



# Situation and Outlook for Primary Industries

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## June 2017

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## NOTES

Annual figures are for the year ended June, unless otherwise noted. Currency figures are in New Zealand dollars, unless otherwise noted. Some totals may not add due to rounding.

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## Minister's foreword

## Director-General's introduction



**Hon Nathan Guy**  
**Minister for Primary Industries**

I am delighted to release the latest *Situation and Outlook for the Primary Industries (SOPI) for June 2017*. Despite a challenging year where earthquakes, flooding and drought have tested many of our producers, overall primary industry export revenue is expected to grow to \$38 billion this year and jump by nearly 10 percent next year to \$41 billion.

It is encouraging to see growth across a wide range of sectors, highlighting what a strong and diversified primary sector we have.

MPI's forecast for 2018 provides further reason for dairy farmer confidence, as does Fonterra's opening milk price forecast. Farmers will be in a good position to grow after a tough couple of years required them to focus on improving efficiency in order to succeed.

The Government remains committed to supporting the primary industries to increase the value of their exports, as evidenced through a \$90 million investment to support the refreshed Trade Agenda 2030. As part of this, an expanded presence in South East Asia and Europe will provide critical support to exporters in terms of market access and insights.

The benefits and opportunities from this work are summarised in pages 10-15 of this publication.

This year the Government has also announced new funding of \$18 million for biosecurity, bringing it to the highest level ever. New investments into irrigation and water storage (\$89.7 million) and fisheries management (\$30.5 million) will also help grow and protect the wider primary sector.

MPI has also made exciting progress on some long-standing market access issues for the red meat sector this year. Sheep meat farmers have regained access to the lucrative Iranian market and 10 plants have gained trial access for chilled meat products into China.

The Government's Budget this year showed a very strong set of accounts with growing employment, falling debt and increased social spending. In my view the primary sector has been the backbone of this strong performance.

A handwritten signature in blue ink that reads "Nathan Guy".

Hon Nathan Guy

**Martyn Dunne**  
**Director-General, Ministry for Primary Industries**

The *Situation and Outlook for Primary Industries (SOPI)* is a quarterly publication that assesses the current state of New Zealand's primary industries and their prospects for growth. The June edition is our most significant, and presents MPI's most expansive exploration of the challenges and opportunities for each sector.

SOPI June 2017 shows overall growth of 2.4 percent this year, built on a continuing recovery in dairy prices, record log prices and harvest levels, and a horticulture sector that continues to thrive. It also describes the numerous challenges faced by many primary producers in New Zealand from adverse natural events, including the Kaikōura Earthquake last November and the two cyclones in April. I would like to acknowledge here the work of MPI staff who have worked tirelessly to support rural communities through these events.

Looking forward over the next four years, the future of primary industry exports looks bright, with opportunities to tailor our exports for both established and emerging markets. As we show in this SOPI (see pages 10-15), the government's investment through the Trade Agenda 2030 firmly positions MPI as an agency with a comprehensive set of capabilities to support exporters seeking opportunities across all product and market segments.

Crucial to this new capability is our ability to use integrated intelligence insights to highlight where MPI can improve regulatory settings to enable our primary industries to seize market opportunities. The successful investment in new varieties in our horticulture sector highlights the benefits which accrue when our products match what overseas consumers are demanding.

Coupled with MPI's increased in-market presence to support getting the most out of trade negotiations and tackling barriers to export growth, our expanded analysis capability and exporter-focused assistance programs will help us maximise market opportunities for the primary industries.

A handwritten signature in blue ink that reads "Martyn Dunne".

Martyn Dunne



# Overview

## HIGHLIGHTS

- Dairy prices have recovered from the low levels of 2015 and 2016.
- Record log prices and harvest volumes are pushing forestry exports higher.
- Despite challenging weather conditions, particularly for horticulture, arable, and dairy, primary production volumes have been relatively good.

New Zealand's primary industry exports are forecast to increase 2.4 percent to \$38.1 billion for the year ending June 2017. Strong global prices for forestry and dairy products, combined with rising horticulture production volumes, are driving short-term growth, even though weather conditions have not been ideal for many sectors.

For the year ending June 2018, we expect that dairy prices will remain near current end of year levels, significantly boosting dairy export revenues. In addition, strong forestry prices are expected to continue to drive record harvest volumes while horticulture exports are also forecast to continue their strong growth.

Meat and wool exports are lower in 2017, after two years of exceptional results, but exports are expected to resume growing

during the year ending June 2018 despite lower sheep and cattle numbers.

The fundamentals for continued trade growth remain strong. Our major trading partners are experiencing relatively robust demand for food imports as well as overall economic growth. Emerging opportunities for expanding trade in Southeast Asia and the Middle East also provide reason for optimism.

## Primary production overcomes challenging weather

Challenging weather conditions during the year ending June 2017 resulted in lower production than would have been expected and disrupted planting and harvesting periods in some sectors. That primary industry exports are still on track to grow by 2.4 percent this year is a testament to the resilience of our producers.

**Table 1:** Primary Industries export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Dairy	13,139	17,791	14,050	13,289	14,640	17,320	17,360	17,700	18,270
Meat & wool	7,793	8,162	9,000	9,200	8,300	8,450	8,670	8,880	9,050
Forestry	4,527	5,199	4,682	5,140	5,470	5,870	5,980	6,090	6,270
Horticulture	3,547	3,795	4,173	4,987	5,280	5,400	5,800	6,010	6,360
Seafood	1,546	1,500	1,562	1,768	1,770	1,800	1,890	1,990	2,090
Arable	225	228	177	205	185	195	210	220	235
Other primary sector exports	1,940	1,910	2,316	2,614	2,450	2,530	2,600	2,680	2,760
Total exports	32,717	38,585	35,960	37,203	38,095	41,565	42,510	43,570	45,035
% Change	+0.5%	+17.9%	-6.8%	+3.5%	+2.4%	+9.1%	+2.3%	+2.5%	+3.4%

Source: Statistics New Zealand and MPI.

## THE NEW ZEALAND DROUGHT INDEX

The extent of the drought in Northland and subsequent rains are best conceptualised by the New Zealand Drought Index (NZDI) maps below. Developed by NIWA with the support of MPI, the NZDI was released in March 2017 to provide an indicator of drought. The NZDI is based on four commonly-used climatological drought indicators: the Standardised Precipitation Index, the Soil Moisture Deficit, the Soil Moisture Deficit Anomaly, and the Potential Evapotranspiration Deficit.



A wet spring transformed into a cooler than normal summer in much of the country. Northern and eastern parts of New Zealand were also affected by droughts, and more recently, flooding in the wake of cyclones Debbie and Cook.

The Kaikōura earthquake of 14 November 2016 also affected our primary industries, mostly through damage to buildings and infrastructure. Damage to wine storage tanks in nearby Marlborough caused some losses to the 2016 vintage and created logistical constraints to processing the 2017 vintage. Major seabed displacement caused a portion of the Kaikōura fishery to be briefly closed for rock lobster, and it remains closed for paua while MPI researches the impact of the earthquake on these fisheries.

In the past six months, weather conditions for pastoral farming have improved across much of the country, setting the dairy sector up for a strong finish to the year and allowing for higher animal weights at slaughter. In addition, the good pasture availability should provide a solid base for growth into the 2017/18 season.

### Long-term outlook

Over the next few years, New Zealand's primary sector export earnings are forecast to increase by an average of 3.9 percent per year, reaching \$45.0 billion by the year ended June 2021. This forecast is underpinned by:

- broad-based price gains across most sectors;
- the recent dairy price recovery being maintained across the forecast period;
- improving pastoral productivity;
- expanded plantings of grapes, kiwifruit, and apples, including new varieties which are more productive and/or more valuable;

- continued diversification into horticulture and other high value products, such as infant formula, chilled meat, fresh seafood, and retail-ready packaged foods.

Global trade in food products is expected to continue growing, especially for products that New Zealand is well-placed to export. Changing consumer preferences and the environmental conditions present both challenges and opportunities.

### Global food trade

Population growth, rising incomes, and urbanisation in emerging economies should continue to drive demand for imported food and fibre products, especially because much of this growth is in areas that are densely populated (Asia) and of limited agricultural potential (the Middle East and North Africa).

What's more, the types of food products that New Zealand specialises in – meat, milk, and fruit – are those that are expected to remain in high import demand as a result of rising incomes globally. Industry and Government continue to invest through Primary Growth Partnerships to take advantage of these opportunities.

New Zealand's forestry products are also finding ready markets in regions with high demand for construction materials.

New Zealand's counter-seasonal production patterns also align well with increasing demand for year-round supply of fresh products, another effect of rising incomes and urbanisation.

### New business models and consumer purchasing behaviours

In addition to increasing global demand, new business models, emerging patterns of consumer spending and priorities are creating new challenges and opportunities for New Zealand primary industries. In response, the Government is investing in capability that will help us understand these dynamics, while

also making it easier for exporters to operate and succeed against their competition.

The recent emergence of cross border e-Commerce, for example, continues to disrupt traditional retail channels, particularly in emerging markets like China. Here, companies like Alibaba are now combining their traditional online retail platforms with multiple different online services as diverse as cloud storage, music streaming, online travel booking e-learning, mobile messaging and online payment solutions.

This is not only creating faster supply chains, but fundamentally shaping how companies develop and position their products with consumers. For New Zealand, which has long relied on bulk shipments of commoditised goods and in-market distributors, this could be a game changer. MPI's Primary Industries Economic Intelligence Unit (EIU) is investigating the advantages of selected e-Commerce models for New Zealand and the opportunities these present to exporters.

One such example is that consumers and foreign governments are increasingly demanding new assurances around food safety, provenance and traceability, and supply chain integrity. New Zealand is well placed to meet these demands, and many of its primary industry producers can add strong, value-adding stories to their products and brands that resonate with consumers. Our strong biosecurity system also remains an asset valued by our trade partners. All these strengths work together to maintain and enhance market opportunities for New Zealand producers and exporters.

## Macroeconomic update

New Zealand's macroeconomic environment is positive for continued primary sector export growth. The economies of our major trading partners are growing, which leads to increasing purchasing power for imported primary sector products. In addition, opportunities are emerging in Southeast Asia and the Middle East to broaden New Zealand's customer base.

Although primary sector export revenue growth is forecast to continue, elections in the United States of America (US) and a referendum in the United Kingdom (UK) over the past year have provided a counterpoint to the default assumption that

barriers to global trade will continue to reduce over time.

Few concrete changes have occurred in New Zealand's trading environment so far, yet these developments increase uncertainty for our long-term outlook. Aside from potential changes in trade measures, some of these policies may impact on exchange rates or economic growth, which could also affect demand for New Zealand's primary products.

Despite these concerns, a wider appetite still exists for free trade. Progress is continuing across several fronts, with Japan and China taking the lead, including:

- New Zealand being in talks with other Parties to explore alternative approaches for the Trans-Pacific Partnership after the US withdrew from the agreement in early 2017. To further that objective, Japan and New Zealand have ratified the TPP in its current form;
- the Regional Comprehensive Economic Partnership (RCEP) with Association of Southeast Asian Nations (ASEAN), Australia, China, India, Japan, South Korea, and New Zealand;
- an upgrade to the ASEAN Australia New Zealand Free Trade Agreement (FTA);
- a potential FTA with the European Union.

Even though more uncertainty exists in global trade when compared with a year ago, a lower New Zealand dollar and rising import demand from China are positive signs over a shorter time horizon.

## Exchange rates

The New Zealand economy is on track to grow 3.7 percent in 2017, a strong result compared with Australia and other member countries of the Organisation for Economic Co-operation and Development. Economic growth has supported a steadily rising New Zealand dollar (NZD) in the past year, although the dollar has recently fallen towards US 70 cents.

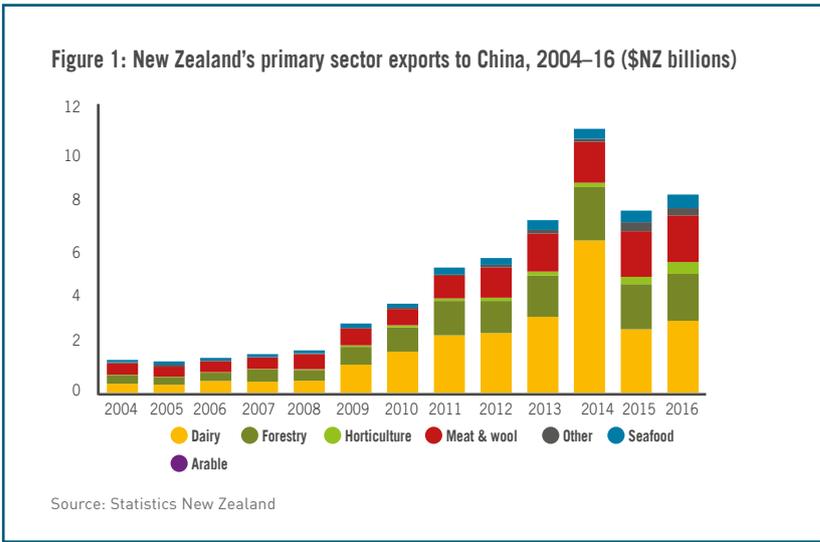
Over the forecast period, the NZD is expected to remain near or slightly below the current range relative to other traded currencies. A lower NZD can help exporters because this makes our products comparatively cheaper in our trading partner's domestic currencies.

**Table 2:** Major trading partners economic outlook dashboard, calendar year 2016

Trading partner	Primary industry exports from New Zealand	Primary industry imports from all countries (NZ ranking)	Forecast average GDP growth 2017–20	Projected 10-year annual population growth rate
China	\$8.3 billion	\$247 billion (7th)	+6.2%	+0.2%
Australia	\$4.3 billion	\$33 billion (2nd)	+2.8%	+1.2%
USA	\$4.1 billion	\$346 billion (19th)	+2.2%	+0.7%
EU (incl. UK)	\$4.0 billion	\$339 billion (19th)	+1.4%	+0.1%
Japan	\$2.2 billion	\$133 billion (16th)	+0.8%	-0.4%
ASEAN	\$3.9 billion	\$105 billion (12th)*	+3.8%	+1.0%
New Zealand	–	\$8.4 billion	+3.2%	+0.9%

Source: Statistics New Zealand, Global Trade Atlas, New Zealand Treasury, World Bank

\* Trade data available for Philippines, Indonesia, Malaysia and Thailand.



imports helping to meet growing demand. The same is true for China's meat and forestry sectors, which is a big reason why New Zealand is the seventh largest source of China's primary product imports.

This, along with a rapidly growing economy (around 6.7 percent gross domestic product (GDP) growth in 2016), rising urbanisation, and westernisation of diets, continues to contribute to a positive outlook for primary sector exports to China in the medium term.

**Australia**

Meanwhile, in Australia, our second largest primary sector export

**Prospects for trade growth**

As a small, trading nation, New Zealand is particularly dependent on export revenue earned from its major trading partners. Together, China, Australia, the EU and the US make up 57 percent of our primary sector export revenue. As such, changes in the political, economic, agricultural production, and consumer trend landscapes of these markets have the potential to significantly affect our growth trajectory. The following sections introduce some of the main influencing themes across these markets.

**China**

China has been New Zealand's largest primary industry export destination since 2010, only two years after a free trade agreement was signed between the two countries. China is a particularly important market for the dairy (24 percent of our exports by value), forestry (42 percent) and seafood sectors (32 percent).

China continues to place an emphasis on securing food sources for their large and growing population presenting significant opportunities for New Zealand exporters. In addition, Chinese consumers continue to value New Zealand's high quality agricultural products.

China is the world's fourth largest producer of dairy products, but consumption remains ahead of domestic production, with

destination in 2016, the economy is performing well despite a fall in Chinese demand for iron ore and other mineral products.

Our primary sector exports to Australia have hovered around \$3.8 billion per year since 2011, before increasing to \$4.3 billion in 2016 on the back of infant formula and processed food exports. New Zealand has a \$2.0 billion primary product trade surplus with Australia. Australia shares the same food safety system as New Zealand, making it relatively easy to trade between the two countries. In addition to our similar diets, this is one of the reasons why our trade in processed foods is so strong with Australia.

Australia is also by far our largest source of imported primary sector products, with much of our paper and cereal products coming from there. New Zealand and Australia have a healthy two-way trade relationship, with total two-way trade of primary sector products valued at \$6.6 billion for the year ended June 2016.

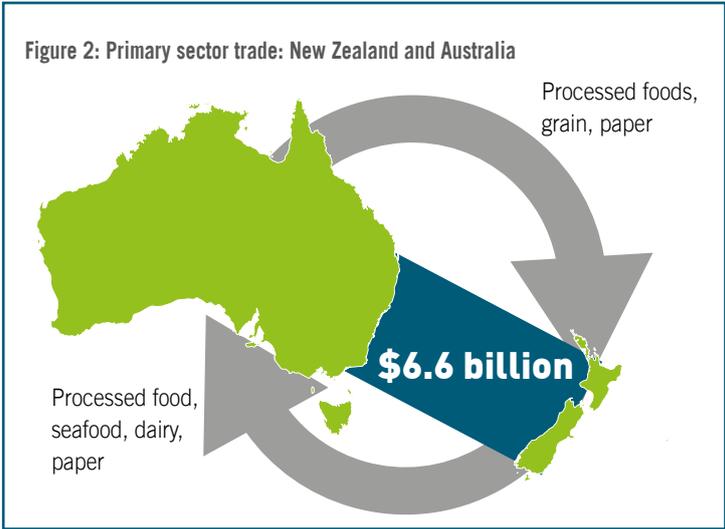
This is partly a result of our Closer Economic Relations, which is recognised as one of the closest and mutually compatible trading relationships in the world. Work around creating a Single Economic Market will make it even easier to trade and do business between Australia and New Zealand.

Australia has a large pastoral sector that supplies lamb, beef, and wool to similar markets as New Zealand. Droughts over the past few years have lowered livestock numbers, but herd rebuilding is under way, likely leading to increases in meat and wool exports from 2017 onwards.

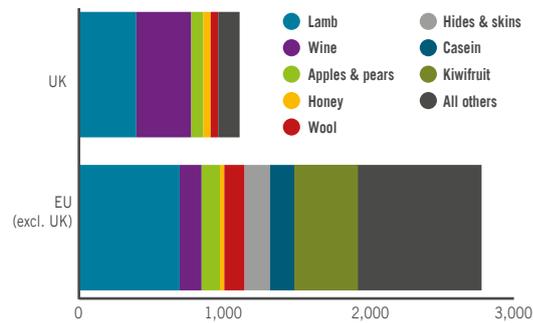
**United States**

The US is the third largest market for New Zealand's primary sector products, particularly beef, wine, and casein. Events affecting the supply and inventories of these products (especially beef) can have significant impacts on the fortunes of our exporters.

A decline in US meat production in 2015 and 2016 led to greater demand for imported beef, especially from New Zealand and Australia. While this demand has subsided somewhat,



**Figure 3: Primary industry exports to the EU and the UK, selected products, year ended March 2017 (\$NZ millions)**



Source: Statistics New Zealand

imports for beef remains strong. The US is also the dominant producer and exporter of grains and oilseeds, which are used for both food and animal feed globally. Several years of strong production in the US and elsewhere has contributed to a global oversupply of these products.

Significant food trends and consumer behaviours often originate, or at least become commercialised, in America (superfoods, the paleo movement, a push towards natural eating). Monitoring the emergence of these trends can allow our exporters to capitalise on the opportunities that arise from this (for example, grass-fed butter). We see that continuing and enhancing our access to the US market is critical to maintaining future primary industry value growth.

Following its presidential election in November 2016, the US withdrew from the Trans-Pacific Partnership trade agreement, which prevents it from entering into force in its current form. The US has also indicated it will renegotiate the North American Free Trade Agreement and there is discussion in Congress on a possible border adjustment tax. As this report goes to press, no further policy changes have been announced. These developments reflect the wider uncertainty in the global trade environment faced by New Zealand exporters.

## Europe

The EU (including the UK) is New Zealand's fourth largest destination for primary industry products, with over \$4 billion in exports in 2016.

The UK and the rest of the EU are the destination for 11.5 percent of New Zealand's primary industries exports, with \$1.1 billion going to the UK and \$2.8 billion going to the remainder of the EU for the year ended March 2017. Figure 3 shows the main primary industry exports that New Zealand exports to Europe.

In June 2016, the UK voted to leave the EU. In March 2017, the UK Government notified the EU of its intention to leave the EU under Article 50 of the Treaty on European Union. By triggering Article 50, the UK and the EU can now begin negotiations towards the UK's exit in two years' time (March 2019). The UK will exit the EU at the end of the two years, even if negotiations are not concluded (unless all EU members agree to an extension).

For New Zealand, nothing changes in the next two years. However, some uncertainty exists as to what the post-Brexit environment will look like for New Zealand (and others).

Despite any consequences from Brexit, enhanced trade opportunities with the EU are still being progressed, including through a potential EU–New Zealand FTA.

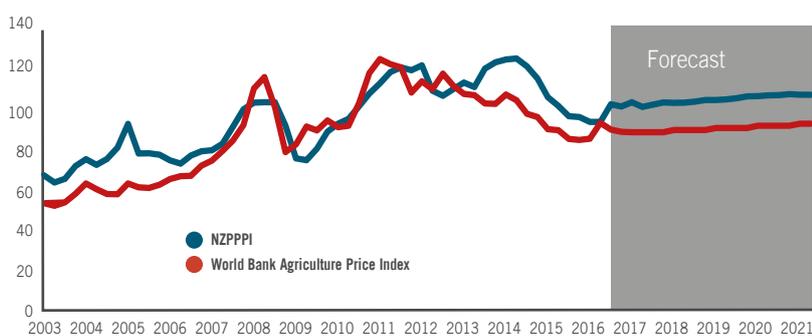
## Global commodity prices

Global commodity prices have begun to edge upward in 2017, led by oil prices. Meat and dairy prices have strengthened, despite grain prices remaining quite low due to global oversupply.

Oil prices have been relatively stable, near \$US 50 per barrel over the past several months, after falling from over \$100 in 2014 to under \$30 in early 2016.

The New Zealand Primary Products Price Index (NZPPPI), MPI's index for tracking movements in New Zealand's primary product export prices, continues to rise relative to the World Bank Agriculture Price Index. This is due to dairy prices rising, which has a large impact on overall New Zealand primary sector exports.

**Figure 4: NZPPPI and World Bank Agriculture Price Index, 2003–21 (2010=100)**



Source: World Bank and MPI



## Dairy

+10.2%

A strong finish to the 2016/17 season has meant that milk production will be less than 1 percent down on last year. Dairy export revenue is forecast to climb to \$14.6 billion for the year ending June 2017. The forecast represents a recovery of global dairy prices as supply and demand rebalanced over the year. Export revenue is forecast to continue to rise through to 2021, provided butter prices remain strong and overall global supply and demand remain balanced for most dairy products.

## Meat and wool

-9.8%

A fall in beef and sheep meat volumes compared with last year are driving a fall in meat and wool export revenue for the year to June 2017. Prices for lamb, beef and venison are finishing the year much higher than previously expected, which has helped to offset some of the lost volume. Export revenue is forecast to recover to \$9.1 billion over the outlook period due to rising prices and stable meat production volumes.

## Forestry

+6.4%

Forestry export revenue is expected to rise by 6.4 percent (to \$5.5 billion) for the year ending June 2017. A record harvest volume of 30.7 million cubic metres for the year ended 31 December 2016, was driven by relatively stable and record high log prices and a large supply of harvestable wood. Export revenue is forecast to reach \$6.3 billion by 2021, underpinned by strong global demand.

## Horticulture

+5.9%

Horticulture exports are forecast to reach \$5.3 billion for the year ending June 2017, before increasing steadily to exceed \$6.3 billion by 2021. Growth is expected to be led by apples and wine for the year ending 2017, and global demand for our wine remains strong. Increasing plantings of gold kiwifruit, grapes, and new apple varieties will support future growth.

## Seafood

+0.1%

Seafood export revenue for the year to June 2017 is expected to be broadly in line with last year at \$1.8 billion. Export revenue is forecast to reach \$2.1 billion by 2021 driven by rising prices in the markets of China, Australia and the US.

## Arable

-9.7%

Arable exports for the year ended June 2017 are expected to be \$184 million, down \$21 million on 2016. The vegetable seed export market remains steady while high international stocks have reduced demand for herbage seed exports. The domestic market for arable products has improved alongside rising dairy prices.

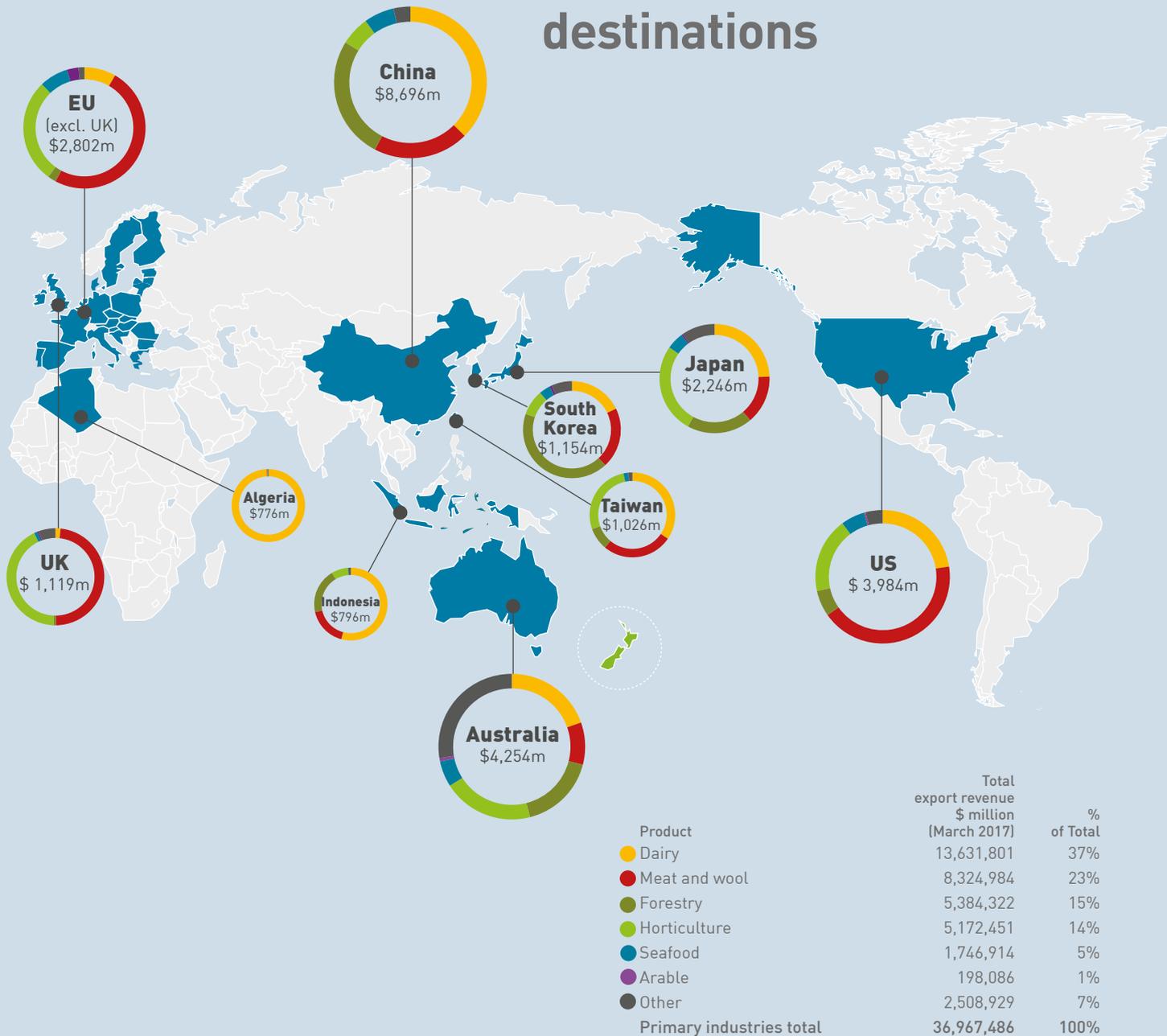
## Other primary sector exports and foods

-6.3%

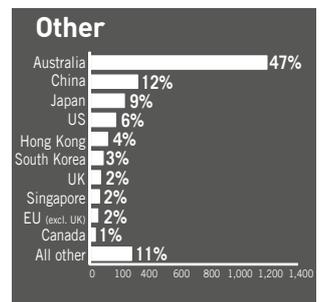
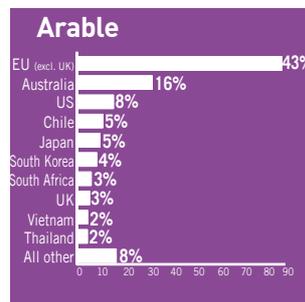
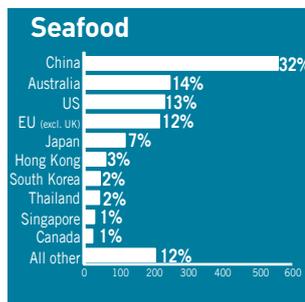
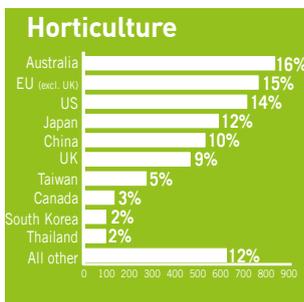
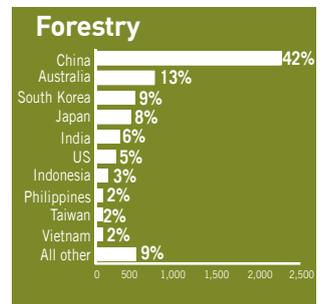
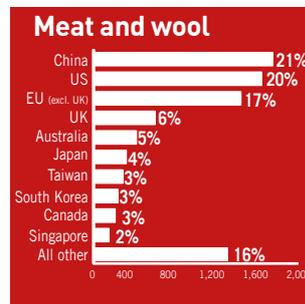
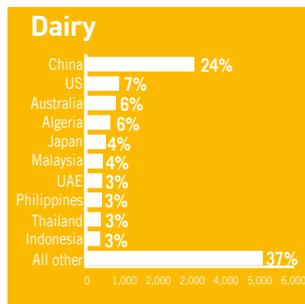
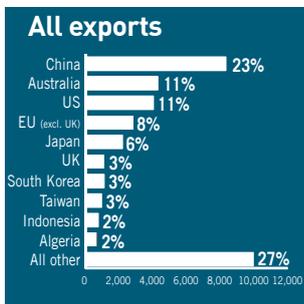
Other primary sector export revenue, including for processed foods, honey and live animals, is forecast to fall 6.3 percent to \$2.5 billion in 2017 after growing 37 percent over the two previous years. Lower volumes are being shipped to Australia, China and Hong Kong, and poor weather is limiting honey production and exports.

\*Percent change from 2016 to 2017

# Top 10 export destinations



## Top markets (\$NZ millions, year ended March 2017)



# A trade agenda for the primary industries



## Help exporters succeed

Once market access has been negotiated, we will do more to help exporters succeed against the competition.



## Maximise benefits

As the proportion of our trade covered by free trade agreements increases, our focus will shift to maximising their benefits.



## Tackle non-tariff barriers

As tariffs are reduced, we will focus on reducing other measures like non-tariff barriers that unfairly disadvantage our exporters.



## New growth opportunities

We will increase our focus on services, investment and digital trade to reflect new growth opportunities.

**The government is investing an additional \$35.3 million to support primary exporters succeed in export markets.**

This investment will build on MPI's full range of trade and market access capabilities and leverage New Zealand's strong reputation as a trusted international trading partner.

**2030**

In addition to ensuring we continue to retain and improve secure and predictable market access, we are also responding to requests from businesses and exporters for easy-to-access, proactive services that can help accelerate primary sector growth.

## Investing where it matters to drive sustainable, consumer-led export growth

**Economic Intelligence Unit**

The Economic Intelligence Unit has been established to help overcome information barriers that New Zealand primary sector companies typically face in identifying and assessing market opportunities, and developing their strategies.

**Exporter Regulatory Advice Service**

The Exporter Regulatory Advice Services enables exporters to take advantage of improved market access by helping them understand and navigate complex regulatory environments.

**Non-Tariff Barriers**

MPI is bringing technical knowledge to bear on tackling non-tariff barriers to improve market access opportunities for exporters.

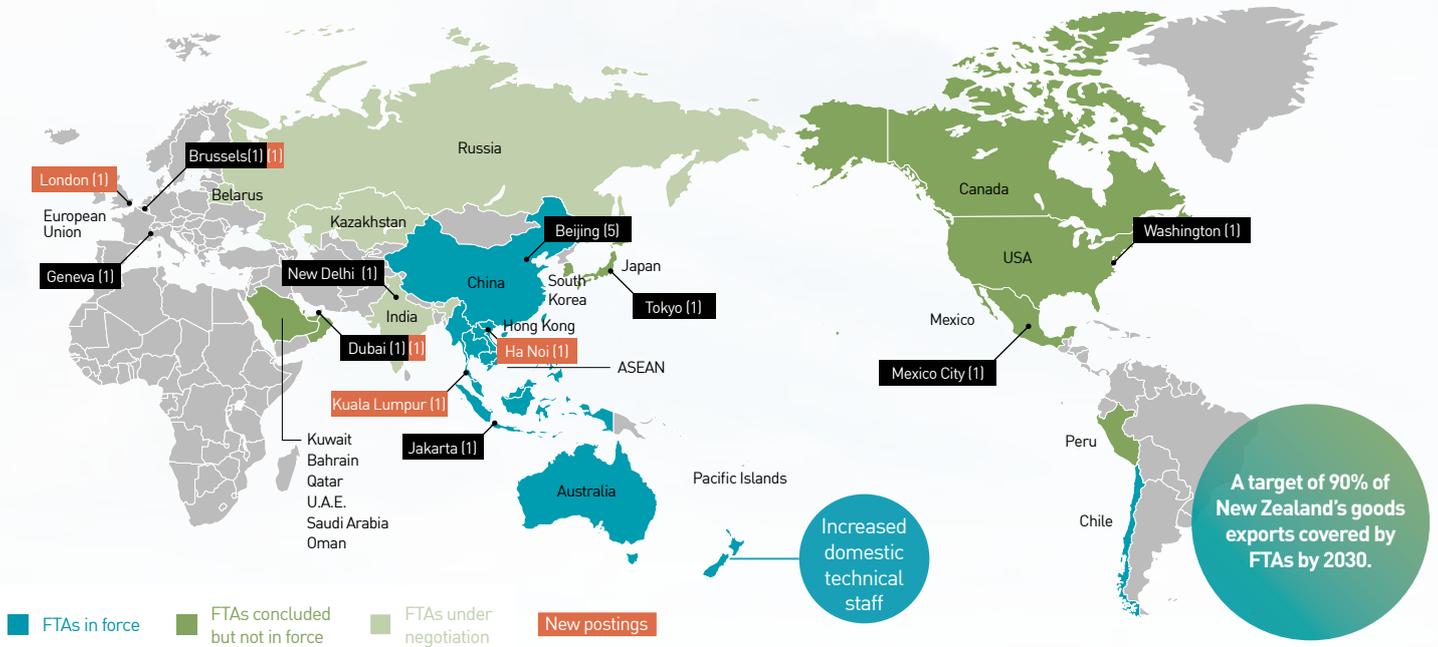
**Free Trade Agreements**

Maximising the benefits of trade agreements with increased FTA coverage, and over time a shift in priority from negotiating agreements to using all available tools to support implementation.



# Free Trade Agreements, MPI's international locations

MPI is expanding its footprint globally and domestically to support primary sector exporters and to address non-tariff barriers.



## Exporter Regulatory Advice Service

ERAS provides dedicated advice to export businesses to help them understand what they need to do to get their products offshore and how to better navigate our complex regulatory environment.

We are currently resolving 80 percent of enquiries from exporters within 24 hours.



### Exporter Regulatory Advice Services will support exporters through:

- Clear and easy-to-navigate complex regulatory requirements
- Proactive support
- New tools and services to access information
- Building insights
- Tailored advice
- Working together with other agencies to enhance service

We are actively seeking ways to interact with customers



Email: [exporterhelp@mpi.govt.nz](mailto:exporterhelp@mpi.govt.nz)

Phone: 04 894 0269

Contact MPI's new Exporter Regulatory Advice Service

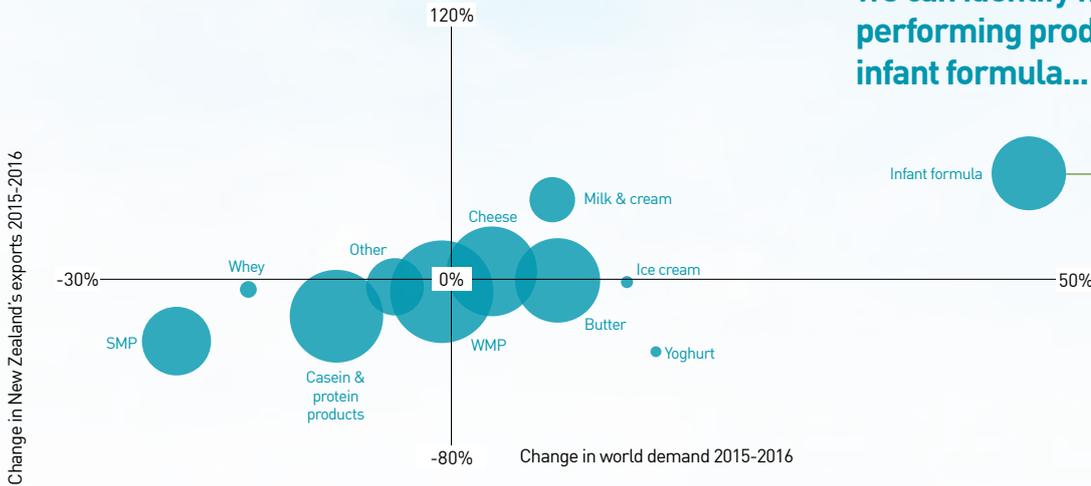


# Economic Intelligence-led export growth

MPI has been exploring how market intelligence capability can help us understand opportunities for New Zealand exporters.

## New Zealand exporters are responding to strong demand for high value products.

Bubble size: NZ exports 2016



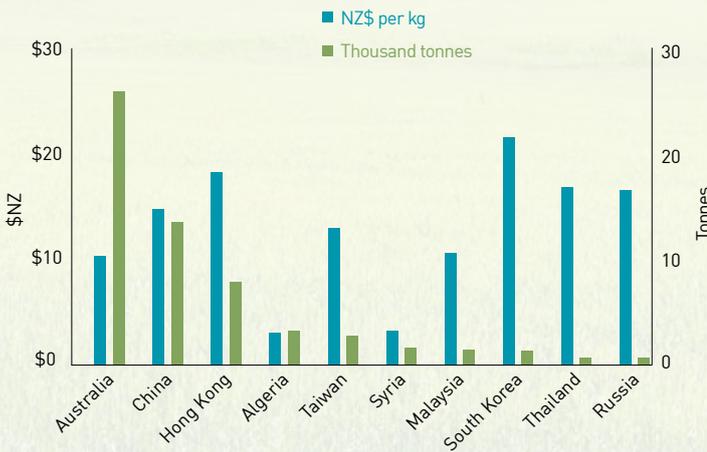
Through improved analysis we can identify high performing products, like infant formula...

...the trends which drive them...

World demand for infant formula has increased more rapidly than that for any other dairy product over the past year.

## Where are we sending our infant formula? And who is paying the best price?

Year end Dec 2016



New Zealand performs well in the international infant formula market but opportunities are available to capture more value in our major export markets.

...and dig behind the numbers to better understand how regulatory settings can enable and stimulate growth.



**China demand** continues to expand, but New Zealand exporters could achieve higher returns if they can better understand consumer purchasing preferences.



**While South Korea** provides New Zealand's highest returns for our infant formula, other countries achieve both higher prices and volume growth.

# Understanding opportunities to support our exporters

MPI is working to understand how market and consumer insight can help inform sector and government decision-making across different market and product segments.

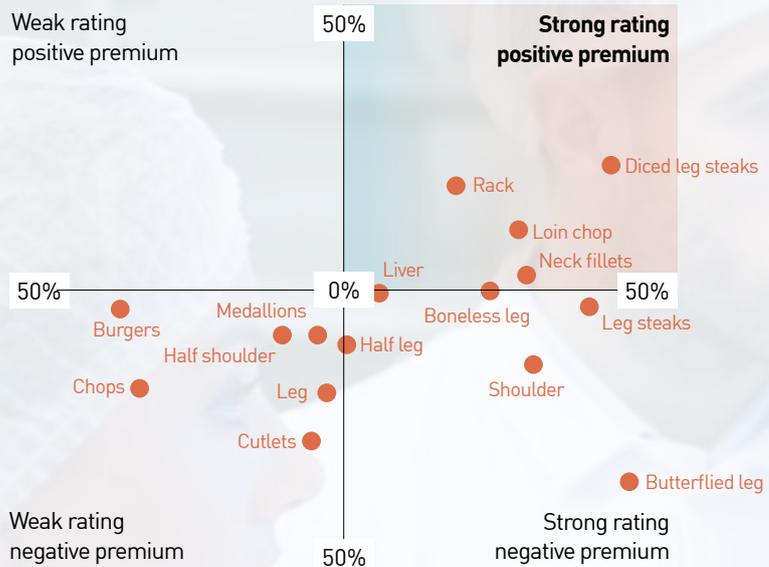
## MAXIMISE OPPORTUNITIES IN MATURE CATEGORIES

**Case study:** Maintaining our strong market position and adding value to current exports provides opportunities for New Zealand sheep meat exporters.



- Other potential opportunities**
- Whole milk powder
  - Kiwifruit

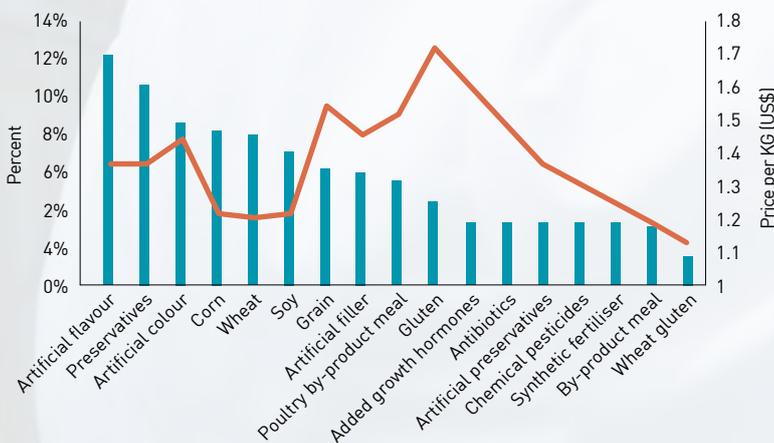
What aspects of the consumer experience do we need to work on to achieve and maintain market premiums for different products?



## SUPPORTING PRODUCT DEVELOPMENT SUCCESS

**Case study:** Understanding how consumer preferences and supply chain dynamics provide opportunities in the premium pet food market.

Ingredient exclusions are driving prices in the premium pet food market.



- Other potential opportunities**
- UHT milk
  - Nutraceuticals

**Speed and flexibility to consumers**  
China pet food online sales. **Up 1693%** Over the last 5 years.

**Understanding value chain dynamics**

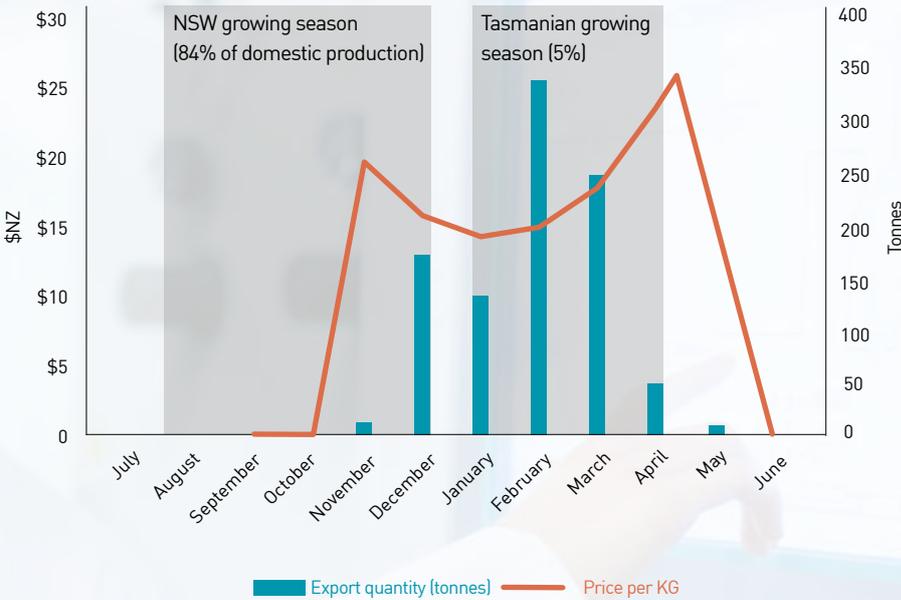
**Target customers through distribution and channel strategy**  
Supermarkets targeting high-value consumers can boost premiums and reputation.

## CREATE VIABLE EXPORT OPTIONS

**Case study:** Understanding global demand drivers can inform market opportunities for the New Zealand blueberry industry.

Understanding and responding to seasonal demand to maximise returns.

Fresh blueberry exports to Australia: Average tonnes and price per kg (YTD June 2011-16)



- Other potential opportunities**
- Sheep milk products
  - Berries

Key success factors for firms in the global blueberry market.

**Resources and funding**

Some NZ blueberry exporters have benefited from Australian FDI to ease their access to the Australian market.

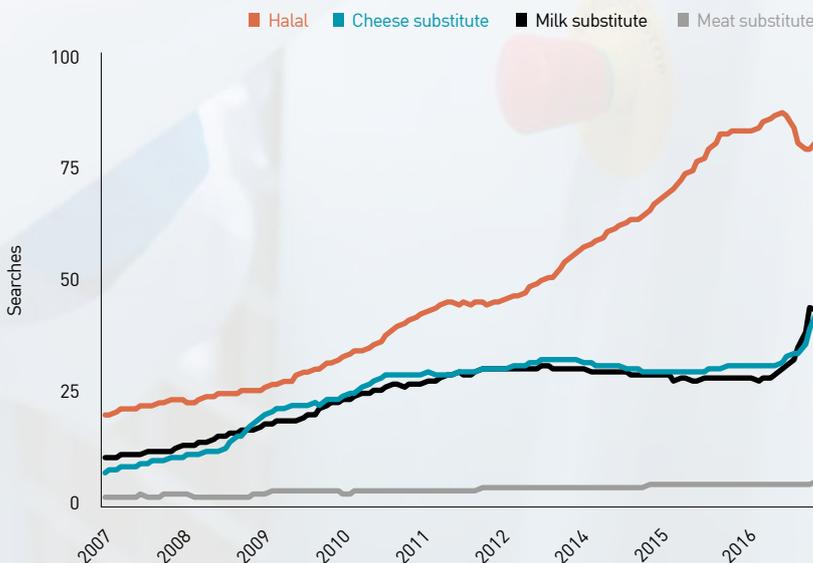
**Competitor intelligence**

Chile is our largest competitor in key markets, holding 98% of Chinese imports and benefits from an FTA with South Korea which has eliminated what was a 40% tariff on their blueberries.

## DIVERSIFY AND DIFFERENTIATE BY CONNECTING WITH EMERGING TRENDS

**Case study:** Looking at emerging trends in protein consumption to identify future opportunities.

Online searches in the US market can indicate consumer interest for product attributes.



- Other potential opportunities**
- Plant-protein uptake
  - Processed food and beverage

**Developing and discovering new options for growth**

Online searches show a strong interest in dairy substitutes, while religious attributes such as halal slaughter strongly outweigh searches for meat substitutes.

## HIGHLIGHTS

- New Zealand's all company average farmgate milk solids price (including Fonterra's forecast dividend of \$0.50 to \$0.60) has risen to \$6.61 per kilogram of milk solids for the year ending May 2017 as global prices remain high.
- Record milk solid production in March and April has meant production for the 2016/17 season is now forecast to fall only 0.7 percent before rebounding in the following season.
- High butter prices are encouraging skim milk powder (SMP) production as a co-product of butter production, adding product to an already oversupplied market.



## Global price recovery driving increased exports

Dairy export revenue is now forecast at \$14.6 billion for the year ending June 2017, up \$1.3 billion from the June 2016 year. This translates to an expected farmgate milk price around \$2.40 per kilogram of milk solids higher than the previous season. Global prices, particularly for whole milk powder (WMP), have held up well since the previous forecast, supporting export revenues.

The forecast increase in dairy export revenue, compared with the year ended June 2016, represents a recovery of global dairy prices as supply and demand rebalanced over the past year (except for SMP produced by the EU). Lower supply from the southern hemisphere has prevented prices from falling, while

an expectation of increased northern hemisphere production is preventing prices from rising too quickly.

Prices for butter and WMP (which make up around 55 percent of New Zealand's total dairy exports) rose strongly over the past year as Chinese demand for WMP increased and global demand for butter continued to rise. Rising butter prices are being driven by a strong preference among Western consumers for natural fats rather than processed vegetable oils.

Rising global demand for infant formula and liquid milk and cream has driven increased exports of these products.

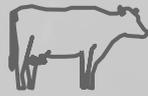
**Table 3:** Dairy export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Whole milk powder	5,104	8,393	5,385	4,609	5,190	6,100	6,230	6,410	6,630
Butter, AMF, & cream	1,910	2,699	2,219	2,378	2,940	4,010	3,780	3,740	3,830
Skim milk & butter milk powder	1,832	2,285	1,762	1,347	1,420	1,430	1,430	1,470	1,520
Casein & protein products	1,674	1,925	2,129	1,834	1,750	2,010	2,050	2,110	2,180
Cheese	1,441	1,482	1,557	1,720	1,790	1,910	1,940	1,980	2,060
Infant formula	555	401	415	685	770	1,000	1,030	1,060	1,090
Other dairy products	623	607	582	716	780	870	900	930	960
<b>Total</b>	<b>13,139</b>	<b>17,791</b>	<b>14,050</b>	<b>13,289</b>	<b>14,640</b>	<b>17,320</b>	<b>17,360</b>	<b>17,700</b>	<b>18,270</b>
% Change	-1.8%	+35.4%	-21.0%	-5.4%	+10.2%	+18.3%	+0.2%	+2.0%	+3.2%

Source: Statistics New Zealand and MPI.

## QUICK FACTS

95% of our dairy production is exported.



95%

35%

New Zealand farmers contribute just 3% of global dairy production, but make up 35% of total dairy exports.



Milk solids production per cow has increased by an average of 2% per year over the past decade.

2%

160%

Infant formula export volumes have increased 160% over the past five years.



Based on the latest global dairy trade auction results (which can provide an indication of price movements up to six months into the future), we expect WMP prices to remain near current levels for the year ending June 2018 and butter prices to rise slightly.

New Zealand's total export volumes have remained fairly stable from 2016 to 2017 (despite an expected 0.7 percent fall in production for the 2016/17 season), but exports of infant formula and liquid milk and cream have risen in response to growing global demand, while powder exports have fallen.

### Dairy export growth expected to continue

Dairy export revenue is expected to rise to \$17.3 billion for the year ending June 2018 because butter prices are expected to remain high over the coming year, and WMP prices seem sustainable near current levels. In addition, a forecast recovery in dairy production for the 2017/18 season means that export volumes should also increase. This will be partly offset by lower SMP prices as this product continues to be oversupplied globally.

Dairy export revenue is forecast to remain relatively stable (at \$17.4 billion) in the year ending June 2019, as WMP prices increase slightly and butter prices recede. Exports are expected to further increase to \$18.3 billion by 2021 on the back of higher dairy prices.

### European Union

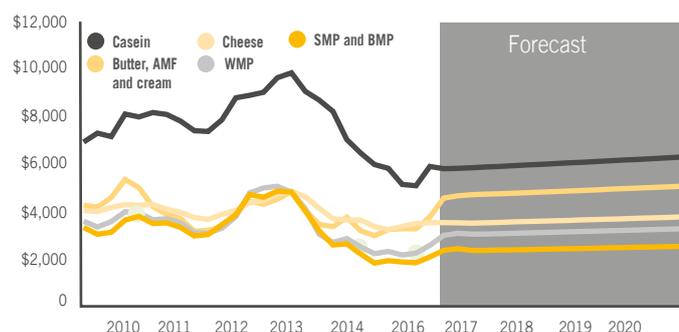
With butter prices at current record levels (and no sign of them falling any time soon), EU producers will continue to produce butter and should have no trouble selling it if world butter demand continues

to rise. Increased butter production will lead to increased SMP production, because SMP is a natural choice to produce using the leftover skim milk once fat has been removed to produce butter. With the European Commission purchasing SMP through its intervention programme, this remains the most profitable combination of products for EU manufacturers to produce.

EU production peaks around May each year, with 2016/17 production expected to be down slightly on last year due to the partial success of the EU's voluntary milk supply reduction scheme. Despite the fall in production, we still expect significant quantities of SMP to be offered into intervention stocks as butter production remains high and SMP demand remains low.

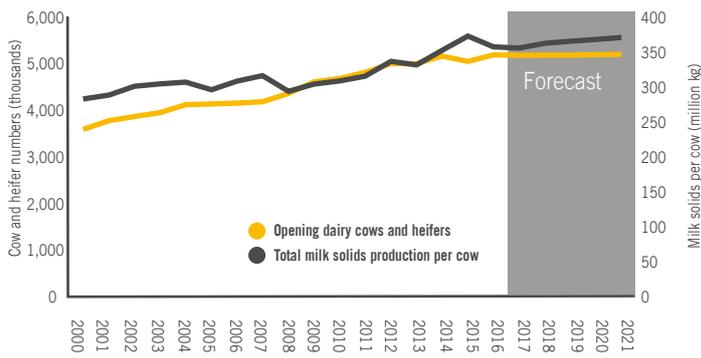
As at 28 February 2017, 350,159 tonnes of SMP in intervention stocks, down slightly from the peak of 355,173 tonnes at 30 September 2016. A further 67,957 tonnes of SMP were in private storage aid (PSA). Together, these represent over a

Figure 5: New Zealand dairy export prices, 2010-21 (\$US per tonne)



Source: Statistics New Zealand and MPI

**Figure 6: New Zealand's milking herd and milk solids production 2000–21**



Source: Statistics New Zealand and MPI

have also risen in recent months. The US mostly exports SMP (adding to an already crowded market) and cheese.

Production per cow in the US is growing much faster than that in New Zealand, mainly due to the intensive grain-fed system used in the US. If grain prices remain low, the US could become a major dairy exporter, potentially increasing competition with New Zealand in the Japanese cheese market.

MPI will continue to monitor US export trends to see whether New Zealand export prices or volumes are likely to be affected by increased US exports in the future.

quarter of annual SMP production in the EU, which will place downward pressure on SMP prices as this is released onto the market. Meanwhile, butter stocks held in PSA have fallen to 8,350 tonnes from a peak of over 100,000 tonnes at 31 July 2016.

After the forecast \$4 billion increase in dairy exports from 2016 to 2018, export revenue is forecast to rise \$1 billion over the following three years as prices rise at a much slower rate.

## Late season surge minimises production fall

Record production during March and April has meant that total production for the 2016/17 season is now forecast to be down only 0.7 percent on last season, as opposed to the 2.5 percent fall previously forecast. Weather conditions have been poor in much of the country for the best part of the season (an overly wet spring negatively affected pasture growth and quality), but recent improvements caused a late surge in production.

The flooding that occurred during April 2017 in the wake of two cyclones struck New Zealand, while devastating for the affected communities, is expected to have little impact on overall dairy production. However, some farmers, especially in Northland and Bay of Plenty, were forced to stop milking for the season due to flooded and waterlogged pasture.

## China, the world's largest dairy importer

China's demand for imported dairy products remains strong due to a combination of lower domestic production and rising consumption. China imported 412,000 tonnes of WMP during the year ended March 2017 (92 percent of this from New Zealand), up 6.4 percent on the previous year. Increasing demand for WMP from other markets, like Brazil, Indonesia, Algeria, and Russia, will help support global prices during the year ending June 2018.

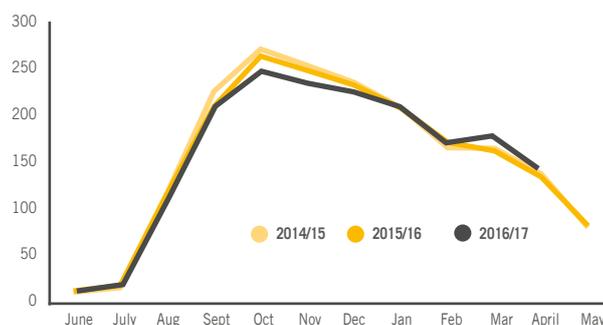
As mentioned earlier, fast growing Chinese demand for infant formula will also help boost New Zealand's export revenue for the 2017/18 year and beyond. China's birth rate is rising due to a relaxation of the one child policy, and Chinese mothers tend to use infant and toddler formula through to three years of age, making this an important market for our infant formula exporters. New Zealand companies have invested in increased infant formula processing capacity to allow us to meet this increased demand.

## United States

US dairy production rose again in the latest year, as cheap grain reduced the cost of producing milk. Most of this increased production has been consumed domestically in the past, but US exports

Rising demand from Brazil, Indonesia, Algeria and Russia supports a positive outlook for WMP prices over the coming year.

**Figure 7: New Zealand monthly production (million kilograms milk solids)**



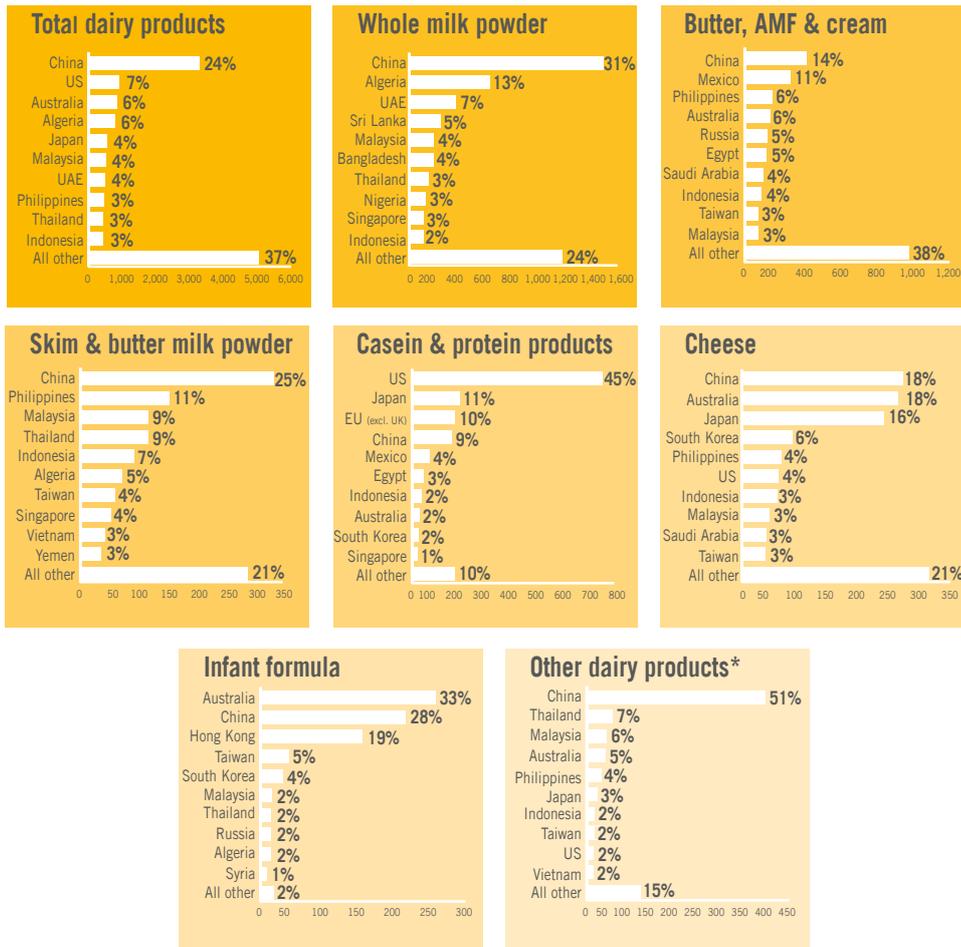
Source: Statistics New Zealand and MPI

# Top 10 export destinations



Product	Total export revenue (\$ million)	% of Total
Butter, AMF & cream products	2,573	19%
Casein & protein products	1,699	12%
Cheese	1,703	12%
Infant formula	767	6%
Other dairy products	775	6%
Skim milk and butter milk powder	1,330	10%
Whole milk powder	4,787	35%
<b>Total dairy</b>	<b>13,634</b>	<b>100%</b>

## Top markets (\$NZ millions, year ended March 2017)



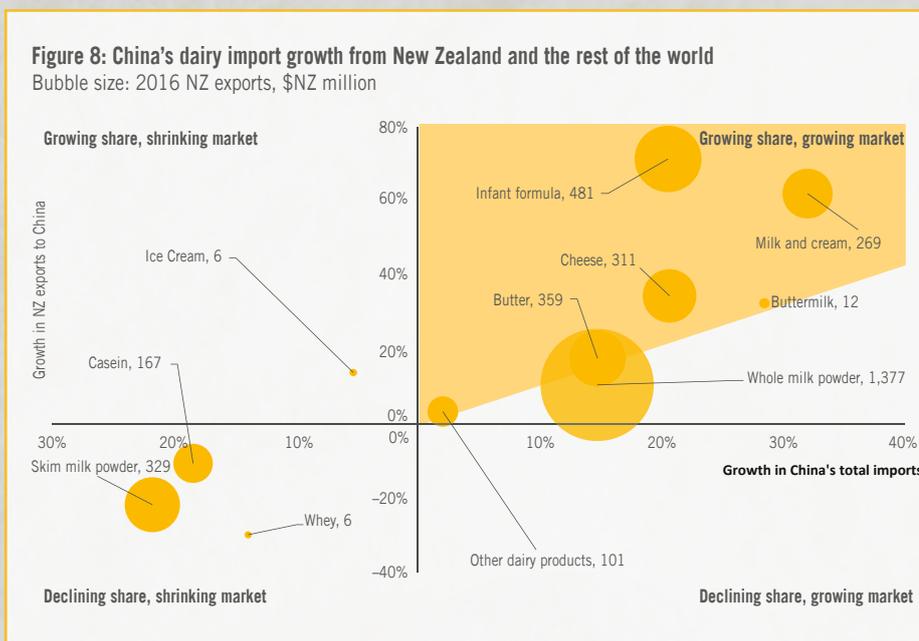
\* Other dairy products include: liquid milk and cream, yoghurt, and ice cream.

## RISING INFANT FORMULA DEMAND

World imports of infant formula increased 44 percent from the December 2015 year to the December 2016 year, with New Zealand exports increasing 65 percent over the same period. Much of this demand is being driven by China, where consumers continue to show a strong preference for imported products over domestically produced ones.

Growing Chinese demand for infant formula and liquid milk and cream has provided New Zealand exporters with an opportunity to sell products in this quickly growing market. Around 60 percent of New Zealand's infant formula, and liquid milk and cream exports currently go directly to the Chinese market.

This dependence on the Chinese market is a risk, but strong consumer preferences for safe, high quality, food products should ensure growth opportunities for our exporters in the foreseeable future. China's infant formula registration rules will be implemented on 1 January 2018, and most New Zealand manufacturers have either applied or are on track to apply shortly to have their brands registered.

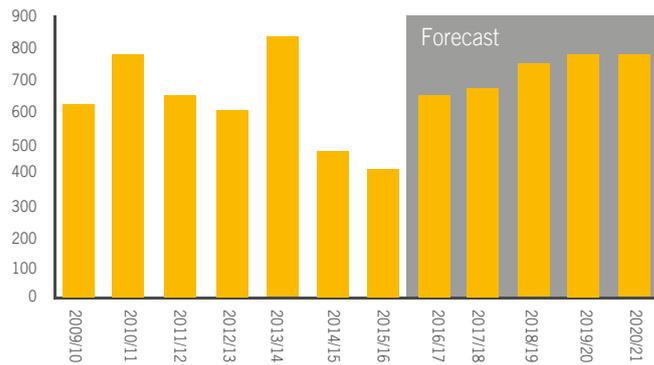


**Table 4: Dairy farm production, milk prices, and exports, 2013–21**

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cows and heifers in calf or in milk (million)	5.00	5.18	5.06	5.20	5.19	5.20	5.20	5.21	5.30
Milk solids production (million kg)	1,658	1,825	1,890	1,862	1,850	1,890	1,900	1,920	1,940
Milk price (cents per kg of milk solids)	608	840	461	424	661	665	706	711	729
Total export value (\$ million)	13,139	17,791	14,050	13,289	14,640	17,320	17,360	17,700	18,270
Total export volume (thousand tonnes)	2,942	2,980	3,046	3,232	3,260	3,340	3,370	3,400	3,430
Average export price (\$ per kg)	4.47	5.97	4.61	4.11	4.50	5.20	5.15	5.20	5.30

Source: MPI, Statistics New Zealand, DairyNZ

**Figure 9: Average milk solids payment (cents per kilogram including dividends)**



Source: MPI

Cow numbers were up 2.9 percent at the start of the 2016/17 season, compared with the previous season, despite a near-record cow cull in the June 2016 year. Much of the increased cow cull came from carry over (dry) cows, rather than those in the milking population.

Cow numbers are forecast to remain stable going into the 2017/18 season, but increased production per cow should push milk solids production up 2.0 percent from a wet 2016/17 season, assuming normal weather conditions.

Milk production reached record levels in March and April, meaning our forecast for the 2016/17 season production is now down only 0.7 percent on the previous season.

Production is forecast to increase around 1 percent per year over the remaining years out to 2021, as a result of productivity improvements. This rate of increase is much smaller than the average production increase of 4.0 percent per year achieved over the previous decade. The past growth had primarily been driven by rising cow numbers and dairy land area, in response to relatively strong milk solids prices. The lower growth forecast reflects a stabilising of dairy land use, in response to both price signals and also potential environmental constraints.

The Government's reform of freshwater management and introduction of water quality objectives may place further pressure on cow numbers in future years. Water quality is regulated by regional councils, and each catchment in each

Our farmgate price forecast (including dividends) has been revised upwards to \$6.61 per kilogram of milk solids for the 2016/17 season due to solid WMP prices at the tail end of the season.

region is required to have water quality objectives and limits on discharge and abstraction volumes in place by 2025.

To achieve these objectives, regional councils are introducing caps on nutrient discharge, requirements to demonstrate good farming practice, and controls on land use intensification. Farmers will react to these regulations in different ways and by changing farming practices (for example, altering the timing of applying fertiliser or introducing stand-off pads). In some places, this will restrict opportunities to convert sheep and beef land to dairy farming.

In 2017, New Zealand's three largest dairy farming regions have seen major policies introduced:

- in Waikato, controls on land use intensification and requirements to demonstrate good farming practice have been introduced for the large Waikato River catchment;
- in Canterbury, two large catchments have set water quality objectives that will ultimately require significant cuts in nutrient discharges from farming; and
- in Southland, region-wide controls on land use intensification have been introduced.

In most regions over the next two to three years, the result of these policies will be a push to improve farm practice and restrict land use intensification. This will likely slow the growth of milk production.

### Solid outlook for domestic prices

New Zealand's all company average farm gate milk solids price forecast for the season ending May 2017 has increased to \$6.61 per kilogram of milk solids (including dividends where applicable), up from \$6.41 forecast three months ago.

WMP prices have remained strong in recent global dairy trade auctions, and these have the greatest weighting in determining Fonterra's seasonal payout. We expect WMP prices to remain near current levels for the 2017/18 season, sustaining a price forecast of \$6.65 for that season.

The most recent activity on the NZX milk price futures market for the 2016/17 futures contract exceeded \$6.00 per kilogram of milk solids (excluding any dividends), reinforcing our forecast for the current season. The 2017/18 futures contract is also currently trading near this value, suggesting continued optimism around global dairy prices for the coming season.

Our milk solids price forecast increases to \$7.29 per kilogram of milk solids by 2021, but northern hemisphere supply responses to rising dairy prices, and potential shifts in Asian demand, remain downside risks to this forecast, and our export price forecasts.

# Meat and wool

## HIGHLIGHTS

- Production and export volumes have fallen compared to 2016's peak; as a result meat and wool exports are expected to be \$8.3 billion fall in 2017, a fall of 9.8 percent.
- Sheep, beef, and deer livestock numbers are beginning to stabilise, while a drop in dairy cow culls contributes to lower production volumes in the latest year.
- Export prices for beef remain strong, and lamb prices have risen in the past six months.



Meat volumes are forecast to return to normal levels following two strong seasons, pushing meat and wool exports down to \$8.3 billion in the year ending June 2017, down 9.8 percent from the previous year.

Beef production volumes were boosted over the past two years by higher than usual dairy cow culls, driven by low dairy prices in those years. Now that farmgate milk prices are back above \$6.00 per kilogram of milk solids, culling has returned to more normal levels and beef production growth is expected to resume at a more moderate pace as cattle numbers recover.

Although production was lower this year, meat prices have strengthened over the past six months. Strong US demand resulting from a post-drought herd rebuilding phase drove beef prices to record highs in 2015 and 2016. Prices have retreated from those levels, but still remain at historically high levels. Lamb and mutton prices have also been rising strongly, but much of these gains have been offset by a weaker pound and euro relative to the New Zealand dollar.

**Table 5:** Meat and wool export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Beef & veal	2,143	2,199	2,980	3,095	2,640	2,660	2,730	2,810	2,860
Lamb	2,263	2,485	2,504	2,569	2,400	2,380	2,450	2,520	2,570
Mutton	395	488	418	419	450	450	450	450	450
Wool	678	733	805	760	550	620	630	610	610
Venison	171	187	174	182	170	160	170	170	170
Other meat	435	438	466	503	520	520	540	570	590
Hides & skins	608	624	570	510	410	430	450	460	470
Animal by-products	517	489	578	598	590	600	630	670	680
Animal fats & oils	162	130	118	125	150	160	170	170	170
Animal products for feed	229	209	216	247	270	280	280	290	290
Carpets & other wool products	193	178	172	192	160	180	180	170	170
Total exports	7,793	8,162	9,000	9,200	8,300	8,450	8,670	8,880	9,050
% Change	+0.2%	+4.7%	+10.3%	+2.2%	-9.8%	+1.8%	+2.6%	+2.4%	+1.9%

Source: Statistics New Zealand and MPI.

## QUICK FACTS



New Zealand and Australia combine to provide 82% of the world's lamb and mutton exports.



Manawatū-Whanganui has more sheep AND more beef cattle than any other region.

82%

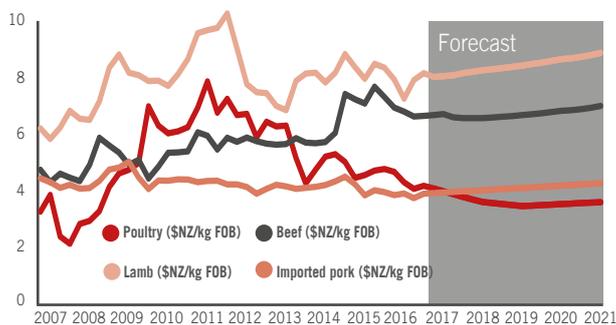


The sector continues to attract investment at the industry, company, and farm level, while the Government also provides ongoing support through the Sustainable Farming Fund and Primary Growth Partnerships.



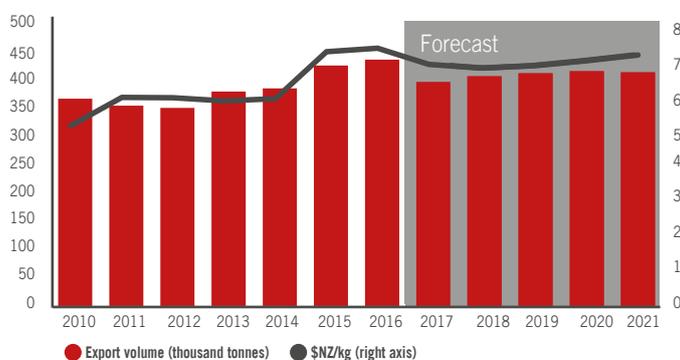
Nearly all New Zealand's meat processors are halal certified.

Figure 10: Meat export and import prices 2007–21 (\$NZ/kg)



Source: Statistics New Zealand and MPI

Figure 11: Beef and veal export volumes and prices 2010–21



Source: Statistics New Zealand and MPI

Despite the forecast fall in the current year, longer term there are a number of positive factors that signal future growth in this sector. These include:

- regaining access to the Iranian sheep meat market;
- chilled meat access to China (on a trial basis);
- capturing price premiums from grass-fed meat and other value attributes;
- government co-investment with industry in the meat and wool sector.

### Beef and veal exports set to resume growth

Beef export revenue for the year ending June 2017 is forecast to fall 14.7 percent to \$2.6 billion, driven primarily by falling volumes. Dairy cattle make up roughly 40 percent of New Zealand's annual cattle slaughter, and fewer dairy cows are being culled this season as dairy prices recover. Despite the expected fall in export revenue for the year ending June 2017, beef export revenue is still 20 percent higher than in 2014.

Production from the beef herd also continues to decline slowly, further contributing to falling volumes. Beef production is forecast to fall to 620 thousand tonnes in the year ending June 2017, a decrease of 8 percent from the previous year's high level. This decline in production flows through to export volumes, which are expected to fall 9 percent.

Low animal growth rates got the 2016/17 season off to a late start, but good pasture availability and firm prices are helping production volumes increase in the second half of the year. Over the next four years, beef production and export volumes are forecast to resume growth along with rising cattle numbers.

Beef prices have fallen since peaking two years ago, but remain well above previous levels. A decline in US beef domestic production (due to herd rebuilding following a period of drought) triggered higher prices globally and led to more exports to the US. At that time, US imports from Australia and New Zealand, primarily of manufacturing beef, increased 47 percent in calendar year 2014 and 15 percent in 2015, before falling 29 percent in 2016.

## Positive outlook for beef demand

A recovery in US production, encouraged by low grain prices, lowered demand and led to a fall in export prices in the latest year. We expect low grain prices to continue to contribute to lower beef prices over the coming year, but beef prices are forecast to start rising again in the year ending June 2019.

In Australia, beef producers are currently recovering from drought and are retaining more stock to rebuild herds, temporarily reducing their exports. This lack of supply partly offset decreased US demand, leading to prices falling by less than expected in 2017. Australian production is expected to recover next year and resume a growth trajectory, which will place downwards pressure on beef prices.

Cattle numbers have been falling, but this has been partly offset by continued strength in global beef prices.

Brazil, the world's second largest beef exporter by volume (behind India), is expected to expand their exports over the next several years. A food safety incident that briefly halted Brazilian exports of beef and poultry in March proved to be short-lived, and export bans are now restricted to a handful of implicated processing plants. Most of their extra exports will be destined for China, which recently reopened its market to Brazilian beef. Brazilian beef exports to China and Hong Kong increased 32 percent from 2015 to 2016, and Brazil has emerged as the top exporter to those markets.

Plenty of opportunities exist for New Zealand beef exporters to increase trade with China, even with Brazil's rapid expansion into that market. China's beef production is expected to continue expanding, but consumption is increasing at a faster rate. As a result, China's beef imports are projected to increase by 60 percent over the next decade<sup>1</sup>. New Zealand is China's fourth largest source for imported beef, behind Brazil, Australia, and Uruguay.

This year, ten New Zealand meat plants will begin exporting chilled beef and sheep meat to China on a trial basis. As shown in Table 6, chilled meat sells at a premium to frozen meat, so a successful trial will add value to New Zealand's future meat exports.

**Table 6:** Export share and price premiums to all New Zealand markets for chilled meat, year ended March 2017

	Beef	Lamb	Venison
Percent of exports sent as chilled	7%	22%	19%
Chilled price premium	90%	59%	112%

**Table 7:** Beef cattle numbers, beef prices, export volumes and values, 2013–21

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total beef cattle (opening stocks in millions)	3.73	3.70	3.67	3.55	3.53	3.59	3.64	3.67	3.67
Schedule prime beef price (cents/kg)	400	403	492	539	530	505	510	525	535
Production (000 tonnes)	627	626	676	673	620	625	635	640	635
Export volume (000 tonnes CWE)*	536	544	599	615	555	570	575	585	585
Export volume (000 tonnes PW)**	374	380	420	430	390	400	405	410	410
Export price (\$NZ/kg PW)	5.73	5.79	7.10	7.20	6.75	6.65	6.75	6.85	7.00
Export value (\$NZ million)	2,143	2,199	2,980	3,095	2,640	2,660	2,730	2,810	2,860

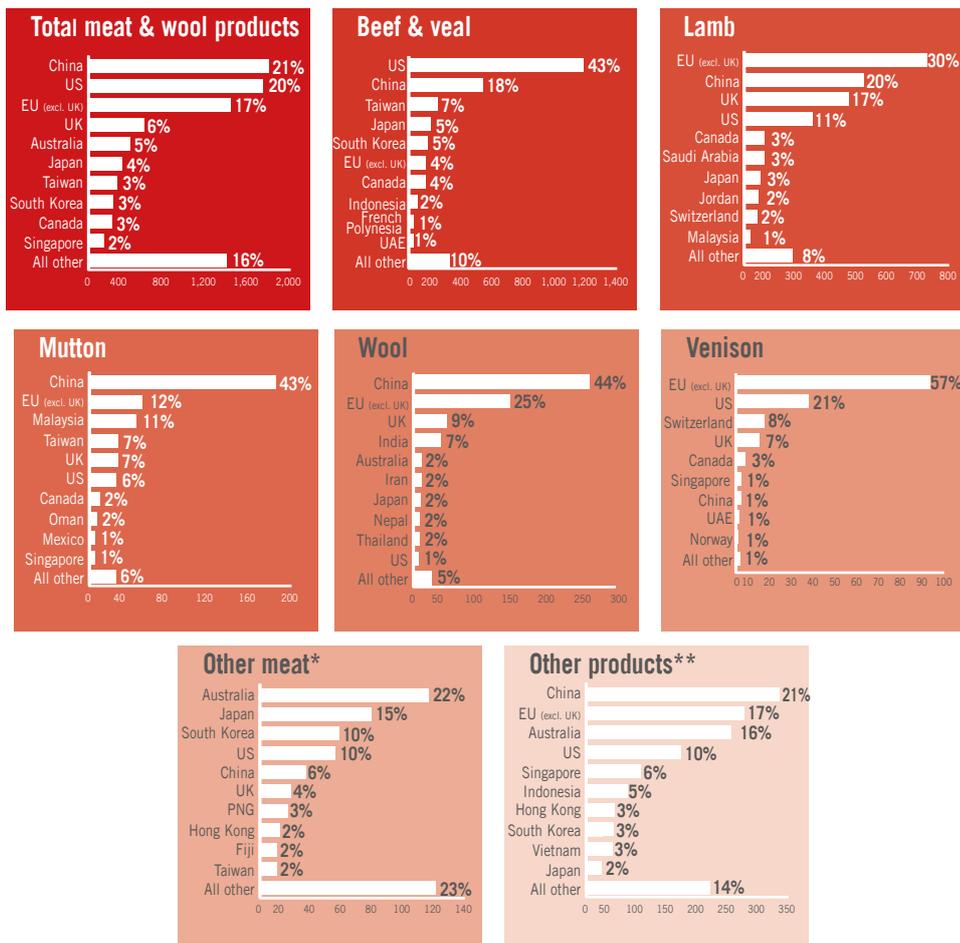
Source: Statistics New Zealand, Beef + Lamb New Zealand and MPI. \* Carcass-weight equivalent of shipped product weight. \*\* Product weight as shipped.

<sup>1</sup> China Agricultural Outlook 2017–2026.

# Top 10 export destinations



## Top markets (\$NZ millions, year ended March 2017)



\* Other meat includes: edible offal, processed meat, and poultry.

\*\* Other products include: hides and skins, animal fats and oils, animal products for feed, carpets and other wool products and other animal by-products.

## Lamb and mutton prices continue to climb

Lamb export revenue is forecast to fall 6.7 percent in the year ending June 2017, to \$2.4 billion. Falling breeding ewe numbers and an increase in retained stock to rebuild flock numbers are behind this forecast fall. Export revenue is forecast to rise to \$2.6 billion by the year ending June 2021 on the back of rising prices.

The total number of lambs born in the 2016/17 season is estimated to be down 4.8 percent, in-line with falling breeding ewe numbers. We expect that 19.4 million lambs will be slaughtered this season, 6.5 percent lower than the previous year. However, good pasture conditions across most sheep farming areas have helped increase animal weights this year, so lamb meat production is forecast to fall only 5.3 percent to 360 thousand tonnes.

Improvements in lambing rates, along with increasing animal weights are expected to offset falling breeding ewe numbers over the outlook period. As a result we expect lamb meat production to stabilise over the next four years.

Lamb export prices started from a low base this year, but have recovered strongly over the past six months due to a few factors:

- In-market prices in the UK and continental Europe, where New Zealand lamb has a premium reputation, have been rising. Even though the New Zealand dollar has been strengthening relative to the pound and the euro, some of those in-market gains have made their way back to New Zealand exporters and producers.
- Low production in New Zealand and Australia, which together make up 82 percent of global sheep meat exports, has also helped lift prices. Australian lamb production is down 6 percent this year because more animals are being retained to rebuild numbers following a drought in previous years.

Plentiful grass, combined with relatively slow weight gain and low schedule prices early in the year, have incentivised farmers to hold back stock until later in the year when they can take advantage of higher prices.

Lamb production is forecast to fall in 2017, before stabilising over the next 4 years as the sheep flock slows its decline and lambing percentages improve.

Mutton export revenue is forecast at \$450 million for the year ending June 2017, up 8.1 percent from the previous year due to higher prices. Mutton prices have been firm this year, supported by continued demand from China and lower exports from Australia.

Mutton production is expected to fall 4.8 percent for the year ending June 2017 on the basis of lower total sheep numbers, which is partly offset by higher average slaughter weights. Mutton slaughter numbers are down by a larger percentage than the total sheep population (down 5.3 percent), which provides some evidence for stabilising population levels.

## Global sheep meat demand remains strong

The global supply and demand situation for lamb and mutton is mixed, but overall points toward higher prices in coming years. Over the longer term, lamb prices are still historically low relative to beef, so there could be opportunities for lamb prices to rise over the next few years.

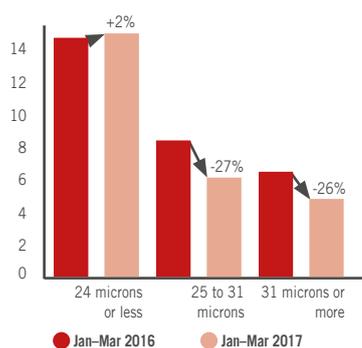
On the demand side, the UK and the EU remain the destination for nearly half of New Zealand's lamb exports. Since the Brexit referendum, prices in those markets have increased, especially in the past six months. Until the UK fully separates from the EU in 2019, the existing demand dynamics and import quota structure is expected to remain unchanged. The main risk to lamb exports over the next two years will be exchange rate fluctuations and/or a potential economic slowdown dampening demand.

**Table 8:** Sheep numbers, lamb prices, export volumes and values, 2013–21

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total sheep (opening stocks in millions)	31.26	30.79	29.80	29.12	27.58	27.45	27.40	27.16	26.69
Scheduled lamb price (cents/kg)	477	546	528	512	545	570	585	595	615
Production (000 tonnes)	376	379	384	380	360	355	360	360	360
Export volume (000 tonnes CWE)*	359	351	344	372	345	335	340	340	340
Export volume (000 tonnes PW)**	314	306	298	320	295	285	290	290	290
Export price (\$NZ/kg PW)	7.21	8.11	8.41	8.02	8.15	8.35	8.45	8.70	8.85
Export value (\$NZ million)	2,263	2,485	2,504	2,569	2,400	2,380	2,450	2,520	2,570

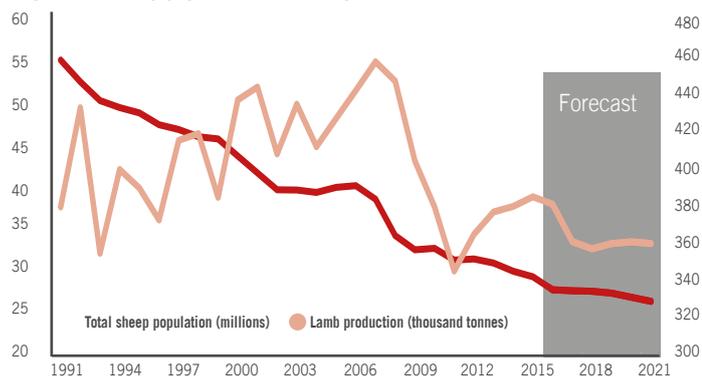
Source: Statistics New Zealand, Beef + Lamb New Zealand and MPI. \* Carcass-weight equivalent of shipped product weight. \*\* Product weight as shipped.

**Figure 12: Quarterly wool export prices in by fibre diameter, 2016–17 (\$NZ/kg)**



Source: Statistics New Zealand and MPI

**Figure 13: Sheep population and lamb production 1991–2021**



Source: Statistics New Zealand and MPI

Beef and sheep meat exports to Iran have resumed for the first time in 20 years.

China is the destination for 20 percent of New Zealand’s lamb and 43 percent of its mutton exports. China’s sheep meat production has increased rapidly over the past decade, but consumption has been rising even faster. As a result, around 4 to 6 percent of consumption now comes from imported lamb and mutton from this previously self-sufficient market. In 2016, China produced 4.6 million tonnes of sheep meat and consumed 4.9 million tonnes. Over time, this gap is expected to continue widening, providing further export opportunities for New Zealand.

Another positive signal for our meat exports is the resumption of beef and sheep meat exports to Iran for the first time in 20 years. Iran was a major destination for New Zealand lamb in the 1980s, but trade has been dormant since the mid-1990s. It may take time for imported meat demand to resume and supply chain relationships to be re-established, but New Zealand is now the only country with access to sell lamb and

mutton into this market of 80 million people. Nearly all New Zealand’s meat processing plants are halal certified, so we are well-placed to meet rising demand from Iran and other Muslim consumers.

### Consumer preferences shifting towards fine wool

Wool export revenue is forecast to have fallen 28 percent to \$550 million in the year ending June 2017. Both average export prices and volumes are down significantly from the previous year.

A lack of demand from China this year has resulted in prices falling significantly, particularly for crossbred wool (above 31 microns). Exports to China are down 34 percent so far this year, which is important because China is usually the destination for 55 percent of New Zealand’s wool exports.

Average export prices for venison are strong and are forecast to remain elevated over the forecast period.

**Table 9: Wool production, prices, export volumes and values, 2013–21**

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average sale price (cents/kg clean)	516	579	595	659	570	555	565	575	590
Production (000 tonnes clean basis)	127	118	115	109	105	110	110	110	110
Export volume (000 tonnes clean basis)	123	117	118	103	85	100	100	95	95
Export volume (000 tonnes PW)*	133	128	130	113	95	110	110	105	105
Export price (\$NZ/kg PW)	5.10	5.73	6.18	6.74	5.75	5.65	5.75	5.80	5.80
Export value (\$NZ million)	678	733	805	760	550	620	630	610	610

Source: Statistics New Zealand, Beef + Lamb New Zealand and MPI. \* Product weight as shipped.

# Meat and wool

This fall in demand for our wool appears to be driven by fashion trends in the garment industry, with Chinese consumers showing a preference for finer wool, which New Zealand produces in limited quantities. Demand for crossbred wool grades has fallen in the past year, while demand for merino and other fine micron wool has held up relatively well. This is reflected in prices where, over the past year, export prices for wool under 25 microns have risen by 1 percent, but have fallen 14 percent for wool above 31 microns.

Only 8 percent of New Zealand's wool exports are below 25 microns, compared with 82 percent of wool production in Australia. Given that Australian sheep production systems are more oriented towards merino wool production than New Zealand's meat-oriented sheep farming, there has not been a comparable drop in Chinese imports of Australian wool.

Rising Chinese wool production may also be contributing to falling demand for imported wool from New Zealand. As of 2014, China's sheep population had risen to 195 million, from 170 million in 2009. This increase in sheep numbers is only slightly smaller than our entire sheep flock, indicating that much of China's demand for strong wool could now be met domestically.

The fall in wool export volumes over the past year has led to increasing inventories of unsold wool within New Zealand. Production for the year ending June 2017 is estimated to be down 5.3 percent, in line with falling sheep numbers. At the same time, export volumes are projected to be down 15.5 percent, primarily because some wool is going unsold due to low prices.

At some point, this excess inventory will be sold, but in the meantime this overhang of inventory, especially of crossbred wool, will make it difficult for prices to rise quickly. Stronger demand from China or other markets will be an important component of any recovery.

## Venison

Venison exports are forecast decrease 6.8 percent to \$170 million in 2017, as lower production volumes offset slightly higher prices. Export volumes are expected to fall further in 2018 as the New Zealand deer population continues to decline.

Venison slaughter rates continue to be much lower than the changes in deer population suggest they should be. In particular, hind (female) slaughter is on pace to be 27 percent lower than last year, despite only a 7.3 percent fall in deer numbers as of 30 June 2016. When these percentages are that far apart, it typically indicates the herd may rebuild over the next year, or at least hold steady.

Average export prices for venison remain strong and are forecast to remain elevated over the forecast period. Strong export demand for venison, along with declining supply, is supporting prices. Average prices are also rising due to greater proportions of higher priced chilled venison being sold. New Zealand's major export market is the EU, and successful promotional efforts in that market have helped increase year-round demand for New Zealand venison, rather than just during game season.

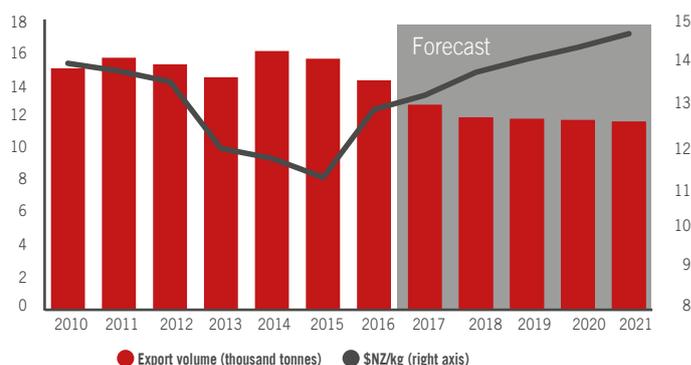
## Other meat

Exports of other meat, which includes edible offal, processed meat, and poultry, is forecast to increase 3 percent to \$516 million in the year ended June 2017. The two big growth categories in other meat is poultry and sales of edible offal to Japan, particularly beef tongue.

Poultry exports are on track to reach \$90 million in the year ended June 2017, slightly below last year, due to falling prices. Expanded access into Australia for uncooked poultry products could boost future exports. Poultry export prices have consistently declined since avian influenza outbreaks pushed them to peak levels in 2011/12 (see Figure 10 on page 23).

Poultry production is on track to exceed 215 thousand tonnes in the year ended June 2017. Expanding export volume and domestic consumption has been supported by lower average prices relative to other meats. Exports have also been increasing rapidly, supported by New Zealand's disease-free status.

Figure 14: Venison export volumes and prices, 2010–21



Source: Statistics New Zealand and MPI

## Imports and domestic consumption

New Zealand is forecast to have imported over \$1 billion of meat and wool products in the year ending June 2017. Roughly 40 percent of these imports are the result of a healthy two-way trade with Australia and the US for consumer-oriented processed meat products such as sausages, pet food, and animal feed, and a range of animal-based products with biopharmaceutical applications.

New Zealand imports \$180 million of pork annually, which makes up just over half of domestic pork consumption. Even though New Zealand is well-known for lamb and beef production, pork is the second-most consumed meat in New Zealand after poultry.

## Hides and skins

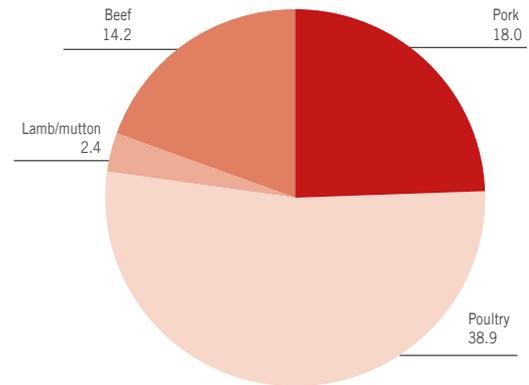
Hides and skins export revenue is forecast to fall 19.4 percent in the year ended June 2017 to \$410 million. Volumes are lower due to fewer cattle and sheep being processed this year, while average export prices have fallen for the third consecutive year.

Contributing factors to falling hide prices include a rise in cattle processing in Brazil and the US increasing global hide supplies. At the same time, demand has fallen from China, especially for garment manufacturing, which has particularly affected sheepskin prices. As with wool, demand has slowed due to shifting consumer trends and rising production costs. A falling euro has also affected prices because most of New Zealand's hides are sent to Italy.

## Co-products

Blood exports have expanded rapidly over the past two years from \$74 million to \$120 million in 2017, and now comprise over 20 percent of co-product exports by value. Exports to the bioscience industry in the EU have more than doubled over the past two years, and this demand is being supported in part by a new bovine serum albumin facility in Fielding.

Figure 15: New Zealand meat consumption per capita, 2016 (kg)



Source: Organisation for Economic Co-operation and Development (OECD)

Velvet exports are on target to exceed \$50 million in 2017, up from \$40 million in 2016. Consistently strong demand from China and South Korea provides optimism that this growth will continue. Stronger import rules from China will take effect next year, but companies in the velvet supply chain have been able to meet those requirements to secure continued access into that important market.

Increasing exports of tripe, sausage casings, and other co-products are a product of market access gains in China. Since 2014, New Zealand has been the only country with access to sell tripe into the Chinese market.

Animal products for feed are forecast to contribute \$270 million to New Zealand's exports, supported by growing the pet food trade as New Zealand companies respond to consumer demand for premium pet food products.

# Forestry

## HIGHLIGHTS

- A record harvest volume of 30.7 million cubic metres for the year ended 31 December 2016, which was mainly driven by record high log prices and a lower New Zealand dollar.
- We expect Chinese demand for New Zealand logs to be sustained as a result of the Chinese Government reducing its timber harvesting quota and banning commercial logging of its natural forests.
- In addition to exports, strong economic growth and construction activity within New Zealand has boosted domestic demand from the forestry sector.



New Zealand's forestry export revenue is forecast to reach \$5.5 billion for the year ending June 2017. This is an increase of 6.4 percent from the previous year, and is driven by a combination of record harvest volumes and strong log prices. The forestry sector has continued to benefit from rising global demand as well as strong domestic demand.

Domestically, there has been strong demand for construction materials as a result of robust housing and commercial markets. This is due to economic growth, high net migration, and historically low interest rates (despite a slowdown in Canterbury's rebuild).

Internationally, rising demand for New Zealand's logs and sawn timber, especially from China and the US, are placing upwards pressure on export prices.

## Logs

### Production

Log production is at a historically high level and is forecast to rise even further due to high log prices and extensive plantings in the first half of 1990s reaching harvestable age. As shown in Figure 16, new plantings peaked in 1994 when almost 100,000 hectares were planted. Harvest volumes reached 30.7 million cubic metres in the December 2016 year and expected to increase by around 2 percent annually to 34 million cubic metres by 2021, assuming log prices remain strong.

Some uncertainty exists around harvest volumes over the next five years, because small-scale owners account for around half of the 1990s plantings that are approaching maturity. These small-scale owners are more price-sensitive when making harvest decisions, unlike large-scale owners who prefer to smooth out their harvesting operations.

**Table 10:** Forestry export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Logs	1,855	2,541	2,059	2,224	2,660	2,920	2,970	3,030	3,140
Sawn timber & sleepers	880	885	779	892	890	950	970	990	1,020
Pulp	552	611	634	689	660	720	720	730	750
Paper & paperboard	546	519	520	569	530	530	530	540	560
Panels	436	407	451	512	480	500	510	520	530
Chips	67	51	52	64	60	50	60	60	60
Other forestry products	190	185	186	190	200	200	210	210	210
<b>Total exports</b>	<b>4,527</b>	<b>5,199</b>	<b>4,682</b>	<b>5,140</b>	<b>5,470</b>	<b>5,870</b>	<b>5,980</b>	<b>6,090</b>	<b>6,270</b>
<b>% Change</b>	<b>+4.6%</b>	<b>+14.9%</b>	<b>-9.9%</b>	<b>+9.8%</b>	<b>+6.4%</b>	<b>+7.3%</b>	<b>+1.9%</b>	<b>+1.8%</b>	<b>+3.0%</b>

Source: Statistics New Zealand and MPI.

## QUICK FACTS



Of New Zealand's \$5.1 billion of forestry products exported in 2016, 57% were "value-added" wood products.

57%



The approximate harvest age over the past 5 years:

Pinus Radiata	29 years
Douglas-Fir	40 years
Cypress	34 years
Eucalypts	21 years



New Zealand is the second largest log exporter in the world.

1.7 million



As at 1 April 2016, there was 1.7 million hectares of planted production forest in New Zealand.

Log production remains at record levels, due to high prices and large areas of forest reaching maturity.

### Exports

New Zealand log export prices reached \$153 per cubic metre in March 2017, one of the highest points since March 2014. Favourable exchange rates and rising log prices may motivate increased harvesting as producers respond to higher returns.

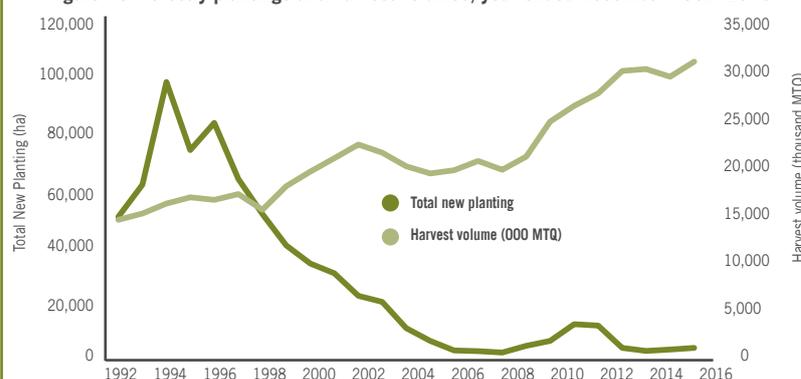
Almost half of forestry's export revenue comes from log exports, of which China, India, Japan, and South Korea are our main trading partners. Log exports are forecast to continue to rise, reaching \$3.1 billion by 2021.

As shown in Figure 17, around 57 percent of logs produced in New Zealand were exported in the year ended 31 March 2017.

This ratio has been trending upwards since 2005, suggesting a sustained increase in global demand for New Zealand logs relative to demand for processed wood products. This trend has put some pressure on domestic supply, and hence prices, as more and more logs are getting exported. Chinese demand for logs has remained strong and now contributes to 70 percent of New Zealand's log export revenue. Log exports are expected to remain strong over the medium term.

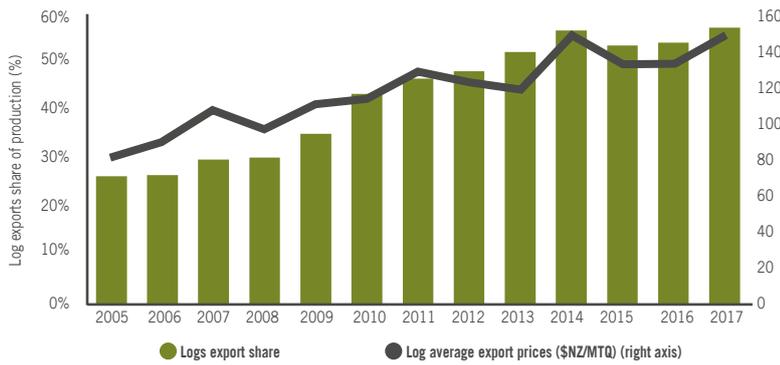
The Chinese Government has reduced its timber harvesting quota for 2016 to 2020 and banned commercial logging of its remaining natural forests. This limits China's supply of domestically sourced wood, and it is likely to have to import even more to meet domestic demand. New Zealand, the US and Russia are the main exporters of logs to China, and this presents a growth opportunity for New Zealand's log exporters. However, Russia's proximity to the Chinese market means it is likely to benefit from this policy as well.

Figure 16: Forestry plantings and harvest volumes, year ended December 1992–2016



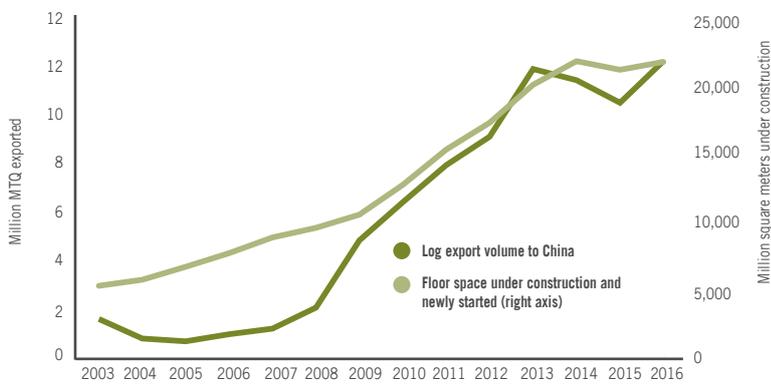
Source: Statistics New Zealand and MPI

**Figure 17: Log export market shares and prices, year ended March 2005–17**



Source: Statistics New Zealand and MPI

**Figure 18: New Zealand log exports to China and Chinese construction activity, year ended December 2004–16**



Source: Statistics New Zealand and National Bureau of Statistics of China

Consistently strong Chinese housing construction activities are expected to continue in 2017 as a result of increasing urbanisation, population growth, and per-capita GDP growth. As shown in Figure 18, a strong positive correlation exists between New Zealand log exports to China and Chinese housing activities.

There is some risk that the current construction pace cannot be sustained. Areas concerns include a rise in available housing inventory, mainly in third-tier cities, and high debt levels. To mitigate these concerns, China's housing ministry has initiated measures to reduce the risk by tightening lending policies for house buyers and promoting home ownership in certain cities.

Higher returns for New Zealand logs have recently been partially offset by rising shipping costs, especially to China, as a result of increased demand for vessels due to port congestion and a rise in China's raw material imports.

South Korea is New Zealand's second largest destination for log exports. Increasing economic activities in South Korea are also increasing demand for New Zealand logs, which, once processed overseas, are primarily used for packaging, industrial uses, and the completion and furnishing of housing units.

Trade with India, New Zealand's third largest export destination, was briefly disrupted in November 2016 as a result of implementation of their demonetisation policy.<sup>2</sup> Export volumes fell 58 percent in November 2016 compared to the same period in 2015, but volumes recovered to normal levels by February 2017. India's GDP is expected to grow by 7.5 to 7.8 percent per year for the next five years which, in addition to growing urbanisation and population growth, should increase its demand for logs.

## Sawn timber

Sawn timber production has been trending upwards since the year ended March 2014 and is expected to reach 4.3 million cubic metres in the year ending June 2017. Much of New Zealand's timber production growth has gone into the domestic market rather than exports. As a result of this strong domestic consumption, New Zealand sawn timber export revenue is forecast at \$0.9 billion for the year ending June 2017 (unchanged from the previous year) before rising to \$1.0 billion by June 2021 as prices rise.

Economic growth in our major trading partners is underpinning strong demand for sawn timber

China is our main log export market and increased demand, rising construction activity, combined with regulations restricting domestic harvesting, will ensure it remains an important market over the outlook period.

Domestic demand for sawn timber is expected to remain strong for the remainder of the year, as more houses are built (particularly in Auckland) to meet growing housing demand. The strong relationship between domestic timber consumption and New Zealand's construction activities can be seen in Figure 21.

Around 59 percent of sawn timber production was consumed domestically for the year ended March 2017, the highest since the Global Financial Crisis. Figure 20 shows sawn timber exports falling as New Zealand's domestic timber consumption increases.

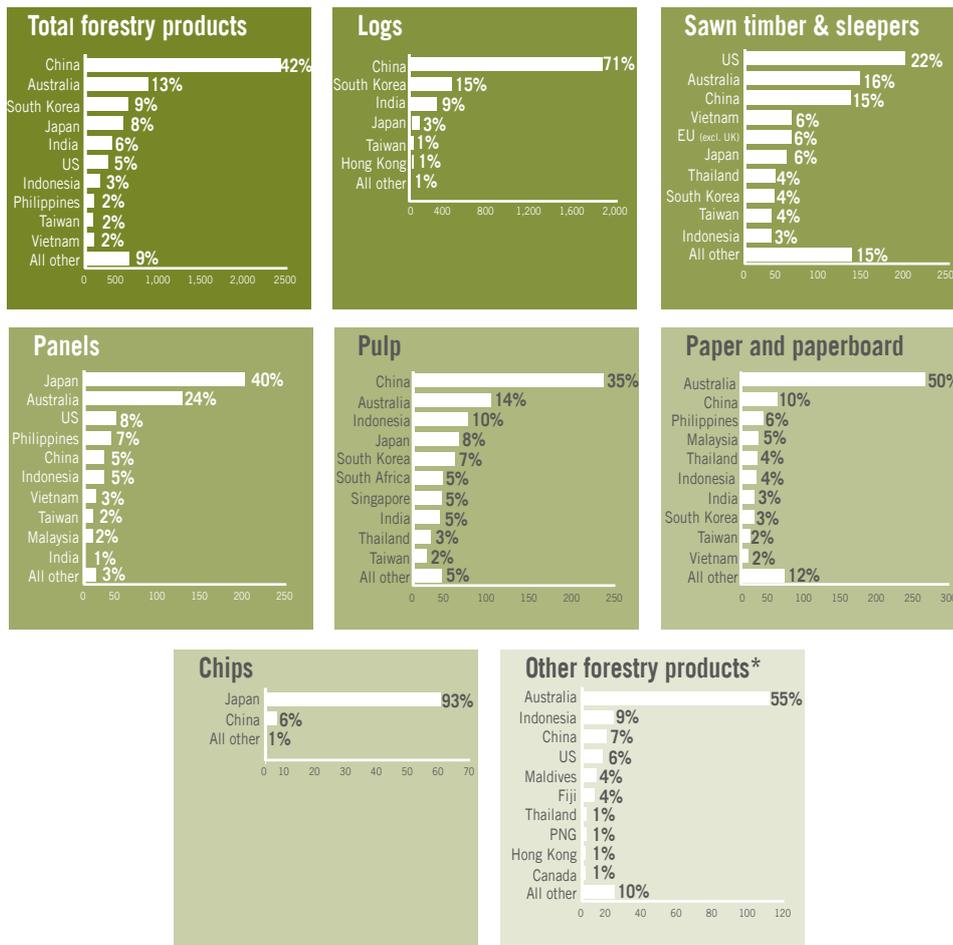
<sup>2</sup> On 8 November 2016, the Government of India announced that all 500 and 1000 rupee banknotes would become invalid after midnight. The main aim of this event was to curtail the shadow economy, but it caused widespread disruption.

# Top 10 export destinations



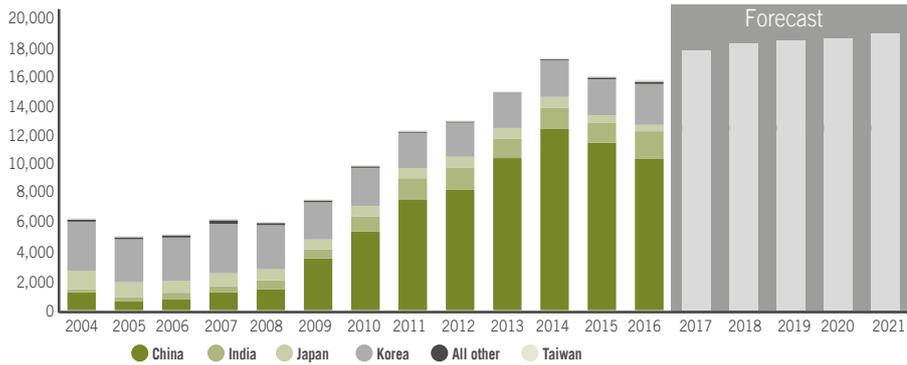
Product	Total export revenue \$ million (March 2017)	% of Total
Chips	64	1%
Logs	2,585	48%
Other forestry products	198	4%
Panels	487	9%
Paper and paperboard	530	10%
Pulp	656	12%
Sawn timber & sleepers	870	16%
<b>Total forestry</b>	<b>5,390</b>	<b>100%</b>

## Top markets (\$NZ millions, year ended March 2017)



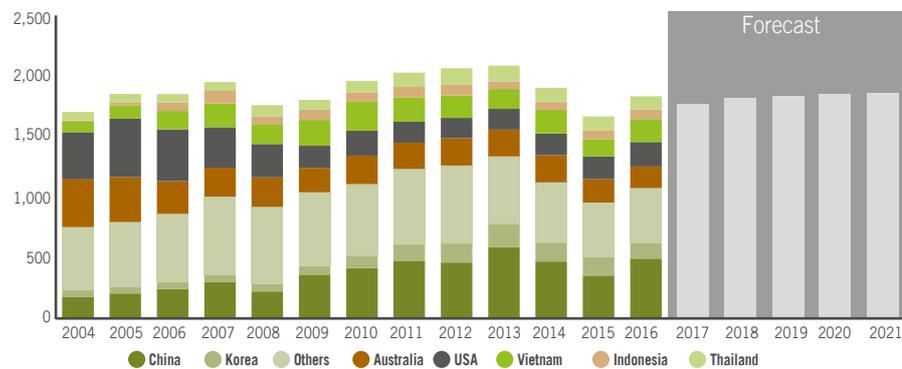
\* Other forestry products include: structural or moulded wood, furniture and prefabricated buildings.

**Figure 19: Log export volume by destination, 2004–21 (thousand cubic metres)**



Source: Statistics New Zealand and MPI

**Figure 20: Timber export volumes by destination, 2004–21 (thousand cubic metres)**



Source: Statistics New Zealand and MPI

Domestic demand is expected to be robust and may place pressure on export volumes.

### Exports

Sawn timber export prices are expected to rise from around \$491 per cubic metre in the year ended June 2016 to above \$500 per cubic metre for the year ending June 2017, backed by strong demand and a relatively low New Zealand dollar.

Timber export demand from New Zealand's main trading partners, the US and China, is expected to increase. This is

mainly underpinned by strong economic and housing growth in the US and China.

The US economy has been expanding steadily for the last few years, including a continuation of robust housing activity, historically low mortgage rates, and a declining unemployment rate.

Similarly to the demand drivers for log exports, China's construction demand and the ban on commercial logging of its natural forest should drive increased demand for imported timber products from its trading partners, including New Zealand.

**Figure 21: Timber production, exports, consumption and building consents, 2004–17**



Source: Statistics New Zealand and MPI

However, the impact on sawn timber exports is likely to be less than the impact on logs. Russia is the source for almost 30 percent of China's overall timber imports (compared to 1 percent for New Zealand), and continues to invest in forestry infrastructure and capital improvements to maintain its strong market position. Canada may also start diversifying its lumber export markets (especially China where it currently has an 11 percent market share in timber) after the US imposed a counter-vailing duty (CVD) on Canadian lumber exports to the US.

### Pulp, paper and paperboard

Paper production fell 21 percent between 2011 and 2017. The main factor behind this fall has been a rise in electronic media, which has started replacing the need for paper for newsprint, and other uses. We expect paper production and

The rise of electronic media in developed markets has negatively affected paper production although exports remain steady due to demand from emerging markets.

consumption to fall further in the future. However, exports have been constant as a result of a resilient demand from Australia and emerging markets (especially Asian countries), which are experiencing growing per capita GDP and more urbanisation.

Pulp production has followed a similar trend to paper, but is falling more slowly thanks to strong export markets. One of the reasons behind the fall in pulp production has been a decline in domestic consumption of paper and paperboard.

Exports have risen recently as China, India and Japan have increased demand for tissue paper and packaging materials. Also, mechanical pulp is increasingly used as a source of tissue fibre due to its good quality compared to recovered paper. Pulp export revenue is forecast to grow further due to rising demand from emerging economies, reaching around \$750 million by the year ending June 2021.

## Panels

Panel production has decreased slightly for the year ending March 2017 after generally rising since 2014, Figure 22. Despite the recent fall, panel exports have remained relatively flat since 2015 and account for around 46 percent of overall production.

Strong domestic demand for panels ensures that remaining production is consumed domestically, while panel imports have also almost doubled since 2012.

## New Zealand's carbon market

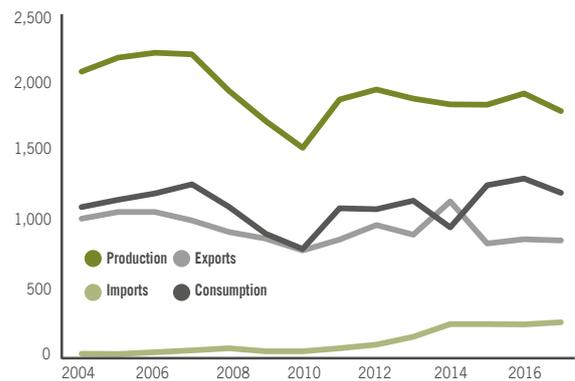
New Zealand's Emission Trading Scheme (NZ ETS) was first established in 2008 through an amendment to the Climate Change Response Act 2002. The main aim of NZ ETS is to

reduce emissions and to meet international targets for climate change. It does this by imposing a cost on businesses for their emissions and providing incentives for business for emissions reductions and removals (e.g. forestry). In the initial few years of the NZ ETS, it was linked to overseas carbon markets, which allowed New Zealand companies to offset their emissions by buying international emission units. As a result, cheaper international units pushed New Zealand carbon prices down and may have contributed to fewer new plantings.

International units have not been able to be used in the scheme since mid-2015. This, along with the decision to phase out one-for-two, has helped New Zealand carbon prices rebound. The current review of the NZ ETS is also currently considering how to further improve NZ ETS incentives for forestry.

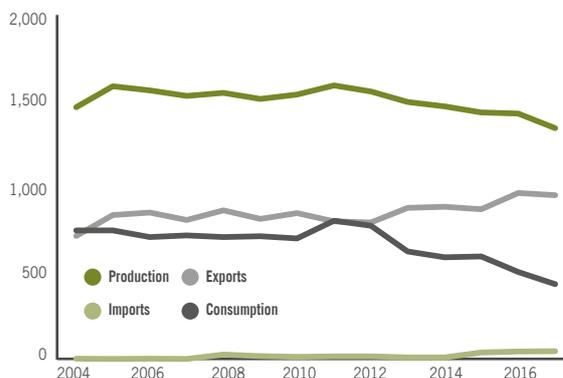
If carbon prices remain strong, forest owners may be motivated to increase plantings. Higher log prices in recent years may also support a recovery in plantings. In addition, MPI is encouraging new plantings through various government afforestation and carbon schemes, such as the Afforestation Grant Scheme, Erosion Control Funding Programme, Hill Country Erosion Fund, and Permanent Forest Sink Initiative.

Figure 22: Panel production, consumption and trade, year ended March 200–17 (thousand cubic metres)



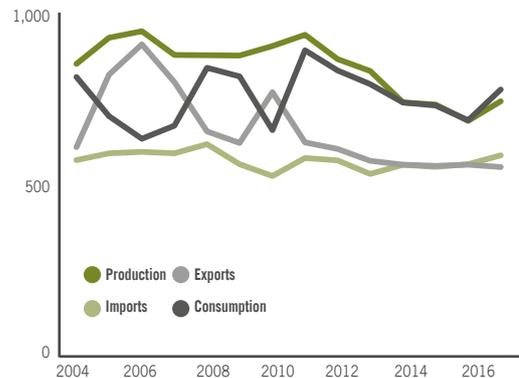
Source: Statistics New Zealand and MPI

Figure 23: Pulp production, consumption, and trade, year ended March 2004–17 (thousand air dry tonnes)



Source: Statistics New Zealand and MPI

Figure 24: Paper and paperboard production, consumption and trade, year ended March 2004–17 (thousand tonnes)



Source: Statistics New Zealand and MPI

# Horticulture

## HIGHLIGHTS

- Wine export growth is not expected to be significantly affected by the Kaikōura earthquake, but growth prospects are slightly more conservative due to uncertainty in key markets.
- Apple and pear exports remain on track to reach \$1.0 billion within the next five years
- Kiwifruit production is expected to be slightly lower this year, but new plantings indicate further expansion to 2021.



The horticulture sector is on track to reach \$5.3 billion in the year ended June 2017, 5.9 percent higher than the previous year. The annual growth rate for the sector fell from 19.6 percent in the previous year, mainly due to less favourable growing and/or harvest conditions for several crops.

Assuming normal weather in the future, strong growth is projected to resume in 2018 and beyond, supported by area expansion and the maturation of recently planted orchards and vineyards:

- Marlborough's wine area is expanding by up to 5,000 hectares (25 percent) towards 2020;
- Zespri is planning to continue releasing 400 hectares of Gold3 kiwifruit licences annually for the next few years; and
- apple and pear planted area could reach 11,000 hectares (an increase of 10 percent from current levels) by 2020.

## Kiwifruit

Kiwifruit exports for the year ending June 2017 are forecast to be \$1.7 billion, relatively unchanged from the previous year, see Table 11. With increased plantings of gold varieties expected over the next few years, exports are forecast to exceed \$2.2 billion by 2021.

The 2016 crop set new records for the New Zealand kiwifruit industry. Export volumes reached 146 million trays in the year to March 2017<sup>3</sup> (up 14 percent from the previous year), and export values reached \$1.7 billion (up 19 percent). These rises were driven by high yields for green kiwifruit orchards, maturing gold kiwifruit orchards recovering from Psa, and good market performance.

Total production and export volumes for the 2017 crop (to the year ended March 2018) are forecast to fall from the record yields seen in the past two years, although gold kiwifruit production is expected to continue rising during the outlook period.

**Table 11:** Horticulture export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Kiwifruit	934	931	1,182	1,673	1,770	1,790	1,930	2,050	2,220
Wine	1,204	1,323	1,408	1,558	1,640	1,690	1,790	1,830	1,870
Apples & pears	484	547	571	701	730	800	880	950	1,010
Fresh & processed vegetables	600	606	588	612	630	650	660	670	680
Other horticulture	318	373	416	438	520	470	550	500	570
Total exports	3,547	3,795	4,173	4,987	5,280	5,400	5,800	6,010	6,360
% Change	-0.4%	+7.0%	+10.0%	+19.5%	+5.9%	+2.3%	+7.4%	+3.6%	+5.8%

Source: Statistics New Zealand and MPI.

<sup>3</sup> The kiwifruit sector operates on a year ended March basis.

## QUICK FACTS



Apple and pear varieties with IP protection account for around 50% of the total planted area.

50%



Marlborough accounts for 74% of New Zealand's grape production

74%



2016/17 was the largest kiwifruit harvest ever recorded.

3rd



NZ is the 3rd largest wine exporter to the US market (by value).

Production levels on Gold orchards have mostly matured after transitioning to the highly productive Gold3 cultivar following the bacterial vine-killing disease Psa. Our forecasts indicate 73 million export trays of gold kiwifruit for the year ending March 2021 – more than double pre-Psa levels.

There is high demand for orchards on the market and investments are being made into new orchard development. There is a high level of industry confidence in the Gold3 variety and industry performance.

### Production

Yields for the 2017 kiwifruit harvest (which commenced in April) are expected to be lower than the previous year due to less favourable climate conditions, although the fruit size profile is larger than normal. The 2016 spring was wet and cold, followed by a dry summer, then storms and tropical cyclones impacted the crop in late summer through autumn and into the harvest period.

Green kiwifruit production has fallen back to normal levels following two years of record yields that were driven by favourable climatic conditions. Production is expected to be relatively stable over the outlook period at around 70 million trays. Green volumes will soften slightly as further gold kiwifruit licences are sold, with around half of the anticipated release of gold kiwifruit licences expected to be grafted onto green rootstock.

The total area producing gold kiwifruit is now over 4,800 hectares. A further 800 hectares of Gold3 licences were released in 2016 and 2017, and more licence releases are expected. Gold3 is highly productive, however, it is not yet known where the long-term yield potential will settle. Forecasts are based on an average of 13,000 trays per hectare, some 20 to 30 percent higher than the Hort16A cultivar it replaced.

High value gold kiwifruit production is forecast to continue rising due to increased planting areas and strong demand from overseas markets.

### Prices

Export prices for green kiwifruit softened slightly (down 3 percent) as a result of the large 2016 crop, while strong market demand strengthened gold kiwifruit prices 7 percent despite the significant volume increase.

Over the outlook period, export prices for green kiwifruit are expected to strengthen as volumes fall. Prices for gold kiwifruit are forecast to remain at current levels. Higher export volumes are expected to be met with increasing demand which will serve to stabilise prices.

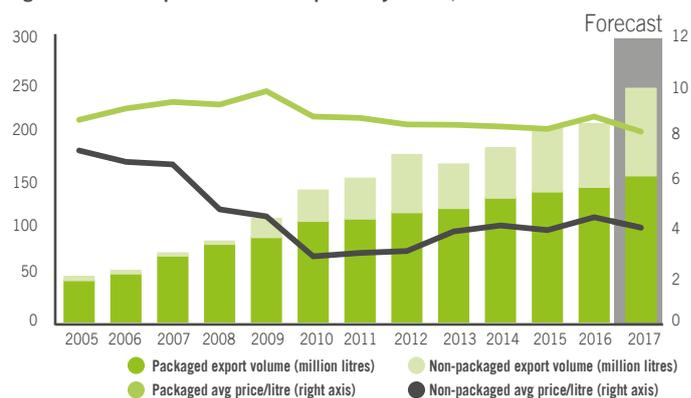
### Wine

International demand for New Zealand wine continues to grow, especially in the US and Canada. Annual wine export revenue now exceeds \$1.6 billion and grape plantings predicted in coming years reflect ongoing industry confidence. Wineries and growers have shown great resolve in the past six months to come through a major earthquake in late 2016 and two cyclonic events over harvest.

### Wine exports now and into the future

The 2017 growing season was extremely challenging for all participants in the New Zealand wine industry. First, the Kaikōura earthquake of November 2016 caused major storage

**Figure 13: Wine export volumes and prices by format, 2005–17**



Source: Statistics New Zealand and MPI

and logistical challenges for wineries, especially in the Marlborough region. Next growers and wineries nationwide had to contend with two challenging cyclonic events in the period leading up to and during harvest. Despite the setbacks, the 2017 vintage is still forecast to be 410,000 tonnes, comfortably the third largest vintage recorded.

Wine exports are forecast to surpass \$1.6 billion for the year ending June 2017. The spike in bulk export volumes post-earthquake, as wineries looked to free up tank space for the upcoming vintage, will likely push total export volumes to record levels of 250 million litres. Consequently, this has lowered average price expectations for the year to \$6.55 per litre, see Table 13.

Wine exports are forecast to reach close to \$1.9 billion by 2021 as new grape plantings in coming years bear fruit. These plantings reflect the expanding offshore demand for our wines, especially in markets like the US and Canada.

### Enhancing the New Zealand wine sustainability story

Research shows that the international market values an authentic sustainability story. The New Zealand wine industry continues to make advances in this area, with 98 percent of the vineyard producing area certified under the industry's sustainability programme and 7 percent certified organic.

Another major step in the wine industry is the shaping of regional wine stories, the objective being to better reflect the unique features of New Zealand's main wine growing regions. This work is supported by recent amendments to the Geographical Indications (Wine and Spirits) Registration Act 2006, which provides for a register for geographical indications (GI)<sup>4</sup> of wines and spirits. This makes it easier for users of the GI to enforce them in New Zealand and to promote and protect their wines and spirits in some overseas markets. Existing GIs worldwide include champagne from the region of France.

**Table 12: Kiwifruit export volume, prices and revenue, year ended March 2013–21**

Year to 31 March	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Export volume (million trays)*									
Green kiwifruit	78	77	77	91	94	73	71	70	68
Gold kiwifruit	23	12	18	35	50	57	64	68	73
Other	0	1	1	1	2	1	1	1	1
<b>Total</b>	<b>101</b>	<b>89</b>	<b>96</b>	<b>128</b>	<b>146</b>	<b>131</b>	<b>136</b>	<b>139</b>	<b>142</b>
Export price (\$NZ/tray)									
Green kiwifruit	8.14	7.96	8.87	10.04	9.68	10.35	11.05	11.55	11.90
Gold kiwifruit	17.37	16.72	17.15	15.01	16.06	16.10	16.35	16.85	17.35
Other	14.98	10.05	12.00	12.18	12.79	13.75	13.80	14.15	14.40
<b>Total</b>	<b>10.29</b>	<b>9.14</b>	<b>10.43</b>	<b>11.42</b>	<b>11.89</b>	<b>12.90</b>	<b>13.55</b>	<b>14.15</b>	<b>14.70</b>
Export revenue (\$NZ millions)									
Green kiwifruit	632	612	687	917	914	760	780	810	810
Gold kiwifruit	405	198	304	524	796	920	1,050	1,150	1,270
Other	6	5	11	17	22	20	20	20	20
<b>Total</b>	<b>1,043</b>	<b>815</b>	<b>1,002</b>	<b>1,459</b>	<b>1,732</b>	<b>1,690</b>	<b>1,850</b>	<b>1,970</b>	<b>2,090</b>

Source: Statistics New Zealand and MPI

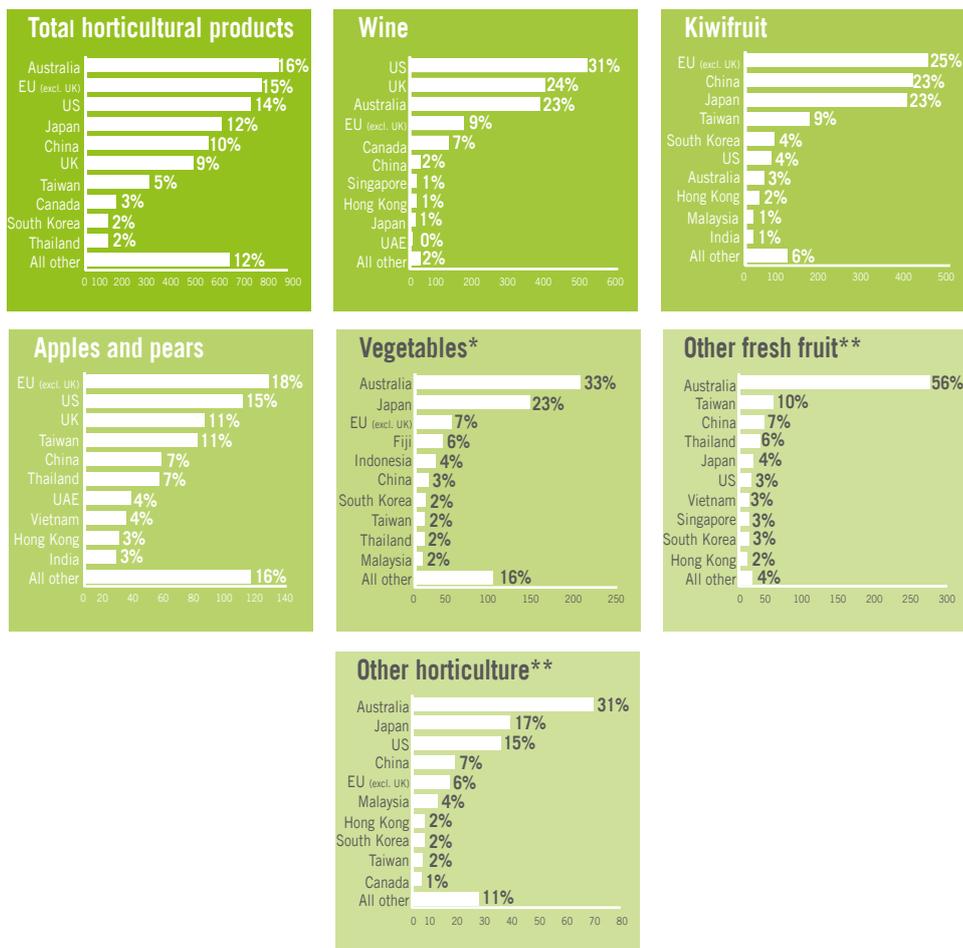
\* One tray is equal to 3.6 kilograms.

<sup>4</sup> Geographical Indications are an indication that identifies a wine or spirit as originating in the territory of a country, or a region or locality in that territory, where a given quality, or reputation, or other characteristic, of the wine or spirit is essentially attributable to its geographical origin.

# Top 10 export destinations



## Top markets (\$NZ millions, year ended March 2017)



\* Vegetables include: onions, potatoes, squash, peas, legumes, sweetcorn and other vegetables.

\*\* Other fruit includes: avocados, cherries, blueberries, strawberries and other fruit.

**Table 13:** Wine export volumes prices and values, 2013–21

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Export volume (million litres)	169.7	186.2	206.7	211.3	250.0	250.0	255.0	257.0	260.0
Export price (\$/litre FOB)	7.09	7.11	6.81	7.36	6.55	6.75	7.00	7.10	7.20
Export value (\$NZ million)	1,203	1,323	1,408	1,570	1,640	1,690	1,790	1,820	1,870

Source: Statistics New Zealand, New Zealand Winegrowers and MPI

The US is the largest domestic market for wine consumption in the world and is one of the most valuable offshore markets for New Zealand. In this market, New Zealand has now moved into third position by country of origin import value, behind Italy and France, and is ahead of Australia, Spain and Chile. All of these main competitors are much larger producers than New Zealand.

The US market continues to respond positively to Marlborough sauvignon blanc, in particular. Today's success in this market is well earned, following concerted efforts by New Zealand Winegrowers and individual wine companies over many years. New Zealand is succeeding by focusing on the premium end of the market yet still providing an offering that represents value for money. The positive experiences of New Zealand wine had by US visitors may also be acting as a catalyst for sales growth when they return home.

New Zealand is now the third largest player (by value) in the US wine market, driven by US consumer's demand for Marlborough sauvignon blanc.

### Increased production presents a challenge

Increased production over the past few years has meant an increase in exports of bulk wine. In 2007, New Zealand exported 4 million litres of bulk wine, accounting for only 5 percent of all wine exported by volume. In March 2017, annualised statistics indicate that New Zealand exported 94 million litres, representing 38 percent of wine exports by volume.

Typically, bulk wine is either:

- bottled offshore by a parent company of the New Zealand winery;
- bottled or sold as cask wine offshore by a large retail chain (for example, a supermarket) and sold under their home brand.

Reasons given for wine companies choosing to bottle offshore are varied and complex but include the ability to defer the start of shelf life, to leverage economies of scale in large bottling facilities, and to provide more flexibility to change packaging formats in response to market demand.

Bulk wine exports at times act as an escape valve when the industry experiences a grape surplus or a major adverse event, like an earthquake, necessitates speedy movement of product out of risk-prone areas.

Given the strong foreign investment relationships with many of New Zealand's wineries, we suspect that much of it will be bottled offshore by the parent company without losing the marketability of the wine itself. However, a proportion of this bulk wine (potentially lower quality wine) will almost certainly be sold as home brands where it will be promoted in lower price bands than other New Zealand wines.

### Apples and pears

Apple and pear export volumes for the 2017 crop are down on pre-harvest estimates, with some uncertainty around the final crop size. Export volumes are expected to increase steadily over the remainder of the forecast period, driven by increased planted area.

New varieties are integral to future growth and competitiveness in the premium segment of markets, where New Zealand operates.

### Production

The main growing region of Hawke's Bay had a warm, dry summer, helping to set up good fruit size and taste. Harvest of

**Table 14:** Apple and pear export volumes, prices and values, year ending December 2013–21

Year to 31 December	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Export volume (million cartons)*	18.2	17.4	18.5	19.5	20.0	22.0	23.5	24.8	25.5
Export price (\$/carton)	27.78	30.03	33.96	36.73	36.00	37.00	38.00	39.00	40.00
Export value (\$ million)	504	522	628	717	720	814	893	965	1,020

Source: Statistics New Zealand, Pipfruit New Zealand Inc, MPI.

\* A carton is equivalent to 18.0 kilograms.

**Figure 26:** Apple and pear export volume and prices, 2004–21 (year ended December)



Source: Statistics New Zealand and MPI

the Royal Gala variety went well with good fruit colour. Frequent and heavy rainfall in March and April interrupted picking, whilst the predominance of mild, cloudy weather over this period delayed colour development in mid- to late season apple varieties.

Late season varieties, such as Pacific Rose™ and Pink Lady®, also experienced some wind damage from ex-Cyclone Cook, such as bruising and fruit fall. The overall outcome for the Hawke’s Bay region is a substantial drop in export production, compared with pre-harvest estimates.

Apple and pear production in the Nelson region is up significantly on last year, with the region escaping widespread hail damage. Increasing investment is being made in permanent and temporary hail protection netting.

Apple and pear planted area is forecast to increase 10 percent by 2020, encouraged by strong Asian market demand and access to capital and new varieties.

Orchard replanting and new plantings are expected to continue, helped by four consecutive years of profitable returns, access to niche and managed varieties, and good demand from Asian markets for high quality fruit. The planted area, currently at around 10,000 hectares, has increased in recent years in line with survey expectations.

The anticipated lift in planted area to 11,000 hectares by 2020 will depend on gaining access to suitable land with secure water supply. Investment, development and purchase options being offered to landowners are more varied than in the past, which should help with making more land available for apples and pears.

**Exports**

An export volume of around 360,000 tonnes (20 million cartons) is estimated for the 2017 crop. There is some uncertainty around this volume because, at the time of writing, harvest records were yet to be completed.

Annual export volumes are expected to increase steadily over the forecast period, as recent plantings and those planned for the next few years come into production.

New Zealand is a small but highly competitive player in the global market, accounting for less than 1 percent of global production and around 5 percent of global trade in apples and pears. Following a period of low profitability, restructuring and rationalisation in the 2000s, the industry has evolved into a globally competitive niche player, aiming to grow export volumes whilst maintaining good prices (Figure 26).

New Zealand and other countries have developed a range of club varieties, where production, quality and marketing of the fruit are managed to target the premium segment of the market. As recently signalled in the World Apple Report, there is an increasing risk of substitution and falling prices for some varieties as more club varieties enter this segment. The challenge for New Zealand businesses is to only develop and produce varieties that have high consumer appeal from the outset, and to build consumer loyalty through quality of product and service.

Unfavourable weather conditions during the growing season or at harvest affected the marketable yields of several vegetable crops including onions, squash and leafy greens.

## Prices

Market conditions for the 2017 season are generally positive, with expectations of a stable export price, despite the rising New Zealand dollar against the euro and British pound compared with last season.

There are indications that demand from some markets in Asia is not as strong as last year, in particular Taiwan. This is affecting some apple varieties more than others, such as Fuji. Apples from the US, which had a large crop in 2016, have reduced opportunities for early season sales of New Zealand fruit to Taiwan and India.

Market demand for New Zealand apples and pears in Europe is reported as strong. New Zealand's reputation for high quality fruit, alongside supplying predominantly into retail programmes, means that buyers are anticipating the arrival of New Zealand fruit and make retail shelf space available when it arrives.

We are taking a conservative view in our outlook for export prices in New Zealand dollar terms, with modest year on year increases compared with recent years. Changes in the variety mix and further expansion into higher-paying markets (particularly Asia) are expected to maintain and gradually lift export prices. However, these increases will be tempered by rising global apple production providing increased competition.

## Fresh and processed vegetables

Total fresh and processed vegetable export revenue is up slightly in the year to June 2017, with higher prices being achieved for onions and squash, compensating for a fall in export volumes.

Total vegetable export volumes are expected to grow slightly in the short to medium term based on current market access and competitiveness expectations for fresh vegetable exports, and vegetable processing capacity remaining relatively stable.

### A variable growing season

Favourable spring weather conditions in the South Island helped most vegetable crops to be planted to schedule, but a cloudy, wet spring in parts of the North Island either delayed planting or slowed down the germination and early growth of some crops.

The east coast of the North Island experienced a hot, dry and windy summer with growers struggling to keep up with irrigation demand. Dryland crops in the Gisborne region, such as squash and some sweetcorn crops, struggled in the heat resulting in lower yields. Yield reductions of up to 50 percent were reported for some squash crops.

Good yields were achieved for many process pea crops, with Canterbury the main growing region.

A series of ex-tropical storms in March and early April brought heavy rain at harvest time to several vegetable growing districts. Onion crops were particularly affected, reducing the marketable yield of some main-season crops. The extended wet conditions also interrupted the supply of fresh vegetables such as leafy greens to the New Zealand domestic market for several weeks.

**Table 15:** Vegetable export volumes and values, 2013–21

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Fresh vegetables</b>									
Export volume (000 tonnes)	314	306	299	319	300	330	335	345	350
Export value (\$NZ million)	225	219	215	258	265	270	280	290	295
<b>Processed vegetables*</b>									
Export volume (000 tonnes)	207	224	212	191	200	205	205	205	205
Export value (\$NZ million)	375	387	373	354	365	380	380	380	385
<b>Total fresh and processed vegetables</b>									
Export value (\$NZ million)	600	606	588	612	630	650	660	670	680

Source: Statistics New Zealand and MPI

\*Processed vegetables includes frozen vegetables, dried vegetables, dry legumes, prepared and/or preserved vegetables and vegetable juices.

## Fresh vegetable export growth to be led by onions

Over the forecast period, modest growth is expected for fresh vegetable export volumes, led by increased onion exports. There has been good market demand for the 2017 onion crop from Indonesia, Japan and other Asian markets. Rainfall throughout the growing season led to larger bulb sizes which are favoured by these markets. Lower volumes will be sent to Europe this year mainly due to high domestic supplies.

Longer term, growth in onion exports is reliant on improved access to growing markets in Asia, in particular China, as improved storage systems are reducing the sales window into the UK and Europe.

Higher prices will likely compensate for reduced squash export volumes in 2017. Exporters have sent more squash to China this season as they explore the growth opportunities of this market.

### Processed vegetable exports stable

Yields of some processed vegetable crops were variable this season, influenced by climatic conditions. The interruption in fresh vegetable supplies from mid-autumn into winter could lead to an increase in sales of processed vegetables on the New Zealand domestic market, in particular, frozen vegetables. Combined, these factors might contribute to a lift in contracted volumes for some process vegetable crops in the 2017/18 production season.

In the absence of significant changes in vegetable processing capacity, total export volumes of processed vegetables are expected to remain relatively stable over the forecast period, although individual categories may vary.

### Other horticulture

Dominated by avocados, cherries and berries, this category also includes other fresh, frozen, preserved and processed fruit, such as fruit juices. Also included are nuts, flowers and ornamentals.

Exports are forecast to surpass \$500 million in the year ending June 2017 before falling slightly in 2018 due to an off-year for avocado production. Future export growth from this category will be driven by higher production of avocados, cherries and berries. Processed fruit production is also expected to increase as a co-product of the rising volumes of fresh fruit, including apples and kiwifruit.

Increased production of avocados, cherries, and berries is driving growth in other horticulture products over the outlook period.

### Avocado

The New Zealand avocado industry experienced its biggest ever season for both volume and value this year. Export volumes are expected to reach 4.8 million trays and values to reach \$148 million in the year ending June 2017.

Cyclone Cook in April 2017 impacted avocado orchards in the Bay of Plenty region, with reports of uprooted trees, trees with broken branches. Growers are yet to determine whether there will be any long term effects from this event.

Over the outlook period export volumes and values are driven by swings in the irregular bearing pattern of avocados. The industry is investing in research to mitigate these swings in production to enhance industry sustainability.

### Summerfruit and berries

Exports of summerfruit and berries are forecast to fall slightly to \$146 million in the year ending June 2017. Blueberry and strawberry volumes suffered from poor spring and summer weather, while the expected growth in cherry volumes was curtailed by rain during harvest.

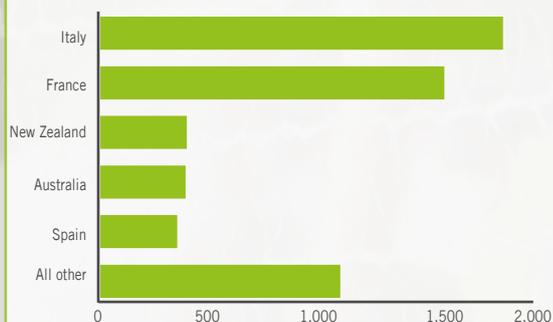
Higher prices made up for the lost cherry output, driven by the timing of Chinese New Year coinciding perfectly with New Zealand's cherry harvest. Growth in exports to high-value markets that are not challenged by Chilean product was also a factor. Smaller fruit that is normally shipped to South Korea was diverted to the US after Chile recently achieved access to this market.

More plantings of cherries and blueberries will drive further export growth from 2018.

## POSITIVE TRENDS IN THE US WINE MARKET

New Zealand has more than doubled the value of its wine exports to the US since 2011 and is now the third largest wine exporter (by value) to this market, see Figure 27. Much of our success has stemmed from the US's increasing demand for Marlborough Sauvignon Blanc, as well as shifting consumer attitudes towards wine.

**Figure 27: US wine imports by country of origin 2016 (\$US million)**



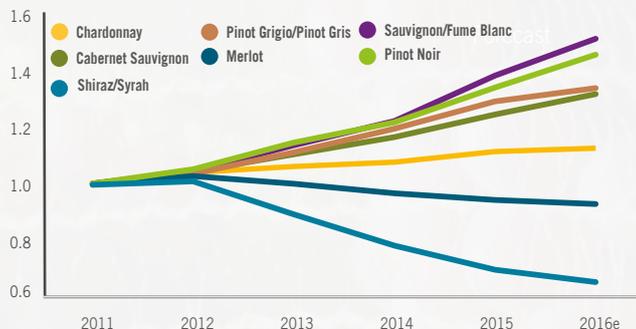
Source: Gomburg Fredrikson & Associates

Over 120 million Americans drink wine (over a third of those do so at least weekly) and wine is increasingly being seen as a drink for any occasion, rather than just as an accompaniment to food.<sup>5</sup> Although consumption is heavily weighted towards domestic wine, almost 30 percent of wine consumed in the US is imported.

Sauvignon blanc consumption has increased faster than that of any other varietal, and this growth is expected to continue in the future, see Figure 28. The good news for us is that imports of sauvignon blanc mostly come from New Zealand, and

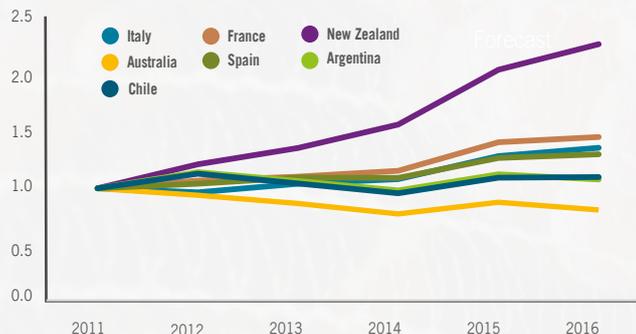
consumers are willing to pay premium prices for our wine. New Zealand wine achieved the second highest price per litre into the US market, behind France (which includes a significant quantity of expensive champagne), see Figure 29.

**Figure 28: US wine consumption by variety**  
volumes indexed to 2011



Source: Euromonitor

**Figure 29: US wine imports by country**  
values indexed to 2011



Source: Euromonitor

5. Nielsen 2017.

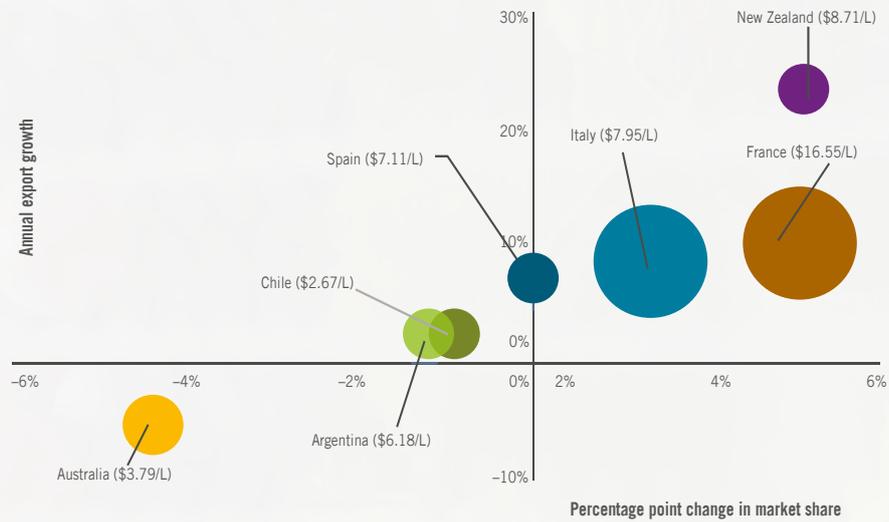
As well as sauvignon blanc, which is an established success in the US market, there are also opportunities for other New Zealand varietals such as pinot noir to grow in this market. US consumption of pinot noir has increased faster than any other varietal (except sauvignon blanc), growing from 56 million litres in 2010, to over 80 million litres in 2016. If this consumption trend continues, Americans will be consuming an extra 40 million litres of pinot noir by 2021.

US consumers are increasingly purchasing wine through supermarkets and other off-licence channels. A corresponding increase in internet search activity for varietals and brands as users seek to compare profiles and price points. New Zealand wines are often seen as better value compared with traditional Burgundian pinot noirs.

There is opportunity for producers of New Zealand pinot noir to capture a significant market share of this growing varietal, given our country's well-established reputation for quality wine. In addition, strong foreign investment links provide our exporters with good market access and strong distribution channels in the US, ensuring access to a large customer base.

**Figure 30: Growth in US wine market share: 2011–16**

Bubble size: 2016 export value



# Seafood

## HIGHLIGHTS

- Seafood export prices are expected to improve due to growing demand from our main seafood export destinations driven by a steady or improving economic outlook.
- Aquaculture is expected to be the main driver of forecast volume growth (6.6 percent per year) through gradual supply of hatchery-bred mussel spat supporting increased mussel production and planned expansion of salmon farming.
- Important export markets for New Zealand seafood products continue to be China, EU, Australia, US and Japan. The Chinese, the EU and the US markets have grown while Australian and Japanese markets have remained steady in recent years.



New Zealand's seafood export revenue is forecasted at \$1.8 billion for the year ended June 2017. Exports have traditionally been dominated by wild capture fish, contributing 78 percent to seafood export revenue. The rest (22 percent) comes from aquaculture exports, dominated by mussels. During the outlook period, seafood export revenue is forecast to grow from \$1.8 billion to \$2.1 billion, which is a 3.4 percent annual increase.

## Seafood production steady

### Wild capture fisheries

New Zealand wild capture fisheries account for 78 percent of total seafood export revenue. Wild capture fisheries are classified into five species groups: deepwater, pelagic (tuna and sword fish), inshore shellfish, inshore finfish, and freshwater and other fish products.<sup>6</sup>

**Table 16:** Seafood export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Wild capture fisheries</b>									
Volume (000 tonnes)	266	244	269	257	252	248	252	256	259
Price (\$/kg)	4.79	4.79	4.61	5.38	5.45	5.50	5.60	5.70	5.90
Revenue (\$NZ million)	1,272	1,168	1,242	1,380	1,370	1,360	1,410	1,450	1,530
<b>Aquaculture</b>									
Volume (000 tonnes)	38	37	34	36	40	42	45	49	50
Price (\$/kg)	7.18	8.94	9.40	10.76	10.15	10.50	10.70	10.95	11.35
Revenue (\$NZ million)	274	332	321	388	400	440	490	540	560
<b>Total seafood sector</b>									
Volume (000 tonnes)	304	281	303	293	291	290	298	305	309
Price (\$/kg)	5.09	5.34	5.15	6.04	6.10	6.20	6.35	6.55	6.75
Revenue (\$NZ million)	1,546	1,500	1,562	1,768	1,770	1,800	1,890	1,990	2,090
% Change	+0.1%	-2.9%	+4.1%	+13.2%	+0.1%	+1.7%	+5.0%	+5.3%	+5.0%

Source: Statistics New Zealand and MPI.

<sup>6</sup> Products where species are not identifiable, including fish meal, fish extracts, fish liver, and roe. Note that the classifications have recently been revised to reflect the MPI Fisheries Plans, so values for some categories may differ with those of previous SOPI reports.

## QUICK FACTS



New Zealand's seafood sector provides direct employment for

8,240 people

70%



New Zealand produces 70% of the world's Chinook salmon.



Almost 99% of our rock lobster exports go to China.

99%

\$1.5 million



A hectare of salmon aquaculture space has a farmgate value of \$1.5 million.

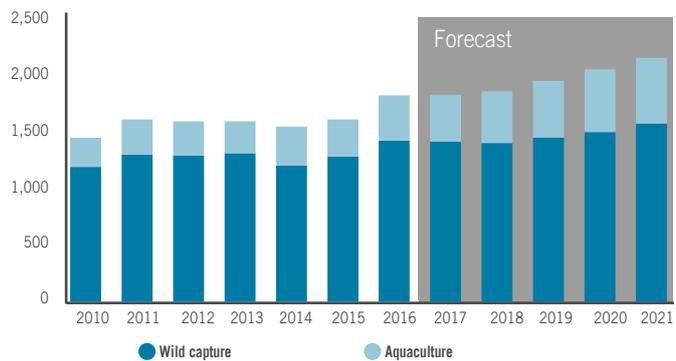
About 130 fish species are caught by commercial fishers in New Zealand waters. Most of these species are managed under the Quota Management System (QMS).

Important species in terms of landed weight in 2016 were hoki (33 percent), squid (10 percent), jack mackerel (9 percent), barracouta (5 percent), southern blue whiting (5 percent) and ling (3 percent). Commercially, the most valuable species (by export earnings) – rock lobster – accounted for only 1 percent of the total catch.

New Zealand is a relatively small producer of wild capture fisheries, with a 0.5 percent share in total global production. Globally, there is limited scope for volume growth from wild capture fisheries due to sustainability constraints. The total global production from wild capture fisheries has stabilised at around 90 to 95 million tonnes since the mid-1990s and the Food and Agriculture Organisation of the United Nations (FAO) expects it to remain in the same range through to 2025.

The SPATnz primary growth partnership programme is successfully raising mussel spat at a commercial scale, which will boost aquaculture exports in the coming years.

Figure 31: Seafood export revenue 2010–21 (\$NZ millions)



Source: Statistics New Zealand and MPI

New Zealand fish stocks are managed at or above levels that can produce their Maximum Sustainable Yields (MSY) and total allowable commercial catch limits are adjusted to achieve MSY-related targets. Catch levels from New Zealand wild capture fisheries have remained reasonably stable in the past five years and we expect this trend to continue in the next five years. Export volume growth is expected to increase by just 0.2 percent per year during the outlook period because some fisheries are expected to rebuild. See Figure 31.

### Aquaculture

Aquaculture accounted for 22 percent (\$0.4 billion) of the total seafood export value in the year ended March 2017, primarily dominated by mussel exports. Salmon and oysters are the other two main species farmed in New Zealand.

As with our wild capture fishery, we are also a relatively small aquaculture producer, with just 0.1 percent of the total global aquaculture production (estimated to be about 105 million tonnes per year).

# Seafood

As a result of positive developments across the three main species, the export volume from aquaculture is forecast to grow by 6.6 percent per year over the outlook period.

The mussel farming industry has relied on wild-caught spat to seed its farms, the availability of which varies with climate cycles. Hatchery-bred spat supply is being developed through the SPATnz Primary Growth Partnership programme.

The programme is successfully breeding better-performing mussels and developing methods of raising spat at the scale required to supply a substantial proportion of the industry. Production contribution from hatchery-bred spat is expected to increase from late 2017 and should stabilise annual fluctuations and bolster mussel production into the future.

We expect a further increase in salmon production by over 3,000 to 4,000 tonnes per year from three new farms in the Marlborough Sounds. The first two farms are already operational and production from the third farm will be available from 2018.

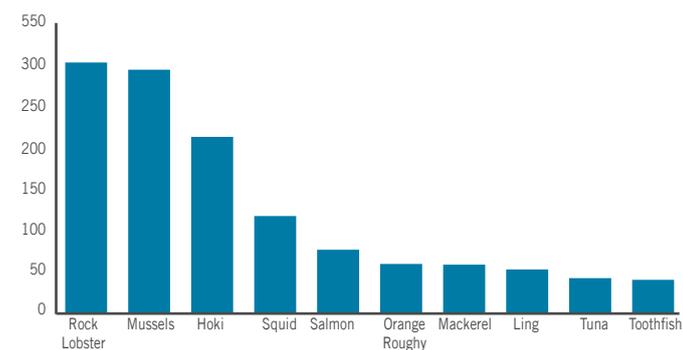
Pacific oyster production continues to recover from a herpes virus in 2010, with support from a selective breeding programme and changes in farming techniques.

## Prices improving

Average export prices for wild capture fisheries have shown stronger growth in the 2016 calendar year due to strong demand in significant markets. Squid, tuna, paua and toothfish prices performed well. Prices for rock lobster, hoki and orange roughy remained steady. Prices for jack mackerel were slightly down, see Figure 32. Aquaculture prices also improved moderately in the calendar year 2016, despite a slowing down of mussel prices in the last quarter.

Prices for both wild capture and aquaculture products softened in March 2017, led by rock lobster, hoki and mussels in significant markets such as China and the US.

**Figure 32: Top ten species by export revenue, year ended March 2017 (\$NZ millions)**



Source: Statistics New Zealand

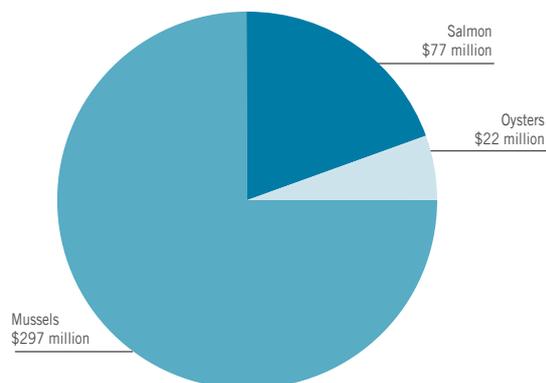
See Figures 33 and 34. This is potentially due to an increased supply and softened demand. For example, rock lobster supply to China tends to increase in the March quarter (being the local holiday season) from various suppliers including New Zealand, the US and Australia.

Given the positive economic outlook for New Zealand's main seafood markets and increased per capita fish consumption,<sup>7</sup> prices are expected to improve, albeit moderately, in the latter part of 2017 and out to 2021. Therefore, New Zealand seafood prices are forecast to grow by 2.3 percent per year during the outlook period.

Ongoing efforts at environmental certification are likely to support New Zealand export prices. The Marine Stewardship Council has independently certified the sustainability of New Zealand's hoki, southern blue whiting, hake, ling and albacore troll fisheries. In December 2016, several stocks of orange roughy fishery also received Marine Stewardship Council certification following a three-year rigorous assessment.

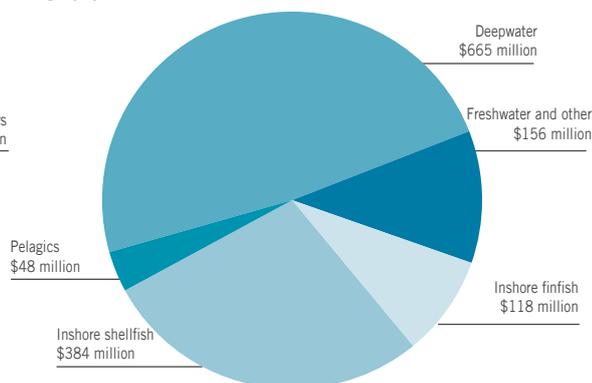
The Precision Seafood Harvesting Primary Growth Partnership programme has shown encouraging results in terms of producing high quality products. As a result of the

**Figure 33: Aquaculture export value by species category, year ended March 2017**



Source: Statistics New Zealand

**Figure 34: Wild capture fisheries export value by species category, year ended March 2017**



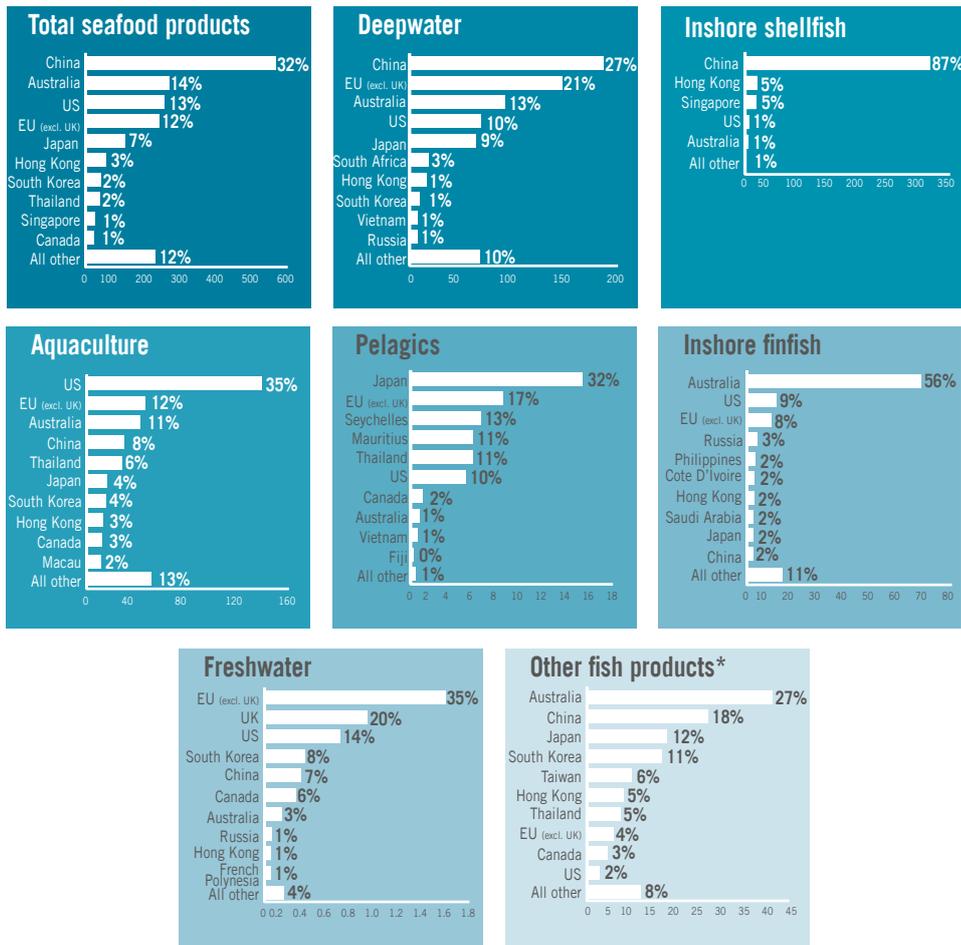
Source: Statistics New Zealand

<sup>7</sup> FAO (the World State of Fisheries 2016) expects that per capita fish consumption is expected to increase by around 1 percent per year through to 2025.

# Top 10 export destinations

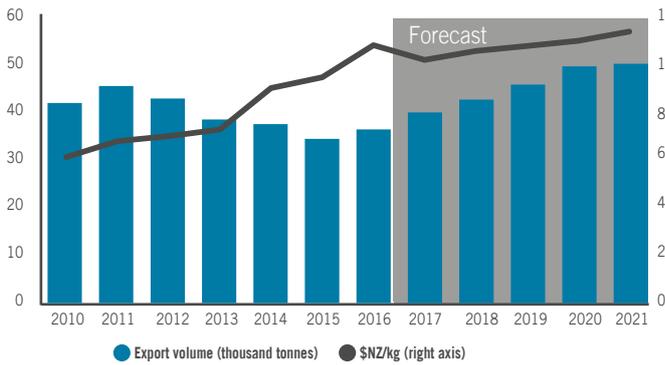


## Top markets (\$NZ millions, year ended March 2017)



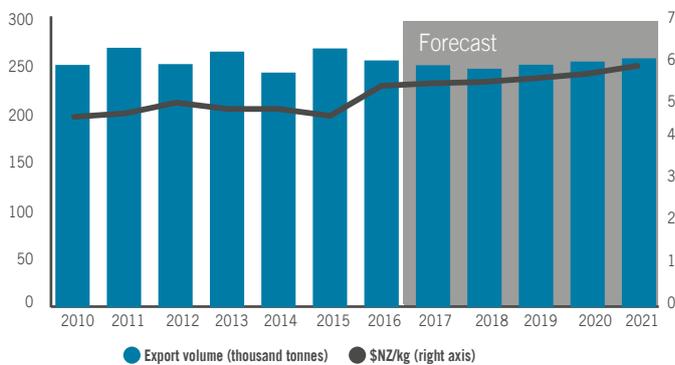
\* Other fish products include: fish meal, fish extracts and other seafood products.

**Figure 35: Aquaculture export volumes and prices, 2005–21**



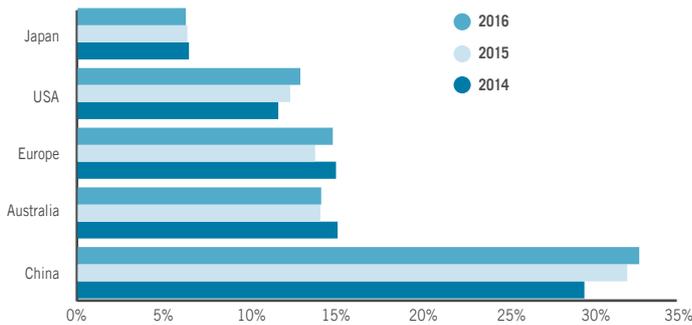
Source: Statistics New Zealand and MPI

**Figure 36: Wild capture export volumes and prices, 2005–21**



Source: Statistics New Zealand and MPI

**Figure 37: Key export markets for NZ seafood products by value, year ended December 2014–16**



Source: Statistics New Zealand

programme, industry has already established a new premium brand, Tiaki, with an app to provide traceability, and Tiaki fish has started to be supplied in small volumes.

MPI is currently working on the Future of our Fisheries programme. The programme involves three strategic proposals that represent significant enhancements to our fisheries management system, and two regulatory change proposals, namely the Integrated Electronic Monitoring and Reporting System (IEMRS) and Enabling Innovative Trawl Technologies (EITT). The proposed regulatory changes to enabling electronic catch reporting and monitoring of fishing vessels, and innovative trawl technology, will enhance New Zealand's credibility as a sustainable food producer and add value from its fisheries.

### Export earnings forecast to rise

Total seafood exports are expected to increase from \$1.8 billion in June 2016 to \$2.1 billion in June 2021. This is an average annual increase of 3.4 percent during the outlook period. Aquaculture export earnings are expected to grow faster (a 7.6 percent increase per year) than wild capture fisheries (a 2.0 percent increase per year) due to an expected increase in aquaculture export volumes.

Figure 32 shows the top export earning New Zealand species include a combination of high value low volume (such as rock lobster) and low value high volume fish species (such as hoki).

New Zealand seafood products are exported to more than 120 countries. In terms of export earnings, Figure 37 shows the evolution in key export markets for New Zealand seafood products. In 2016, the market for New Zealand seafood in China, Europe and the US improved further compared with the previous year due to increased demand. Seafood exports to the Australian market have remained resilient, despite the strength of the New Zealand dollar relative to the Australian dollar. Seafood exports to Japan have also remained steady in 2016.

Rock lobsters are New Zealand's most valuable seafood export, with mussels a close second. Both of these products achieve premiums in overseas markets due to our reputation for quality.

## PREMIUM PRICES FOR NEW ZEALAND GREEN-LIPPED MUSSELS

The green-lipped mussel is indigenous to New Zealand. It is easily identified in the shell by its distinctive emerald green colour. It also has superior taste and texture as compared to blue and black mussels. Mussels are exported either live, frozen or prepared for further processing abroad. The \$US847 million of international mussel trade in 2015 was relatively evenly distributed across these categories. Relatively stable volume growth, along with increasing demand, has pushed mussel prices up in recent years.

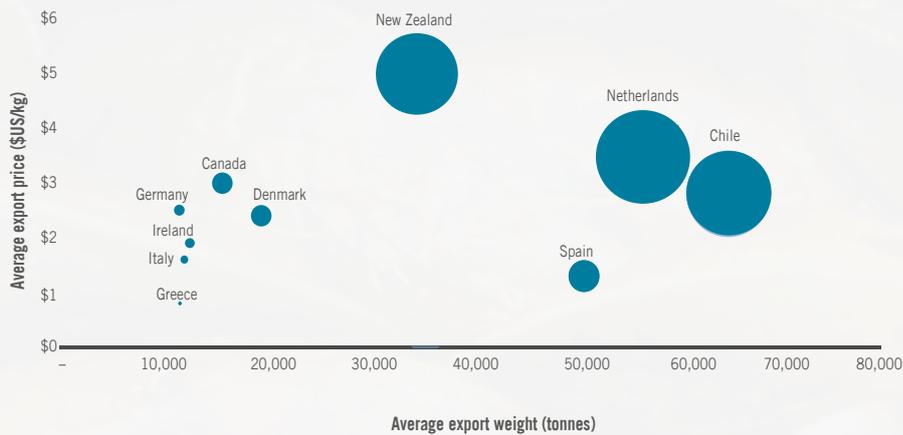
Due to New Zealand's isolation from the rest of the world, exports of green-lipped mussels from New Zealand are mainly shipped frozen. New Zealand is the world's largest exporter of frozen mussels by volume. The uniqueness of our mussels means that we are able to achieve price premiums of around 30 percent above that of our competitors, even those selling fresh mussels.

Over a quarter of green-lipped mussel exports go to the US, with China, Thailand and Australia rounding out our key export markets. Mussel export revenue has increased over the past four years-based on rising demand for the New Zealand green-lipped variety, while production has remained steady. This is in contrast to Germany, where export volumes are growing at an average rate of 37 percent per year.

New Zealand green-lipped mussels achieve the greatest price premiums in the EU (particularly France, Portugal, and Italy), where we earn almost \$US2 per kilogram more than frozen mussels from other countries, see Table 17. The highest overall price is achieved in the UK, where green-lipped mussels sell for an average of \$US6.10 per kilogram.

**Figure 38: Average export unit price of live, frozen, and prepared mussels: 2012–15**

Bubble size: average export revenue from 2012–15



**Table 17: Average frozen mussel import prices in main importing markets 2012–15**

Import country	Other country import unit price (\$US/kg)	NZ import unit price (\$US/kg)	Price differential (\$US/kg)
France	3.40	5.60	2.20
Portugal	3.80	5.90	2.10
Italy	3.70	5.40	1.60
Thailand	3.70	5.30	1.60
UK	4.60	6.10	1.40
US	4.20	5.40	1.30
Belgium	4.80	5.70	0.80
Germany	4.90	5.70	0.70
Spain	5.20	5.80	0.60
Australia	4.10	4.20	0.10
China	5.50	5.10	-0.40

# Arable

## HIGHLIGHTS

- Domestic grain prices are improving as demand from the dairy sector rises.
- Autumn planting was delayed by wet conditions and this is likely to lead to reduced yields in 2018.
- The vegetable seed export market remains steady while high international stocks have reduced demand for herbage seed exports.
- The longer term outlook is for steady growth in arable exports to \$236 million by 2021.



Weather in the 2016/17 season was variable, becoming very sodden towards the end. The season started well for most crops with a mild winter and moist spring. Conditions were less favourable during December and January, particularly in the North Island with cooler temperatures, wind and a lack of sun.

Harvest began well but, from late February, conditions began to deteriorate with a lot of grey drizzly days limiting opportunities leading up to some major rainfall events in March and April that made harvesting almost impossible.

Conditions improved somewhat in the latter half of April enabling farmers to salvage the remaining harvest albeit at decreased quality and yields. Costs for late harvesters will be up, with lodging crops and difficult ground conditions increasing the time taken to harvest and increased drying to deal with the high moisture percentages.

Adverse weather conditions affected both planting and yields for arable crops this season.

### Maize

Maize growers in Waikato and Bay of Plenty have had a difficult season with yields across both silage and grain expected to be well down. Planting was delayed by cold and wet conditions in spring and the harvest delayed by wet weather in April. Some silage crops have been written off because flooding has made them inaccessible and sprouting has reduced their use. Some silage maize will be harvested as grain.

### Wheat

The bulk of the wheat harvest was completed before conditions deteriorated and yields are reported to be up overall and

**Table 18:** Arable export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Vegetable seed	80	66	62	74	65	80	90	95	100
Ryegrass seed	68	55	49	46	45	40	45	45	45
Clover/legume seed	21	20	22	20	20	15	20	20	20
Other grains and seeds	55	87	44	65	55	60	60	60	65
Total exports	225	228	177	205	185	195	210	220	235
% Change	+30.4%	+1.3%	-22.1%	+15.5%	-9.7%	+5.4%	+7.7%	+4.8%	+6.8%

Source: Statistics New Zealand and MPI.

## QUICK FACTS



World record wheat yield of 16.791 tonnes per hectare achieved in Ashburton this year.

16.791 tonnes



New Zealand produces around half of the world's carrot and radish seed.



Only 1% of our arable production is exported.

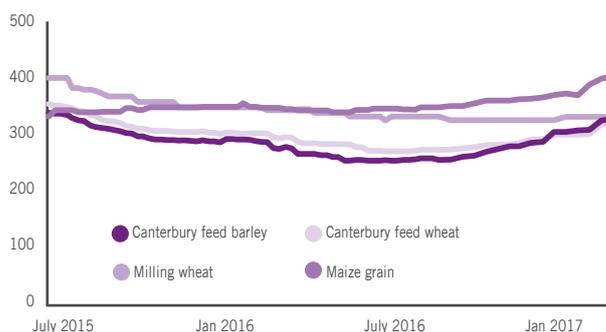
1%

70%

70% of New Zealand's arable area is in Canterbury.

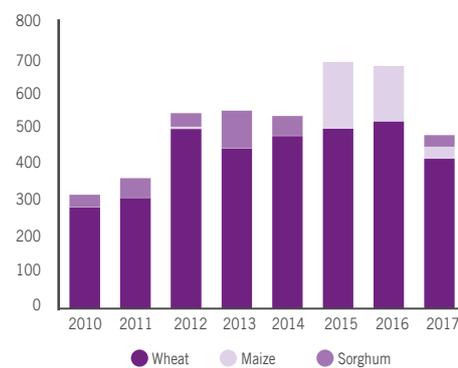


Figure 39: Domestic spot grain prices, 2015–17 (\$NZ/tonne)



Source: AgriHQ

Figure 40: Grain imports, 2010–17 (thousand tonnes)



Source: Statistics New Zealand and MPI

supported by results in the Arable Industry Marketing Initiative (AIMI) April 2017 survey. It was a good year for wheat growing with some exceptional yields. The world record for producing the highest yielding wheat crop at 16.791 tonnes per hectare was achieved by an Ashburton farmer.

### Barley

Barley yields were variable due to high disease pressure and timing of harvest but, on average, yielded higher than the previous year. Ryegrass seed yields were above average but yields for the later harvested clover seed were down, with the wet end to the season making it difficult to get them off the paddock. Vegetable seed yields are reported to be generally well ahead of previous years, although some of the late crops were affected by the weather.

### Planting for the 2017/18 season

The wet period delayed autumn planting of cereals and vegetable seeds and could contribute to lower yields in the 2017/18 season. The suspension to stubble burning when a fire ban was placed on Canterbury (to free up Fire Service resources for the Port Hills fires), also caused delays to planting. Some farmers have had to reassess their cropping options because they missed the planting window for some crops. The forecast lower yields and switch to lower value replacement crops will have financial implications for the arable farmer in 2017/18.

A New Zealand couple achieved the world record for the highest yielding wheat crop this year.

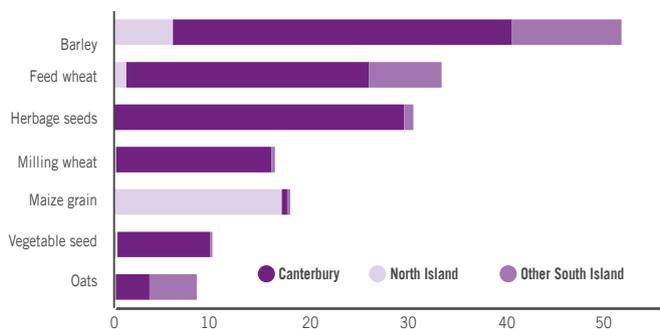
## Domestic grain market

A gradual lift has occurred in domestic feed grain prices since September 2016. At the beginning of May 2017, feed wheat was up 11 percent to \$320 per tonne from May 2016; feed barley was up 23 percent to \$328 per tonne and maize grain was up 16 percent to \$400 per tonne.

An improved outlook for the dairy industry is driving the gradual rise in feed grain prices, but prices and demand are still considerably lower than 2014/15. The AIMI April 2017 Cereal Survey shows stocks of unsold grain are much lower, compared with this time last year, and, little in the way of carry-over stocks.

A supply shortage has pushed maize grain prices up and generated interest in domestic wheat from the poultry sector.

**Figure 41: Arable planted area by region, 2016 (thousand hectares)**



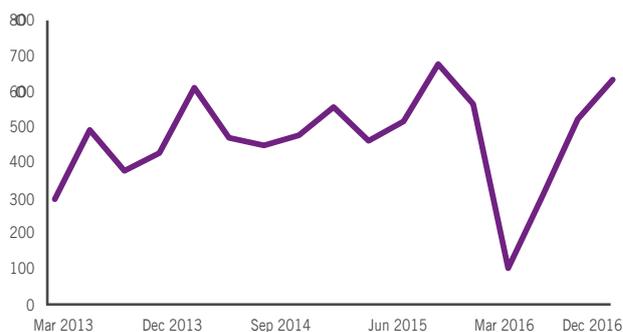
Source: Statistics New Zealand

## International grain situation and imports

Domestic grain prices are constrained by international grain prices. Global wheat stocks remain high, with record production in Australia, Russia and the US last season. The world production prospects remain good for this year and little change is expected to global prices, keeping pressure on New Zealand prices.

Global corn stocks and production are also at record highs. A shortage of domestic maize grain and the price this season will support demand for imported maize grain by the poultry

**Figure 42: Palm kernel expeller imports, 2013–17**



Source: Statistics New Zealand

New Zealand's vegetable seed quality, along with off-season production (compared with the northern hemisphere) reinforces its market position.

industry. Similarly, Australian wheat and barley may also be used to fill some feed gaps for piggeries. Import volumes for the 2017 March year end were back on previous years while domestic prices were at low levels.

Imported palm kernel expeller (PKE), a supplementary dairy feed, remains an economical feed option currently priced at about \$220 per tonne. Imported volumes for the March year end are down 30 percent (660 thousand tonnes) on the previous year, but imported volumes have been rising since the June 2016 quarter as dairy income improved. The recent implementation of a fat evaluation test by Fonterra, to support its guideline of limiting PKE to 3 kilograms per cow per day, is likely to curb demand. PKE affects the fat composition of milk making it difficult to process into some products.

## Export outlook

A stronger New Zealand dollar, relative to the euro, in the year ended June 2017 is the main contributor to the expected \$20 million fall in arable exports to \$184 million from the previous year. Export revenue is expected to grow to \$235 million by 2021.

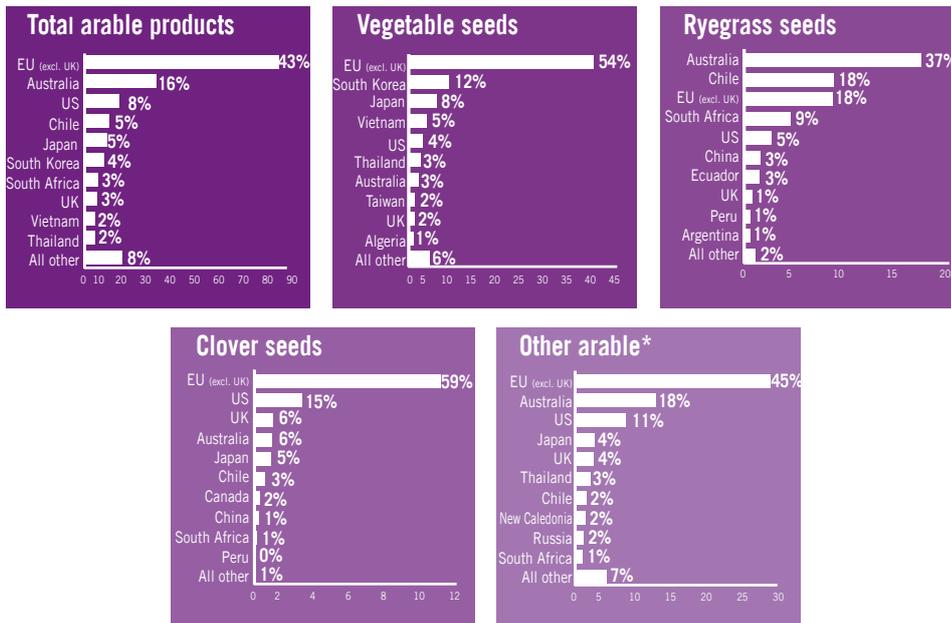
The export outlook for vegetable seeds remains steady, with no leap in export value or volumes expected in the short to medium term. The New Zealand vegetable seed is considered highly priced, compared with other suppliers, but its high quality and opposite production season to the northern hemisphere help maintain its market position. Lengthy crop rotations and isolation requirements to prevent cross-pollination between farms restrict significant growth in the area planted in Mid Canterbury. However, if proposed irrigation developments in other districts are constructed, it will provide opportunities for expansion. The outlook for vegetable seeds is for steady growth to \$100 million by 2021.

The export herbage seed market remains flat, with plenty of stocks held in overseas markets. Multiplication contracts for ryegrass and clover are reported to be well down from the previous year. A decline in pasture re-establishment, while commodity prices are low and volatile, is keeping stocks high; a similar situation is reflected in the domestic market with regrassing in the dairy sector back. The export value of ryegrass and clover seeds is expected to dip slightly over the next two years followed by a gradual improvement to levels seen in 2015 and 2016.

# Top 10 export destinations



## Top markets (\$NZ millions, year ended March 2017)



\* Other arable products include: maize, other grains, and other seeds.

## Opportunities

### High chance of developing a new market

Agreement has been reached between the New Zealand and Australia food safety authorities to allow hemp seeds to be legalised as a food. The change will provide the arable sector with access to a growing global market currently worth around \$1 billion. It is expected a large domestic market will also develop for the seed, considered a “super food” containing essential fatty acids and protein. The crop is already established in New Zealand but restricted to selling hemp oil, with the co-product hemp seed meal sold as an animal feed. The change will allow greater value creation from the whole seed, further processing it in to food products, such as hemp flour and hemp protein as well as hulled seed and oil. Three domestic Acts need to be amended before hemp seed can legally be sold as a food, which may take up to 18 months.

### Increasing productivity

A review of the Plant Varieties Rights Act 1987 is under way, with final decisions on amendments expected in 2018. Strengthening the protection of property rights will give confidence to international seed companies to bring new varieties to New Zealand. This will give growers greater access to higher yielding and disease and pest resistant seeds. Farmers will be able to continue using their own grown seed on farm but will need to pay a royalty on protected varieties, with the point of collection yet to be determined.

Regulations allowing hemp seeds to be classified as food will allow the arable industry to access a global market valued at around \$1 billion annually.

**Table 19:** Estimated national figures for the 2017 harvest for six cereal crops as at 1 April 2017

		Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
<b>2016 harvest</b>							
Estimated NZ total hectares, 2016 harvest	ha	14,737	31,063	9,535	40,465	3,772	3,228
Estimated NZ total tonnes, 2016 harvest	tonnes	123,736	293,864	71,460	273,640	20,155	16,345
<b>2017 harvest</b>							
Estimated NZ total hectares, 2017 harvest	ha	14,893	35,165	9,904	33,561	5,829	2,347
Estimated NZ total tonnes, 2017 harvest	tonnes	143,641	346,836	74,732	241,191	34,017	11,238
<b>Comparison of hectares and tonnes between last two harvests</b>							
Estimated % change in hectares, 2016 to 2017 harvest	%	1.1	13.2	3.9	-17.1	54.5	-27.3
Estimated % change in tonnes, 2016 to 2017 harvest	%	16.1	18	4.6	-11.9	68.6	-31.2
Estimated change in tonnes, 2016 to 2017 harvest	tonnes	19,905	52,972	3,272	-32,448	13,862	-5,107
<b>Comparison of yields (t/ha) between last two harvests</b>							
NZ-wide estimated yield, 2016 harvest	t/ha	8.4	9.5	7.5	6.8	5.3	5.1
NZ-wide estimated yield, 2017 harvest	t/ha	9.6	9.9	7.5	7.2	5.8	4.8

Source: Foundation for Arable Research, AIMI survey of cereal areas and volumes, 1 April 2017



# Other primary sector exports

## HIGHLIGHTS

- Export revenue for other primary sector exports and foods now forecast to reach \$2.5 billion in 2017 and to grow to \$2.8 billion over the next four years.
- Honey export volumes are down this year, partially due to poor weather conditions, but prices are forecast to reach record levels for the eighth consecutive year.
- Innovative processed foods exports have fallen in 2017 following exceptional growth the two previous years.

The other primary sector exports category is diverse and includes processed foods, live animals and honey.

Processed foods include:

- innovative processed foods, such as prepared meals and sweet and savoury fillings;
- cereal products, such as biscuits and breakfast cereals;
- sugar and confectionery products, such as snack bars and chocolate bars;
- soups and condiments, such as soy sauce and tomato sauce;
- other products, such as beverages, beer, vegetable oil, and dye.

Beverages, including products such as beer, spirits and soft drinks, have been added to the other products category.

Wine, fruit juice and vegetable juice will continue to be reported in the horticulture chapter. The addition of these products has almost doubled the value of this category, from \$370 million to \$606 million for the year ended June 2016.

## Honey

Honey export revenue is forecast to fall 9 percent in the year ending June 2017. Export volumes are down 16 percent this year, but average export prices have increased 8 percent to reach \$38.50 per kilogram. This is the eighth consecutive year of record prices, driven in part by the market success of New Zealand mānuka honey.

New Zealand's export volumes for the first nine months of the year ending June 2017 are 14.5 percent lower than the same period in the year ending June 2016. A portion of this

**Table 20:** Other primary sector export revenue, 2013–21 (\$NZ million)

Year to 30 June	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Innovative processed foods	341	332	471	681	620	650	670	680	700
Sugar & confectionery products	263	290	293	312	300	290	290	290	300
Honey	145	187	233	315	290	290	310	350	370
Cereal products	264	253	253	271	290	290	300	300	310
Live animals	238	208	370	242	260	270	270	270	280
Soups & condiments	196	192	183	187	180	190	200	200	200
Other products	493	448	512	606	510	550	570	580	600
<b>Total exports</b>	<b>1,940</b>	<b>1,910</b>	<b>2,316</b>	<b>2,614</b>	<b>2,450</b>	<b>2,530</b>	<b>2,600</b>	<b>2,680</b>	<b>2,760</b>
% Change	+9.2%	-1.6%	+21.2%	+12.9%	-6.3%	+3.3%	+2.8%	+3.1%	+3.0%

Source: Statistics New Zealand and MPI.

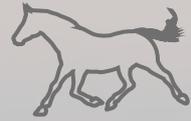
## QUICK FACTS



Australia's complementary food safety standards mean that most of our processed food trade occurs with them.

\$150 million

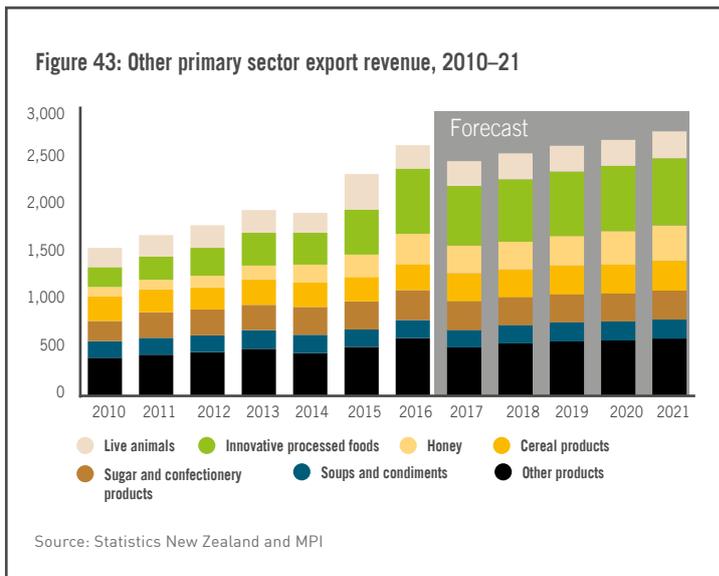
Around \$150 million of live horses leave New Zealand each year.



New Zealand is the world's second largest honey exporter



Most processed food manufacturing firms are concentrated in the Auckland region



these three destinations is 41 percent lower than for the same period in 2016.

In contrast, export volumes to Japan and the UK for the first nine months of 2017 are around 40 percent greater than exports for the first nine months of 2016. The volume of honey exported to Japan has been growing strongly since 2015.

MPI is consulting on a scientific definition to authenticate New Zealand mānuka honey and on proposed new requirements for the export of bee products. Submissions closed in mid-June and, once feedback has been fully assessed, the definition and export requirements will be finalised. MPI expects the new export requirements to come into effect in late August 2017.

Myrtle rust was discovered in several New Zealand regions in May 2017, and mānuka is one of the plants that this fungus could potentially affect. At

this early stage, it is not possible to determine how future honey harvests and exports may be affected.

decline can be attributed to an expected fall in the honey harvest in 2017. It is difficult to predict the size of the honey crop for 2017 because climatic conditions have varied considerably around New Zealand. Some regions have experienced quite unfavourable conditions while other regions have not.

However, lower production in 2017 may not have a direct impact on exports in 2017 and 2018. Stock held over from previous years can be used to maintain export volumes. Due to the long shelf life of honey, and variability in harvest volumes between seasons, it is usual practice to hold over stock from good years to maintain supplies in difficult years.

Australia, China and Hong Kong usually make up around 50 percent of New Zealand's honey exports. However, in the first nine months of 2017, the volume of honey exported to

This is the eighth consecutive year of record prices, driven in part by the market success of New Zealand mānuka honey.

## Live animals

The outlook for live animal exports has lifted slightly due to a recent increase in exports. Horse exports remain stable at around \$150 million annually, while other live animal exports are more variable. The recent lift in live cattle exports to around 35,000 per year seems to be sustainable.

Live poultry exports remain plucky after increasing from under \$5 million in 2011 to over \$27 million in 2016, with a positive future ahead. One of the two main international chicken breeding companies recently announced that it plans to build a large poultry breeding facility near Huntly to supply the Asia-Pacific region. Construction is expected to begin towards the end of 2017, with operations commencing from the middle of 2018.

## Cereal products

Cereal product exports are forecast to rise 6 percent in the year ending June 2017 to \$287 million. Australia continues to be our main destination for almost 80 percent of cereal product exports. The main types of cereal products exported to Australia in 2016 were biscuits (\$42 million) and breakfast cereals (\$34 million). Australia is also the source of \$240 million in cereal imports.

## Innovative processed foods

Innovative processed food exports are expected to reach \$625 million in the year ending June 2017. This is a decline of 8 percent from 2016 after increasing 45 percent the previous year. The 2016 year was exceptional with rapid expansion in exports to China and Hong Kong, and the majority of these gains have been sustained so far in 2017.

## Sugar and confectionery and soups and condiments

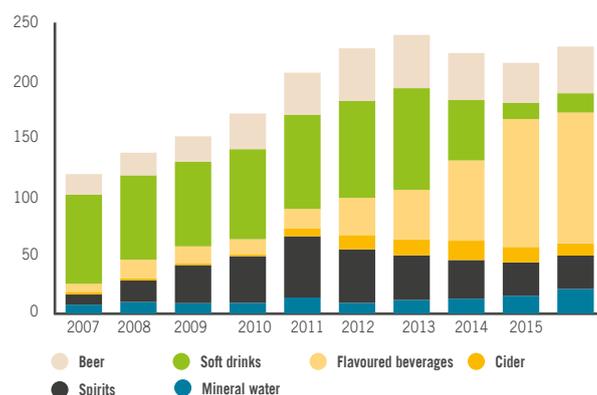
Exports of these products in 2017 have remained stable in at around \$500 million. The trend in recent years of low growth is expected to continue over the forecast period.

## Other products

This sector now includes beverages (soft drinks, flavoured beverages, mineral water, beer, cider and spirits). Wine, fruit juice and vegetable juice are already included in the horticulture sector. The addition of these products has almost doubled the value of this category from \$370 million to \$606 million for the year to June 2016.

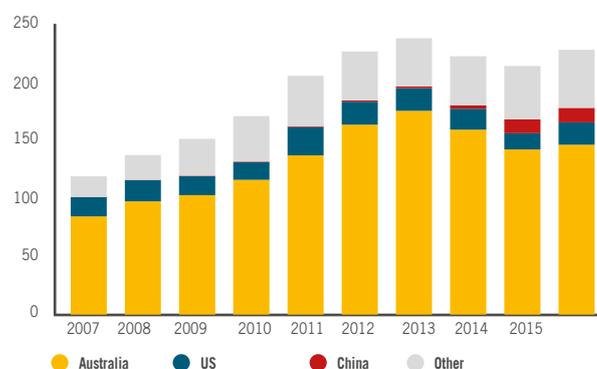
The key exports in this sector are various consumer products (expected to reach \$227 million in the year ending June 2017) and beverages (\$158 million), of which beer makes up \$37 million.

**Figure 44: Beverage export revenue (excl. wine and juice) by product, 2007–16 (\$NZ millions)**



Source: Statistics New Zealand and MPI

**Figure 45: Beverage export revenue (excl. wine and juice) by destination, 2007–16 (\$NZ millions)**



Source: Statistics New Zealand and MPI

After strong growth in recent years, exports of various consumer products have slowed in 2017. The main markets for these products continue to be Japan, the US and Australia.

## New Zealand's beverage exports

New Zealand has a large and robust beverages industry with a wide range of participants for both alcoholic and non-alcoholic products. While New Zealand's beverage industry (excluding wine, vegetable juice and fruit juice) is primarily focused on domestic consumption, exports are also important.

The main exports in this category in 2016 were flavoured beverages (\$112 million), Beer (\$40 million) and spirits (\$29 million).

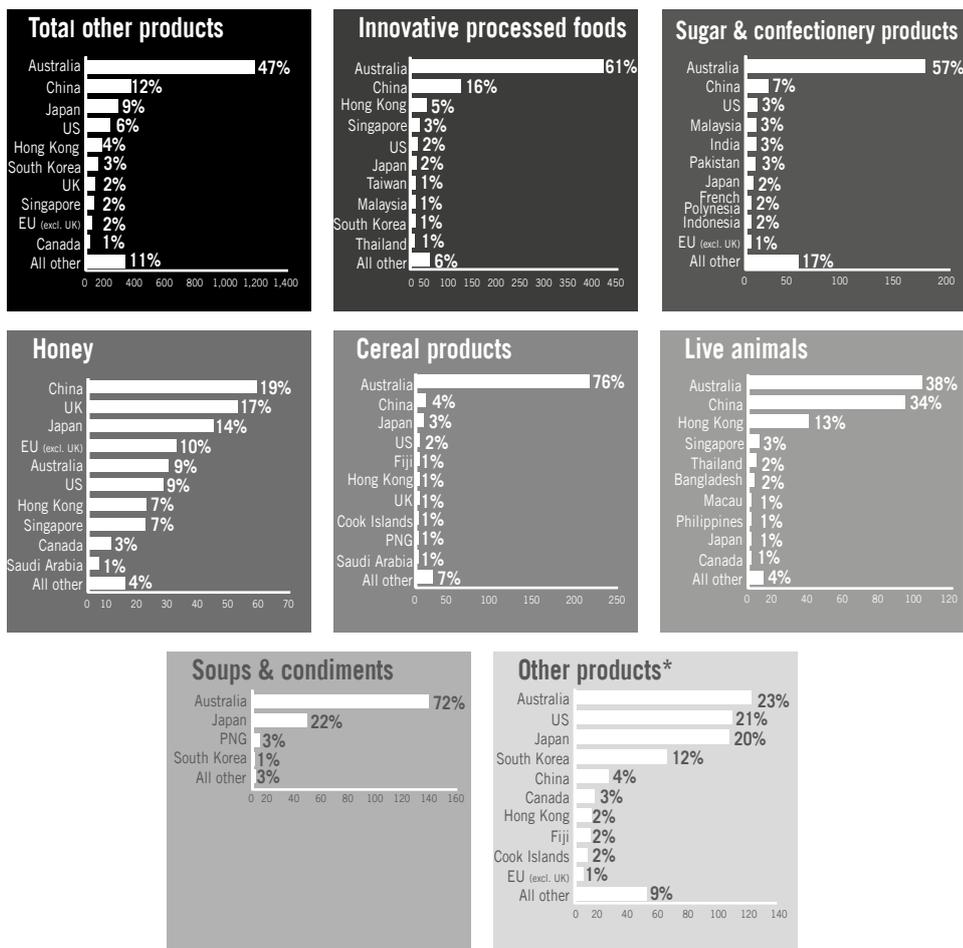
New Zealand's main markets for beverages in 2016 were Australia \$121 million (64 percent), the US \$15 million (8 percent) and China \$11 million (6 percent).

Non-beer beverage exports have been steady at around \$190 million from 2012 to 2016. However, they have dropped in the past year and are only on track to reach only \$121 million in the year ending June 2017 following a sharp decline in exports to Australia.

# Top 10 export destinations



## Top markets (\$NZ millions, year ended March 2017)



\* Other products include: beer, soft drinks, vegetable oil and dye.

# Primary industries in the New Zealand economy



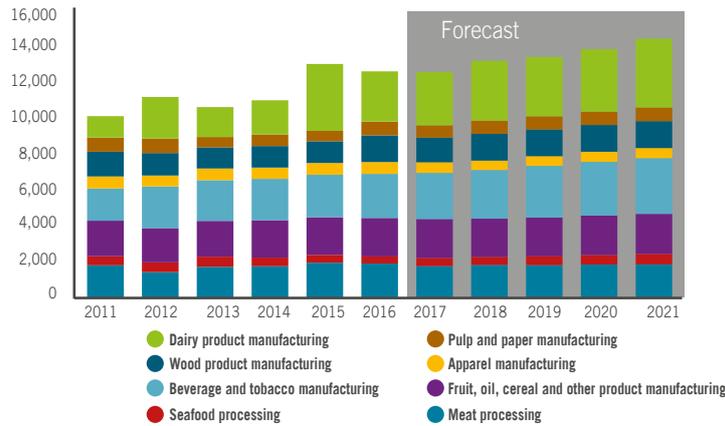
Over **78%** of New Zealand's merchandise exports are from the primary sectors. This figure has increased over the past five years, from **72%** in 2012, indicating that the primary industries will continue to be the dominant exporting sector for the foreseeable future.



**16%** of New Zealand workers are employed in production, manufacturing, and support services in the primary sector. While the largest number of these jobs are located in Auckland, Canterbury and Waikato, the regions with the highest percentage of the workforce in the primary sector are Tasman, Marlborough, Gisborne and Hawke's Bay.

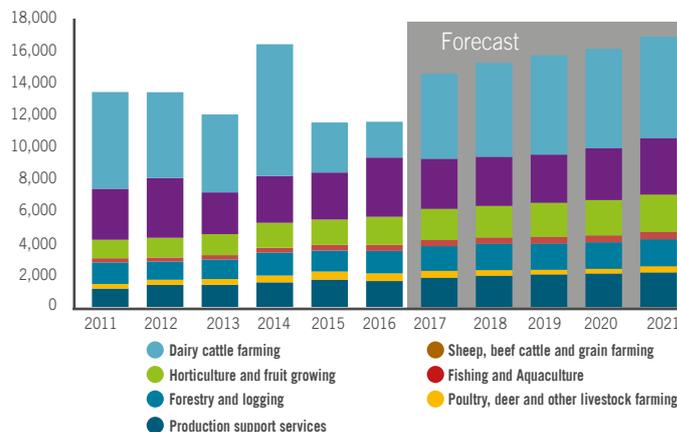
The primary industries contributed an estimated **\$24 billion** to the New Zealand economy in 2016, which is around 10.6% of New Zealand GDP. This includes an estimated **\$11.5 billion** from primary production shown in figure 47 and **\$12.6 billion** from processing activities shown in figure 46.

**Figure 46: Primary industries contribution to GDP – manufacturing and processing, year ended March 2011–21 (\$NZ millions)**



Source: Statistics New Zealand and MPI

**Figure 47: Primary industries contribution to GDP – primary production, year ended March 2011–21 (\$NZ millions)**



Source: Statistics New Zealand and MPI

## Gross agricultural revenue and expenditure

**Table 21:** Other primary sector export revenue, 2013–21 (\$NZ million)

	Estimate				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Dairy	10,385	14,823	9,381	7,642	10,960	11,900	12,650	12,960	13,380
Cattle	2,316	2,166	2,614	3,074	2,720	2,690	2,690	2,770	2,830
Sheep meat	2,263	2,340	2,367	2,229	2,070	2,160	2,150	2,200	2,240
Wool	587	573	644	641	460	460	490	480	480
Deer	200	196	223	217	190	190	190	190	200
Poultry/eggs	172	185	186	180	170	170	180	180	180
Pigs	167	185	198	207	210	220	220	220	220
Other farming	216	216	211	227	210	210	210	210	220
Sales of live animals	866	760	953	810	730	750	750	760	780
Value of livestock change	-150	70	-239	-151	170	80	40	30	30
Fruit	2,000	2,314	2,679	2,921	3,310	3,300	3,590	3,740	3,960
Vegetables	987	1,026	1,011	1,070	1,080	1,160	1,170	1,190	1,210
Other horticulture	325	361	423	483	490	530	530	540	550
Crops and seeds	751	747	707	679	710	690	730	780	810
Agricultural services	220	216	193	219	250	270	280	280	290
Non-farm income	447	427	478	457	530	550	580	590	610
<b>Total gross revenue</b>	<b>21,752</b>	<b>26,605</b>	<b>22,029</b>	<b>20,905</b>	<b>24,250</b>	<b>25,340</b>	<b>26,430</b>	<b>27,130</b>	<b>28,000</b>
Intermediate consumption	12,622	13,496	13,886	13,295	13,690	14,080	14,510	14,890	15,280
<b>Contribution to GDP</b>	<b>9,130</b>	<b>13,109</b>	<b>8,143</b>	<b>7,610</b>	<b>10,960</b>	<b>11,650</b>	<b>12,360</b>	<b>12,620</b>	<b>13,100</b>
Wages	2,261	2,204	2,310	2,392	2,350	2,390	2,450	2,510	2,560
Depreciation	1,471	1,504	1,545	1,605	1,580	1,610	1,640	1,670	1,700
Net indirect taxes*	728	762	799	842	870	800	850	870	900
<b>Operating surplus</b>	<b>4,670</b>	<b>8,639</b>	<b>3,489</b>	<b>2,771</b>	<b>6,170</b>	<b>6,840</b>	<b>7,410</b>	<b>7,570</b>	<b>7,930</b>
Interest paid	2,586	2,485	2,713	2,612	2,750	2,600	2,690	2,850	2,990
Interest received	200	188	388	248	320	220	240	330	390
<b>Agriculture sector income</b>	<b>2,284</b>	<b>6,342</b>	<b>1,164</b>	<b>407</b>	<b>3,740</b>	<b>4,460</b>	<b>4,960</b>	<b>5,050</b>	<b>5,340</b>

Sources: Statistics New Zealand and MPI

\* Net indirect taxes are indirect taxes less subsidies.

## Forecast tracking

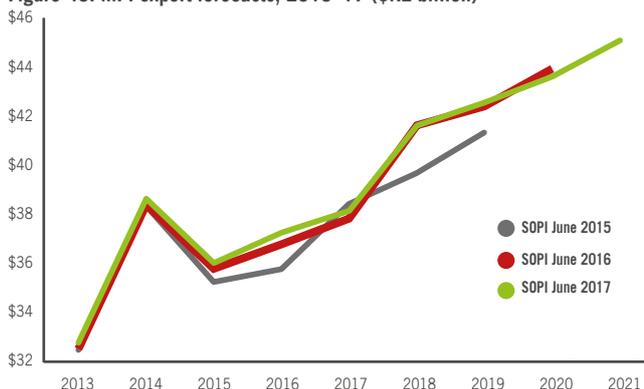
Since our last major publication in June 2016, our outlook for 2017 exports has increased by \$318 million, or less than one percent. Much of this difference is due to adding beverages to the other primary sector category.

For the year ending June 2017, dairy export revenue is on track to outperform last year's forecast because global prices have recovered faster than previously expected. Gains in dairy have been more than offset, with a somewhat softer outlook in forestry, horticulture and other sectors. A below average production season for many horticultural products also had some effect.

Similar to last June's forecast, a sizeable jump is expected between 2017 and 2018; dairy prices in particular have been forecast to complete its recovery fully in 2018 from the cyclical lows of 2015 and 2016.

Over the longer time horizon the percentage gains between 2018 and 2021 have been smoothed out, but in aggregate changed little from previous forecasts.

Figure 48: MPI export forecasts, 2015–17 (\$NZ billion)



\* Overall exports as reported have shifted \$260 million higher due to the introduction of beverages to other primary exports, plus other minor changes in classification.

Table 22: Export forecast comparison, 2013–21 (\$NZ million)

	Actual				Forecast				
	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Year to 30 June</b>									
<b>Dairy</b>									
June 2017	13,139	17,791	14,050	13,289	14,640	17,320	17,360	17,700	18,270
June 2016	13,139	17,791	14,050	13,230	13,814	16,626	17,055	17,735	-
Difference	-	-	-	+59	+826	+694	+305	-35	-
<b>Meat &amp; wool</b>									
June 2017	7,793	8,162	9,000	9,200	8,300	8,450	8,670	8,880	9,050
June 2016	7,794	8,162	9,001	9,055	8,345	8,510	8,534	8,804	-
Difference	-	-	-	145	-45	-60	+136	+76	-
<b>Forestry</b>									
June 2017	4,527	5,199	4,682	5,140	5,470	5,870	5,980	6,090	6,270
June 2016	4,527	5,199	4,682	5,069	5,645	6,012	6,116	6,325	-
Difference	-	-	-	71	-175	-142	-136	-235	-
<b>Horticulture</b>									
June 2017	3,547	3,795	4,173	44,987	5,280	5,400	5,800	6,010	6,360
June 2016	3,540	3,780	4,165	5,015	5,335	5,448	5,545	5,726	-
Difference	+7	+14	+8	-28	-55	-48	+255	+284	-
<b>Seafood</b>									
June 2017	1,546	1,500	1,562	1,768	1,770	1,800	1,890	1,990	2,090
June 2016	1,546	1,500	1,562	1,789	1,821	1,965	2,033	2,117	-
Difference	-	-	-	-21	-51	-165	-143	-127	-
<b>Arable</b>									
June 2017	225	228	177	205	185	195	210	220	235
June 2016	225	228	177	202	208	218	229	243	-
Difference	-	-	-	+3	-23	-23	-19	-23	-
<b>Other</b>									
June 2017	1,940	1,910	2,316	2,614	2,450	2,530	2,600	2,680	2,760
June 2016	1,691	1,677	2,089	2,374	2,609	2,796	2,847	2,936	-
Difference	+249	+233	+226	+240	-159	-266	-247	-256	-
<b>Total exports</b>									
June 2017	32,710	38,571	35,953	37,199	38,095	41,565	42,510	43,570	45,035
June 2016	32,461	38,338	35,727	36,734	37,777	41,575	42,359	43,886	-
Difference	+249	+233	+226	+465	+318	-10	+151	-316	-



More primary industry data can be found on the MPI website:

[www.mpi.govt.nz/news-and-resources/open-data-and-forecasting/](http://www.mpi.govt.nz/news-and-resources/open-data-and-forecasting/)

### **SOPi supplemental data**

- Historical and forecast export volumes, values and prices

### **Agriculture**

- Agriculture production statistics
- Livestock slaughter statistics

### **Forestry**

- Wood Availability Forecast
- National Exotic Forestry Description
- Quarterly production and log prices

### **Agricultural Greenhouse Gas Inventory**

#### **Farm monitoring links**

- DairyNZ Economic Survey 2014–15 (DairyNZ)  
<https://www.dairynz.co.nz/publications/dairy-industry/dairynz-economic-survey-2014-15/>
- Sheep & beef farm survey reports (Beef + Lamb New Zealand)  
<http://www.beeflambnz.com/information/on-farm-data-and-industry-production/sheep-beef-farm-survey/>
- 2016 Viticulture Model Vineyard Benchmarking Report Marlborough  
<http://www.mpi.govt.nz/document-vault/13356>
- 2016 Viticulture Gross Margin Benchmarking Report  
<http://www.mpi.govt.nz/document-vault/13353>
- 2016 Kiwifruit Benchmarking Report (To be published in late 2017)
- 2016 Pipfruit Monitoring Report  
<http://www.mpi.govt.nz/document-vault/15292>
- 2016 Apiculture Monitoring Report  
<http://www.mpi.govt.nz/document-vault/16621>



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