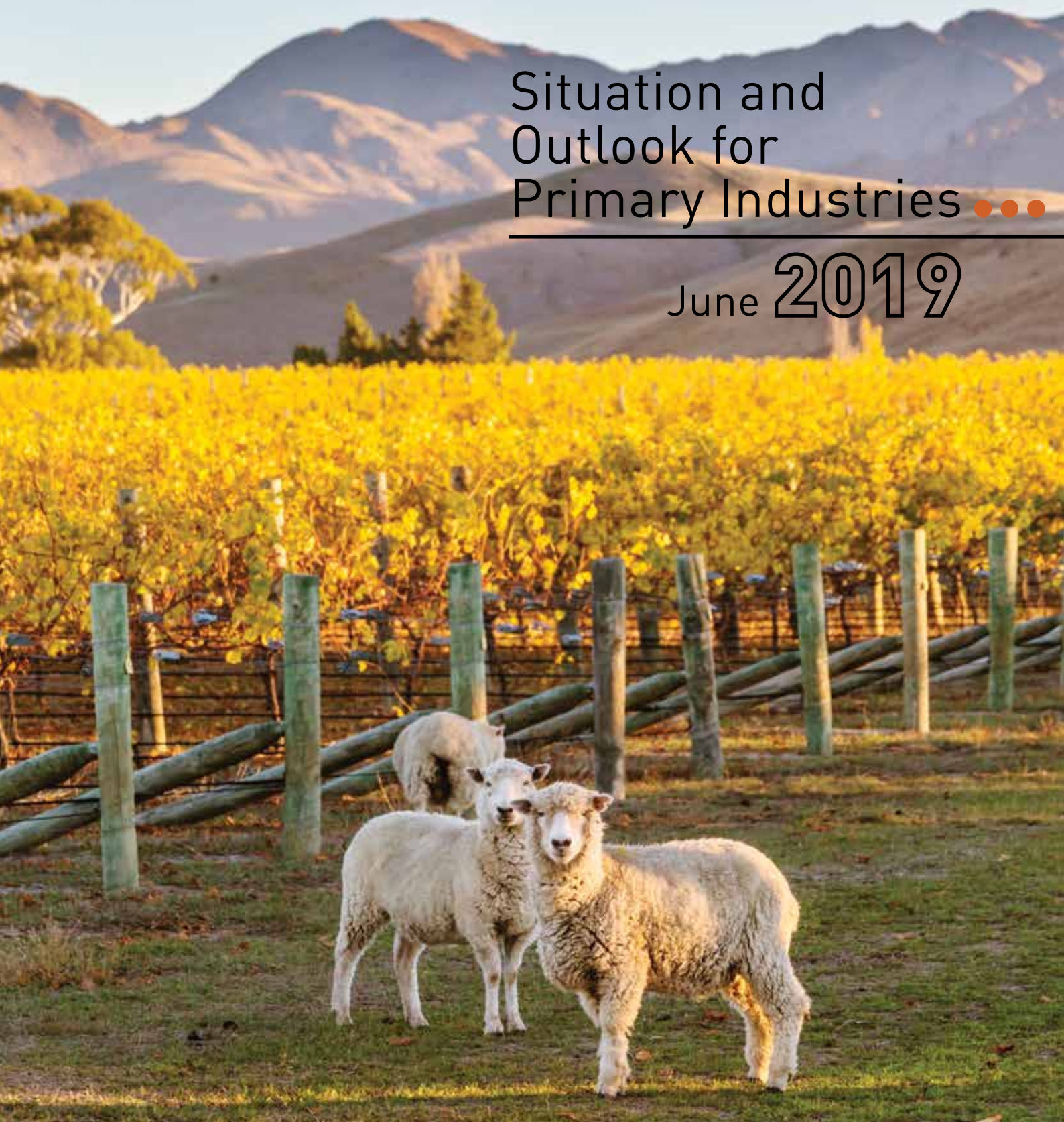




Situation and Outlook for Primary Industries ●●●

June 2019



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Acknowledgements

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Notes

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

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Minister's foreword

I am very pleased to release the latest *Situation and Outlook for Primary Industries* (SOPI) for June 2019. In a global environment characterised by increasing uncertainty, the primary sectors are continuing to thrive and deliver.

Primary industry export revenue is expected to jump by more than 7 percent this year to \$45.6 billion, largely due to strong growth in horticulture and forestry exports. Excellent harvest volumes across most horticulture crops coupled with strong global prices is driving horticulture export revenue higher, while strong demand for logs out of China is pushing forestry export revenue ahead.



Growth in our primary industry exports depends on an economy that is both environmentally sustainable and delivering high value. Collaboration between the government and primary sector remains key to maximising exports, improving productivity, protecting our environment, and growing the economy. The Government is focusing on a range of initiatives to support the primary sector, the communities they operate in and our global brand around sustainability, innovation, and premium products.

As an example, primary industry businesses will be given certainty to invest and innovate in the growing organics sector, with a national standard for organic production to be introduced this year. With SOPI predicting gold kiwifruit exports will grow to \$1.9 billion by 2024, this legislation will provide a sound platform for the growth of organic kiwifruit exports.

The Government has also introduced a Research and Development tax credit which will help to improve the attractiveness of investment in developing new varieties and new ways of operating. MPI continues to support initiatives such as the New Zealand Avocados Go Global innovation programme, which included research and development funding, and used a collaborative approach with working groups made up of growers, scientists and rural professionals to equip industry with tools to increase productivity and develop new markets.

Last year I appointed a Primary Sector Council for the sole purpose of establishing a shared vision for the future of our primary sectors. The Council has begun engaging on its draft vision and I anticipate a final version being presented later this year. While the vision won't have all the answers, I expect it to spark the conversations that will encourage the food and fibre sectors to grasp the opportunities and work together with the Government on how to get there.

Through Budget 2019, as part of our vision for thriving rural communities, the Government is providing more than \$122 million towards supporting more sustainable land use practice in our agriculture sector and shifting to higher value production. This funding will support the agriculture sector to make meaningful change at the right pace and bolster New Zealand's continued strong reputation as a world leader in sustainable agricultural practices and a producer of high value food and fibre.

SOPI provides forecasting and analysis that informs how we can face upcoming challenges and ensure our primary industries and rural communities continue to grow and thrive.

A handwritten signature in black ink, appearing to read 'Damien O'Connor'.

Hon Damien O'Connor
Minister of Agriculture

Director-General's introduction

The *Situation and Outlook for Primary Industries (SOPI)*, from MPI's Economic Intelligence Unit, draws on expertise from across MPI and various primary industry stakeholders. This quarterly publication presents the current state of New Zealand's primary industries and their prospects for growth over the next four years.

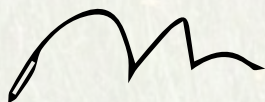
This June report is our most comprehensive analysis of the year, representing an expansive analysis of sector performance, as well as the opportunities and challenges ahead for primary producers. I am pleased to report that this current edition reflects the ongoing success of the primary industries. With export revenues forecast to rise 7.1 percent for the year ended June 2019, and further growth forecast across all our sectors over the next four years, the outlook remains positive.

The food and fibre sectors make an enormous contribution to the wellbeing of New Zealanders. The work we do at MPI, from managing the biosecurity system to ensuring our high-value products have access to overseas markets, is some of the most important in New Zealand. Our decisions and actions affect what it is like to live in New Zealand today and what the country will be like for generations to come.

Since I joined MPI in November last year, the importance of this work has been reinforced to me by issues such as the *Mycoplasma bovis* eradication effort, the Tasman fires and biosecurity responses to stink bug and fruit fly. These events have shone a light on how we operate and, most importantly, how our partners in industry and in communities across New Zealand interact with us. Having met with farmers and growers, iwi representatives, fishers, industry leaders, conservation organisations, and our own staff around the country, I have seen first-hand both our challenges and successes.

I am pleased to observe that in the main, industry and sector leaders are supportive of our work. There is still potential for MPI to be more open, more visible regionally and easier to access. This has motivated us to establish the Agriculture and Investment Services branch in MPI, a service that will partner with the sector to team up and respond to emergent issues and sponsor investment in ideas and innovation. As Director-General, I want to make sure MPI is in the best position to direct our focus appropriately, deploy resources where needed, and build the trust and confidence of New Zealanders in the work we do.

Through this, MPI will be able to deliver on its ambition to help New Zealand's primary industries to achieve not only their potential for value-based export growth, while valuing the land that is our primary resource, and also navigating the challenges and opportunities of our dynamic global trading environment.



Ray Smith
Director-General, Ministry for Primary Industries





Dairy

New Zealand's dairy export revenue is forecast to increase 5.7 percent to \$17.6 billion in 2019, supported by strong milk production and sustained global demand. Milk production for the 2018/19 season is forecast to rise 2.3 percent, supported by favourable weather promoting strong pasture growth. Global price volatility for key commodities impacted export prices, subduing early season export revenues in 2018/19, but have since recovered.



Meat and Wool

Meat and wool export revenue is forecast to reach \$10.2 billion for the year to June 2019, up 6.4 percent from the previous year. The main reason for this increase is strong red meat prices: they have remained high now for the past two years. Beef and deer livestock numbers have also risen over the past two years, supported by high prices, but are expected to continue drifting lower in the coming years.



Forestry

Forestry revenue is forecast to reach \$6.9 billion for the year ended June 2019, an increase of 7.8 percent since 2018. Much of this growth can be traced to increased Chinese demand for New Zealand logs. Forestry harvest volumes are expected to hit a record 37 million cubic metres for the year ended March 2019 due to continuing high prices incentivising harvesting. Wood processing volumes increased 2.3 percent in the past year, supported by strong domestic and export demand.



Horticulture

Horticulture revenue is forecast to rise 13.7 percent for the year ending June 2019 to \$6.1 billion. Export revenue for the 2018/19 marketing years has been lifted by excellent harvest volumes across kiwifruit, wine, and apples and pears. Harvest volumes for 2019/20 are likely to be similar or slightly lower than last year due to less favourable conditions in the main growing regions, despite increases in the planted area. Export prices and on-farm profitability remain strong across the horticultural sector, incentivising further investment and expansion. The shortage of labour, including skilled permanent and seasonal labour, is a constraint on the growth and potential productivity of several fruit sectors.



Seafood

Seafood export revenue is forecast to rise 7.3 percent to \$1.9 billion for the year ending June 2019. The main driver for this growth is rising prices and a more favourable exchange rate. While prices are forecast to continue rising, production is expected to remain fairly stable due to sustainability constraints. Aquaculture volumes are expected to increase moderately over the outlook period to 2023.



Arable

Arable export revenue is expected to fall 4 percent for the year ending June 2019 to \$235 million due to poor quality and lower yields in the 2018 harvest. But a better 2019 harvest, which also had its challenges, should lift export revenue for 2020. In the longer term, gradual export growth is forecast for both prices and volumes. Although grain prices, except for milling wheat, have fallen over the past six months, they are still well up on the same time last year.



Other primary sector exports

Export revenue from New Zealand's other primary sector exports and foods is expected to reach \$2.8 billion for the year to June 2019, up 3.5 percent from 2018. The primary driver is a 17 percent increase in other products supported by a 4 percent increase in honey. The UK is set to take over from the US as New Zealand's largest export partner for honey in 2019, with exports since July 2018 valued at \$45 million. This sector is expected to continue to grow slowly to reach \$3 billion by 2023.

Overview...

Exports up \$7.5 billion over two years

Amidst a global trade environment characterised by increasing uncertainty, New Zealand's primary sectors have continued to grow their export revenues. For the year ended June 2019, New Zealand's primary industry exports are forecast to increase by 7.1 percent to \$45.7 billion.

This is the second straight year of substantial export growth, with significant gains across most primary industry products (Figure 1). Generally favourable weather conditions, promoting strong pasture growth, have boosted production in the dairy and red meat sectors, with average export prices remaining at historically high levels.

Horticultural export volumes in the current year also benefited from good weather and high production in the previous 2018 season. In particular, kiwifruit production rose 25 percent in the 2018 harvest. In addition, strong price growth and an improving export product mix will see horticulture export revenues rise to a record \$6.1 billion in the year ending June 2019.

Log demand from China continues to support strong prices for our forestry exports, incentivising an increase in harvest volumes to record levels. Seafood export revenue is forecast to increase 7.3 percent as growth in the aquaculture sector continues to outpace wild capture export revenue and prices have risen.

This export performance by New Zealand's primary sector producers is all the more impressive, considering the weakening global economic environment and high degree of uncertainty, which have created tension across international

markets. Given this uncertain backdrop, and despite recent strong export performances by our primary sectors, the downside risks to the current forecast will be heightened over the next few years.

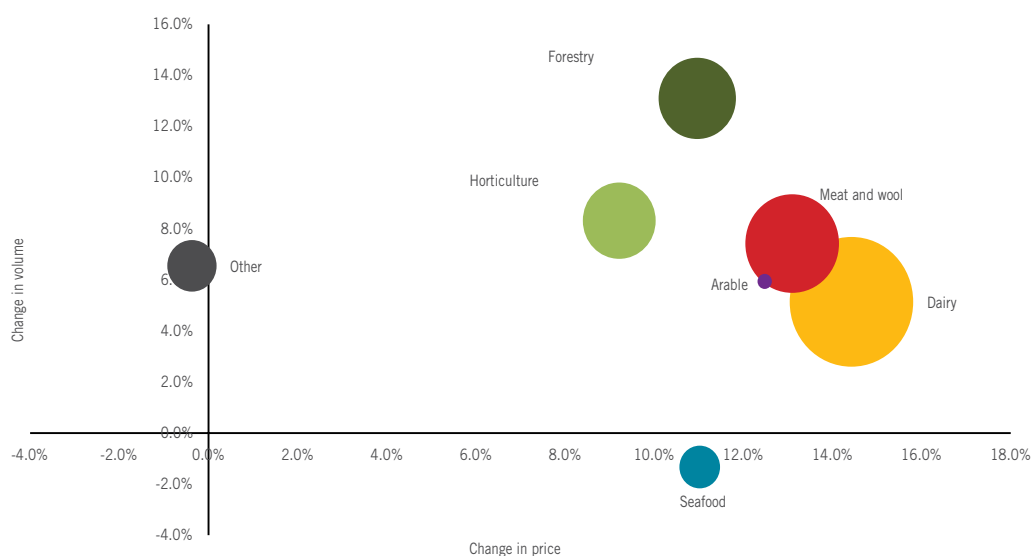
Outlook for 2020 and Beyond

Because current exceptional price levels are forecast to soften for New Zealand's lamb exporters, and as volume growth slows in the larger export sectors, we are forecasting export revenues to soften slightly in the year ending June 2020 before gaining moderate momentum over the medium term, supported by the dairy, meat, and horticultural sectors.

Sustained demand out of China and South East Asia continues to support strong prices, and the continued weakness of the New Zealand dollar (NZD) is expected to continue supporting export returns. Strength in prices, supported by an increasing proportion of higher value products, is expected to sustain growth in dairy export revenue, despite constraints on milk production growth.

While prices are expected to remain robust across our major horticultural products, we do not expect the weather to be as beneficial as in the previous year. Early reports for 2019 horticulture harvests indicate production will be similar to or slightly below last year. Although this will constrain export revenue growth in the year ending June 2020, momentum is expected to return to this sector over the medium term through high profitability and continued investment.

Figure 1: Export prices and volumes have both increased from 2017 to 2019.



Primary industry export growth by price and volume, year ended June 2017–19
Source: Stats NZ and MPI.

Good spring weather sustained 2018/19 pastoral production through a dry late summer

1 December 2018

15 January 2019

1 March 2019



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

Weather good for pasture, average for horticulture

Above-average temperatures and rainfall, promoting strong pasture growth across many New Zealand regions, have supported production in the red meat and dairy sectors in 2018/19. For the main horticulture regions, cool spring conditions at significant times affected pollination across some horticultural and arable crops, which, followed by a hot dry summer, limited the yield potential of the most recent harvests.

Spring brought above-average rainfall across Otago and Canterbury, as well as to the eastern part of the North Island, which disrupted arable plantings in those regions. However, as benign temperatures across most of the country continued, pasture growth was very strong through spring and summer. This has resulted in increased average slaughter weights for the red meat sector and higher milk collections by dairy processors.

While the weather was favourable for pasture, cool conditions during the critical flowering period in the important Marlborough region for wine and across some kiwifruit regions impacted pollination and fruit set, ultimately setting the season up for slightly reduced yields for the 2019 harvest.

However, as a weak El Niño weather pattern began to develop, New Zealand recorded its third-warmest summer on record, with impacts on many horticultural crops. The Nelson region was most affected by dry conditions over summer, with drought conditions, and large wild fires covering 2,350 hectares, leading MPI to declare a medium-scale adverse event in February 2019. The full costs are yet to be established. Plantation forestry was a significant land use within the affected area, and the resulting water restrictions also affected fruit and vegetable growers on the Waimea plains.

Although an El Niño pattern is forecast to continue through to July 2019, the National Institute of Water and Atmospheric Research (NIWA) is indicating that its influence may weaken over the course of the coming year. Temperatures are forecast to be above average in the north and east of the North Island and east of the South Island and likely to be near average in all remaining regions. NIWA is also forecasting rainfall at or below normal levels in the North Island and in the north and east of the South Island. However, the weak El Niño may bring increased rainfall to western areas of the South Island over the coming months.

Table 1: Primary industries export revenue 2015-23 (NZ\$ million)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dairy	14,050	13,289	14,638	16,655	17,610	17,820	18,190	18,510	18,820
Meat & wool	9,000	9,200	8,355	9,542	10,150	9,900	10,000	10,090	10,190
Forestry	4,683	5,140	5,482	6,382	6,880	6,820	6,940	7,000	7,080
Horticulture	4,185	5,000	5,165	5,376	6,110	6,130	6,360	6,610	6,960
Seafood	1,562	1,768	1,744	1,777	1,910	1,860	1,970	2,030	2,100
Arable	181	210	197	243	235	250	255	260	265
Other primary sector exports*	2,417	2,714	2,638	2,706	2,800	2,870	2,940	3,000	3,060
Total exports	36,079	37,323	38,219	42,682	45,695	45,650	46,655	47,500	48,475
% Change	-6.8%	+3.4%	+2.4%	+11.7%	+7.1%	-0.1%	+2.2%	+1.8%	+2.1%

Source: Stats NZ and MPI.

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

Global markets remain unsettled

The Comprehensive and Progressive Trans-Pacific Partnership entered into force in December 2018, giving our exporters more opportunities to maximise returns.

The New Zealand dollar is on track to fall 2 percent this year, supporting increased export returns.

Primary industry exports are performing well, despite global trade tensions and rising uncertainty.



New Zealand's current run of export success over the past two years has occurred despite a rising sense of uncertainty in global markets. This is partly because the products we trade in have not been directly affected so far, and partly because the NZD has fallen over the past two years (Figure 2), supporting export returns.

However, these issues provide an increasingly uncertain backdrop to the otherwise positive outlook for New Zealand's primary industry exports. This includes slowing global economic growth expectations, rising protectionist sentiment, and uncertainty as shown by Brexit and trade tensions between the United States (US) and China, and outbreaks of African swine fever (ASF).

The ongoing trade dispute between the US and China does not include increasing tariffs on products directly relevant to New Zealand's primary industries, but has disrupted some markets, such as soybeans. Meanwhile, the United Kingdom's (UK's) planned exit from the European Union (EU) has been delayed to later in 2019 (see below), further extending this source of uncertainty. The larger concern for New Zealand and other exporting countries is a potential impact on consumer demand within the UK, US, and China if those economies are negatively affected.

Another source of uncertainty is the impact of ASF outbreaks in Europe and China, in particular. China is by far the world's largest producer and consumer of pork, and loss estimates range between 5 and 30 percent of the country's pigs. See page 31 for details.

New Zealand has also taken steps to diversify export opportunities by pursuing free trade agreements with current and future trade partners. Most notably, the 11-country Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) came into force on 30 December 2018, providing New Zealand's primary sector exporters with more opportunities to develop markets overseas. This agreement has the potential to deliver an estimated \$222 million of tariff savings annually and open up new export destinations. In terms of member

country gross domestic product (GDP), only the North American Free Trade Agreement and the European Single Market are larger multinational trade zones.

Brexit postponed

The United Kingdom (UK) and European Union (EU) have agreed to a "flexible extension" for Brexit until 31 October 2019. The flexible extension means that the UK can exit the EU earlier, should the negotiated Withdrawal Agreement be passed by the UK Parliament. If the UK Parliament does not pass the Withdrawal Agreement by 31 October, it must come to an alternative agreement with the EU on a way forward, or leave without a deal on 31 October. We expect existing conditions for primary sector trade between New Zealand and the UK to stay the same during the extension period.

There remains significant uncertainty in the UK regarding the Brexit process, with a wide range of outcomes possible. Primary sector exporters should therefore ensure they have contingency plans in place, in case the UK leaves the EU after October without a deal.

MPI (and other ministries) has worked closely with UK counterpart agencies to put in place arrangements to preserve continuity in our trade conditions with the UK once it leaves the EU. An example of this is the signing of the Veterinary Agreement and Mutual Recognition Agreement, which are important milestones in New Zealand's preparedness for Brexit. Both agreements roll over existing trade agreements with the EU and the Veterinary Agreement helps provide certainty for New Zealand companies that export animal products to the UK.

The MPI website will continue to provide updates to exporters on Brexit and preparation measures that can be taken.

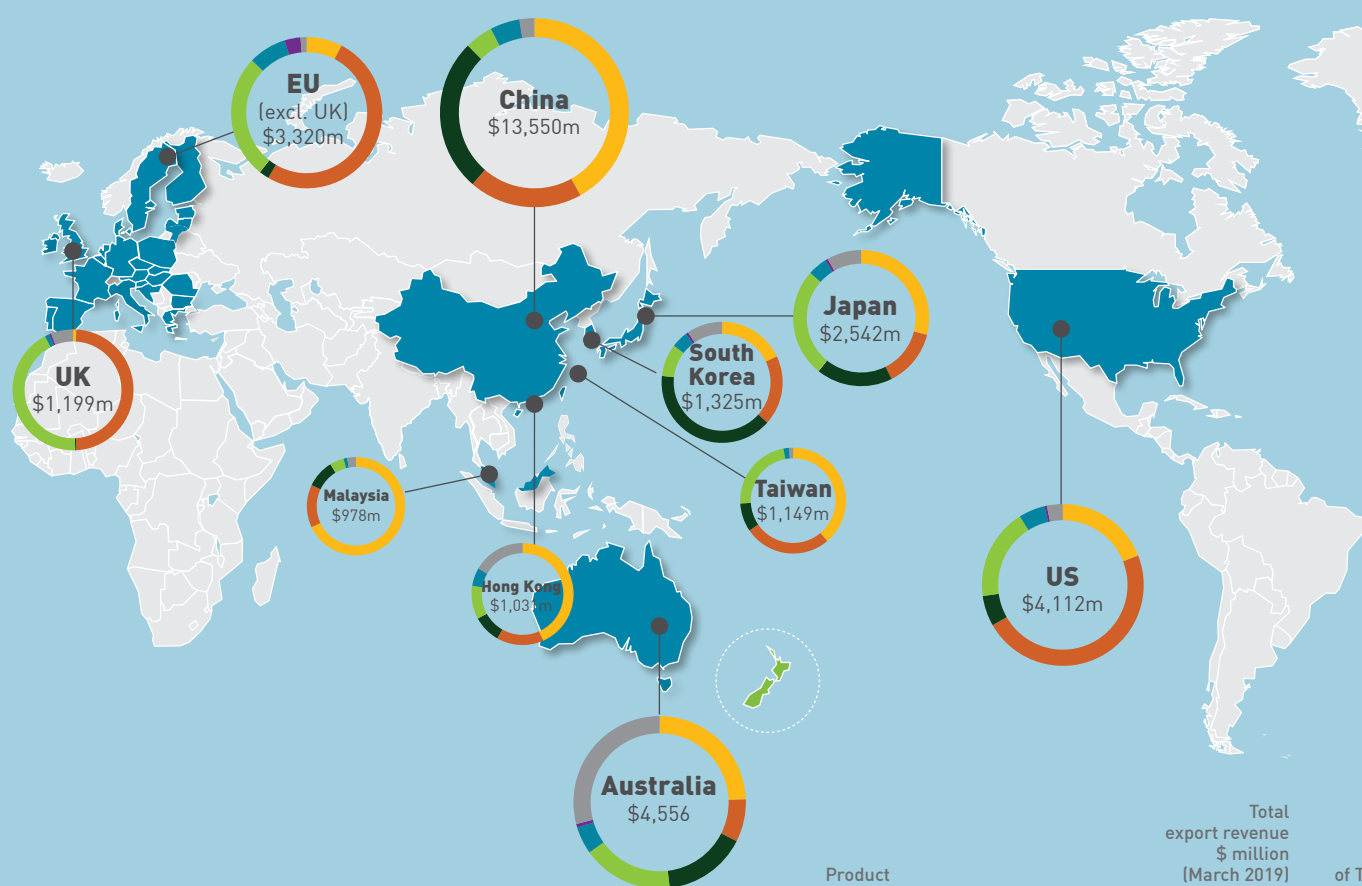
Figure 2: New Zealand dollar has fallen for two straight years, boosting export returns



New Zealand trade-weighted index, July 2014 to April 2019
Source: Reserve Bank of New Zealand.

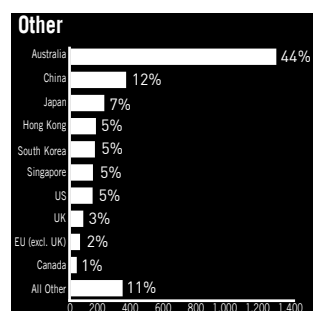
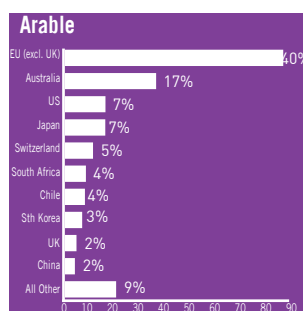
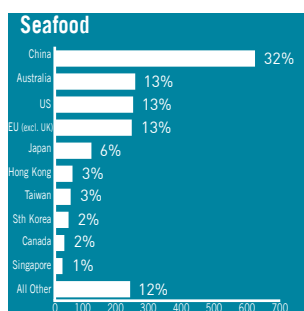
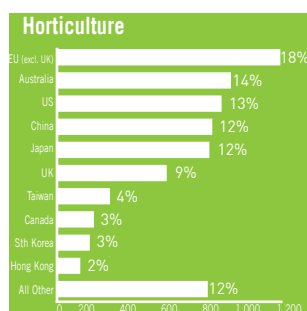
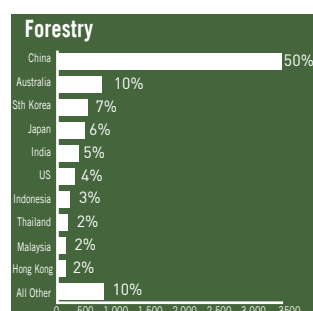
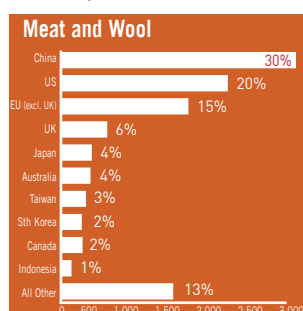
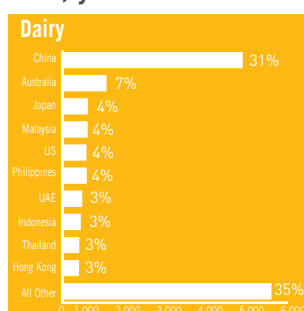
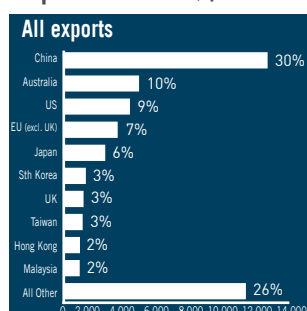
Top 10 export destinations

Year ended March 2019



Product	Total export revenue \$ million (March 2019)	% of Total
Dairy	17,689	39%
Meat and Wool	10,184	22%
Forestry	6,837	15%
Horticulture	5,874	13%
Seafood	1,870	4%
Arable	216	0%
Other primary sector	2,700	6%
Total primary industries	45,370	100%

Top markets (\$NZ millions, year ended March 2019)



Positioning for success

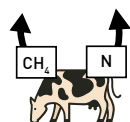
New Zealand's future wellbeing depends on an economy that is both environmentally sustainable and delivering high value. The agriculture sector continues to be the engine room of our economy. Last year it contributed more than \$42 billion in export revenue, employing over 350,000 people.

There are challenges ahead; we are living in a world characterised by disruption. Consumer preferences are changing; we're facing more competition in export markets; we're reaching environmental limits in some areas; the pace of technological change is increasing; and global demographics are changing.

We want to make sure New Zealand's farmers and growers are well-positioned for the future so that our agriculture practices are world-leading and our rural communities continue to thrive. MPI is working across a range of areas to achieve this, including:



Examining market structures through the Dairy Industry Restructuring Act review



Exploring how farmers can reduce emissions and adapt to climate change



Addressing challenges around water quality and Farm Debt Mediation; and



Providing incentives for planting more trees.

The following pages provide a snapshot across some of this work.



Review of the Dairy Industry Restructuring Act 2001

Government's objectives and the DIRA review

The Government is committed to addressing long-term challenge like sustainable economic development, increased value for exports, decent jobs paying higher wages, a healthy environment, and a fair society.

Given the dairy sector is one of New Zealand's two largest export earners, it is important that the DIRA rules continue to deliver a productive, sustainable and inclusive dairy industry.

In May 2018, the Minister of Agriculture announced a review of the DIRA's impact since 2001, which focuses on whether the DIRA regulatory regime:

- 1. Still operates in the long term interests**
of New Zealand dairy farmers, consumers, and the regional and wider economy
- 2. Now gives rise to consequences**
that the Act did not intend to cause
And if so to what extent do they arise.
- 3. Remains relevant and fit-for-purpose**

Birth of Fonterra

In 2001 the New Zealand dairy industry underwent historic reform when the Dairy Industry Restructuring Act 2001 (DIRA) was passed to enable the creation of Fonterra.

The DIRA's purpose was to create a co-operative dairy company with the scale required to be a truly effective competitor in international markets.

As Fonterra controlled 96 percent of all domestic farmers' milk production when it was formed, the DIRA contained provisions to manage risks arising from the lack of competitive pressure its market dominance resulted in.

MPI's efforts to date

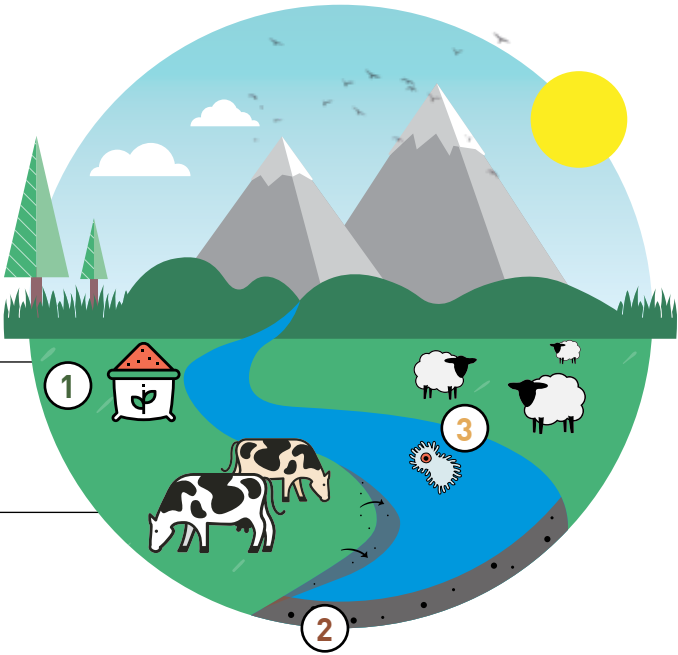
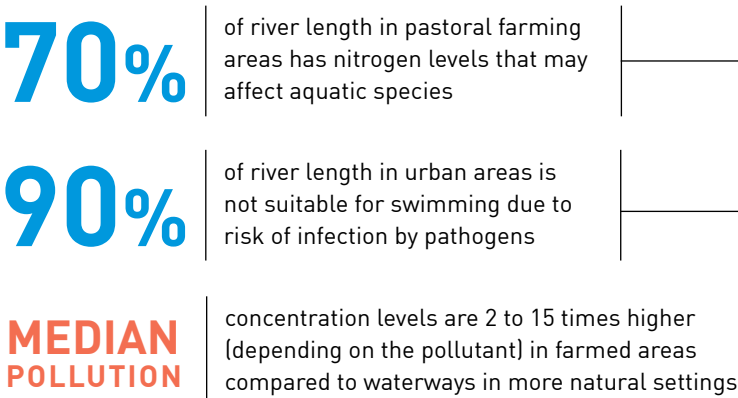
In preparing reviews, MPI undertook the following consultation steps:



Essential Freshwater programme

Launched in October 2018, the Essential Freshwater Programme aims to deliver long-term improvements via efforts to stop further degradation, reverse past damage, and address nutrient discharge.

Environment Aotearoa 2019 states that waterways in farming areas are polluted by excess nutrients, sediment and pathogens. For example:



REACTIVE PHOSPHORUS IMPROVEMENTS Of 145 monitored pastoral river sites, phosphorus trends were improving at 46 percent of sites and worsening at 21 percent of sites (1994–2013)

- 1 Nutrients**
E.g. nitrogen and phosphorus
- 2 Sediment**
E.g. run off from farms, forests and urban areas
- 3 Pathogens**
Disease-causing microorganisms – e.g. E. coli

These forms of pollution above degrade cultural well-being (for example it can also have a detrimental affect the mana associated with an iwi or hapū).

The Essential Freshwater Programme’s Scope

A discussion document is expected to be released in July-August on changes to the Freshwater National Policy Statement, a new Freshwater National Environmental Standard and fair allocation of freshwater resources.

The work programme is wide ranging and will consider long term and interim options for:

- 1**
Stopping and reversing damage in at-risk catchments
- 2**
Reinforcing good farm practices like riparian setbacks, farm environment plans, and stock exclusion
- 3**
Better management of high risk activities (e.g. winter grazing, feedlots and intensification)
- 4**
Protecting ecosystem health, wetlands, and streams
- 5**
Reducing excessively high nitrogen leaching
- 6**
Fair and efficient allocation of nutrient discharge
- 7**
Consideration of Māori rights and interests
- 8**
Reducing sediment loss

The Essential Freshwater programme's scope cont...

Some land and water users in more highly polluted catchments will have to make changes to meet the new objectives for healthy freshwater.

Any new rules and requirements must be practical and enduring; which means they need to be science-based, reflect mātauranga Māori, be predictable, understood by the public, and underpinned by effective regulation and enforcement.

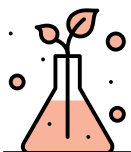
To help achieve this, an advisory network is involved in testing and advising on policy options. More stakeholders will be involved during consultation.

This advisory network is made up of the following groups:



Te Kāhui Wai Māori

Māori land and water users, advocates, and scientists who advise on a range of issues with a focus on te Mana o Te Wai – the mana of the water – an overarching framework that underpins policy, practice, and decision-making.



Science and Technical Advice Group

Includes 16 scientists who are overseeing the scientific evidence for freshwater policy development, including all aspects of ecosystem health.



Freshwater Leaders Group

Primary sector leaders, land and water users, advocates, and scientists who provide advice and input on all aspects of the policy programme, with a focus on how the elements interact to achieve the goal of healthier freshwater.



Regional Sector Water Group

This group of Regional Council leaders and staff is facilitating engagement between regional and central government on the work programme, and providing other relevant advice.

Farm Debt Mediation

Last December, the New Zealand Cabinet gave policy approval to establish a statutory scheme for the mediation of farm debt in New Zealand.

Background

The scheme would require secured creditors, such as banks and secondary lenders, to offer farm debt mediation before taking enforcement action for debt held over eligible farm businesses. Eligible farmers will be able to request mediation at any time.

Why we are doing this?

The scheme is intended to provide a mechanism for farmers and creditors to:

- have equitable and constructive discussion about options for farm business turnaround;
- provide for a timely and dignified exit for farmers where these options do not exist.

Upcoming developments

The draft Bill is likely to be introduced in coming months (mid-2019) and is intended to be passed by the end of the year. The public will have an opportunity to submit on the Bill during the Select Committee process in the second half of 2019.



One Billion Trees

What is the One Billion Trees programme?

The Government has set a goal to plant one billion trees by 2028. The One Billion Trees programme will deliver improved social, environmental, and economic outcomes for New Zealand.

Led by Te Uru Rākau (Forestry New Zealand) and funded by the Provincial Growth Fund, the programme aims to:



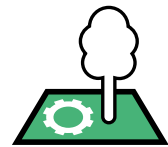
Generate sustainable regional economic growth, employment and workforce development



Support Māori values and aspirations and create opportunities to maximise the potential of their land and resources



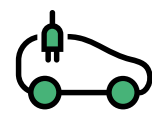
Mitigate climate change



Optimise land use



Protect the environment and increase indigenous biodiversity



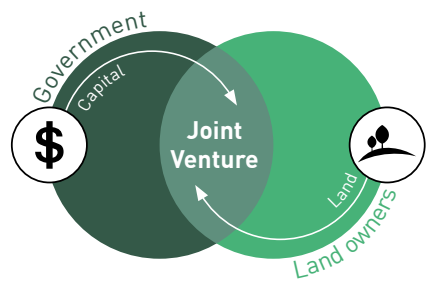
Support New Zealand's transition to a low emissions economy

What does the One Billion Tree programme do?

The Programme is focused on making it easier to plant a mix of permanent and plantation forestry trees that involve exotics and natives by lowering the planting barriers currently faced by landowners and, supporting the right trees, in the right place, for the right purpose.

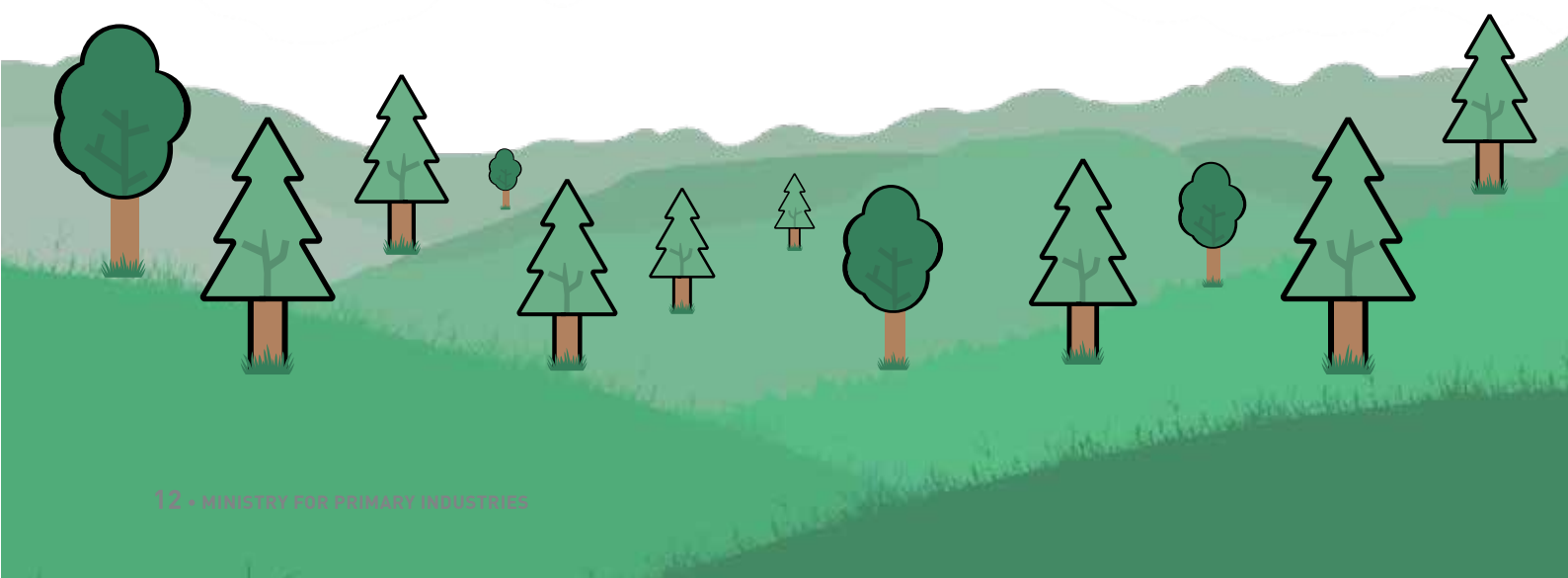
MPI's efforts to date?

With a focus on better integrating trees into the landscape, the One Billion Trees Programme has a range of tools to support landowners to achieve this:



Direct investment in joint ventures

To kick-start the One Billion Trees programme, Crown Forestry is entering into forestry right arrangements ('joint ventures') with landowners, with a target of planting up to 24,000 hectares.



MPI's efforts to date continued:



Direct landowner grants: simple and accessible grants for landowners

The One Billion Trees Fund provides grants to landowners to contribute to the cost of new tree planting to support a range of goals including erosion control, better land productivity, and income diversification. The aim is for two-thirds of trees funded through grants to be native species. The focus is on trees integrated into farms, rather than whole-farm conversions. The Fund is expected to see up to 60 million trees planted over the three years of its operation.



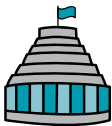
Partnership funding: for initiatives critical to enabling One Billion Tree planting

These partnerships will support an increase in planting by promoting innovation, research, and workforce initiatives. They will also look at options to scale-up native regeneration projects.

What's next for the One Billion Trees Programme?



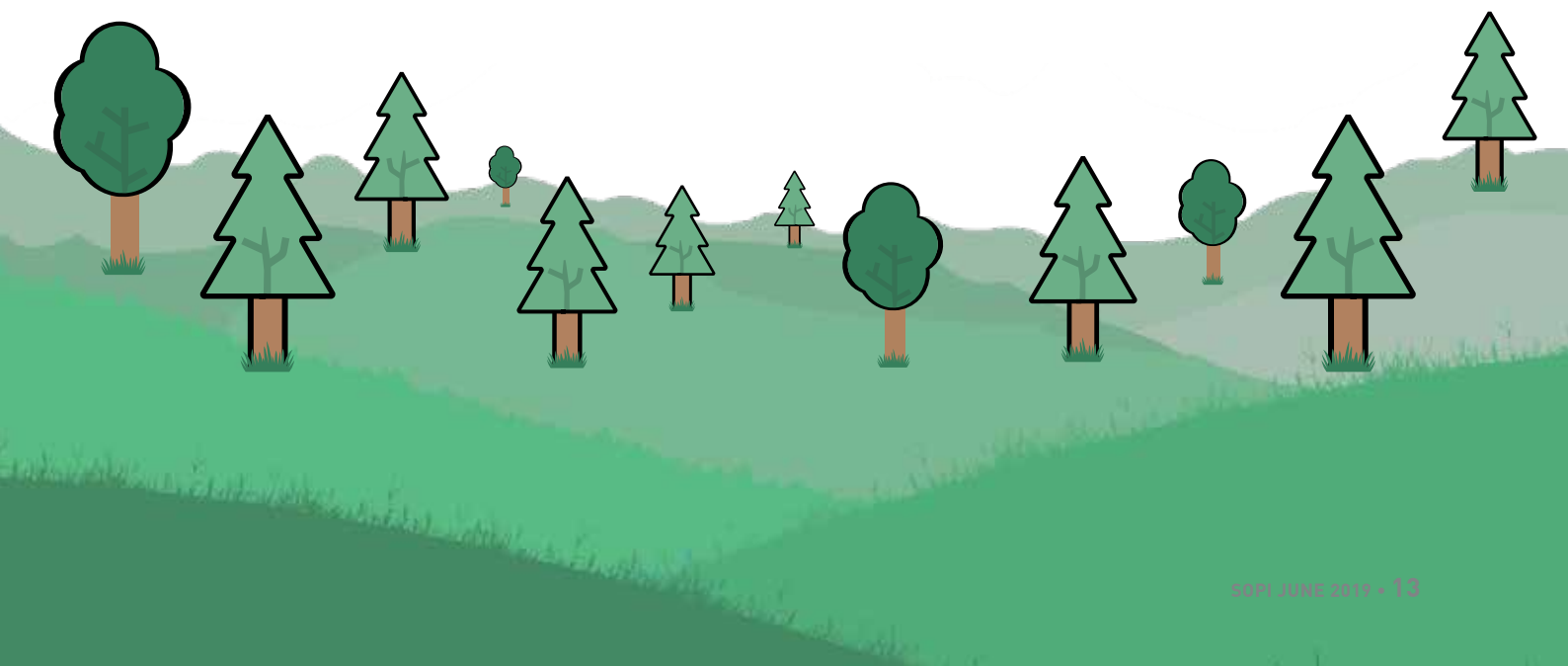
The focus of Te Uru Rākau for 2019 is implementing the One Billion Trees Fund, including working with regional councils, the nursery sector, Māori landowners, and community groups.



Key changes to the Emissions Trading Scheme later in 2019 are expected to drive an increase in tree planting, see page 14.



This year Te Uru Rākau will develop a Forest Strategy for New Zealand, to set the direction for the forestry sector over the next 20-30 years and establish a path for achieving the Government's broader forestry aspirations. The Forest Strategy will be developed collaboratively with sector participants.

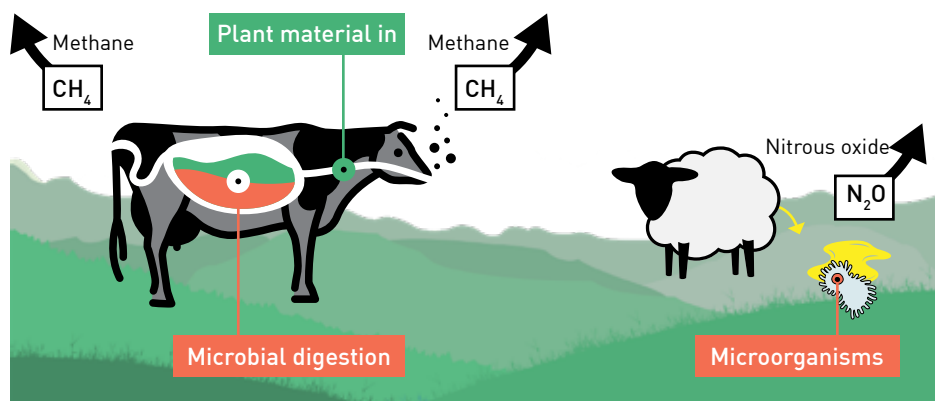


Agriculture and the Emissions Trading Scheme

The agricultural sector is not currently required to pay for the biological greenhouse gas that it produces. In April last year, the Government tasked the Interim Climate Change Committee (ICCC) – an independent ministerial advisory group – to look at whether/how emissions from this sector could be priced via the New Zealand Emissions Trading Scheme or another mechanism.

The Interim Committee delivered a report outlining its recommendations on this, and other options to reduce emissions from agriculture, to Ministers on 30 April 2019. They are now assessing the report. Consultation on the ICCC recommendations and the Government's response is due in the next few months.

Biological emissions



Changes expected from averaging in the Emissions Trading Scheme

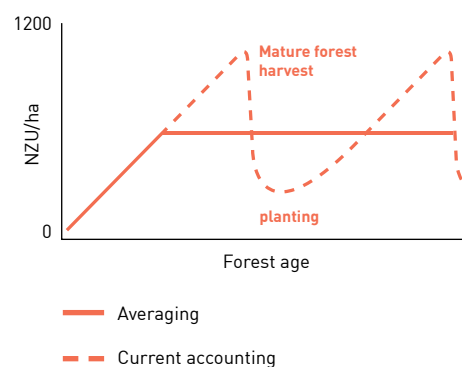
Later this year, a simpler way to count the carbon that trees store is being introduced to the NZ Emissions Trading Scheme (ETS). This new "averaging accounting" approach will be optional for new registrations of post-1989 forestry into the scheme until 31 December 2020, and compulsory for new registrations from 1 January 2021.

Averaging accounting allows post-1989 forestry participants to account for the averaged amount of carbon stored in their forests over the long run, rather than basing calculations on the cyclical peaks and troughs that occur during harvest and regrowth.

Practically what this means for foresters is that they will be able to sell all the carbon units they earn, without having to pay some of them back when they harvest their forests. Previously, many foresters held back a significant proportion of their units in order to cover harvest liabilities.

We expect that the reduced harvest liabilities will increase the incentive to afforest and, as a result, more new land being planted in forestry. At current carbon prices we expect that the afforestation rate will increase by close to 70 percent. During the One Billion Trees 10-year target period to 2027, this will amount to another 78,000 hectares of forestry planted, or 89 million trees.

Carbon accounting practices





Dairy ...



Export revenues are forecast to increase 5.7 percent to \$17.6 billion in 2019, supported by strong milk production and sustained global demand.

Global price volatility for key commodities impacted export prices, subduing early season export revenues in 2018/19.



Milk production for 2018/19 forecast to rise 2.3 percent, supported by favourable weather, promoting strong pasture growth.



All-company average farmgate payout forecast lifted to \$6.46 for 2018/19 as commodity prices recover, boosting on-farm profitability.

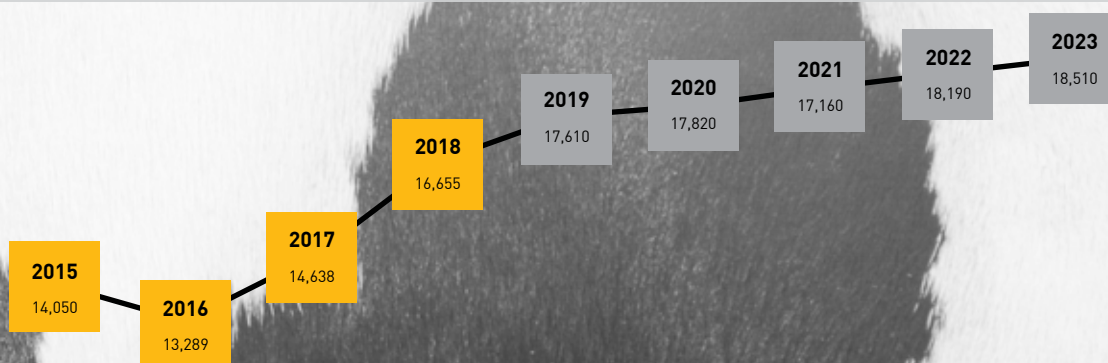


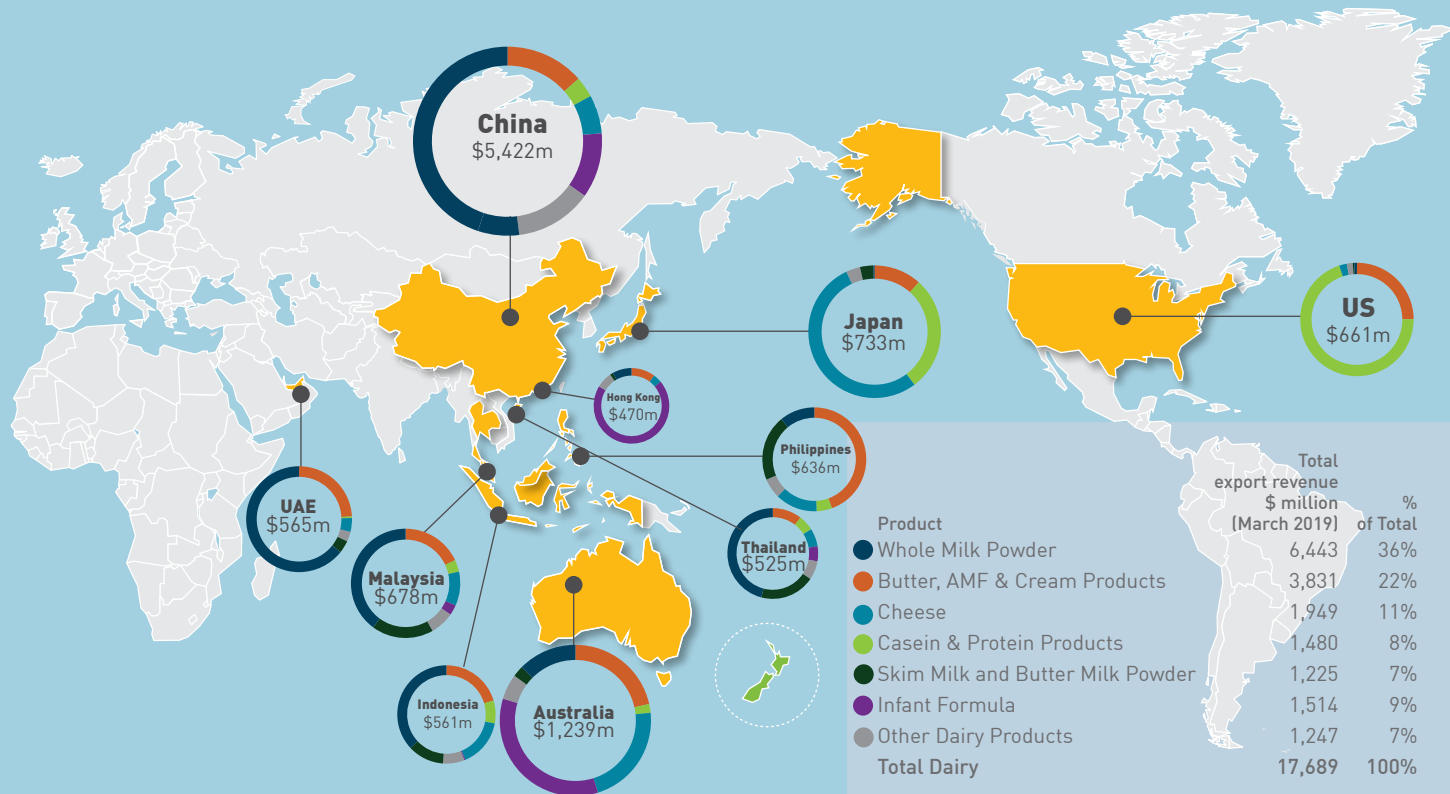
Table 2: Dairy export revenue 2015–23 (NZ\$ million)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Whole milk powder	5,385	4,609	5,271	5,818	6,430	6,080	6,110	6,190	6,260
Butter, AMF, and cream	2,219	2,378	2,794	3,812	3,650	3,690	3,750	3,820	3,870
Skim milk & butter milk powder	1,762	1,347	1,385	1,228	1,310	1,570	1,580	1,600	1,620
Casein & protein products	2,129	1,834	1,735	1,601	1,490	1,550	1,610	1,630	1,650
Cheese	1,557	1,720	1,830	1,905	1,930	1,980	2,010	2,030	2,060
Infant formula	415	685	778	1,240	1,560	1,670	1,800	1,880	1,960
Other dairy products*	582	716	845	1,050	1,240	1,290	1,330	1,360	1,400
Total	14,050	13,289	14,638	16,655	17,610	17,820	18,190	18,510	18,820
% Change	-21.0%	-5.4%	+10.1%	+13.8%	+5.7%	+1.2%	+2.1%	+1.8%	+1.7%

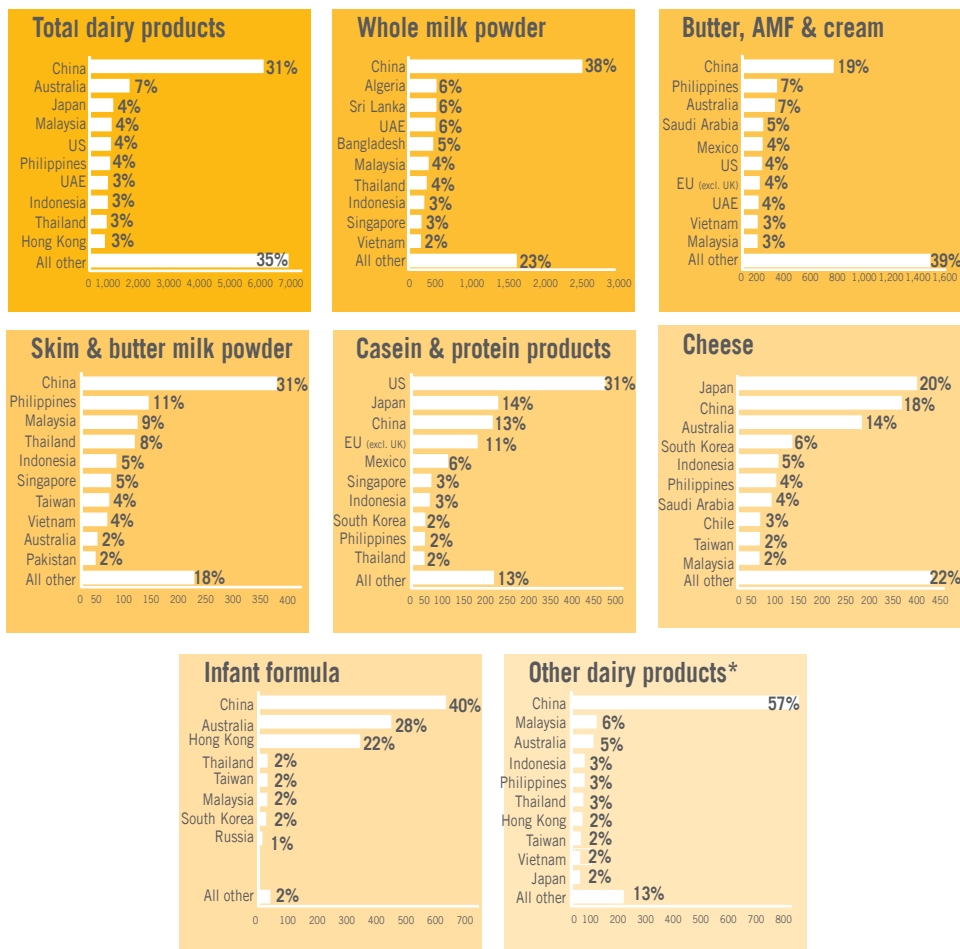
Source: Stats NZ and MPI.

* Other dairy products include: liquid milk and cream, ultra-high temperature milk, yoghurt, and ice cream.

Top 10 export destinations



Top markets (\$NZ millions, year ended March 2019)

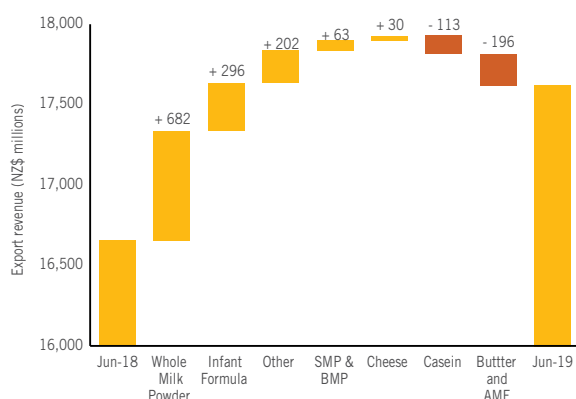


Strong production and export price recovery underpinning export growth

New Zealand's dairy export revenue is forecast to increase to \$17.6 billion for the year ended June 2019, up \$1.0 billion (5.7 percent) from the previous year. Strong domestic milk production has resulted in increased export volumes, with sustained demand out of China and South East Asia supporting prices. Global dairy commodity prices have experienced significant volatility over the year, affecting returns across several important products.

However, a recovery in global prices, which began in late 2018, will see export revenue growth continue into 2020, supporting relatively strong farmgate milk payouts over the medium term (Figure 3).

Figure 3: Dairy export revenue growth led by whole milk powder and value added products



Dairy export revenue growth by product, year ended June 2018–19
Source: Stats NZ.

New Zealand milk production lifted by favourable weather conditions

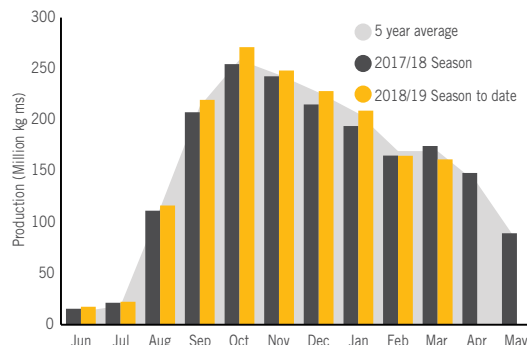
After a challenging 2017/18 season, this year has been far more positive for New Zealand milk production. Following a strong finish to the previous season, early season production was boosted by increased winter milking in June and July (up 7.7 percent on the previous year) and mild temperatures. Favourable weather conditions continued through spring and early summer, promoting strong pasture growth across the major dairy regions during the peak milk production months from September to January. Overall, total milk solids production for this period increased 5.6 percent on the previous year, the second highest ever, only 1.5 percent below the record set in 2015, when the milking cow population was 3.3 percent higher.

Excess grass growth early in the season also allowed many farmers to increase on-farm stores of bialage and silage. This has, to some extent, provided a buffer for production later in the season, as a hot, dry summer limited pasture growth. As a result, January milk collections were up 7.7 percent, compared with the previous year.

Unlike the previous season, where a favourable autumn boosted production significantly above the long-term average, this season has followed a pattern more typical of prior years. With the weather outlook at the tail end of this season across New Zealand's major dairying regions drier and warmer than last year, many farmers have dried off their herds earlier than normal. Consequently, output has fallen well behind last

season's strong finish. As on-farm supplementary feed was used up, February production fell 0.1 percent compared with the previous year, with March production 7.5 percent lower (Figure 4).

Figure 4: Strong milk solids production compared with previous season



Milk solids production (2017/18 and 2018/19 season)
Source: Dairy NZ.

As a result, although total milk solids production to date (ending March 2019) is currently 3.5 percent ahead of the previous season, we are forecasting total milk solids production for the current season ending May 2019 to be 1,883 million kilograms, 2.3 percent above the previous year.

These results are all the more impressive in the context of the declining size of the New Zealand dairy herd. Figures from the 2018 Agricultural Production Survey released by Stats NZ show that, as at June 2018, dairy cows in milk or in calf were 0.7 percent lower than the previous year at 5.01 million. This follows a 3.0 percent decline in the previous year. With both dairy calving numbers and rising one-year-old dairy heifers also declining, we expect this trend in the national dairy herd to continue over the next few years.

As the industry adjusts to increasing pressures to reduce the environmental impacts of dairy farming (with more catchments bringing in constraints on nutrient discharges to improve water quality outcomes), further on-farm productivity gains will need to continue, in order to drive future industry growth. Indeed, dairy farm productivity (measured by milk solids produced per cow) has experienced a compound average growth rate of 1.9 percent annually over the past 10 years.

However, the ongoing effect of these increasing regulatory constraints should act to limit any future intensification of farming practices. This is also likely to inhibit any growth in the national milking platform area, but the impact will vary by region. As a result, we are forecasting a slight decline in the national dairy herd and land use over the medium term.

Despite this, we do expect ongoing advances in herd genetics, improvements in farm management practices, forages, and new technology to continue to drive further increases in on-farm productivity. With increases in milk solids production per cow likely to continue (albeit at a slower pace due in part to nutrient discharge limits), this should offset the effects of a declining dairy cow population, leading to a modest growth in milk solids production over the medium term.

Global production outlook beginning to weaken

The strong production season experienced by the New Zealand industry has contrasted against weakening supply trends across other major milk producing countries over the past nine months, which has supported price recovery for New Zealand exporters as the season developed.

In Australia, continued drought conditions and increasing supplementary feed and irrigation costs have resulted in increased dairy cow cull rates and farm exits. As a result, Australian milk production for the 12 months to March 2019 was 6.7 percent below the previous year, with Dairy Australia forecasting the season to be down between 7 percent and 9 percent overall.

EU milk production has also showed signs of weakness. Difficult summer conditions across north-western Europe and declining herd numbers constrained dairy output growth. This has resulted in milk collections for the year to February 2019 to be up only 0.2 percent on the previous year.

Similarly, in the United States, tight margins, high cull rates, record farm closures, and weather issues are combining to constrain production. Although total milk production for the 12 months to March 2019 was up 1 percent for the year, this was below earlier market expectations. As a result, the US Department of Agriculture has lowered its forecast for production growth to just 1 percent for the year ahead.

Greater volatility in commodity prices characterising Global Dairy Trade auction results

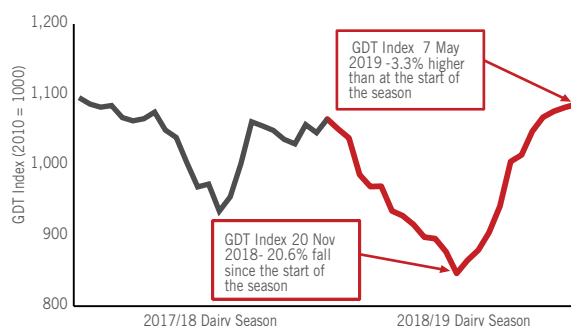
The strong New Zealand season has dominated global supply patterns, weighing heavily on dairy commodity prices from May to November. Prices for butter and anhydrous milk fat (AMF) on the Global Dairy Trade (GDT) auction fell 26.4 percent and 34.8 percent respectively. Similarly, whole milk powder (WMP) prices also fell 18.9 percent over the same period, while cheddar prices fell 18.7 percent. However, as expectations of production growth eased across the northern hemisphere and dry weather curbed New Zealand's forecast supplies into export markets, this eased risks of a potential excess supply-demand imbalance in global markets (Figure 5). As a consequence,

prices have since experienced a significant recovery.

GDT auction prices for butter and AMF have subsequently reversed their previous declines, with cheddar also trading 5.5 percent higher and WMP prices 1.4 percent higher than at the beginning of the season.

Oceania region prices for butter, skim milk powder (SMP), and cheddar are now trading at significant premiums to EU and US equivalents. This is likely to further constrain New Zealand export price growth for these commodities over the short to medium term.

Figure 5: Global dairy commodity prices sharply falling before recovering in the latter half of the season



Global Dairy Trade Index price [June 2017–April 2019]

Source: Global Dairy Trade.

EU clearance of SMP intervention stocks have supported price growth

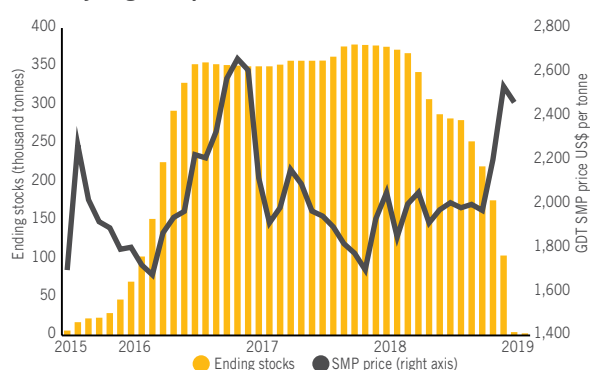
The large amount of intervention stocks built up by the EU has been depressing SMP prices since the end of 2016. In total, 395 thousand tonnes of SMP were bought by the European Commission between 2015 and 2017 to help stabilise the market and support farmers' incomes following the removal of country-specific production quotas. The EU has been grappling with the inventory for several years, however, through a series of large tenders from December 2018 to February 2019, it has now cleared almost all of its stockpile. The consequent recovery in global prices has been significant, with GDT prices for SMP rising 28 percent since the beginning of December.

Table 3: Dairy farm production, milk prices, and exports 2015–23

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cows and heifers in calf or in milk (million)	5.06	5.20	5.04	5.01	4.98	4.96	4.94	4.93	4.92
Milk solids production (million kg)	1,890	1,854	1,851	1,840	1,883	1,853	1,863	1,873	1,883
Milk solids per cow (kg of milk solid)	365	367	356	367	376	372	376	379	382
Milk price (cents per kg of milk solids)	461	426	640	672	646	697	712	721	725
Total export value (\$ million)	14,050	13,289	14,638	16,655	17,610	17,820	18,190	18,510	18,820
Total export volume (thousand tonnes)	3,046	3,232	3,279	3,238	3,448	3,373	3,408	3,428	3,452
Average export price (\$ per kg)	4.61	4.11	4.46	5.14	5.11	5.28	5.34	5.40	5.40

Source: MPI, Stats NZ, DairyNZ.

Figure 6: Clearance of EU intervention stocks have led to a recovery in global prices



EU intervention stock inventories and GDT SMP prices (July 2015–March 2019)
Source: Global Dairy Trade and Agriculture and Horticulture Development Board – Dairy (UK).

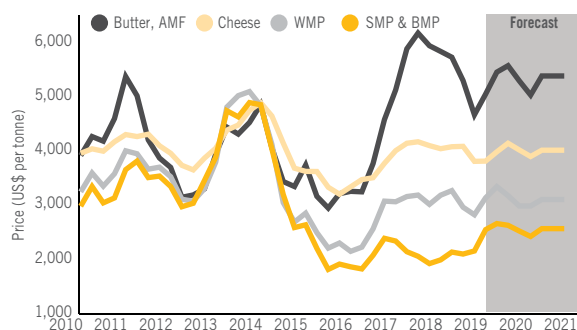
As can be seen from Figure 6, while early intervention purchases supported prices for SMP initially, the large overhang of inventory in the global market ultimately depressed global prices during 2017 and 2018. With the gradual sell down of stocks, starting in early 2018 and finishing February 2019, SMP prices have subsequently recovered.

Global demand–supply dynamics drive divergence between dairy fats and protein prices

The impact of EU intervention stocks on depressing SMP prices, with the consequent flow-on effects for WMP, highlight the growing disparity in global price trends between dairy fat and protein products that has emerged since 2015. However, income growth and the westernisation of dietary preferences in important Asian export markets (particularly China) have also been a key factor, boosting demand and supporting strong price growth for butter, AMF, and cheese over the past three years.

While the price gap has closed slightly in recent months, we are forecasting strength in butter, AMF, and cheese prices to continue to be supported by sustained demand growth out of Asia (Figure 7).

Figure 7: Global dairy fat prices have diverged from proteins in recent years



Dairy export prices 2010–20
Source: Stats NZ and MPI.

New Zealand is well positioned to take advantage of strong demand for fat-based milk products due to the strong influence of jersey genes in the national herd. The breed is known for producing milk with a high fat content.

For the nine months to March 2019, New Zealand's export of butter and AMF increased by 35,100 tonnes (up 10.7 percent), compared with the previous year, although cheese production growth was flat with only an additional 1,800 tonnes of cheese (up 0.8 percent) exported. However, the volatility in butter and AMF prices so far this season has been reflected in an overall fall in average export prices for these products for New Zealand's processors. Accordingly, we are forecasting butter and AMF export revenues for the year ended June 2019 to be down 4.2 percent to \$3.65 billion, as the impact of increased volumes is offset by lower average prices across the season. Looking ahead to 2020 and beyond, we expect modest volume increases and continued strength in prices to support steady export revenue growth for these products.

Cheese exports are forecast to lift only 1.5 percent to \$1.93 billion for the year ended June 2019, driven by improved prices despite flat export volume growth (Figure 8). With strong competition in export markets from the EU (particularly in the important Japanese market) and also the US, we expect export volumes for cheese to continue to trend upwards at modest rates over the medium term, with growth to \$1.99 billion forecast for the year ended June 2020.

Much of New Zealand's increased domestic milk production this season has been moved into WMP. New Zealand exported an additional 135.7 million tonnes of WMP during the nine months to March 2019, up 11.6 percent on the previous year. We are forecasting WMP revenues for the year ended June 2019 to rise 10.5 percent to \$6.43 billion. As New Zealand's on-farm milk production next year falls to levels more in line with historical averages, we expect this to result in declining export volumes for WMP as New Zealand processors adjust their production mix to maximise their revenue streams across all their products. Accordingly, we are forecasting WMP revenues to fall 5.4 percent to \$6.07 billion for the year ended June 2020, with modest growth then continuing out to 2023.

Figure 8: WMP and dairy fat volume growth amid high price volatility supporting export revenue growth



Change in New Zealand export volumes and average export prices (nine months to March 2019–20)
Source: Stats NZ

Focus on value-added production continues with strong growth forecast

The evolution of New Zealand's dairy sector towards increasing value-added products has continued over the current year. In response to growing international demand for high-fat dairy

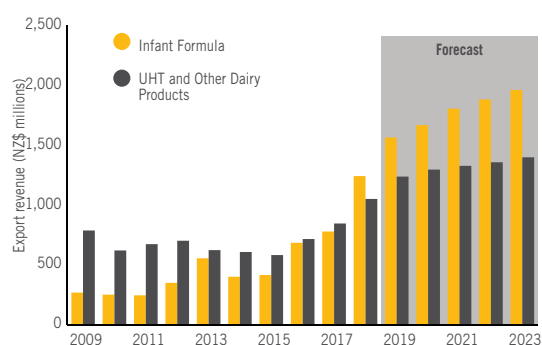
products, Fonterra completed its construction of a \$150 million cream cheese plant in Darfield, Canterbury. The factory began producing cream cheese in August 2018 and is expected to turn out 24,000 tonnes annually, all of it destined for the Asian market. Similarly, in September 2018, production began on Fonterra's third mozzarella plant at Clandeboyne.

Following on from its strategic partnership agreement, in February 2019 Fonterra also announced it would be signing up farms to significantly increase the milk supply for the a2 Milk Company in the 2019/20 season. Based on its asserted better digestive properties, the A1 protein-free range of infant formula and liquid milk products are seeing significant growth, particularly in the key Chinese market.

In Otorohanga, plans by Happy Valley Milk are under way to construct a \$230 million dairy factory specialising in infant formula and other nutritional products using A2 and organic milk, destined for Asian markets.

Infant formula export growth has continued, with exports volumes forecast to rise 21.7 percent to 112 thousand tonnes for the year ended June 2019 (Figure 9). Export volumes have risen three-fold over the past five years and have been complemented by strong average price growth. We are forecasting this trend to continue over the next five years, driven by growing demand from Asia, in particular China. Similarly, growth in "other" dairy products export also continued its upward momentum driven by increased demand for ultra-high temperature (UHT) and other liquid milk products. Volumes are forecast to rise 19.1 percent to 499 thousand tonnes for the year ended 2019 with continued strong growth forecast over the medium term.

Figure 9: Strong growth in export revenue from value-added products is forecast to continue



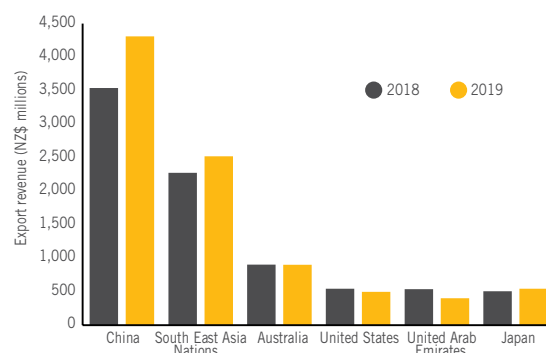
Infant formula and "other" dairy export revenues 2009–23
Source: Stats NZ and MPI.

Strong demand from South East Asia and China

The strong growth in New Zealand's dairy exports has been supported by sustained demand from South East Asia and China. Of the \$1 billion increase in dairy export revenues experienced over the nine months to March 2019, compared with the previous year, \$760 million of that went to China alone (Figure 10). In contrast, total exports to our next four largest trading partners (Australia, United States, United Arab Emirates and Japan) fell \$147 million, with only Japan experiencing

positive growth. In particular, exports to the United Arab Emirates (our fourth largest dairy trading partner last year) fell \$135 million (25.2 percent) driven by declining WMP and butter volumes.

Figure 10: Demand growth from China and South East Asia has absorbed New Zealand's increased milk production



Dairy export revenues to key export markets (nine months to March 2018–19)
Source: Stats NZ.

However, the key South East Asian markets of Philippines, Thailand, and Malaysia, as well as Hong Kong, all experienced strong growth, with exports to these nations collectively rising \$351 million (up 15.5 percent).

Despite strong Chinese demand growth, downside risks to exports remain

China accounted for 31.6 percent of New Zealand dairy export revenue in the nine months to March 2019. With the ongoing development of China's economy and rising living standards, combined with increasing Westernisation of diets, the per capita consumption of dairy products in China has been rising rapidly. However, the increasing dominance of this market in New Zealand's export trade partner mix brings the potential for heightened vulnerability economically to the dairy sector, with any potential reduction in demand likely to affect both prices and volumes for dairy products.

Forecasts for Chinese economic growth are now slowing. In March 2019, the Organisation for Economic Co-operation and Development (OECD) cut its forecast for Chinese economic growth for 2019 to 6.2 percent (a decline from 6.6 percent in 2018) with a further decline to 6.0 percent forecast for the following year.

Although Chinese agricultural policy has progressively focused on increasing domestic milk quality and production in order to reduce import demand over the medium to long term, some of the recent increase in demand is likely to be due to stalled growth in domestic production. In particular, the hot summer weather has curbed production this year, and US–China trade tensions have challenged on-farm profitability with the application of increased tariff costs on imported lucerne and soybean feed. In addition, the competitive trade advantages New Zealand has gained from the free trade agreement it signed in 2008 have gradually been eroded as China increasingly expands its trading relationships globally.

In other major dairy export markets significant challenges also exist. In Algeria (New Zealand's sixth largest dairy export trade

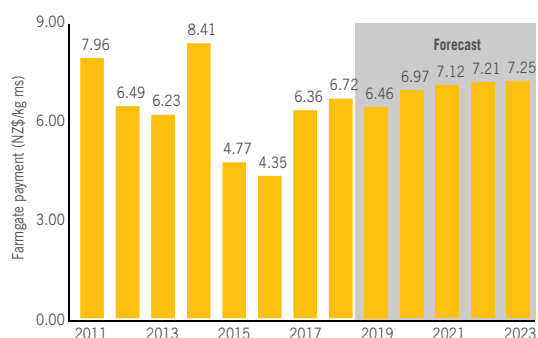
partner in the year ended June 2018, with export revenues of \$651 million), increasing political uncertainty and economic difficulties have increased the risks for New Zealand's dairy trade into that market. In June 2018, the Algerian Government introduced import tariffs on a range of dairy products, with export revenues subsequently declining by \$76 million (17 percent).

On the global supply side, a return to growth in milk supply in Australia and important northern hemisphere nations could again create demand–supply imbalances in global markets, placing downward pressure on export prices.

Farmgate payout forecast lifted from early season predictions

For New Zealand dairy farmers, the recovery of export commodity prices has increased the prospects for another relatively strong payout this season. In May, Fonterra narrowed its 2018/19 forecast farmgate milk price range from \$6.30–\$6.60 per kg MS range by 20 cents to \$6.30–\$6.40 per kg MS. We have adjusted our forecast all company average farmgate milk solids for the 2018/19 season upwards by \$0.05 to \$6.46 (including dividend) with a further forecasted lift for the following season to \$6.97 (Figure 11).

Figure 11: Recovery in commodity prices supports strong forecast farmgate milk prices



New Zealand all company average farmgate milksolids payment (including dividend) year ended May 2011–23
Source DairyNZ and MPI.

The prospects for strong payouts on top of increased production will help to boost on-farm profitability levels for the current season. Figures released by DairyNZ reveal that on-farm profitability increased in the dairy sector last year as higher payouts offset rising farm working expenses, including wages, feed costs, and stock grazing. Estimated owner–operator operating profit has increased from \$1.79 per kilogram of milk solids in the 2016/17 season to \$2.10 last year.

This prospect of improved operating conditions has helped lift farmer confidence with the latest Rabobank rural confidence survey indicating that dairy farmers were significantly more positive about the prospects for their sector than in late 2018.

Despite this, Reserve Bank figures show that, as at March 2019, dairy sector debt has increased slightly to \$41.3 billion, up 0.9 percent from a year ago. The dairy sector accounts for two-thirds of total primary sector lending in New Zealand. In particular, the Reserve Bank noted in its May 2019 financial stability report that the level of debt in the dairy sector remains concentrated, with some farms carrying disproportionately large borrowing levels.

Although the number of dairy farms under financial stress in the sector has been falling in recent years, with stronger milk prices allowing many farms to make progress in repaying debt, some more financially vulnerable business with larger debts are continuing to struggle to make profits. The Reserve Bank has noted that this has resulted in the rate of non-performing loans in the sector rising slightly to 2 percent as at March 2019. The current levels of debt held by these vulnerable farms may limit their capacity to withstand any future price downturns, as well as constrain their ability to invest and adapt over the longer term.

This is particularly important as the sector responds to the significant challenges ahead that it faces to its profitability associated with an increasing cost structure. The release of statistics by DairyNZ show the average break-even milk solids price for owner-operator dairy farms has increased from \$5.17 in 2017 to \$ 5.87 in 2018 confirms the increasing financial pressures faced by the sector.

Commitment to *Mycoplasma Bovis* Eradication Confirmed

In April 2019 the three partners working to eradicate *Mycoplasma bovis* (*M. bovis*) (MPI, DairyNZ and Beef + Lamb New Zealand) reaffirmed their commitment to the process, with the release of the *Mycoplasma bovis* 2019 National Plan.

The size and complexity of the task at hand is underlined by the fact that no country has attempted to eradicate *M. bovis* before. However, the alternative to eradication would present a serious challenge to New Zealand's farming practices, adding significantly higher ongoing costs to the country's farmers.

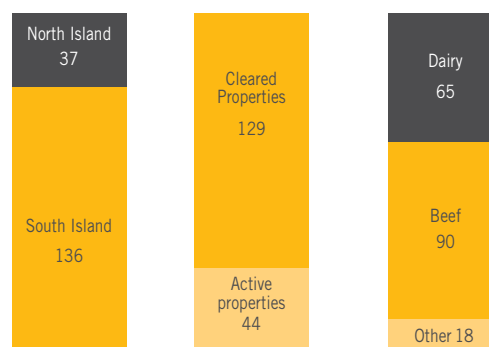
As at 5 June, 173 properties have been confirmed with *M. bovis*, 65 of which are dairy farms. Of these farms, 129 have subsequently been depopulated, cleaned and disinfected, and have now had their restrictions lifted (Figure 12). To date, 101,097 animals have been culled from the national herd.

In addition, a further 205 farming properties had restrictions in place on the movement of animals and risk goods off farm (due to the likelihood they have received a transfer of cattle from an infected farm). In addition, a further 559 properties are under active surveillance where there may be a risk for *M. bovis*, and testing has begun.

Biosecurity New Zealand reports that it expects another 12 months of intensive surveillance, movement controls, and depopulation before most of the eradication effort is completed.

While the impacts of *M. bovis* infection at an individual farm level are enormous, given the current status of the eradication programme, the effect on total dairy production over the coming year is expected to be minimal.

Figure 12: Current status of *M. bovis* eradication programme



M. bovis infected property statistics as at 5 June 2019.
Source: Biosecurity New Zealand.

Meat and Wool ...

Strong red meat prices are forecast to push meat and wool export revenue up 6.4 percent to \$10.2 billion in 2019.

In the past two years, the beef herd has grown 5.4 percent and the deer herd by 2.4 percent, in response to sustained high prices and profitability.



Lamb and mutton prices are at record levels because global exports remained constrained by falling breeding ewe numbers in New Zealand and drought in Australia.



Strong wool prices have not improved this year, although fine wool prices continue to rise.

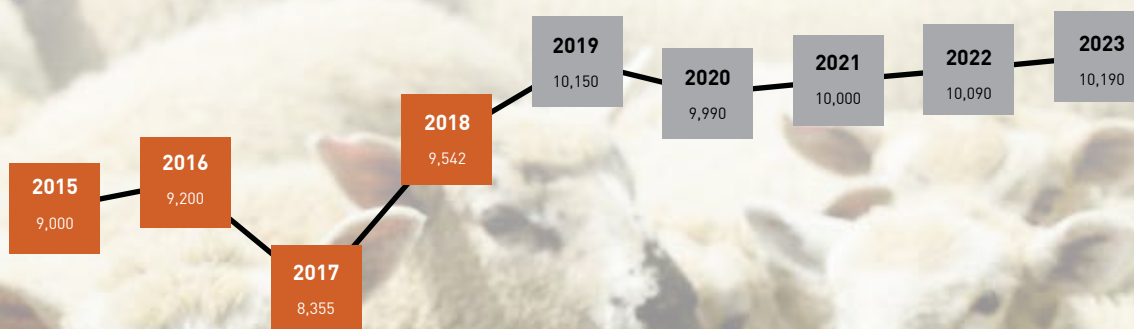


Table 4: Meat and wool export revenue 2015–23 (NZ\$ million)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Beef & veal	2,980	3,096	2,706	2,943	3,200	3,220	3,250	3,250	3,250
Lamb	2,504	2,569	2,441	3,018	3,250	2,990	3,010	3,060	3,110
Mutton	418	419	417	575	620	600	600	600	600
Wool	805	760	522	543	570	570	570	580	580
Venison	174	182	162	196	180	180	180	180	190
Other meat*	466	503	513	543	610	640	660	690	710
Hides & skins	570	509	416	396	360	320	320	320	310
Animal by-products	578	598	587	700	710	680	700	700	710
Animal fats & oils	118	125	156	147	120	130	140	140	140
Animal products for feed	216	247	273	332	400	420	430	440	450
Carpets & other wool products	172	192	163	148	130	140	140	140	140
Total	9,000	9,200	8,355	9,542	10,150	9,990	10,000	10,090	10,190
% Change	+10.3%	+2.2%	-9.2%	+14.2%	+6.4%	-2.5%	+1.0%	+0.9%	+1.0%

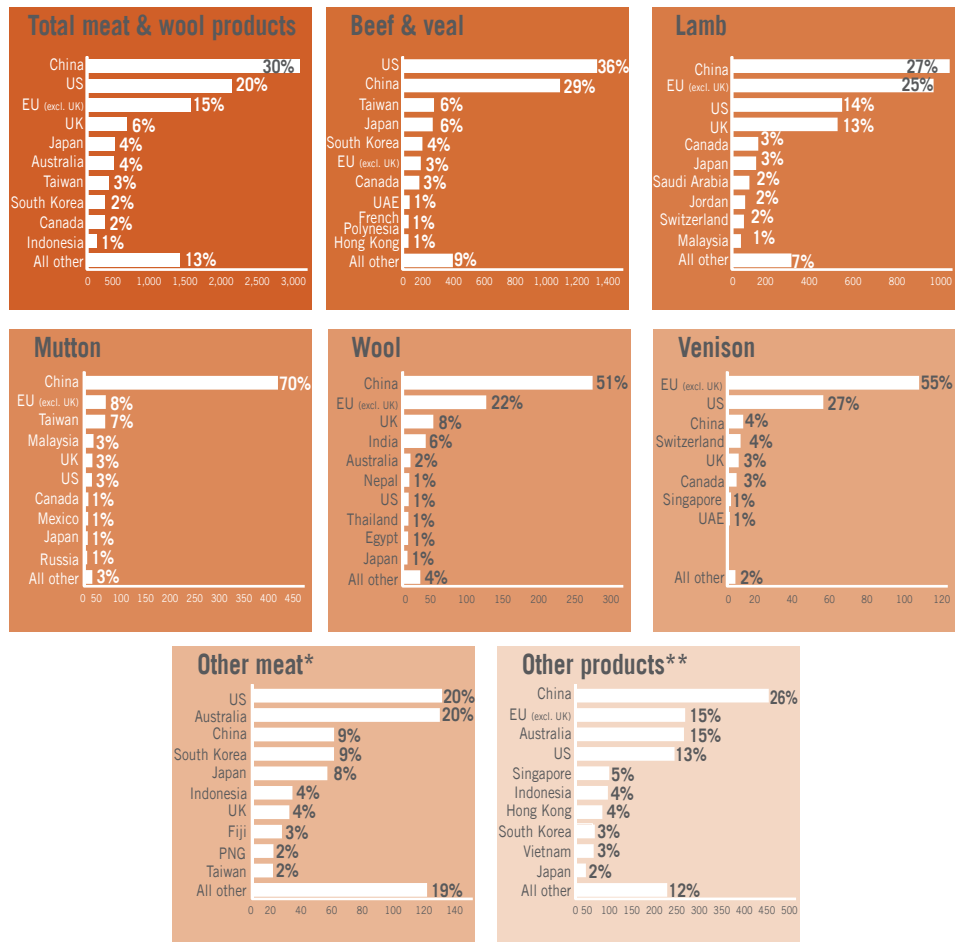
Source: Stats NZ and MPI

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

Top 10 export destinations



Top markets (\$NZ millions, year ended March 2019)



* 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.

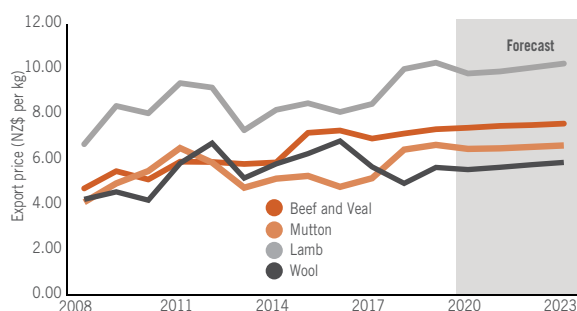
Strong domestic season for meat production

New Zealand's meat and wool export revenue is forecast to increase 6.4 percent to \$10.2 billion in the year ending June 2019. Strong prices and good weather have combined to push export revenues above \$10 billion for the first time. Meat production in 2018/19 has been boosted by very high pasture growth throughout November and December. High-quality pasture kept livestock on farm for longer and resulted in higher slaughter weights.

Red meat prices have generally risen since 2014 and are forecast to continue increasing over the medium term (Figure 13). This price strength has been driven by continued demand out of Asia, supported by a weaker NZD. However, we expect a slight softening in lamb and mutton prices in the next one-to-two years, once Australia's flocks recover from drought. Wool prices remain historically low, but have increased in the past year, partly due to rising fine and mid-micron wool prices.

The outbreak of African Swine Fever in China introduces a

Figure 13: Continued high prices support sector forecast



Price forecasts year ended June 2008–23

Source: Stats NZ.

significant upside risk to all meat prices depending on how the situation evolves, not just pork prices. See page 31.

Meat and wool sector exports are forecast to fall 2.5 percent in the year ending June 2020 to \$9.9 billion, with the main contributor to that result being lamb and mutton exports. Lamb and mutton prices are expected to fall from the current record prices, and production is expected to decline due to falling

breeding ewe numbers.

Sheep and beef farm profitability strong for second straight year

Average farm profit for the 2017/18 season on sheep, beef, and deer farms was \$209 per hectare according to Beef + Lamb New Zealand, the highest since 2011/12. With good pasture growth, higher lamb and mutton prices, and stable beef schedule prices, the 2018/19 season is likely to be similarly profitable. Revenue from sheep is expected to increase, offsetting an anticipated dip in cattle revenue. On-farm expenditures are also expected to rise, mostly related to labour and fertiliser.

Livestock numbers are forecast to trend lower over the outlook period, despite high on-farm profitability, strong red meat prices, and recent growth in beef and deer numbers. The main driver for this is the decreasing availability of land used for drystock farming in favour of alternative land uses, including afforestation and urbanisation.



Table 5: Livestock numbers as at 30 June 2015–23 (millions)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total cattle	10.03	10.15	10.15	10.12	10.07	10.06	10.05	10.03	10.00
Beef cattle	3.55	3.53	3.62	3.72	3.67	3.65	3.64	3.61	3.59
Dairy cattle	6.49	6.62	6.53	6.40	6.40	6.41	6.41	6.42	6.41
Total sheep	29.1	27.6	27.5	27.3	26.9	26.6	26.2	25.9	25.6
Breeding ewes	19.1	18.1	17.8	17.2	17.0	16.9	16.8	16.6	16.4
Lambs marked and/or tailed	25.83	24.57	24.13	23.21	23.77	22.96	22.72	22.53	22.33
Total deer	0.90	0.83	0.84	0.85	0.85	0.85	0.85	0.85	0.85

Source: Stats NZ and MPI.

Beef and veal

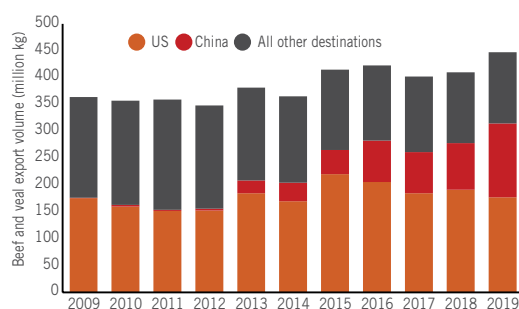
Beef and veal exports are forecast to increase to \$3.2 billion for the year ending June 2019, an 8.7 percent rise. This is partly due to a 2.7 percent increase in export prices, and a large increase in exports to China, where strong demand and higher prices have increased China's attractiveness as an export destination.

Domestically, it has been a strong year for beef production, with higher slaughter weights resulting from good pasture conditions. Beef production is forecast to fall moderately over the next few years in line with lower beef herd numbers. Export prices are currently high and expected to grow over the next few years.

In the year to March 2019, export revenues to China have increased by \$367 million, up 63 percent from the previous March year. China now accounts for 29 percent of New Zealand's beef and veal export revenue, second only to the US at 36 percent of export revenue (Figure 14).

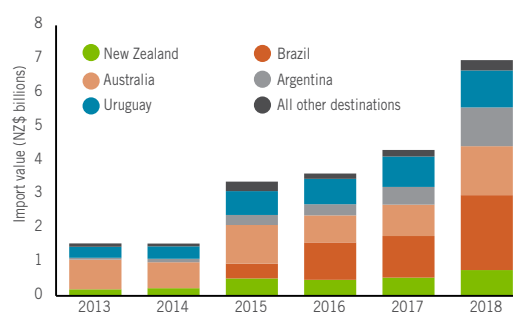
China's growing demand for beef is not just limited to New Zealand but is being filled by imports from Brazil, Australia, Argentina, and Uruguay Figure (15). Since Brazil re-entered trade with China after being suspended from a foot and mouth outbreak, it has taken most of the market. Australia has also had dips in its market share due to falling production from drought in 2014 and 2016.

Figure 14: Most volume growth attributed to Chinese demand



Beef and veal export volume by destination, year ended March 2009–19
Source: Stats NZ.

Figure 15: China beef imports growing from all sources, especially Brazil



China's beef and veal import value by destination, year ended December 2013–18
Source: Global Trade Atlas.

The main driver for China's rising imports is that consumer demand for animal proteins (including beef, sheep, and dairy products) is growing faster than Chinese production.

Australia's beef herd is expected to fall to its lowest levels in 2019, since the mid-1990s, as dry conditions that swept across New South Wales and south-west Queensland have undone much of the rebuild achieved since the 2013–15 drought. Flooding in Queensland is also estimated to have caused stock losses of between 500,000 to 700,000 head of cattle, which is 2–3 percent of the total herd, according to Meat and Livestock Australia.

Table 6: Beef cattle numbers, beef prices, export volumes and values, 2015–23

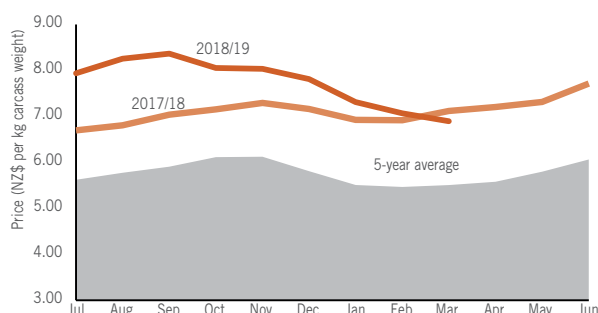
Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total beef cattle (opening stocks in millions)	3.67	3.55	3.53	3.62	3.72	3.67	3.65	3.64	3.61
Schedule prime beef price (cents/kg)	492	539	541	545	540	545	555	555	560
Production (000 tonnes)	676	673	640	677	675	670	670	665	660
Export volume (000 tonnes CWE)*	599	615	563	593	625	625	625	620	620
Export volume (000 tonnes PW)**	420	430	395	417	440	440	440	435	435
Export price (\$NZ/kg PW)	7.10	7.20	6.85	7.06	7.25	7.30	7.40	7.45	7.45
Export value (\$NZ million)	2,980	3,095	2,706	2,943	3,200	3,220	3,250	3,250	3,250

Source: Stats NZ, Beef + Lamb New Zealand, and MPI.

Record export revenues from lamb and mutton

Lamb export revenues are forecast to grow 7.7 percent to reach \$3.25 billion for the year ending June 2019, while mutton export revenues are forecast grow 7.8 percent to \$620 million. The growth in export revenue for both lamb and mutton can be attributed to continued high prices over the past year, driven by strong Chinese demand.

Figure 16: Lamb prices 25 percent above five-year average so far this season



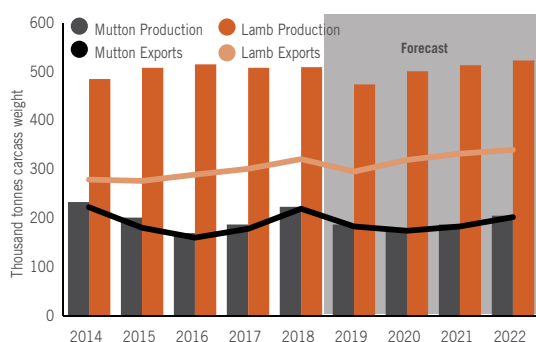
Lamb schedule prices, year ended June 2013/14–2018/19
Source: Beef + Lamb New Zealand.

Good pasture growth this year has resulted in strong lamb production, with a high lambing rate and higher slaughter weights. Despite these favourable factors, lamb production is forecast to be 370 thousand tonnes in the year ended June 2019, only slightly higher than the previous year, due to a 3.3 percent fall in the number of breeding ewes, to 17.2 million. Breeding ewes and overall sheep numbers are forecast to continue to fall over the outlook period (Table 7). As a result, the potential for future lamb production growth will only be possible with higher lambing percentages and carcass weights.

China's demand for lamb and mutton has significantly increased over the past 12 months, with export revenues increasing 51 percent and for lamb and mutton 39 percent, respectively. At a cut-specific level, this growth has been occurring in frozen mutton and lamb carcasses and frozen bone-in cuts of mutton and lamb. The value of frozen mutton carcasses sent to China has increased 66 percent over the March 2019 year. This form is popular in Asian markets because it promotes flexibility for the purchaser and lowers manufacturing costs for the seller.

Overall, rising demand for sheep meat has driven average prices for lamb and mutton exported to China up by almost 45 percent over the last two years.

Figure 17: Australian lamb production forecast to recover more quickly than mutton



Australian lamb and mutton production and exports, 2014–22
Source: Meat and Livestock Australia.

Lamb export prices and schedule prices are forecast to fall in 2020 but will still remain high. Prices have been slowly declining since their peak in August 2018 (Figure 16). This trend is present in both mutton export prices and schedule prices. This is a result of production coming back online from Australia, meeting growing Chinese demand.

New Zealand and Australia combine for 76 percent of worldwide sheep meat export revenue, and global supplies remained constrained by falling breeding ewe numbers in New Zealand and drought in Australia. Farmers have been destocking as a result of the drought and high supplementary feed costs which have reduced profitability, resulting in lower sheep meat production and higher prices. This has had a significant effect on their national sheep flock (Figure 17).

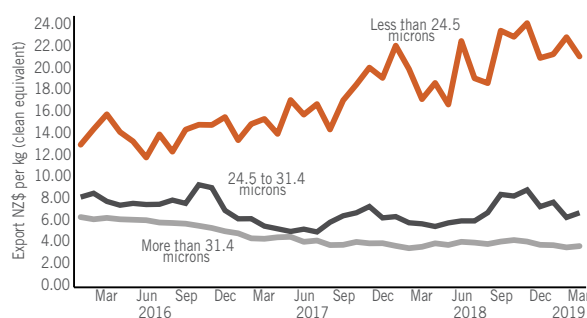
Table 7: Sheep numbers, lamb prices, export volumes and values, 2015–23

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total sheep (opening stocks in millions)	29.80	29.12	27.58	27.53	27.30	26.90	26.58	26.22	25.85
Schedule lamb price (cents/kg)	528	512	560	713	745	715	725	740	755
Production (000 tonnes)	384	380	357	368	370	360	360	360	355
Export volume (000 tonnes CWE)*	366	396	364	380	400	385	380	380	380
Export volume (000 tonnes PW)**	298	320	292	304	320	310	305	305	305
Export price (NZ\$/kg PW)	8.41	8.02	8.37	9.92	10.15	9.65	9.85	10.05	10.20
Export value (NZ\$ million)	2,504	2,569	2,441	3,018	3,250	2,990	3,010	3,060	3,110

Source: Stats NZ, Beef + Lamb New Zealand, and MPI.

* Carcass-weight equivalent of shipped product weight. ** Product weight as shipped.

Figure 18: Fine and strong wool prices continue to diverge



Wool export prices by grade, 2016–19
Source: Stats NZ.

The Australian sheep flock declined by over 4 million per head, or 6.1 percent, from June 2017 to 2018 and is forecast to decline a further 3.7 percent by June 2019 (Meat and Livestock Australia). Longer term, high prices across both sheep meat and fine wool are expected to be a strong incentive for Australian farmers to rebuild their breeding flocks once conditions allow.

Wool prices rising from low levels

Wool exports are forecast to increase slightly to \$570 million, a 5 percent rise for the year ending June 2019. This increase in export revenue is due to higher fine and mid-micron wool prices. Strong wool prices have remained low for several years, mainly due to competition from synthetic fibres, resulting in lower demand for strong wool from China, and in 2019 are virtually unchanged from the previous year (Figure 18).

Positive consumer sentiment towards the sustainability of natural fibres is yet to drive a recovery in the strong wool industry. However, there are some indications that large manufacturers are starting to notice this shift in consumer preferences. For example, furniture maker Ikea recently announced that from 2025 all of their wool will be sourced sustainably. If this is any indication of future trends, then there could be opportunities for strong wool prices to rise. Competition from other natural fibres, such as cotton, and cheaper synthetic fibres remain a barrier for a sustained rise in strong wool prices.

Unlike strong wool, fine wool continues to perform well but only makes up a small proportion (less than 10 percent) of New Zealand's total wool export volumes. Due to comparatively high prices received for fine wool, these exports represent nearly 30 percent of wool export revenue. The current high price for fine wool is partially due to lower wool production in Australia, where merino sheep are the main breed.



Table 8: Wool production, prices, export volumes and values, 2015–23

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Average sale price (cents/kg clean)	591	659	516	506	585	575	585	600	610
Production (000 tonnes clean basis)	115	109	103	107	105	105	105	100	100
Export volume (000 tonnes clean basis)	118	103	85	102	90	95	95	90	90
Export volume (000 tonnes PW)*	130	113	93	112	100	105	105	100	100
Export price (NZ\$/kg PW)	6.18	6.74	5.60	4.86	5.70	5.45	5.45	5.80	5.80
Export value (NZ\$ million)	805	760	522	543	570	570	570	580	580

Source: Stats NZ, Beef + Lamb New Zealand and MPI

* Product weight as shipped.

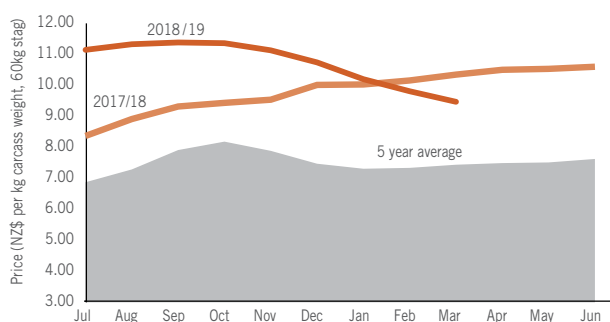
Venison and velvet

Lower export volumes are expected to drive an 8.2 percent fall in venison export revenue in the year ending June 2019, to \$180 million. Over the past year, export prices are near record levels and are 30 percent higher than the five-year average. Looking forward to the year ending June 2020, export volumes are forecast to remain steady and prices are expected to fall back to more sustainable levels as they return to a typical seasonal pricing pattern. Figure 19 shows a similar trend is emerging in farmgate venison prices. New Zealand's main venison export market composition has also been changing, with the US now importing more than Germany. Germany's decrease in venison imports is attributable to its own increase in wild game production, boosting self-sufficiency. The rise in demand from the US is driven by demand for more diversified protein types.

Velvet is performing well for the third consecutive year and is on track to match last year's export revenue of \$63 million. Export prices are historically high due to strong demand from our key growth market of South Korea. Currently, 31 percent of New Zealand's velvet is exported to South Korea, which has been boosted by the preferential tariffs introduced in the New Zealand–Korea Free Trade Agreement enacted in 2015. Most of New Zealand's velvet is exported to China, accounting for two-thirds of our export value.

New Zealand's deer herd has grown 2.4 percent over the past two years to 851 thousand as at June 2018. This is being driven by renewed enthusiasm in the industry on the back of strong prices for both venison and velvet. The increasing market demand for velvet is also shifting gender ratios towards stags, with the number of males aged two years and over increasing 18.5 percent in the two years leading up to June 2018, to 110 thousand.

Figure 19: Venison prices falling, but from incredibly high levels



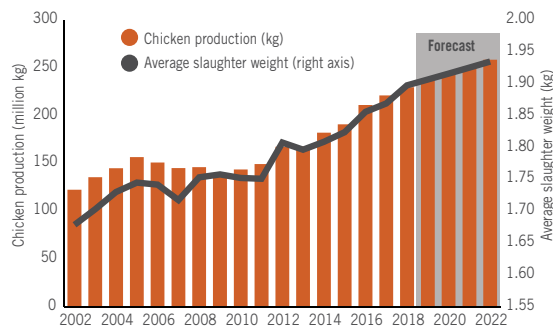
Venison schedule prices (AP stag 60 kilogram), year ended June 2014–19
Source: MPI.



Poultry

New Zealand poultry production has been steadily growing to meet both domestic and global demand. Rising production has been largely driven by productivity gains, with slaughter weights increasing 100 grams, a 5.4 percent increase, over the past five years (Figure 20). Poultry exports increased 5.6 percent during the year ended March 2019 and are expected to be close to \$100 million for the year ending June 2019.

Figure 20: Poultry production expanding along with productivity



Poultry production and average slaughter weights, year ended June 2001–19
Source: Stats NZ and MPI.

Pork markets brace for African swine fever

ASF, a severe viral disease affecting domesticated pigs, has become the most important driver influencing global meat markets over the past year. ASF was found in China in late 2018, with the disease quickly spreading to nearly every province and across the border to Vietnam, Mongolia, Cambodia, and Hong Kong. Outbreaks in Europe have also proved difficult to contain.

ASF has a near-100 percent mortality rate within 2 to 10 days of an animal becoming infected. It is easily transmitted through pork and pork products, food waste, farm and transport equipment, and contact with infected wild boars or domesticated pigs. It does not pose a risk to human health but, because it is very difficult to eradicate, can cause significant disruption to pork production in infected areas.

The impact of the disease in China is the most relevant to world trade, since China accounts for roughly half of the world's pork production and consumption. Estimates of the number of pigs culled as a result of ASF in China range from 5 percent of the herd up to 30 percent. A fall in Chinese pork production will partially be met from imports, most likely from the US and the EU, resulting in higher pork prices.

The global market will not be able to completely fill China's pork shortage, putting upwards pressure on prices of substitutable meats. This has not directly affected New Zealand's meat export values yet, with red meat being seen as a luxury alternative in Asian markets. Early reports predict that this will have strong price effects across all meat sectors as China substitutes away from pork.

Two main impacts are possible for New Zealand as a result of ASF. Higher pork prices are likely to increase Chinese demand for other meat products. Beef and sheep meat prices may rise as a result, but lower-priced poultry is the most likely beneficiary of shifting demand. The other potential impact is on New Zealand's domestic pork industry and consumer prices.

New Zealand produces 47 thousand tonnes of pork from a swine herd of 274 thousand pigs, so MPI is working with industry to keep the disease from crossing our border. NZ Pork has teamed with MPI and AsureQuality to alert anyone in New Zealand involved with pigs to be aware of the global outbreak of ASF. Information is also being provided on precautions they need to take, to keep the disease from crossing our borders and spreading.

Pet food emerges as main animal product for feed

Animal products for feed (for both livestock and pets) are forecast to contribute \$400 million to New Zealand's exports in the year ending June 2019, supported by growing the pet food trade as New Zealand companies respond to consumer demand for premium pet food products. Pet food now accounts for 43 percent of the export revenue from the animal products for feed category, compared with 34 percent in 2014.

Strong demand out of Australia and the US provides a positive outlook for animal products for feed, with prices forecast to increase in 2020 and beyond with a stable export quantity. This demand for premium pet food is evident in year-to-date export prices, which are currently 47 percent above the five-year average.

Animal products for feed also consist of meat and bone meal, which has performed well this year receiving export prices 20 percent above the five-year average, but this is still a lower value product relative to pet food.



Forestry ...



Log demand from China has pushed Export A-grade prices to a record \$175 per cubic metre in Q1 2019.

Forestry harvest volumes will hit a record 37 million cubic metres in the year ended March 2019 due to increasing wood availability and high prices incentivising harvesting.



Wood processing volumes increased 2.3 percent in the past year, supported by strong domestic and export demand.

Forest area is forecast to increase 8.4 percent to 1.89 million hectares from 2018 to 2023 as a result of high prices and afforestation-friendly policies.



Table 9: Forestry export revenue 2014–20 (NZ\$ million)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Logs	2,059	2,224	2,687	3,337	3,800	3,790	3,850	3,870	3,920
Sawn timber & sleepers	751	860	830	890	940	940	1,020	1,060	1,080
Pulp	628	683	651	828	810	760	750	750	760
Paper & paperboard	473	522	488	490	500	510	500	500	510
Panels	451	512	476	501	510	510	520	510	510
Chips	52	64	59	56	60	60	60	60	60
Other forestry products*	268	275	290	281	260	250	250	250	240
Total	4,683	5,140	5,482	6,382	6,880	6,820	6,940	7,000	7,080
% Change	-9.9%	+9.8%	+6.7%	+16.4%	+7.8%	-0.9%	+1.8%	+0.9%	+1.1%

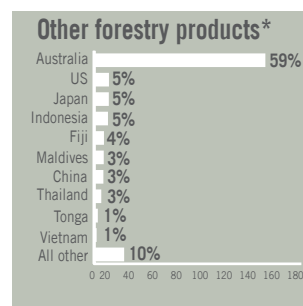
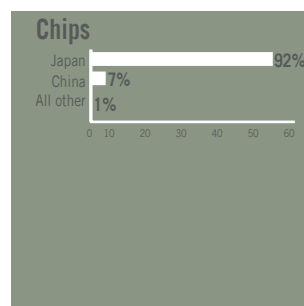
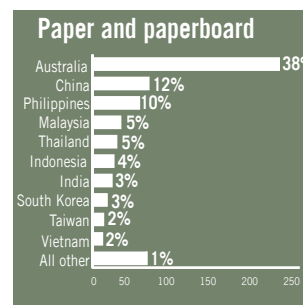
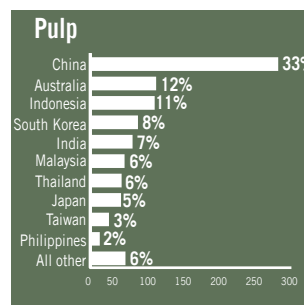
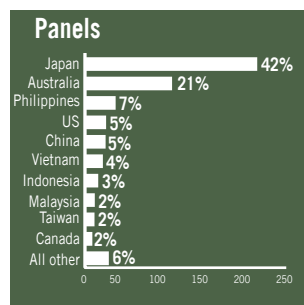
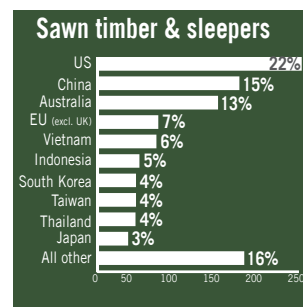
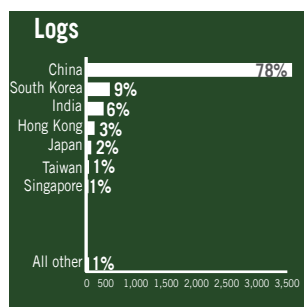
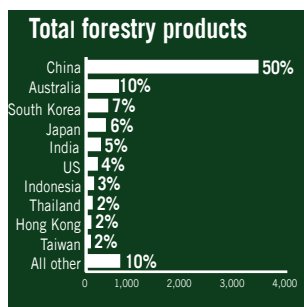
Source: Stats NZ and MPI

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

Top 10 export destinations



Top markets (\$NZ millions, year ended March 2019)



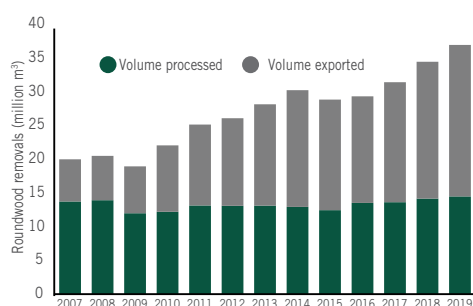
Record harvest volumes driven by high prices

Forestry export revenue is forecast to rise to \$6.9 billion in the year ending June 2019, an increase of 7.8 percent from 2018. Harvest volumes hit a record 37 million cubic metres in the year ended March 2019 (Figure 21), boosting the volume of logs exported.

The majority of the increase in exports and harvest volumes can be attributed to strong log demand from China, driving up prices and pushing small-scale harvest schedules forward. Despite this, the total amount of wood processed in New Zealand has increased 2.3 percent in the year to March 2019, supported by robust domestic construction activity and stable export volumes of processed wood products.

Forestry export revenue is forecast to fall slightly in the year ended June 2020 with steady harvest volumes and a slight decrease in processed wood product exports. Over the medium term, forestry export revenue is forecast to increase 1–2 percent annually to \$7.1 billion in the year ended June 2023. Nationally, there is still ample supply of wood available over the outlook period, and China's demand for logs is assumed to remain strong.

Figure 21: Additional harvest volumes channelled into log exports



Log harvest volume by use, year ended March 2007–19
Source: MPI and Stats NZ.

Most of New Zealand's plantation estate is made up of large-scale owners who target consistent annual production rates to spread price volatility risk, resulting in a stable baseline of supply for processors and exporters. However, many of the trees now reaching maturity are from smaller forests. These foresters, having witnessed significant price volatility in recent years, are more likely to lock in returns when prices are high, even if those trees have not quite reached the typical harvest age (28 years). The net result of this industry structure is that when prices are high and a large number of small-scale forests near maturity, harvest volumes are capable of swelling above expected levels, as has recently been the case.

Log exports

Log exports are forecast to reach a record \$3.8 billion in the year ending June 2019, led by demand from China raising prices and incentivising harvesting. This is an increase of 19 percent from 2018, the fourth consecutive year of robust growth. Export growth is expected to be moderate in the year ending June 2020, assuming demand from China will stabilise at current levels.

Most new demand for logs is coming out of China, the destination for 78 percent of New Zealand's log exports by revenue. This is driven by continued increases in construction activity despite slowing GDP growth and trade tensions with the US. Chinese construction continues to increase, with new house starts steadily increasing over the 2018 year and further into the first quarter of 2019.

The main large sources of softwood products for China are Canada, the US, Russia, and New Zealand. But as Chinese demand increases, the North American sources are constrained by the volume of wood available. Canada in particular has a reducing supply of lower grade sawn timber that would compete with the typical end-uses of New Zealand's log exports. Canada's log supply is processed in Canada of which three quarters of which is exported to the US, about 10 percent of sawn timber production is exported to China. Russia has a large forest resource available, which may be running into higher cost supply. In addition, in recent years Russian softwood exports have shifted from logs to sawn timber following tariff increases on log exports.

Table 10: Forestry production and exports (thousand cubic metres roundwood equivalent), year ended March 2014–19.

	2014	2015	2016	2017	2018	2019
Harvest volume	30,257	29,660	29,068	30,653	33,583	36,936
Log export volume	17,061	16,158	15,534	17,469	20,032	22,078
Estimated processing volume	13,443	13,949	13,624	14,004	13,782	14,473
Total domestic processed consumption	151	135	118	157	165	167
Indicative log export prices (A Grade, \$NZ)	120	151	135	118	157	165

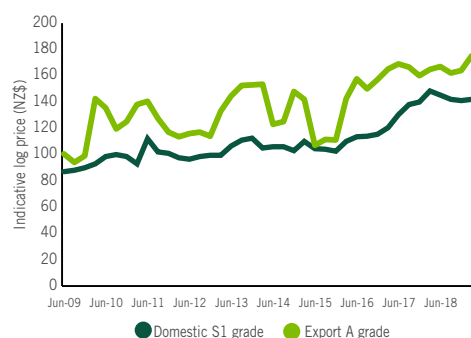
Source: Stats NZ and MPI.

This has placed New Zealand, with a large supply of trees of harvestable age, in an excellent competitive position over the outlook period. As a result, New Zealand logs have increased market share, and supply from the US and Russia has declined. However, China has also shifted its import profile from logs to sawn timber in recent years due to low global availability of logs.

South Korea and India account for 9.1 percent and 6.4 percent of New Zealand's log exports, respectively. Demand for logs in South Korea is consistent and has remained steady for several years. Importers are forced to compete on price with Chinese importers, so while volumes stay level, the value of exports has increased as rising Chinese demand has pushed prices up. India's demand for log imports has not increased for several years, but New Zealand remains their largest source of log imports. India's potential to import more has been noted in the past, but this market is not growing as a source of demand for New Zealand logs. In addition, overall imports of logs in India are declining.

We forecast prices to increase slightly from current levels, but we acknowledge the potential for volatility. In the past, log export prices have experienced significant swings due to sudden shifts in Chinese demand (Figure 22). However, since 2015, a steady increase in demand and relatively stable inventory levels and prices for logs. Some short-term risk exists that supply has got slightly ahead of demand, with rising inventory levels at some Chinese ports. Overall, prices have held up, with slight decreases in price in some areas, but any signs of faltering demand are being monitored closely in light of lower GDP growth forecasts and US-China trade tensions.

Figure 22: Export-grade log prices volatile, but at all-time highs



Indicative log prices by grade, 2010–19
Source: MPI.

The Environmental Protection Authority (EPA) controls to recapture methyl bromide used to fumigate goods, including export logs, to control pests, are due to come into effect in October 2020. These changes will require the recapture of methyl bromide remaining after fumigation. This is likely to limit methyl bromide fumigation as a treatment option, depending on the outcomes of the re-assessment of these controls by the EPA. Other treatments, including debarking, remain an option before shipping to markets, depending on the requirements set by the overseas country. MPI is in active negotiations with overseas trading partners to find acceptable alternatives to methyl bromide.

Sawn timber

Sawn timber export revenue is forecast to reach \$940 million in the year ending June 2019, up 5.4 percent from the previous year. Over the medium term, prices and export volumes are forecast to continue expanding, exceeding \$1 billion by the year ending June 2021.

Sawn timber processing has been at near record levels during the past two years, although export volumes are slightly back from their peak in 2013 (Figure 24). Recently, demand for sawn timber has increased from higher value markets such as the US.

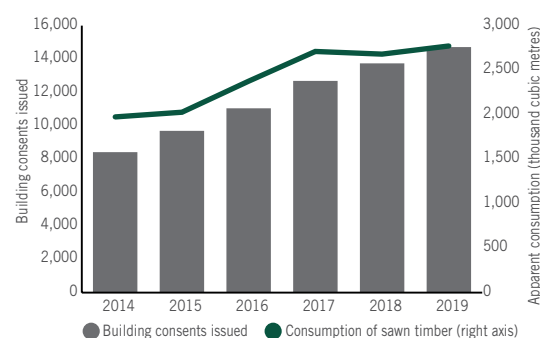
Demand from the US is typically for appearance-grade wood for residential construction and home renovations, made from pruned logs. The resource of pruned timber in New Zealand is becoming more constrained, because many large forestry companies went away from pruning in the early 2000s. This will limit opportunities to expand exports of higher value sawn timber.

China is still a strong source of demand for sawn timber exports, and this is unlikely to change, given the continued strong demand for wood fibre there and its increasing proportion of sawn timber.

Australian demand dropped slightly in 2018 as the Australian housing market slowed, with housing consents down 25 percent over the past few months. This has started to be reflected in reduced demand for construction timber, including from New Zealand.

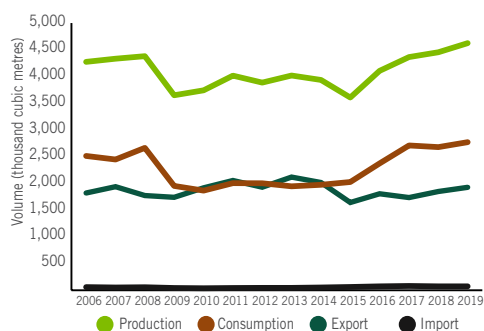
The domestic market for sawn timber is also very strong, as housing starts continue to increase. The domestic market accounts for 58 percent of sawn timber production; a large proportion of this going into housing. Consents for new dwellings climbed to levels last seen in 2004. This strong increase was driven by development in the main cities with Auckland up 25 percent and Wellington increasing 14 percent.

Figure 23: Consumption of sawn timber rises with building consents



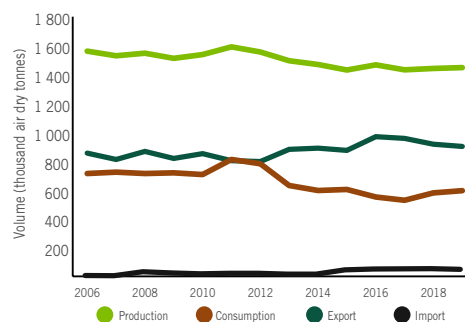
Sawn timber domestic use and building consents, year ended March 2014–19
Source: MPI and Stats NZ.

Figure 24: Exports and domestic use fuels sawn timber production



Sawn timber production, trade, and consumption, year ended March 2006–19
Source: Stats NZ and MPI

Figure 25: Production of pulp remains steady



Pulp production, trade, and consumption, year ended March 2006–19
Source: Stats NZ and MPI.

Pulp and paper

Pulp exports are forecast to reach \$500 million in the year ended June 2019, 1.5 percent lower than the previous year. Pulp export prices were elevated throughout most of calendar year 2018, at between \$900 and \$1,000 per tonne, but have since fallen back towards \$800 per tonne, in line with long run trends.

Pulp production has trended slightly downwards, but there has not been much change over the past five years (Figure 25). Pulp production is a reasonably consistent process, so large changes in production are usually correlated with changes in capacity and maintenance (Figure 25). New Zealand has not had any significant changes in capacity recently, and no new mills are planned. However, a re-weighting has occurred in the past from pulp produced for domestic paper production to market pulp for export.

Producers of pulp compete with low-grade logs for other uses or for export. While high export prices will put some pressure on these log types, it is likely the increased harvesting will bring more pulp-grade logs to the market as a by-product.

Over the medium term, demand for pulp is expected to grow in Asia. In particular, China's demand for pulp is growing as increasing urbanisation rates increase the demand for household paper. China's pulp imports have increased by nearly 40 percent over the past five years. Most of China's increased pulp imports have been sourced from Brazil, while demand from other large sources, Canada, the US and Russia, has remained relatively steady.

New Zealand's paper production and exports have been on a steady downward trajectory since 2010, and this trend is unlikely to change without any significant change in processing capacity.

Chips

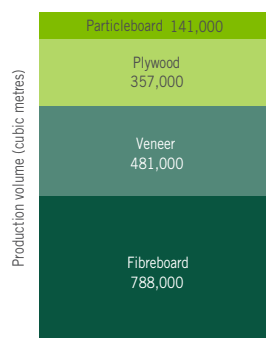
Chip export revenue is forecast to reach \$60 million in the year ending June 2019, up from \$56 million in 2018. Japan remains the main export destination for New Zealand exports of chips. Japanese demand for chips is expected to gradually increase after renewed government initiatives to focus on renewable biomass for energy generation, supporting New Zealand chip exports.

Panels outlook stable

Panel exports are forecast to reach \$510 million in the year ended June 2019, slightly higher than the previous year. The outlook for panel exports is flat, but domestic demand (representing 53 percent of production) is expected to remain strong and support current production volumes (Figure 27).

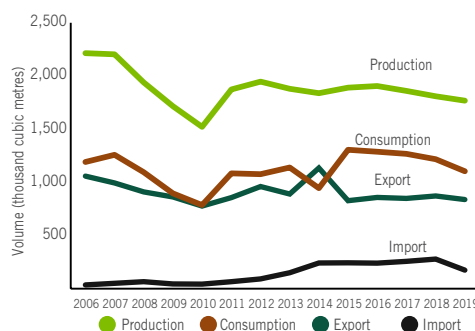
Australia and Japan combine to account for 47 percent of New Zealand's panel exports. Japan is the largest market for New Zealand panels, and trade to that destination has picked up recently. Trade to Australia has grown for panel exports, although the building market is looking softer there now.

Figure 26: Fibreboard makes up nearly half of panel production



Split of panel production, year ended March 2019
Source: MPI.

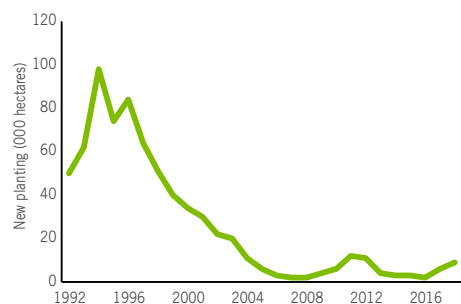
Figure 27: Panel production supported by strong domestic demand



Panel production, trade, and consumption, year ended March 2006–19
Source: Stats NZ and MPI.

Afforestation forecast to increase

Figure 28: Afforestation increases in 2018



New land planted in exotic forestry, year ended December 1992–2018 (provisional) Source: MPI.

The most recent National Exotic Forest Description (NEFD) reported 1.73 million hectares of exotic forestry as at 1 April 2018, a marginal increase on the previous year (Figure 28). Most of exotic forest is located in the North Island, with 34 percent of the national total in the Central North Island and 11 percent in Northland. The South Island has more diversity of species: Otago and Southland represent 12 percent of total exotic forest, but the region accounts for 52 percent of the national eucalypt estate.

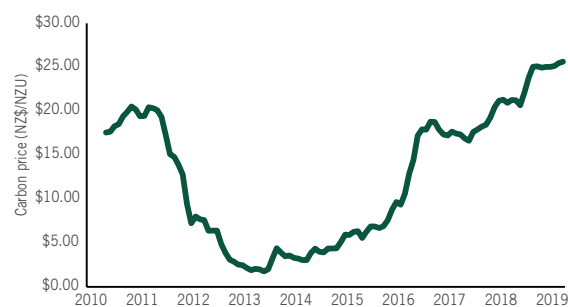
The area of new land planted in exotic forestry has been increasing over the past few years. The 2018 NEFD reported the new planting area for 2017 as 6,000 hectares, and the provisional area for 2018 as 9,100 hectares. Afforestation is only one part of the story, however, because the total planting measured in the NEFD for 2017 was around 43,000 hectares, a similar figure for the past few years.

Over the medium term, plantation forest area is forecast to increase 8.4 percent to 1.89 million hectares from 2018 to

2023. Afforestation is likely to increase over the medium term, supported by a range of factors:

- **High log prices** are generating higher economic returns to forestry.
- **High carbon prices**, which have increased to reach the “cap” price of \$25 per New Zealand Unit (NZU). Although carbon emitters can meet their obligations at a fixed price, paid to the Government, of \$25 per tonne of CO₂ equivalent, the carbon price on the secondary market has surpassed this. This is likely due to emitters looking to hedge their future liabilities in the belief the cap will be removed, plus foresters holding out for higher prices (Figure 29).
- **The One Billion trees programme** sets the goal of seeing one billion trees planted by 2028. As part of the programme, in November 2018, the Government launched a new fund to incentivise tree planting. The fund provides \$240 million over three years to support tree-planting grants for landowners and partnership projects that address barriers to tree planting (such as labour, research). The fund is expected to drive new planting of 50–60 million trees over the next three years, with a target of two-thirds of these being natives.
- **Changes to the Emissions Trading Scheme (ETS)** will introduce averaging accounting to the ETS as an option for new registrations of post-1989 forestry from this year, and compulsorily for new registrations from 2021 (see page 14 for details). This change is intended to provide additional cash flow flexibility to foresters, incentivising further forestry investment.

Figure 29: Carbon prices edge over \$25 per NZU cap



Carbon prices (NZ\$ per NZU), 2013–present
Source: CommTrade.

Horticulture...



Export revenue for the year ending June 2019 has been lifted by excellent harvest volumes in 2018 across kiwifruit, wine, and apples and pears. In particular, kiwifruit export volumes from the 2018 crop were 22 percent higher than the previous year.

Harvest volumes for 2019 are likely to be similar to or slightly lower than last year due to less favourable climatic conditions in the main growing regions, despite increases in planted areas.



Export prices and on-farm profitability remain strong across the horticultural sector, incentivising further investment and expansion.

The shortage of labour, including skilled permanent and seasonal labour, is a constraint on the growth and potential productivity of several fruit sectors.

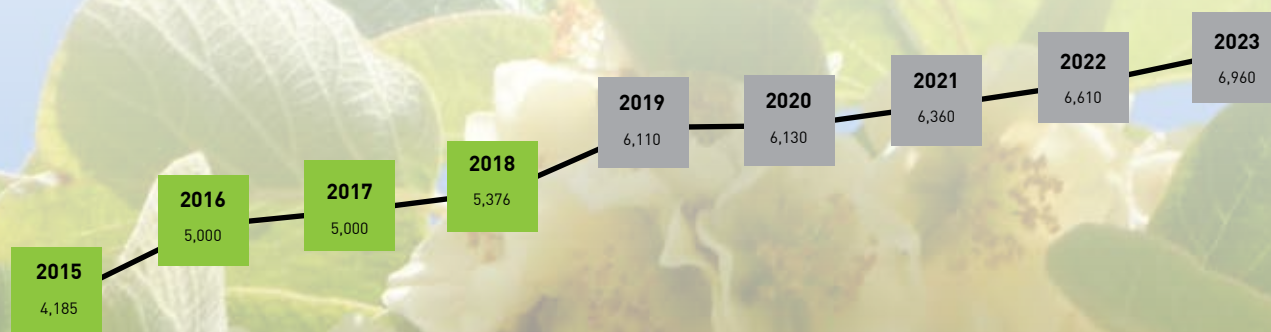


Table 11: Horticulture export revenue 2015–23 (NZ\$ million)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Kiwifruit	1,182	1,673	1,664	1,861	2,420	2,350	2,460	2,600	2,790
Wine	1,408	1,558	1,661	1,694	1,750	1,790	1,800	1,840	1,890
Apples & pears	571	701	701	745	800	840	900	950	1,000
Fresh & processed vegetables*	588	612	614	622	680	650	660	670	690
Other horticulture**	436	456	525	455	470	500	550	550	590
Total	4,185	5,000	5,165	5,376	6,110	6,130	6,360	6,610	6,960
% Change	+10.0%	+19.5%	+3.3%	+4.1%	+13.7%	+0.3%	+3.8%	+3.9%	+5.3%

Source: Stats NZ and MPI.

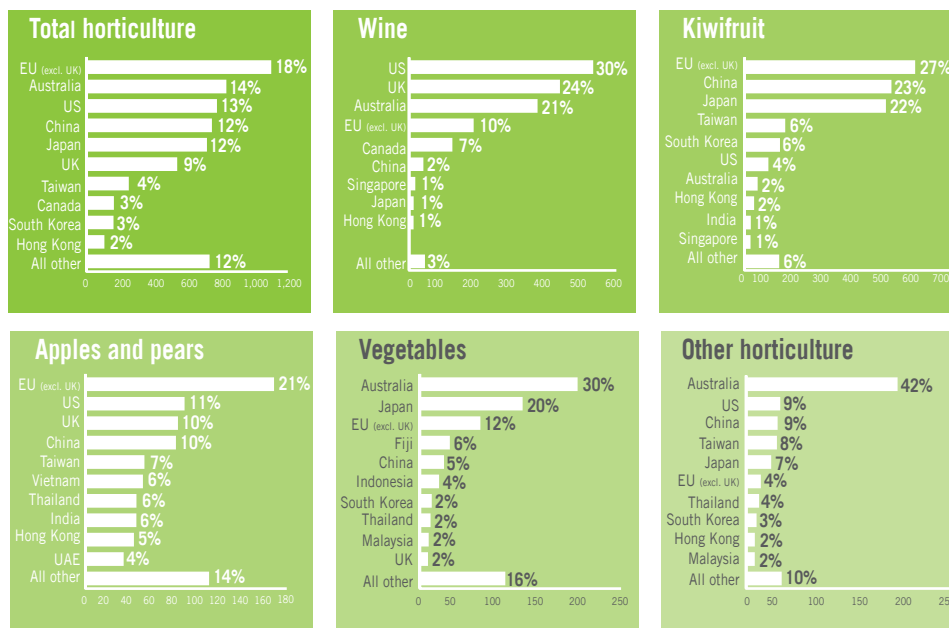
* Fresh vegetable exports include onions, squash, capsicum, potatoes and other fresh vegetables. Processed vegetable exports include frozen vegetables (including frozen potatoes, peas, sweetcorn, etc), dried vegetables, dry legumes, prepared and/or preserved vegetables, and vegetable juices.

** Other horticulture exports include: other fresh fruit (including avocados, cherries, blueberries, etc), frozen and processed fruit, fruit juices, nuts and ornamentals.

Top 10 export destinations



Top markets (\$NZ millions, year ended March 2019)



Apples and pears

Apple and pear export revenue for the year ending December 2019 is expected to be similar to last year, at \$780 million. Production and export volumes for the 2019 crop are down on pre-harvest estimates, with some uncertainty around the final crop volume, and similar export prices are anticipated.

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

Stable performance for apples and pears in 2019

Harvest of the 2019 apple crop occurred at normal timing in the Hawke's Bay region (65 percent of New Zealand's apple and pear orchard area). A warm, dry summer led to an earlier harvest for some apple varieties in the Nelson region with good fruit quality and, in particular, high dry matter levels. Settled weather conditions throughout much of March and April meant little interruption to harvest activities.

Fruit sizes in the main growing regions of Hawke's Bay and Nelson are smaller than pre-harvest estimates, and, for some varieties, smaller than normal. It is likely that climatic conditions and crop management factors, such as the efficacy of fruit thinners, were contributing factors. The causes will become clear later in the season as growers and industry consultants assess seasonal performance once harvest and packing records are completed.

Orchard replanting and new plantings are expected to continue, helped by six consecutive years of profitable returns, access to higher-value varieties and good demand from markets in Asia for high-quality fruit. Higher prices from the diversification of market and variety mix have helped buffer adverse climatic effects on apple and pear production over recent years and lifted orchard profitability (Figure 30).

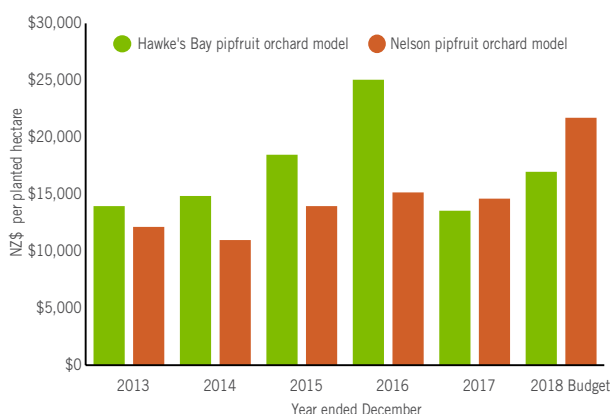
The high profitability of apple production has attracted new entrants to the industry, such as investors, and pastoral and cropping farmers with suitable land and reliable water supply. Several varieties being planted have come from the Prevar-led New Zealand apple and pear breeding programme, including Envy™, Dazzle®, Cherish™, and Rockit™ (apples), and the Piqa® series of pears. The planted area, currently at around 10,500 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.

The Waimea Community Dam (water capture and storage scheme) in the Nelson–Tasman region was recently approved and offers opportunities for increased apple and pear plantings on the Waimea Plains. The Nelson–Tasman region currently accounts for 25 percent of New Zealand's apple and pear planted area. The dam is expected to be built and ready for use by 2022.

Figure 30: Diversification of market and variety mix has helped decrease volatility and lift orchard profitability



Apple and pear orchard profitability (EBITDAR) by region, 2013–18
Source: MPI.

Exports stable and set to increase

An export volume of around 378 thousand tonnes (21 million cartons) is estimated for the 2019 crop, similar to the 2018 export crop. Some uncertainty exists around this figure because, at the time of writing, the harvest volume was yet to be confirmed.

Annual export volumes are expected to increase steadily over the forecast period as recent plantings and those planned for the next few years enter into production (Figure 30). Overall, orchard export productivity is being maintained, despite ongoing orchard redevelopment and new plantings. Apple and pear export volumes were 21 percent higher in 2018,

Table 12: Apple and pear production and trade, year ending December 2015–23

Year to 31 December	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Planted area (hectares)#	9,308	9,625	10,000	10,305	10,500	10,750	11,000	11,250	11,500
Total production (tonnes)	566,000	550,500	517,500	585,000	575,000	625,000	640,000	660,000	680,000
Export volume (million cartons)*	18.50	19.52	19.36	20.78	21.00	23.00	24.00	25.00	26.00
Export price (\$/carton)	33.96	36.73	36.06	37.30	37.00	37.50	38.00	38.50	39.00
Export revenue (\$ million)	628	717	698	775	777	863	912	963	1,014

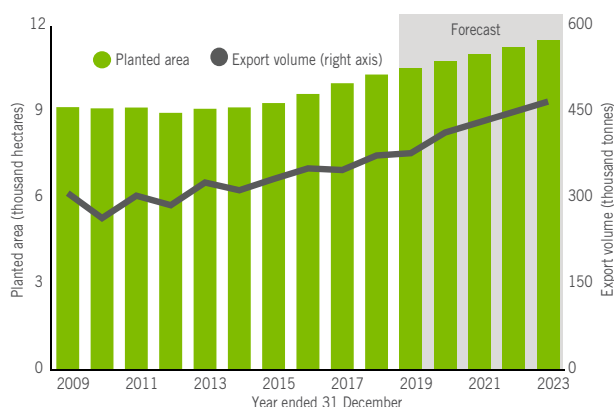
Sources: Stats NZ, New Zealand Apples and Pears Inc. and MPI.

Planted area includes producing and non-producing orchards.

* A carton is equivalent to 18 kilograms.

compared with 2009, while grown on only 12 percent additional orchard area. Ongoing improvements in orchard productivity are expected to arise from higher density plantings and investments in research, technologies, and practices to continually improve yield and fruit quality.

Figure 31: Apple and pear exports expected to increase as young trees mature and new plantings continue



New Zealand apple and pear planted area and export production, 2009–23
Source: New Zealand Apples & Pears Inc and MPI.

Market conditions looking positive for 2019

Market conditions for the 2019 exporting season are generally positive, with expectations of a similar weighted average export price to the prior season (2018). This is influenced by:

- reduced apple stocks in China and the US, compared with the previous year;
- higher apple stocks in Europe;
- stable forecast volumes from the southern hemisphere; and
- a slightly lower NZD against the US dollar, compared with the 2018 exporting season.

Good demand is being reported for New Zealand apples from China, with export volumes in the March 2019 quarter 70 percent higher than for the same period last year. Export prices to China in the March 2019 quarter are also higher, up 11 percent, compared with a year ago.

Despite higher stocks on hand in Europe, New Zealand exporters are anticipating good demand for New Zealand apples from retail programmes in the UK continental Europe. A reduction in the planted area of Braeburn will mean a lower export volume for this variety from New Zealand, alongside a smaller fruit size profile that is favoured by consumers.

In the midst of rising global apple production, export prices for New Zealand apples and pears are expected to increase modestly. An increasing proportion of niche and IP-protected varieties, continued development of higher paying markets (particularly Asia) and favourable exchange rate movements should all support export prices.



Kiwifruit

Driven by record production, kiwifruit export revenue reached \$2.2 billion for the year ended March 2019, an increase of 36 percent over the previous year. Several factors have combined to produce this exceptional result:

- Excellent weather in 2018 drove yields 17 percent (gold) and 29 percent (green) higher than 2017, a crop that was low due to poor bud break and pollination.
- New gold plantings have matured, bringing the area harvested up 7 percent to 4,996 hectares, resulting in a production increase of 26 percent.
- Green and gold prices averaged 11 percent higher than the previous year.

In comparison, export revenue for the year ended March 2020 is forecast to rise a modest 2 percent, with green yields closer to average and a drop in producing area. Offsetting this, increasing gold yields will see volumes surpass green for the first time in 2019/20 (Figure 32). Over the medium term, the kiwifruit industry is forecast to continue expanding, driven by high profitability, particularly for the Gold3 cultivar.

Harvest for 2019 not quite as good as last year

The outlook for the current season is for lower yields than in 2018/19 due to unseasonably hot, dry weather resulting in reduced fruit size and lower overall volumes. A cooler spring, poor pollination due to low temperatures over the flowering period, and poor flowering of the male vines, may also have contributed. These factors mean that expectations are for a fall in production, compared with 2019.

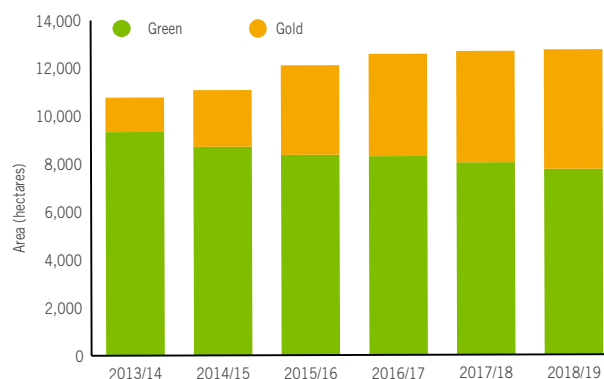
Prices have held up well, despite the increased supply, and actually increased in most markets, indicating the market has capacity for increased expansion. Challenges will be around how to sustainably grow the production of fruit on-orchard, as well as the infrastructure around packing and shipping in New Zealand and distribution in overseas markets.

Strong outlook for kiwifruit, continuing shift to gold

The area planted in green kiwifruit has continued to shrink due to ongoing conversion to the higher value Gold3 variety (Figure 33). This, combined with the increasing Gold3 producing area and yield over the past few years, means we expect current season gold kiwifruit production will exceed that of green kiwifruit for the first time. As a result, export volumes of green and gold kiwifruit are forecast to be nearly equal for the year ending March 2020, although higher export prices for gold kiwifruit mean export revenue will be more than 50 percent higher than for green kiwifruit (Figure 34).

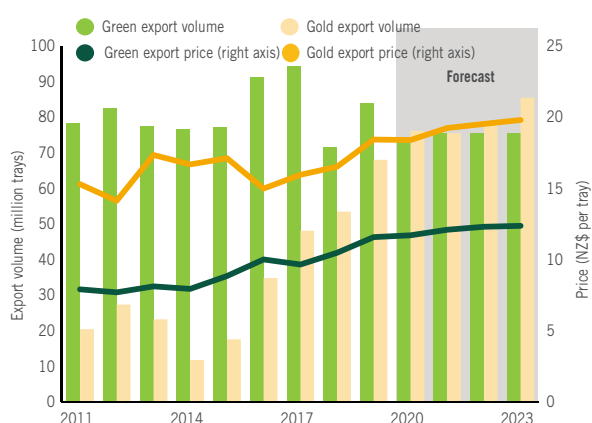
A further 700 hectares of conventional Gold3 and 50 hectares of Organic Gold3 licences were released this year. Median prices paid by successful bidders for the licences were up on last year, indicating the attractiveness of the fruit to growers. Roughly 40 percent of the new conventional licences will be used for conversion of existing green orchards and the remainder for new orchard development.

Figure 33: Gold area expands



Kiwifruit producing hectares by variety 2013/14–2018/19
Source: Zespri.

Figure 32: Gold Kiwifruit exports growing rapidly



Kiwifruit export volumes and prices by variety, year ended March 2011–23
Source: Stats NZ and MPI.

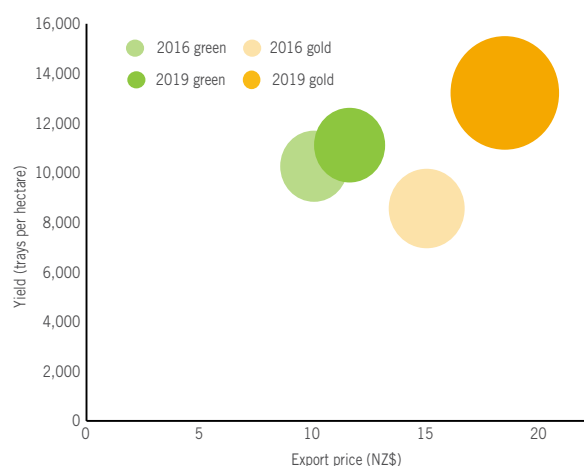
With licences selling at a median price of \$290,000 per hectare, and prime kiwifruit orchard land selling for up to \$1.3 million dollars per hectare, considerable investment is required to establish new gold kiwifruit orchards. Some orchardists, especially in the Bay of Plenty where land prices are high, may look to other high-value crops such as berryfruit and avocados. We also expect to see land outside of the Bay of Plenty continue to be developed for kiwifruit, particularly Gisborne, Hawke's Bay, and Northland. Investment in gold orchards continues, however, with an average orchard gate return (OGR) of around \$140,000 per hectare forecast to continue through the coming harvest. By comparison, average green OGR is less than half that at around \$60,000 per hectare.

A reduced green crop resulting from a falling producing area over the medium term is expected to boost prices. Recent falls in the green kiwifruit production area are likely to level off to ensure the market supply of green kiwifruit is enough to maintain a consistent market presence.

OGR per hectare is holding for green kiwifruit with moderate increases in prices and variable yield. OGR for gold fruit is rising, driven by increasing prices and yields.

The trial of a new red variety captured attention this year and appears to have been a positive step along the path to full commercialisation. The variety is reportedly a more difficult fruit to handle, as opposed to Gold3, in terms of storage and ripening, and its performance through the supply chain will be assessed further in coming seasons. If successful, there is potential to add significant market share with a new category of fruit on the shelf.

Figure 34: Higher profitability of gold driven by both yields and prices



Export price, yield and orchard gate return (OGR) for green and gold kiwifruit, year ended March 2016, 2019
Source: Stats NZ, MPI, Zespri.

Table 13: Kiwifruit Area, Production and exports, 2015–24

Year to 31 March	Actual					Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Export volume (million trays*)										
Green kiwifruit	77	91	94	72	84	74	76	76	76	76
Gold kiwifruit	18	35	48	54	68	76	76	79	86	94
Total	95	126	143	125	152	150	151	155	161	170
Export price (NZ\$/tray)										
Green kiwifruit	8.87	10.04	9.68	10.50	11.61	11.75	12.10	12.35	12.40	12.50
Gold kiwifruit	17.15	15.01	15.98	16.56	18.45	18.45	19.25	19.55	19.85	20.15
Total	10.41	11.41	11.82	13.09	14.67	15.15	15.90	16.00	16.35	16.75
Export revenue (NZ\$ millions)										
Green kiwifruit	687	917	914	753	976	860	920	930	940	950
Gold kiwifruit	304	524	771	887	1,258	1,410	1,460	1,540	1,700	1,900
Total	991	1,442	1,685	1,639	2,233	2,270	2,370	2,480	2,640	2,850
Total production (million trays)	102	131	158	134	167	160	162	166	173	182
Total producing area (thousand ha)	11.2	12.2	12.6	12.7	12.7	12.5	12.6	12.8	13.3	13.9

Source: Stats NZ, MPI, Zespri.

*A tray is equivalent to 3.6 kilograms.



Wine

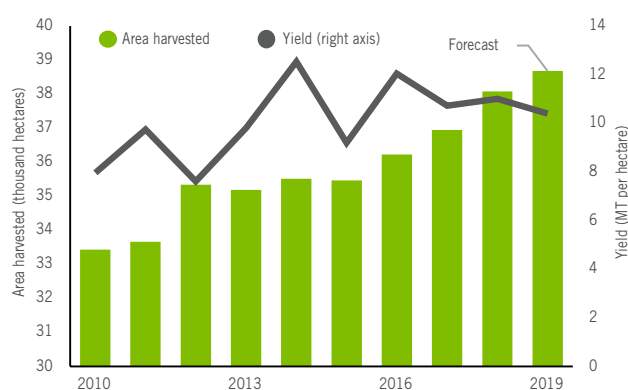
Wine export revenue is forecast to rise 3.1 percent to \$1.75 billion for the year ending June 2019, supported by a large 2018 vintage. Exports are forecast to increase slightly to \$1.79 billion the following year as higher prices more than offset expectations of a smaller 2019 vintage.

Harvest volume for 2019 down slightly, but great quality

The 2018 vintage produced 302 million litres of wine and projected exports of 263 million litres for the year ending June 2019. With good yields that year pushing up supply, average export prices are forecast to fall 0.5 percent from the previous year to \$6.65 per litre.

Initial estimates for the 2019 vintage, covering 38,680 hectares, are for the grape harvest to reach 402 thousand tonnes and wine production to be 290 million litres. If confirmed, this will be 4 percent lower than last year. This is expected to result in lower export volumes for the year ending June 2020 (Figure 35). The main driver is lower production in Marlborough, where cool conditions during flowering and a dry summer limited yields. Apart from frost damage in Wairarapa and the Waipara Valley, no significant losses occurred that affected vineyard yields reported for this year's harvest. However, the warm, dry summer is expected to result in above-average quality.

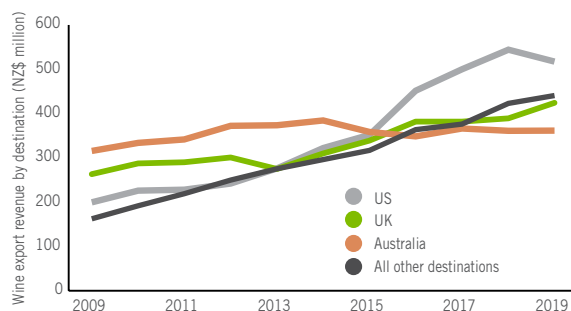
Figure 35: Yield expected to be lower in 2019



Wine grape area and yield, 2010–19

Source: New Zealand Winegrowers and MPI.

Figure 36: The UK remains New Zealand's second largest market



Wine export revenue by destination, year ended March 2009–19

Source: Stats NZ.

Initial 2019 vintage report

- Early reports out of Marlborough, which accounts for 69 percent of New Zealand's total vineyard area, show that 2019 volumes will be down slightly across all varieties. Marlborough experienced cool weather during flowering, which affected fruit set. This was followed by a dry summer with irrigation restrictions in some areas. This led to smaller berry sizes overall, but also resulted in low disease pressure, good sugar levels, and a favourable flavour profile.
- In contrast, Hawke's Bay and Gisborne are reported to have enjoyed an excellent vintage in terms of both quality and quantity across most varieties. Hawke's Bay and Gisborne account for 12 percent and 3 percent of New Zealand's vineyard area, respectively.
- The harvest in Central Otago (5 percent of area, of which nearly 80 percent is pinot noir) is expected to be of average size, which will be a decrease from last year's bumper crop.
- Average production volumes are also expected in the Nelson–Tasman region, home to 3 percent of total vineyard area, despite dry weather. The fires in the area in February 2019 are unlikely to have affected the wine crop, either in terms of quantity or quality.

Smaller vintage for 2019 expected to boost prices in 2020

As a result of the smaller vintage harvested in March–April 2019, exports for the year ending June 2020 are expected to result in lower volumes and higher prices. Total volume is expected to be down 2 percent to 257 million litres, while prices are forecast to rise 4.5 percent to around \$6.95 per litre. These factors lead to an export revenue forecast of \$1.79 billion for the year ending June 2020.

As of 2018, New Zealand is the 16th largest wine producing country, but the 11th largest by export volume. New Zealand accounts for 1 percent of global production, but 4 percent of exports. Italy, France, and Spain account for 51 percent of global production and 51 percent of export volume.

According to the International Organisation of Vine and Wine, the global 2018 vintage exceeded 292 billion litres, an increase of 17 percent on the previous year. The main factor behind this growth was excellent weather driving yields higher in Europe and South America.

The US remains the largest export market for New Zealand wine, having overtaken Australia in 2016. Despite the uncertainty surrounding Brexit, the UK remains New Zealand's second largest market. Export revenue has increased 9 percent in the past year. In New Zealand's main export destinations, sauvignon blanc continues to rise in popularity. In addition, rosé wines are gaining ground, providing additional opportunities to New Zealand wineries and growers of red varieties well suited to rosé production such as merlot.

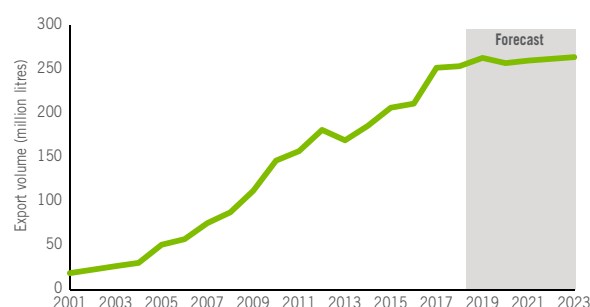
Medium-term outlook shows moderate growth

The New Zealand wine industry has expanded rapidly over the past 15 years, with production quadrupling during that time. Over this period, exports expanded even more, rising from around 50 percent of production to 89 percent in 2018. Future growth is forecast to be more modest as the industry continues to mature and fewer areas for expansion are available.

From 38,700 hectares currently, the total vineyard area is forecast to approach 40,000 by 2023, with few shifts in the distribution by variety or region. This follows a period where the expansion of Marlborough sauvignon blanc plantings led overall industry growth. Over that same time, export volumes are expected to increase 1 percent annually on average (Figure 37).

As area expansion has slowed over the past few years, industry consolidation has increased. The total number of grape growers has fallen from over 1,100 in 2010 to just under 700 in 2018, with the average vineyard size increasing from 29.4 hectares to 54.3 hectares. With limited area expansion forecast over the medium term, this consolidation trend is expected to continue.

Figure 37: Wine exports expected to stabilise after 15 years of rapid growth



Wine export volume (litres), year ended June 2001–23
Source: Stats NZ and MPI.

Table 14: Wine production and trade, year ended June 2014–23.

Year to 30 June	Actual					Forecast				
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Area harvested (hectares)	35,511	35,463	36,226	36,943	38,073	38,680	39,100	39,400	39,700	40,000
Grape production (metric tonnes)	445,000	326,000	436,000	396,000	419,000	402,000	430,000	433,000	437,000	440,000
Wine production (million litres)	320.4	234.7	313.9	285.1	301.7	290.0	310.0	310.0	315.0	315.0
Export volume (million litres)	186.2	206.7	211.4	252.2	253.9	263.1	257.3	260.2	262.1	264.2
Export price (NZ\$ per litre)	7.11	6.81	7.37	6.59	6.67	6.65	6.95	6.90	7.00	7.15
Export revenue (NZ\$ million)	1,323	1,408	1,558	1,661	1,694	1,750	1,790	1,800	1,840	1,890

Source: MPI, New Zealand Winegrowers, Stats NZ.



Avocado

The 2018/19 season produced a medium-sized export crop, up 34 percent on last year's low volume harvest. Problems with fruit quality related to wet weather during harvest impacted the amount of export-grade fruit available, with damaged fruit requiring repacking to ensure market requirements were met. A drop in prices of 21 percent has resulted in a forecast modest 6 percent increase in export value to \$103 million for the year to June 2019 (Figure 38).

Early indications for the 2019/20 season are for moderate yields again. Despite somewhat unpredictable yields, increasing production is likely to occur as new orchards mature, because the producing area is forecast to expand by around 20 percent in the near future.

Figure 38: 2019 export prices lower than last year

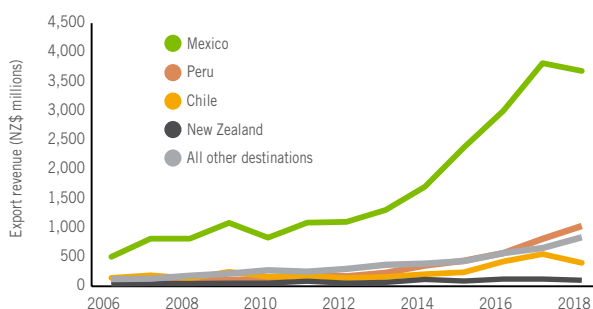


Avocado export value and price, year ended June 2013-19.
Source: Stats NZ and MPI.

The recently enacted CPTPP may open our main avocado market of Australia, and some of the developing Asian markets, to competition from Mexico, Peru and Chile, the world's top-three exporters of avocados. While increased competition into Australia may be a challenge for the sector, new opportunities may emerge since global demand has increased rapidly over the past 10 years (Figure 39).

New Zealand's exports of avocados are dwarfed by Mexico's, whose annual export growth rate has been 23 percent over the past 5 years. Three-quarters of Mexico's exports go to the US.

Figure 39: Avocado trade booms over past decade



Avocado exports by country, year ended December 2006-18
Source: Global Trade Atlas.

Cherries

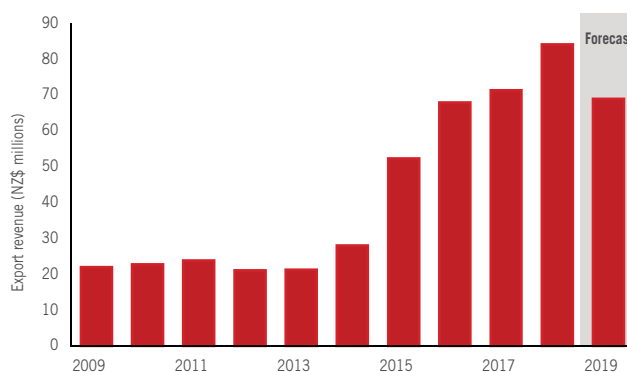
The 2018/19 stonefruit season was limited by poor weather, most notably the cherry crop in Central Otago.

Export volumes fell from 4.2 thousand tonnes last year to 2.9 thousand tonnes in the year ended June 2019, resulting in cherry export revenue falling to \$70 million, from \$84 million the previous year (Figure 40).

Over the medium term, cherry exports are expected to continue the strong growth trend seen since 2014, supported by investment in new orchards.



Figure 40: Cherry crop short this season, but long-term growth trend is positive



Cherry export revenue, year ended June 2009-19
Source: Stats NZ and MPI.

Fresh and processed vegetables

Total fresh and processed vegetable export revenue is up by around 10 percent in the year to June 2019, mainly due to higher export volumes and prices for onions (Figure 41).

An improved growing season for fresh vegetables

Growing and harvest conditions for fresh vegetable crops improved in 2018/19, compared with the prior year. Climatic conditions were favourable for onion production leading to average to good yields and good bulb quality. The yield and quality of Northland's kumara crops improved significantly on last season helped by a hot, dry summer and favourable ground conditions for harvest. Periodic heavy rain in December 2018 caused some short-term quality issues for green leafy vegetables in the Pukekohe area, in particular, lettuce and spinach.

Production of process vegetable crops such as peas, sweetcorn and beans in 2018/19 was variable, influenced mainly by temperature and sunshine levels. The Canterbury region in particular experienced a wet spring and early summer with reduced sunshine and below-average growing degree days, which delayed crop growth. Many regions had periods of record high temperatures in January 2019, which sped up crop maturation. Despite some challenges with scheduling of harvest, process crop volumes overall were in line with contracted volumes.

Overseas shortage helps onion exports

A shortage of onions in Europe has driven strong market demand and higher prices for New Zealand onion exports in 2019, resulting in an improved outcome for growers, compared with last season. Exports of the 2019 onion crop are expected to reach 185 thousand tonnes, up 36 percent on the previous year. A new record is anticipated for export revenue, topping a milestone of \$140 million. The planted area in organic onions has expanded in recent years, albeit from a low base.

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

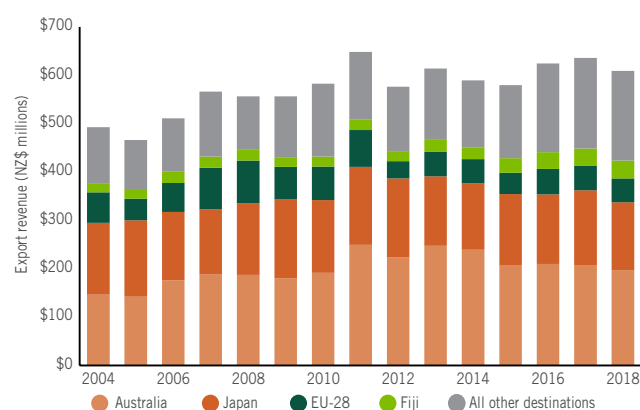
Squash exports are forecast to reach 80,000 tonnes in 2019 and, with stable prices, export revenue will be around \$60 million, similar to recent years. Export volumes to China in the March 2019 quarter were double that for the same period last year, as exporters develop growth opportunities in this market.

Processed vegetable exports stable

Export volumes of frozen vegetables, including frozen potatoes (mainly French fries), remain stable at around 140 thousand tonnes in the year ended June 2019. Dry conditions in parts of Europe in 2018 reduced potato yields, leading to reduced supplies of French fries. As a result, opportunities may arise for New Zealand to increase exports to existing markets in Asia, such as Thailand and Malaysia, in the short term.

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 to concentrate on their efficiency, alongside growth opportunities.

Figure 41: Australia and Japan remain the dominant markets for New Zealand vegetable exports



Exports of vegetables by destination, year ended December 2004–18
Source: Stats NZ and MPI.

Table 15: Vegetable export volumes and values, 2015–23

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fresh vegetables									
Export volume (000 tonnes)	299	319	297	277	310	315	325	335	350
Export value (NZ\$ million)	215	258	250	225	290	260	270	280	300
Processed vegetables*									
Export volume (000 tonnes)	212	191	197	213	205	205	205	205	205
Export value (NZ\$ million)	373	354	364	396	390	390	390	390	390
Total fresh and processed vegetables									
Export value (NZ\$ million)	588	612	614	622	680	650	660	670	690

Sources: Stats NZ and MPI.

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

Seafood...



Outstanding prices have propelled the seafood export forecast for the year ending June 2019 to \$1.9 billion.

New Zealand follows the global trend of volume growth from aquaculture, with wild capture volume growth constrained by sustainable stock management.



Increasing salmon and mussel production offset some of the fall in revenue to June 2020 from voluntary hoki catch reductions.

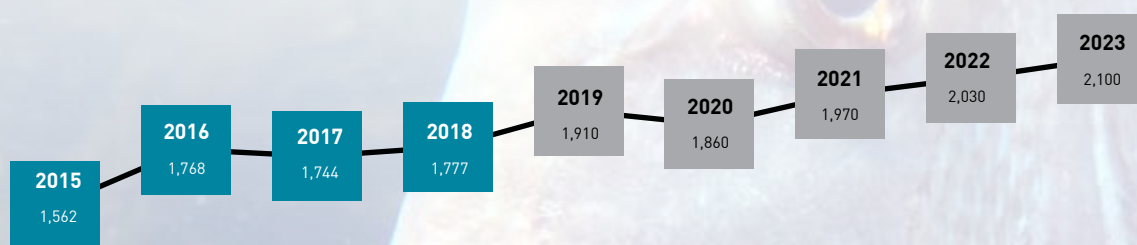


Table 16: Seafood export revenue 2015–23

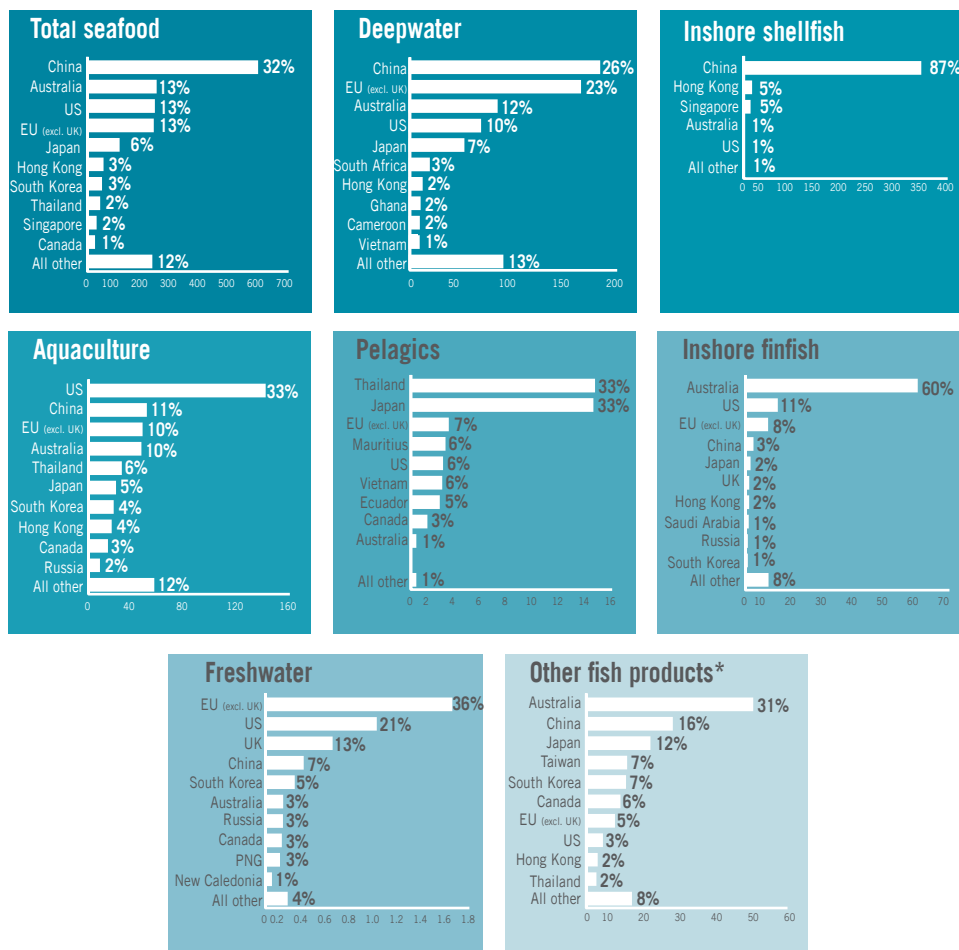
	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Wild capture									
Export volume (tonnes)	269,186	256,604	244,402	239,512	241,800	230,400	235,000	235,300	236,700
Average export price (NZ\$/kg)	4.61	5.38	5.47	5.73	6.00	5.95	6.10	6.20	6.30
Export revenue (NZ\$ million)	1,242	1,380	1,338	1,372	1,450	1,370	1,430	1,460	1,490
Aquaculture									
Export volume (tonnes)	34,112	36,086	40,794	39,462	39,600	41,200	43,500	45,700	47,000
Average export price (NZ\$/kg)	9.40	10.76	9.95	10.28	11.55	11.95	12.45	12.65	12.85
Export revenue (NZ\$ million)	321	388	406	406	460	490	540	580	610
Seafood									
Export revenue (NZ\$ million)	1,562	1,768	1,744	1,777	1,910	1,860	1,970	2,030	2,100

Source: Stats NZ and MPI.

Top 10 export destinations



Top markets (\$NZ millions, year ended March 2019)



Seafood outlook stable

Seafood export revenue is forecast to rise 7.3 percent to \$1.9 billion for the year ending June 2019. This comprises a 12.6 percent rise in aquaculture revenue and 5.8 percent rise in wild capture revenue. Rising prices (mainly due to a weakening NZD) are the main driver for the growth in both cases, with only small increases in volume. Revenue in the year ending June 2020 is forecast to fall slightly to \$1.86 billion due to the expected voluntary reduction in landings of the key finfish species hoki.

Over the medium term, seafood export revenue is forecast to grow modestly, with rising prices and mostly stable production. Wild capture production volumes are forecast to remain relatively flat due to sustainability constraints. While aquaculture volumes are forecast to increase, the rate of growth will be influenced by both the ability to obtain approvals for new farms and by environmental conditions, allowing existing farms to maintain production rates.

Figure 43 shows growth (five-year compound annual growth rate) in the top 14 seafood markets by value. These 14 markets made up 50 percent of New Zealand's seafood export revenue in the year ended June 2018. Rock lobster (crayfish) and squid exports have grown through increasing prices, whereas some markets, such as hoki to Poland and orange roughly to China, are growing in volume and price.

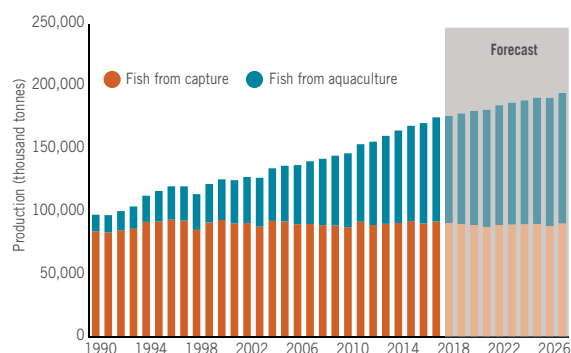
Globally, seafood trade has been growing at 4 percent annually since 2012. Aquaculture, in particular, farmed salmon, is the fastest-growing product group. Little change has been seen in wild harvest production due to sustainability limits, whereas aquaculture has grown to equal wild capture volumes (Figure 42).

Wild capture

Exports of wild capture seafood are forecast to rise to \$1.45 billion in the year ending June 2019. Production volumes have been relatively stable in recent years. Annual production of individual species is primarily influenced by changes in the annual catch limits as part of the Quota Management System and biological fluctuations in population, which will continue for the foreseeable future. Prices are the main factor influencing wild capture export revenue, and the drop in the exchange rate over the 12 months to June 2019 is forecast to see wild capture export prices rise 4.8 percent.

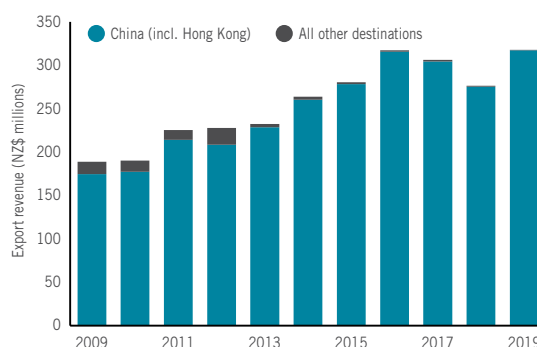
Quota owners voluntarily agreed to not catch 20,000 tonnes (22 percent) of West Coast hoki quota in the 2018/19 fishing year as a precautionary response to observed changes in population distribution patterns. Hoki is New Zealand's largest fishery by volume, making up one-third of the total catch. The voluntary reduction of hoki landing is expected to affect volumes in the second half of 2019 when most of this species would be caught, resulting in a forecast drop in production for

Figure 42: Aquaculture accounts for all global seafood growth



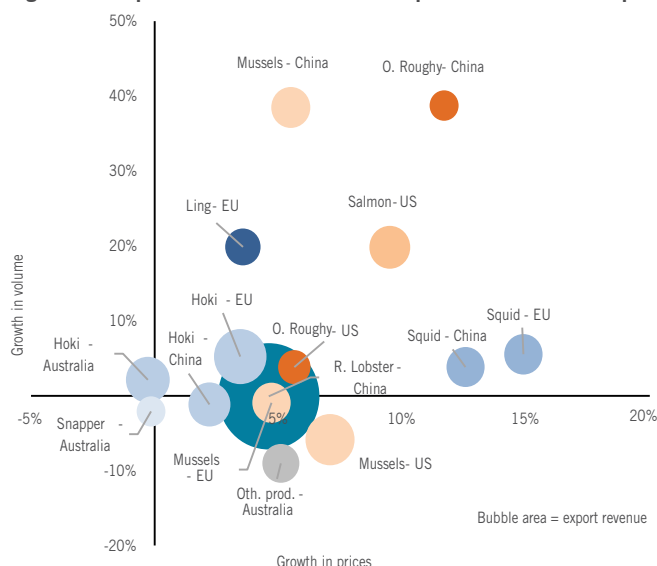
Aquaculture export revenue by product and destination, year ended June 2004–2018. Source: Stats NZ.

Figure 44: Almost all rock lobster goes to China



Rock lobster export revenue by destination, year ended March 2009–19. Source: Stats NZ.

Figure 43: Top 14 markets account for 50 percent of seafood exports



Export revenue growth by volume and price, selected markets, 2013–18. Source: Stats NZ and MP

the year ending June 2020. Volumes will potentially recover from the year ending June 2020 onwards, if stock assessments allow.

At \$318 million in the year ended March 2019, rock lobster remains New Zealand's largest seafood export earner (making up 17 percent of total seafood revenue), with almost all of it destined for China. Since 2008, New Zealand has benefited from the NZ-China Free Trade Agreement, which allows tariff-free imports into China (Figure 44). However, the recent China-Australian FTA and China's reduction of tariffs on seafood products for all WTO nations announced in July 2018, will see increasing competition in this market. The scale of China's demand should help absorb potential effects on New Zealand exports because, since the tariff reduction, China's imports of all seafood products have increased around 40 percent.

Export revenue from squid, New Zealand's third largest wild capture export earner, grew 22 percent during the year ended June 2018 to \$116 million. However, due to the annual lifecycle of this species, the catch varies annually, with natural population fluctuations. Revenue increases have occurred, despite the fluctuating catch volumes, due to strong price growth. Demand for squid is likely to remain high due to supply shortages worldwide resulting from overfishing on the high seas and in areas adjacent to national Exclusive Economic Zones, which has become a serious problem.

Aquaculture

Aquaculture exports are forecast to grow by 12.6 percent for the year ending June 2019, to \$457 million, with growth in prices driven by favourable exchange rates as well as increasing prices in US dollar terms. Over the medium term, export volumes will continue to increase as recently approved sites for salmon farms reach full capacity, hatchery bred mussel spat boosts production and decreases annual variability in supply, and global demand lifts prices.

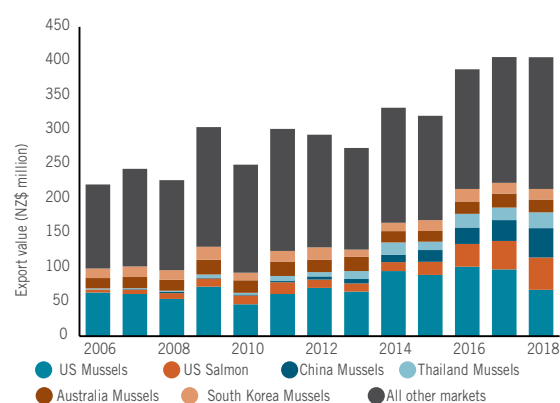
The US, China, and Australia together amount to over 50 percent of our aquaculture exports by value (Figure 45).

Mussel exports to the US are our biggest aquaculture earner; however, 2018 saw some of that volume shift to China where fresh and frozen mussels have attracted higher prices over the past four years. The Chinese market has grown by an average of 60 percent per year since 2011. New Zealand production of mussels was hit by an algal bloom in 2018, but the effect was somewhat offset by a rise in prices.

Another market showing strong growth is salmon exports to the US, averaging a 39 percent increase in export revenue each year since 2014. This is despite export volumes being down on the 2017 figures mainly due to the warm summer water temperatures in early 2018.

Oysters are set to achieve record exports, with revenue up 9 percent to \$22 million for the first three-quarters of the year to June 2019 on the back of both increased export volumes and values. An increase in the high-value live oyster category continues. This is made possible by a change in growing systems by some companies to produce a more uniform product (similar size and shape) more suitable for high-end live oyster markets, such as China and Australia.

Figure 45: New Zealand's top aquaculture export markets



Global production of wild capture and aquaculture seafood 1990–2027
Source: OECD-FAO.



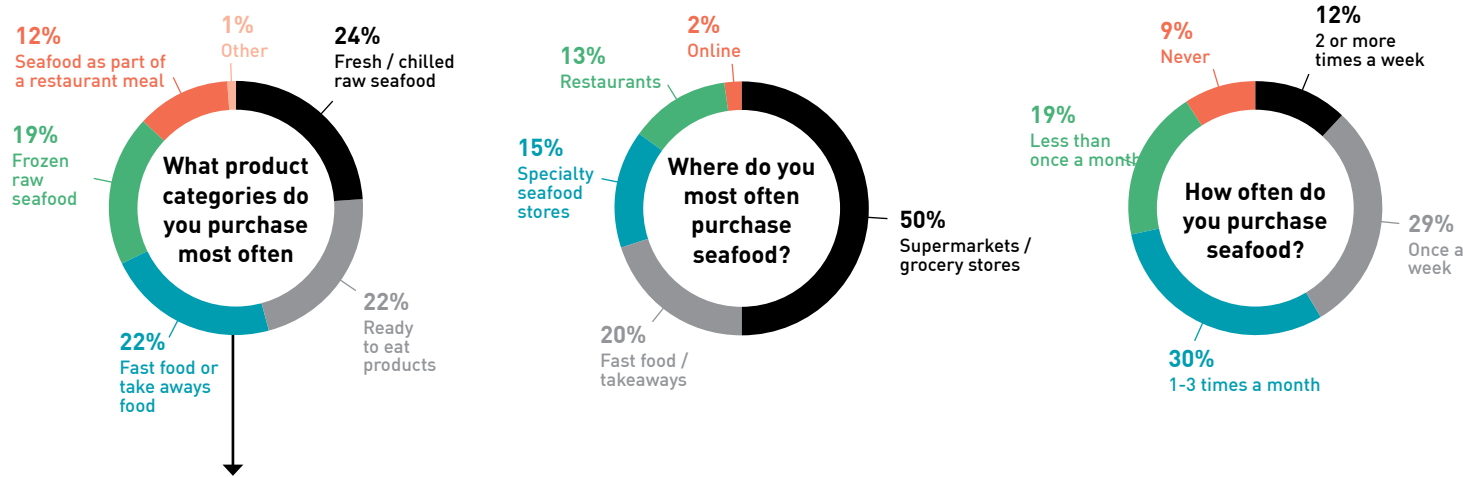
Domestic Seafood Consumption

What are New Zealander consumers thinking about kai moana? Where do they buy it and why? Understanding the “what, how, and why” of New Zealand consumers’ approach to seafood is important, as it will help industry and government appreciate which trends and factors are relevant to how we protect and sustain New Zealand’s valuable fisheries.

To answer these questions the Market Insights team in MPI’s Economic Intelligence Unit conducted an online survey to better understand the consumer preferences currently operating in New Zealand’s domestic seafood retail markets, and the drivers that appeared to be behind these preferences.

What we learned

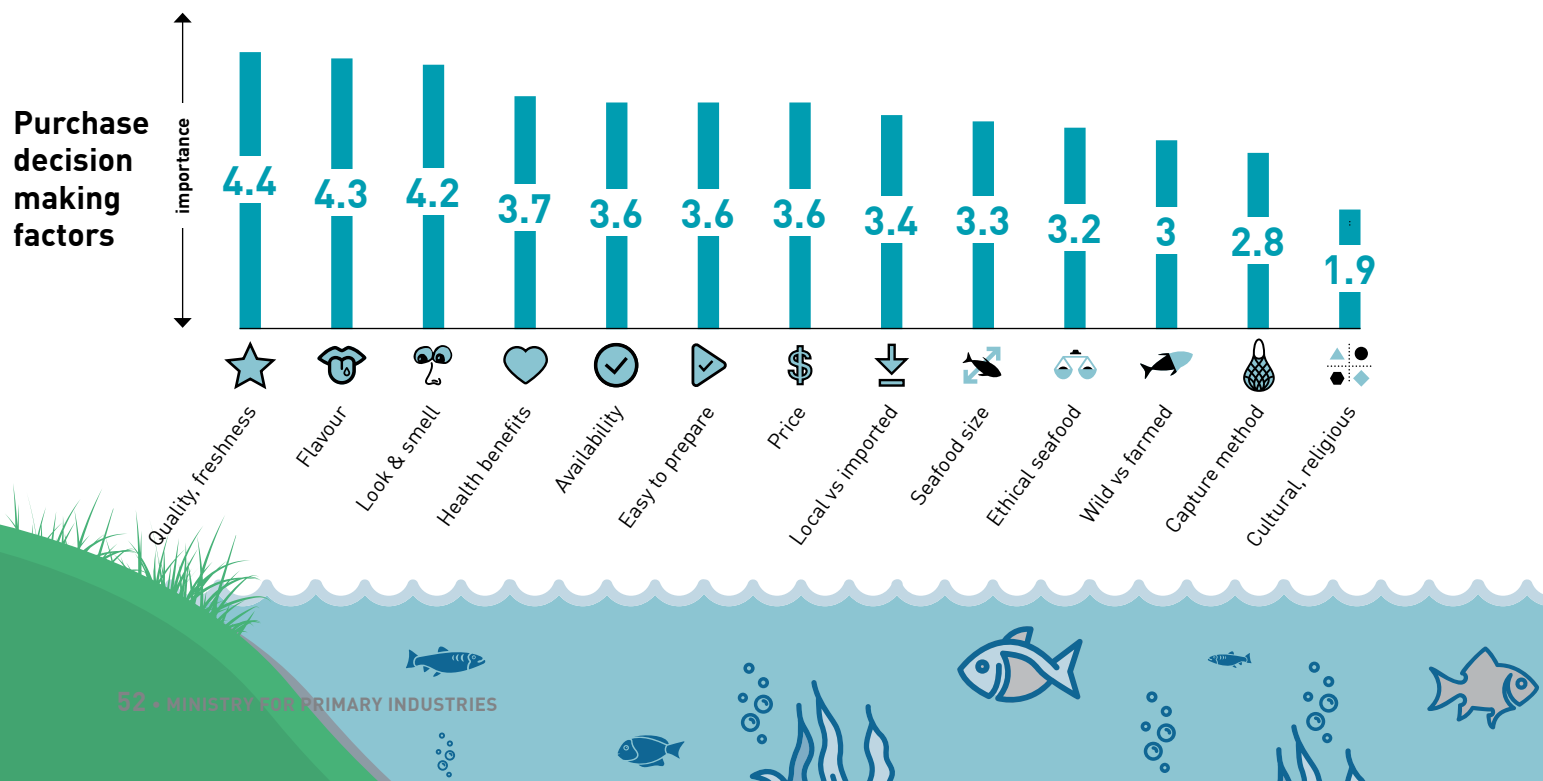
Survey responses show New Zealanders love their seafood, with 9 in 10 respondents stating they purchased seafood. 4 in 10 respondents also stated that they are regular consumers (i.e. purchased seafood one or more times a week).



This reflects a preference for convenience when consuming seafood and seafood products. This is further shown through the types of seafood purchased where products such as fast food, take away food, restaurant meals and ready to eat products make up more than half of the types of seafood purchased [56 percent].

Conclusion

Seafood remains a key staple for New Zealanders with a preference for high quality, fresh products. The survey indicated that consumers are more likely to purchase their seafood via the supermarket and that convenience is a key factor in the type of seafood consumed.





Arable ...



Arable export revenue is expected to be down 3.2 percent for the year ending June 2019, compared with the previous year, driven by poor quality and yields in the 2018 harvest.



A better, but average, 2019 harvest, which also had its challenges, should lift export revenue for 2020. In the longer term, gradual export growth is forecast in both prices and volumes.



Grain prices, except for milling wheat, have fallen over the past six months but are still well up on the same time last year.

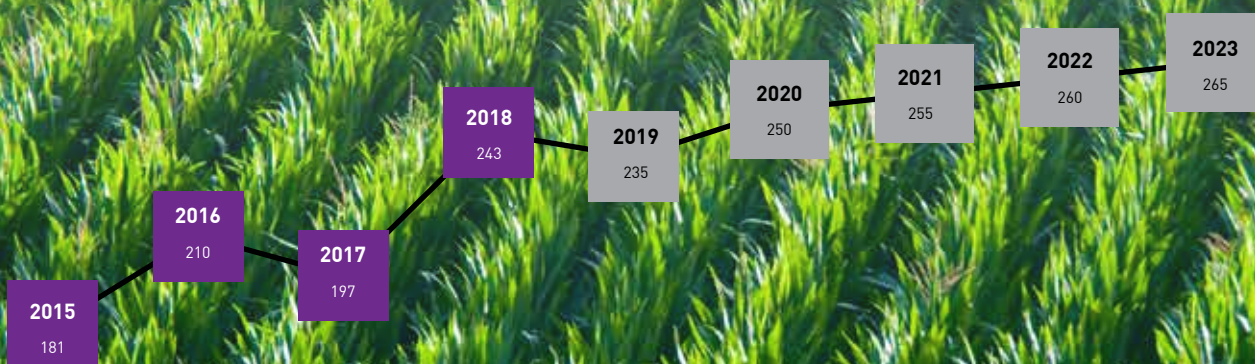
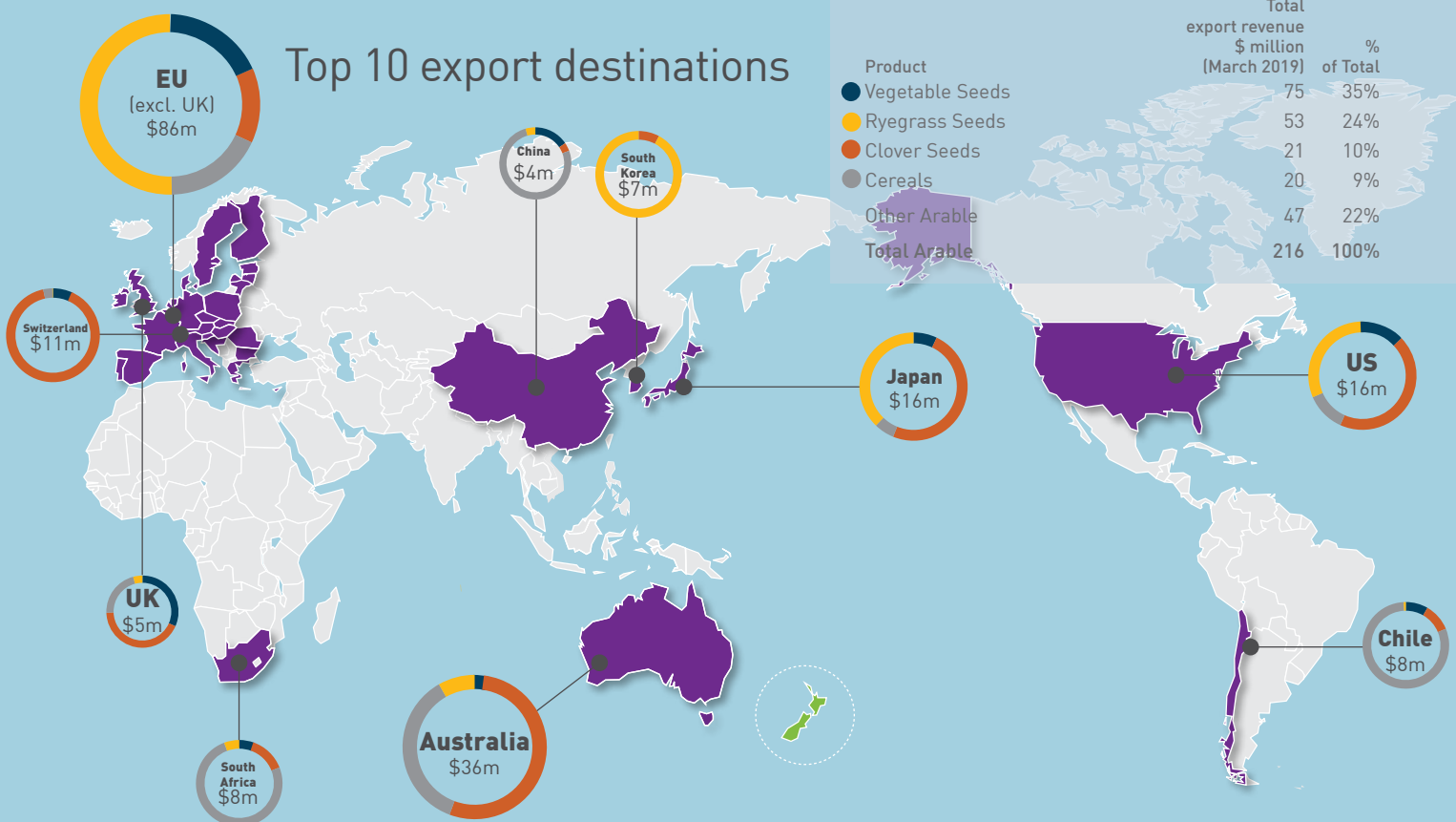


Table 17: Arable export revenue 2015–23 (NZ\$ million)

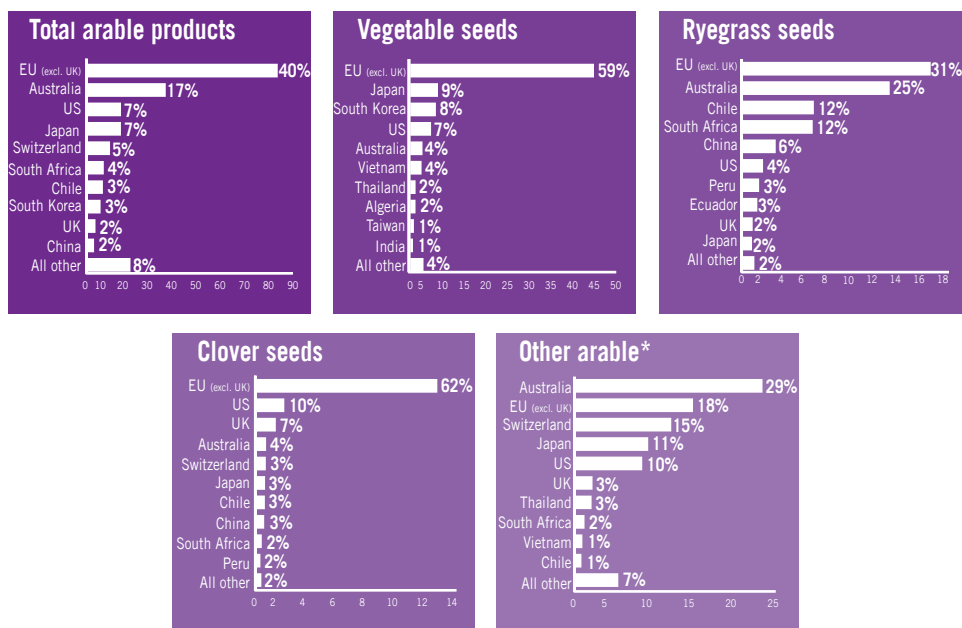
Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Vegetable seed	62	74	64	92	85	95	95	95	100
Ryegrass seed	49	46	46	55	55	55	55	55	55
Clover/legume seed	22	20	23	28	25	25	25	30	30
Other grains and seeds*	48	70	63	67	70	75	80	80	80
Total	181	210	197	243	235	250	255	260	265
% Change	-21.6%	+15.6%	-6.0%	+23.1%	-3.2%	+6.4%	+2.0%	+2.0%	+1.9%

Source: Stats NZ and MPI.

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



Top markets (\$NZ millions, year ended March 2019)



A season of two halves

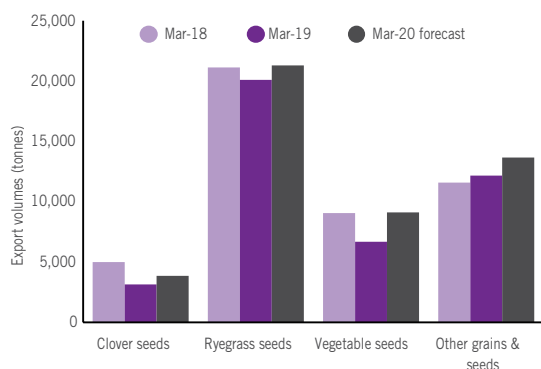
Arable production is broadly grouped into grain and seed crops. Grain is mostly sold domestically for livestock feed or human food and beverage preparation. New Zealand is not self-sufficient in grain, with a significant volume imported, due to competitive pricing and volume availability. The cost of internal transport makes it cheaper for North Island customers to buy from overseas than the South Island. Seeds are sold both domestically and internationally, with the bulk of vegetable seeds exported. Forage seeds, while generating significant export revenue, also have a considerable domestic market.

Seasonal conditions swung from one extreme to another across the main growing areas, with record rainfall in the first half of the season and record-breaking temperatures early in the second half. Spring and early summer were very wet, with little sunshine and below-average growing degree days. From the New Year, a lot of sunshine, high temperatures and little rain provided ideal harvesting conditions. The wet early season increased disease pressures and caused concerns about pollination.

Export earnings dogged by last season's harvest

Export revenue continues to be hampered by the reduced volumes from the poor 2018 harvest (Figure 46). Comparing March years, total export revenue for 2019 is down 8.6 percent, to \$216 million, with total export volumes for the same period down 10 percent, compared with 2018. A rebound is forecast for the March 2020 year, with volumes expected to rise by 14 percent on 2019 and up 3 percent on 2018.

Figure 46: Arable export volumes expected to rebound in coming year



Change in arable export volumes, year ended March 2018–20
Source: Stats NZ and MPI.

Brighter outlook for grass and clover seed

Some optimism is evident for clover and grass seed exports, as stock levels in Europe have declined, opening up the opportunity for new contracts.

The clover and grass seed harvests were better than expected following the wet start, with yields and quality reported to be average. Export volumes of canola (rape) seed are likely to be up on last year, with a significant increase in the area harvested. Quality is reported to be good and target yields have been met.

Weather conditions put vegetable seed growers on knife edge till new year

Seasonal weather conditions had vegetable seed growers worried up until New Year, particularly around pollination, but most crops finished with reasonable harvests. Export returns for vegetable seeds from the 2019 harvest are expected to be up on last year, due to a better yielding harvest and an increase in demand for Asian brassica seed crops. Export revenue forecast for the year ending June 2020 is \$95 million, a similar level to 2018 and up 8.2 percent on 2019.

Carrot seed yields and quality are reported to be above average and up on last year's poor crop. Next year's crop is in the ground, with the area planted similar to 2018/19.

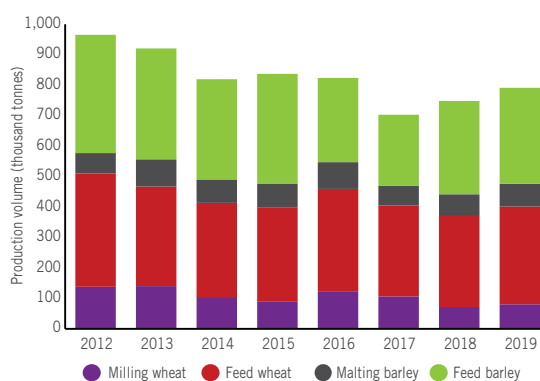
Asian brassica seed crops (such as radish, kale, Chinese cabbage and choy sum) had an average harvest, around their target yields and of reasonable quality. Early orders indicate this market may be picking up after two to three years of poor demand.

Beetroot seed had a poor year, with yields well down on last year, at about half the average yield.

Grain tonnage up with help from increased area

Grain yields were variable, with the earlier wet conditions hampering some of the earlier-sown crops but benefiting the dryland crops. The Arable Industry Marketing Initiative (AIMI) New Zealand Survey of Cereal Areas and Volumes (1 April 2019) reports that overall yields for wheat and barley were up slightly, compared with last year, which was regarded as a poor season. The increase in yields and planted hectares (up 2.5 percent) resulted in total tonnage being up 6.7 percent, compared with last season (Figure 47).

Figure 47: 2019 grain harvest estimated up 6.7 percent



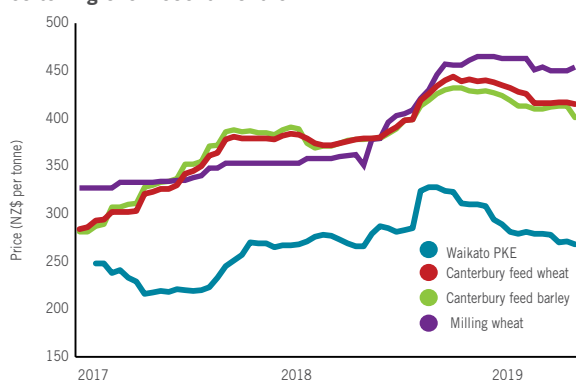
Domestic cereal tonnages and yields 2012–2019
Source: AIMI.

With the moist early half of the season providing good pasture levels, feed wheat and barley prices have softened over the past six months, falling about \$30 per tonne as dairy demand tapered off. Prices are still ahead of the same time last year, with milling wheat prices about 30 percent higher. Feed wheat and barley are both up about 10 percent and hovering above \$400 per tonne, which growers say is needed to make a reasonable return.

Demand for milling wheat is steady, with unsold stocks from the 2019 harvest down 14 percent on 2018. This is likely due to the increased demand for domestic wheat from supermarket bakeries. Seventy percent of the 2019 feed wheat harvest was estimated to have been sold at 1 April 2019, with unsold stocks at a similar level to last year. Sales for feed barley are down, with 57 percent of the harvest sold and unsold stocks up 36 percent, compared with this time last year. The increase in the forecast milk-gate prices and the positive outlook for commodity prices are yet to stimulate demand for feed cereals.

Planting sowings and intentions for autumn–winter feed wheat and feed barley are back by 10 percent and 19 percent respectively on last year. Farmers are said to be keeping ryegrass paddocks in their systems longer, to feed lambs while meat prices are up. Planting sowings and intentions for autumn–winter milling wheat are up 18 percent on last year.

Figure 48: Grain prices still at good levels albeit with some softening over recent months



Domestic grain and PKE prices February 2017–May 2019
Source: NZX

The maize silage harvest was earlier this year brought on by dry conditions. Yields are reported to be average but with a smaller area planted last year less will be available. Maize grain was still being harvested at the time of writing with yields variable.

The impact of Fonterra's Fat Evaluation Index on palm kernel expeller (PKE) use is not yet clear, with import volumes for the March 2019 year down 550 thousand tonnes (24 percent) from 2018 but up 8 percent on 2017. Prices have eased to a similar

level as this time last year (Waikato \$268 per tonne), with contracts for next season available as low as \$230 per tonne attracting farmers to sign up.

Less Australian wheat available for export

New Zealand imported 518 thousand tonnes of wheat in the year ended March 2019, mostly from Australia. However, imports from Australia are down 15 percent, compared with 2018. A drought in the eastern states of Australia has caused a 19 percent decrease in 2019 wheat production to 17.3 million tonnes. Along with imports from Canada, better than expected production in Western Australia is being used to meet domestic demand on the east coast rather than being exported as per custom. The short supply has pushed prices up, with New Zealand trade data showing a \$70 per tonne increase between the 2018 and 2019 March years.

Push for self-sufficiency in milling wheat

The Arable Food Industry Council (AFIC) has set a goal of achieving self-sufficiency in milling wheat by 2025. New Zealand currently imports about two-thirds of its milling wheat requirements. Millers say there is a strong demand for domestic milling wheat. Since last year, the Countdown supermarket chain has used only New Zealand-grown wheat in its in-store baking throughout its New Zealand stores. To achieve the 2025 goal, a further 25,000 to 30,000 hectares of milling wheat will be need to be planted. More storage will be needed on farm and at transport depots, along with an economical bulk transport option to move the grain between islands and from the lower to the upper North Island.

Herbicide-resistant weeds, resulting from intensive use of herbicides for weed control, are an increasing problem for the arable industry with several becoming harder to kill, particularly wild oats and Italian ryegrass in Canterbury.

New opportunities for hemp are not as great as anticipated, following the amendment to regulations in November 2018 to allow it to be sold as food due to the scale and comparative cost of production in other countries. A relaxation of import laws, at the same time as the drug and food regulation amendments, has seen Canadian hemp products enter the domestic market at prices New Zealand cannot compete against. An area of potential growth is exporting hemp seed into the Australian market, which made regulation amendments at the same time as New Zealand but did not relax import rules, in effect protecting its market.

Table 18: Estimated national figures for the 2019 harvest for six cereal crops as at 1 April 2019

		Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats	Total
2019 harvest								
Estimated NZ total hectares, 2019 harvest	ha	9,393	36,517	9,942	42,994	3,922	1,634	104,402
Estimated NZ total tonnes, 2019 harvest	tonnes	80,930	320,587	74,861	314,886	24,413	8,964	824,641
2018 harvest								
Estimated NZ total hectares, 2018 harvest	ha	8,917	32,983	10,155	44,445	3,362	1,138	101,000
Estimated NZ total tonnes, 2018 harvest	tonnes	71,725	298,675	71,500	306,300	18,277	6,623	773,100
Comparison of yields (t/ha) between last two harvests								
NZ-wide estimated yield, 2019 harvest	t/ha	8.6	8.8	7.5	7.3	6.2	5.5	
NZ-wide estimated yield, 2018 harvest	t/ha	8.0	9.1	7.0	6.9	5.4	5.8	

Source: Foundation of Arable Research, AIMI survey of cereal areas and volumes – 1 April 2019

Other primary sector...



Other products category (including soft drinks and beer) is shaping up to be a star performer for 2019, with exports forecast to be up 17 percent to \$710 million.

The UK is set to take over as our top honey export partner for 2019.



Export revenue for this sector is forecast to reach \$2.8 billion for the year to June 2019, up 3.5 percent from 2018.

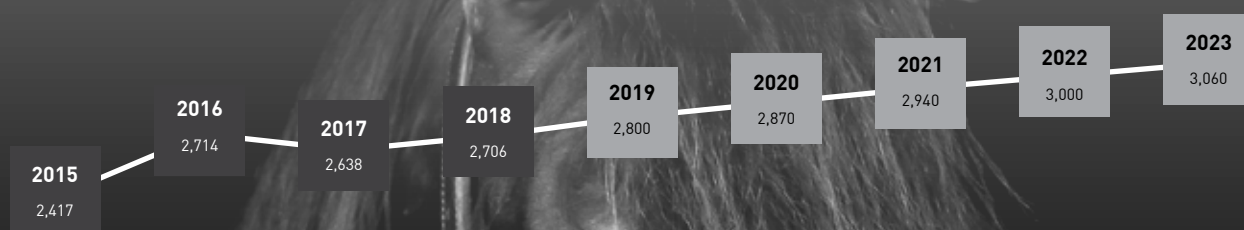


Table 19: Other primary industry export revenue 2015–23 (NZ\$ million)

Year to 30 June	Actual				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Innovative processed foods	471	681	664	759	780	800	810	820	830
Honey	233	315	329	348	360	370	380	380	390
Sugar & confectionery	293	312	305	263	220	220	230	240	240
Cereal products	255	274	285	303	310	310	320	320	330
Live animals	370	242	274	241	230	230	250	250	260
Soup & condiments	183	187	186	184	190	200	210	210	210
Other products*	612	704	594	609	710	730	750	770	790
Total	2,417	2,714	2,638	2,706	2,800	2,870	2,940	3,000	3,060
% Change	+20.8%	+12.3%	-2.8%	+2.6%	+3.5%	+2.5%	+2.4%	+2.0%	+2.0%

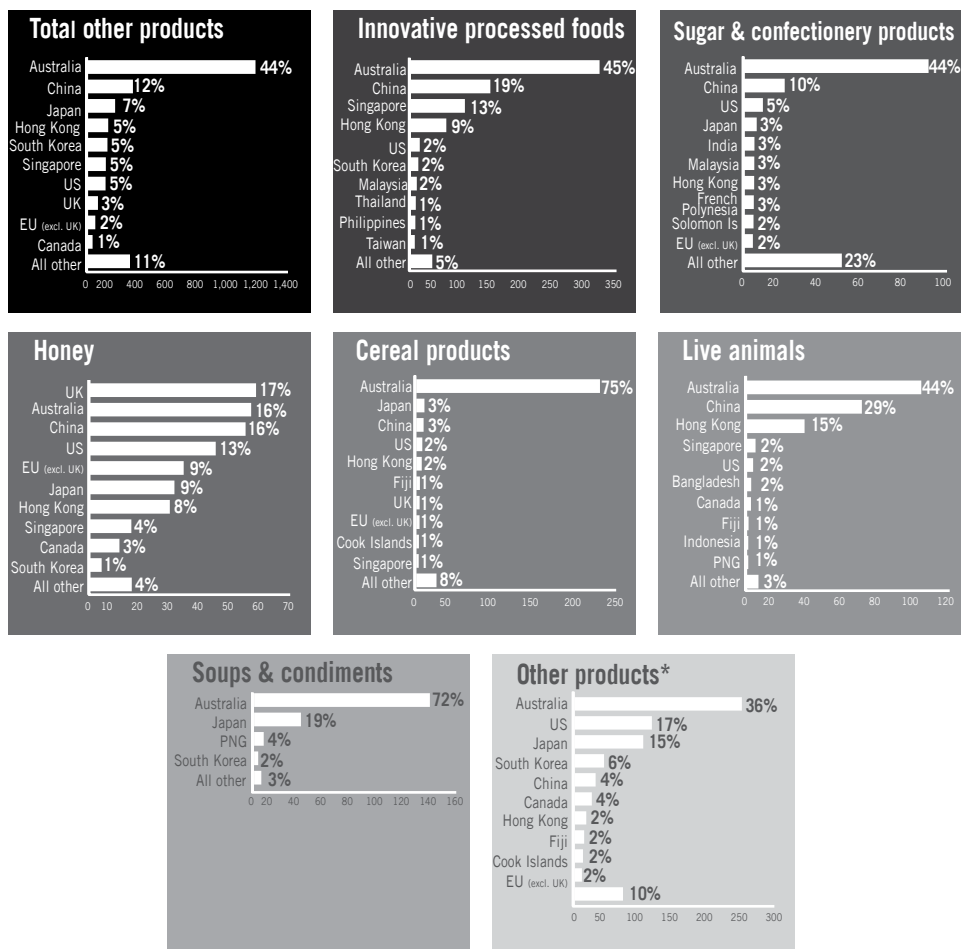
Source: Stats NZ and MPI.

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

Top 10 export destinations



Top markets (\$NZ millions, year ended March 2019)



The other primary sector exports category is diverse and includes processed foods, live animals and honey. Processed foods include items such as pasta, snack bars, tomato sauce, beer, and coffee.

Export revenue for this sector is forecast to reach \$2.8 billion for the year to June 2019, up 3.5 percent from 2018, due to a strong increase in other products (including soft drinks and beer) and a moderate increase in honey exports. Overall, this sector is expected to continue to grow slowly during the next five years, reaching \$3 billion by 2023.

Honey export growth slows

Honey exports are forecast to reach \$360 million for the year ending June 2019, up 4 percent on 2018. Export volumes so far for the year to June 2019 are 1 percent behind 2018, with final export volumes for the year anticipated to be slightly less than for 2018. While the average export price per kilogram climbed to over \$45 in the September and December 2018 quarters, it dropped back to just under \$42 in the March quarter. The average export price for the year to June 2019 is expected to rise to around \$44 per kilogram, and from there to increase much more slowly than in recent years.

The UK is set to take over from the US as New Zealand's largest export partner for 2019, with exports since July 2018 valued at \$45 million. Australia, China and the US are our next most important export partners, with exports valued at \$41 million, \$36 million, and \$36 million respectively for the first nine months of this year. Exports to Australia continue to grow, while exports to China and the US this year have dropped back from last year's highs (Figure 49).

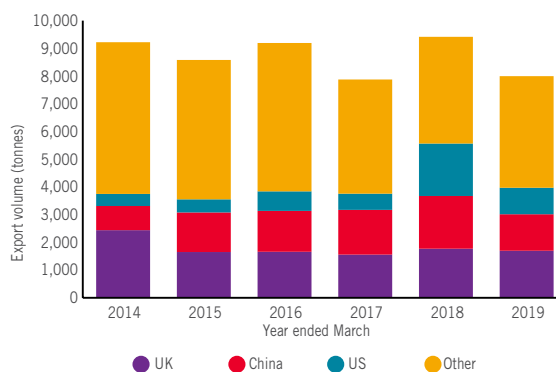
The honey harvest for the 2018/19 year is expected to be similar to that for last season, at around 20,000 tonnes. Some regions have had a better season than last year, mostly offsetting declines in others. Declining demand by packers and buyers for all honeys other than monofloral mānuka is leading to lower prices being offered to beekeepers. In some instances, prices on offer are not covering production costs, so some beekeepers are storing this honey rather than selling it at a loss. This is leading to increased stocks around the country and may also lead to rationalisation in the number of hives.

Table 20: Honey exports and production 2014-2018 (NZ\$ million)

Year to 30 June	2014	2015	2016	2017	2018
Honey production (tonnes)	17,610	19,710	19,885	14,855	20,000
Export volume (tonnes)	8,702	9,046	8,831	8,450	8,692
Average export price (NZ\$/kg)	21.45	25.77	35.62	38.92	40.04
Export revenue (NZ\$ thousands)	186.63	233.12	314.51	328.82	348.01

Source: Stats NZ and MPI.

Figure 49: UK retakes crown as top honey market



Honey export volume by destination, year ended March 2014-19
Source: Stats NZ.

Cereals export growth in 2018 not continuing into 2019

The value of cereal product exports is expected to reach \$310 million for the year to June 2019, up 1.5 percent from 2018. Growth is usually slow in this sector, but 2018 was a strong year, with an of 6.3 percent increase for the year to June 2018. This growth does not appear to be continuing into 2019, so the outlook for the sector through to 2023 has been lowered and is now only expected to reach \$328 million.

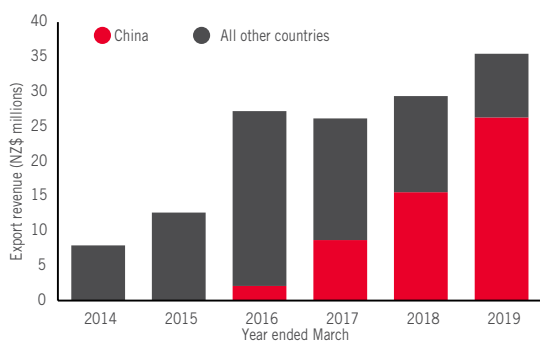
New Zealand imports two-thirds of the wheat used in the baking industry from Australia because, due to the scale of production there, it is cheaper to import wheat than to grow it here. In the future, less wheat is likely to be imported (page 57) due to the AFIC's goal to achieve self-sufficiency by 2025. This initiative is not expected to affect export volumes, but instead is more likely to change the origin of the wheat used in these products.

Live animal exports lower as cattle exports slow in 2019

The value of live animal exports for the year to June 2019 is expected to drop 6 percent to \$230 million. The main reason is the continued drop in the number of live cattle exported. Live cattle exports are expected to decline to around 18,000 animals for 2019, down from 23,493 animals in 2018. China is currently our main market for live cattle exports. Chinese interest in importing New Zealand cattle remains strong, but actual export volumes continue to fluctuate between years.

The value of live poultry exports for the year to June 2019 is on track to exceed last year's value of \$30 million. China imports most of its white bird meat breeding stock. Until 2014, over 90 percent came from the US but in January 2015 China banned the import of live poultry from the US due to avian influenza. Over the next couple of years, China shifted to importing birds predominantly from New Zealand. Chinese demand for live poultry from New Zealand has been expanding rapidly, and our other recent major markets (Bangladesh, Indonesia, and Thailand) have been almost completely crowded out (Figure 50). These countries are now sourcing their live poultry imports from the US.

Figure 50: Live poultry exports to China



Value of live poultry exports, year ended March 2014–2019
Source: Stats NZ.

In the year to March 2019, New Zealand supplied US\$ 19 million (NZ\$ 26 million) worth of birds to China, with an additional US\$ 9.4 million worth of birds supplied by Canada and Poland. This supply is insufficient to meet the needs of China's poultry industry and is leading to a decline in breeding stock.

Other products exports a star performer for 2019

The other products category is on track to be the star performer in this sector for 2019, with exports expected to grow 17 percent, to \$710 million, for the year to June 2019. Australia continues to be our most important export partner. The main products exported to Australia in this category are soft drinks, tobacco, and beer.

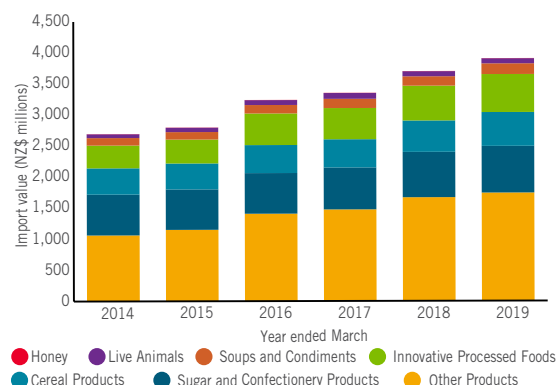
Over the past two years, exports have surged to South Korea. South Korea has now overtaken Japan to be our second largest export partner for this sector in 2019. The key products in this category sent to South Korea and Japan are various niche food products. The US and Vietnam have also shown strong growth in 2019.

In the year to June 2018, New Zealand exported \$41 million worth of beer and is on track to export a similar amount in 2019. Around 70 percent of this beer is exported to Australia. China has grown to be our second most important export partner since 2014, taking nearly \$3 million of beer in the year to June 2018. Until 2007, the US used to import almost \$10 million worth of New Zealand beer each year. This has declined since then, however, with only \$2 million worth being exported there in 2018.

Imports of products in the other primary products sector are growing

The value of New Zealand's imports of products in this sector for the year ended March 2018 was \$3.9 billion. New Zealand imports these products for many reasons. In some cases, we do not have a suitable climate to produce the products (sugar cane and coffee). Others are imported due to business decisions made by international companies (chocolate and beer) to meet diverse consumer tastes.

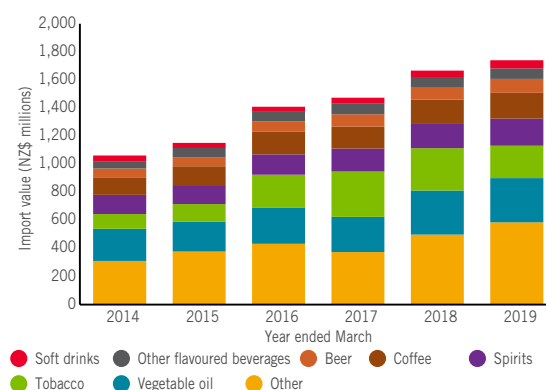
Figure 51: Many products contribute to growing imports of other primary sector products



Other primary sector import value, year ended March 2014–19
Source: Stats NZ.

Most of the products we import in this sector fall into the other products category (Figure 51), which is also where most of the import growth has been occurring. The main products we import in this category are shown in Figure 52. They include vegetable oil, spirits, coffee, and beer.

Figure 52: Coffee, beer, and other flavoured beverages leading growth in other product imports



Detailed breakdown of products imported in the other products category, year ended March 2014–19
Source: Stats NZ.

In the year to March 2019, New Zealand imported \$99 million worth of beer. Over 40 percent of this came from Mexico and 15 percent from Australia. The rest came from a variety of countries.

Our beer imports have grown significantly in the past 10 years. In 2009, we imported only \$54 million worth of beer, with about one-third (\$18 million) from Mexico and one-third (\$13 million) from Australia. Mexico is the largest global exporter of beer.

Primary industries in the New Zealand economy

80%

of trade

The primary industries accounted for 80 percent of New Zealand's merchandise exports in the year ended March 2019. This ratio has increased steadily over the past decade, with primary industry export growth exceeding that of non-primary industries in nine of the past ten years.



15%

of employment

351,000 people are employed in New Zealand's primary industries as of 2016¹, representing 15 percent of the total workforce. Primary production employment is distributed across the country, but processing and commercialisation activities are concentrated in Auckland and other major population centres.



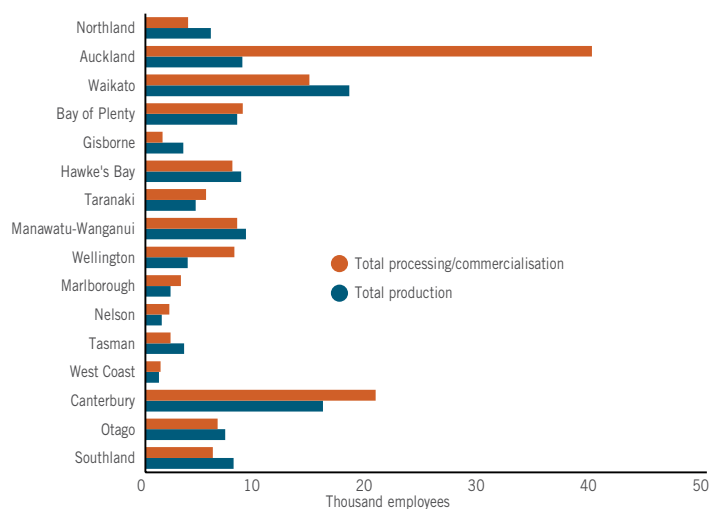
11%

of GDP

The primary industries accounted for 11 percent of New Zealand's GDP in the year ended March 2017. This figure includes both the production of primary products, such as Dairy Cattle Farming and the subsequent processing and commercialisation industries such as Dairy Product Manufacturing.



Figure 53: Primary Industry Employment by Region, 2016



Source: MPI (Human Capability in the Primary Industries: Part 1 2002–2016 – An Overview).

1. Most recently available data. Human Capability in the Primary Industries - 2002-2016 Overview (MPI).

Table 21: Gross agricultural revenue and expenditure, year ending March 2015–23 (NZ\$ million)

	Estimate				Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dairy	9,378	7,608	10,990	12,050	12,200	12,600	12,930	13,050	13,170
Cattle	2,614	3,074	2,926	3,120	3,440	3,430	3,480	3,490	3,480
Sheepmeat	2,367	2,229	2,205	2,700	3,100	2,890	2,860	2,900	2,940
Wool	644	641	470	420	440	460	460	470	470
Deer	223	217	187	220	210	200	210	210	210
Pigs	186	180	172	160	160	160	170	170	170
Poultry/eggs	198	207	206	210	220	230	230	240	250
Other farming	211	227	206	240	260	260	260	260	260
Sales of live animals	953	810	1,051	1,200	1,350	1,310	1,310	1,320	1,330
Value of livestock change	-239	-151	168	50	40	30	40	30	10
Fruit	2,679	2,921	3,539	3,510	4,040	4,160	4,340	4,480	4,720
Vegetables	1,011	1,070	1,089	1,180	1,170	1,160	1,180	1,200	1,230
Other horticulture	423	483	451	490	480	480	490	500	510
Crops and seeds	707	679	655	760	700	800	820	830	850
Agricultural services	193	219	217	230	240	250	260	260	260
Non-farm income	563	469	474	510	540	550	560	570	580
Total gross revenue	22,111	20,883	25,006	27,060	28,600	28,940	29,600	29,980	30,440
Intermediate consumption	14,006	13,548	13,668	14,320	14,980	15,450	15,850	16,160	16,440
Contribution to GDP	8,105	7,335	11,338	12,740	13,620	13,490	13,750	13,810	14,000
Wages	2,325	2,452	2,448	2,510	2,580	2,660	2,750	2,850	2,950
Depreciation	1,536	1,616	1,663	1,710	1,750	1,800	1,850	1,890	1,940
Net indirect taxes*	799	844	876	1,240	1,320	1,310	1,330	1,340	1,360
Operating surplus	3,437	2,423	6,351	7,290	7,970	7,720	7,820	7,730	7,750
Interest paid	2,713	2,694	2,581	2,780	2,840	2,920	3,140	3,350	3,420
Interest received	388	421	436	390	390	400	590	760	800
Agriculture sector income	1,112	150	4,206	4,890	5,520	5,200	5,270	5,140	5,120

Source: Stats NZ and MPI.

* Net indirect taxes are indirect taxes less subsidies.

Forecast tracking

Our forecast outlook for the year to June 2019 has increased \$2.4 billion from the June 2018 forecast round, with higher than expected production in many sectors driven by good weather. In addition, prices have been higher than anticipated over the past year for red meat, forestry, and horticulture.

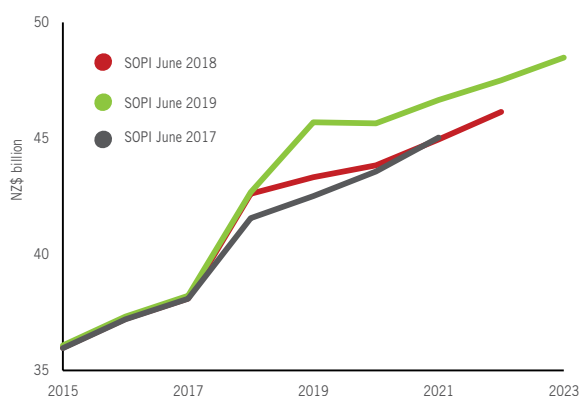
The 2019 forecast for the meat and wool sector has risen \$970 million over the past year due to continued strong global red meat prices.

The forestry forecast has been revised upwards by \$510 million due to increased log demand from China. Export prices are at record levels, and in turn, this has incentivised record harvest volumes.

The dairy sector outlook for 2019 has increased by \$440 million due to an excellent growing season lifting milk production more than expected.

The horticulture forecast for 2019 has been revised upwards by \$370 million due to excellent harvest volumes across the sector, particularly kiwifruit.

Figure 53: MPI export revenue forecasts 2015-23



Source: Stats NZ and MPI.

Year to 30 June		Actual					Forecast			
Forecast round		2015	2016	2017	2018	2019	2020	2021	2022	2023
Dairy	June 2019	14,050	13,289	14,638	16,655	17,610	17,820	18,190	18,510	18,820
	June 2018	14,050	13,289	14,638	16,630	17,170	17,200	17,760	18,330	—
	Difference	—	—	—	+25	+440	+620	+430	+180	—
Meat & wool	June 2019	9,000	9,200	8,355	9,542	10,150	9,900	10,000	10,090	10,190
	June 2018	9,001	9,201	8,356	9,390	9,180	9,350	9,580	9,770	—
	Difference	-1	-1	-1	+152	+970	+550	+420	+320	—
Forestry	June 2019	4,683	5,140	5,482	6,382	6,880	6,820	6,940	7,000	7,080
	June 2018	4,683	5,140	5,482	6,350	6,370	6,380	6,400	6,410	—
	Difference	—	—	—	+32	+510	+440	+540	+590	—
Horticulture	June 2019	4,185	5,000	5,165	5,376	6,110	6,130	6,360	6,610	6,960
	June 2018	4,187	5,002	5,152	5,480	5,740	5,870	6,020	6,290	—
	Difference	-2	-1	+13	-104	+370	+260	+340	+320	—
Seafood	June 2019	1,562	1,768	1,744	1,777	1,910	1,860	1,970	2,030	2,100
	June 2018	1,562	1,768	1,744	1,840	1,930	2,000	2,080	2,140	—
	Difference	—	—	—	-63	-20	-140	-110	-110	—
Arable	June 2019	181	210	197	243	235	250	255	260	265
	June 2018	181	210	197	220	210	230	235	240	—
	Difference	—	—	—	+23	+25	+20	+20	+20	—
Other	June 2019	2,417	2,714	2,638	2,706	2,800	2,870	2,940	3,000	3,060
	June 2018	2,314	2,612	2,532	2,700	2,730	2,810	2,880	2,960	—
	Difference	+104	+102	+105	+6	+70	+60	+60	+40	—
Total exports	June 2019	36,079	37,323	38,219	42,682	45,695	45,650	46,655	47,500	48,475
	June 2018	35,978	37,223	38,101	42,610	43,330	43,840	44,955	46,140	—
	Difference	+100	+100	+118	+72	+2,365	+1,810	+1,700	+1,360	—



Economic Intelligence Unit online resources:

More primary industry data can be found on the MPI website: www.mpi.govt.nz/EIU



Market insights

Reports that provide insights into consumer preferences and purchasing behaviour, as well as in-depth research into the channels that supply them.



Situation and Outlook for Primary Industries

The latest update and underlying data for our outlook on the primary industries, plus access to previous SOPI reports.



Farm monitoring

Reports assessing the annual production and financial performance of typical farm or orchard businesses.



Data

A range of publically available data covering primary industry production and trade.

