Ministry for Primary Industries
Manatū Ahu Matua

# Situation and Outlook for Primary Industries

## June 2018

New Zealand Government

# Contents



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.

MPI welcomes feedback on this publication via **SOPI@mpi.govt.nz**


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Ministry for Primary Industries
Economic Intelligence Unit
Pastoral House, 25 The Terrace
PO Box 2526, Wellington 6140,
New Zealand
Tel: 0800 00 83 33

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# Minister's foreword

IIt gives me great pleasure to release the latest Situation and Outlook for Primary Industries (SOPI) for June 2018. This report highlights the value-based growth of the primary industries, especially across dairy and horticulture. The primary industries are key to New Zealand's economic success, and it is vital New Zealand agribusinesses continue moving into higher value products.

The Government has a strong vision for sustainable value-based growth for our primary industries. Productivity growth is necessary to increase the value of what we produce so that businesses, rural communities and all New Zealanders benefit. At the same time, we must upgrade our systems and practices, including NAIT, to face biosecurity challenges and improve resilience across the sector.

We are committed to providing leadership on the most pressing issues and as such have reorganised the Ministry for Primary Industries to create a stronger focus on its core responsibilities of biosecurity, forestry, fisheries and food safety. This will ensure clearer lines of accountability and engagement for stakeholders.

I don't pretend to have all the answers to our current challenges, which is why I've appointed a Primary Sector Council to establish a strategic vision that will help us deliver economic, environmental and social benefits for New Zealand.

My colleagues and I have affirmed this commitment in the 2018 Budget, investing just over $200 million in new initiatives across the primary industries to achieve shared goals for sustainability, innovation and profitability. This includes $10.5 million over the next four years to support further improvements to our fisheries management system, a $15 million boost to the sustainable farming fund to support more research and extension projects, and $9.3 million in new operating funding to improve our offshore biosecurity systems.

The strong industry outlook highlighted by this SOPI publication gives me great confidence in New Zealand's ability to maximise the opportunities ahead and deal with the challenges we face in a sustainable and innovative way.

Hon Damien O'Connor
Minister of Agriculture

# Director-General's introduction

The June 2018 SOPI is a quarterly publication from our Economic Intelligence Unit. It draws on expertise across MPI and the industry sectors, to assess the current state of New Zealand's primary industries and their prospects for growing the value of our exports. This June edition represents our most comprehensive and expansive analysis, presenting MPI's assessment of the opportunities and challenges faced by each sector over the coming years.

This SOPI tells a strong value growth story for the June 2018 year across all primary industries, with an overall 11.8 percent growth in exports built on strong global prices for our largest sectors: dairy, meat and forestry. The outlook over the next four years remains positive, with opportunities to expand and diversify our export links. This will be supported by the recent signing of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.

MPI supports this value growth through ongoing investment to improve outcomes across the system. This includes new ways to make it easier for businesses to navigate the regulatory system, to identify value from markets, and to strengthen MPI's intelligence and monitoring capabilities.

Despite the underlying positivity surrounding the future of our primary industries, significant challenges remain. Changing market dynamics and the advent of disruptive technologies mean that our future success will depend on innovation throughout the value chain from farm to consumer. In addition, the size of New Zealand's biosecurity challenge is increasing, as recent incursions such as *Mycoplasma bovis*, myrtle rust, and the oyster parasite *Bonamia ostreae* serve to remind us. How New Zealand primary producers respond to these challenges will shape the future resilience, success, and composition of the sector over the long term.

I take considerable pride in the work that our dedicated staff do in striving to realise our ambition for New Zealand, as the most trusted source of high value natural products in the world.

Martyn Dunne
Director-General,
Ministry for Primary Industries

# Overview

## Situation and Outlook for Primary Industries

Primary industry exports are forecast to have grown 11.8 percent in the year ending June 2018 to $42.6 billion. This export performance is also reflected in rising on-farm profitability. All primary industry sectors are contributing to the $4.5 billion increase from the prior year, led by double-digit percentage growth in the three largest export sectors:

- Dairy sector export revenue is on pace to increase by 13.6 percent in the year ending June 2018 to $16.6 billion, with higher butter and whole milk powder (WMP) prices offsetting slightly lower production volume.
- The meat and wool sector is also on track to strongly rebound from lower export revenue in 2017, led by higher lamb and mutton prices. Total meat and wool export revenue is forecast to have expanded by 12.4 percent to $9.4 billion in the year ended June 2018.
- Forestry export revenue is forecast to expand by 15.8 percent this year, due to record harvest volumes and log prices, driven primarily by strong Chinese demand for logs.

Even though New Zealand's primary sectors are performing well overall, the *Mycoplasma bovis* incursion and response has been a significant challenge for affected communities and individuals. In addition, a wet spring and dry summer disrupted production in some regions and products.

Our strong export performance and farm profitability results despite the variety of challenges faced throughout the year is a testament to the resilience of our farmers. This resilience provides us with confidence that farmers will be able to adapt to future disruptions such as climate change, adverse events, or potential trade issues.

This resilience is also reflected in our medium-term outlook for annual export growth to range between 1.2 percent to 2.6 percent between 2019 and 2022, with primary sector exports forecast to exceed $46 billion by the end of the outlook period. Production and export volumes are forecast to be relatively stable, particularly in dairy and meat and wool, where constraints on production expansion exist. Dairy cattle numbers have fallen by over 200 thousand since 2014, and sheep and beef land is expected to continue declining, albeit at a more gradual rate than seen over the past two decades.

**Table 1:** Primary industries export revenue, 2014–22 ($NZ million)

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Dairy | 17,791 | 14,050 | 13,289 | 14,638 | 16,630 | 17,170 | 17,200 | 17,760 | 18,330 |
| Meat & wool | 8,163 | 9,001 | 9,201 | 8,356 | 9,390 | 9,180 | 9,350 | 9,580 | 9,770 |
| Forestry | 5,199 | 4,683 | 5,140 | 5,482 | 6,350 | 6,370 | 6,380 | 6,400 | 6,410 |
| Horticulture | 3,807 | 4,187 | 5,002 | 5,152 | 5,480 | 5,740 | 5,870 | 6,020 | 6,290 |
| Seafood | 1,500 | 1,562 | 1,768 | 1,744 | 1,840 | 1,930 | 2,000 | 2,080 | 2,140 |
| Arable | 232 | 181 | 210 | 197 | 220 | 210 | 230 | 235 | 240 |
| Other primary sector exports | 1,908 | 2,314 | 2,612 | 2,532 | 2,700 | 2,730 | 2,810 | 2,880 | 2,960 |
| Total exports | 38,600 | 35,978 | 37,223 | 38,101 | 42,610 | 43,330 | 43,840 | 44,955 | 46,140 |
| % Change | +18.0% | -6.8% | +3.5% | +2.4% | +11.8% | +1.7% | +1.2% | +2.5% | +2.6% |

Source: StatsNZ and MPI.

* Other Primary Sector Exports and Foods includes live animals, honey, and processed foods

Further gains in export revenue will be made with investments that shift New Zealand's product mix to higher-value products, including infant formula, ultra-high temperature (UHT) milk, aquaculture, processed foods, honey, and animal co-products. Most notably, high on-farm returns across the horticulture sector and the development of new varieties will drive further expansion, and increase the value of suitable land and labour. This includes not only kiwifruit, viticulture, and apples, but also cherries, avocados, and other fruit. The Government's One Billion Trees Programme and potential future policies to combat climate change are also likely to influence primary sector land use, primarily through increased replanting rates and new production forest area.

## Varied weather impacts on production this past year

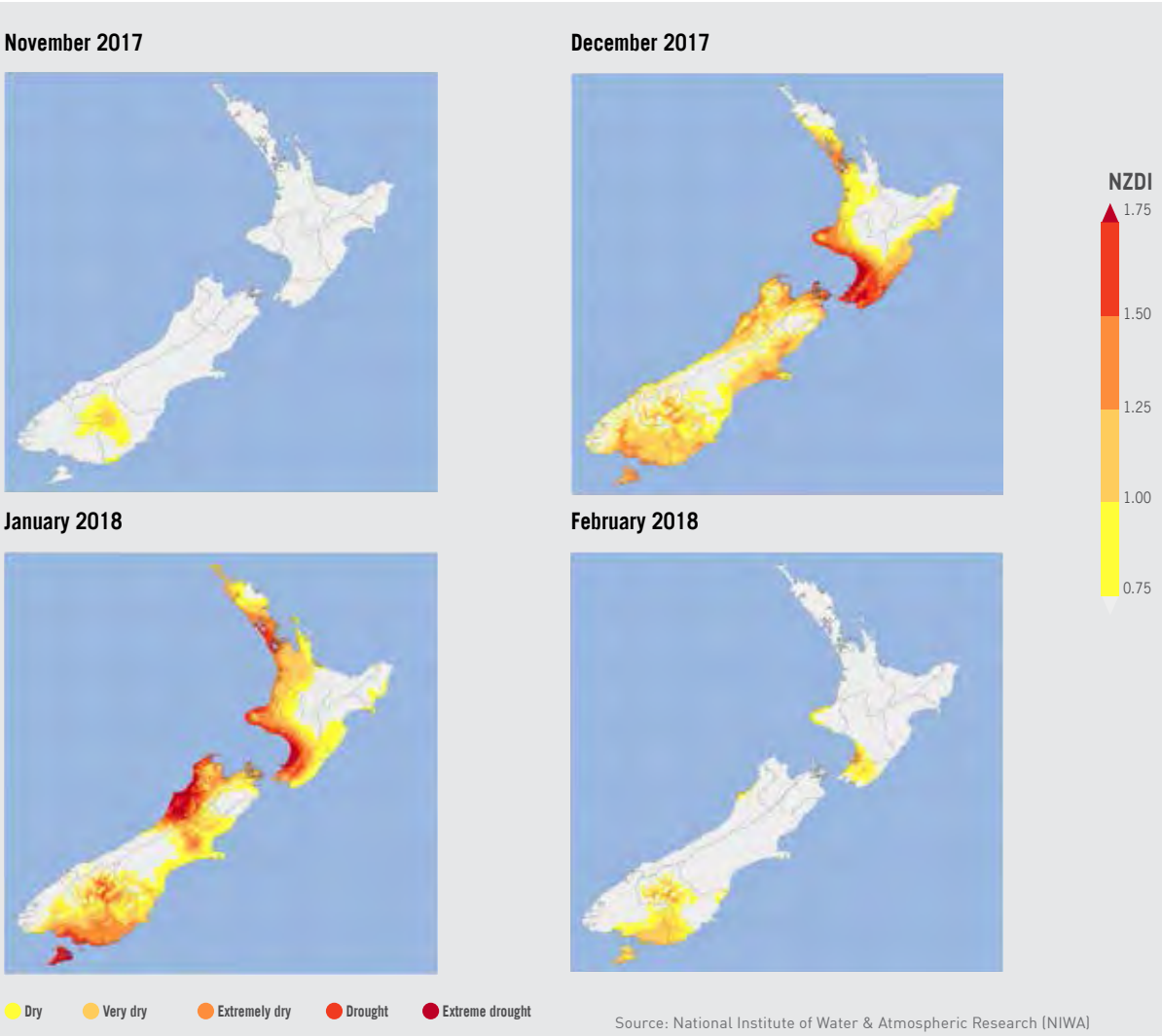
The weather over the past year has been eventful, and had a range of impacts on primary industry production. A wet spring was followed by rapidly emerging hot dry conditions in December 2017 and January 2018, as illustrated in the drought index maps below. The dry conditions were felt across New Zealand, but most notably in Taranaki, Manawatu, West Coast, Central Otago, and Southland. Drought conditions dissipated by the end of February, a month unfortunately made memorable by a pair of cyclones.

Dairy production for the 2017/18 season is estimated to have fallen by 1.0 percent from the previous year. The dry conditions in December and January were concentrated in several big dairy-producing regions, but the mild autumn helped dairy production recover towards the end of the season.

The meat and wool sector was not significantly impacted by the dry summer. Seasonal slaughter trends might have been more frontloaded than the usual seasonal trends, but rising meat prices probably had a greater effect on the sector than the weather.

The hot summer was largely positive for the horticulture sector's productivity, especially kiwifruit and apples. The 2018 wine vintage was affected by rain just before harvest, impacting production. Vegetable and arable production are the two sectors probably most affected across New Zealand. Wet fields for spring-planted crops and the hot summer lowered grain yields in Canterbury and market garden production in the North Island.

**New Zealand Drought Index Maps November 2017 to February 2018**




Source: National Institute of Water & Atmospheric Research (NIWA)

## Dairy +13.6%

The recovery in dairy exports has continued in 2018, with forecast exports expected to reach $16.6 billion, an increase of $2.0 billion on the previous year. Strength in butter and whole milk powder prices have driven export growth, despite an expected 1.0 percent fall in dairy production for the 2017/18 season. Growth in infant formula continues, with exports expected to reach $1.2 billion, up 53 percent on the previous year.

## Meat and Wool +12.4%

Exceptional export prices for red meat have supported solid growth in meat and wool exports for the 2018 year, up 12 percent to $9.4 billion. In particular, sheep meat export revenue is expected to rise 24 percent to over $3.5 billion as exports shift toward China and the US and prices are supported by limited supplies out of Australia and New Zealand.

## Forestry +15.8%

Record export volumes and strong log prices are expected to increase forestry exports to a record $6.4 billion for the year ending June 2018. Exports to our largest trading partner, China, continue to grow, and now account for 75 percent of log export revenue and 47 percent of overall forestry exports. In response to these high prices, harvest volumes have reached a new high at 33.6 million cubic metres in the year ended March 2018.

## Horticulture +6.4%

Horticulture exports are forecast to reach a record $5.5 billion for the year ending June 2018. Good yields for the current season and growth in demand for gold kiwifruit has underpinned a 12 percent increase in kiwifruit exports, our largest horticultural export category. Wine export growth is forecast to reach 3.6 percent. Apple and pear export revenue is also expected to see strong growth, up 10 percent, on the back of increased plantings and a favourable 2017/18 growing season.

## Seafood +5.5%

Strong volume and price growth is expected to push seafood exports to $1.8 billion for the year ended June 2018. Longer term, the outlook is expected to remain positive as demand growth in our key export markets (particularly China and Europe) and constraints on international supply underpins increasing export prices.

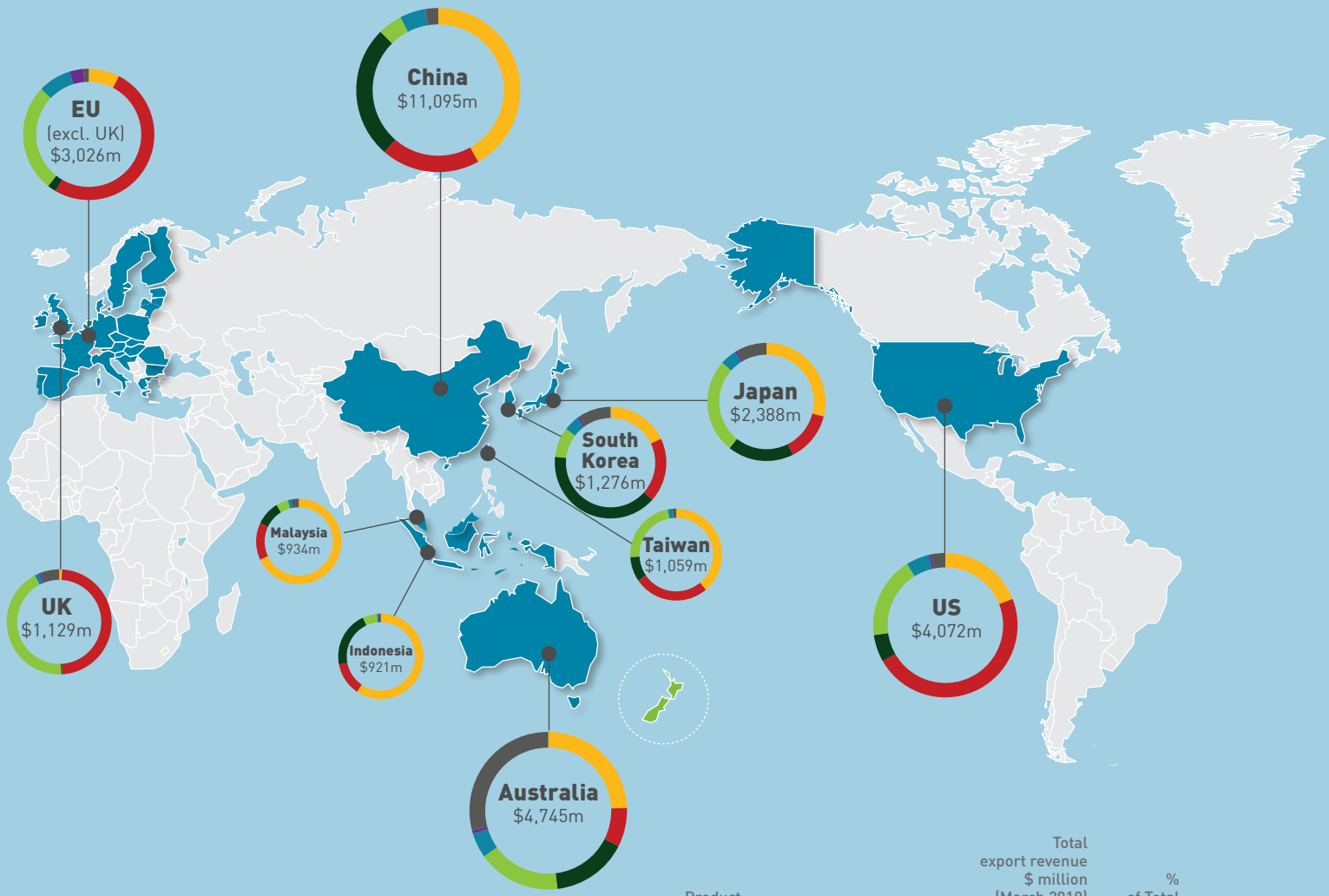
## Arable +11.6%

A difficult growing season with wet planting conditions and high summer temperatures for arable farmers has resulted in lower yields for the 2018 growing season. This will lower seed export revenue through to the year ending June 2019, after which moderate long term growth will resume.

## Other primary sector exports +6.6%

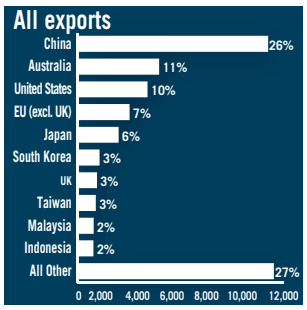
Growth in other primary industry exports are primarily driven by exports of innovative processed foods and honey. The June 2018 year is expected to see export revenue reach $2.7 billion, up 6.6 percent on the previous period.
Honey exports are forecast to reach $352 million (up 7.3 percent) driven by strong demand from the US. Within the innovative foods category, large growth in key export markets of Hong Kong, Australia and Singapore has contributed to a 26 percent increase in export revenue to $840 million for the year ending June 2018.

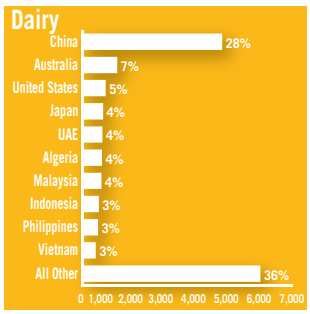
# Top 10 export destinations

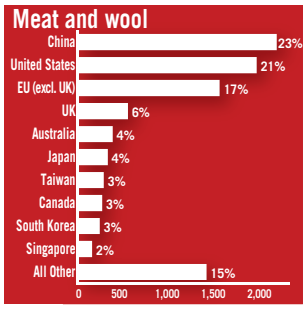


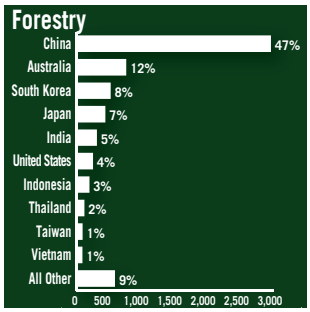

| Product | Total export revenue $ million (March 2018) | % of Total |
|---|---|---|
| Dairy | 16,665 | 40% |
| Meat and Wool | 9,219 | 22% |
| Forestry | 6,221 | 15% |
| Horticulture | 5,203 | 12% |
| Seafood | 1,793 | 4% |
| Arable | 236 | 1% |
| Other primary sector | 2,734 | 6% |
| **Total primary industries** | **42,071** | **100%** |

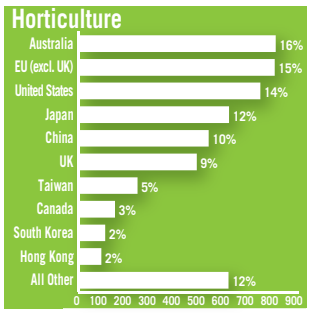
## Top markets ($NZ millions, year ended March 2018)

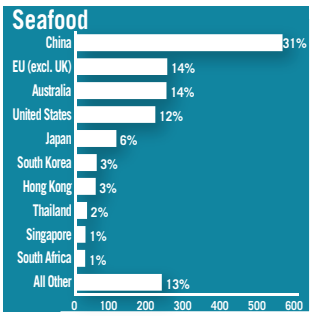


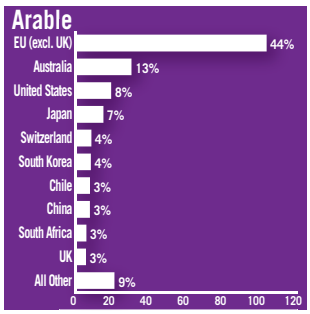



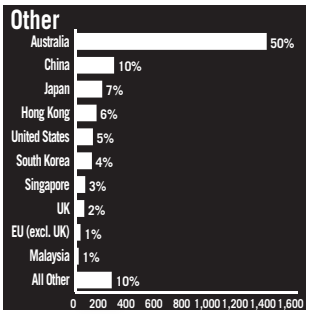



## Global conditions favourable for New Zealand exports

New Zealand's primary sector continues to benefit from a supportive international environment overall, although there are some causes for concern on the horizon. Global economic growth has been strong over the past two years, which has helped keep demand for New Zealand's high value products high. The International Monetary Fund's World Economic Outlook forecasts global Gross Domestic Product (GDP) to rise by 3.9 percent in 2018 and 2019, an increase from previous forecasts. At the same time, the New Zealand dollar has fallen relative to our major trading partner currencies over the past year, making New Zealand's primary sector exports more competitive against other exporters.

However, there are two main sources of uncertainty in the global trading environment. The United Kingdom has decided to leave the European Union in 2019, but many questions remain as to how this event will impact the UK's agriculture sector and trading environment. The other risk of note is rising protectionist sentiment in some countries. As a trade-dependent economy, geographically distant from our export markets, rising trade barriers could affect New Zealand's trade opportunities.

## New Zealand's free trade agreements: past performance and future potential

Despite these uncertainties, two significant free trade agreements (FTAs) for New Zealand have made progress in the past few months. The Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP) was signed by New Zealand and ten trading partners in March (see next section), representing a major achievement for free trade. In addition, negotiations are about to commence on an EU-New Zealand FTA, which is aimed to deepen our trading relationship with our fourth-largest primary industry export destination.

As we approach the ten year anniversary of the New Zealand-China free trade agreement, which has been transformational for many aspects of our primary industry sector, the ratification of the CPTPP represents the next important step in the pursuit of New Zealand's export-led growth strategy.

## New Zealand-China FTA – ten years on

In a world first for any developed country, New Zealand entered into a free trade agreement with China in 2008. It was New Zealand's largest bi-lateral trade deal since the Closer Economic Relations trade agreement with Australia in 1983. The free trade agreement phased out tariffs on 96 percent of New Zealand's exports to China, including key primary sector exports such as dairy, meat, wool, kiwifruit, seafood, and forestry products, albeit with safeguards in place for key dairy products.

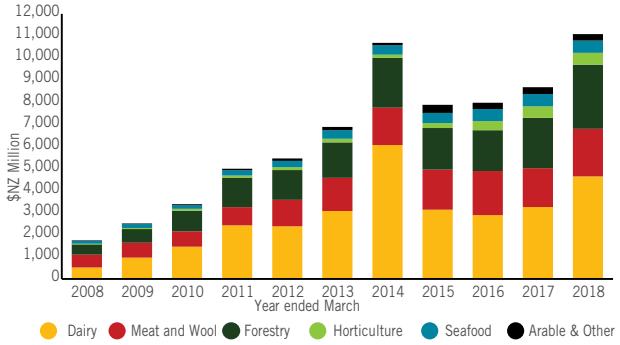
This has provided our primary sector exporters a unique competitive advantage to establish trade relationships in the world's fastest growing major economy. This has driven increased profitability for many sectors by providing a new market for New Zealand's high value primary products. Although dairy, forestry and meat exports represent the largest component of that value growth, the story among the other sectors has been no less spectacular. Kiwifruit exports have grown from $16 million to $374 million, while apple and pear exports to China have increased from $1 million to $49 million since 2008.

Most encouragingly, the growth story appears to being shared by our high value and value added primary products. Exports of infant formula and cheese exports have experienced annual growth rates of 33 percent and 25 percent respectively over the last ten years. Within the kiwifruit sector, the high value Gold3 variety now represents 76 percent of our export mix. Similarly, the trade in live rock lobster has become a $272 million industry with China, having started from almost nothing ten years ago. This seafood success story now comprises almost half of our total seafood exports to China. Similarly, honey exports have risen from negligible levels to $81 million in 2018.

Rising incomes among Chinese consumers has increased demand for our high-quality, high-integrity food products; for example beef exports have risen from $1 million to $577 million since 2008.

As the Chinese economy and its consumer preferences have changed over the past decade, our primary sector exports have evolved. The booming construction industry has been supplied by our forestry sector with log exports rising from $126 million in 2008 to over $2.4 billion in 2018.

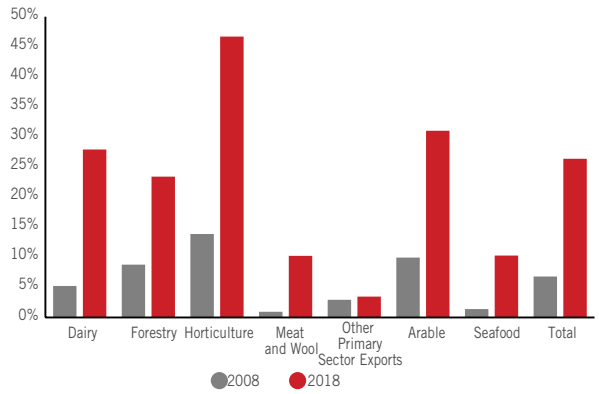
**Figure 1:** Revenue from primary sector exports to China, 2008–18




Source: StatsNZ.

All New Zealand primary sector exports to China have grown sixfold in the past decade.

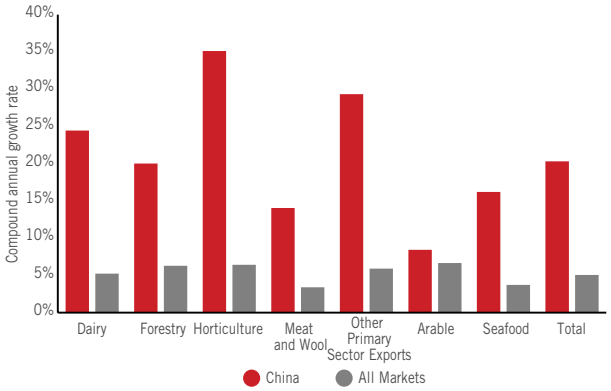
**Figure 2:** China's share of primary sector exports, 2008–18




Source: StatsNZ.

China's total share of New Zealand's primary sector exports has increased in the last decade.

**Figure 3:** Growth of primary sector exports to China, 2008–18




Source: StatsNZ.

Export growth to China has exceeded our other export markets over the last decade in all sectors.

The importance of China as an export market is highlighted by the fact that it is now our largest primary sector export market, more than double our next largest partner, Australia, and larger than New Zealand's next six biggest trading partners combined.

Ten years on from the original agreement, New Zealand is working on an FTA upgrade with China. Negotiations began in April of 2017. The aspiration is that an upgraded agreement will provide an opportunity to modernise the FTA and make further improvements that further free up trade barriers between China and New Zealand.

China now accounts for 26 percent of our total primary sector exports, up from 7 percent 10 years ago, including 47 percent of New Zealand's forestry exports, followed by 31 percent of seafood and 28 percent of dairy exports go to China.

While the growth of exports to China has been transformational for New Zealand's primary sector, increased diversification of trading partners would increase resilience for the primary sector. To support this diversification, the signing of the CPTPP in March of this year represents the next opportunity for New Zealand's primary sector growth story. Members to the agreement represent 13.4 percent of global GDP, making this the third largest trade agreement after the North American Free Trade Agreement and the European Union common market.

In addition, as the importance of China as a trading partner rises as a result of our FTA with that nation, the CPTPP represents another opportunity for our primary sector, not just to add to that growth, but also to further diversify our export market base, providing increased long-term resilience to our primary industries.

## The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)

The CPTPP will be a free trade agreement involving 11 countries in the Asia – Pacific region, including New Zealand, Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, Singapore and Vietnam. It includes commitments to safeguard high labour and environmental standards across the Asia-Pacific region while simultaneously reducing barriers to trade.

Implementation of the CPTPP agreement is dependent on legal ratification by the member countries' legislatures (including New Zealand's Parliament) to the agreement. The CPTPP will come into force among its members once more than half the parties ratify the agreement. It is hoped that the process will be completed by the first half of 2019.

The CPTPP will improve New Zealand market access for primary sector exports to a range of important and developing markets, especially in those countries with which we do not currently have an FTA agreement: Japan, Canada, Mexico, and Peru. In most markets and sectors, tariffs will be completely eliminated once CPTPP is fully implemented. In total, tariff savings for New Zealand exports could reach $222 million annually with primary sector exports accounting for most of the savings. For example, in the important Japanese beef market the tariff will be reduced from 38.5 percent to 9 percent. While tariffs will remain on certain dairy products into Japan, Canada, and Mexico, exporters will still benefit from expanded access through a combination of partial tariff reductions and duty free quotas.

Crucially CPTPP will mean that our exporters are not disadvantaged in important markets like Japan compared with competitors such as Australia, Chile and the EU, which have already agreed preferential trade agreements with Japan.

In addition to tariff liberalisation the CPTPP will also help address non-tariff barriers to trade in goods by reducing the time exporters spend waiting for goods to clear customs, lowering compliance costs, and increasing predictability around other countries' processes.

## Key outcomes by Sector

### Kiwifruit

All tariffs on kiwifruit will be eliminated on entry into force of the agreement. This includes duty free access to Japan – New Zealand's largest kiwifruit market – representing tariff reductions of more than NZ$25 million per year.

### Wine

All tariffs on New Zealand wine will be eliminated including immediate duty free access to Canada, which is our 4th largest wine market.

### Beef

Tariffs on beef exports to Japan will reduce from 38.5 percent to 9 percent over 16 years, the best outcome Japan has given to any trade agreement partner.

### Sheep meat

All tariffs will be eliminated, most upon entry into force, including locking in preferential rates to Canada, which is our 7th largest sheep meat market.

### Dairy

The dairy industry will benefit from an estimated NZ$86 million per year in overall tariff reductions through preferential access to new quotas into Japan, Canada and Mexico, in addition to tariff elimination on a number of products.

### Forestry

All tariffs on New Zealand forestry and forestry products will be eliminated as part of the CPTPP, including in Japan (New Zealand 4th largest market) and Vietnam (New Zealand 9th largest market).

### Seafood

Japan is an important market for New Zealand fish and fish products, which currently face significant tariffs. These tariffs will be eliminated, with nearly all gone within 11 years. Tariffs to other markets will also be eliminated where applicable with existing duty free access also locked in.

# PRIMARY INDUSTRY INTELLIGENCE & ADVICE

The world is changing at an ever increasing pace. MPI has established three new teams that are tasked with further assisting to protect and grow our primary sector, by providing the primary industries with information and advice that helps them adapt to these changes.

## 1. Economic Intelligence Unit

**The Economic Intelligence Unit (EIU) develops market intelligence for both public and private interests relating to the primary industries. This helps inform business strategies to ensure that our primary sector can thrive in an increasingly uncertain landscape.**

This team has been operating since July 2017. In this time the EIU has highlighted and assessed emerging trends in products such as mussels, honey, and grass fed beef as well as consumer attitudes to new products such as plant protein.

## 2. Exporter Regulatory Advice Service

**The Exporter Regulatory Advice Service (ERAS) assists exporters with navigating the increasingly complex regulatory environment associated with exporting primary industry products. This means exporters can spend more time on growing the value of their business.**

Established in late 2016, ERAS supports ease of business and enhances market success for mostly small to medium sized exporters. ERAS works directly with exporters to advise, educate and enable them to better understand and navigate MPI's regulatory export environment. ERAS has provided tailored advice to more than 1,300 exporters, identified pain points for some sectors, published honey and bee products export chain guidance, and tested new tools to help exporters with regulatory information.

## 3. Biosecurity Intelligence Team

**The Biosecurity Intelligence Team (BIT) is being established to ensure that our border operations can continue to be effective in the face of the increasing volume in trade, passengers, and craft.**

The BIT will do this by integrating science and analysis of human behaviour that impacts the spread of pests and disease.

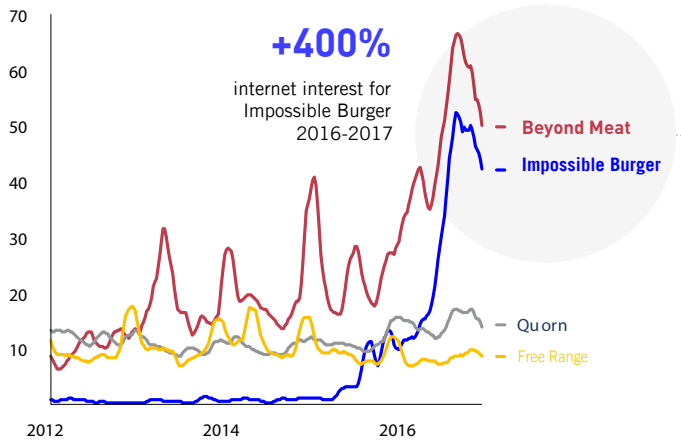
*Here is an overview of some of each team work:*

# ECONOMIC INTELLIGENCE UNIT

## This team investigates shifting consumer trends relevant to our primary exports – E.G. in the beef sector

Consumer preferences and awareness of the consequences of food production is driving demand for new products. The rise of alternative proteins and consumer interest in them, shown on the graph below, illustrates this trend.

**United States internet interest** (2012 – 2017)




### Resulting investment in alternative beef proteins

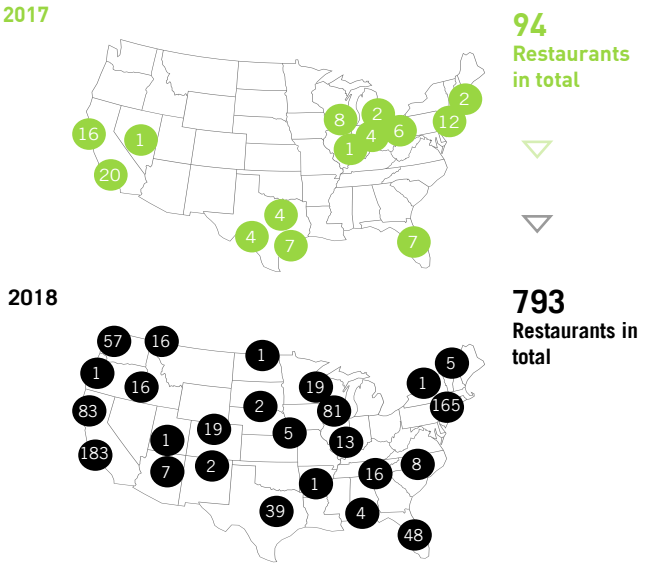
Increased interest in alternative proteins has led to ventures focused on their commercial production attracting significant investment in innovative products and processes that can replace traditional beef.

Search interest generates capital investment because this search interest is proven to provide a lead indicator for changing consumer purchasing behaviours.


Impossible Foods, creators of a plant based burger that tastes like meat has received over **USD $273.5 million** in investment since 2013

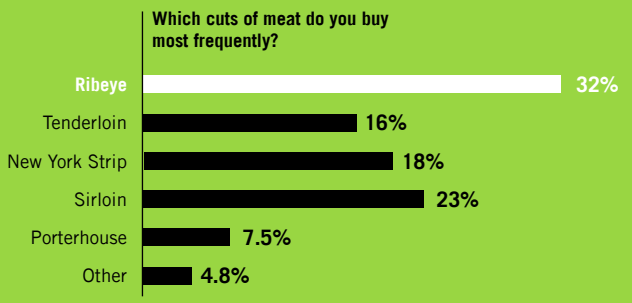
Beyond Meat, who are also exploring meat alternative products has raised **USD $95.8 million** in investments

Increased capital investment for example, has allowed Impossible Foods to reach a greater volume of consumers through expanding the amount of restaurants they supply by **744 percent** in one year:




**The United States is a major market for our beef exports:**

We can grow our footprint in this market by combining high value product types with claims consumers are willing to pay a premium for.




**Comparative Price and Rankings of top claims for Ribeye**

| | Price Premium Per Ounce | Average Consumer Rating |
|---|---|---|
| Grass Fed | $0.12 $US | 3.99 out of 5 |
| GMO Free | $0.37 $US | 4.60 out of 5 |

> *"The EIU team were excellent at listening to our needs as the customer and would often check in to ensure that they were on the right track. The range of data and intelligence that the EIU team had access to was relevant to our research and the capability of the team to then distill/ analyse this was excellent".*

**– Miriana Stephens, Executive Director – Wakatu Incorporation**

> *"MPI's EIU went above and beyond the brief and provided insight that will also assist in the next stage of a project. In a market that it is hard to get information out of, I'd recommend giving the EIU team a brief to see what can be achieved"*

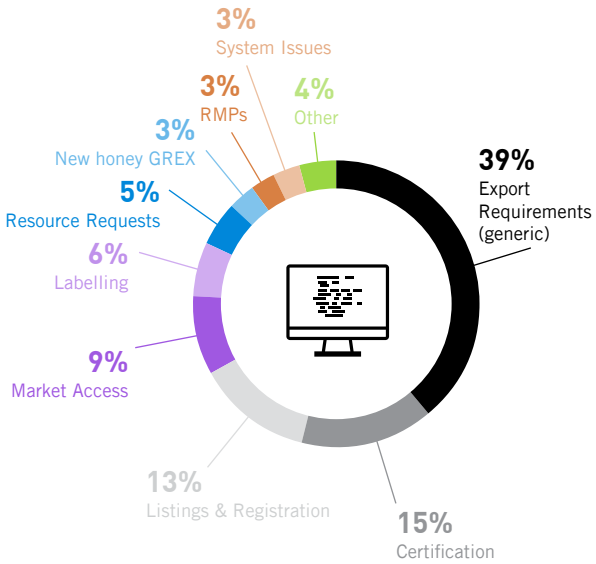
**– Stuart Yorston, General Manager New Zealand – Sealord**

# EXPORTER REGULATORY ADVICE SERVICE

ERAS supports small to medium exporters or businesses looking to enter the export market and steps them through the export process requirements

**Provides advice on regulatory requirements**

Approximately 39% of enquiries each month are from businesses that struggle to find and understand exporting requirements.




**Helps people find overseas market access requirements**

Advice can differ depending on product ingredients. An interactive World Map helps processed food exporters find requirements of overseas markets including:

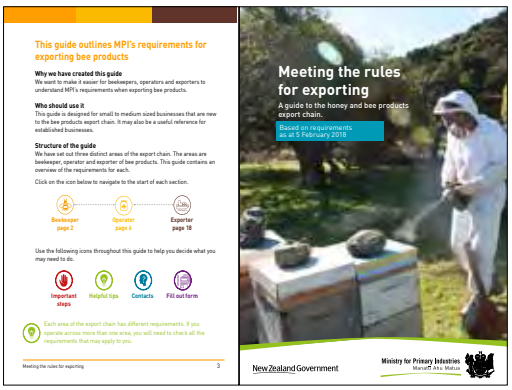
- Overseas Market Access Requirements for animal product ingredients
- Importing Country Phytosanitary Requirements for plant product ingredients
- FYI notifications for each market


**Provide clear, step by step guides**

Meeting the rules for exporting is an easy to use document to help honey and bee exporters navigate the export chain.

**65%**

of our total enquiries are from honey and processed food sectors




*"We are big fans of the new regulatory advice service and believe this is making a big difference to a lot of processed food exporters. We look forward to continuing to work with MPI for the benefit of smaller food exporters."*

**– Catherine Beard, Executive Director, Export NZ**

*"I sent an email to the new exporter help email address and I got an extremely helpful answer back (in less than 24 hours). Gold star to MPI!"*

**– NZTE Customer Manager, on behalf of large processed food exporter**

# BIOSECURITY INTELLIGENCE TEAM

**New Zealand's ability to protect its borders from increasingly complex biosecurity threats is a vital issue for our primary industries, the wider economy, our environment, and overall, our way of life.**

It is important then that our biosecurity system is robust, comprehensive and best able to move with the times. To achieve this we must have the best available biosecurity data, information and insights.

The Biosecurity Intelligence Team has been established to collect, analyse and develop information and insights that enable delivery of targeted advice that improves operational effectiveness and feeds into policy and regulatory development to support the wider biosecurity system.

## How the Biosecurity Intelligence Team will work in practice

**Monitoring & tracking changing risks worldwide**

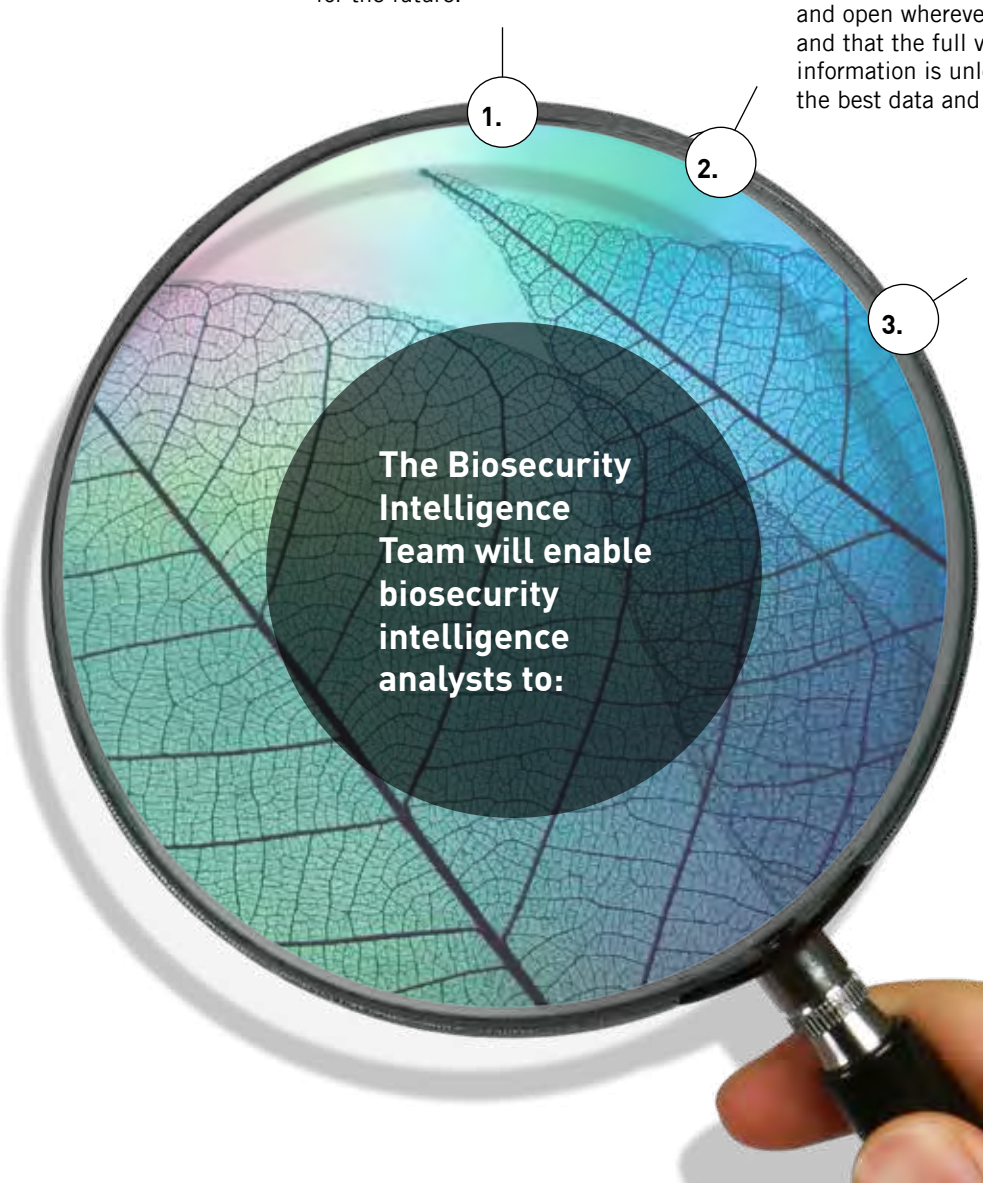
This involves collating and drawing on targeted information relevant to New Zealand's biosecurity so that we have robust and comprehensive security in place and are prepared for the future.

**Ensuring information & insight is accessible**

The team ensures biosecurity information and insight is shared and open wherever possible, and that the full value of the information is unlocked using the best data and analysis.

**Enabling informed decision making**

Use advanced analytics and leading tools and technologies to generate valuable intelligence support to decision-makers across MPI.




★ *Increasing the quality and quantity of biosecurity intelligence will drive more informed and robust decision-making to enable efficient operational responses for stronger biosecurity.*

# Dairy


- The recovery in dairy export prices has continued in 2018, with export revenue forecast to reach $16.6 billion, an increase of $2.0 billion on the previous year. Strength in butter and whole milk powder (WMP) prices has driven export growth.
- This increase in export value was achieved despite an expected 1.0 percent fall in dairy production for the 2017/18 season. Increased manufacturing of infant formula and liquid milk for export contributed to this growth in the face of falling production and export volumes.
- Growth in infant formula continues to underpin the rise in value added dairy production, with infant formula exports forecast to reach $1.2 billion, up 53 percent on the previous year.

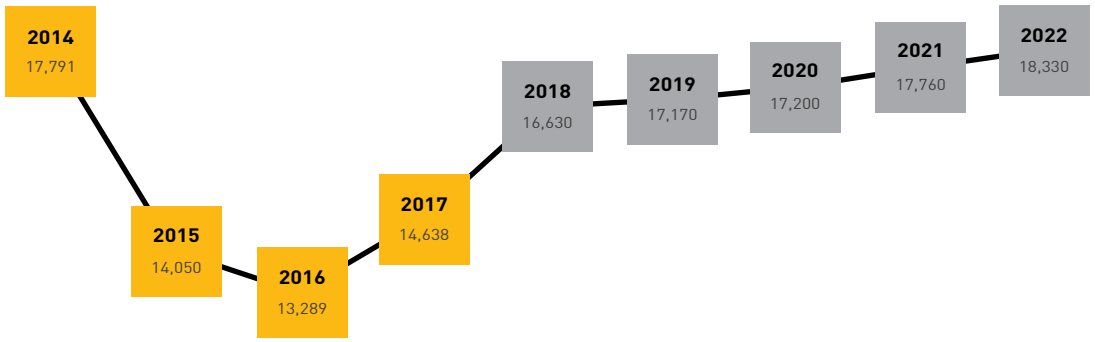



**Table 2:** Dairy export revenue, 2014–22 ($NZ million)

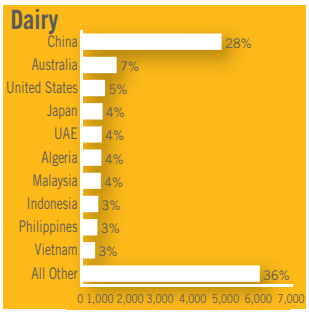
| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Whole milk powder | 8,393 | 5,385 | 4,609 | 5,271 | 5,970 | 6,010 | 6,040 | 6,250 | 6,460 |
| Butter, AMF, and cream | 2,699 | 2,219 | 2,378 | 2,794 | 3,630 | 3,840 | 3,740 | 3,840 | 3,970 |
| Skim milk & butter milk powder | 2,285 | 1,762 | 1,347 | 1,385 | 1,300 | 1,370 | 1,390 | 1,440 | 1,490 |
| Casein & protein products | 1,925 | 2,129 | 1,834 | 1,735 | 1,620 | 1,620 | 1,660 | 1,720 | 1,780 |
| Cheese | 1,482 | 1,557 | 1,720 | 1,830 | 1,920 | 1,950 | 2,000 | 2,080 | 2,110 |
| Infant formula | 401 | 415 | 685 | 778 | 1,190 | 1,390 | 1,330 | 1,380 | 1,420 |
| Other dairy products* | 607 | 582 | 716 | 845 | 1,010 | 1,000 | 1,030 | 1,060 | 1,100 |
| Total | 17,791 | 14,050 | 13,289 | 14,638 | 16,630 | 17,170 | 17,200 | 17,760 | 18,330 |
| Y/Y % change | +35.4% | -21.0% | -5.4% | +10.1% | +13.6% | +3.2% | +0.2% | +3.3% | +3.2% |

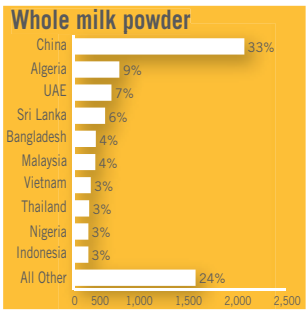
Source: StatsNZ and MPI.
* Other dairy products include: liquid milk and cream, yoghurt, and ice-cream.

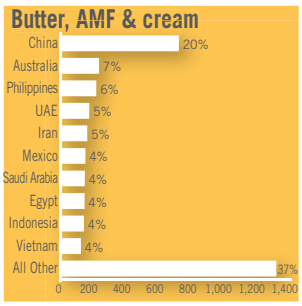
# Top 10 export destinations

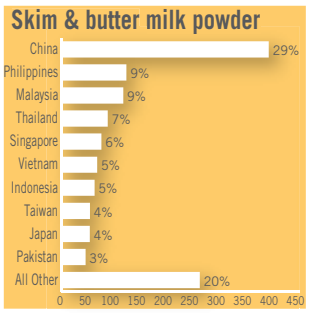

| Product | Total export revenue $ million (March 2018) | % of Total |
|---|---|---|
| Whole Milk Powder | 6,040 | 36% |
| Butter, AMF & Cream Products | 3,525 | 21% |
| Cheese | 1,928 | 12% |
| Casein & Protein Products | 1,688 | 10% |
| Skim Milk and Butter Milk Powder | 1,331 | 8% |
| Infant Formula | 1,122 | 7% |
| Other Dairy Products | 1,031 | 6% |
| Total Dairy | 16,665 | 100% |

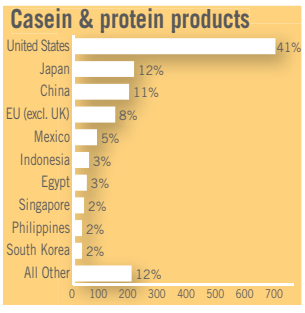
## Top markets ($NZ millions, year ended March 2018)

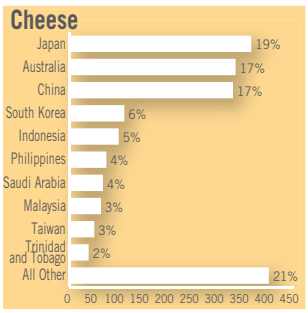


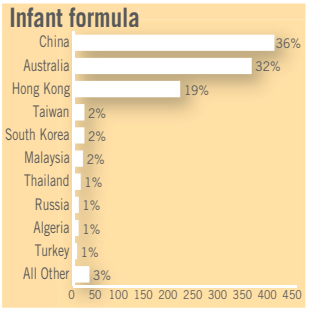



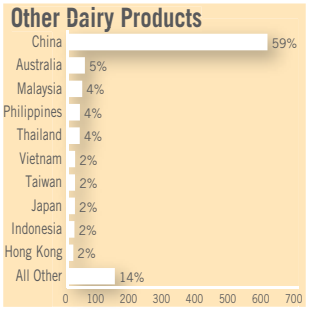



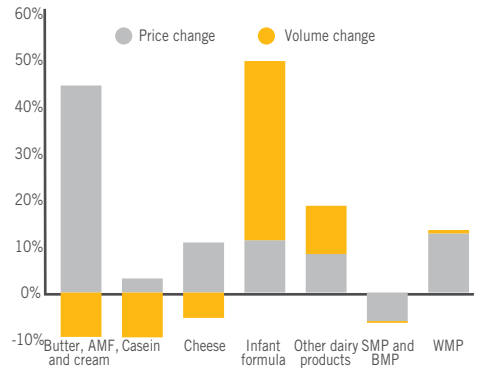
## Strong dairy prices driving dairy exports upwards in 2018

New Zealand's dairy export revenue is forecast to increase to $16.6 billion for the year ending June 2018, up $2.0 billion from the year ended June 2017. Global dairy prices have remained high throughout the year, particularly for butter and WMP, which supported strong export revenue despite an expected 1.0 percent production fall for the 2017/18 season.

## Price rises driving most of our export increase for 2018

Prices for both butter and WMP rose quickly during the year ended June 2017, with export prices for New Zealand butter rising 57 percent over this time and WMP export prices rising 43 percent over the same period. These prices reached a peak in the December 2017 quarter but have maintained their overall strength throughout 2017/18. Butter and WMP make up around 55 percent of our dairy exports by volume, so strong prices for these products significantly affect our total dairy export revenue.

**Figure 4:** Forecast change in New Zealand's dairy product exports, Year ended June 2017 to year ending June 2018




Source: StatsNZ and MPI.

WMP prices have been supported by strong Chinese demand, as well as some buyers entering the market at short notice because they had been sitting back in expectation of falling prices. Butter prices continue to ride the resurgent popularity of natural fats as consumer preferences in Western markets swing in this direction.

An expected 53 percent increase in infant formula exports (to $1.2 billion) is also contributing to the strong rise in overall dairy export revenue this year. Export volumes rose significantly as more processing facilities came online during the year, while prices also increased.

This increase in export revenue is expected to contribute to a rise in the farmgate payout to $6.91 per kilogram of milk solids (including dividends where applicable) for the 2017/18 season. This represents a second profitable season for farmers in a row, following two years of low dairy prices.

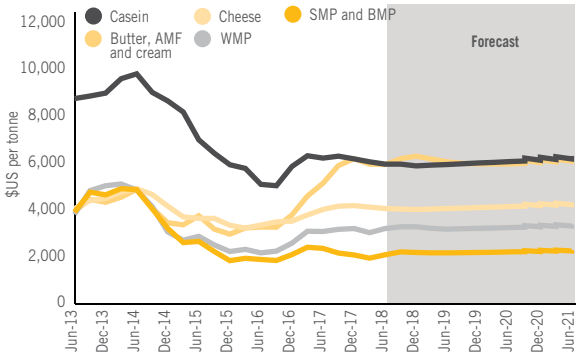
When the payout rises, farmers are more likely to reinvest earnings into the farm to increase resilience for future years. Figures from Dairy NZ's 2016/17 Economic Survey suggest that farm expenditure items such as repairs and maintenance, fertiliser, and regrassing all increased significantly in the 2016/17 season after being partly deferred when prices were low and many farmers were not making a profit.

## Rising dairy prices continue to support future growth

Dairy export revenue is forecast to rise to $17.2 billion for the year ending June 2019. Butter prices are expected to rise even higher than current levels, infant formula export prices and volumes are forecast to rise, and skim milk powder (SMP) prices should rebound somewhat during the season. Overall, export volumes are expected to remain relatively stable, with only a 0.5 percent increase in dairy production forecast for the 2018/19 season. This modest increase in production is being driven by continued on-farm productivity gains rather than increased cow numbers.

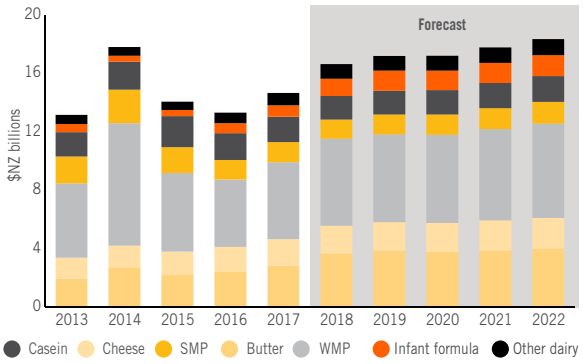
Butter exports are expected to continue to rise during the year ending June 2019 because both prices and volumes are forecast to increase slightly. Despite major butter producers like the EU increasing overall milk production, consumer demand continues to outstrip supply of the product supporting the current high prices. One danger of high butter prices is that manufacturers may turn to using alternative fats in their production processes and may not return to butter if prices recede.

**Figure 5:** Dairy export price forecast, 2013–21




Source: StatsNZ and MPI.

**Figure 6:** Dairy export revenue by product, 2013-22



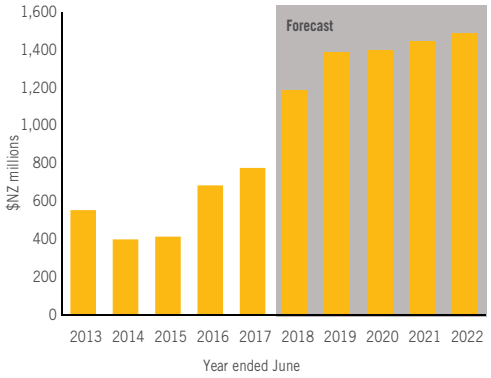

Source: StatsNZ and MPI.

Dairy export prices are expected to increase gradually over the next few years, with the exception of Butter, AMF, and cream.

Infant formula prices have remained high as Chinese demand continues to grow. For the nine months to March 2018, China imported almost twice as much infant formula from New Zealand than during the comparable nine months ending March 2017. We are now the second largest infant formula exporter to China, though China's imports from France and the Netherlands also increased significantly over this time. Chinese consumers continue to demand safe, high quality products, particularly for products fed to young children.

To meet this growing demand, companies based in New Zealand have invested in increased infant formula processing capacity in recent years. For example, Synlait opened its new Wetmix kitchen in December 2017, allowing it to double the amount of infant formula produced at its Dunsandel site. Synlait has also applied for consent to develop a second facility at Pokeno. Additionally, Oceania Dairy opened an expanded plant in Glenavy in March 2017, which included an infant formula line. We expect these, and other, investments to support future infant formula export volumes that are around 30–40 percent higher than for the year ended June 2017.

**Figure 7**: Infant formula export revenue, 2013-22




Source: StatsNZ and MPI.

Infant formula export revenue is forecasted to increase significantly over the next few years. This can be attributed to high prices as well as increasing export volumes.

SMP prices appear to have bottomed out in the March 2018 quarter and are experiencing a mild, temporary resurgence because a slow start to the EU spring production season has dragged prices up somewhat. However, these prices are expected to fall again in the first half of the June 2019 year as EU production catches up and SMP availability rises as a by-product of expected increases in butter production.

There have been recent increases in the quantity of the EU's SMP intervention stocks sold through tender (66,024 tonnes during March and April 2018 – almost 6.5 times the quantity sold over the previous 12 months). Despite this, the quantity of SMP in EU intervention stocks remains at 371,850 tonnes, as at 31 March 2018. This should continue to keep future SMP prices low, although much of these stocks are older than two years and may be viewed as less desirable than fresh product.

The EU Commission is not currently accepting any more SMP into intervention stocks. This should avoid further stock accumulation during the year, ensuring all SMP produced ends up in the market, which is likely to keep a lid on already low prices.

Strong Chinese demand for WMP (19 percent increase in import volumes for the year ended March 2018) has led to prices growing rapidly throughout the year ending June 2018. All of our major Asian markets for WMP purchased greater volumes during the year ended March 2018, compared with the year ended March 2017. We expect Chinese import demand to continue as growth in its domestic milk supply continues to lag increasing consumer demand.

Dairy export revenue is forecast to remain relatively stable through to the year ending June 2020. High butter prices are expected to begin falling during this period, while WMP prices are expected to fall slightly during the latter half of the year ending June 2019. This is forecast to partly offset an expected recovery in production for the 2019/20 season.

Further out, dairy export revenue is forecast to reach $18.3 billion by the year ending June 2022. This assumes that global prices and export volumes return to long-run trends.

## Milk production expected to rebound following current season's fall

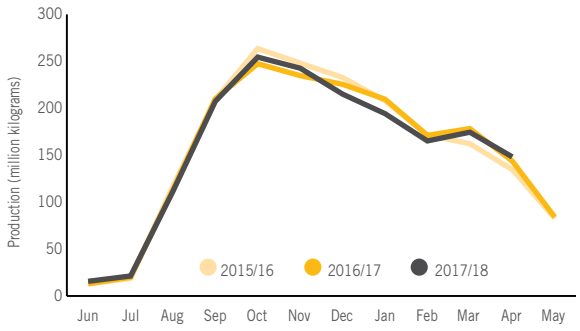
Improved weather conditions at the tail end of the 2017/18 season have meant that total milk solids production is now forecast to be down only 1.0 percent.

Recently released figures from StatsNZ show the milking cow population for the 2017/18 season was 3.1 percent lower than in the previous season, making the smaller production fall even more remarkable. Cow numbers are forecast to fall further for both the 2018/19 and 2019/20 seasons, although total production is expected to rise as production per cow returns to its usual trajectory following a 3.0 percent fall in the 2016/17 season. Production per cow has risen by an average of 1.9 percent per year over the previous 10 years.

Rising production per cow will continue to be the main driver for any increases in dairy production in future years. Dairy land area is expected to stabilise, if not decline. Government policies are pushing for improved farm practices and limiting land use intensification, which may slow future milk production growth.

New Zealand's milking platform area has fallen slightly in each of the past two years, as has the number of dairy cows, but we do not expect this to fall further over the outlook period.

**Figure 8:** Monthly milk solid production, 2015–18




Source: StatsNZ and MPI.

An excessively wet spring followed by an overly dry summer for much of the country constrained production for a large part of the year, before near record production across March and April helped rescue the season.

Expectations of solid dairy prices over the coming five years mean that dairy should remain the most profitable use of the current platform. The amount of capital invested on existing dairy farms and current profitability are constraints to significant land shifting out of dairy although farmers may reduce their stocking rates to comply with nitrogen leaching limits.

Efforts to improve water quality are expected to limit cow numbers in future years. Water quality is managed by regional councils within a nationwide framework, and each catchment in each 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 measures such as caps on nutrient discharges, requirements to demonstrate good farming practice, and controls on land use intensification. Farmers will react to these regulations in different ways, by adopting innovative farming practices (for example, altering the timing of applying fertiliser or constructing stand-off pads). In some places this may incentivise changes from dairy farming to other land uses.

In 2017, New Zealand's four 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, catchments (or zones) are continuing to set water quality limits.
- In Taranaki, riparian planting requirements are increasing, and new rules are being introduced requiring dairy farmers to discharge effluent to land instead of water.
- In Southland, region-wide controls on further land use intensification are about to be introduced. This will require any person wanting to intensify production or land use to have a resource consent.

Further to this, industry groups are working with regional councils and government to develop a jointly agreed approach to improving farm practice for water quality. This would see all farmers drawing on good farming principles to address impacts on water quality through a tailored farm plan, beginning with priority catchments.

The result of these policies over the next two to three years is expected to push to improve farm practice and restrict land use intensification in most regions. This is likely to slow the growth of milk production unless per cow production increases to compensate for it.

## Farmers set to receive a series of solid payouts

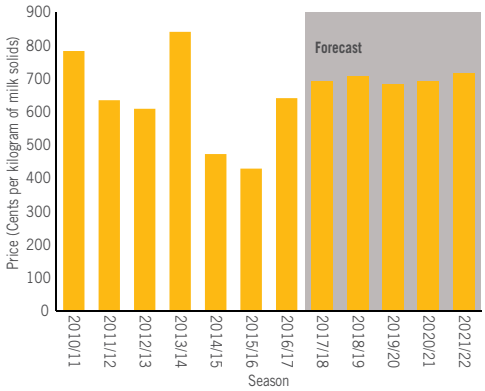
New Zealand's all company average farmgate milk solids payout forecast for the 2017/18 season is $6.91 per kilogram of milk solids (including dividends), relatively unchanged from the forecast three months ago. This is an increase of 51 cents from the 2016/17 payout and reflects the higher WMP prices achieved during the season.

Based on recent Global Dairy Trade auctions, WMP prices are expected to continue rising for another four months or so, before starting to come down in the December 2018 quarter. Overall, we expect WMP prices to rise slightly for the 2018/19 season and to drive a milk solids payout forecast, rising to $7.06 for that season. WMP prices have the greatest weighting when determining Fonterra's seasonal payout.

Dairy NZ's 2016/17 Economic Survey results show that with the 2016/17 all farm average season payout of $6.36 (which translates to payment schedules averaging $5.79 during the year), farmers will earn an average operating profit of $286,000. Our payout forecast of $7.06 for the 2018/19 season suggests that average operating profits will be well above $350,000 for that season, which should provide farmers with greater ability to invest in more resilient farming systems and pay down debt.

Our milk solids price forecast falls in the 2019/20 season due to an expected softening of WMP prices, before rising to $7.16 by 2022. Achieving this price relies heavily on continued demand for our WMP exports and limited northern hemisphere export responses to high dairy prices. Domestic production falls tend to lead to higher payouts because New Zealand is a large exporter in global terms and reduced supply can push prices up.

**Figure 9:** Milk price forecast, 2011–22




Source: MPI.

The most recent activity on the NZX milk price futures market for the 2017/18 futures contract exceeded $6.65 per kilogram of milk solids (excluding any dividends). The 2018/19 futures contract is also currently trading near this value, suggesting continued optimism around global dairy prices for the coming season.

# *Mycoplasma bovis* in New Zealand

The cattle disease *Mycoplasma bovis* was detected in New Zealand in July 2017 and could constrain dairy production if not successfully eradicated. The disease can cause untreatable mastitis, abortion and arthritis in cows, and farmers will need to cull animals displaying these clinical signs from their herds. Furthermore, the disease could have a small production impact on sub-clinical animals (those that do not display any visible symptoms).

All major dairy and beef farming countries in the world have *Mycoplasma bovis*, and the disease does not present any food safety, human health, or trade risks.

Animal movements are the main way of spreading the disease, but other practices such as feeding discard milk to calves are also high risk pathways. Epidemiological modelling results indicate that the disease is likely to spread to 40 percent of New Zealand farms within 10 years if no action is taken to halt the spread.

If the disease spreads across New Zealand, the overall production impacts are expected to be low in the context of our total dairy production. If established, we estimate that the disease may reduce production by around 1.5 percent on an infected farm – if 40 percent of herds are infected, this represents a 0.6 percent fall in total national milk production.

At the time of publishing, the Government, with industry support, has announced that an attempt will be made to eradicate the disease from the country. This will involve culling entire infected herds to get rid of the disease. At the moment, the disease is modelled to spread to around 192 properties across New Zealand over a ten year period, including those that have already been depopulated.

Depopulating these (expected) 192 herds will theoretically prevent the remaining 25,000 or so commercial dairy and beef farms across New Zealand from becoming infected. The eradication decision will be reviewed later in the year with further bulk milk testing. This will provide MPI with a clearer picture of the actual spread of the disease and whether eradication remains a feasible option.

# Meat and Wool

- Meat and wool export revenue is on track to increase 12.4 percent to $9.4 billion in the year ending June 2018. The main driver behind this performance is red meat prices, which have been exceptional over the past year.
- Both beef cattle and deer livestock numbers increased year-over-year as at June 2017 for the first time in more than a decade, reflecting good farmgate returns and confidence that the recent run of good prices can be sustained in future seasons.
- In contrast to the rest of the sector, average export prices of wool, hides, and skins have been historically low for the past two years due to lower consumer demand in China and other key export destinations.

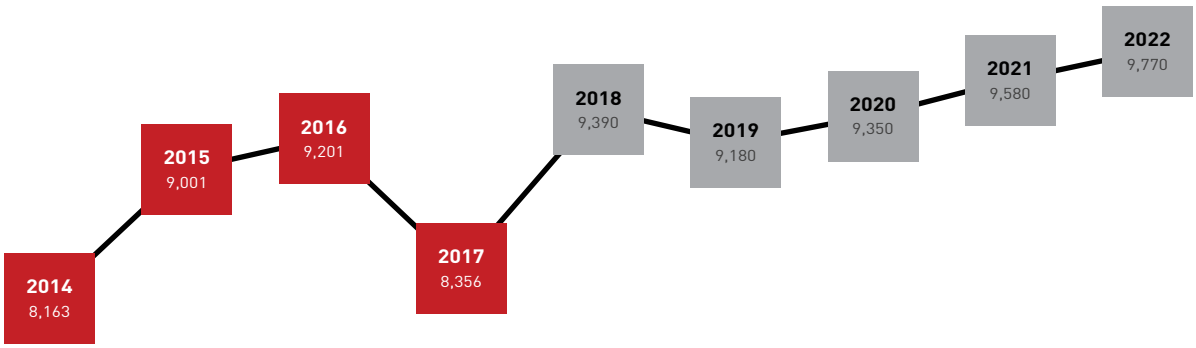



**Table 3:** Meat and wool export revenue, 2014–22 ($NZ million)

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Beef & veal | 2,199 | 2,980 | 3,096 | 2,706 | 2,850 | 2,760 | 2,810 | 2,880 | 2,950 |
| Lamb | 2,485 | 2,504 | 2,569 | 2,441 | 2,930 | 2,900 | 2,960 | 3,040 | 3,090 |
| Mutton | 488 | 418 | 419 | 417 | 600 | 470 | 450 | 450 | 450 |
| Wool | 733 | 805 | 760 | 522 | 540 | 510 | 500 | 510 | 510 |
| Venison | 187 | 174 | 182 | 162 | 200 | 180 | 180 | 180 | 190 |
| Other meat* | 438 | 466 | 503 | 513 | 530 | 580 | 610 | 630 | 650 |
| Hides & skins | 625 | 571 | 510 | 417 | 410 | 420 | 430 | 440 | 450 |
| Animal by-products | 489 | 578 | 598 | 587 | 710 | 740 | 770 | 790 | 810 |
| Animal fats & oils | 130 | 118 | 125 | 156 | 140 | 140 | 140 | 150 | 150 |
| Animal products for feed | 209 | 216 | 247 | 273 | 320 | 330 | 340 | 350 | 370 |
| Carpets & other wool products | 178 | 172 | 192 | 163 | 150 | 150 | 160 | 160 | 160 |
| Total exports | 8,163 | 9,001 | 9,201 | 8,356 | 9,390 | 9,180 | 9,350 | 9,580 | 9,770 |
| % Change | +4.7% | +10.3% | +2.2% | -9.2% | +12.4% | -2.2% | +1.9% | +2.5% | +2.0% |

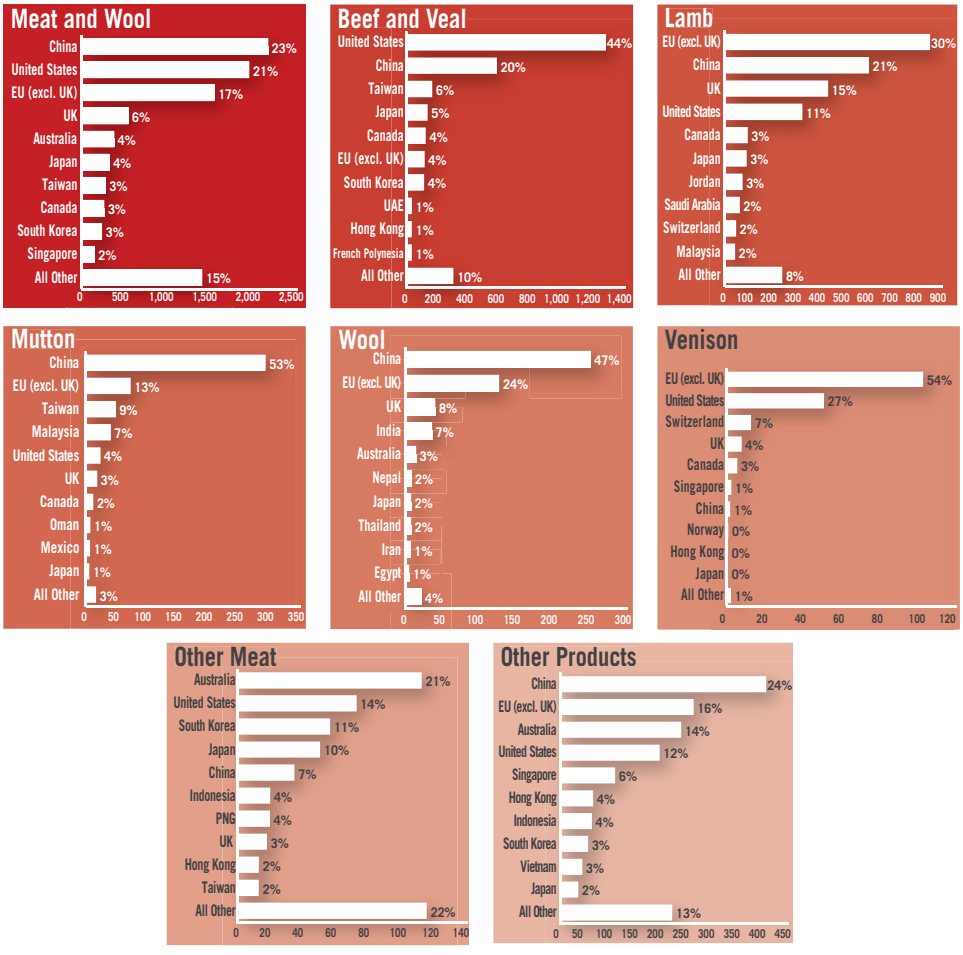
Source: StatsNZ and MPI.

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

# Top 10 export destinations


| Product | Total export revenue $ million (March 2017) | % of Total |
|---|---|---|
| Beef and Veal | 2,904 | 31% |
| Lamb | 2,844 | 31% |
| Mutton | 549 | 6% |
| Venison | 188 | 2% |
| Other Meat | 522 | 6% |
| Wool | 527 | 6% |
| Other meat and wool products | 1,684 | 18% |
| Total meat and wool | 9,219 | 100% |

## Top markets ($NZ millions, year ended March 2018)



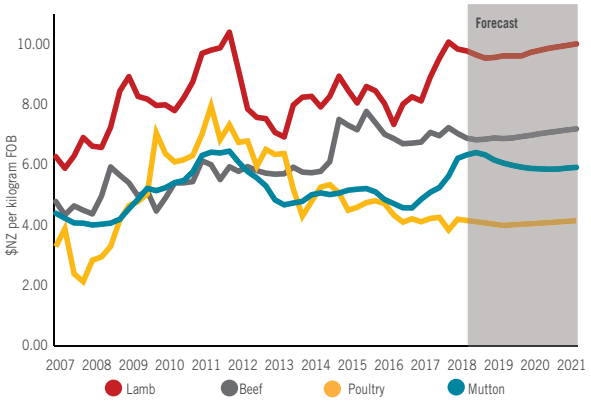

* Other meat includes: edible offal, processed meat, and poultry.

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

## Higher exports and farmgate returns

Meat and wool export revenue is forecast to reach nearly $9.4 billion in the year ending June 2018, an increase of 12.4 percent from the previous year. The main driver behind this performance is higher red meat prices, particularly of lamb and mutton. This rise in export revenue has also flowed into increased on-farm returns.

**Figure 10:** Meat export prices, 2007–21

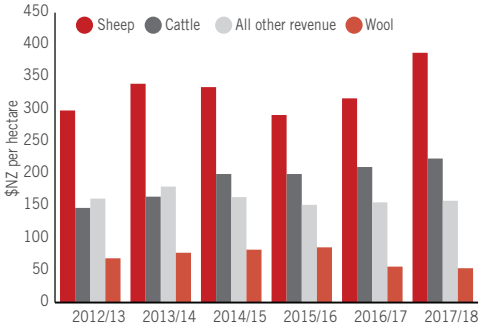



Source: StatsNZ and MPI.

In the year ending June 2018, prices will have increased 17.2 percent for lamb, 2.6 percent for beef, 24.4 percent for mutton, and 18.3 percent for venison (not shown). Poultry prices have fallen 1.2 percent.

Sheep and beef farm revenue is forecast to increase for the second consecutive year in 2017/18 to an average of $822 per hectare across all farm classes, according to Beef + Lamb New Zealand. Improved earnings from sheep, cattle, and deer have helped revenue increase over 11 percent from 2016/17. This offsets a 7 percent increase in total working expenses, mostly attributed to increased expenses on fertiliser, repairs and maintenance.

**Figure 11:** Sheep and beef farm income by source, 2012/13–2017/18




Source: Beef + Lamb New Zealand.

Higher red meat prices have increased revenue from sheep and cattle, and this has more than offset a significant decline in wool revenue. Wool now accounts for just 6.5 percent of sheep and beef farm revenue in 2017/18, down from 30 percent in 1990/91.

Although total numbers of sheep, beef, and deer have been in decline over the past decade, this trend has moderated over the past two years. This moderation is mainly due to a slowdown in dairy conversions and strong red meat prices driving improved profitability in the sector. Livestock numbers as at 30 June 2017 show increases for beef cattle and deer livestock, the first increases since 2006 and 2004, respectively. In addition, there was a slowdown in the decline of total sheep numbers (only down 0.5 percent between 2016 and 2017).

The forecast for livestock numbers over the next few years (Table 4) reflects the momentum generated from these recent increases, rising on-farm profitability, and very good red meat prices.

Looking forward, current profitability is expected to help maintain stock numbers over the next few years. Over the longer term, sheep and beef land is likely to remain under pressure from other land uses, including from afforestation for production forest and indigenous species planting.

**Table 4:** Livestock numbers as at 30 June 2014–22 (millions)

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total cattle | 10.37 | 10.03 | 10.15 | 10.15 | 10.11 | 10.10 | 10.09 | 10.09 | 10.04 |
| Beef cattle | 3.67 | 3.55 | 3.53 | 3.62 | 3.64 | 3.64 | 3.61 | 3.58 | 3.53 |
| Dairy cattle | 6.70 | 6.49 | 6.62 | 6.53 | 6.47 | 6.46 | 6.48 | 6.51 | 6.51 |
| Total sheep | 29.8 | 29.1 | 27.6 | 27.5 | 27.7 | 27.5 | 27.2 | 26.8 | 26.4 |
| Breeding ewes | 19.8 | 19.1 | 18.1 | 17.8 | 17.9 | 17.9 | 17.7 | 17.5 | 17.2 |
| Lambs marked and/or tailed | 24.98 | 25.83 | 24.57 | 24.13 | 23.26 | 23.35 | 23.29 | 23.12 | 22.82 |
| Total deer | 0.96 | 0.90 | 0.83 | 0.84 | 0.85 | 0.86 | 0.87 | 0.86 | 0.86 |

Source: StatsNZ and MPI.

## Beef exports remain positive

New Zealand beef export revenue is forecast to rise to $2.9 billion in the year ending June 2018, up 5.5 percent over the previous year. Production is projected to be 645 thousand tonnes this year, up slightly from 2017. From 2019 onwards, beef production is expected to be steady but at slightly lower levels (in the range of 635 thousand tonnes to 640 thousand tonnes).

Average export prices have increased 2.6 percent and are expected to exceed $7.00 per kilogram on a product weight basis. Current prices aren't quite as high as the peaks in 2015 and 2016, but are still very good. Consistently strong beef prices since 2015 have played a role in the sector's growing confidence, indicated by rising beef cattle numbers and a reported increase in raising dairy beef.

Globally, beef prices have remained high while feed costs remain low. This has led to high profitability for overseas producers more dependent on grain-fed systems, which is starting to incentivise additional production. For now, global demand appears capable of absorbing additional supplies. Economic growth and consumer confidence are high across most of New Zealand's major trading partners, spurring additional consumption of red meat, pork, and poultry.

The US remains New Zealand's top destination for beef and veal at 44 percent of export revenue, and much of this trade is in lean manufacturing beef. Exports to the US remain strong, having increased 9.7 percent in the year ended March 2018, despite US beef production increasing over 5 percent in the past year. This has counter-intuitively been positive for New Zealand beef exports because our lean beef is blended with the US's fatty beef for burgers. US beef consumption continues to rise, especially burgers, supported by a strong economy and high consumer confidence. One concern on the near horizon is an increase in US cow slaughtering due to drought in some states. If the drought continues, it will increase domestic supplies of leaner beef, and lower prices for imports from Australia and New Zealand.

Beef exports to China increased 18 percent to $577 million in the year ended March 2018, up from just $1 million in 2008. Beef consumption continues to outstrip domestic supplies in our second largest beef export destination. Over the past year, exports have been boosted by the ability to ship chilled red meat to China on a trial basis, with exporters benefiting from a 17 percent price premium over the frozen equivalent. In the past nine months, $8.9 million of chilled beef have been sent to China, 2 percent of our total beef exports to China, and $3.4 million of chilled lamb and mutton have also been exported to that market. Chilled exports have increased as the trial progressed, and it is expected that this market will continue to grow.

Japan, our fourth largest beef export destination by revenue, is probably the market with the greatest potential once the CPTPP comes into force. Japan is our highest-value per kilogram major market with over 50 percent of beef exports shipped in chilled form. Since 2015, Australia has had a tariff advantage over New Zealand and the US due to its FTA with Japan. Once the CPTPP is enacted, New Zealand's tariffs would reach parity with Australia within a few years and fall from 38.5 percent to 9 percent within 16 years, supporting our ability to compete in that market.

## Lamb and mutton prices leap higher

Lamb and mutton exports have been the big movers in the meat and wool sector over the past year. Lamb export revenue is forecast to increase over 20 percent to $2.9 billion. Almost all of this increase has been due to rising meat prices, which are over 17 percent higher than last year.

The main driver behind rising lamb and mutton prices over the past two years is falling production in Australia. Combined, Australia and New Zealand account for around 85 percent of global sheep meat exports. While production has steadily fallen in New Zealand in recent years, Australian production has been more variable. A drought in 2014 and 2015 boosted Australian lamb and mutton exports, and volumes have fallen since then as flocks are being rebuilt.

This trend has had a greater impact on mutton than lamb, with Australian mutton exports down 6 percent and lamb exports down 4 percent in 2018. This helps explain why New Zealand mutton prices have risen faster than lamb over the past two years.

Looking out to 2019 and beyond, lamb and mutton prices are forecast to fall back towards their long run trend. This is

**Table 5:** Beef cattle numbers, beef prices, export volumes and values, 2014–22

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total beef cattle (opening stocks in millions) | 3.70 | 3.67 | 3.55 | 3.53 | 3.62 | 3.64 | 3.64 | 3.61 | 3.58 |
| Schedule prime beef price (cents/kg) | 403 | 492 | 539 | 541 | 555 | 540 | 550 | 565 | 580 |
| Production (000 tonnes) | 626 | 676 | 673 | 642 | 645 | 635 | 635 | 635 | 640 |
| Export volume (000 tonnes CWE)* | 544 | 599 | 615 | 563 | 575 | 570 | 575 | 575 | 575 |
| Export volume (000 tonnes PW)** | 380 | 420 | 430 | 395 | 405 | 400 | 405 | 405 | 405 |
| Export price ($NZ/kg PW) | 5.79 | 7.10 | 7.20 | 6.85 | 7.05 | 6.90 | 6.95 | 7.10 | 7.30 |
| Export value ($NZ million) | 2,199 | 2,980 | 3,095 | 2,706 | 2,850 | 2,760 | 2,810 | 2,880 | 2,950 |

Source: StatsNZ, Beef + Lamb New Zealand, and MPI.

* Carcass-weight equivalent of shipped product weight.

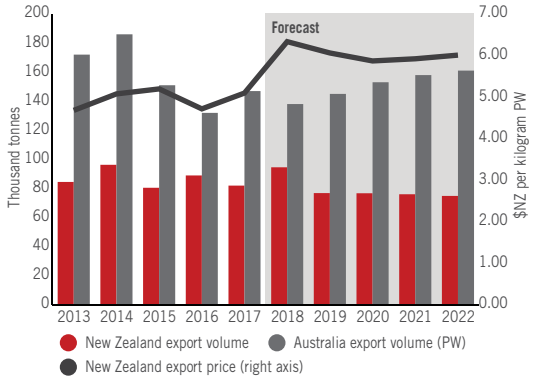
** Product weight as shipped.

primarily based on projections that Australia's flocks will have been rebuilt and their production and exports will increase over the next two years. There is also concern that lamb is getting too expensive relative to beef, which could cause some sheep meat demand to shift to cheaper alternatives.

Lamb production and export volumes have been mostly flat from the previous year with production increasing 1.6 percent in 2018, thanks in part to slightly higher slaughter weights. Lamb production in future years is expected to be steady, because slightly falling breeding ewe numbers are forecast to be offset by slightly increasing lambing percentages and slaughter weights.

Mutton exports have increased at an even greater rate than lamb and are on track to increase by 43.5 percent, from $417 million to $600 million, in the year ending June 2018. In contrast to lamb, where export volumes were steady, mutton export volumes are on pace to increase by 15 percent from the year prior. With export prices up 24.4 percent this year, this is evidence that some farmers have chosen to take advantage of these higher prices by sending more adult sheep to slaughter. This also indicates that current high prices are not viewed as sustainable and are likely to fall once Australia returns to full production. While it makes good sense to "make hay while the sun shines," the risk is that this will result in fewer breeding ewes for the 2018/19 lamb crop.

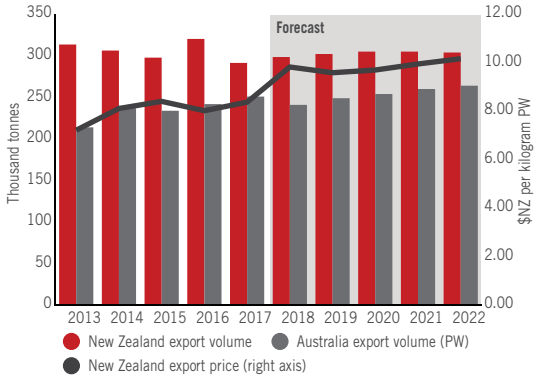
**Figure 12:** Mutton export prices and volumes, 2013-22




Mutton volumes have risen in response to high prices in the year ending June 2018. Dry weather over summer also contributed to this higher volume, as the driest weather occurred at peak mutton slaughter season (December and January).

Source: Beef + Lamb New Zealand, Meat & Livestock Australia, MPI.
* Carcass-weight equivalent of shipped product weight. ** Product weight as shipped.

**Figure 13:** Lamb export prices and volumes, 2014–22




Lamb prices have increased over the past two years, supported by decreasing volume from Australia and New Zealand. These two countries combine for around 85 percent of global sheep meat exports.

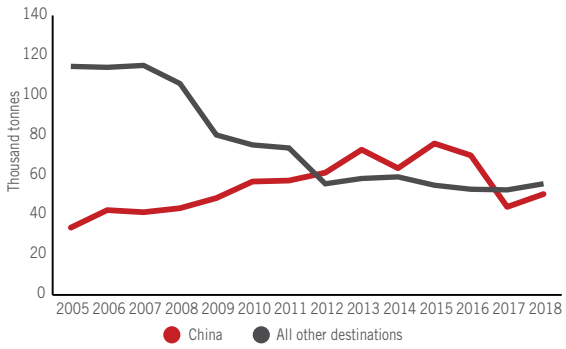
Source: Beef + Lamb New Zealand, Meat & Livestock Australia, MPI.

**Table 6:** Sheep numbers, lamb prices, export volumes and values, 2014–22

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total sheep (opening stocks in millions) | 30.79 | 29.80 | 29.12 | 27.58 | 27.53 | 27.67 | 27.53 | 27.21 | 26.79 |
| Schedule lamb price (cents/kg) | 546 | 528 | 512 | 560 | 675 | 655 | 665 | 685 | 700 |
| Production (000 tonnes) | 379 | 384 | 380 | 357 | 365 | 365 | 365 | 365 | 365 |
| Export volume (000 tonnes CWE)* | 373 | 366 | 396 | 364 | 375 | 375 | 380 | 380 | 380 |
| Export volume (000 tonnes PW)** | 306 | 298 | 320 | 292 | 300 | 300 | 305 | 305 | 305 |
| Export price (NZ$/kg PW) | 8.11 | 8.41 | 8.02 | 8.37 | 9.75 | 9.65 | 9.70 | 9.95 | 10.15 |
| Export value (NZ$ million) | 2,485 | 2,504 | 2,569 | 2,441 | 2,930 | 2,900 | 2,960 | 3,040 | 3,090 |

Source: StatsNZ, Beef + Lamb New Zealand, and MPI.

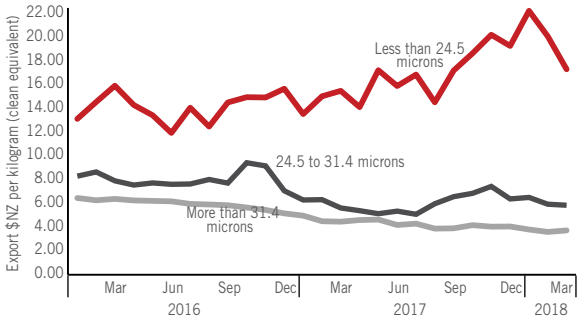
**Figure 14:** Wool export volume by destination, year ended March, 2005–18




Source: StatsNZ.

China is the primary market for New Zealand wool, accounting for 56 percent of export volume from 2012 to 2015. When demand fell off from mid-2016 onwards and no other markets emerged, stocks accumulated in New Zealand.

**Figure 15:** Wool export prices by grade, 2016–18




Source: StatsNZ.

The price difference between fine wool (less than 24.5 microns) and crossbred wool (over 31.4 microns) has never been greater. From January to March 2018, fine wool export prices were 5.5 times higher than crossbred. Fine wool is used in activewear and other apparel, where demand has been much stronger over the past year.

## Crossbred wool prices remain low

In contrast to the meat and wool sector as a whole, the wool market has been struggling for the past 18 months or more. The main forces pushing prices lower are a lack of crossbred wool demand from China and increased competition from cheaper synthetic fibres. This has led to a build up of inventory on farm and throughout the supply chain, which is slowly being worked through. As opposed to crossbred wool, fine wool prices have reached record highs, but this accounts for only 8 percent of production.

Even though market conditions have not improved in the past year, export volumes have recovered and are likely to exceed production as stocks built up in 2017 are liquidated. With this higher export volume, wool exports are forecast to have risen 4 percent to $540 million in the year ending June 2018, despite average export prices falling for the second consecutive year.

There are just a few hints of upside potential for wool prices over the next two years. Auction prices have lifted slightly in recent months, and demand from China is just starting to return. Prices for crude oil, from which synthetic fibres are manufactured, have risen from under $US 50 to nearly $US 80 per barrel in the past year. This lift in demand and an expected rise in synthetic fibre prices may be enough to help volumes pick up and excess inventory to be cleared, which is a prerequisite for prices to sustainably recover. Over a longer time horizon, work is underway to identify new uses for crossbred wool to diversify demand and lift value in the sector.

**Table 7:** Wool production, prices, export volumes and values, 2014–22

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Average sale price (cents/kg clean) | 575 | 591 | 659 | 516 | 495 | 460 | 480 | 490 | 500 |
| Production (000 tonnes clean basis) | 118 | 115 | 109 | 106 | 105 | 105 | 105 | 105 | 105 |
| Export volume (000 tonnes clean basis) | 117 | 118 | 103 | 85 | 100 | 100 | 95 | 95 | 95 |
| Export volume (000 tonnes PW)* | 128 | 130 | 113 | 93 | 110 | 110 | 105 | 105 | 105 |
| Export price ($NZ/kg PW) | 5.73 | 6.18 | 6.74 | 5.60 | 4.90 | 4.65 | 4.75 | 4.85 | 4.85 |
| Export value ($NZ million) | 733 | 805 | 760 | 522 | 540 | 510 | 500 | 510 | 510 |
| Export value (NZ$ million) | 2,485 | 2,504 | 2,569 | 2,441 | 2,930 | 2,900 | 2,960 | 3,040 | 3,090 |

Source: StatsNZ, Beef + Lamb New Zealand and MPI.

* Product weight as shipped.

## Venison and velvet boost deer sector confidence

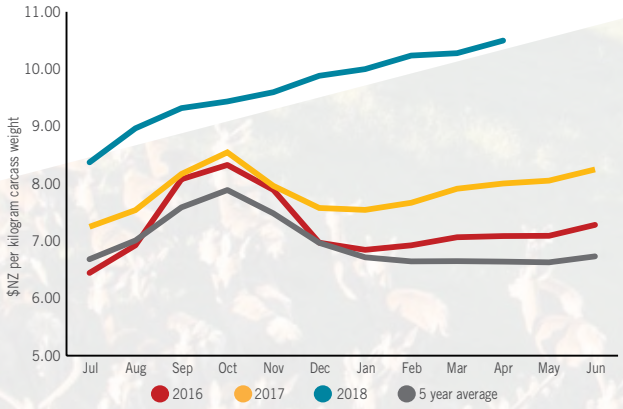
Deer numbers rose slightly to 836 thousand as at 30 June 2017, the first annual increase in deer numbers since 2004. Increasing revenue from both venison and velvet has spurred increased confidence in the sector, which is forecast to result in further herd rebuilding over the next few years.

Venison export revenue is forecast to reach $200 million in the year ending June 2018 thanks to an uptick in volume and prices being over 18 percent higher than last year. Exports to the US are a significant part of that story, having increased 50 percent in the past year. The US is now New Zealand's largest single destination for venison, although the combined EU market remains the largest export destination overall.

As with lamb, there is some risk that venison may price itself out of markets and lose market share to other red meats and/or other exotic game products, so demand next season will be important to monitor. For example, high prices in 2002 and 2009 were not sustained, but the diversification of revenue sources provides cause for optimism.

Velvet export revenue is likely to exceed $70 million in the year ending June 2018, marking the fifth straight year of export growth over 10 percent. Demand from South Korea and China is evolving to include velvet in health foods in addition to velvet's more common use in traditional medicine. Consumer confidence in quality New Zealand velvet is growing, following regulatory changes and associated upgrades to velvet processing facilities.

**Figure 16:** Venison schedule prices, 2016–18




Source: StatsNZ.

Schedule prices have risen even more impressively than export prices, approaching $11 per kilogram carcass weight. In addition, recent prices have not fallen in autumn along the usual seasonal patterns. This is in part due to new demand from the US being less seasonal than traditional EU markets, and to more demand from the pet food sector for offcuts and offal, which raises the overall value per head.

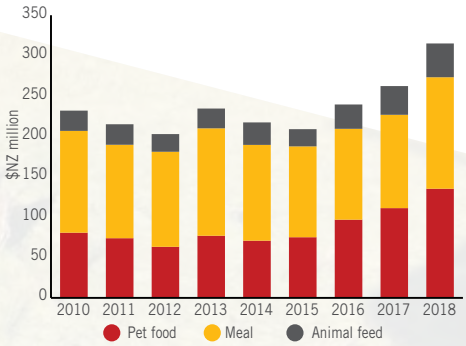
## Other meat and wool products finding new markets

Poultry production is up 5.3 percent to the year ended December 2017, to 225 thousand tonnes, driven not only by robust domestic demand but also by an export sector that continues to find new opportunities in the Pacific Islands. Exports are expected to exceed $90 million in the year ended June 2018, held back only by low prices. Global supplies are ample, due to lower feed costs and lower incidence of highly pathogenic avian influenza.

Following a similar trajectory to wool, exports of hides and skins have also struggled in recent years. Hides and skins exports are forecast to reach $410 million in the year ending June 2018, down 34.4 percent since 2014 despite export volumes increasing over that time.

Prices for animal fats and oils have fallen 12.4 percent from 2017, in correlation with lower animal fat and vegetable oil prices globally. Consumer demand continues to shift toward dairy fats, and other end-uses such as biodiesel production have a lower growth outlook after a decade of rapid development.

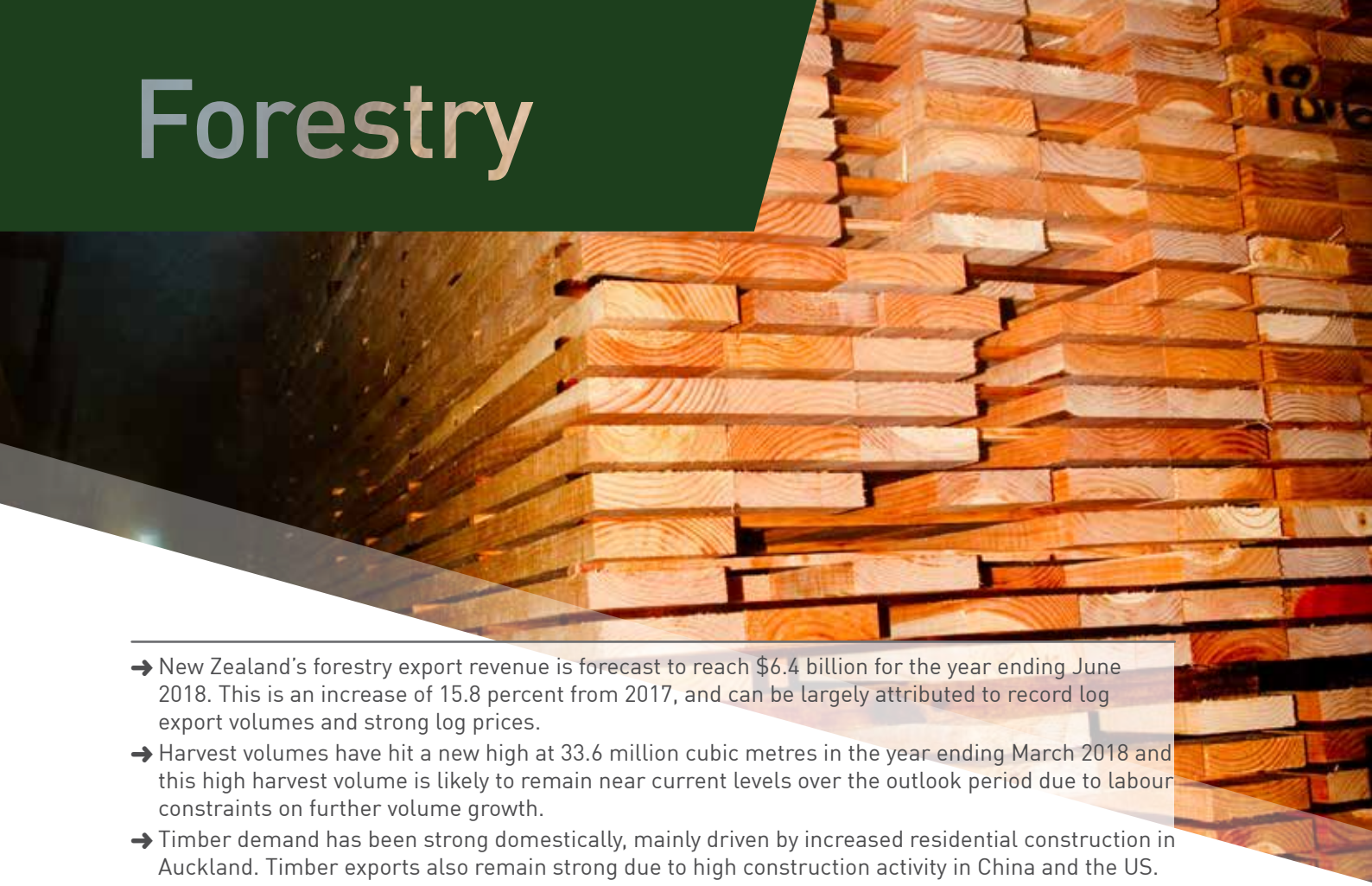
**Figure 17:** Animal products for feed, 2010–19




Source: StatsNZ.

Exports of animal products for feed, which includes pet food and meat and bone meal (MBM), are growing. While MBM exports remain strong, increased exports of higher-value pet food are the main factor driving higher exports in this sector. Average export prices are six to eight times higher for pet food than for MBM.

# Forestry



- New Zealand's forestry export revenue is forecast to reach $6.4 billion for the year ending June 2018. This is an increase of 15.8 percent from 2017, and can be largely attributed to record log export volumes and strong log prices.
- Harvest volumes have hit a new high at 33.6 million cubic metres in the year ending March 2018 and this high harvest volume is likely to remain near current levels over the outlook period due to labour constraints on further volume growth.
- Timber demand has been strong domestically, mainly driven by increased residential construction in Auckland. Timber exports also remain strong due to high construction activity in China and the US.

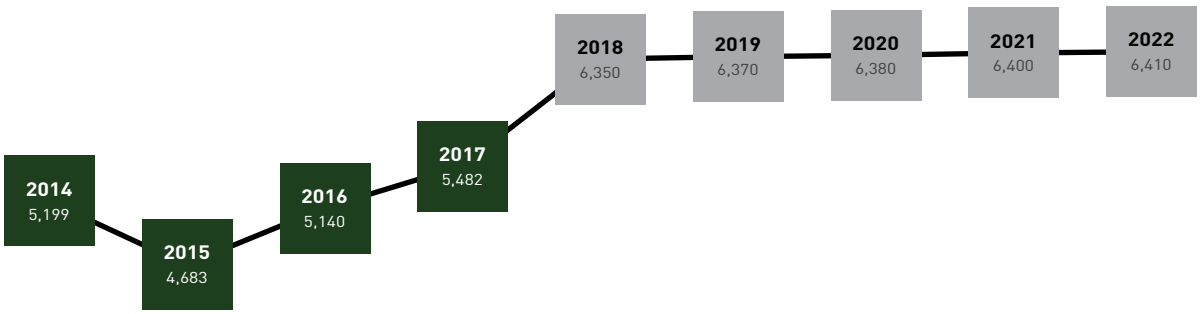



**Table 8:** Forestry export revenue, 2014–22 ($NZ million)

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Logs | 2,541 | 2,059 | 2,224 | 2,687 | 3,310 | 3,310 | 3,340 | 3,370 | 3,380 |
| Sawn timber & sleepers | 787 | 751 | 860 | 830 | 890 | 940 | 960 | 960 | 970 |
| Pulp | 606 | 631 | 687 | 655 | 820 | 810 | 770 | 770 | 770 |
| Paper & paperboard | 477 | 470 | 518 | 484 | 490 | 470 | 470 | 460 | 460 |
| Panels | 407 | 451 | 512 | 476 | 510 | 530 | 530 | 540 | 530 |
| Chips | 51 | 52 | 64 | 59 | 60 | 60 | 60 | 60 | 70 |
| Other forestry products* | 331 | 268 | 275 | 290 | 280 | 250 | 250 | 240 | 240 |
| Total | 5,199 | 4,683 | 5,140 | 5,482 | 6,350 | 6,370 | 6,380 | 6,400 | 6,410 |
| % Change | +14.9% | -9.9% | +9.8% | +6.7% | +15.8% | +0.3% | +0.2% | +0.3% | +0.2% |

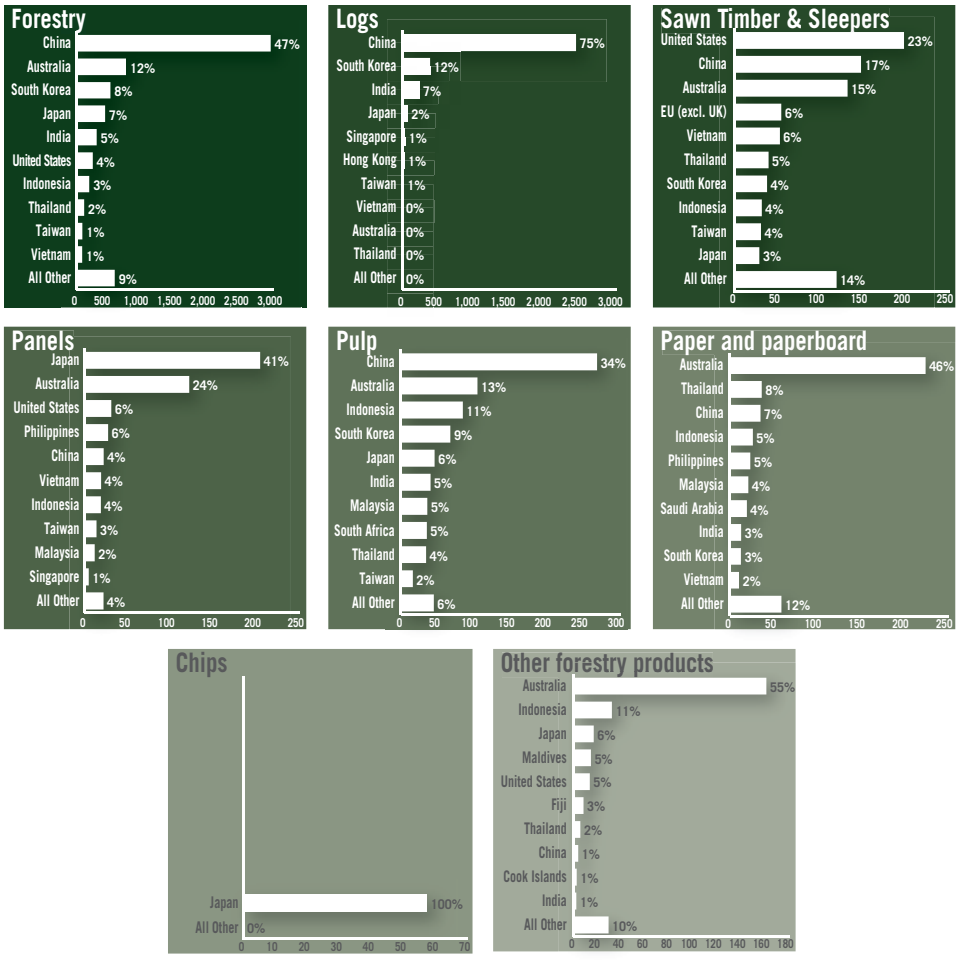
Source: StatsNZ and MPI.

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

## Top 10 export destinations


| Product | Total export revenue $ million (March 2018) | % of Total |
|---|---|---|
| Logs | 3,240 | 52% |
| Sawn Timber & Sleepers | 873 | 14% |
| Pulp | 780 | 13% |
| Panels | 498 | 8% |
| Paper & Paperboard | 481 | 8% |
| Chips | 58 | 1% |
| Other Forestry Products | 291 | 5% |
| Total forestry | 6,221 | 100% |

## Top markets ($NZ millions, year ended March 2018)



## Record harvest levels and log prices

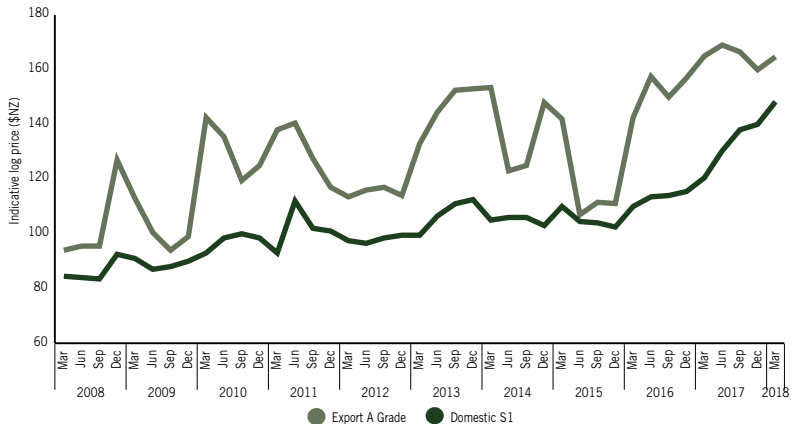
Log production continues to hit new highs with harvest volumes reaching 33.6 million cubic metres in the March 2018 year, an increase of 10 percent from 2017. Harvest levels are expected to remain high over the next decade, as the extensive plantings in the 1990s are reaching harvestable age, and demand remains high both domestically and internationally.

Variability in harvest volumes may increase over the next decade, because roughly a third of the wood available over this period belongs to small forestry owners, due to their large number of plantings during the 1990s. These small forestry owners tend to be more price sensitive than larger forestry owners, so harvest numbers are likely to correlate with log prices. If log prices remain near current levels, it is likely that high harvest volumes will continue, subject to labour constraints.

The Government has a renewed interest in the forestry industry and in May established the new branded business unit "Te Uru Rākau" within MPI. One objective of Te Uru Rākau is the One Billion Trees programme, with the aim to plant one billion trees over the next 10 years. This will include, but is not limited to, new and replanted exotic forests, so we would expect a boost in new planting numbers over this period, and an expansion of forestry land area. In addition to economic and regional development benefits, the One Billion Trees programme aims to help in New Zealand's transition to a low-carbon economy, with new forestry plantings contributing to offsetting New Zealand's carbon emissions.

New Zealand indicative log export prices have had their highest year on record. Whether the high prices of the past year can be sustained is uncertain and highly dependent on Chinese demand. High export prices are also dragging up the price of domestic logs, which have been increasing rapidly over the last year, reaching record levels this past March quarter. These high domestic prices are proving a challenge for New Zealand mills as they process these logs.

**Figure 18:** Indicative log prices, 2008-18




Source: MPI.

Export log prices have had their strongest year yet, while domestic log prices have also rapidly increased over the past year, with March 2018 prices 23 percent higher than 2017.

**Table 9:** Forestry production, exports, and consumption (thousand cubic metres roundwood equivalent), year ended March 2013–18

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|
| Harvest volume | 28,137 | 30,257 | 29,660 | 29,068 | 30,653 | 33,583 |
| Log export volume | 14,651 | 17,061 | 16,158 | 15,534 | 17,469 | 20,032 |
| Estimated processing volume | 13,844 | 13,443 | 13,494 | 13,624 | 14,004 | 13,782 |
| Total domestic processed consumption | 7,398 | 7,536 | 8,313 | 7,983 | 8,616 | 8,304 |
| Indicative log export prices (A Grade, $NZ) | 120 | 151 | 135 | 118 | 157 | 165 |

Source: StatsNZ and MPI.

## Log exports driven by demand from China

Almost half of New Zealand's forestry export revenue comes from log exports, of which China, India, Japan, and South Korea are our main trading partners. China is our largest trading partner in logs, and in 2018 is expected to represent 75 percent of our export log market value. New Zealand is also China's number one source of imported logs (19 percent of imports by value), followed by Russia and the US.

Log export revenue has been exceptional over the past year, and is forecast to reach a record high of $3.4 billion in the year ending June 2018. Whether this level will be sustained depends on Chinese demand, of which there are several factors to consider.

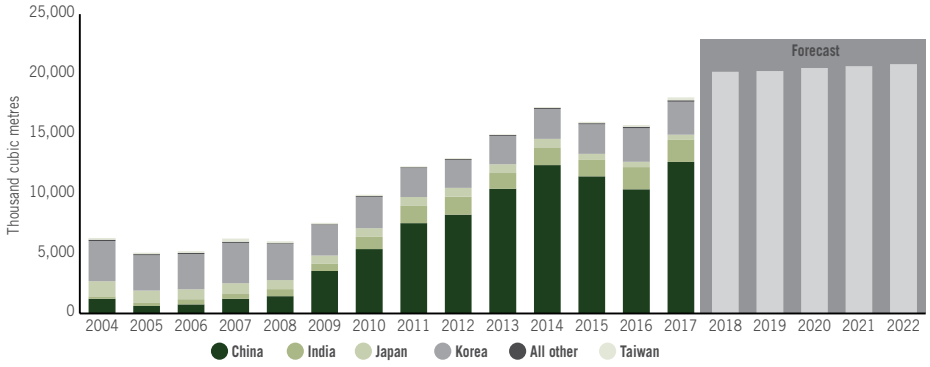
There were high inventory levels of logs over the March quarter after a late Chinese New Year (16 February), with radiata pine stocks reaching a historical high at Chinese ports. High inventory levels may indicate decreasing demand, as a consequence of a slowdown in residential construction.

On the other hand, the recent banning of logging of natural forests in China keeps its demand for log imports high, with May having high daily off-take levels of 90,000 cubic metres to 100,000 cubic metres, greatly reducing these inventory levels.

With a large standing volume reaching maturity, New Zealand harvest volumes have the capacity to fulfil current levels of Chinese log demand in the short run. According to MPI wood availability forecasts, however, harvest volumes are ahead of the maximum sustainable yield. This could become a factor if harvesting continues at current rates.

South Korea is New Zealand's second-largest destination for log exports, although these have been decreasing over the past two years as South Korea's economic growth has slowed.

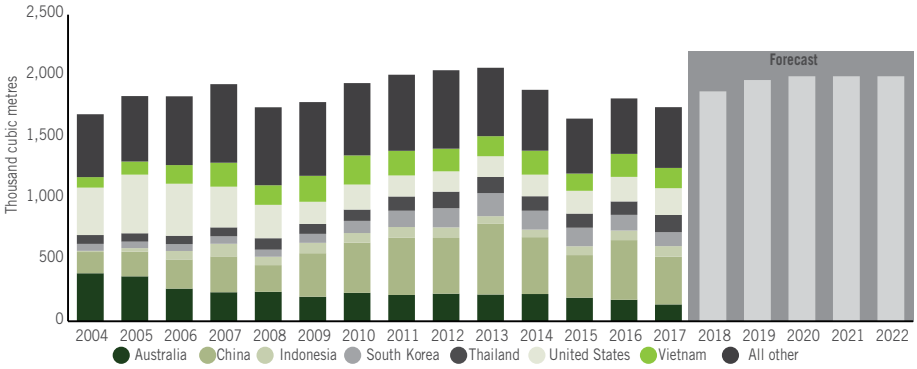
**Figure 19:** Log export volume by destination, 2004–22




Source: StatsNZ and MPI.

The majority of New Zealand's log exports go to China, whose demand has been increasing rapidly over the last decade. In 2018, exports are forecasted to reach 20 million cubic metres, New Zealand's largest ever export quantity of logs. After 2018, exports are expected to flatten off, as the New Zealand wood supply is unlikely to sustain the current export growth rate.

**Figure 20:** Timber export volume by destination, 2004-22




Source: StatsNZ and MPI.

Sawn timber exports to China decreased from 2016 to 2017, although are forecast to increase again in 2018. Exports to the US have also grown over the past few years.

## Sawn timber production and exports trending up

In contrast to logs, about 60 percent of New Zealand's sawn timber production stays in the domestic market, with only 1.8 million cubic metres exported offshore. Although the Christchurch rebuild is slowing down, domestic timber consumption is increasing due to high levels of domestic residential construction in areas of housing shortages, with building consents especially high for apartments and townhouses in the Auckland region.

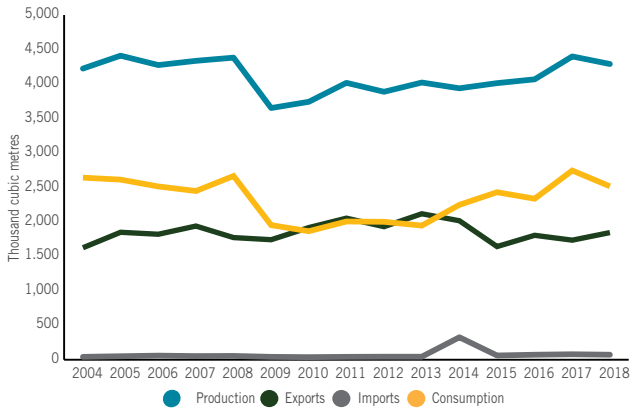
In addition to strong domestic demand for timber, timber exports are forecast to grow 6.9 percent from $830 million in the year ended June 2017 to $887 million in 2018. Export prices have dropped slightly in 2018 and are expected to average about $473 per cubic metre.

New Zealand's timber exports to the US continue to increase following strong construction activities and because US imports from Canada have declined due to duties imposed on Canadian lumber. Whether these duties will remain on Canadian exports to the US is uncertain, because the World Trade Organization is currently examining the imposition of the US lumber duties after complaints from Canada.

Timber exports to China have also increased from 2017. In the short-term, as with log demand, the ban on commercial logging of natural forests in China is likely to increase demand for imported timber.

In the mid/long term, there is a possibility Russia will become more competitive in the Chinese market. Increased use of cargo trains between China and Russia has increased opportunities to transport lumber to China. While expensive, the efficiency of these trains may make timber delivered in this way an attractive choice.

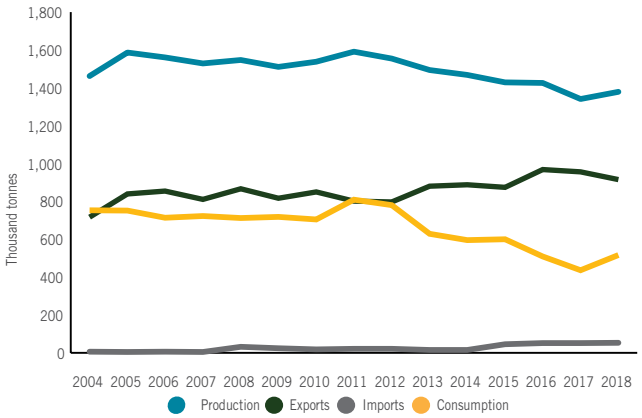
**Figure 21:** Sawn timber production, trade, and consumption, year ended March 2004-18




Source: StatsNZ and MPI.

After a significant increase in Sawn timber production in 2017 to 4.4 million cubic metres, volumes have dipped back to the long term trend, with levels still high. High production levels are driven by both domestic consumption and export levels.

**Figure 22:** Pulp production, trade, and consumption, year ended March 2004-18




Source: StatsNZ and MPI.

Pulp exports remain steady. Production dipped in 2016 due to a low June quarter, and has otherwise remained steady.

## Pulp and paper markets steady

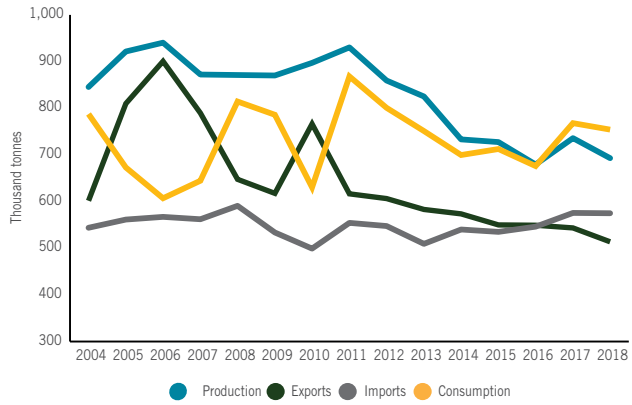
Export demand for pulp has stabilised since 2015. China captures over a third of New Zealand's pulp export market and has nearly doubled pulp imports from New Zealand over the past decade. Despite this, 2018 exports to China are expected to be down from the previous year. To counter this, demand from Australia, Indonesia and South Korea is strong, and growing economies like India can be expected to increase demand for pulp. Pulp prices have increased greatly over the past two years, with pulp export value expected to reach $820 million in the year ending June 2018, a 25 percent increase from 2017. Whether or not these high prices continue will largely determine the export value in the coming years.

Export demand for paper is continuing to decline as many products are replaced with electronic substitutes. Steady demand from Australia, and growing demand from Indonesia, is keeping our paper exports at their current levels. With paper prices relatively steady, not much movement is expected in this market in the coming year.

## Panel exports to Japan flat

New Zealand's panel exports to Japan have remained strong and make up about 40 percent of our total panel export value. Total panel exports are expected to remain steady with export revenue expected to reach $500 million in 2018.

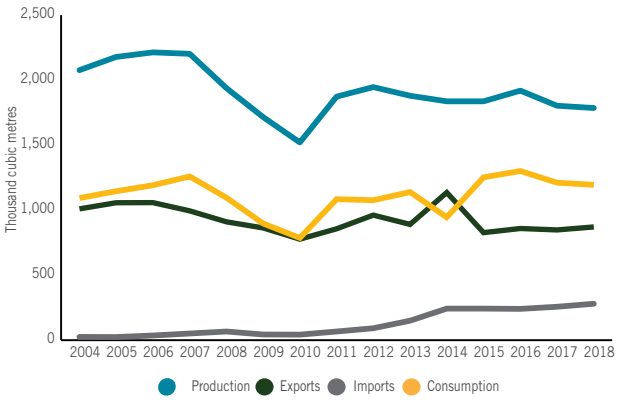
**Figure 23:** Paper and paperboard production, trade, and consumption, year ended March 2004-18




Source: StatsNZ and MPI.

Paper exports have decreased with production, while rising consumption was supported by higher imports.

**Figure 24:** Panel production, trade, and consumption, year ended March 2004-18




Source: StatsNZ and MPI.

Panel production and consumption have stabilised after falling in 2017. Exports and imports have remained very stable.

# Horticulture

- Horticultural exports are forecast to reach nearly $5.5 billion for the year ending June 2018, led by higher prices across the sector and high yields for most fruit crops. The outlook for the horticulture sector is strong, with high profitability leading to expected increases in planted area over the next five years.
- Growth in the kiwifruit sector is being led by increased plantings and exports of the high value Gold3 variety, which has higher prices, yields, and on-farm profitability than green varieties.
- Wine exports are forecast to increase 3.6 percent to over $1.7 billion in the year ending June 2018. Export growth in 2019 is expected to be moderate as a result of a lower harvest volume in 2018.
- Strong growth in apple and pear export revenue in 2018, up 9.9 percent from 2017, is driven by good weather and increased yields in Hawke's Bay and rising average export prices.

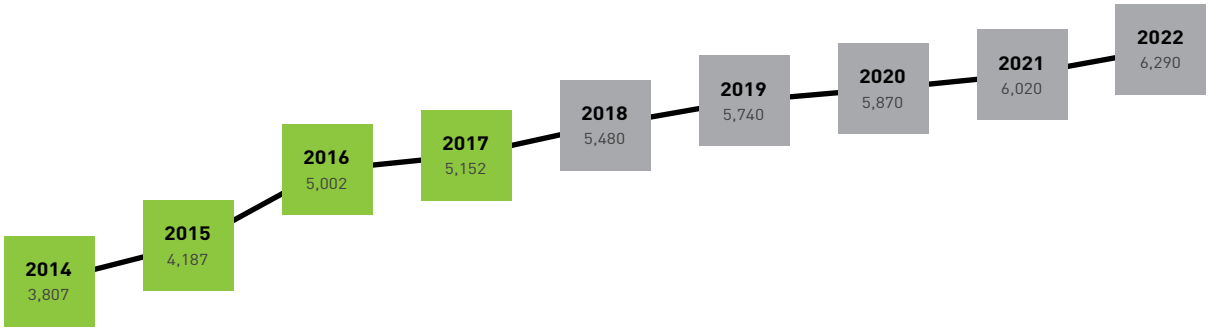



**Table 10:** Horticulture export revenue 2014–22 ($NZ million)

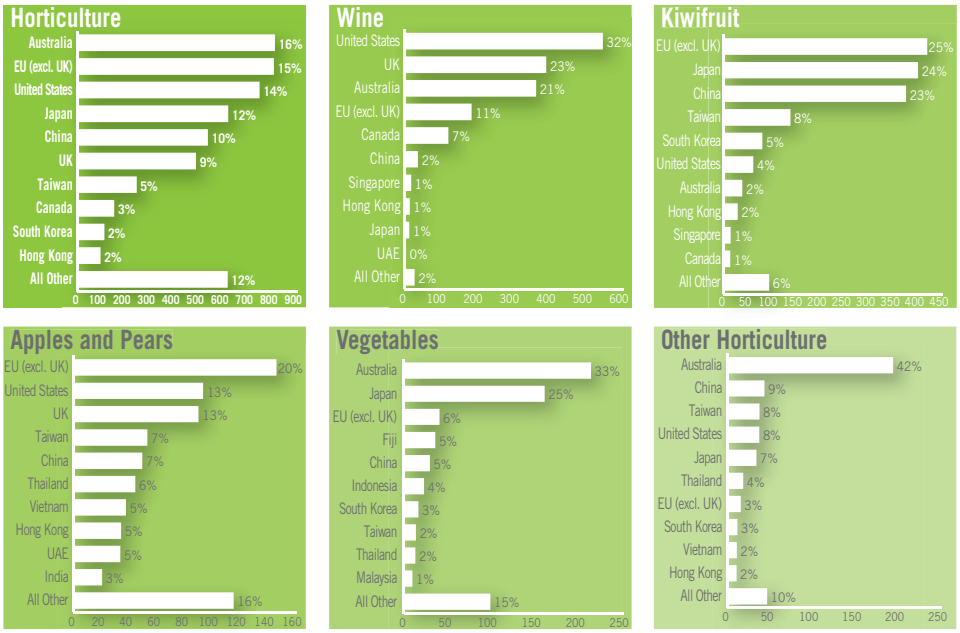
| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Kiwifruit | 931 | 1,182 | 1,673 | 1,664 | 1,860 | 1,970 | 1,930 | 2,000 | 2,110 |
| Wine | 1,323 | 1,408 | 1,558 | 1,660 | 1,720 | 1,780 | 1,820 | 1,870 | 1,900 |
| Apples & pears | 547 | 571 | 701 | 701 | 770 | 820 | 880 | 940 | 990 |
| Fresh & processed vegetables* | 606 | 588 | 612 | 614 | 650 | 660 | 670 | 680 | 700 |
| Other horticulture** | 400 | 438 | 458 | 513 | 470 | 520 | 570 | 530 | 600 |
| Total exports | 3,807 | 4,187 | 5,002 | 5,152 | 5,480 | 5,740 | 5,870 | 6,020 | 6,290 |
| % Change | +7.3% | +10.0% | +19.5% | +3.0% | +6.4% | +4.7% | +2.3% | +2.6% | +4.5% |

Source: StatsNZ and MPI.

* Fresh and processed vegetables include: squash, peas, legumes, potatoes, sweetcorn, and other vegetables.

** Other horticulture includes: avocados, cherries, other fruit, and ornamentals.


## Top markets ($NZ millions, year ended March 2018)



## Strong growth for horticulture based on value proposition

The growth of the horticultural sector represents a significant success in New Zealand's export story. Export revenue has increased by 55 percent over the past five years to $5.5 billion, faster than any other primary industry sector.

Sustained export growth is supported by research and innovation into production practices and new IP-protected varieties helping to expand market share and consumption at the premium end, and lift grower returns.

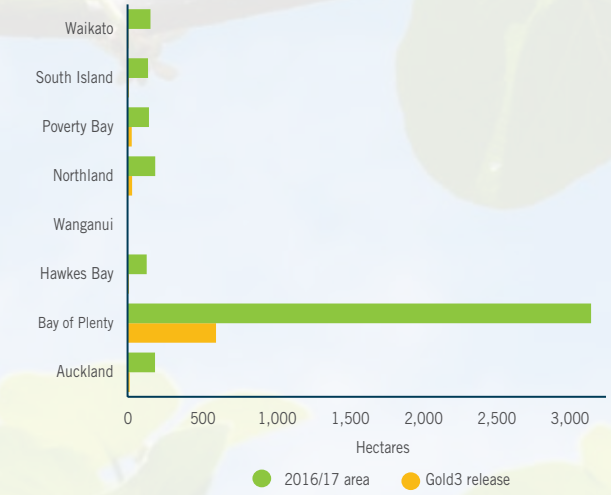
Genetic improvements and changes in growing systems, including higher planting densities, have lifted productivity. The horticultural success story, delivering high returns per hectare for several fruit crops, is influencing land use decisions change in parts of New Zealand:

- New avocado orchards in Northland are being developed on pastoral land, with an estimated 850 hectares underway or scheduled.
- In the Bay of Plenty, Zespri's intention to increase the licensed area it is allocating to Gold3 kiwifruit by 700 hectares will provide further pressure on conversion of pasture land to kiwifruit orchards.
- New apple plantings in the main growing region of Hawke's Bay is on land previously used for cropping or viticulture, and with a good water supply.
- Marlborough is experiencing ongoing growth in viticulture, with another 3,000 hectares of plantings expected over the next four years.
- Central Otago is expanding its area in stonefruit, mainly cherries. Planted area is expected to increase by around 50 percent to 1,200 hectares over the next six years.

Increasing horticulture production aligning with low unemployment in New Zealand's main growing regions resulted in a shortage of workers for the 2018 harvest. Labour supply for pruning is also expected to be lower than required. Seasonal labour shortages were declared for fixed periods over summer/autumn 2018 by the Ministry of Social Development in the Otago, Hawke's Bay, Nelson and Bay of Plenty regions. The flow of fruit into markets has not been interrupted by the labour shortages, helped by settled weather over harvest for apples and kiwifruit crops in particular, and available workers working longer hours.

The horticulture industry and government are working together on several initiatives to find short-term and long-term solutions for seasonal labour. One potential longer-term solution is increased use of automation, which is already widely used in fruit packhouses for sorting and grading fruit by size, colour, and other external and internal quality parameters. Further automation is more likely in packhouses than on-orchard. This is due to the complexities of the orchard environment and physical changes required to accommodate automated harvesters and pruners, although most wine grape harvesting has been automated.

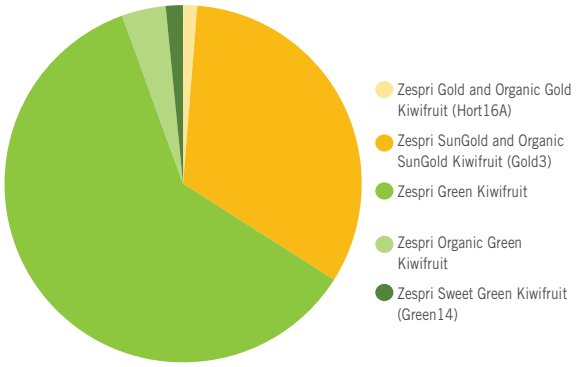
**Figure 25:** Regional hectares of Gold3 kiwifruit in 2016/17 season, and latest release of Gold3 kiwifruit licences




Source: Zespri.

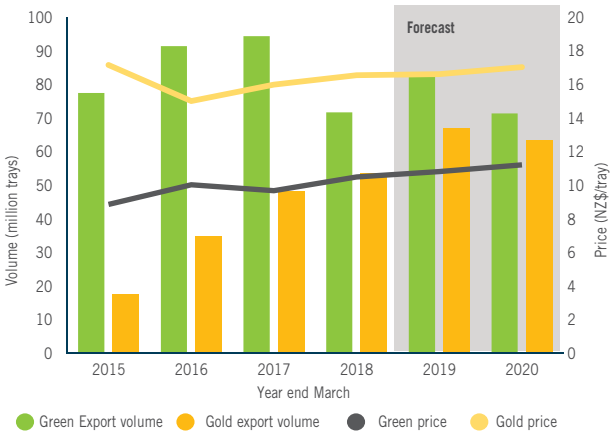
Interest in Gold3 licences was shown across all regions of kiwifruit production, although around 80 percent went to the primary kiwifruit region of Bay of Plenty. The area of new licence release in Bay of Plenty represents 19 percent of the total 2016/17 Gold3 area in the region, while outside Bay of Plenty, the new release is 10 percent of the existing area.

**Figure 26:** Kiwifruit producing hectares by variety 2016/17




Source: Zespri.

**Figure 27:** Green and Gold exports, 2015–20




Source: StatsNZ and MPI.

Green kiwifruit varieties still make up the majority of area, but higher-yielding gold varieties are rapidly approaching green production volumes.

## Kiwifruit exports rising with high gold yields

Kiwifruit production for the harvest just completed is estimated to be 20 percent up on last year, resulting in kiwifruit exports for the year ending March 2019 now forecast to increase 23 percent to $2.0 billion. The forecast increase in export revenue over the previous year is mainly due to predicted high yields this season following the low yield harvest in 2017, which had caused export revenue to fall 2.9 percent in the year ended March 2017.

The previous season, picked in early 2017, was affected by less-than-ideal weather conditions, including low light levels affecting bud development and a mild winter causing lower than ideal bud break. These seasonal factors appear to have been better during vine development in 2017, resulting in a good crop forecast for the current 2018 picking and the export year ahead.

Gold export value equalled green for the first time in the year ending March 2018, reflecting the shift in production away from green to the new higher value Gold3 (SunGold) variety.

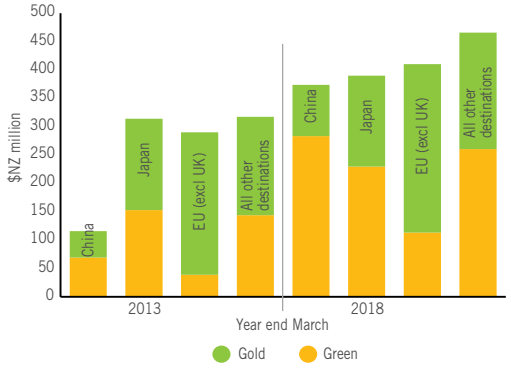
## Regional production trends

Strong demand for Gold3 kiwifruit in our export markets has driven some high prices paid for the latest 700 hectares of licences released for this variety. The 2016/17 average orchard gate return for Gold3 is almost double that of green, at $99,000 per hectare compared with $54,000 for green, according to Zespri.

## Kiwifruit destinations continue to diversify

China remains a major source of growth in exports, with revenue currently four times higher than five years ago. Over the next four years exporters will focus on deepening existing markets in China's big cities and developing potential in a range of new locations around the country. China is now neck and neck with Japan (Figure 28), where both green and gold varieties attract high prices and increasing demand. The EU remains our largest value single market and has the highest demand for green varieties.

**Figure 28:** Kiwifruit export value to top three destinations, 2013–18




Source: StatsNZ and MPI.

The Chinese export market has grown to rival Japan in value. The biggest export destination is the EU, with the majority of revenue coming from green kiwifruit, as opposed to both China and Japan.

## Wine export revenue continues to expand

New Zealand wine exports are on track to reach export earnings of over $1.7 billion for the year ending June 2018. Growth in the wine export market over recent years has largely been driven by increased export quantities rather than strengthening prices. Variation of prices over the last few years can be seen in Table 11.

## Smaller vintage for 2018

The industry estimate of the 2018 vintage has been revised downwards 4.6 percent to 410,000 tonnes. Higher than usual temperatures at the start of the season boosted optimism for this season but late season rain caused increased disease pressure, and combined with higher thinning, has resulted in a smaller vintage. A smaller vintage will result in less bulk wine being exported, raising price expectations for the coming year.

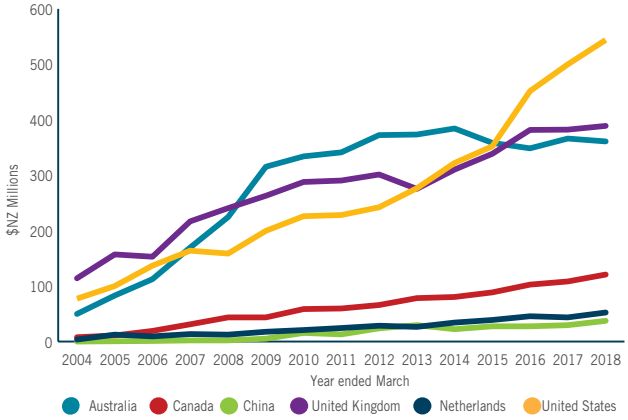
Our forecast is underpinned by a return to normal harvest yields and moderate increases in plantings for the 2019 vintage. Supported by moderate price growth, we forecast exports to increase. Growth in future plantings are also expected to slow due to reducing availability of suitable land in the Marlborough region.

## Exports

New Zealand's main wine exports partners are the US, the UK, and Australia. Together these markets account for 75 percent of New Zealand's total wine export by value. Growth in the US, which currently comprises 32 percent of total export value, has been driving a positive outlook for the wine industry over the last few years as US per capita wine consumption continues to grow.

Bulk wine exports have been growing at a faster pace than bottled wine since 2008. This has mainly been driven by increased plantings and consistently high yields per hectare. Although lower in value per litre, the bulk market is an important component of New Zealand's export mix as it creates a buffer between changes in seasonal production and market capacity to take producer-labelled bottled wine. Bulk wine provides an avenue to produce more wine without flooding the bottled wine market and reducing bottled prices and the brand equity of New Zealand's export wine makers. Bulk wine is typically shipped overseas, generally either to be bottled by a parent company or sold to large retail chains to be bottled under their home brand.

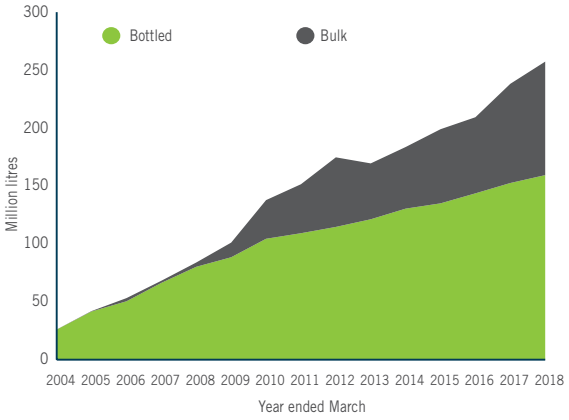
**Figure 29:** Wine export revenue of biggest wine export partners, 2004–18




Source: StatsNZ.

Consistent growth has been experienced in emerging wine export markets such as Canada, Netherlands, and China. These secondary markets collectively account for 12 percent of total wine export revenue. Opportunities for growth are expected to be more limited in mature markets that already have a high per capita consumption of wine such as Australia and the UK.

**Figure 30:** Composition of bottled and bulk wine exports on a year end March basis.



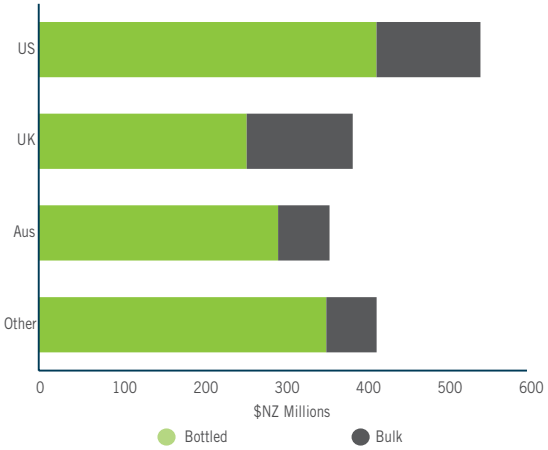

Source: StatsNZ.

The growth in the wine supply has outstripped demand resulting in more and more bulk wine entering the market.

## Wine industry segmentation

Figure 32 shows the different reliance on domestic markets by winery size, with smaller scale producers more reliant on the domestic market than larger scale producers. These scale effects can be seen predominantly in smaller viticultural regions such as Central Otago and Hawke's Bay who rely more on the domestic market compared with Marlborough. This is not surprising, Marlborough has the majority of the large scale wineries to target a greater market size overseas.

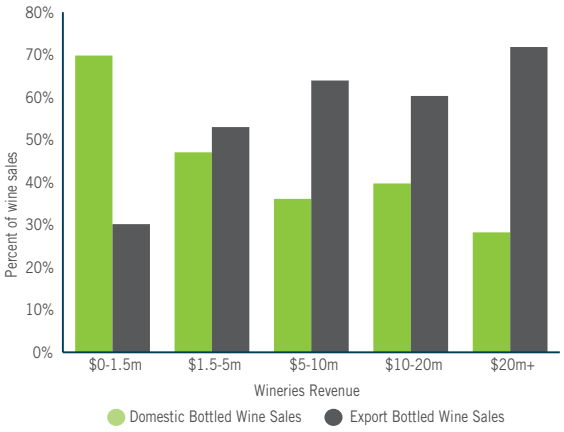
**Figure 31:** Bottled versus bulk breakdown across major markets year end March 2018.




Source: StatsNZ.

The UK is New Zealand's largest bulk wine market, importing $130 million worth of bulk wine. Just behind is the US, importing $127 and Australia is the third largest at $63 million.

**Figure 32:** Proportion of domestic and export bottled wine of wineries by revenue.




Source: ANZ Wine industry benchmarking and insights 2017.

Smaller scale producers are much more reliant on the domestic market and often operate at higher margins, in comparison to larger producers who have access to better export distribution channels and can compete in a lower price margin environment.

**Table 11:** Wine export revenue 2014–22

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Export volume (million litres) | 186.2 | 206.7 | 211.4 | 252.1 | 260.0 | 257.9 | 261.7 | 264.8 | 267.9 |
| Average export price ($/litre) | 7.11 | 6.81 | 7.37 | 6.59 | 6.65 | 6.90 | 6.95 | 7.05 | 7.10 |
| Export revenue ($ million) | 1,323 | 1,408 | 1,558 | 1,660 | 1,720 | 1,780 | 1,820 | 1,870 | 1,900 |

Source: StatsNZ and MPI.

## Apple and pear production, exports rebound

Apple and pear exports for the year ending December 2018 are forecast to reach $780 million, driven by increased volumes and a small lift in export prices. 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.

## Increase in planted area and maturing trees lifting production

The good winter chill over winter 2017 and above-average temperatures in August and September 2017 led to early bud-burst on apple and pear orchards. This meant an early start to the season, which prevailed through to harvest. The season was one to two weeks earlier than normal in all main growing regions.

Production of the 2018 crop is up by 12.1 percent on the prior year, driven by increases in planted area, young trees maturing and generally favourable growing conditions. There were no significant damaging frosts or hail events. Warm temperatures over summer, together with adequate moisture, increased fruit size. However, these conditions made it challenging for growers to balance background colour development (which is promoted by cooler nights giving greater diurnal temperature differences) with other fruit quality parameters in making harvest decisions for some early-to mid-season varieties.

A drop in temperature and settled weather over much of March and April in Hawke's Bay, the main growing region, helped ease the pressure of harvesting the region's large apple crop, despite a shortage of labour. Good fruit quality and packout rates are being reported for several mid- to late-season apple varieties such as Braeburn, Envy™, Jazz™, Pacific Queen™ and Pink Lady™.

Orchard replanting and new plantings are expected to continue, helped by five consecutive years of profitable returns, access to higher-value varieties, and good demand from markets in Asia for high quality fruit. The planted area, currently at around 10,250 hectares, has increased in recent years in line with expectations. The rate of increase in planted area is being dictated by:

- the lead time required to produce trees with the desired rootstock–cultivar combination;
- adequate labour supply; and
- availability of suitable land with good water supply.

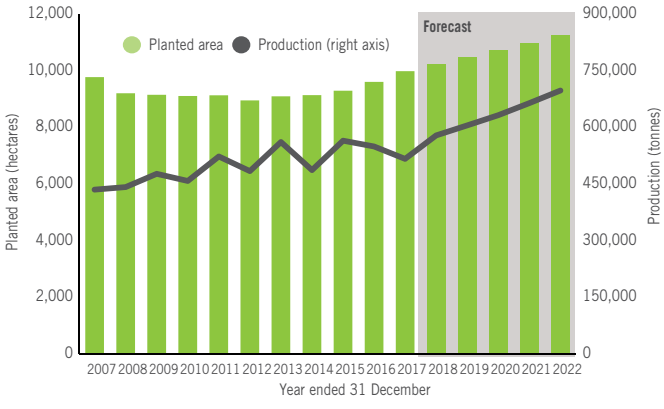
## Exports to exceed 20 million carton milestone

An export volume of around 378,000 tonnes (21 million cartons) is estimated for the 2018 crop, in line with earlier forecasts. 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.

Industry and government continue to invest in research, such as the Apple Futures II Partnership, to develop technologies and practices for the management of pests and diseases, both on-orchard and postharvest, to assist with maintaining and enhancing market access for New Zealand apples and pears.

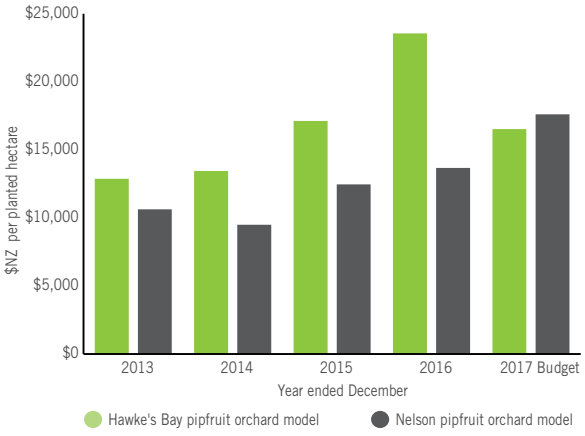
Novel research under way by Plant and Food Research is introducing sterile codling moths on apple orchards to knock down wild populations. In pilot trials, a 98 percent reduction in wild populations was achieved by introducing sterile moths using unmanned aerial vehicles. Researchers at Plant and Food Research indicate that there may be potential to use the sterile insect technique against pest incursions in New Zealand, such as Queensland fruit fly or brown marmorated stink bug, should these economically damaging pests ever become established.

**Figure 33:** New Zealand apple and pear planted area and production, 2007–22




Source: New Zealand Apples & Pears Inc. and MPI.

**Figure 34:** Orchard profitability by region (earnings before interest and tax) 2013–17




Source: MPI Pipfruit Monitoring.

Higher prices from the diversification of market and variety mix have helped buffer any adverse climatic effects on production, and lifted orchard profitability.

## Market conditions looking positive for 2018

Market conditions for the 2018 season are generally positive, with expectations of a small lift in average export prices, helped by favourable exchange rates with the Euro and British pound compared with last season.

Good, steady demand is being reported for New Zealand apples from markets in Asia, including Taiwan, which had been supplied early in New Zealand's exporting window with fruit from the US and other southern hemisphere suppliers.

A reduction in the 2017 domestic crop in Europe due to frost and heat damage has increased opportunities for southern hemisphere suppliers in 2018. At the start of the selling season for New Zealand apples (April 2018), retail prices in the UK and continental Europe were significantly above those of recent years. Hence, good prices are anticipated for apple varieties that are favoured by these markets, including Braeburn, Cox, Jazz™ and Pink Lady™.

Changes in the variety mix and further expansion into higher-paying markets (particularly Asia) are expected to gradually lift average export prices. However, these increases will be tempered by rising global apple production providing increased competition, not least from Washington State in the US where plantings of their proprietary variety, Cosmic Crisp™, are ramping up.

**Table 12:** Apple and pear export volumes, prices, and values, 2014–22

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Export volume (million cartons)* | 17.40 | 18.50 | 19.52 | 19.36 | 21.00 | 21.75 | 22.75 | 23.75 | 25.00 |
| FOB price ($/carton) | 30.03 | 33.96 | 36.73 | 36.06 | 37.00 | 38.00 | 39.00 | 40.00 | 40.00 |
| Export value ($ million) | 522 | 628 | 717 | 698 | 777 | 827 | 887 | 950 | 1,000 |

Sources: StatsNZ, New Zealand Apples and Pears Inc. and MPI.
* A carton is equivalent to 18 kilograms.

## Avocado plantings continue

The avocado crop of 2018 is estimated to be a return to higher volume, although not as high as the record crop of 2016. Projected volumes are set to increase with more orchards being planted. Nearly 60 percent of avocado production is exported and 30 percent sold locally. The remaining 10 percent is processed.

The persistent challenge of inconsistent bearing continues for the industry and research into varieties and management practices to mitigate this is ongoing. A new variety with more consistent bearing is currently licenced from overseas and is being propagated in nurseries and currently maturing on orchards. 40 percent of avocados are grown in Northland (Figure 35), however, further expansion in other regions may rely on the ability to secure water consents.

The much anticipated market access to China has been granted this season and is hoped to develop into a growth market for premium fruit.

## Fresh and processed vegetables have a mixed year

Total fresh and processed vegetable export revenue is up by around 5 percent in the year to June 2018, attributed mainly to higher export volumes for squash and some frozen vegetables such as peas and potatoes.

## A challenging growing season

Extended periods of wet weather from late summer into spring 2017 in the vegetable growing districts of Pukekohe, Matamata, and Horowhenua affected the harvesting and planting of crops. This led to reduced marketable yields and short-term availability issues for some leafy greens and potatoes for crisp production during the latter part of 2017.

Hot, humid weather, along with heavy rainfall and frequent thunderstorms between November 2017 and February 2018 in the North Island and parts of the South Island, affected the establishment, growth, and quality of green vegetables in particular. These weather conditions sped up the growth cycle, leading to crop losses or reduced yields (for example, bolting of lettuce), and increased disease pressure (for example, *Stemphylium* leaf blight of onions).

Above-average temperatures brought forward maturation of crops such as peas and sweetcorn grown for processing. This disrupted harvest schedules and forced the by-pass of some crops where the volumes ready for harvest on certain days exceeded processing capacity.

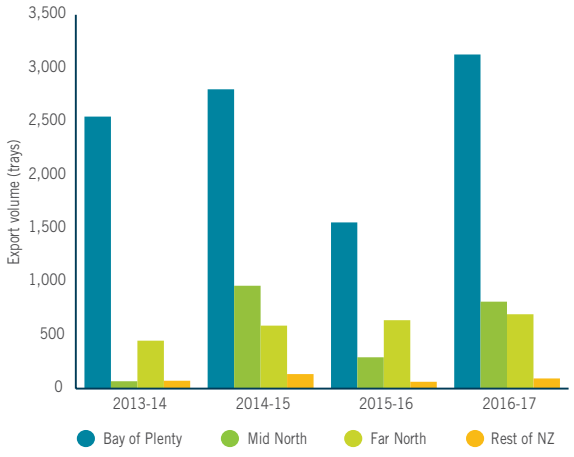
## Modest export growth for fresh vegetables

Modest growth is expected for fresh vegetable export volumes. Exports of the 2018 onion crop are expected to be down by around 20 percent compared with the prior year due to impacts from the onion leaf blight disease, *Stemphylium*. This disease is not new to New Zealand. Growers are being provided with the latest research and best practice information on how to manage this disease next season.

In the medium to long term, growth in onion exports is reliant on improved access to growing markets in Asia because the sales window into the UK and Europe is reducing due to improved storage systems for their domestic production.

Squash exports returned to normal levels in 2018 due to more favourable climatic conditions. The markets have been mixed, with export prices down on last season. Exporters have increased the volume of squash to China, albeit 3 to 4 percent of total exports, as they explore the growth opportunities in this market.

**Figure 35:** Regional production of export avocados, 2013–17




Source: NZ Avocado Growers Association

Far North orchards with warmer drier weather are less impacted by the irregular bearing pattern seen in the Bay of Plenty.

## Processed vegetables exports stable

Total exports of processed vegetables increased in the year to June 2018, driven by increases in the export volume of frozen peas and potatoes. Exports of frozen peas to China doubled between 2015 and 2017. Frozen potato exports (mainly French fries) have also increased since 2015, including to Australia, Thailand, and China. There was a substantial lift in exports of frozen French fries to China in the 2018 March quarter, at around 5,000 tonnes compared with 250 tonnes in the prior calendar year. It is unclear at this stage whether this increase will be sustained.

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. Internationally focused processors continue their focus on efficiency, alongside growth opportunities.

## Other fresh fruit emerging as key regional sectors

New Zealand stonefruit exports are heavily dominated by cherries, which, at $84 million, represent 83 percent of total stonefruit export value. Significant growth is forecasted for the New Zealand cherry sector over the next five to eight years with expectations of a rapid increase in plantings.

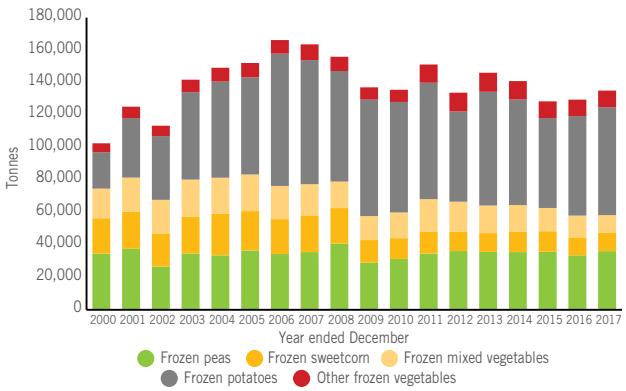
The hot weather in in late 2017 and early 2018 also influenced Central Otago's cherry production – bringing positives and negatives. On the upside, high temperatures helped cherry exports reach a record high of 4,250 tonnes, up 25 percent on last year. On the downside, high summer temperatures negatively affected fruit quality, while also bringing the harvest period forward with New Zealand's cherry supplies hitting export markets at the same time as Chilean exports.
The Chinese New Year also occurred later than usual, causing exporters to miss the price premiums that can be achieved during this period. These compounding factors reduced export prices for New Zealand growers.

Similarly, high temperatures brought the apricot harvest forward two to three weeks, meaning growers missed the Australian market window reducing export supplies 46 percent, to $2.8 million, and diverting them to the domestic market.

New Zealand's berryfruit exports are expected to continue their growth trend this year, with forecast exports of $46 million up 14 percent on the previous year supported by strong growth in blueberries, which represent 80 percent of total export value.

Persimmons are a relatively small industry in New Zealand, with $10 million in exports for the year ended June 2018. However, their popularity in Asian markets and the recent granting of market access to China may provide optimism for future growth prospects.

**Figure 36:** Export volume of frozen vegetables, 2000-17




Source: StatsNZ.

Frozen potatoes and peas continue to dominate New Zealand frozen vegetable exports, whilst the frozen sweetcorn and mixed vegetables categories have decreased.

**Table 13:** Vegetable export volumes and values, 2014–22

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| **Fresh Vegetables** | | | | | | | | | |
| Export volume (000 tonnes) | 306 | 299 | 319 | 297 | 295 | 315 | 325 | 330 | 340 |
| Export value ($NZ million) | 219 | 215 | 258 | 250 | 245 | 265 | 275 | 280 | 295 |
| **Processed Vegetables*** | | | | | | | | | |
| Export volume (000 tonnes) | 224 | 212 | 191 | 197 | 220 | 215 | 215 | 215 | 215 |
| Export value ($NZ million) | 387 | 373 | 354 | 364 | 405 | 390 | 400 | 400 | 400 |
| **Total Fresh And Processed Vegetables** | | | | | | | | | |
| Export value ($NZ million) | 606 | 588 | 612 | 614 | 650 | 660 | 670 | 680 | 700 |

Sources: StatsNZ and MPI

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

# Seafood

- New Zealand's seafood export earnings are forecast to grow from $1.8 billion in the year endingJune 2018 to $2.1 billion in June 2022.
- Aquaculture continues to grow and is expected to be the main driver for the forecast growth through gradual increase in the supply of hatchery-bred mussel spat supporting increased mussel production and a planned expansion of salmon farming.
- New Zealand seafood prices are likely to remain high due to strong demand from our top seafood export destinations (China, Australia, the US, the EU and Japan) driven by their positive economic growth outlook, and the prospect of lower global supply of wild capture fisheries in the coming years.

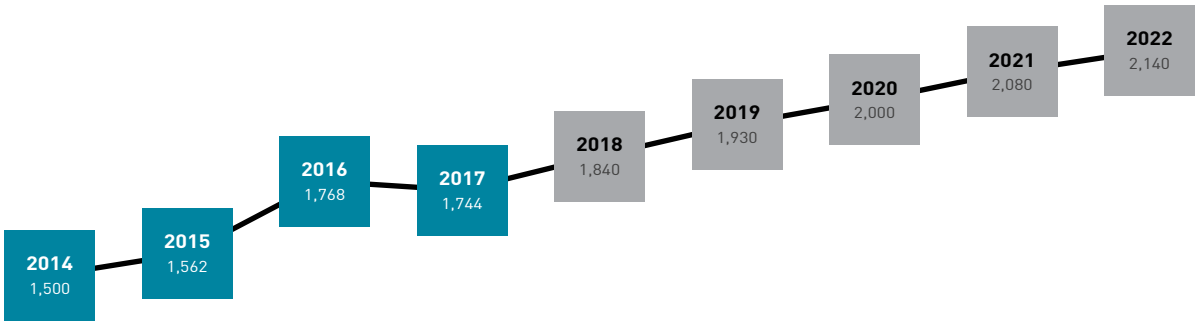



**Table 14:** Seafood export revenue, 2014–22

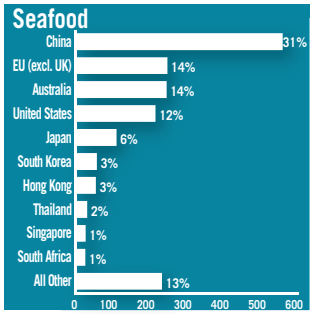
| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| **Wild capture** | | | | | | | | | |
| Export volume (tonnes) | 243,974 | 269,186 | 256,603 | 244,351 | 255,600 | 251,300 | 252,300 | 253,600 | 253,900 |
| Average export price ($NZ/kg) | 4.79 | 4.61 | 5.38 | 5.47 | 5.50 | 5.65 | 5.80 | 5.95 | 6.05 |
| Export revenue ($NZ million) | 1,168 | 1,242 | 1,380 | 1,338 | 1,410 | 1,420 | 1,460 | 1,500 | 1,540 |
| **Aquaculture** | | | | | | | | | |
| Export volume (tonnes) | 37,188 | 34,112 | 36,086 | 40,793 | 42,000 | 48,700 | 51,000 | 53,300 | 53,700 |
| Average export price ($NZ/kg) | 8.94 | 9.40 | 10.76 | 9.95 | 10.25 | 10.35 | 10.60 | 10.85 | 11.10 |
| Export revenue ($NZ million) | 332 | 321 | 388 | 406 | 430 | 510 | 540 | 580 | 600 |
| **Seafood** | | | | | | | | | |
| Export volume (tonnes) | 281,162 | 303,298 | 292,690 | 285,144 | 297,600 | 300,000 | 303,300 | 306,900 | 307,600 |
| Average export price ($NZ/kg) | 5.34 | 5.15 | 6.04 | 6.11 | 6.18 | 6.43 | 6.59 | 6.78 | 6.96 |
| Export revenue ($NZ million) | 1,500 | 1,562 | 1,768 | 1,744 | 1,840 | 1,930 | 2,000 | 2,080 | 2,140 |
| Y/Y % change | -2.9% | +4.1% | +13.2% | -1.4% | +5.5% | +4.9% | +3.6% | +4.0% | +2.9% |

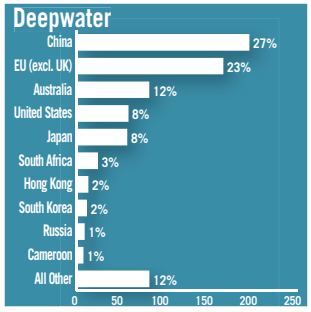
Source: StatsNZ and MPI.

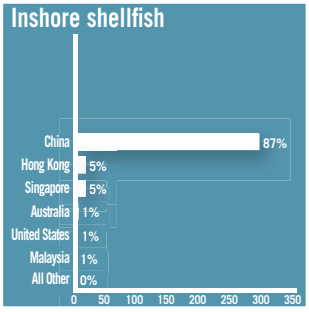
# Top 10 export destinations

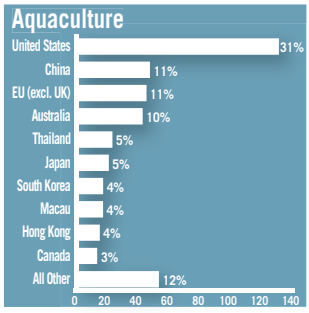

| Total export revenue $ million (March 2018) | % of Total |
|---|---|
| 715 | 40% |
| 336 | 19% |
| 425 | 24% |
| 121 | 7% |
| 39 | 2% |
| 5 | 0% |
| 152 | 8% |
| 1,793 | 100% |

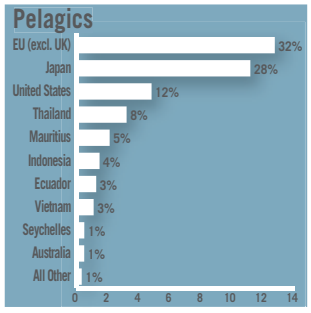
## Top markets ($NZ millions, year ended March 2018)

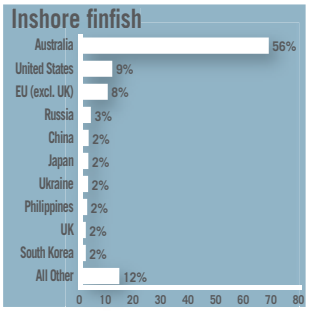


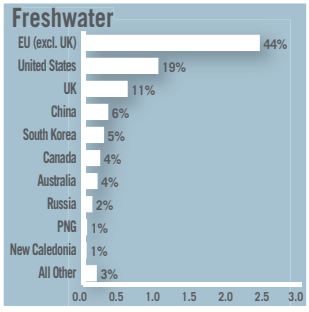



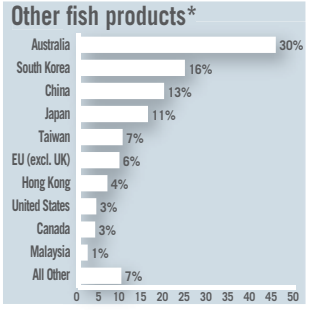




* Other fish products include: fish meal, fish extracts and other seafood products.

New Zealand's seafood export revenue is forecast at $1.8 billion for the year ending June 2018. Wild capture fisheries are the largest component in New Zealand's seafood exports. They currently contribute 85 percent of the total seafood export volume and 76 percent of the total seafood export value. Aquaculture currently makes up 15 percent of the total seafood export volume but generates 23 percent ($425 million) of the total seafood export revenue. During the outlook period (2017–22), total seafood export revenue is forecast to grow from $1.8 billion to $2.1 billion, which is an average 4.1 percent annual increase. The forecast growth is underpinned by an expected increase in both prices and export volumes, particularly aquaculture growth.

## Aquaculture is the main source of seafood export expansion

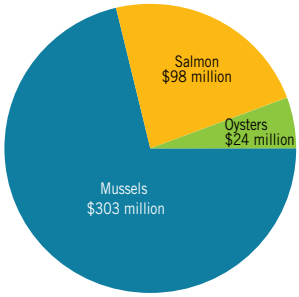
Aquaculture export earnings are forecast to reach $430 million in the year ending June 2018. This is a 5.9 percent increase since June 2017 and is due to increasing volumes and prices. Aquaculture export earnings are forecast to reach nearly $600 million in 2022. This is an average annual increase of 8 percent, mainly driven by an expected increase in production and export volumes.

New Zealand's main aquaculture export markets include the US, Europe, Australia, China, Thailand, Japan, and South Korea. The US is the dominant market and has grown significantly since 2010, but slowed down in 2018, while the European and Australian markets have remained stable in the recent years.

## New production expected to lift export volumes

Global aquaculture production continues to rise and is expected to exceed total wild capture fisheries production (including both food and non-food uses) in 2020. However, aquaculture also faces supply constraints, including availability of suitable growing space, disease management, and availability and costs of feed (fishmeal). Aquaculture's growth rate is expected to slow down to just under 2 percent per year in the next decade, compared with 5 percent annual growth over the previous decade. China is also expected to slow down its aquaculture production growth under its 13th Five Year Plan (2016–20).

**Figure 38:** Aquaculture export value by species category, year ended March 2018




Source:StatsNZ

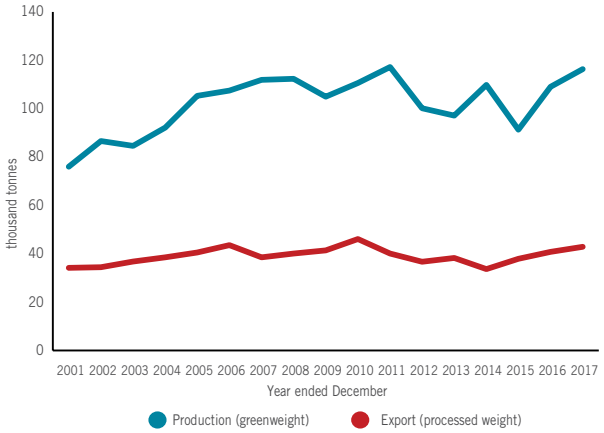
Aquaculture exports are dominated by mussels (76 percent), followed by salmon (23 percent) and oysters (6 percent).

New Zealand is a relatively small aquaculture producer, with just 0.1 percent of total global aquaculture production. Aquaculture accounted for 23.4 percent ($425 million) of New Zealand's total seafood export revenue in the year ended March 2018. Three main species are farmed in New Zealand: green shell mussels make up 71 percent of the total aquaculture export revenue, followed by salmon at 23 percent and Pacific oysters at 6 percent (Figure 38). The total annual production is estimated to be 110 thousand tonnes to 120 thousand tonnes in recent years.

Research on hatchery-bred mussel spat continues through the SPATnz Primary Growth Partnership programme. The programme is successfully breeding better-performing mussels and developing methods of raising spat. The use of hatchery spat for commercial production has commenced and research continues on many fronts to continue improvements in selective breeding, hatchery output, and spat survival. Production contribution from hatchery-bred spat is expected to gradually increase from 2018 and support mussel production into the future.

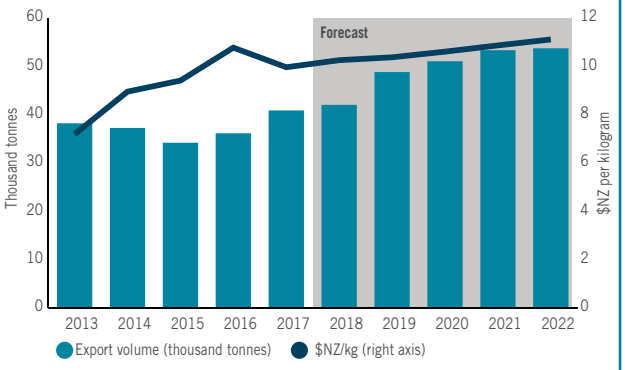
Salmon production continues to increase. Three new salmon farms in the Marlborough Sounds are now operational and ramping up production. We expect a further increase in salmon

**Figure 37:** Aquaculture production estimates and export volumes, 2001-17




Source: StatsNZ and MPI.

**Figure 39:** Aquaculture export volumes and prices, 2013-22




Source: StatsNZ and MPI.

Aquaculture export volumes and prices are both expected to increase over the next 5 years.

production by 3,000 tonnes to 4,000 tonnes per year from the 2016 baseline.

Pacific oyster production continues to recover from a herpes virus in 2010, with support from a selective breeding programme and changes in farming techniques to produce a more uniform product (similar size and shape) suitable for high-end live oyster markets.

As a result of positive developments across the three main species, the export volume from aquaculture is forecast to grow by an average of 5.6 percent per year over the outlook period.

### Higher prices for aquaculture

Aquaculture prices are determined by demand and supply factors similar to those relating to wild capture products. New Zealand aquaculture products receive a higher average per unit price ($10 per kilogram), compared with our wild capture fisheries ($6 per kilogram). This is mainly due to high value species such as salmon and oysters. Aquaculture export prices in US dollars improved slightly (0.5 percent) in the year ended March 2018 but New Zealand dollar prices were slightly down (0.3 percent) due to an appreciation of the New Zealand dollar against the US dollar.

China is the largest aquaculture producer (60 percent of global production) in the world. However, it is expected to slow down its aquaculture production in the coming years. Chile's mussel production is also expected to slow down in 2018 after a record harvest of 330,000 tonnes in 2017. These supply-side constraints should support higher export prices. Given the positive economic outlook for New Zealand's main seafood markets and increasing per capita fish consumption, aquaculture prices are expected to improve in the coming years.

## Wild capture fisheries outlook driven by price

New Zealand wild capture fisheries export earnings are expected to increase to $1.4 billion by June 2018. This is a 5.4 percent increase from June 2017 as a result of increasing export volumes and prices. Export earnings from wild capture fisheries are expected to reach $1.5 billion in 2022.

New Zealand's main export markets include China, Europe, Australia, the US, Japan, South Korea, and Hong Kong. Combined, these markets make up 87 percent of New Zealand's wild capture seafood export revenue. Export earnings from China have increased markedly since 2008, following the implementation of the New Zealand–China Free Trade Agreement. China surpassed Australia in 2011 to become New Zealand's largest seafood export market.

## Wild capture export volumes to remain steady

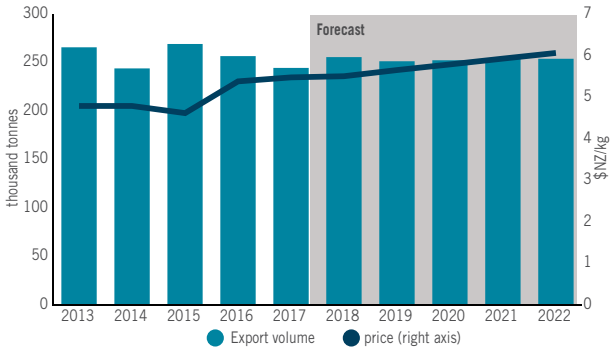
New Zealand is a relatively small producer of wild capture fish, with just a 0.5 percent share in total global production.

Key fisheries in terms of landed weight in 2017 were hoki (33 percent), jack mackerel (11 percent), barracouta (7 percent), southern blue whiting (5 percent), squid (4 percent), and ling (4 percent). Rock lobster is one of the highest export earning species but makes up only 1 percent of the total catch.

New Zealand has a mature fisheries management system and most of the fish stocks are managed at or above levels that can produce their maximum sustainable yields (MSYs). Though catch levels from New Zealand wild capture fisheries show some annual fluctuations due to biological and environmental factors, on the whole, they have remained reasonably stable in recent years and we expect this trend to continue in future years (see Figure 40). Export volume growth is expected to increase by just under 1 percent annually during the outlook period (2017–22) because some fisheries are expected to rebuild.

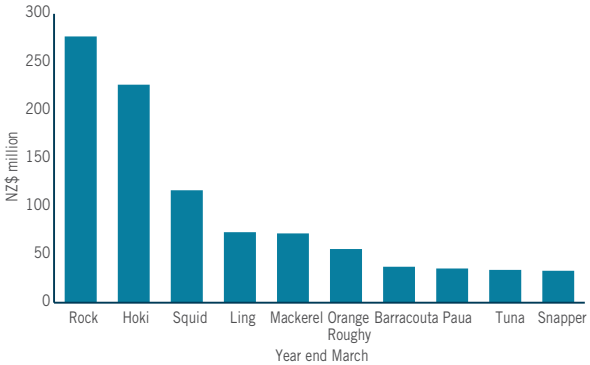
Globally, the scope for volume growth from wild capture fisheries is limited, due to sustainability constraints. In addition to this, China currently accounts for nearly 40 percent of world seafood production (just over 60 percent of global aquaculture production and nearly 20 percent of the global wild capture production). China is expected to reduce its catches of wild capture fish as part of improving sustainability in its seafood sector under its Five Year Plan (2016–20). As a result, the OECD-FAO expect wild capture fish production to be slightly down in the coming years.

**Figure 40:** Wild capture export volumes and prices, 2013-22




Source: StatsNZ and MPI.

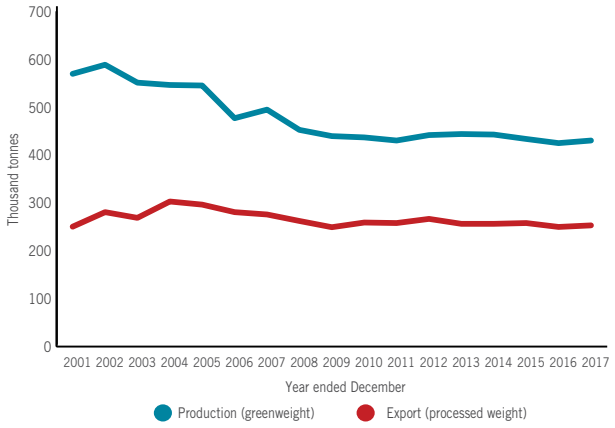
**Figure 41:** Top 10 export earning wild capture fish species, year end March 2018




Source: StatsNZ and MPI.

Top export earning New Zealand species include a combination of high value/low volume species (such as rock lobster) and low value/high volume species (such as hoki).

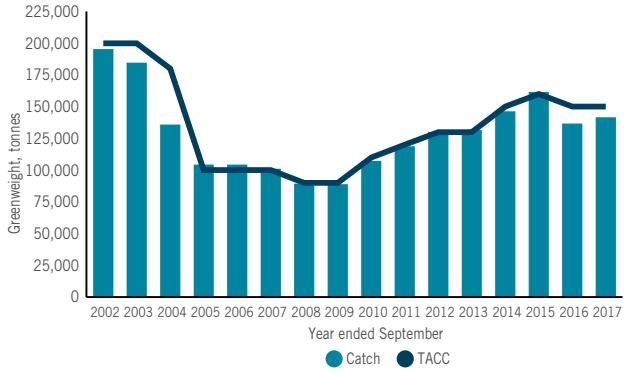
**Figure 42:** Wild capture production and export volumes, 2001–17




Source: StatsNZ and MPI.

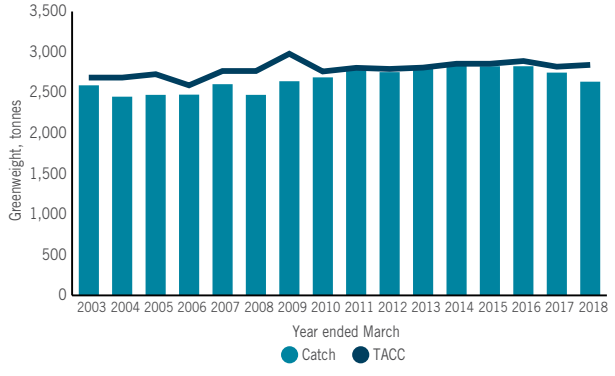
Wild capture production and export volumes remain steady.

**Figure 43:** Hoki catch and Total Allowable Commercial Catch (TACC) levels, 2002–17




Source: MPI.

**Figure 44:** Rock lobster catch and Total Allowable Commercial Catch (TACC) levels, 2003–18




Source: MPI.

Not all species are constrained by the Total Allowable Commercial Catch (TACC) limits. Landings of some species are constrained by natural fluctuations in stocks and are routinely caught below TACC levels and show considerable annual fluctuation in landings.

## Prices expected to continue rising

New Zealand wild capture fish export prices improved by 3 percent in the year ended March 2018. Prices for high volume fisheries such as squid, hoki, mackerel, barracouta, and southern blue whiting improved significantly. Prices for orange roughy have remained stable. However, prices for high value seafood such as rock lobster and paua softened in key markets.

Given the positive economic outlook for New Zealand's main wild capture seafood export markets and increasing per capita fish consumption, prices are expected to improve in the coming years. The expected reduction in China's wild capture production should support prices to remain high. Therefore, New Zealand wild capture seafood export prices are forecast to grow by an average of 2.1 percent per year during the outlook period.

Consumers in key markets are increasingly demanding environmental credibility of seafood products. New Zealand's main fisheries, such as hoki, southern blue whiting, hake, ling, the albacore troll fishery, and several stocks of orange roughy, have been certified as sustainable fisheries by the Marine Stewardship Council. Ongoing efforts at environmental certification could support New Zealand export prices.

The Precision Seafood Harvesting programme continues to research innovative trawl technology to allow more precise catches to be landed fresher and in better condition. The programme has shown encouraging results in terms of producing high quality products. The industry has established a new premium brand, Tiaki, for the fish caught by the new harvesting technology. Regulatory changes to enable the trial and use of innovative trawl gear technologies are now in place. The Precision Seafood Harvesting trawl technology was approved for use in hoki, hake, and ling target fisheries in May 2018.

Another area in which innovation has the potential to add value is through enabling better use of all fish parts which might otherwise be wasted or turned into low value products. For example, Sanford, in collaboration with nanotechnology company Revolution Fibres, has produced a high-tech nanofibre facepack made from collagen found in otherwise discarded hoki skins. The product could be used in the future to deliver not only skincare, but topical medicines for burns, skin lesions and other skin conditions.

## Rock lobster facing increased competition in China

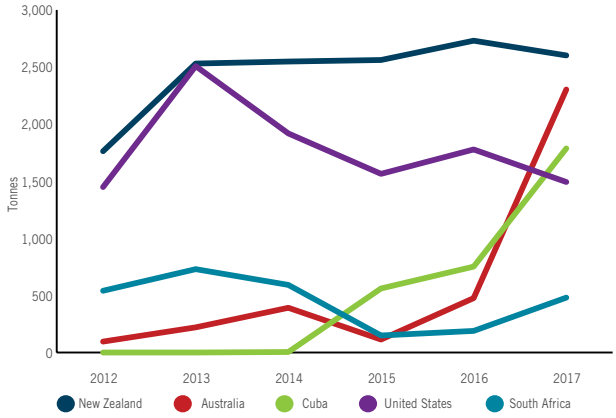
Rock lobster is second only to mussels for New Zealand's seafood export revenue. China is the biggest market for rock lobster in the world, and more than 99 percent of New Zealand's rock lobster is exported to China. Between 2004 and 2016, rock lobster export earnings from China increased from $100 million to nearly $330 million, and the US dollar price increased by over 250 percent.

In calendar year 2017, however, export revenue fell $48 million to $281 million, primarily due to increased competition from other rock lobster exporters along with a slightly reduced level of landings in New Zealand. China's rock lobster imports from all destinations increased by 15 percent in 2016 and a further 30 percent (to nearly 11 thousand tonnes) in 2017.

The top five countries that supplied rock lobster to China in recent years are New Zealand, Australia, Cuba, the US and South Africa, with significant increases in volume from Australia and Cuba recently. Following the implementation of the China–Australia Free Trade Agreement (ChAFTA) in late 2015, the 15 percent import tariff for Australian rock lobster has fallen and will be phased out completely by January 2019.

Prices differ between exporting countries depending on species-specific attributes, and New Zealand rock lobster is a high quality product that commands a price premium, compared with other rock lobster products in China. The increased competition has provided a choice for consumers to switch between varieties and origins, because they present a degree of substitutability, depending on prices and consumer preferences. Of particular note, New Zealand and South Australia produce the same species *(Jasus edwardsii)* of rock lobster, a large cold-water lobster.

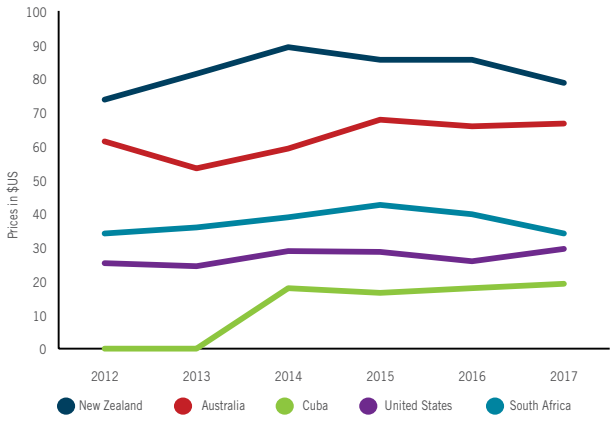
**Figure 45:** China rock lobster import volumes, 2012-17




Source: Global Trade Atlas

New Zealand is facing increased competition in the Chinese rock lobster market, especially from Australia and Cuba. As a result of lower tariffs under ChAFTA, Australian rock lobster directly exported to China has already increased almost five-fold in 2017 (from 476 tonnes in 2016 to 2,300 tonnes in 2017).

**Figure 46:** China rock lobster import prices ($US per kilogram), 2012–17




Source: Global Trade Atlas.

New Zealand rock lobster is regarded as a premium quality product and still commands a price premium compared to other rock lobster products in China. However, as a result of increased competition in the Chinese rock lobster market, prices for New Zealand rock lobster fell by 8 percent in 2017.

# Arable

- The 2017/18 season has been difficult for arable farmers, where a wet autumn and hot, dry summer in the South Island affected both quality and yields.
- For seed exporters, this will be reflected in a short term fall in exports for the 2018 year ending June 2019. Despite this, our long term outlook for this sector is for gradual export growth for both prices and volume.
- Challenges remain in the cereal and grain sector where volatility in grower returns has led to indications that plantings may be down in the coming year. Nevertheless opportunities for longer-term growth exist with potential for rising demand in the supplementary feed sector from dairy and poultry.

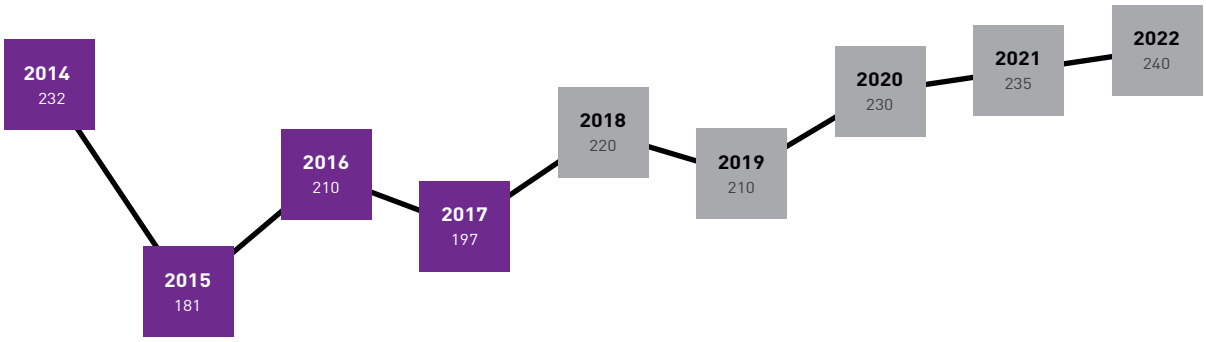
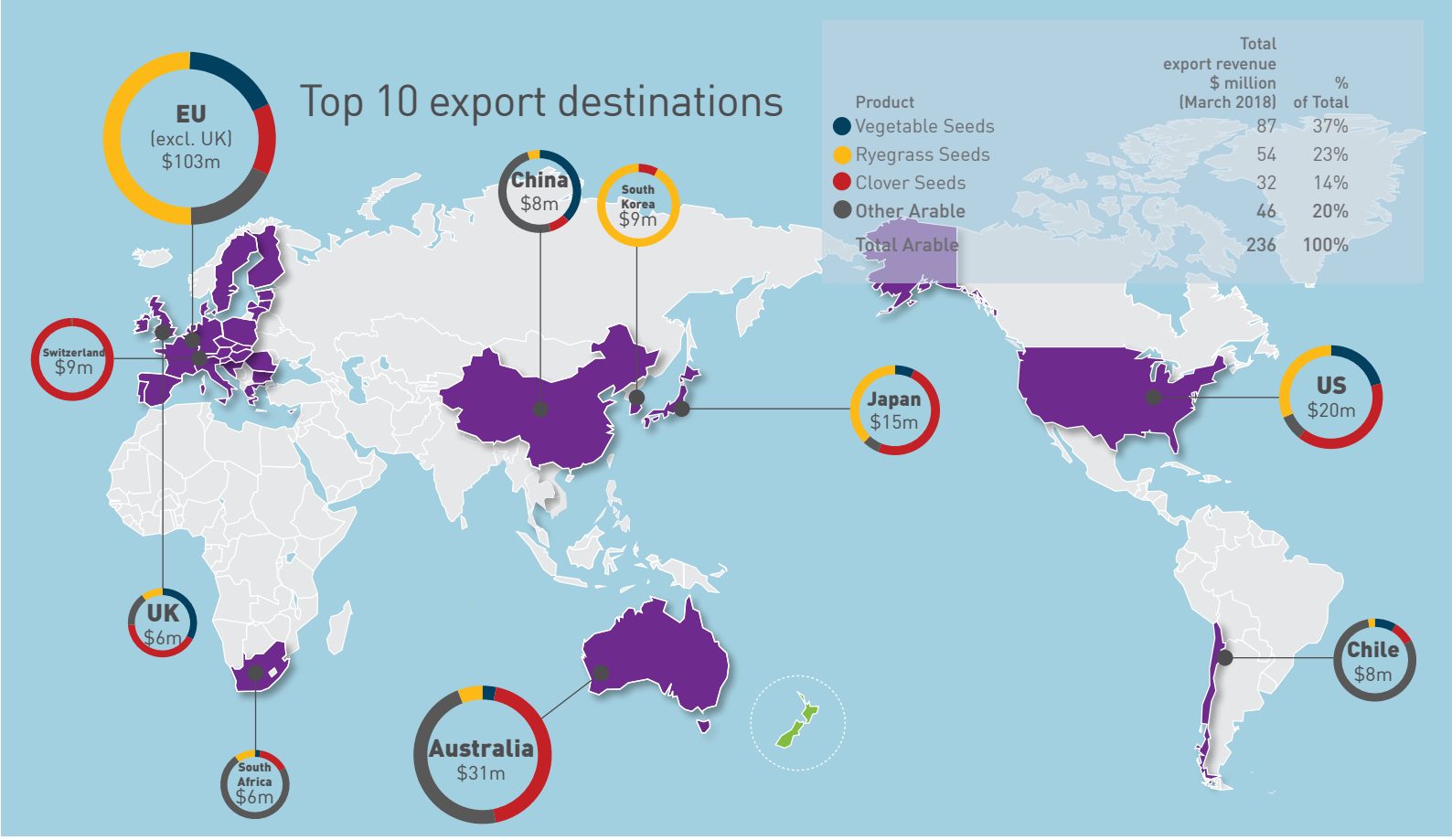


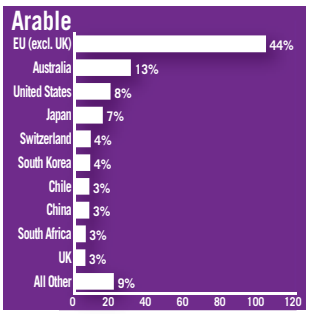

**Table 15:** Arable export revenue, 2014–22 ($NZ million)

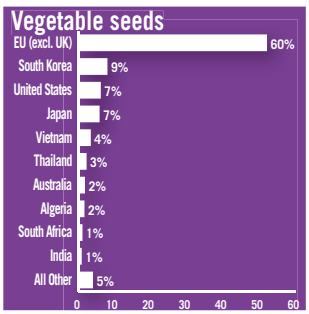
| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Vegetable seed | 66 | 62 | 74 | 64 | 85 | 85 | 95 | 95 | 100 |
| Ryegrass seed | 55 | 49 | 46 | 46 | 50 | 45 | 50 | 50 | 50 |
| Clover seed | 20 | 22 | 20 | 23 | 30 | 25 | 25 | 25 | 30 |
| Other arable | 91 | 48 | 70 | 63 | 55 | 55 | 60 | 60 | 65 |
| Total | 232 | 181 | 210 | 197 | 220 | 210 | 230 | 235 | 240 |
| Y/Y % change | +1.2% | -21.6% | +15.6% | -6.0% | +11.6% | -4.5% | +9.5% | +2.2% | +2.1% |

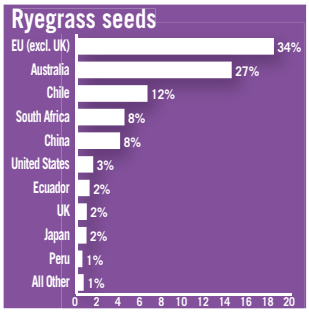
Source: StatsNZ and MPI.
* Other arable products include: maize, other grains, and oilseeds.

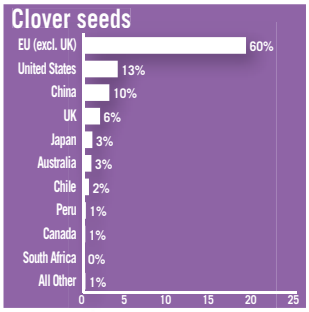


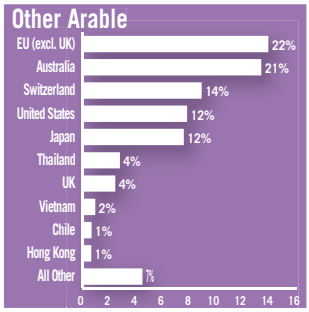

## Top markets ($NZ millions, year ended March 2018)



## Challenging growing season impacts grain yields

The 2017/18 year will be regarded by many growers in the arable sector as a challenging season. Wet planting conditions led to late crop establishment. Planting was often at below optimum conditions for many crops, particularly in the South Island.

Plantings of wheat and barley this growing season increased 22 percent to 102,000 hectares. Area growth was especially high in feed barley, as adverse planting conditions forced growers to shift some of their crops from spring-planted wheat to autumn-sown feed barley. Challenges continued into the growing season with unusually high temperatures and drought conditions lowering yields (down 1.1 metric tonnes per hectare to 7.4 metric tonnes per hectare overall) and bringing the harvest forward.

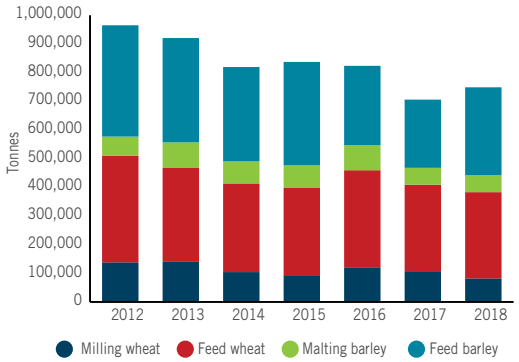
Over the past year, domestic grain prices have risen as increased demand from dairy and other sectors placed pressure on unsold inventories. Despite this, our outlook is for price growth to flatten over the coming year as historically low international grain prices and high transport costs between the North Island and South Island make it cheaper for North Island buyers to import grain rather than bring it up from the South Island.

Global grain production is expected to fall slightly (down 0.7 percent) in the coming year as a drop in wheat production is partially offset by increases in maize, barley, and sorghum. International consumption growth is expected to erode stocks from their record levels in 2017. This may put some upward pressure on historically low global grain prices, which would increase production costs for overseas meat and dairy farmers who are more reliant on grain for production.

## Wheat area limited by wet weather at planting

Milling wheat production fell 23.2 percent to 83,000 tonnes because of a decline in planted area and harvest yields (down to 8.3 metric tonnes per hectare from 9.6 metric tonnes per hectare) in 2017. Feed wheat production remained static at 301,000 tonnes, despite a 14.5 percent increase in planted area, also driven by declining yields.

**Figure 48:** New Zealand grain production volume, 2012-18




Source: Foundation for Arable Research, AIMI Survey of cereal areas and volumes, 1 April 2018

Despite the substantial increase in planted area, total wheat and barley production rose only 6 percent to 748,000 tonnes compared to the previous year.

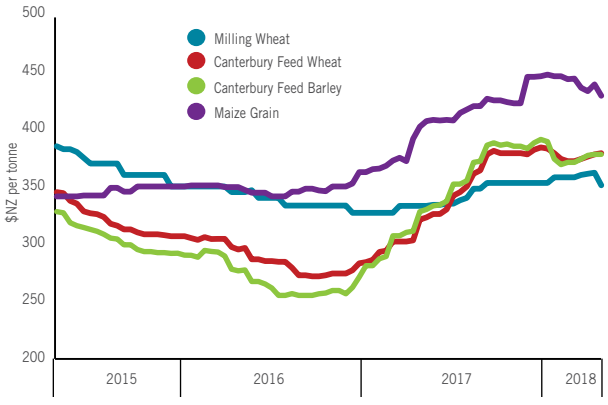
## Barley area up, but yields down

Lower yields limited barley production, although this was offset by significant area growth. Malting barley production rose 2 percent on the previous year to 60,000 tonnes. In contrast, feed barley production rose 28 percent to 306,000 tonnes as a result of a 42 percent increase in planted area as growers shifted production in response to planting delays.

## Maize production looking favourable

Maize is predominantly sown in the North Island, where weather conditions have been good relative to the South Island. Harvest conditions have been favourable with reports indicating good quality. While some regional variability exists, expectations are that yields will be up on the poor 2017 season and slightly better than the long-term average.

**Figure 47:** Domestic grain spot prices, 2015-18




Source: AgriHQ

Lower than expected production of wheat and barley contribute to a firm price outlook. Good dairy prices and expected growth in animal feed demand is also expected to support domestic grain prices in 2018 and 2019.

## Palm kernel expeller

New Zealand imported a record volume of palm kernel expeller (PKE) in the year ended March 2018, 49 percent higher than 2017 and 0.8 percent higher than 2016 (the previous record year). High import volumes have continued in the early months of 2018 (with dry conditions in both the North Island and South Island). This strong summer demand has also seen prices increase substantially year-on-year.

Plans by Fonterra to implement maximum vegetable fat level requirements for its milk suppliers in September 2018 are expected to limit the use of palm-oil-based products in the future. While at this stage the exact impact of the new fat-evaluation index grading system on PKE use is unclear, it is likely to suppress further growth for PKE imports and increase demand for alternative feed types.

## Positive outlook for seed production and exports

New Zealand's seed industry is based on a high quality, high reliability model which enables New Zealand producers to obtain stronger prices relative to the global average. Good prices are also enabled by multiplication contracts (especially for vegetable seeds) based on long term relationships with international seed companies in specific markets.

The challenging growing season included a wet autumn and winter and dry hot summer which has negatively affected seed production in terms of quality and quantity.

In addition, recent growth in exports to China for ryegrass and clover seed is not expected to be sustained in the short-medium term because increasing supplies from Australia and the US may displace higher-cost New Zealand exports. Nevertheless, this market remains an important long-term growth opportunity for New Zealand.

The effect of these factors should translate into reduced export volume growth for the June 2018 and 2019 years after which volumes are expected to return to long run trends with steady volume growth supported by moderate price growth.

## Opportunities

### Brassica seed exports to China

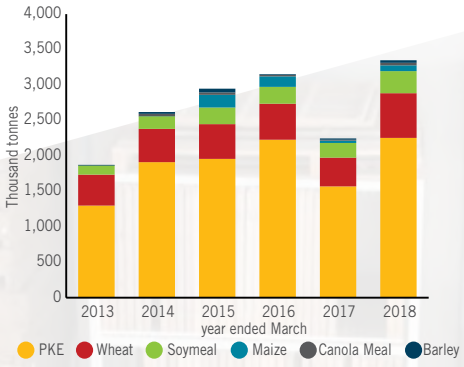
It appears that a resolution to the ban on brassica seed exports to China is unlikely to be resolved in time for the current season. Agreement has yet to be reached on New Zealand's proposed risk management framework to address Chinese concerns about the disease black leg. At the time of writing MPI is waiting for feedback from Chinese officials.

Expectations are that the barriers to resolution are minor and, once lifted, the opening up of the market will provide growth opportunities over the medium to long term.

### Hemp seed

MPI and the Ministry of Health are currently consulting on the legalisation and regulation of hemp seed for human consumption, which could provide further high value growth opportunities for the arable seed sector. Hemp seeds have a favourable nutritional profile, particularly with respect to omega-3 fatty acids. Once the consultation and government approval is completed, the law change could come into force by the end of 2018.

**Figure 49:** Imports of grain and feed, year ended March, 2013-18




Source: StatsNZ.

In addition to record imports of PKE in the year ended March 2018, Soymeal imports have continued their upward trend with further growth expected due to the expanding poultry and aquaculture sectors.

# Other

- Export revenue for other primary sector exports and foods is forecast to reach $2.7 billion in 2018 and to reach nearly $3.0 billion over the next four years.
- Exports of innovative processed foods have increased over 26 percent from 2017, and are forecast to reach $840 million in 2018. Exports to Hong Kong have tripled so far this year, while exports to Australia and Singapore have more than doubled.
- Honey exports are forecast to grow $24 million this year to reach $352 million for 2018, partially due to a substantial increase in exports of honey to the US, with exports there reaching $60 million for the first three quarters of this year alone.

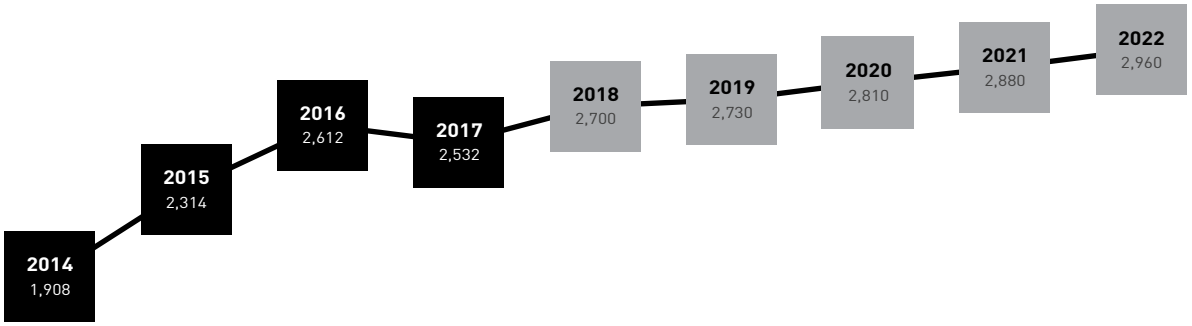



**Table 16:** Other primary industry export revenue, 2014–22 ($NZ million)

| | Actual | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Innovative processed foods | 332 | 471 | 681 | 664 | 840 | 860 | 890 | 920 | 950 |
| Honey | 187 | 233 | 315 | 329 | 350 | 340 | 350 | 350 | 360 |
| Sugar & confectionery | 290 | 293 | 312 | 305 | 280 | 290 | 300 | 300 | 310 |
| Cereal products | 255 | 255 | 274 | 282 | 310 | 310 | 320 | 340 | 350 |
| Live animals | 208 | 370 | 242 | 274 | 240 | 240 | 240 | 250 | 250 |
| Soup & condiments | 192 | 183 | 187 | 186 | 190 | 190 | 190 | 200 | 200 |
| Other products* | 444 | 508 | 601 | 492 | 490 | 500 | 520 | 530 | 540 |
| Total | 1,908 | 2,314 | 2,612 | 2,532 | 2,700 | 2,730 | 2,810 | 2,880 | 2,960 |
| Y/Y % change | -1.4% | +21.2% | +12.9% | -3.0% | +6.6% | +1.1% | +2.9% | +2.5% | +2.8% |

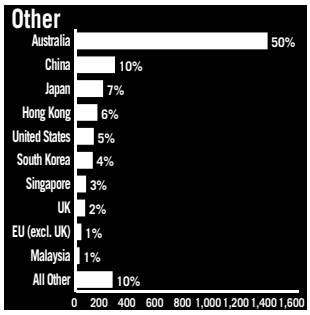
Source: StatsNZ and MPI.

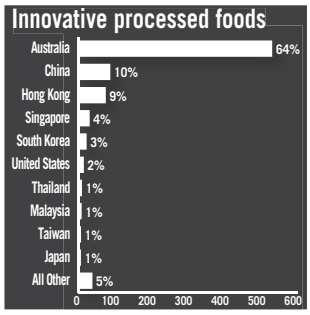
* Other products include: beverages, vegetable-based dyes, and spices.

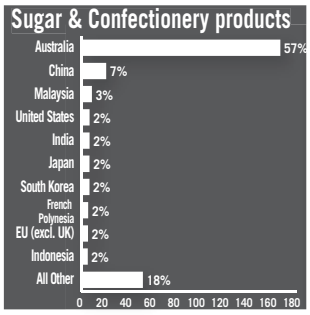
# Top 10 export destinations

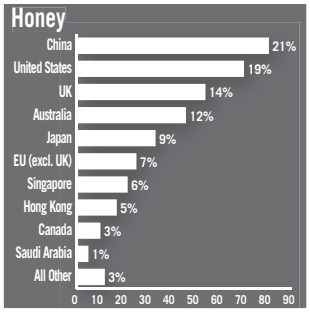

| Product | Total export revenue $ million (March 2018) | % of Total |
|---|---|---|
| Innovative Processed Foods | 834 | 30% |
| Honey | 375 | 14% |
| Cereal Products | 299 | 11% |
| Sugar and Confectionery Products | 294 | 11% |
| Live Animals | 251 | 9% |
| Soups and Condiments | 190 | 7% |
| Other Products | 492 | 18% |
| **Total other primary sector** | **2,734** | **100%** |

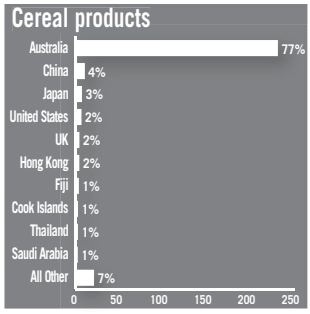
## Top markets ($NZ millions, year ended March 2018)

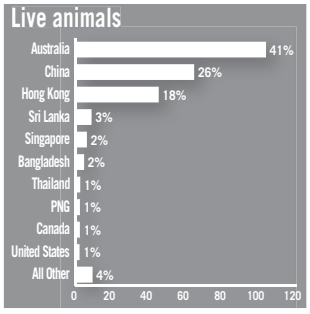


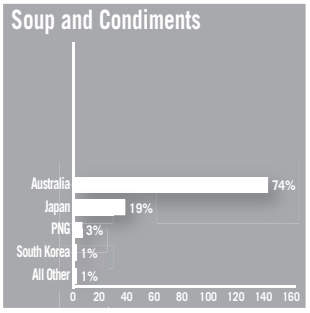



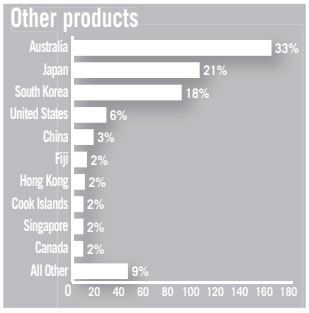



## Honey exports to the US rise

Honey exports are forecast to reach $350 million for the year ending June 2018. Export volumes for the year to date are 18 percent ahead of the same period last year.

The US is still on track to be our largest export market for 2018, with exports since July 2017 valued at $60 million. China and Australia are our next biggest export partners, with exports valued at $40 million and $36 million respectively for the first nine months of this year. Exports to China are at similar levels to the same time last year, while exports to Australia have returned to growth after a slow down in 2017.

The honey industry is in a period of transition with the release of the mānuka honey definition. We expect the export volume for the year ended June 2018 to be close to 9 million kilograms, but to decrease next year as lower stocks affect the amount available for export.

While the harvest for the 2017/18 season is anticipated to be higher than last year, the average yield per hive is expected to be lower than the 10 year average of around 30 kilograms per hive. Some regions are reporting poor harvests due to an unusually hot summer and storms in February and March. Honey packers and exporters are also unlikely to have high levels of stock this year because many ran down their stock last season to cover export orders due to a very low harvest. Stocks were also run down in the September and December 2017 quarters, in anticipation of the mānuka honey definition coming into force in early 2018.

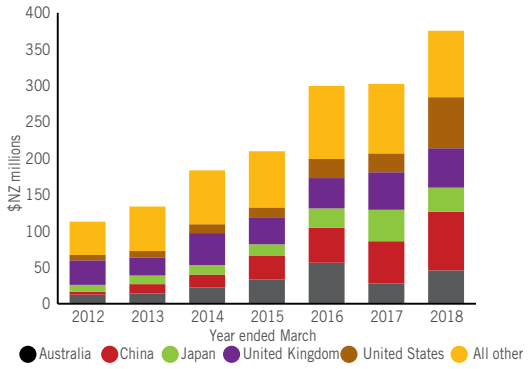
## Innovative processed foods exports growing rapidly

Growth in the innovative processed foods sector is continuing into the March 2018 quarter. This sector is now expected to be worth $840 million for the year to June 2018. Exports to Hong Kong have tripled from last year, including processed food products, and exports to Australia and Singapore are more than double the same period last year. Exports to China have shown a small fall, with the value of exports down by 5 percent on the same period last year. Demand for products in this category is expected to remain strong during the forecast period.

## Beverage exports increase

Exports of other products, which include beverages, vegetable-based dyes, and spices, are expected to be worth $490 million for the year to June 2018. This does, however, mask changes in some of the main product types in this category. After two strong years, the value of various niche food products is 22 percent behind the same period last year. Soft drink exports have grown strongly in 2018 after three slow years, while there have been no flavoured beverage exports so far this year. Future growth in this sector is expected to remain low.

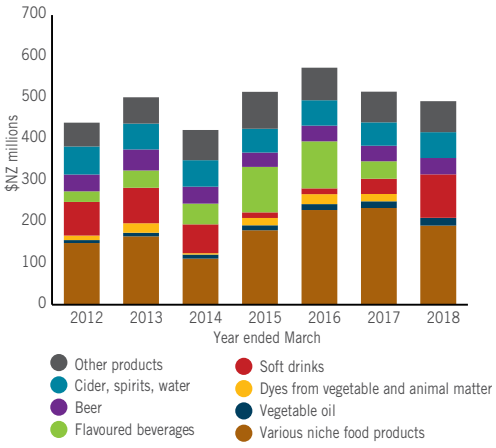
**Figure 50:** Exports of honey by destination, 2012–18




Source: StatsNZ

The main contributions to growth in the year to March 2018 were a surge in exports to China in the June quarter 2017 and a step change in exports to the US from the September quarter 2017 onwards.

**Figure 51:** Export revenue from beverages and other products, 2012–18




Source: StatsNZ.

While the total value for this category has been fairly stable for the last five years, this masks large fluctuations for some of the key components. Various niche food products, flavoured beverages, and soft drinks fluctuate the most.

## Live Animals outlook unchanged

The value of live animal exports for the year ending June 2018 is expected to drop 11.6 percent to $242 million. The main driver of this decrease is a drop in the number of live cattle exported. Last year 35,000 cattle were exported, but we expect only around 25,000 cattle to be exported this year.

Demand for live animals is expected to continue at similar levels for the next few years. Exports of live horses are expected to remain steady, at around $160 million (around 2,500 horses) for the year, while exports of live poultry are continuing to rise. Exports of live poultry grew to $27.8 million in 2017, and are expected to reach similar levels in 2018. Our current main market, China, is showing steady growth, with birds worth $10.9 million exported there during the first three-quarters of 2018. We expect the number of birds exported to continue to rise in coming years, as demand from the Asia-Pacific region continues to increase.

## Soup and condiment exports to remain stable

The value of exports of soups and condiments is expected to be $190 million for the year to June 2018, down 0.6 percent on 2017, and rising slowly to $198 million by 2022. Australia and Japan continue to be our main markets for these products. The main products sent to Australia are sauces, meat soup, and vegetable soup, while the main product sent to Japan is sauces.

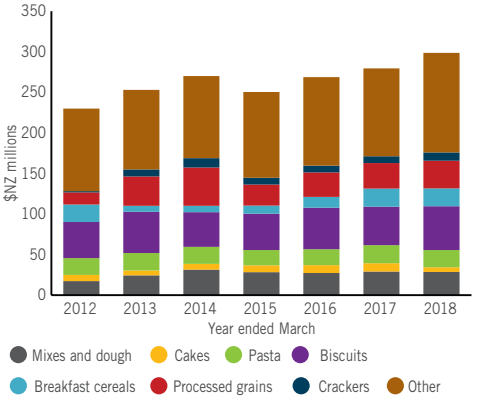
## Recent growth in cereal product exports expected to continue

The value of cereal products is expected to reach $309 million for the year to June 2018, up 9.9 percent from June 2017, and is anticipated to rise to $355 million by 2022. Exports of biscuits and breakfast cereals are slightly up on last year and exports of other cereal products have started growing after no growth for several years.

## Sugar and confectionery exports slowing

Exports of sugar and confectionery products are expected to drop 8.2 percent in the year ending June 2018, mostly due to a decrease in lactose exports. The level of future growth is uncertain in this sector. The largest categories in 2017 were chocolate, sugar confectionery, and lactose.

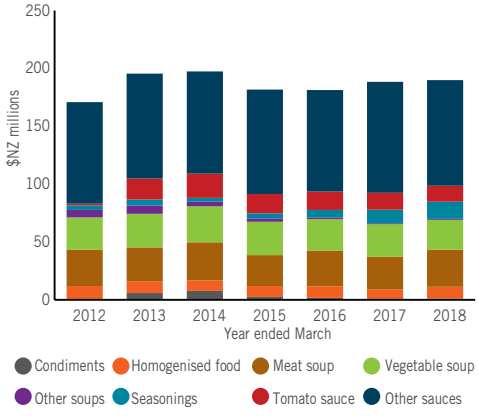
**Figure 53:** Cereal product export revenue, 2012–18




Source: StatsNZ.

The main products in this category for 2018 were biscuits ($54 million) and other cereal products ($123 million).

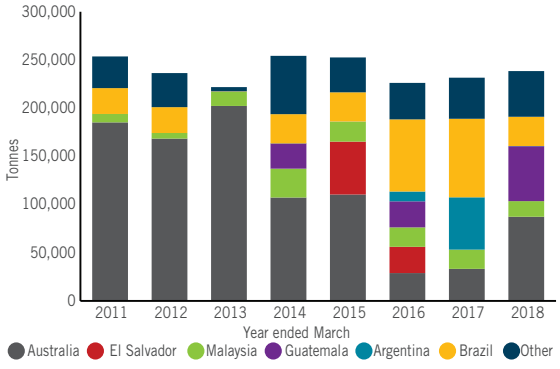
**Figure 52:** Export revenue from soups and condiments, 2012–18




Source: StatsNZ.

The main products in this category are sauces ($91 million) such as mustard and soya sauce, meat soup ($32 million), and vegetable soup ($26 million).

**Figure 54:** Imports of bulk raw sugar, 2011–18




Source: StatsNZ.

Most of New Zealand's sugar products for home use and for the food and beverage industry are produced in the sugar refinery in Auckland using imported bulk raw sugar. Most bulk raw sugar used to be imported from Australia, but since 2013 this bulk raw sugar has increasingly come from South America and Asia.

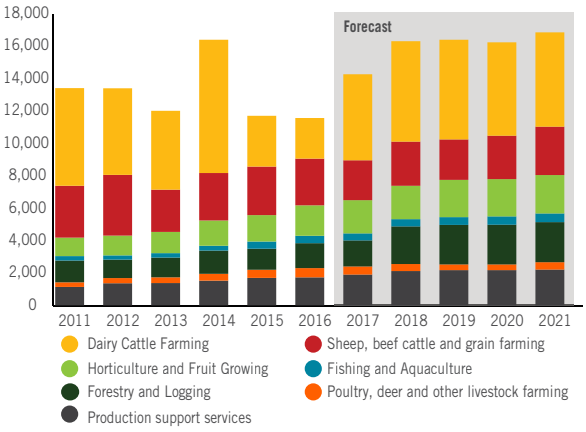
# Primary industries in the New Zealand economy

**79%** of New Zealand's merchandise exports are from the primary sectors. This figure has increased over the past five years, from 72 percent in 2012, indicating that the primary industries will continue to be the dominant exporting sector for the foreseeable future.

**15%** 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.

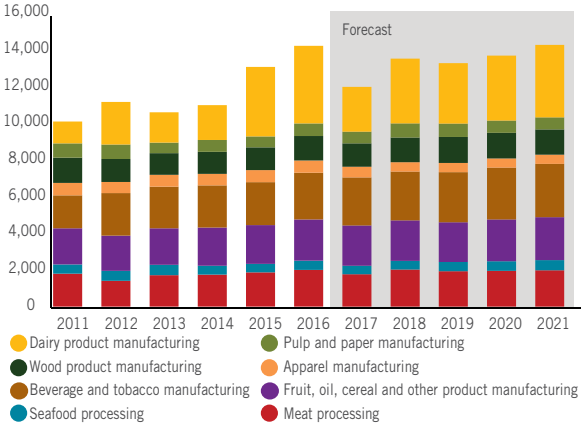
**11%** **of GDP**
The primary industries are a significant contributor to New Zealand's GDP, with an estimated $25.7 billion in value added to the economy in 2016, an increase of 4 percent from 2015. This value is split between primary production ($11.5 billion) and processing ($14.2 billion) (Figures 55 & 56).

**Figure 55:** Primary industries contribution to GDP – primary production, year ended March 2011-2021




Sources: StatsNZ and MPI.

**Figure 56:** Primary industries contribution to GDP – manufacturing and processing, year ended March 2011-2021




Sources: StatsNZ and MPI.

**Table 17:** Gross agricultural revenue and expenditure, year ending March 2013-2021 ($NZ millions)

| | Estimate | | | | | Forecast | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Dairy | 10,385 | 14,823 | 9,378 | 7,608 | 10,570 | 11,900 | 12,230 | 11,990 | 12,170 |
| Cattle | 2,316 | 2,166 | 2,614 | 3,074 | 2,720 | 2,900 | 2,750 | 2,780 | 2,850 |
| Sheepmeat | 2,263 | 2,340 | 2,367 | 2,229 | 2,070 | 2,530 | 2,530 | 2,530 | 2,590 |
| Wool | 587 | 573 | 644 | 641 | 460 | 410 | 390 | 400 | 400 |
| Deer | 200 | 196 | 223 | 217 | 190 | 220 | 210 | 210 | 210 |
| Poultry/eggs | 172 | 185 | 186 | 180 | 170 | 150 | 150 | 160 | 160 |
| Pigs | 167 | 185 | 198 | 207 | 210 | 220 | 220 | 220 | 220 |
| Other farming | 216 | 216 | 211 | 227 | 210 | 240 | 230 | 230 | 240 |
| Sales of live animals | 866 | 760 | 953 | 810 | 730 | 840 | 820 | 820 | 840 |
| Value of livestock change | -150 | 70 | -239 | -151 | 170 | 70 | 0 | -10 | 10 |
| Fruit | 2,000 | 2,314 | 2,679 | 2,921 | 3,270 | 3,250 | 3,660 | 3,670 | 3,750 |
| Vegetables | 987 | 1,026 | 1,011 | 1,070 | 1,080 | 1,170 | 1,140 | 1,190 | 1,210 |
| Other horticulture | 325 | 361 | 423 | 483 | 490 | 530 | 520 | 540 | 550 |
| Crops and seeds | 751 | 747 | 707 | 679 | 710 | 830 | 670 | 820 | 820 |
| Agricultural services | 220 | 216 | 193 | 219 | 250 | 270 | 280 | 280 | 280 |
| Non-farm income | 447 | 427 | 478 | 457 | 520 | 570 | 580 | 580 | 590 |
| **Total gross revenue** | 21,752 | 26,605 | 22,026 | 20,905 | 23,810 | 26,090 | 26,390 | 26,390 | 26,880 |
| Intermediate consumption | 12,622 | 13,496 | 13,886 | 13,273 | 13,600 | 14,160 | 14,540 | 14,770 | 15,000 |
| **Contribution to GDP** | 9,130 | 13,109 | 8,140 | 7,632 | 10,540 | 12,480 | 12,230 | 11,840 | 12,110 |
| Wages | 2,261 | 2,204 | 2,310 | 2,392 | 2,350 | 2,410 | 2,480 | 2,550 | 2,630 |
| Depreciation | 1,471 | 1,504 | 1,545 | 1,617 | 1,650 | 1,680 | 1,710 | 1,750 | 1,780 |
| Net indirect taxes* | 728 | 762 | 799 | 842 | 830 | 860 | 840 | 820 | 840 |
| **Operating surplus** | 4,670 | 8,639 | 3,486 | 2,781 | 5,710 | 7,530 | 7,190 | 6,730 | 6,860 |
| Interest paid | 2,586 | 2,485 | 2,713 | 2,694 | 2,560 | 2,650 | 2,760 | 2,990 | 3,120 |
| Interest received | 200 | 188 | 388 | 421 | 320 | 210 | 230 | 320 | 390 |
| Agriculture sector income | 2,284 | 6,342 | 1,161 | 508 | 3,470 | 5,100 | 4,660 | 4,070 | 4,130 |

Sources: StatsNZ and MPI

* Net indirect taxes are indirect taxes less subsidies.

## Forecast tracking

Our forecast outlook for the year ending June 2018 has increased $1.05 billion from the June 2017 forecast round. Meat and wool, dairy, and forestry are the main sources of change in the forecast from last year.

The meat and wool forecast is $940 million higher for 2018 as red meat prices have risen at a higher than anticipated pace this season.

The dairy sector forecast has decreased by $690 million due to lower whole milk powder prices and less butter being exported than anticipated.

Continued high demand for logs to China has driven prices higher than forecast a year ago and resulted in an upward revision for the forestry sector of $480 million.

The forecast for 2019 has also been revised upward over the past year by $820 million. Gains in the meat and wool and forestry sectors in 2018 are forecast to support higher export revenue in those sectors going forward over the medium term.

**Figure 57:** MPI primary sector export forecasts, 2013–22

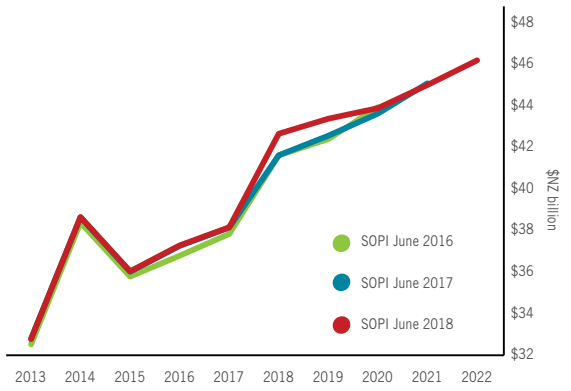



**Table 18:** MPI primary sector export forecasts, 2014–22 ($NZ million)

| | | | | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year to 30 June | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Dairy | June 2018 | 17,791 | 14,050 | 13,289 | 14,638 | 16,630 | 17,170 | 17,200 | 17,760 | 18,330 |
| | June 2017 | 17,791 | 14,050 | 13,289 | 14,640 | 17,320 | 17,360 | 17,700 | 18,270 | – |
| | Difference | – | – | – | –2 | –690 | –190 | –500 | –510 | – |
| Meat & wool | June 2018 | 8,163 | 9,001 | 9,201 | 8,356 | 9,390 | 9,180 | 9,350 | 9,580 | 9,770 |
| | June 2017 | 8,162 | 9,000 | 9,200 | 8,300 | 8,450 | 8,670 | 8,880 | 9,050 | – |
| | Difference | +1 | +1 | +1 | +56 | +940 | +510 | +470 | +530 | – |
| Forestry | June 2018 | 5,199 | 4,683 | 5,140 | 5,482 | 6,350 | 6,370 | 6,380 | 6,400 | 6,410 |
| | June 2017 | 5,199 | 4,682 | 5,140 | 5,470 | 5,870 | 5,980 | 6,090 | 6,270 | – |
| | Difference | – | +1 | – | +12 | +480 | +390 | +290 | +130 | – |
| Horticulture | June 2018 | 3,807 | 4,187 | 5,002 | 5,152 | 5,480 | 5,740 | 5,870 | 6,020 | 6,290 |
| | June 2017 | 3,795 | 4,173 | 4,987 | 5,280 | 5,400 | 5,800 | 6,010 | 6,360 | – |
| | Difference | +12 | +14 | +15 | –128 | +80 | –60 | –140 | –340 | – |
| Seafood | June 2018 | 1,500 | 1,562 | 1,768 | 1,744 | 1,840 | 1,930 | 2,000 | 2,080 | 2,140 |
| | June 2017 | 1,500 | 1,562 | 1,768 | 1,770 | 1,800 | 1,890 | 1,990 | 2,090 | – |
| | Difference | – | – | – | –26 | +40 | +40 | +10 | –10 | – |
| Arable | June 2018 | 232 | 181 | 210 | 197 | 220 | 210 | 230 | 235 | 240 |
| | June 2017 | 228 | 177 | 205 | 185 | 195 | 210 | 220 | 235 | – |
| | Difference | +4 | +4 | +5 | +12 | +25 | – | +10 | – | – |
| Other | June 2018 | 1,908 | 2,314 | 2,612 | 2,532 | 2,700 | 2,730 | 2,810 | 2,880 | 2,960 |
| | June 2017 | 1,910 | 2,316 | 2,614 | 2,450 | 2,530 | 2,600 | 2,680 | 2,760 | – |
| | Difference | –2 | –2 | –2 | +82 | +170 | +130 | +130 | +120 | – |
| Total exports | June 2018 | 38,600 | 35,978 | 37,223 | 38,101 | 42,610 | 43,330 | 43,840 | 44,955 | 46,140 |
| | June 2017 | 38,585 | 35,961 | 37,204 | 38,095 | 41,565 | 42,510 | 43,570 | 45,035 | – |
| | Difference | +15 | +17 | +19 | +6 | +1,045 | +820 | +270 | –80 | – |

## Links to online data

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

### Fisheries

- MPI reports on the status of fish stocks and fisheries in New Zealand waters

### Farm monitoring links

- DairyNZ Economic Survey 2016-17 (DairyNZ)
  **www.dairynz.co.nz/publications/dairy-industry/dairynz-economic-survey-2016-17/**
- Sheep & beef farm survey reports (Beef + Lamb New Zealand)
  **www.beeflambnz.com/data-tools/sheep-beef-farm-survey**
- 2017 Vineyard benchmarking report Marlborough
  **www.mpi.govt.nz/dmsdocument/19916**/
- 2017 Variety Gross Margin Benchmarking Report
  **www.mpi.govt.nz/dmsdocument/20144**/
- 2017 Pipfruit Monitoring Report
  **www.mpi.govt.nz/dmsdocument/26506**/
- 2017 Apiculture Monitoring Report
  **www.mpi.govt.nz/dmsdocument/27678**/

**Ministry for Primary Industries**
Manatū Ahu Matua
Economic Intelligence Unit
PO Box 2526, Wellington 6140
New Zealand
0800 00 83 33
**www.mpi.govt.nz**

New Zealand Government