Fund
Annual Meeting

8 December 2022
FY23 Q1 Business Update



Production down in New Zealand and Australia. US monthly production continues to improve

To view a chart that illustrates year-on-year changes in production –

NEW ZEALAND

3.2%↓

Change for September 2022 compared to September 2021

4.3%↓

Change for the 12 months to September 2022

New Zealand milk production¹ was down 3.2% on a litres basis, (down 3.8% on milk solids basis) in September compared to the same period the year prior. Significant rainfall in parts of the North Island are impacting peak milk production. South Island conditions were more favourable. New Zealand milk production for the 12 months to September was down 4.3% on the year prior. Fonterra New Zealand collections are reported for September, see page 5 for details.

AUSTRALIA

5.9%↓

Change for August 2022 compared to August 2021

4.1%↓

Change for the 12 months to August 2022

Australia milk production decreased 5.9% in August compared to the same period the year prior. The decline was driven by lower production in Tasmania, down 6.5%, and Victoria, down 4.1%. Australia milk production for the 12 months to August was 4.1% lower than the year prior. New season Australian milk production has a forecast range from remaining flat to marginal growth year-on-year. Fonterra collections in Australia are reported for September, see page 5 for details.

EUROPEAN UNION

0.8%↓

Change for August 2022 compared to August 2021

0.7%↓

Change for the 12 months to August 2022

EU milk production² decreased 0.8% in August compared to the same period the year prior. Production remained constrained with many countries impacted by drought conditions, limited feed availability and high input costs. Production declines were observed in Italy, France and Spain while production in the Netherlands and Poland improved year-on-year. EU milk production for the 12 months to August declined 0.7% compared to the same period the year prior, driven by declines in Germany, France, and the Netherlands and partially offset by increases in Poland, Austria and Italy.

USA

1.5%↑

Change for September 2022 compared to September 2021

0.1%↓

Change for the 12 months to September 2022

US milk production increased by 1.5% in September, compared to the same period the year prior. This is the third consecutive monthly year-on-year increase and reflects the gradual herd size growth and increased milk per cow yield. Milk production for the 12 months to September declined 0.1% compared to the same period the year prior.

¹ New Zealand production is measured in litres.

² Excludes UK.



To view a chart that illustrates year-on-year changes in exports –

New Zealand monthly exports show strong growth and US exports continue to increase. Australia and EU monthly exports decline

NEW ZEALAND

30.9%↑

Change for September 2022 compared September 2021

4.8%↓

Change for the 12 months to September 2022

Total New Zealand dairy exports were up 30.9%, or 56,539 MT, in September compared to the same period the year prior.

September shipments were in line with August with the year-on-year increase reflecting the shipping of some of the additional inventory held as a result of shipping challenges in July. WMP, cheese and AMF exports were the main drivers of this increase.

Exports for the 12 months to September were down by 4.8%, or 172,952 MT, on the previous comparable period. This was primarily driven by decreases in WMP and cheese.

AUSTRALIA

15.2%↓

Change for August 2022 compared to August 2021

14.0%↑

Change for the 12 months to August 2022

Australia dairy exports decreased 15.2%, or 9,898 MT, in August compared to the same period the year prior.

Fluid milk products and WMP exports declined year on year and were partially offset by an increase in other powders, and cheese.

Exports for the 12 months to August were up 14.0%, or 113,984 MT, on the previous comparable period.

This was predominantly driven by increases in fluid milk products, SMP and other powders.

EUROPEAN UNION

18.3%↓

Change for August 2022 compared to August 2021

8.3%↓

Change for the 12 months to August 2022

EU dairy exports decreased 18.3%, or 107,404 MT, in August compared to the same period the year prior.

Lower volumes were driven by decreases in fluid milk products, cheese and SMP from Germany and France and partially offset by increases in infant formula from the Netherlands.

Exports for the 12 months to August were down 8.3%, or 604,554 MT, on the previous comparable period, driven by declines in fluid milk products, SMP, cheese, WMP and whey and partially offset by increases in infant formula and MPC.

USA

4.9%↑

Change for August 2022 compared to August 2021

4.6%↑

Change for the 12 months to August 2022

US dairy exports increased 4.9%, or 11,778 MT, in August compared to the same period the year prior.

Stronger demand for lactose by China and New Zealand, whey by China and Malaysia, butter by Bahrain and WPC by China, are driving this increase. This was partially offset by lower shipments of SMP to the Philippines.

Exports for the 12 months to August were up 4.6%, or 123,780 MT, on the previous comparable period, driven by cheese, lactose, butter, fluid milk products and AMF.



To view a chart that illustrates year-on-year changes in imports –

China imports continue to decline. Middle East & Africa and Asia monthly imports decline. Latin America imports continue to grow

LATIN AMERICA

17.8%↑

Change for August 2022 compared to August 2021

5.5%↑

Change for the 12 months to August 2022

Latin America dairy import volumes¹ increased 17.8%, or 31,874 MT, in August compared to the same period the year prior.

The increase was driven by stronger demand for WMP to Brazil and SMP to Mexico.

Imports for the 12 months to August were up 5.5% compared to the same period the year prior, driven by higher volumes of cheese, SMP, whey, and MPC and partially offset by declines in WMP.

ASIA

3.6%↓

Change for August 2022 compared to August 2021

3.1%↑

Change for the 12 months to August 2022

Asia (excluding China) dairy import volumes¹ decreased 3.6%, or 16,738 MT, in August compared to the same period the year prior.

The decrease was driven by lower whey imports to Vietnam.

Imports for the 12 months to August were up 3.1%, or 152,750 MT, compared to the same period the year prior, driven by higher volumes of SMP, WPC and cultured products.

MIDDLE EAST & AFRICA

12.6%↓

Change for August 2022 compared to August 2021

12.5%↑

Change for the 12 months to August 2022

Middle East and Africa dairy import volumes¹ decreased 12.6%, or 60,722 MT, in August compared to the same period the year prior.

The decrease was driven by lower volumes of fluid milk products to South Africa and WMP to Nigeria.

Imports for the 12 months to August were up 12.5%, or 589,502 MT, compared to August the year prior, driven by increases in SMP, cheese and whey.

CHINA

6.0%↓

Change for September 2022 compared to September 2021

15.6%↓

Change for the 12 months to September 2022

China dairy import volumes decreased by 6.0%, or 16,685 MT, in September compared to the same period the year prior.

Imports declined for the seventh consecutive month year-on-year as ongoing Covid restrictions continue to impact demand. This was mainly driven by lower imports of WMP, SMP and fluid milk products from New Zealand.

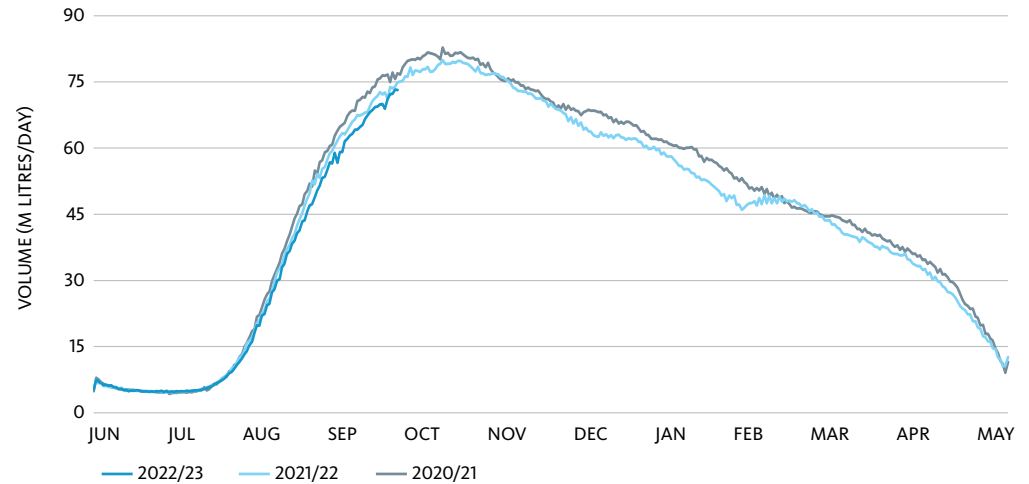
Imports for the 12 months to September were down 15.6%, or 650,043 MT, driven by fluid milk products, whey, WMP and SMP.

¹ Estimates are included for those countries that have not reported data.



To view a table that shows detailed milk collections in New Zealand and Australia compared to the previous season –

New Zealand Milk Collections



NEW ZEALAND

3.9%↓

Change for September 2022 compared to September 2021

3.9%↓

Season-to-date 1 June to 30 September

Fonterra's New Zealand collections for September were 166.3 million kgMS, 3.9% lower than last September.

September brought a tale of two islands with relatively normal early Spring conditions in the South Island in contrast to continued wet, sub-optimal growing conditions in the North Island.

Season-to-date collections were 292.1 million kgMS, 3.9% behind last season.

NORTH ISLAND

6.3%↓

Change for September 2022 compared to September

5.9%↓

Season-to-date 1 June to 30 September

North Island milk collections in September were 102.5 million kgMS, 6.3% behind September last season.

Milk in the North Island was significantly down in September leading into the peak producing months.

Lower sunshine hours and the continued wet weather has led to lower than optimal pasture covers leading into mating.

Season-to-date collections were 198.7 million kgMS, 5.9% behind last season.

SOUTH ISLAND

0.1%↑

Change for September 2022 compared to September 2021

0.6%↑

Season-to-date 1 June to 30 September

South Island milk collections in September were 63.8 million kgMS, 0.1% higher than last September.

Most parts of the South Island had relatively normal spring growing conditions leading to favourable pasture covers and milk production.

Season-to-date collections were 93.4 million kgMS, 0.6% ahead of last season.

AUSTRALIA

4.7%↓

Change for September 2022 compared to September 2021

2.6%↓

Season-to-date 1 July to 30 September

Fonterra's Australia collections for the third month of the new season were 10.0 million kgMS, a 4.7% decrease on September last season.

Farm collections were flat year-on-year and third-party intake decreased 0.4 million kgMS.

Season-to-date collections reached 22.1 million kgMS, 2.6% behind last season.

The new season outlook remains balanced. A third consecutive La Nina weather event has now been declared and major water storages are at or over capacity and spilling. Wet conditions on farm and flooding are the major risks to production.

Outlook for Fonterra in New Zealand

NZD per kgMS 8.50–10.00

Forecast Farmgate Milk Price for the 2022/23 season

1,480m kgMS
↓ from 1,495m kgMS

Forecast milk collections for the 2022/23 season

OUR MARKETS

Fonterra Global Dairy Trade Results



Fonterra GDT results at
last trading event
18 October 2022:

4.5%↓

Change in Fonterra's
weighted average product
price from previous event

USD 3,752

Fonterra's weighted
average product price
(USD/MT)

28.2⁰⁰⁰' MT

Fonterra product quantity
sold on GDT

AMF

2.6%↓

USD 5,661/MT

BUTTER

2.6%↓

USD 4,851/MT

CHEDDAR

4.0%↓

USD 4,769/MT

WMP

4.3%↓

USD 3,421/MT

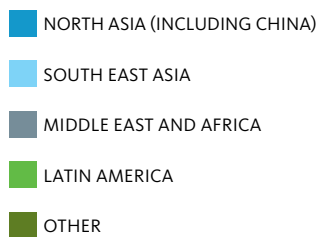
SMP

7.4%↓

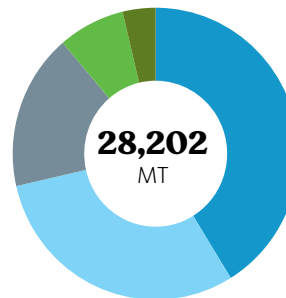
USD 3,246/MT

Fonterra GDT sales
by destination:

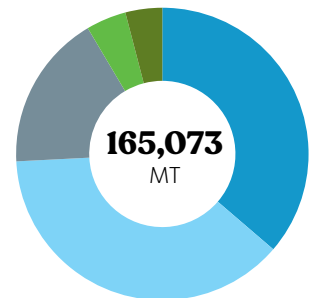
To view more information,
including a snapshot of the
rolling year-to-date results –



LATEST AUCTION



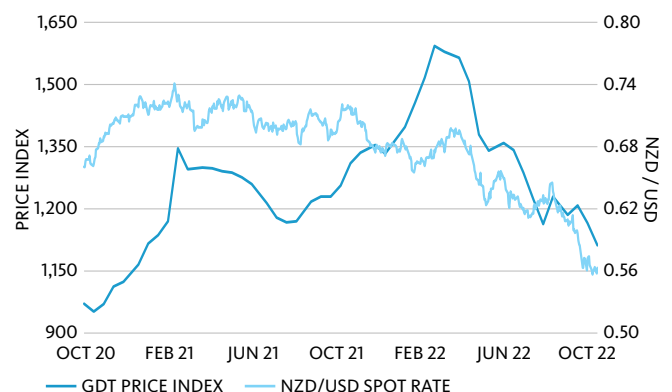
FINANCIAL YEAR-TO-DATE



► The next trading event will be held on 1 November 2022. Visit www.globaldairytrade.info for more information.

Dairy commodity prices and New Zealand dollar trend

Global inflation remains stubbornly high supporting additional rapid tightening of monetary policy settings and interest rates in most countries. The resulting increase in borrowing costs, together with heightened geo-political risks, lead to further risk aversion in financial markets which resulted in additional demand for safe haven assets and the USD. The NZD declined to near 55 US cents, before stabilising around 56.5 US cents.



Our Performance



Fonterra announces sustainable finance framework

As part of Fonterra's commitment to sustainability and implementation of its strategy, the Co-operative has released its Sustainable Finance Framework (Framework). This Framework aligns Fonterra's funding strategy with its sustainability ambitions and reflects the evolving preferences of lenders and debt investors in this area.

Fonterra's Framework outlines how the Co-operative intends to issue and manage any sustainable debt, which could include Green Bonds and Sustainability-Linked Bonds and Loans. The Framework has been developed with Joint Sustainability Co-ordinators HSBC and Westpac NZ and has been independently verified by ISS Corporate Solutions confirming alignment with globally agreed sustainable finance principles.

"This new Framework is a step on our sustainable financing journey – aligning with our Co-operative's broader sustainability ambitions," says Simon Till, Fonterra Director Capital Markets.

"Over the next decade we intend to significantly increase our investment in sustainability-related activities and assets throughout our supply chain to both mitigate environmental risks and continue to differentiate

our New Zealand milk. By FY30 we intend to invest around NZ\$1 billion in reducing carbon emissions and improving water efficiency and treatment at our manufacturing sites. In doing so, we will be taking significant steps towards our aspiration to be Net Zero by 2050 and we plan to align our funding with this approach."

This announcement comes off the back of strong annual sustainability performance reported in September 2022.

[For the Framework, the opinion issued by ISS Corporate Solutions and a presentation to update debt investors –](#)

[To view the 2022 Fonterra Sustainability Report –](#)

Fonterra trials world first in organic electricity storage

A new organic, low-cost, safe, sustainable and long-life battery being trialled by Fonterra, could support greater energy security and distributed electricity generation for New Zealand.

PolyJoule, a Massachusetts Institute of Technology (MIT) spin-off, is partnering with Fonterra on the application of the battery made from electrically conductive polymers, an organic based compound with the ability to act like metal.

Late last year the world's first industrial scale organic battery was installed on a Fonterra farm at Te Rapa. The battery was cycled daily, supporting dairy shed operations for 10 months.

The Co-op is now moving this battery to its Waitoa UHT site, which can be impacted by power disturbances leading to downtime and waste.

Fonterra Chief Operating Officer Fraser Whineray says as a significant electricity user at about 2.5% of the national grid, a sustainable and secure electricity supply is vital to the Co-operative's local sales and exports.

"At Fonterra we have a strategy to lead in sustainability, and innovation



partnerships are a critical ingredient to achieving this.

"The PolyJoule battery has a remarkable discharge rate, which may ultimately link with ultra-fast charging of our fleet, including Milk-E our electric milk tanker."

PolyJoule CEO Eli Paster says he's excited to partner with Fonterra and sees great opportunity for growth in New Zealand both in terms of supporting energy security and job creation in the manufacturing and technology sectors.

"We both have sustainability front and centre of our strategy and understand the importance of a reliable, green supply of electricity for quickly chilling the raw milk on farm, processing and distribution. New Zealand is a world leader in protecting the environment. Fonterra is a world leader in nutrition.

We couldn't think of a better partner to work with."

"Since PolyJoule batteries do not rely on lithium, nickel, or lead, the materials are easier to source and the batteries are safer and easier to manufacture anywhere in the world, including New Zealand."

"When you look at where the grid is heading and the number of batteries needed for the region, building a manufacturing base in New Zealand could create hundreds of new jobs and a new green energy hub."

The PolyJoule battery installation is the third decarbonisation project Fonterra's Waitoa site has recently adopted. Last month it announced the site would install a new biomass boiler and it will also be home to Milk-E – New Zealand's first electric milk tanker.



Supplementary Information

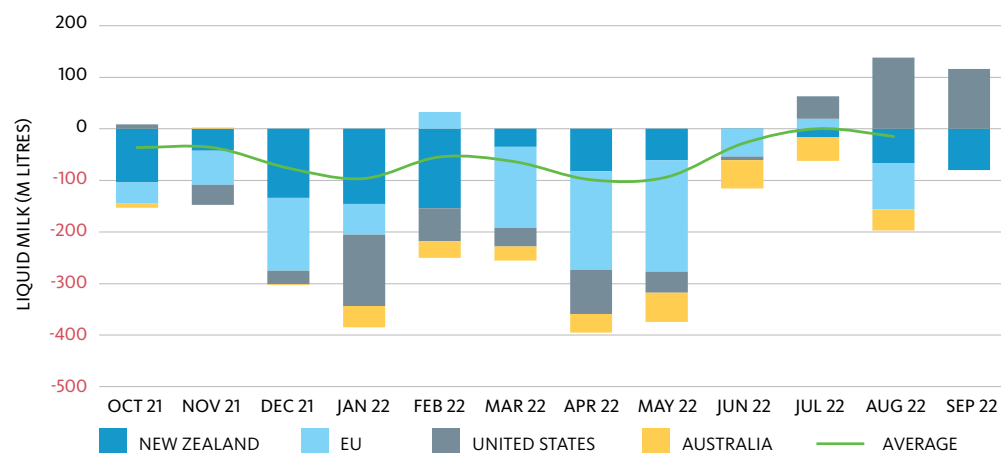
Global Dairy Market

The charts on the right illustrate the year-on-year changes in imports, exports and production for a range of countries that are important players in global dairy trade.

The absolute size of the bars represents the change in imports, exports or production, relative to the same period the previous year.

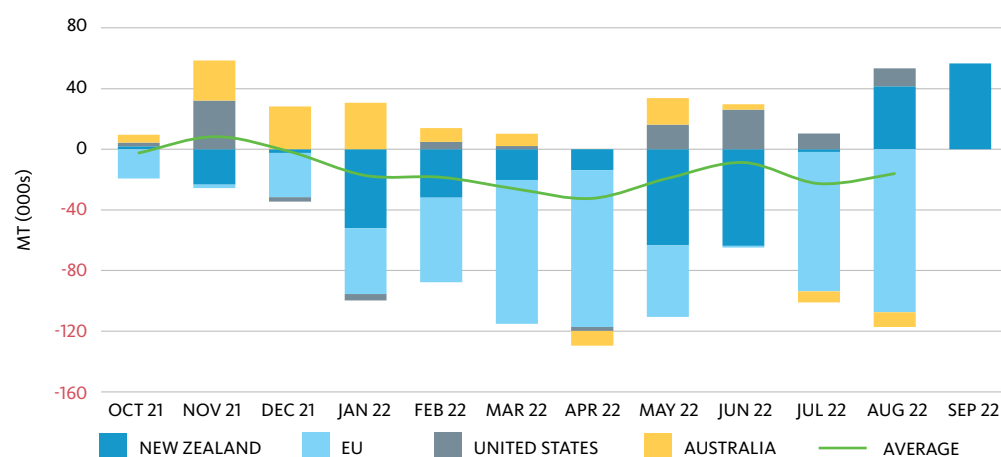
Averages are shown where data is complete for the regions presented.

PRODUCTION



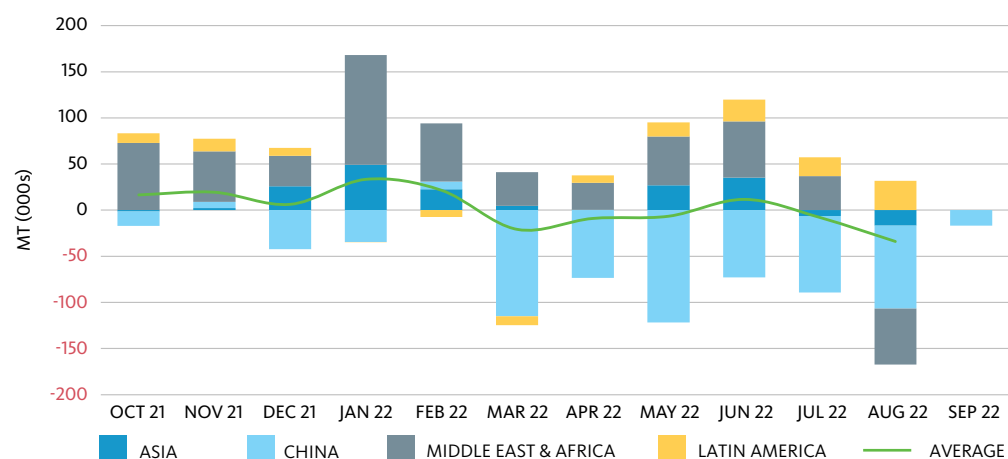
NOTE: Data for EU and Australia to August; New Zealand and US to September.

EXPORTS



NOTE: Data for EU, US and Australia to August; New Zealand to September.

IMPORTS



NOTE: Data for Asia, Middle East & Africa and Latin America to August; China to September.

SOURCES: Government milk production statistics (DCANZ, Dairy Australia, Eurostat, USDA)/GTA trade data/Fonterra analysis.

Supplementary Information

Fonterra milk production

The table on the right shows Fonterra milk solids collected in New Zealand and Australia compared to the previous season.

MILK COLLECTION (MILLION KGMS)	SEPTEMBER 2022	SEPTEMBER 2021	MONTHLY CHANGE	SEASON- TO-DATE 2022/23	SEASON- TO-DATE 2021/22	SEASON- TO-DATE CHANGE
Total Fonterra New Zealand	166.3	173.0	(3.9%)	292.1	303.9	(3.9%)
North Island	102.5	109.3	(6.3%)	198.7	211.0	(5.9%)
South Island	63.8	63.7	0.1%	93.4	92.8	0.6%
Australia	10.0	10.4	(4.7%)	22.1	22.7	(2.6%)

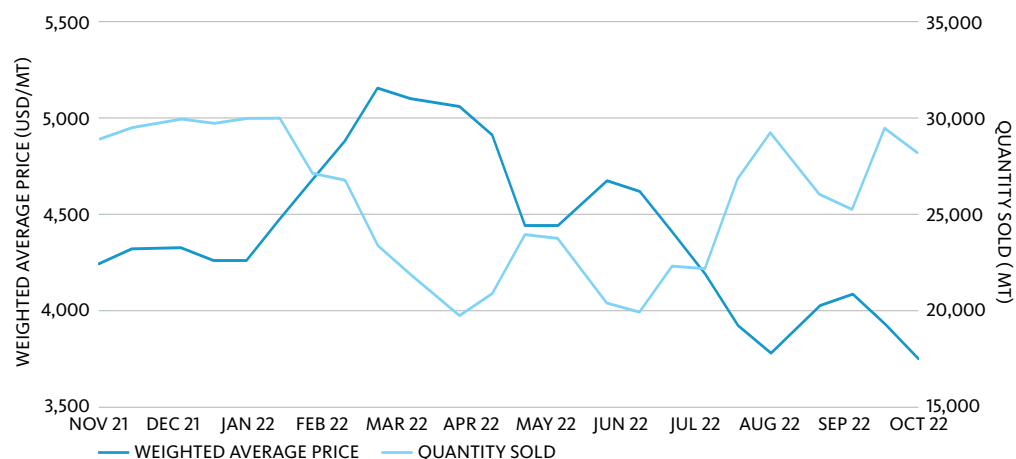
Fonterra GDT results

This table provides more information on the latest results, including a snapshot of the year-to-date results.

	LAST TRADING EVENT (18 OCTOBER 2022)	YEAR-TO-DATE (FROM 1 AUGUST 2021)
Quantity Sold on GDT (Winning MT)	28,202	165,073
Change in Quantity Sold on GDT over same period last year	3.8%	11.4%
Weighted Average Product Price (USD/MT)	3,752	3,911
Change in Weighted Average Product Price over same period last year	(8.3%)	(1.7%)
Change in Weighted Average Product Price from previous event	(4.5%)	–

Fonterra GDT results

This chart shows Fonterra GDT prices and volumes over the past 12 months.



Glossary

AMF

Anhydrous Milk Fat.

BMP

Butter Milk Powder.

Cultured Products

Fermented milks that are prepared by using starter cultures and controlled fermentation including yoghurt, yoghurt drinks, sour cream, crème fraîche.

DIRA

Dairy Industry Restructuring Act 2001 (New Zealand).

Farmgate Milk Price

The price for milk supplied in New Zealand to Fonterra by farmer shareholders.

Fluid Products

The Fonterra grouping of fluid milk products (skim milk, whole milk and cream – pasteurised or UHT processed), concentrated milk products (evaporated milk and sweetened condensed milk) and yoghurt.

GDT

Global Dairy Trade, the online provider of the twice monthly global auctions of dairy ingredients.

kgMS

Kilogram of milk solids, the measure of the amount of fat and protein in the milk supplied to Fonterra.

MPC

Milk Protein Concentrate.

Non-Reference Products

All dairy products, except for Reference Products, produced by the New Zealand Ingredients business.

Reference Products

The dairy products used in the calculation of the Farmgate Milk Price, which are currently WMP, SMP, BMP, butter and AMF.

Season

New Zealand: A period of 12 months to 31 May in each year.

Australia: A period of 12 months to 30 June in each year.

SMP

Skim Milk Powder.

WMP

Whole Milk Powder.

WPC

Whey Protein Concentrate.

WPI

Whey Protein Isolate.