

# PERSPECTIVE

APRIL 2017

## The latest insights in global dairy markets

Your regular global overview of the dairy industry along with trends in milk production, commodity prices and dairy trade

Ingredients by



Dairy for life

# Welcome back to Perspective!

This month we are proud to feature a guest commentary from Dr. Richard Swinbourne from the Singapore Sports Institute. Richard shares insight into the growing world of active nutrition in South East Asia.

## **Production, exports, imports and pricing**

- EU milk production remains soft, but the rate of decline is easing. New Zealand production in February is relatively flat.
- US export strength continues, while New Zealand exports declined 36,000 MT – the third consecutive monthly decline, while US export strength continues.
- China reported the largest monthly increase in import volumes in the past year. Steady import growth continues in Asia and Latin America.
- April GDT results were positive, with an increase of +3.1% in the most recent TE 186 and SMP prices firming up for the first time in 6 months.
- Butter prices increased, with the exception of CME spot prices. However, forecast/futures butter pricing is mixed/diverging, representing uncertainty in the market. WMP and cheese prices increased in the recent GDT auction (up +3.5% and +6.0% respectively).

If you have any suggestions for topics you would like to read about in Perspective, or any other general feedback, we would love to hear from you. You can contact us at [nzmpbrand@fonterra.com](mailto:nzmpbrand@fonterra.com) or through your account manager.












**Kind regards,**

**The Perspective team**



## In this issue

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	Guest feature	4
	Global production	6
	Fonterra milk collection	7
	Global exports	8
	Global imports	9
	Tracking the global dairy market	10
	Global indicators	11
	Commodity prices	12
	GDT results	13
	Industry commentary	14
	Glossary	16



### PROTEIN NOW

## The Power of Protein: Q&A with Dr Swinbourne

NZMP recently hosted 'Protein Now' in Singapore, an educational forum to explore dairy protein with deep dives on trends, practical workshops and insights from industry experts – such as Frost & Sullivan and TetraPak. The Singapore Sports Institute also partnered with NZMP, to testify to the importance of protein for sports performance. Dr Swinbourne from the Singapore Sports Institute explains how sports nutrition is evolving in Asia.



**Dr Richard Swinbourne, PhD.**  
**SLEEP SCIENTIST AND HEAD OF SPORT NUTRITION, SINGAPORE SPORTS INSTITUTE**

Dr Swinbourne is a New Zealand trained dietitian through the University of Otago, and completed his Sports Dietitian course with Sport Dietitians Australia. Richard worked with the New Zealand Rugby Union as their High Performance Nutritionist for National Teams between 2007-2014, including service delivery with the All Black 7s and New Zealand Womens 7s National teams. Five years ago, Richard stepped sideways to explore the world of sleep among elite athletes, completing his doctorate with the Auckland University of Technology. Richard's work was published in the European Journal of Sports Science in December 2015, titled 'Prevalence of poor sleep quality, sleepiness and obstructive sleep apnoea in athletes'. Richard is currently the Head of Sport Nutrition at the Singapore Sports Institute, and is enjoying applying both his nutrition and sleep knowledge to Singapore's elite athletes.

**What are the biggest changes you've seen in the rise of people partaking in sports in Singapore over last few years? What do you think has caused these changes?**

2016 brought unheralded Olympic success for Singapore, with Joseph Schooling of Singapore beating the legendary Michael Phelps (team USA) to take gold in the Men's 100m Butterfly event. This historic moment captivated the country, and united the population in a shared moment of huge pride. It also triggered a cascade of interest in swimming and elite sport amongst everyone, from the average man on the street right up to the Prime Minister. Just recently, the Government pledged 100 million dollars towards high performance sport, which will support Singapore's ongoing ambitions to succeed on the global stage across both able-bodied and para games pinnacle events.

**In your eyes, what role does good nutrition play in supporting optimal performance in sports?**

Athletes train to evoke physiological adaptations, in essence to get bigger, stronger, faster and more powerful. But it's not on the training ground, in the gym, on the track or in the pool that these adaptations take place. Instead, it's quality nutrition and quality sleep that enables these adaptations. They promote the recovery process and place the athlete in a prime position to compete optimally on game day.

Whilst Sports Nutrition Science is a continually evolving field, there is **unanimous agreement among scientists, coaches and practitioners that the role of food in an athlete's diet is a critical one** – to fuel, refuel and repair the body, and to build a better athlete. Elite sport is very much a game of inches, seeking small percentage gains over the opposition. However a quality nutrition program is a big piece of the puzzle that can gain an athlete significant advantage over others if followed consistently – on the back of a great training ethic and great genetics.



**In your real world experience, what are your personal insights into the impact protein can have on an elite athlete's training and performance?**

Humans are basically animals, with muscle tissue in a constant flux between breaking down and building up. On top of this natural metabolic activity, athletes face training stressors and recovery and repair demands. Athletes are basically breaking down the wall so that it grows back bigger and stronger. And it's protein that makes this possible. **Protein provides the building blocks to repair damaged muscle tissue and grow new muscle tissue,** by optimising muscle protein synthesis post-exercise.

The correct protein intake helps athletes gain lean muscle tissue and body weight, supports strength and power gains, keeps an athlete feeling full and satisfied, as well as serving as an important source of other nutrients, such as vitamins, minerals and fatty acids. This is true of protein no matter the athlete's size, body make-up, or the sport they play.

**What impact do you believe protein and good nutrition can have on an average person's everyday nutrition, when combined with an exercise program?**

The average person or weekend warrior, whilst not elite, is still trying to improve themselves through their sport and exercise. So it's in their interest to recover from their exercise quickly, to feel less sore, to promote functional movement and control of their bodies, to better manage their weight, and to improve their health and quality of life. Protein plays an important role in achieving all of these outcomes.

**Do you see any consumer trends when it comes to sports and nutrition in Singapore?**

Sport plays a large role in holistic health and wellness in Singapore. Both at the average and the elite ends of the sporting spectrum specialised nutritional products and supplements remain popular.

At a cultural level, carbohydrate and fat is consumed liberally, while quality protein foods and the quantities consumed appear to be sub-optimal for muscular development, repair and metabolic health. Dietary intake patterns of protein could be improved, by changes such as increasing protein intakes earlier in the day, protein pulsing or consuming protein at more regular intervals during the day – for example every three hours – and increasing the intake of certain nutritious protein foods that may otherwise be under-consumed.

**What do you see are the key challenges to overcome as sports/exercise and sports nutrition take hold and strive to grow in Singapore?**

**Effective sports nutrition is always a blend of understanding the science and understanding the end user of that science,** so the cultural context of Singapore athletes is an important consideration. We have to take into account lifestyle demands and food preferences, alongside the role of effective education and showing people 'the better way' to fuel and recover.

Singapore is an exciting place to be right now because its journey within elite sport is at a relatively embryonic stage.

**The challenge now is to continue educating our athletes, to promote a food first approach,** to equip them with tools to make good decisions regarding their nutrition, and to encourage them to live their food plans consistently around their training and wider lifestyle demands.

**Why are you so passionate about the high performance sports industry? What drives you in your current role at the Singapore Sports Institute?**

Coming from New Zealand and having worked with our very best athletes there in the black jersey (New Zealand rugby teams), I have a deep appreciation for the role of sport at all levels. I know nutrition makes a difference, I see people trying to be the best they can be, and it's rewarding to be able to give them a boost on the way to achieving their dreams. For our athletes in Singapore, it's no different.

Perhaps more importantly though, I am a health practitioner and have a deep concern for the metabolic health, and its decline among the people of planet Earth! If I can leave a legacy of empowering both the medal count and the health of this country, then I will be very happy indeed.



# EUROPEAN MILK PRODUCTION REMAINS SOFT

but the rate of decline is easing. New Zealand production in February is relatively flat

To view a summary of year-on-year changes in production [click here](#)

### New Zealand

**-2%**

Production change  
for the 12 months to  
February 2017

New Zealand milk production for the 12 months to February was down -2% compared to the same period the previous year.

This is a result of lower volumes at the peak due to the impact of weather, with some improvement to growing conditions since the peak.

Total milk production in February was down -3% compared to the same month last year. After adjusting for the 2016 leap year, production was up +1% for the month.

### Australia

**-7%**

Production change  
for the 12 months to  
January 2017

Australia production for the 12 months to January was down -7% compared to the same period the previous year.

Production in January decreased -6% compared to the same month last year.

### European Union

**0%**

Production change  
for the 12 months to  
January 2017

EU production for the 12 months to January is in line with the comparable period the previous year.

Production in January decreased -2% compared to the same month last year. While this represents the eighth consecutive month with volumes lower than last year, the rate of decline has eased over the past quarter.

French production was down 6% while Germany and the UK were both down -4%.

### United States

**+2%**

Production change  
for the 12 months to  
February 2017

US milk production for the 12 months to February increased +2% compared to the same period the previous year.

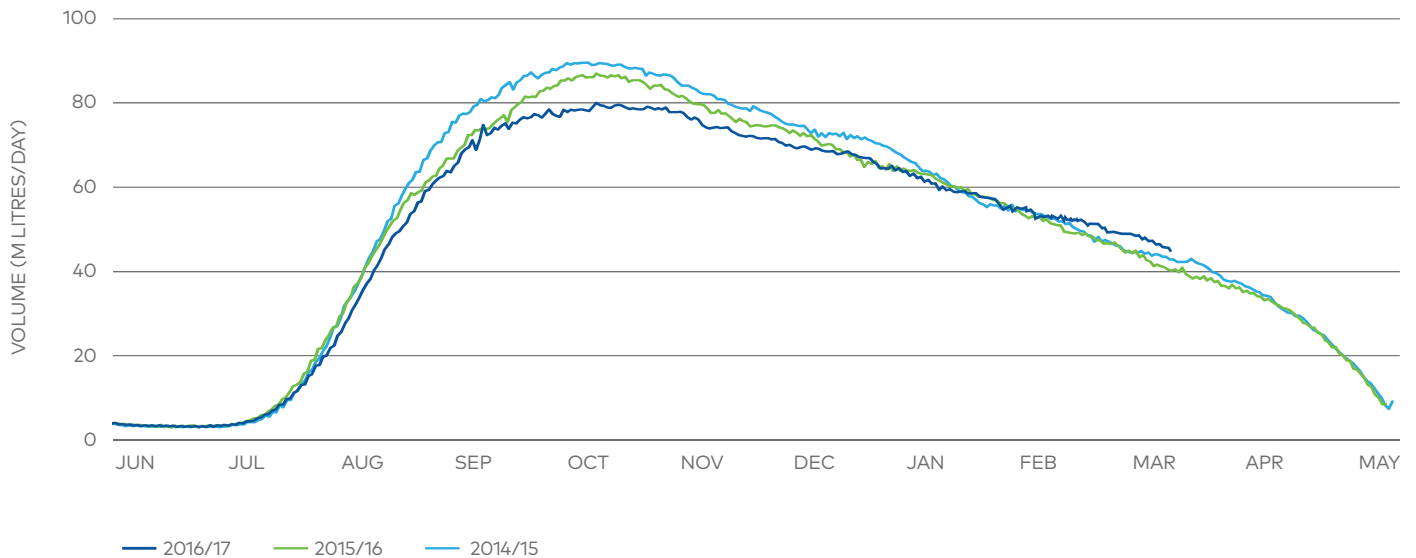
Production in February decreased -1% compared to the same month last year.

Excluding the impacts of the leap year in 2016, the monthly rate of increase was in line with previous months, up +2% on the prior year.





## FONTERRA NEW ZEALAND MILK COLLECTION 2016/2017 SEASON



### New Zealand Collection

**-3%**

Decrease for the season from 1 June to 31 March

Fonterra's milk collection across New Zealand for the 10 months to 31 March reached 1,342 million kgMS, 46 million kgMS lower than last season.

March collections reached 147 million kgMS, +8% up on the same month last season.

Fonterra New Zealand milk collection improved in March due to favourable growing conditions, particularly in the North Island.

### Australian Collection

**-2%**

Decrease for the season from 1 July to 31 March

Fonterra's milk collection across Australia for the 9 months to 31 March reached 97 million kgMS, 2.1 million kgMS lower than last season.

In March milk collection reached 8.8 million kgMS, +0.4% higher than the same month last season.





# NEW ZEALAND EXPORTS DECLINED 36,000 MT

the third consecutive monthly decline, while US export strength continues

To view a summary of year-on-year changes in exports [click here](#)

## New Zealand

**+3%**

Export change for the 12 months to January 2017

New Zealand exports for the 12 months to January were up +3%, or 85,000 MT, on the previous comparable period. Growth was led by infant formula and fluid and fresh dairy, up a combined +46%.

Total dairy exports in January decreased -10%, or 36,000 MT, compared to the same month last year and continued the recent run of monthly declines.

Growth in fluid and fresh dairy, up +50%, was offset by decreases in milk fats, with butter and AMF down -28% and -21% respectively, and SMP and WMP down a combined -9%.

## Australia

**+3%**

Export change for the 12 months to January 2017

Australia exports for the 12 months to January were up +3%, or 21,000 MT, on the previous comparable period.

Growth in fluid and fresh dairy and WMP, up +17% and 7% respectively, was offset by a -20% decline in SMP, Australia's third largest export category.

Dairy exports in January increased +2%, or 1,000 MT, compared to the same month last year. In key export categories, SMP and fluid and fresh dairy were flat while cheese was up +15%.

## European Union

**+6%**

Export change for the 12 months to December 2016

EU export growth on a rolling 12 month basis has eased in recent months but remains up +6%, or 267,000 MT, on the previous comparable period. Increases in butter, up +20%, cheese, up +11% and fluid and fresh dairy up +10%, were offset to some extent by SMP, down -17%.

Dairy exports decreased -9% in December, or 39,000 MT, compared to the same month the previous year, the second consecutive month of declining exports.

With the exception of infant formula, up +14%, all major dairy categories were down. SMP, WMP, cheese and fluid and fresh dairy were down a combined -11% or 30,000 MT.

## United States

**+4%**

Export change for the 12 months to January 2017

US exports for the 12 months to January are up +4% or 73,000 MT, on the previous comparable period.

Dairy exports increased +12% in January, or 17,000 MT, compared to the same month the previous year.

This was the eighth consecutive month of increasing exports, although the rate of growth has eased in the last quarter.

The increase was driven by whey powder up +17%, WPC/WPI up +39% and the largest export category, SMP, up +11%.





# CHINA REPORTED THE LARGEST MONTHLY INCREASE IN IMPORT VOLUMES IN THE PAST YEAR

steady import growth continues in Asia and Latin America

To view a summary of year-on-year changes in imports [click here](#)

## China

**+14%**

Import change  
for 12 months to  
February 2017

China imports for the 12 months to February were up +14%, or 287,000 MT, compared to the same period last year.

Fluid and fresh dairy, China's largest import category, was up +31%, or 159,000 MT over this 12 month period.

Dairy imports increased +41%, or 58,000 MT, in February compared to the same month last year.

This monthly growth, the largest increase since March 2016, was led by whey powder, up +63%, WMP, up +52%, and fluid and fresh dairy, up +46%.

## Middle East & Africa

**-5%**

Import change  
for 12 months to  
December 2016

Middle East and Africa dairy imports for the 12 months to December were down -5%, or 198,000 MT, compared to the same period last year.

Fluid and fresh dairy and WMP, the regions two largest import categories, were down -8% and -9% respectively.

Dairy imports decreased -10%, or 30,000 MT, in December compared to the same month the previous year. This represents the fourth consecutive month of declining import volumes, and was led by declines in WMP, cheese and butter, down a combined -23%, or 32,000 MT.

## Asia (excluding China)

**+5%**

Import change  
for 12 months to  
December 2016

Asia dairy imports for the 12 months to December were up +5%, or 187,000 MT, compared to the same period the previous year.

Increases in fluid and fresh dairy, whey powder and cheese, up a combined +9%, were offset by small declines in powders, with SMP and WMP down -2% and -3% respectively.

Dairy imports increased +2%, or 8,000 MT, in December compared to the same month the previous year. Fluid and fresh dairy increased +19%, or 9,000 MT, while SMP and WMP were down a combined -7% or 10,000 MT.

## Latin America

**+13%**

Import change  
for 12 months to  
December 2016

Latin America imports for the 12 months to December were up +13%, compared to the same period the previous year. Core categories have led this growth with SMP, WMP and cheese up a combined +19%, or 164,000 MT.

Dairy import volumes increased +4%, or 6,000 MT, in December compared to the same month the previous year.

WMP and cheese, two of the largest import categories, increased +23% and +25% respectively, for a combined increase of 10,000 MT.

## Russia

**+4%**

Import change  
for 12 months to  
December 2016

Russia dairy imports are up +4% for the 12 months to December compared to the same period the previous year.

Import volumes dropped -12% for December compared to the same month the previous year. Fluid and fresh dairy, SMP, cultured products, whey powder and cheese are down collectively -25.9% for December YOY. Butter and WMP increased up +19% and +62% December YOY.

Import data for January 2017 was not published at time of writing.



# TRACKING THE GLOBAL DAIRY MARKET

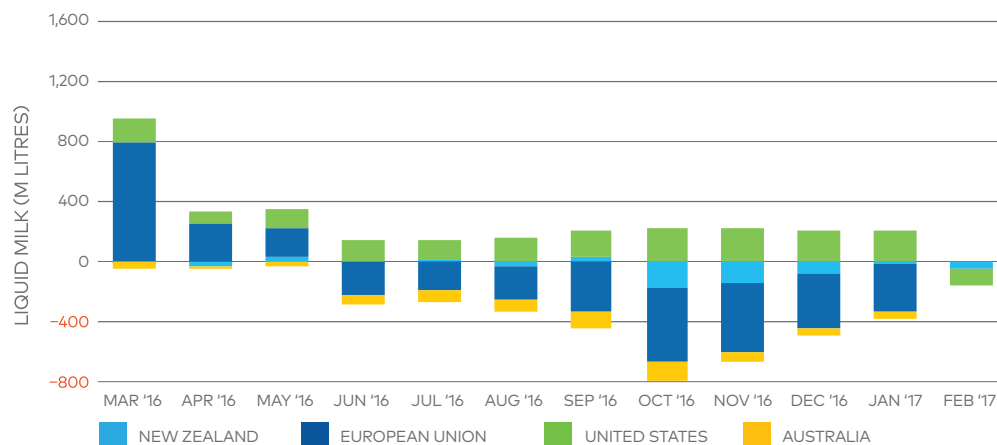
## Global Dairy Market

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

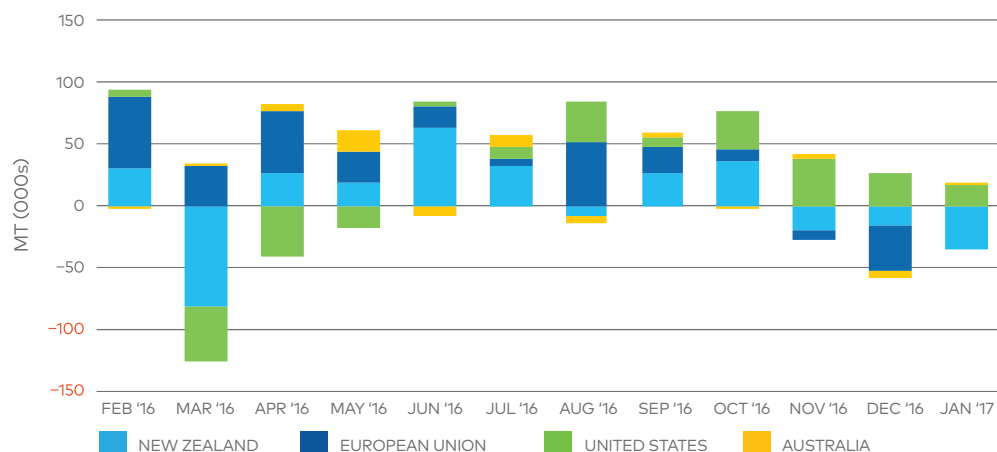
Where countries are not shown, this is likely due to data not yet being available at time of publication.

For further information [click here](#)

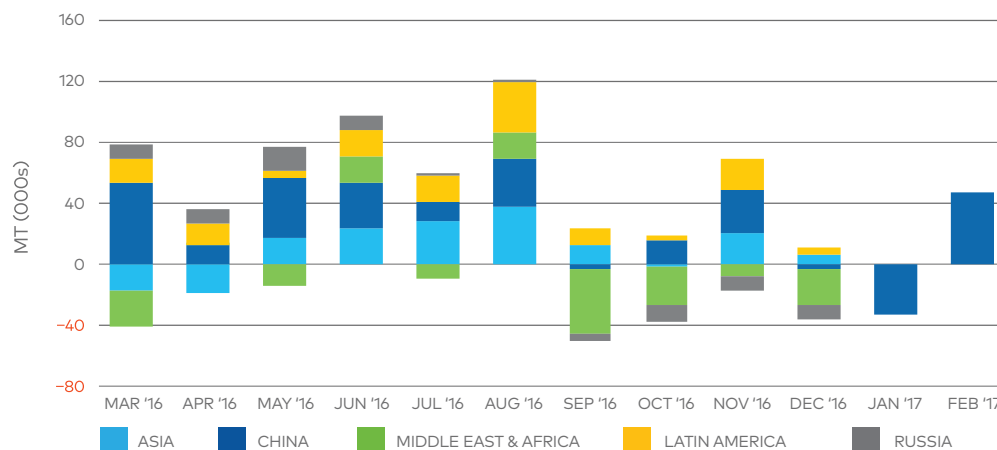
### PRODUCTION<sup>1</sup>



### EXPORTS<sup>2</sup>



### IMPORTS<sup>3</sup>



1. Data for EU and Australia to January, and New Zealand and US to February.
2. Data for EU to November, and New Zealand, US and Australia to January.
3. Data for China to February, and Asia, Middle East and Africa, Latin America and Russia to December.

Source: Government milk production statistics/GTIS trade data/Fonterra analysis





## Food Price

FAO Food Price Index averaged nearly 171 points in March 2017, down almost -5 points from February, but still +13.4% above its year ago level.

The Dairy Price Index averaged 189.8 points for March 2017, down -2.3% from the previous month but still +46% higher year on year. This decrease marked the first decline since April 2016, with expectations of increased supplies of milk powders and cheese.

Conversely, butter prices rose with continued firm domestic demand from Europe and North America, leading to reduced export availability.

*Source: FAO*



## Economic

Composite leading indicators (CLIs) anticipate stable growth momentum for the OECD area over the next 6 to 9 months. CLIs point to stable growth in the Euro area and Japan.

Growth is expected to gain momentum in the United States, Canada and Germany. The United Kingdom shows signs of growth gaining momentum, however uncertainty related to Brexit remains.

Growth forecasts for emerging economies remain unchanged, with growth picking up in China, Brazil and Russia, and easing growth signals in India.

*Source: OECD*



## Consumer

The Economist Intelligence Unit (EIU) maintained its global growth forecast in 2017 of 2.6%. This is maintained by US growth being reduced -0.1% to 2.3%, owing to a soft start to the year and China growth forecast rising +0.2% to 6.6%, due to strong performance in the property market.

There is evidence the global economy is undergoing a cyclical improvement, with healthy goods exports from Asia. EIU's view on US policy changes and increases in infrastructure spend occurring is increasingly sceptical.

*Source: Economist Intelligence Unit*



## Weather

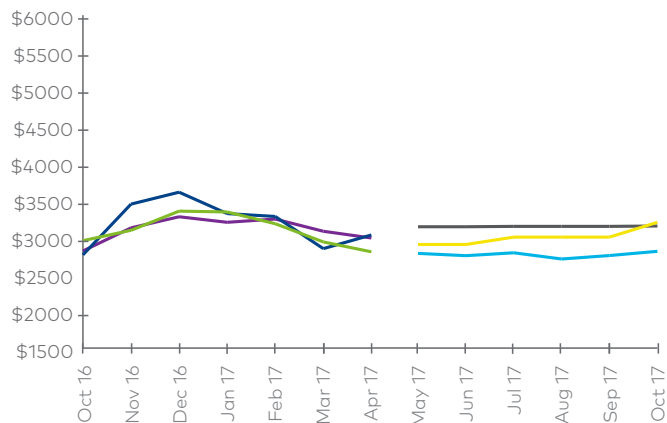
New Zealand has been in storm mode for April. Fortunately this has come at the end of the season so production impacts are negligible. Flooding could lead to a feed deficit over winter with delays to harvests and regrassing of pastures. This could lead to a slow start to New Zealand production next season. Cyclone Debbie ended previous severe rainfall deficits in parts of Australia. ENSO-neutral conditions are favoured to continue to mid-2017.

*Source: Climate prediction centre, World Agricultural Weather Highlights USDA oCOE; Dairy Australia Production Inputs Monitor; Otago Daily Times*



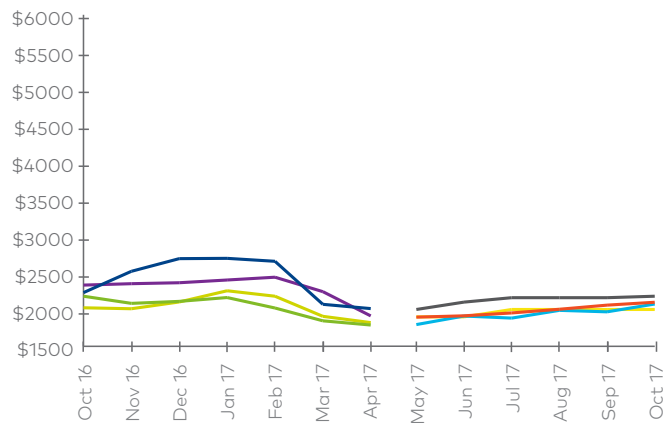
# COMMODITY PRICES

## WMP



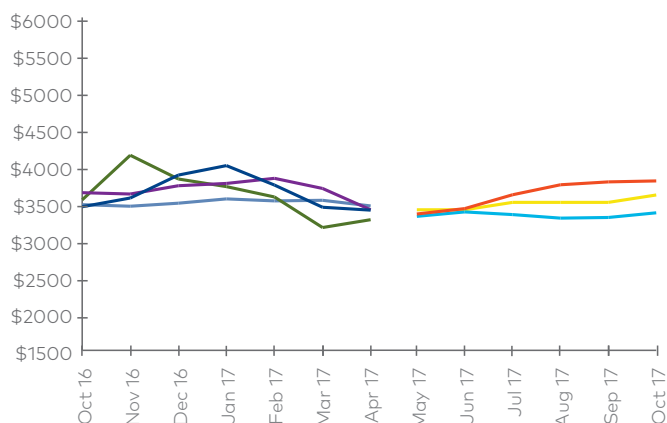
- WMP price decreased month on month by -4.6% for the Dutch Dairy Board (DDB) and -3.0% for USDA Oceania in March; however, increased +6.4% Global Dairy Trade (GDT).
- Average futures and forecasts for May 2017 to October 2017 are stabilising around USD 3000/MT, with Informa Oceania and Rabobank Oceania decreasing forecasts. NZX Futures' 6 month average rose +8.7% to an average of USD 3144/MT.

## SMP



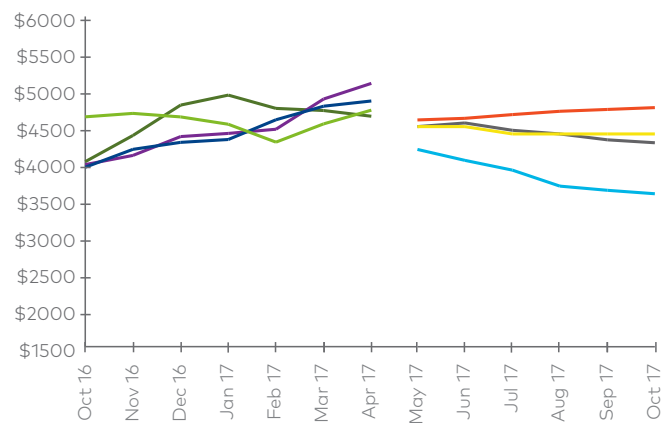
- SMP prices all decreased in April (DDB down -3.1% to USD 1,789, GDT down -2.8% to USD 2,012/MT, USDA Oceania down -14.7% to USD 1,913/MT and USDA NASS down -4.5% to USD 1,822/MT).
- Futures and forecasts are all sitting around USD 2,000/MT, with NZX Futures' 6 month average decreasing -14.9% to USD 2,127/MT.

## Cheese



- Cheddar cheese prices decreased; with the exception of CME spot price, which increased +3.6% USD 3,266/MT. Decreases included GDT by -1.1% to USD 3,395/MT, USDA Oceania by -7.8% to USD 3,400/MT, and EU Commission by -2.2% USD to 3,452/MT.
- Futures and forecasts pricing is mixed, with CME Futures in particular predicting strong prices in the second half of 2017.

## Butter



- There was an error in the butter price graph in the March edition of Perspective. Please [click here](#) for revised March edition.
- April butter price changes all increased from the revised March levels, with the exception of CME Spot prices. DDB is up +4.1% to USD 4,723/MT, GDT up +1.5% to USD 4,848/MT, USDA Oceania up +4.4% to USD 5,088/MT. CME Spot decreased -1.7% to USD 4,640/MT.
- Forecast/futures pricing is mixed/diverging, representing uncertainty in the market. Informa Oceania especially is showing significant decline.

### Actuals

- GDT Fonterra
- Dutch Dairy Board
- USDA Oceania
- USDA NASS
- CME Spot
- EU Commission

### Forecasts

- NZX Futures
- CME Futures
- Rabobank Oceania
- Informa Oceania





## TRADING EVENT 186

WMP

**+3.5%**

\$2,998

SMP

**+7.1%**

\$2,044

AMF

**-0.5%**

\$5,930

Butter

**+2.9%**

\$4,892

Cheddar

**+6.0%**

\$3,462

Rennet Casein

**-3.8%**

\$6,020

Lactose

**+1.2%**

\$935

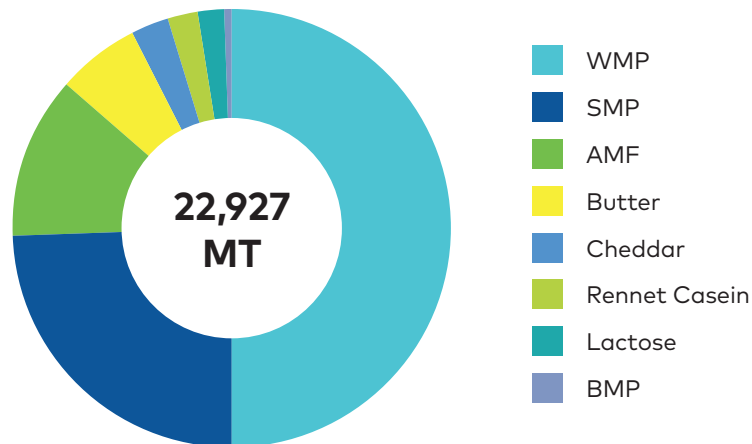
BMP

**N/A**

\$1,720

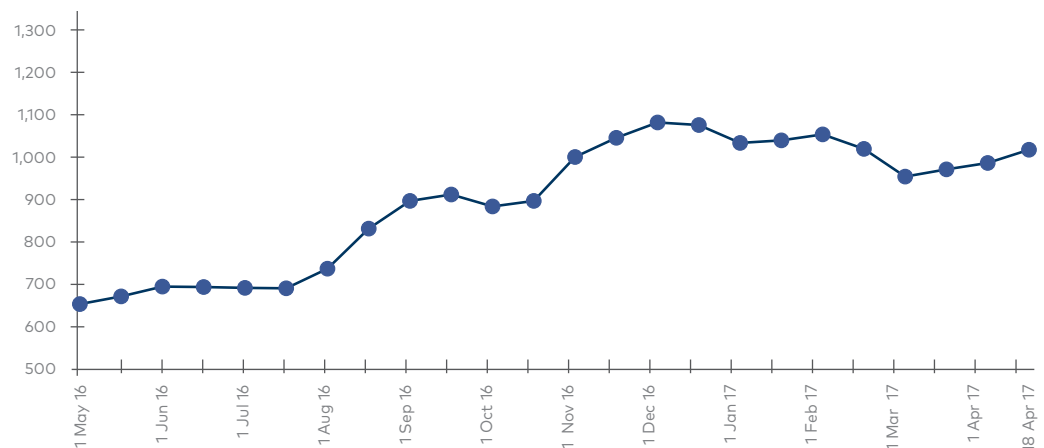
## GDT SALES BY PRODUCT

TRADING EVENT 186



## GDT PRICE INDEX

April GDT results were positive, with an increase of +3.1% in the most recent TE 186. SMP firmed at the recent GDT auction for the first time since January, up +7.1% to USD 2,044/MT.



Data reflective as retrieved on 18 April 2017. BMP not available at time of publication.



# USDA, DAIRY OUTLOOK

## Recent developments for March 2017

USDA reported milk production for February 2017 of 6.7 billion pounds, +2.3% up YOY, adjusted for leap year. Milk cow numbers increased to 9.367 million head, up +4,000 compared to the previous month. Production per cow averaged 63.6 pounds per day, up +1.7% YOY, but a slowdown in the rate of increase seen since October 2016.

Wholesale prices reported in USDA National Dairy Products Sales Report declined for most dairy products from week ending March 4th, to week ending April 8th. Cheddar cheese block and barrel prices fell by USD -0.174 and USD -0.204 per pound respectively. Nonfat dry milk (NDM) fell by USD -0.102 per pound and butter by USD -0.027. Dry whey was the exception, increasing USD +0.022 per pound.

Domestic use was weak in February 2017 compared to year ago levels, particularly for butter, NDM, cheese and dry whey. Over the three month period of December to February

(adjusted for leap year), commercial disappearance declined -8.7% for butter, -9.6% for NDM and -15.8% for dry whey YOY.

February 2017 exports on a milk-fat basis were down -125 million pounds YOY and on a skim-solids basis were up +395 million pounds YOY. Cheese and NDM exports were higher than the previous month and previous year. NDM exports to Mexico increased +34% from January 2017 to February 2017, to the highest volume since October 2015.

Imports on a milk-fat basis are down -229 million YOY. Imports on a skim-solids basis were up +52 million pounds YOY. Cheese imports were lower than year ago and previous month levels. US wholesale domestic cheese prices declined relative to foreign export prices, likely contributing to decreased imports and increased exports. US butter and NDM prices have also become more competitive.

## Dairy forecasts for 2017

Forecast for milk production is 217.5 billion pounds, up +0.1 billion pounds from last month's forecast. Forecast milk cow numbers has been raised to 9.385 million head (+5,000 head) and milk per cow lowered to 23,150 pounds per head (-35 pounds) for 2017. Feed prices are still expected to be relatively low.

Domestic use forecast on a milk-fat basis has been lowered due to low cheese imports in February and more competitive domestic prices for cheese and butter. Projected exports on a milk-fat basis have also been lowered for 2017 and the projection for ending stocks has increased +0.1 billion pounds for the year compared to last month's forecast.

Domestic use forecast on a skim-solids basis has been lowered -0.2 billion pounds. Import forecast on a skim-solids basis is up +0.2 billion pounds on last month, driven by demand for milk protein products and other miscellaneous products. Export forecast for skim-solids increased, supported by more competitive domestic prices for NDM.

Price forecasts for all dairy products has been lowered from last month. The 2017 price forecasts for cheese, butter, and NDM have been lowered to USD 1.60 from USD 1.65, USD 2.12 from USD 2.20, and USD 0.87 from USD 0.91 per pound, respectively. Dry whey price forecast has been lowered slightly to USD 0.49 from USD 0.52 per pound.



# BLIMLING, FORECAST UPDATE

April 2017

Blimling's April forecast update focuses on butter price trends. Butter futures have not traded below USD 2.20 per pound since December at the time of writing. Blimling suggests this upward trend in the face of adequate supply may relate to buyer's fear of 2014 trends repeating. High futures prices provide support to the spot market at the time of writing, with Blimling predicting the market would drift lower. With inventory levels high and demand sketchy third quarter futures may begin to soften, however potential upside risk remains.

The cheese market is anticipated to hold a forward curve in the near term, however, Blimling notes expanding cheese

supplies will weigh on price as the year rolls on.

Butter buyers continue to buy demand coverage. Blimling predicts, as Easter passes, the market may realise the amount of excess supply.

Nonfat dry milk (NDM) prices are forecast to stay under pressure, with stronger milk supplies and lackluster demand growth contributing to this.

Dry whey prices are anticipated to come under pressure, with seasonally stronger cheese production, climbing inventories and weak NDM pricing.





## GLOSSARY

Fonterra draws the information in this update from a variety of principally external sources listed below. Also included are defined acronyms for better understanding.

**AMF** Anhydrous Milk Fat

**BMP** Butter Milk Powder

**CME** Chicago Mercantile Exchange

**EIU** Economist Intelligence Unit

**FAO** United Nations Food and Agriculture Organisation

**Farmgate Milk Price** The price for milk supplied in New Zealand to Fonterra by farmer shareholders

**Fluid and Fresh Dairy** 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

**FTA** Free Trade Agreement

**GDI** Global Dairy Intelligence group, Fonterra Cooperative Group Limited. GDI provides insights to Fonterra management based on a model of the global dairy market developed by GDI and populated with publicly available data. The model outputs referenced in this report do not reflect Fonterra's non-public production or sales data

**GDP** Gross Domestic Product

**GDT** GlobalDairyTrade auction platform

**GDT Price Index** is an index that provides a measure of the weighted average percentage change in the movement in price of all products sold on GDT. This provides a simple measure of changes in dairy price between trading events

**IMF** International Monetary Fund

**Informa** Informa Economics Inc., Dairy Group, Global Dairy Market Report

**LME** Liquid Milk Equivalent

**MAT** Moving Annual Total (this is data averaged across the 12 month period)

**MEA** Middle East and Africa

**NDM** Non-fat Dry Milk

**NZX** NZ Stock Exchange

**OECD** Organisation for Economic Co-operation and Development

**Q[1]** [First] Quarter

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

**SEA** South East Asia

**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

**TE** GDT Trading Event

**USDA NASS** US Department of Agriculture National Agricultural Statistics Service

**USDA Oceania** US Department of Agriculture Agricultural marketing service price series for specific products in the Oceania region

**WMP** Whole Milk Powder

**YOY** Year-on-year

**YTD** Year to date

Comments on weather are obtained from various government weather sites as well as independent reports including Martell Crop Projections. Global milk production data is sourced from government and industry websites including US Department of Agriculture (USDA), EuroStat, Dairy Australia, Dairy Companies Association of NZ (DCANZ) and others.

### Tracking the global dairy market Production, Export and Import charts

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

The absolute size of the bars represents the change in production, exports or imports compared to the same month the previous year. The portion of the bar below zero represents a year-on-year decrease and the portion above the line shows the year increase for that country. Where countries are not shown this is likely due to the data not yet being available.





Important note: The information and commentary contained in this 'Perspective from NZMP' is based on publicly available official government statistics; industry association reports; other published industry reports together with data and insights developed by Fonterra's Global Dairy Intelligence group ('GDI'). These sources are identified as appropriate in this 'Perspective from NZMP'. GDI insights and data are derived from a global dairy market model populated by publicly available data. The model inputs and outputs do not reflect Fonterra's non-public production, pricing or sales data. Fonterra Co-operative Group Limited and its group members involved in the manufacture or sale of NZMP branded products ('Fonterra') has provided this 'Perspective from NZMP' for informational purposes only. It does not constitute recommendations or advice for the purposes of making financial decisions regarding trading in dairy products or commodities, or dealing in financial instruments relating to dairy commodities. Although every effort is made to ensure the accuracy of reproducing and interpreting such information, no warranty or representation of such is made and Fonterra shall have no liability in respect of any reliance placed on such information in the formulation of any business decision.