

# *Fresh*Facts

NEW ZEALAND HORTICULTURE

2019



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Reporting basis: unless stated otherwise, all statistics are for the year ending 30 June 2019 and expressed as \$NZ. Exports are given as free-on-board (fob) values. Imports are given as cost, insurance and freight included (cif). Historical values have not been adjusted for inflation.

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## New Zealand exports exceed \$6.2 billion

*In 2019, produce from New Zealand's horticultural industries reached a new high, totaling an estimated \$9.5 billion. This included \$6.2 billion of exports, also a record high, accounting for more than 10% of New Zealand's total merchandise exports.*

*Kiwifruit exports are now earning more than \$2.3 billion. New Zealand kiwifruit are enjoyed by consumers in more than 50 countries, with two thirds of kiwifruit exports (by value) supplied to Asian countries.*

*New Zealand's wine exports have also reached a new high, earning more than \$1.8 billion. New Zealand wine was exported to more than 100 countries, with three quarters of New Zealand's wine production dedicated to Sauvignon blanc.*

*Other crops are also in demand by export markets. New Zealand apple exports have doubled in value since 2012 and now earn more than \$820 million. New Zealand-bred varieties – such as Jazz™, Envy™ and Pacific™ series apples account for more than a quarter of exports. Onion exports also reached a record high in 2019, earning \$170 million, with the majority of exports (\$102 million) supplied to the UK and Europe. Potato exports remain steady, at close to \$130 million, primarily as processed product for the Australian market. Australian consumers also enjoyed two thirds of New Zealand's \$104 million avocado exports.*

*A reputation for high quality fruits and vegetables produced using environmentally sustainable practices, in addition to well established trade routes, are vital for the New Zealand horticulture industry. Innovation – in the form of new varieties and constantly improved production systems – will ensure New Zealand's success into the future.*

*David Hughes.*

David Hughes  
CEO, Plant & Food Research



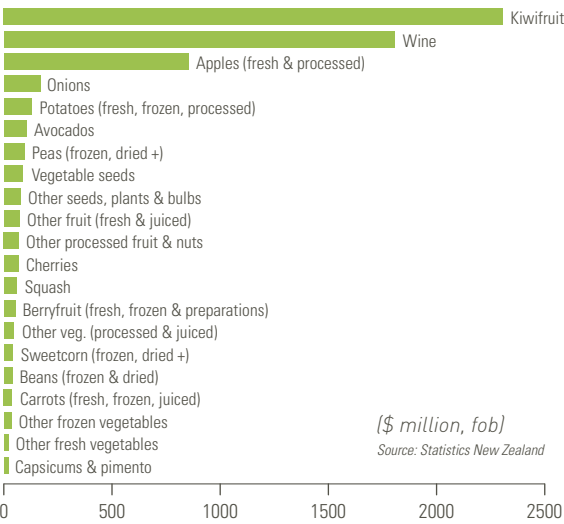
Horticultural exports, year ended June (\$ million, fob)

	2000	2005	2010	2015	2018	2019
Fresh fruits						
- Kiwifruit	462.0	720.2	995.7	1,181.9	1,860.7	2,302.2
- Apples	404.5	387.0	324.6	561.8	732.9	828.8
- Avocados	25.2	29.0	59.9	115.5	97.9	104.3
- Cherries	5.6	10.5	22.7	52.3	84.1	68.9
- Blueberries	6.8	9.2	16.0	23.4	34.8	38.9
- Other fresh fruits	58.5	31.8	36.0	47.2	49.9	48.9
Total fresh fruit	962.6	1,187.7	1,454.9	1,982.1	2,860.3	3,392.0
Processed fruits						
- Wine	169.8	432.7	1,036.80	1,406.2	1,692.9	1,806.6
- Fruit - juices	24.7	34.5	31.7	46.5	42.7	49.4
- Hops - cones & extracts		9.5	6.2	12.8	14.9	21.0*
- Other processed fruits	47.6	57.8	117.3	101.8	68.7	67.2
Total processed fruit	242.1	534.5	1,192	1,567.3	1,819.2	1,944.2
Fresh vegetables						
- Onions	78.6	61.6	113.4	81.5	92.6	170.3
- Squash	60.3	72.1	53.2	58.7	58.6	59.7
- Potatoes	13.3	12.3	15.9	20.3	26.4	22.6
- Capsicums	15.1	25.7	33.8	27.5	21.0	20.6
- Other fresh vegetables	46.0	28.3	31.4	28.0	27.4	30.9
Total fresh vegetables	213.3	200.0	247.7	216.0	226.0	304.1
Processed vegetables (frozen/dried/other processes)						
- Potatoes	17.9	56.9	82.0	92.5	114.9	106.8
- Peas	40.6	36.9	72.9	84.8	87.7	96.5
- Sweetcorn	39.3	43.4	38.0	38.5	42.0	41.4
- Beans	17.0	36.5	45.0	44.7	39.8	41.1
- Vegetable juices		6.6	19.4	30.3	31.7	31.9
- Beetroot					25.0	24.8
- Mixed vegetables (frozen)	29.1	36.0	36.1	34.2	25.3	22.0
- Other vegetables (frozen)		11.4	9.9	12.0	14.3	14.8
- Other processed vegetables	30.5	36.6	17.8	38.1	18.4	16.5
Total processed vegetables	174.4	264.3	321.1	375.1	399.1	395.8
Other horticultural exports						
Flowers & foliage	46.2	38.5	35.1	22.9	20.3	20.0
Vegetable seeds	15.9	30.2	57.4	62.2	92.4	87.1
Seeds, plants, bulbs, moss, etc.	38.7	50.9	47.4	48.9	56.6	56.9
Total other horticultural exports	100.8	119.6	139.9	134.0	169.3	164.0
Total exports in current \$	1,693.2	2,306.1	3,355.6	4,274.5	5,473.9	6,200.1
Horticultural exports						
as % of NZ merchandise exports	6.5	7.5	8.3	8.8	9.9	10.4

Source: Statistics New Zealand \*Estimate

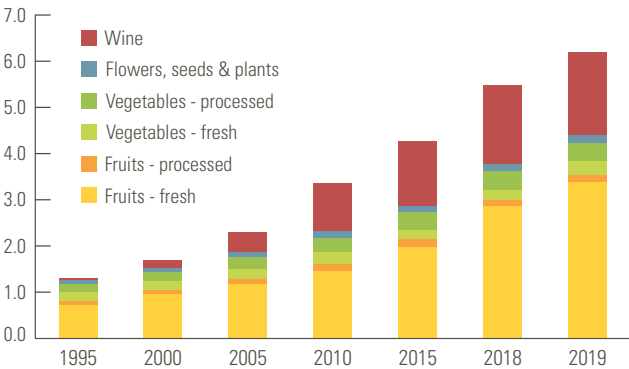
- New Zealand horticultural produce exports in 2019 were a record \$6.2 billion fob value and \$720 million more than the \$5.5b fob value in 2018 - which was also a record. The average value for the five years prior, 2013 to 2017, was \$4.4b fob.
- Compared with 2018, the largest value increases were kiwifruit +\$440m, grape wine +\$114m, apples +\$99m and onions +\$77m.
- In 2019, ten product categories were 91% by value of total New Zealand horticultural produce exports (fresh, frozen and other processes): kiwifruit \$2,302m (2018: \$1,867m), grape wine \$1,807m (\$1,693m), apples \$853m (\$754m), onions \$170m (\$93m), potatoes \$129m (\$141m), avocados \$110m (\$104m), peas \$97m (\$88m), vegetable seeds \$87m (\$92m), cherries \$69m (\$84m), and squash \$60m (\$59m).

Horticultural exports 2019 (\$ million, fob)



- In 2019 five markets, each exceeding \$500m fob value, accounted for 76% of New Zealand's total horticultural exports (2018: 68%): to Continental Europe \$998m (2018: \$914m), Australia \$814m (\$815m), the USA \$779m (\$713m), Japan \$786m (\$594m), and China \$752m (\$627m).
- Whilst kiwifruit, grape wine, apples, onions, and potatoes were the dominant export crops by values, the export value of some lesser total value crops have increased markedly in the past ten years:
  - Avocados, fresh and as avocado oil: 2019 export value \$104m (2009: \$38m)
  - Vegetable seeds, 2019: \$87m (\$55m)
  - Cherries, fresh/chilled, 2019: \$69m (\$27m)
  - Vegetable juices, dominated by carrot juice, 2019: \$32m (\$12m)
  - Beetroot, processed, 2019: \$25m (< \$1m)
  - Hops, as cones and extracts, 2019: \$21m (\$11m).

Horticultural exports – Years to June (\$ billion, fob)



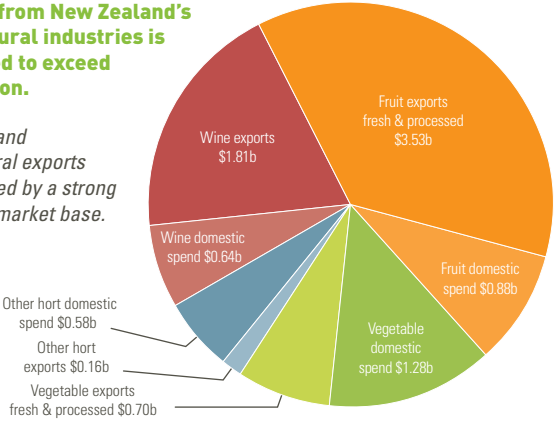
Source: Statistics New Zealand

# Exports/imports



Produce from New Zealand's horticultural industries is calculated to exceed \$9.5 billion.

New Zealand horticultural exports are assisted by a strong domestic market base.



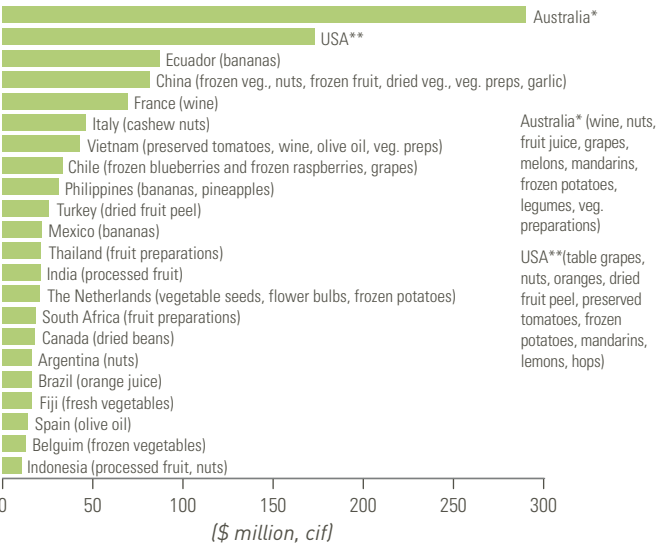
Source: Statistics New Zealand merchandise exports, with domestic market figures derived from the triennial Household Economic Survey (HES) 2019 and Statistics New Zealand estimate of mean number of private dwellings year to 30 June 2019.

## Top 10 export destinations (\$ million, fob)

	2010	2018	2019	
Continental Europe	618	915	998	Kiwifruit, wine, apples, onions, honey*, carrot seed, radish seed
Australia	702	817	814	Wine, avocados, potatoes, honey*, kiwifruit, beans, blueberries, other frozen veg., peas, beetroot, fruit preparations, sweetcorn
USA	352	721	779	Wine, kiwifruit, apples, honey*, veg. seeds
China	100	502	752	Kiwifruit, apples, honey*, wine, frozen peas, cherries,
Japan	483	597	786	Kiwifruit, squash, honey*, veg. juice, other frozen veg., capsicums, apples, wine, sweetcorn
UK	367	495	538	Wine, apples, honey*, onions
Taiwan	108	250	251	Kiwifruit, apples, cherries
Canada	74	134	169	Wine, kiwifruit, apples, honey*
Korea	85	122	183	Kiwifruit, squash
Hong Kong	61	97	119	Apples, kiwifruit, honey*, wine

Exports to European ports are combined as 'Continental Europe' because of cross-border distribution within the EU and neighbours. UK reported separately, recognising Brexit pending. Products listed in descending order of value and if value to the destination exceeded NZ \$10m fob. \*Consistent with other entries in Fresh Facts, honey exports are not included in totals (Source: Statistics New Zealand).

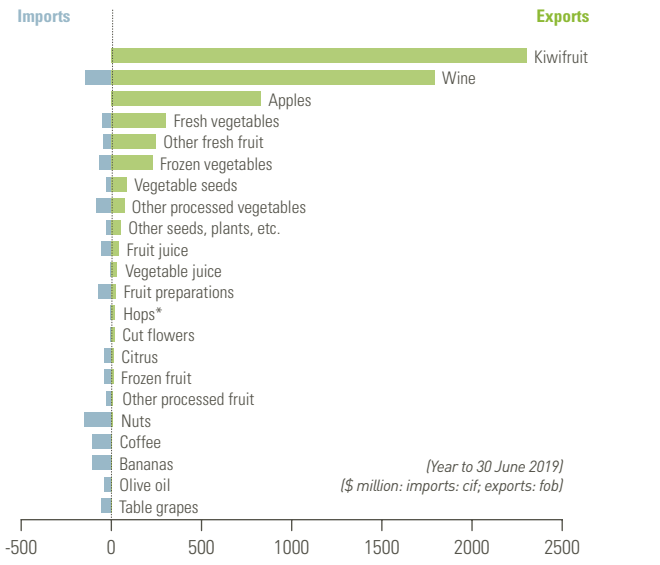
## The origin of fruit and vegetable imports 2019



The countries listed in this diagram send New Zealand more than \$10m (cif) of fruit and vegetables. Many of these crops are not grown in New Zealand. Others complement availability gaps in New Zealand's own seasonal production. Products named when import value exceeds \$5m cif.

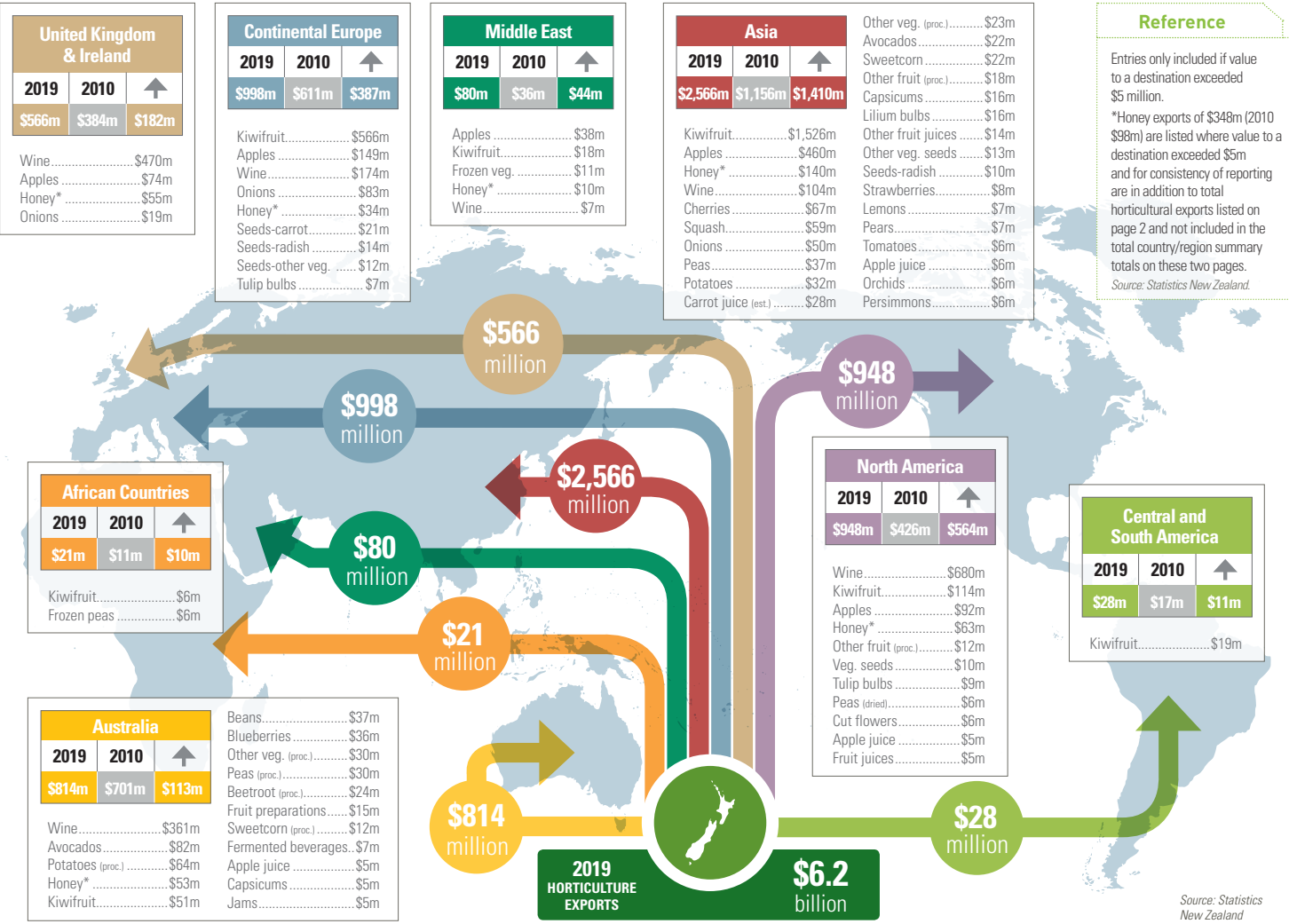
Source: Statistics New Zealand; Overseas Trade statistics for year ended June 2018.

## Comparisons of imports and exports 2019 (\$ million)



Source: Statistics New Zealand; Overseas Trade Statistics

# Export destinations



## Horticulture helps to build New Zealand's profile in many overseas markets.

### Export destinations for New Zealand horticultural products – trends since 2010 (\$ million, fob)

- New Zealand-grown fruits, vegetables and flowers were exported to 130 countries in 2019, compared with 117 countries in 2010.
- Exports to 31 countries exceeded \$10m (fob) in 2018, up from 25 countries in 2010.
- New Zealand also earned over \$103m from horticultural machinery and components exports (2010: \$52m), as well as additional income from royalties and licence agreements.

### Trends

- In 2019 New Zealand fruit and vegetable exports to five markets exceeded \$500m fob value: Continental Europe (\$998m), Australia (\$814m), the USA (\$779m), Japan (\$786m) and China (\$752m). These five export markets accounted for close to \$4.7b and more than three quarters (76%) of New Zealand's total horticultural exports in 2019.
- Exports to five other countries exceeded \$100m: the UK \$538m, Taiwan \$251m, Canada \$169m, Korea \$122m and Hong Kong \$119m. Horticultural exports to Asian countries in 2019 were \$2.6b (42% of total NZ horticultural exports).
- The diversity of horticultural products exported is apparent in the 25 products exported to Asia each between \$5m and over \$1.5b, and to Australia with 15 categories between \$5m and over \$360m fob value.



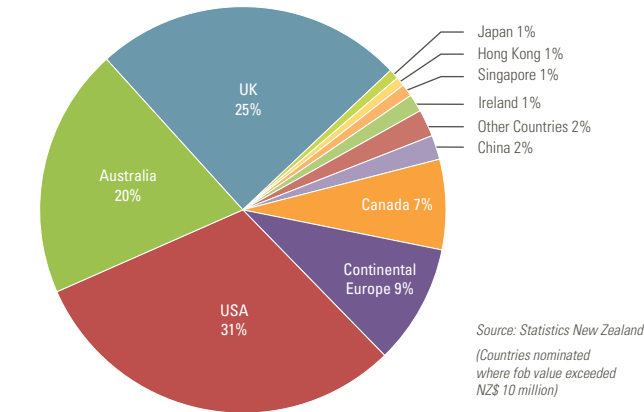
Grape and wine production 2014 & 2019

Variety	Production area (ha)		Production (tonnes)	
	2014	2019	2014	2019
Sauvignon blanc	20,029	24,037	310,240	302,157
Pinot noir	5,509	5,625	36,499	26,944
Chardonnay	3,346	3,167	28,985	25,729
Pinot gris	2,451	2,488	23,880	20,953
Merlot	1,290	1,133	10,756	9,240
Reisling	784	590	6,013	4,776
Syrah	433	441	2,178	2,230
Gewurtztraminer	376	217	2,264	834
Cabernet Sauvignon	289	221	1,742	1,076
Malbec	127	115	1,135	741
Other white <i>Vitis vinifera</i>		199	4,432	2,763
Other red <i>V. vinifera</i>	113	98	1,544	1,121
Other and unknown	764	349	15,332	14,436
Total	35,511	38,680	445,000	413,000

Region				
Auckland/Northland	392	392	1,602	1,904
Waikato/Bay of Plenty	25	15	63	ND
Gisborne	1,915	1,190	16,192	16,238
Hawke's Bay	4,774	4,771	44,502	37,173
Wairarapa	995	983	5,743	4,390
Marlborough	22,907	26,850	329,571	305,467
Nelson	1,123	1,154	10,494	12,370
Canterbury/Waipara	1,488	1,383	10,962	8,534
Otago	1,932	1,884	10,540	11,868
Other and unknown		58	15,331	15,056
Total	35,551	38,680	445,000	413,000

Source: New Zealand Winegrowers Annual Report 2019.  
Varieties aggregated as 'other red' or 'other white' all had production < 500 tonnes in 2019

Wine exports by country 2019 [% by value]



→ All aspects of sustainability are important to New Zealand wine being able to maintain its social licence to operate domestically and in export markets. Over 98% of New Zealand's vineyard area is 'Sustainable Winegrowing NZ' certified.

Spotlight on New Zealand's lighter wines

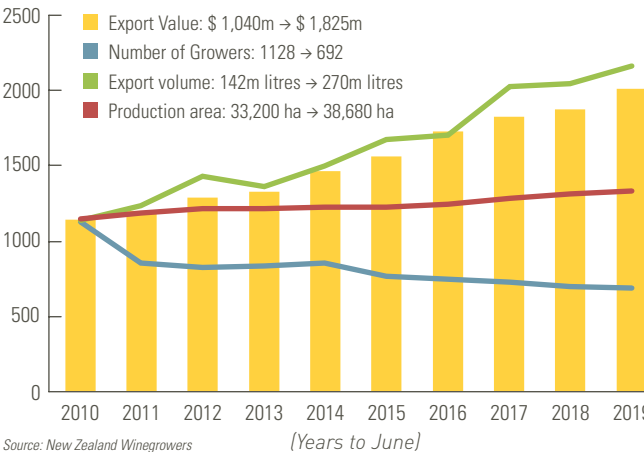
Producing premium wines naturally lower in alcohol is the goal of a wide-ranging research programme initiated in 2014 by NZ Winegrowers and jointly funded with Ministry for Primary Industries. Today, New Zealand leads this new wine category – one that's tailored for consumers seeking to moderate their alcohol consumption.

NZ Lighter Wines are up to 30% lower in alcohol, achieved through extensive research on how to slow sugar accumulation but still retain ripe fruit flavours. These approaches, combined with specific winemaking techniques, result in varietally expressive wines with less alcohol that still offer the full flavour and quality sought by consumers.



- In 2019, New Zealand wine was exported to over 100 countries, earning more than \$1.8b fob. Over 80% was exported to four countries: the USA \$550m, the UK \$441m, Australia \$368m and Canada \$129m. In the same year New Zealand imported wine to the value of \$225m cif from 40 countries, with two accounting for 76% by value: Australia \$115m and France \$66m. *Source: Statistics NZ*
- In 2019, 23 separate research projects were conducted by New Zealand Winegrowers' wholly owned national grape and wine research centre, the Bragato Research Institute (BRI), including successfully completing a first vintage using newly designed research fermenters that allow wine research of a kind and scale never before possible in New Zealand. BRI also modelled climate scenarios for nine winegrowing regions.
- Important to New Zealand winegrowers are the over 776,000 international wine tourists who in 2018/19 spent more (total \$3.26b), stayed 3.5 days longer and visited more regions (4.2 versus 3.5 regions) than the average international visitor to New Zealand. *(Source: International Visitor Survey (IVS) y/e March 2019)*

Growth in wine exports (volume [litres] and value millions of NZ\$ fob) 2010 to 2019 compared with relative change in production area and number of growers (relative change scaled to 2010 datum point)

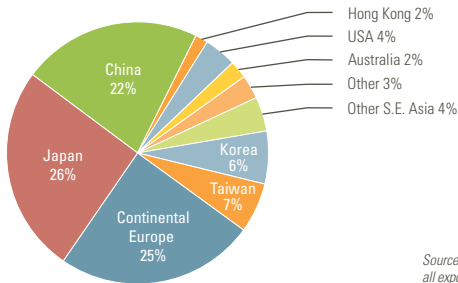


Kiwifruit industry: Zespri Group Ltd  
New Zealand grower and chain statistics to 2019

Season (ends 31 March)	2004/05	2009/10	2014/15	2017/18	2018/19
Crop volumes (million)					
Trays submitted*	85.8	107.0	97.3	125.8	157.7
Trays sold	79.7	98.5	95.2	123.2	148.8
General Statistics					
Yield (trays/ha)	7,847	8,546	8,662	9,913	12,373
Area planted <sup>d</sup> (ha)	10,934	12,525	11,233	12,692	12,747
Growers/suppliers <sup>2</sup> (no.)	2,760	2,711	2,540	2,405	2,756
Packhouses (no.)	88	71	50	47	44
Coolstores (no.)	89	77	62	67	64
Orchard Gate Return (\$/ha)	34,738	39,142	57,369	79,361	96,033

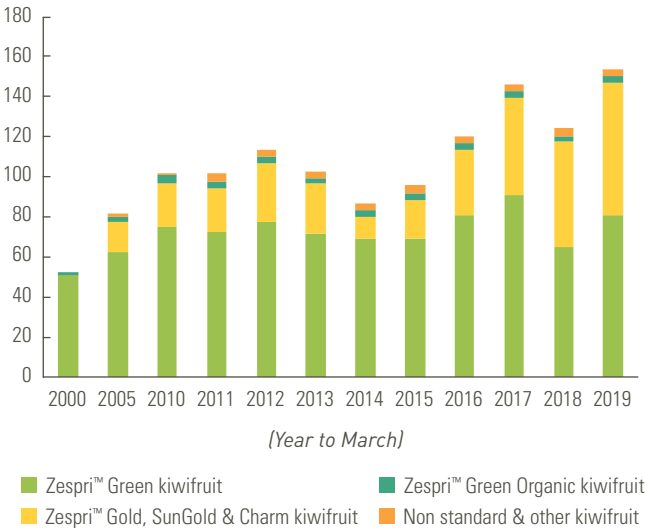
\* A tray weighs 3.6 kg. <sup>a</sup> Producing hectares <sup>2</sup> Refers to number of submitters  
Source : Zespri International Ltd Annual Review to 2018/19.

New Zealand kiwifruit export markets (year to 30 June 2019)



Source: Stats NZ exports, all exporters y/e June

Zespri Group Ltd production profile (TEs) 2000 - 2019  
(tray equivalents, millions)



Sources: Zespri International Annual Reviews, years to 31 March

New red kiwifruit to hit stores

There will be a new red-fleshed contender on the market this season. At least 150 hectares of Zespri™ Red kiwifruit will be released to growers this year as a result of a breeding programme between Plant & Food Research and Zespri. Zespri™ Red is rich in anthocyanins, which gives the fruit its distinctive red flesh along with cardiovascular and cognitive health benefits. Other successful cultivars from the breeding programme include 'Hort16A', the first yellow-fleshed kiwifruit cultivar, marketed as Zespri™ Gold Kiwifruit, and 'Zesy002', known as Gold3 and marketed as Zespri™ SunGold Kiwifruit.



- In 2019 New Zealand exported 545,800 tonnes of kiwifruit valued at \$2.30b fob (2018: 485,100t/\$1.86b). The average for the previous five years, 2013 to 2017, was 442,000t/\$1.28b fob.
- New Zealand-produced kiwifruit were exported to over 50 countries in 2019, with \$1.53b (2018: \$1.19b) to Asian countries, two importing more than \$300m: Japan \$590m (2018: \$397m) and China \$510m (\$458m). In 2019, 66% by value of New Zealand kiwifruit exports were to Asian countries (2018: 64%). Kiwifruit to the value of \$566m (\$512m) went to countries in Continental Europe.\*
- Zespri kiwifruit cultivars were produced on 12,747 ha across six main regions: Northland, Auckland, Bay of Plenty, Waikato, Poverty Bay and Nelson. 80% of the planted hectares are across six sub-regions of the Bay of Plenty.
- The 'Zespri Global Supply' initiative aims to fill the gaps in New Zealand supply to international markets. To meet this requirement, Zespri draws licensed product from France, Greece, Italy and South Korea with a total volume in 2019 of 66,700 tonnes, being 12% of Zespri's New Zealand production.
- Zespri reported: "Growers have ... seen an increase in 2018/19 average Orchard Gate Returns (OGR) ... (of) 6% ... per hectare for Green to \$63,622, and a 28% increase ... for SunGold to \$145,991 ... Green returns per tray were down owing to higher-than-expected volumes and the associated extended sales window and greater fruit loss."

Sources: Zespri International Annual Reviews, y/e March; \* data Stats NZ exports, all exporters y/e June

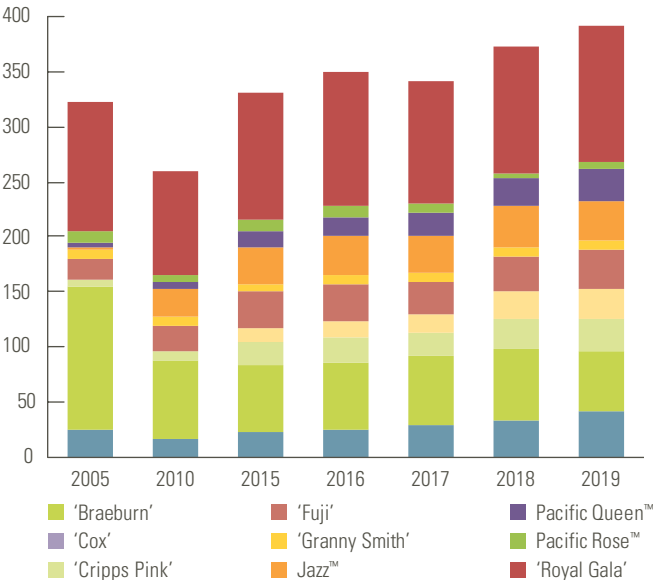
Apple statistics

Year ending 31 Dec.	2005	2010	2015	2018	2019
National export production ('000 tonnes)	315	260	331	377	395
Growing method: IFP	95%	94%	94%	94%	94%
Certified organic	5%	6%	6%	6%	6%
General statistics					
Export FOB \$/TCE (*)	\$12.88	\$22.93	\$32.83	\$36.39	\$39.58
Area planted (ha)	10,764	8,630	8,566	9,448	10,179
Export orchards (no.)	920	985	919	944	996
Export packhouses (no.)	85	62	56	57	52
No. of exporters		90	79	80	73

IFP: Integrated Fruit Production sustainability; TCE: tray equivalents 18 kg sale weight.  
Source: New Zealand Apples & Pears Inc.

- In 2019 New Zealand exported 383,400 t\* of apples to 75 countries with a record fob value of \$829 million fob (2018: 362,500 t/\$733m fob). \*Source: StatsNZ
- In 2018 global production of apples was calculated to be 86.1 million tonnes (2008: 69.0 mt) of which mainland China produced 39.2 mt/46% (2008: 29.8 mt/43%) and Europe 17.4 mt/20%, with 8 countries producing more than 1 mt each. Source: FAOSTAT
- Global export trade in apples is also large: 2017 total 9.6 mt from 96 exporting countries, of which 1.3 mt was exported from China (Source: FAOSTAT). New Zealand exported 17,550 tonnes to China in 2017 (42,670 t in 2019).
- The World Apple Review ranked New Zealand #1 in International Competitiveness in 2017 and 2018 among 33 apple-exporting countries, scoring across 23 criteria. In 2018, the Review said: "New Zealand the Innovator: Because of its relatively small size, heavy export orientation and distance from major markets, the New Zealand apple industry has long relied heavily on innovation to provide it with an edge over major competitors."

Apple export production by variety: 2005 – 2019 (tonnes x 000)



Source: New Zealand Apples & Pears Inc. Year ending 31 Dec. 2019

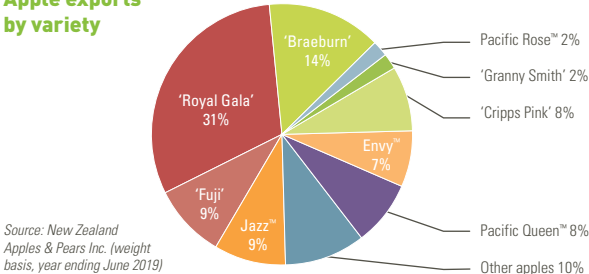
Apples that stand up to climate change

Climate change will bring many challenges to growers worldwide including sunburn, colour development issues and increased pests and diseases. Plant & Food Research, Italian IRTA research institute, Fruit Futur and T&G Global are working together to ensure there are several new apple varieties to market and grow fruit in previously unsuitable regions. The Hot Climate Programme (HCP) was initiated in 2002 to address challenges that were being experienced by Spanish growers with traditional apple and pear varieties. In 2019, T&G Global joined as the exclusive commercialisation partner.



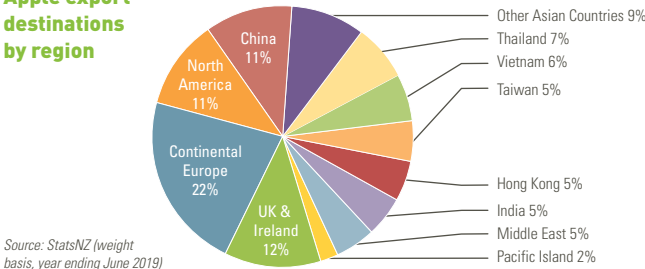
- In 2019, New Zealand's Hawke's Bay was the location for the world's first commercial robotic apple picker, harvesting New Zealand-developed Jazz™ and Envy™ Apple cultivars. The technology was developed in a partnership between T&G Global and US-based technology partner Abundant Robotics following a proof-of-concept prototype in 2015. Canopy innovation and trialling of different ways of achieving automation compatibility have progressed in orchard expansion initiatives since 2017. In preparation for robot harvesting, the apple orchard trees were developed to a high density 2-dimensional growth structure. (Sources: www.tandg.global and independent)

Apple exports by variety



Source: New Zealand Apples & Pears Inc. (weight basis, year ending June 2019)

Apple export destinations by region



Source: StatsNZ (weight basis, year ending June 2019)



### Other fresh fruits

Sales value (\$m)

	Growers <sup>a</sup> (no.)	Planted area <sup>a</sup> (ha)	Crop volume <sup>a</sup> (tonnes)	Domestic <sup>a</sup> 2018/19	Export <sup>b</sup> (fob) 2019
Avocados <i>(year to 30 April)</i>	989	3,795	31,424	56.5	104.3
Berryfruits	240	2,972	22,600	47.2	47.7
- Blackcurrants	32	1636	8,915	1.0	
- Boysenberries	19	206	2,700	5.0 <sup>c</sup>	
- Raspberries	50	150	945	3.0	
- Blueberries	60	640	3,040	23.0	38.9
- Strawberries	110	220	6,500	19.6	8.7
- Other berryfruits		120	500	0.6	0.1
Citrus	316	1,660	34,096	58.5	12.0
- Grapefruit	18	15	302	0.3	
- Lemons	75	257	7,600	12.0	9.8
- Limes	47	27	410	2.0	
- Mandarins	194	556	11,540	25.2	0.4
- Oranges	183	783	13,342	18.0	1.7
- Tangelos	28	22	902	1.0	0.1
Feijoas	225	175	1,200	4.0	0.2
Grapes - table		43			0.4
Hops	28	585	1,175		
Kiwiberries	28	35	200	0.3	3.5
Nashi	18	25	650	1.3	0.1
Nuts		1,344			1.4
- Cashews					
- Chestnuts	100	142	350		
- Macadamias		195			
- Pistachios					
- Hazelnuts		433			
- Walnuts		574			
- Other nuts					1.4
Olives	300	2,130	2,000	2.1	
Passionfruit	60	17	140	0.7	0.4
Pears	76	397	4,822		10.6
Persimmons	50	136	2,000	1.5	10.0
Summerfruit	240	2,290	14,880	47.3	71.5
- Apricots	52	445	1,909	5.9	2.0
- Cherries	88	876	3,959	11.2	68.8
- Nectarines	56	305	3,968	13.7	0.1
- Peaches	73	374	2,356	9.0	0.4
- Plums	78	290	2,688	7.5	0.2
Tamarillos	40	100	622	2.9	0.1
Other fruit		250			0.2
<b>Total fresh fruit (excl. Kiwifruit, Grape Wine, Apples)</b>				<b>262.4</b>	

Sources: <sup>a</sup>Sector estimates, <sup>b</sup>Sector estimates of first point of sale values, <sup>c</sup>Statistics New Zealand Overseas Trade Statistics. Blank entries indicate either that the information is not available or items are valued at less than \$100,000.

- New Zealand fresh fruit exports in 2019 were 962,500 tonnes and worth \$3.4 billion fob. (2018: 877,700 t/\$2.86b). The average value for fresh fruit exports for the previous five years, 2013 to 2017, was 775,200 tonnes, earning on average \$2.1b fob.
- Fresh and processed fruit exports totalling \$5.3 billion (2018:\$4.4b) were over \$1.3b/32% above the previous five-year average of \$4.0b (2014 to 2018). The dominant fruit export products were kiwifruit, grape wine, apples and avocados.

### New apricots for Asian markets

Asian consumers love apricots with increased sweetness, low acidity and bright colour. A breeding programme funded through the Ministry of Business, Innovation & Employment, Summerfruit NZ and Plant & Food Research has released three new apricot cultivars ('Nzsummer2', 'Nzsummer3' and 'Nzsummer4') which have all that, and more! They can also be harvested earlier, mature later and stay firmer during storage, facilitating transport of high quality fruit overseas for a longer time. This will aid the New Zealand summerfruit industry in reaching their target of increasing apricot production to a value of \$69 million by 2035.



### Processed fruits

Sales value (\$m)

	Domestic <sup>a</sup> 2018/19	Export <sup>b</sup> (fob) 2019
Apple juice	80.0 <sup>c</sup>	18.2
Avocado oil	4.1	5.9
Blackcurrant concentrate		7.1
Other fruit juices	92.1	18.1
Other fermented beverages		8.6
Dried fruits		5.0
Frozen fruits		11.2
- Blackcurrants		1.6
- Blueberries	2.8	0.4
- Boysenberries	2.7	3.2
- Kiwifruit		4.6
- Raspberries		0.2
- Other		1.2
Fruit preparations		25.6
- Apples		6.4
- Blackcurrants		0.1
- Kiwifruit		0.2
- Fruit mixture preps		14.3
- Pears		0.1
- Other		4.5
Hops	9.9	21.0 <sup>a</sup>
Jams, jellies and purees		5.8
Nuts		9.4
Olive oil	12.0	0.4
<b>Total processed fruit</b>		<b>136.3</b>

Fruits used for processing is produced on the orchard areas described in the fresh fruit table. Sources: <sup>a</sup>Sector estimates of first point of sale values, <sup>b</sup>Statistics New Zealand, <sup>c</sup>Authors' estimate. Blank entries indicate either that the information is not available or items are valued at less than \$100,000.

- 2019 kiwifruit exports \$2.30b (2018: \$1.86b) were 65% of the total fresh fruits export value; apple exports \$829m (\$733m) were a further 26%. Other fresh fruit exports were avocados \$104m (\$98m), cherries \$69m (\$84m), blueberries \$39m (\$35m), and 28 other fresh fruit crops with a combined value of \$51m (\$43m).
- Exports of fruit preparations, typically used as ingredients for baking and as toppings for yoghurt and ice-creams, were \$25.6m fob in 2019 (average previous 5 years \$30.2m), exported to over 30 countries.

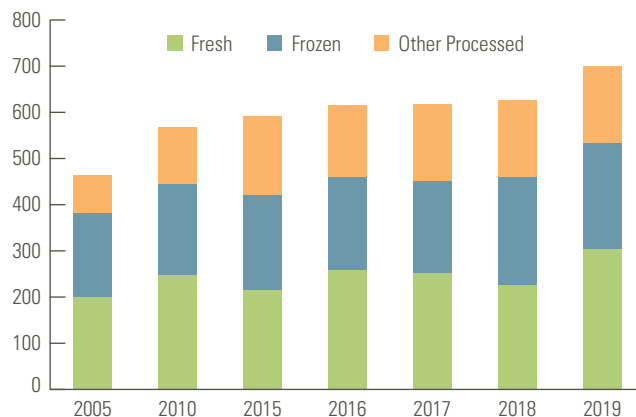
### Fresh and processed vegetables

### Sales value (\$ million, fob)

	Growers <sup>c</sup> (no.)	Planted area (ha)	Crop volume <sup>c</sup> (tonnes)	Domestic <sup>c</sup> 2018	Exports 2019 <sup>a</sup> Fresh Processed <sup>b</sup>
Asparagus	40	560 <sup>e</sup>	1,900	8.6	0.5
Beans	30	800 <sup>e</sup>	14,300	10.3	41.1
- fresh	5	300 <sup>f</sup>	3,000	6.0	
- processed	25	500 <sup>f</sup>	11,300	4.3	
Beetroot	28	365 <sup>e</sup>	28,400	8.0	
- fresh	20	105 <sup>c</sup>	6,000	4.0	
- processed	8	260 <sup>c</sup>	22,400	10.8	24.8
Brassicas	125	3,432 <sup>e</sup>	115,700	80.3	2.0
- Broccoli	75	2,082 <sup>c</sup>	24,700	35.0	
- Cabbage	75	804 <sup>c</sup>	58,000	25.3	
- Cauliflower	20	546 <sup>c</sup>	33,000	20.0	
Capsicums <sup>h</sup>	22	95 <sup>c</sup>	25,000	25.0	20.6
Carrots	54	1,900 <sup>e</sup>	163,900	56.0	
- fresh	20	1,100 <sup>f</sup>	88,000	40.0	8.3
- processed	34	800 <sup>f</sup>	75,900	16.0	1.4
Cucumbers <sup>h</sup>	51	71 <sup>c</sup>	2,000	20.0	
Eggplant/Aubergines	20		1,000	8.5	
Garlic	10	210 <sup>c</sup>	1,200	7.0	0.5
Kumara <sup>h</sup>	48	2,541 <sup>e</sup>	24,000	55.0	
Lettuces	162	1,582		42.0	0.8
- outdoor	140	1,532 <sup>c</sup>		17.0	
- greenhouse	22	50 <sup>c</sup>		25.0	
Melons	20	211 <sup>c</sup>	4,800	28.0	2.2
Mushrooms <sup>h</sup>	7	25 <sup>c</sup>	8,500	42.0	1.3
Onions	92	5,271 <sup>e</sup>	212,670	30.0	170.3
Peas	140				
- fresh	20				
- processed	120	4,075 <sup>c</sup>	70,400	25.0	96.5
Potatoes	173	10,364 <sup>e</sup>	527,200	139.0	22.6
- fresh/table			150,800	56.0	106.8
- processed			376,400	83.0	
Pumpkins	30	1,158 <sup>e</sup>	38,000	13.0	
Shallots	4	30 <sup>c</sup>	1,200	3.0	0.1
Silverbeet/Spinach	10	2,028 <sup>f</sup>	3,500	12.0	
Squash	24	6,642 <sup>e</sup>	88,179	3.0	59.7
Sweetcorn	179	3,871 <sup>f</sup>	110,000	27.5	0.1
- fresh			22,000	11.0	
- processed			88,000	16.5	
Tomatoes	131	528			
- outdoor, processed	6	408 <sup>c</sup>	53,000	8.5	3.3
- greenhouse	125	120 <sup>c</sup>		176	11.2
Truffles <sup>d</sup>	75	70	0.2	0.5	
Mixed vegetables	(Made from combinations of the above crops)				22.0
Dried vegetables	(Excluding peas, beans, corn)				9.3
Vegetable preps					3.0
Vegetable juices					31.9
- carrot juice <sup>d</sup>					27.9
- other veg. juices					4.0
Other vegetables <sup>a</sup>					3.9
<b>Total</b>	<b>800<sup>e</sup></b>	<b>45,466<sup>f</sup></b>		<b>304.1</b>	<b>395.8</b>

<sup>a</sup>Includes taro, celery, parsnips, spring onions, Asian vegetables (excl. Chinese cabbage), yams, witloof, leeks, vegetable shoots, shallots, swedes and some others. <sup>b</sup>Processing includes freezing, canning, juicing and artificial drying. <sup>c</sup>Sector estimates. Blank entries indicate that the information is not available. <sup>d</sup>Authors' estimates. <sup>e</sup>Growers produce multiple crops. <sup>f</sup>Statistics New Zealand Production Census crop areas as at 30 June 2017. <sup>g</sup>Statistics New Zealand from export entries. <sup>h</sup>Crop grown both outdoor and indoor/protected.

### Vegetable exports 2005 – 2019 (\$ million, fob)



Source: Statistics New Zealand. Years ending 30 June.

- In 2019 New Zealand exported \$699.0m (2018: \$625.0m) fob value of vegetables across more than 20 significant types. The average export value for the five years prior to 2018 was \$607.4m fob. Net weight of vegetable exports in 2019 was 518,650t (2018: 486,300t).
- Primary export destinations for vegetables worth more than \$50m fob were:
  - Onions: \$170.3m, with 75%/\$128m exported to three markets: Continental Europe \$82.6m, Indonesia \$27.8m and the UK 17.6m.
  - Peas: \$96.5m; frozen peas: \$65.7m (Australia \$24.7m, China \$22.3m); dried peas: \$30.8m (the USA \$6.2m, Australia \$4.1m, Algeria \$3.2m). Dried peas were also exported to 47 other countries.
  - Squash: \$59.7m, with 97%/\$57.8m exported to three markets: Japan \$34.9m; Korea \$15.3m and China \$7.6m.

The above four products were 64% by value of all New Zealand vegetable exports in 2019.
- Other significant value export vegetables were:
  - Sweetcorn: \$41.4m; frozen sweetcorn: \$19.8m (Australia \$7.3m, Japan \$6.2m, Kuwait \$2.9m); dried sweetcorn: \$15.9m (Japan \$7.7m); and sweetcorn preparations e.g. canned \$5.7m (Australia \$4.4m).
  - Beans: \$41.1m: preparations \$33.3m: (Australia \$32.3m); frozen \$7m: (Australia \$4.9m).
  - Single-vegetable juice (primarily of carrot): \$31.9m (Japan \$28.7m).
  - Beetroot, processed: \$24.8m: (Australia \$24.1m).
- New Zealand imported 121,900 tonnes of vegetables in 2019 with a cif value of \$274m (2018: 118,200t/\$264m); preserved tomatoes \$35.4m cif (from Italy \$17.6m, the USA \$9.1m); and frozen potatoes \$34.2m (from Australia \$12.9m, Continental Europe \$8.8m, the USA \$7.8m).



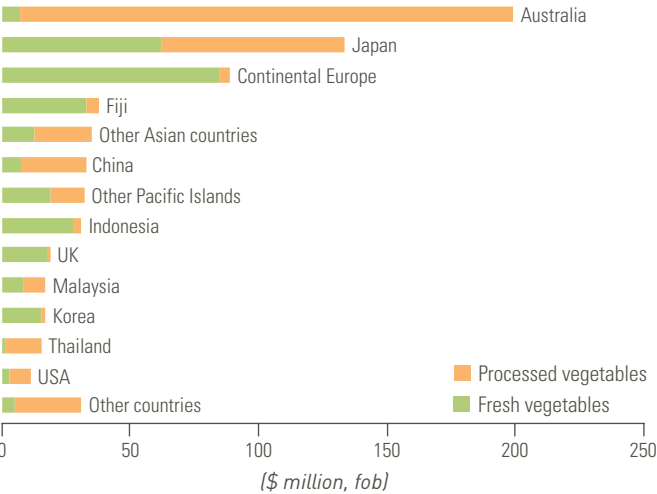
### Preserving germplasm collections for the future

Maintaining diverse collections of plant species is critical for introducing new traits into breeding programmes for plant crops. As new environmental, pest or disease pressures arise in New Zealand or consumer trends in export markets change, plant breeders require access to wide genetic diversity to breed new varieties of crops with the combinations of characteristics required by growers, marketers or consumers.

Cryopreservation is a sustainable way for long-term storage of plant material at ultra-low temperatures using liquid nitrogen. Plant & Food Research has begun transferring its germplasm collections, with around a third of its 800 varieties of potato now in cryo-storage. Varieties of the endangered Māori potato tāewa have been given priority to ensure long-term conservation.

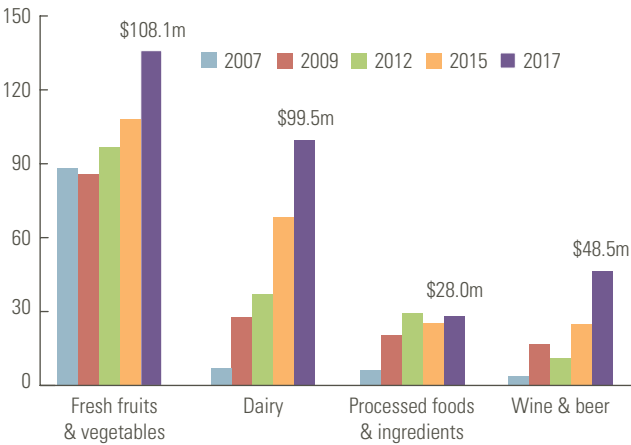


### Destinations of New Zealand vegetable exports 2019



Source: Statistics New Zealand

### New Zealand exports of organically certified produce (\$ millions)

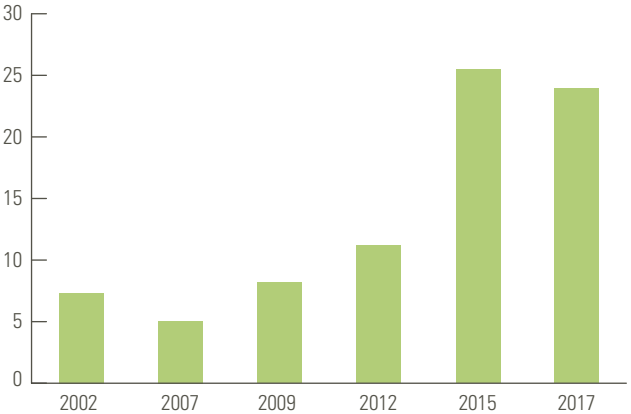


Source above and below: New Zealand Organic Market Report 2018. Years ending March.

### Organic production

- The number of organic certified operations in New Zealand horticulture reduced from 720 in 2012 to 630 in 2017, of which 150 were in viticulture. In the same time period, horticultural land under organic certification increased from 11,188 ha in 2012 to 23,943 ha in 2017, of which 1,720 ha was in viticulture.
- Export values of organically certified fresh fruits and vegetables in 2017 were calculated to be \$135.9m and 4.7% of New Zealand's total fresh fruits and vegetables in that year.
- In New Zealand, the Ministry for Primary Industries manages the Official Organic Assurance Programme (OOAP) that qualifies New Zealand organic exports for market access to the USA, the European Union and some other markets, and tracks the value of those exports.

### New Zealand land area under organic certification, horticulture and viticulture (hectares 000s)





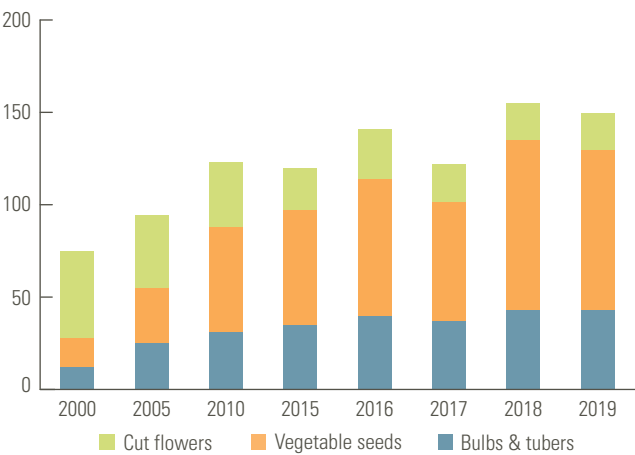
Exports of flowers, plants, seeds and other products (\$ million, fob)

	2000	2010	2015	2018	2019
Cut flowers					
- Chrysanthemums		0.2	0.1	0.1	0.1
- Hydrangeas		2.7	2.8	1.6	1.3
- Liliiums	1.9	0.2	0.1	0.1	0.1
- Nerines	0.6	0.2	0.1	0.1	0.1
- Orchids	22.4	20.8	12.9	11.6	10.9
- Paeonies	0.5	1.7	2.0	3.3	3.1
- Pittosporums		1.2	0.5	0.5	0.4
- Proteaceae	1.4	0.9	0.3	0.3	0.4
- Sandersonias	3.1	0.2	0.1	0.1	0.1
- Zantedeschias (Calla lily)	7.7	3.7	0.9	0.3	0.3
- Other foliage	0.6	0.6	0.3	0.2	
- Other cut flowers	8.5	2.7	2.8	2.0	3.2
Plants					
- Other live plants	5.6	6.6	4.8	4.8	4.1
- Edible plant parts				2.1	2.2
Seeds					
- Flower seeds	2.1	0.3	0.4	0.0	0.1
- Fruit seeds		1.9	2.4	1.9	1.0
- Cabbage seeds		5.0	4.7	4.3	4.0
- Carrot seeds		7.6	12.2	30.3	21.8
- Onion seeds				4.8	2.6
- Radish seeds		21.4	23.9	25.1	25.0
- Silverbeet seeds			4.0	3.4	3.2
- Other veg. seeds	15.9	23.4	17.7	24.5	30.5
- Tree seeds	1.6	1.5	1.0	0.9	2.0
Bulbs, tubers, corms					
- Liliiums		16.8	24.2	26.0	24.4
- Sandersonias		0.7	0.2	0.3	0.3
- Tulips		9.6	9.7	15.8	17.4
- Zantedeschias (Calla lily)	1.5	3.5	0.1	0.1	
- Others	10.1	0.4	0.6	0.2	0.8
Sphagnum moss	15.3	6.1	5.2	4.7	4.6*
Total	98.8	139.9	134.0	169.4	164.0

The term "bulbs" is used to include bulbs, corms, tubers, tuberous roots, crowns & rhizomes. \*Authors' estimate.  
Source: Statistics New Zealand.

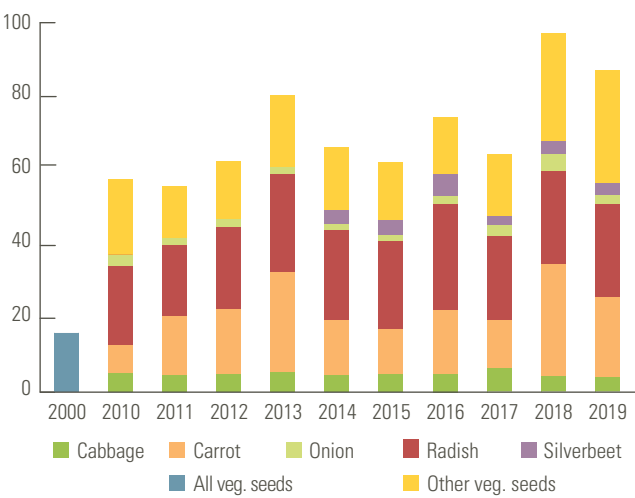
- In 2019 New Zealand exported cut flowers and foliage, seeds, bulbs and live plants worth \$164.0m fob (2009: \$143.4m).
- Cut flowers exports of \$20.0m were close to half the 2009 export value of \$38.6m. 2019 exports were dominated by orchids \$10.9m (2009: \$22.2m) to Japan \$4.4m, the USA \$2.9m, and peonies \$3.1m (2009: \$1.5m) to the USA \$1.3m.

Exports of flowers, seeds and bulbs (\$ million, fob)



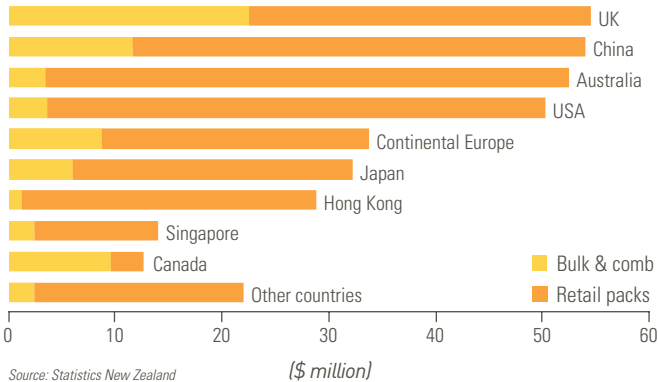
- Exports of seeds were \$90.2m in 2019 (2009: \$60.0m), of which \$87.1m were vegetable seeds exported to 50 countries (2009: \$55.6m), an increase of 57% over the decade. Major destinations were Continental Europe \$47.3m (The Netherlands \$40.0m), Asia \$23.1m (Korea \$7.5m, Japan \$5.2m), and the USA \$10.4m. Dominant varieties were radish seed \$25.0m (2009: \$20.9m) to The Netherlands \$9.2m, Korea \$5.7m, Germany \$2.5m, and carrot seed \$21.8m (2009: \$15.3m) to The Netherlands \$20.6m.
- Exports of bulbs and live plants were \$42.8m (2009: \$30.2m), an increase of 42% over past decade. Dominant varieties were liliium bulbs \$24.4m (2009: \$14.3m) exported to 15 countries (Japan \$6.5m, China \$6.4m, The Netherlands \$3.9m, Viet Nam \$1.8m), and tulip bulbs \$17.4m (2009: \$9.9m) exported to 11 countries (the USA \$7.5m, The Netherlands \$6.5m, Canada \$1.6m).

Vegetable seed exports (\$ million)



Source for above graphs: Statistics New Zealand.

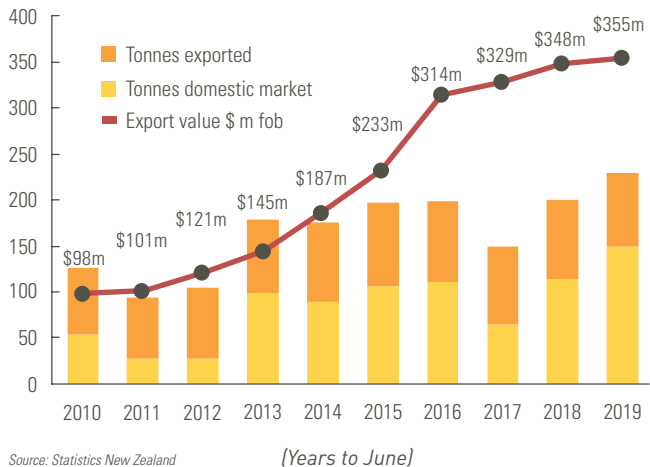
Export destinations for natural New Zealand honey 2019 (\$355m fob)



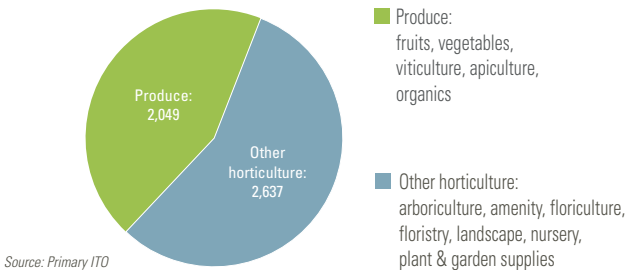
A vital contributor to horticulture

- Bees are crucial to New Zealand's primary sector, pollinating approximately one-third of our food sources.
- Honey production in 2019, at 23,000 tonnes, was up by 3,000 t compared with 2018. The previous five-year average was 18,410 t. Average yield per hive was 21.8 kg and whilst down on the 2018 average yield of 22.3 kg, it was 3.1 kg/hive above the 2017 average yield.
- In 2019 New Zealand's honey exports went to 59 countries, with a total value of \$355m fob (2018: \$329m), 76% by weight in retail packs (2018: 85%).
- As at June 2019 New Zealand's 9,282 registered beekeepers (2018: 9,173) had 918,026 hives (2018: 895,860 hives), an increase of 22,186 on 2018 and a 253% increase on the number of hives in 2009 (362,540).

New Zealand natural honey exports 2010 - 2019 (\$ m fob/ x 00 tonnes)

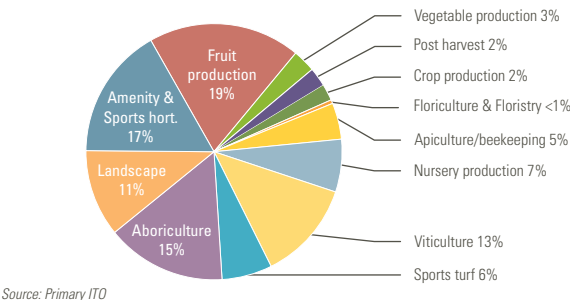


Persons in horticultural training 2019 (year to December 2019)



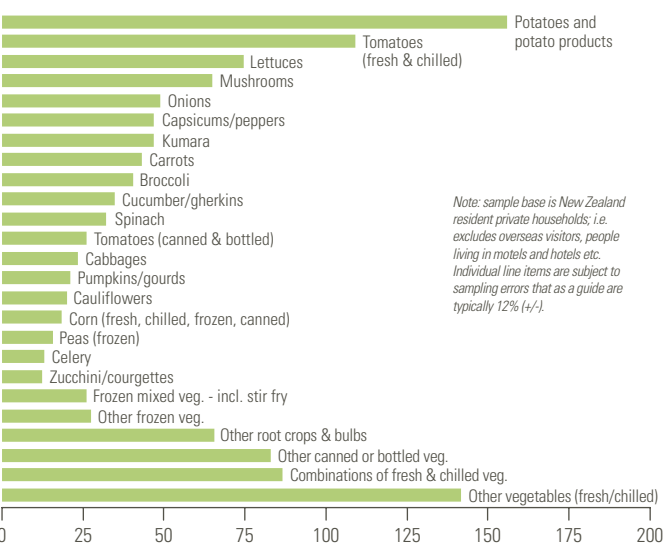
- In 2019 trainees in the different fields of horticulture totalled 4,686 (2018: 4,801).
- Of the 2,049 in food/produce production (2018: 2,061), 901 were in fruit production and 588 were in viticulture (wine grape) production.
- In the non-food production sectors of horticulture, 1,078 trainees were in amenity and sports turf horticulture, 710 in arboriculture, 515 in landscape and 312 in nursery production training.

Trainees by category (4,686 trainees; year to December 2019)



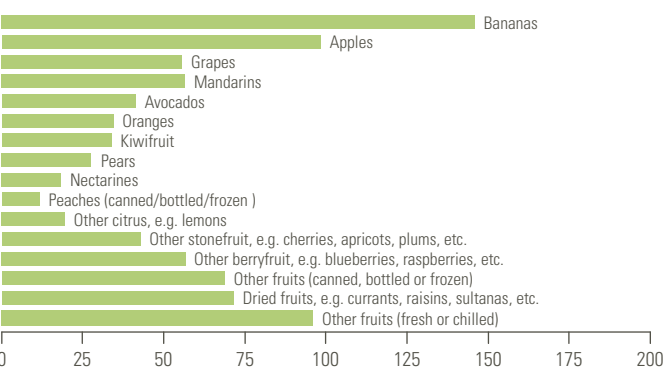


New Zealand consumer spending on vegetables (2019, \$ million)



Note: sample base is New Zealand resident private households; i.e. excludes overseas visitors, people living in motels and hotels etc. Individual line items are subject to sampling errors that as a guide are typically 12% (+/-).

New Zealand consumer spending on fruit (2019, \$ million)



Calculated aggregate annual expenditure by all private New Zealand households (local & imported produce, fresh / chilled / dried / canned / bottled / frozen)

In 2019, New Zealand households spent an estimated \$2.9 billion on fruits, vegetables and wine:

- \$ 730m on fresh and chilled fruits
- \$ 150m on processed fruits
- \$ 890m on fresh and chilled vegetables
- \$ 390m on processed vegetables
- \$ 720m on wine

Source: Statistics New Zealand: triennial Household Economic Survey (HES), year ending June 2019. N.B. survey is of households only and excludes overseas visitors, people living in hotels and motels, etc., and excludes restaurants and takeout meals.

Investment in the horticultural industries (2019, \$ million)

	Crop area (ha)	On-farm (\$ million)	Off-farm (\$ million)	Total (\$ million)
Apples, pears & nashi	10,588	2,010		
Wine grapes	38,680	7,620		
Kiwifruit	12,747	9,500		
Summerfruit	2,290	305		
Avocados	3,795	795		
Citrus	1,660	185		
Berryfruit	3,072	270		
Nuts	1,344	85		
Olives	2,174	190		
Hops	585	100		
Other fruits	600	55		
Total fruits	77,535	\$21,115	\$28,500	\$49,615
Potatoes	10,344	880		
Peas & Beans	4,705	330		
Onions	5,271	450		
Squash	6,642	665		
Sweetcorn	3,871	250		
Broccoli, cabbages & cauliflowers	3,432	225		
Carrots	1,900	125		
Asparagus	560	35		
Lettuces	1,582	105		
Other vegetables	6,895	450		
Veg. seed growing	11,063	720		
Total vegetables (outdoor)	56,265	\$4,235	\$1,900	\$6,135
Floriculture - outdoor	1,760	195		
Protected - greenhouse tomatoes	85	380		
- indoor vegetable crops	180	405		
- floriculture (undercover)	105	240		
Total floriculture & protected crops	2,130	\$1,220	\$300	\$1,520
Total horticultural	135,930	\$26,570	\$30,700	\$57,270

The above table is an estimate of the investment that has been made in the productive area of New Zealand horticulture and related postharvest facilities.

Crop area figures are predominantly industry estimates of planted areas per crop for the year to June 2019 (pgs 8 to 16 incl.) with author adjustments for informal production. The numbers differ from Statistics New Zealand Agricultural Production Census hectares as at June 2017 (pgs 26 & 27). No adjustment has been made for non-productive farm/orchard/vineyard areas, which are typically 15% of total area and up to 80% for crops such as floriculture under cover. Land values are based on independent land valuation advice and industry and authors' estimates across crop types that collectively account for more than 75% of fruit production and more than 50% of vegetable production. Off-farm investment amounts have been estimated from industry advice and guidance, including from integrated producers whose supply chains include both production and post-production.

Trends:

- Kiwifruit orchards in Northland experienced Green cultivar orchard investments ranging from \$385,000 to \$465,000 per ha and for Gold cultivars up to \$865,000.
- In apple orchards, development occurred in the Hawke's Bay and Gisborne regions, especially for new and specialty varieties of Envoy™ and Rockit™, with orchard values of \$155,000 to \$200,000 per ha, but some up to \$320,000 per ha. Total New Zealand apple orchard area increased by 631 ha (6.3%).
- Wine grape vineyards increased by 610 ha (1.6%). In the dominant Marlborough region, vineyard values typically ranged from \$175,000 to \$250,000 per ha.
- Cherry orchards increased in area from 725 ha to 875 ha (20%), with Central Otago cherry orchard investments in value from \$195,000 to \$300,000 per ha.

Distribution of fruit by Regional Councils (area planted, ha)

As at 30 June 2017

Regional Council	Apples	Wine grapes	Kiwifruit	Summerfruit	Avocados	Citrus	Berryfruit	Nuts	Olives	Other subtropical	Other fruits	Total fruits
Year ended 30 June 2017												
Northland	20	C	551	8	1,647	313	35	45	118	129	155	3,021+
Auckland	84	836	494	31	281	121	164	86	128	65	13	2,303
Waikato	144	15	412	50	101	13	350	26	34	71	8	1,224
Bay of Plenty	67	75	9,227	7	1,834	62	42	28	26	62	17	11,447
Gisborne	186	1,245	282	12	48	1,136	1	15	C	137	12	3,074+
Hawke's Bay	4,746	3,616	121	633	20	41	116	8	120	142	9	9,572
Taranaki	3	C	C	6	23	2	3	11	C	14	2	63
Manawatu-Wanganui	C	88	116	13	3	1	20	25	34	28	2	330
Wellington	102	832	10	15	8	1	12	42	181	15	43	1,261
Tasman-Nelson	2,400	1,004	440	34	8	7	323	28	72	178	34	4,529
Marlborough	21	23,051	0	45	0	0	6	5	50	8	688	23,874
West Coast	0	C	0	11	0	0	6	1	0	8	0	26+
Canterbury	312	1,769	C	81	C	0	1,103	478	133	17	67	3,960+
Otago	427	1,173	C	1,144	C	0	36	144	19	21	36	3,001+
Southland	C	C	C	31	C	2	66	15	0	0	C	114+
Other/non allocated	104	277	52	19	8	0	37	0	6	4	1	506
Total 2017	8,615	33,981	11,705	2,140	3,979	1,700	2,321	958	921	899	1,086	68,305
2012	8,845	34,562	12,757	2,276	4,149	1,857	2,598	1,344	1,657	1,265	396	71,706
2007	9,247	29,616	13,250	2,294	4,004	1,834	2,497	1,484	2,173	1,500	398	68,297
% change (2007 to 2017)	-7%	15%	-12%	-7%	-1%	-7%	-7%	-35%	-58%	-40%	173%	0%

C - Some data have been suppressed for reasons of respondent confidentiality. + incomplete data set because some crop data are suppressed.

Source: Statistics New Zealand Agricultural Production Census - as at June 2007, 2012 & 2017. Note: variations between the data reported in this section with those reported for the individual horticultural sectors can in part be attributed to differences in definitions, sample size and time of sampling.

Distribution of vegetables by Regional Councils (area planted ha)

Distribution of indoor crops (m<sup>2</sup>, 000s)

Regional Council	Asparagus	Broccoli	Carrots	Peas & Beans	Lettuces	Onions	Potatoes	Squash	Sweet corn	Other Veg.	Total Veg.
Year ended 30 June 2017											
Northland	0	29	3	3	1	2	8	8	84	1,223	1,361
Auckland	1	1,111	255	51	625	1,919	2,242	300	29	1,400	7,933
Waikato	425	236	192	1	16	1,733	1,280	84	83	760	4,809
Bay of Plenty	4	10	0	1	0	0	0	0	14	28	57
Gisborne	1	482	0	167	263	C	C	1,920	1,893	353	5,081
Hawke's Bay	53	78	61	1,360	12	963	236	3,388	872	1,234	8,256
Taranaki	0	16	C	0	0	0	10	0	10	17	53+
Manawatu-Wanganui	191	695	191	224	315	281	984	6	25	735	3,647
Wellington	0	46	0	2	16	1	2	1	C	86	154+
Tasman-Nelson	2	292	13	6	136	46	9	1	32	490	1,027
Marlborough	1	8	92	184	0	33	1	0	637	165	1,120
West Coast	0	1	0	0	0	0	0	0	0	1	3
Canterbury	58	422	814	2,702	110	1,001	4,332	87	188	727	10,441
Otago	7	164	3	0	14	0	196	0	C	43	428+
Southland	0	12	226	0	1	0	140	0	0	314	693
Other	0	30	1	5	22	30	11	0	5	37	141
Total 2017	744	3,632	1,851	4,705	1,532	6,009	9,450	5,794	3,871	7,613	45,202
2012	820	3,622	2,047	7,858	1,250	5,718	11,578	6,837	4,664	5,313	49,707
2007	871	3,875	1,320	7,515	1,309	4,594	10,050	7,774	6,210	6,261	49,779
% change (2007 to 2017)	-15%	-6%	-40%	-37%	17%	31%	-6%	-25%	-38%	22%	-9%

C - Some data have been suppressed for reasons of respondent confidentiality. + incomplete data set because some crop data are suppressed.

Source: Statistics New Zealand Agricultural Production Census - as at June 2007, 2012 & 2017. Note: variations between the data reported in this section with those reported for the individual horticultural sectors can in part be attributed to differences in definitions, sample size and time of sampling.

(1 ha = 10,000 m<sup>2</sup>)

See above notes

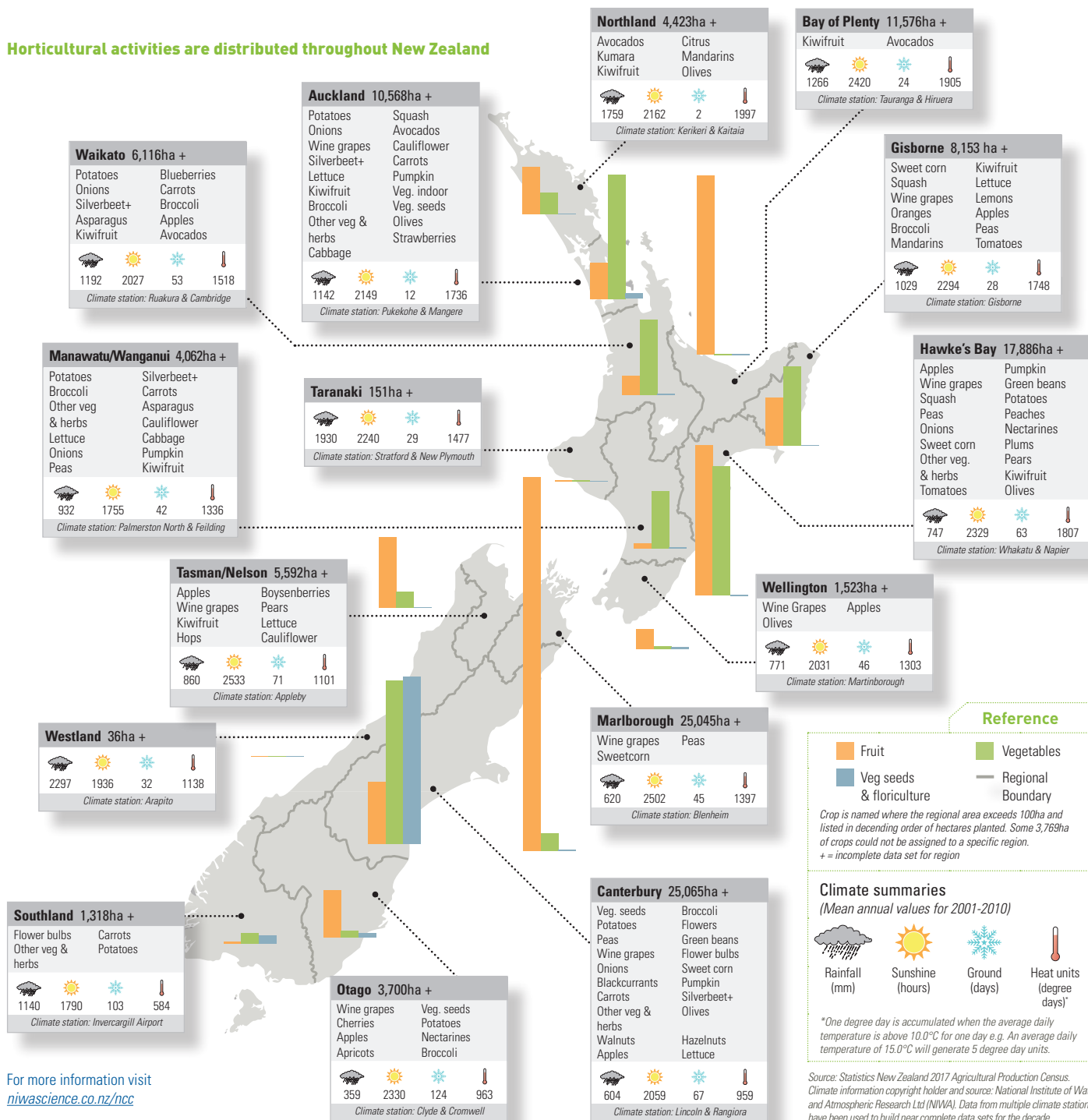
For more information visit [www.statistics.govt.nz](http://www.statistics.govt.nz)

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# Regional resources

## Horticultural activities are distributed throughout New Zealand



For more information visit  
[niwascience.co.nz/ncc](http://niwascience.co.nz/ncc)

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## About the Trust

The New Zealand Horticulture Trust was established in 2008 with the objective of providing 'A helping hand for horticulture'.

The Trust encourages Horticulture and Viticulture sector groups to apply for grants to assist them in the promotion of education, training & research in New Zealand.

The NZ Horticulture Trust has three principal sponsors, **Horticulture**, **TasmanCrop** and **HortFertplus**. These three principal sponsors have been providing quality products and services to commercial crop growers since the 1980's.

The NZ Horticulture Trust is proud to be supporting the Horticulture, Viticulture and Nursery sectors in NZ.





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United Fresh  
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Manatū Ahu Matua







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# Unwanted! Ko Tātou This Is Us

BIOSSECURITY 2025



**BROWN MARMORATED STINK BUG**  
(alias BMSB)

**ORIGIN:** Asia, but has invaded other countries including the USA and Europe.

**APPEARANCE:** About the size of a \$1 coin, shaped like a green vegetable bug with black and white markings.

**IMPACTS:** It could damage almost any New Zealand horticultural crop. In winter it will move into homes where it overwinters and is not easily treated with insecticides. It omits a nasty odour when squashed.



**QUEENSLAND FRUIT FLY**  
(alias Qfly)

**ORIGIN:** Queensland, but has spread to other parts of Eastern Australia.

**APPEARANCE:** Approximately 6-8 mm long, reddish-brown with yellow markings.

**IMPACTS:** It will attack around 80% of New Zealand horticultural crops, laying its eggs inside fruit. It was eradicated from Auckland in 2015. MPI are undertaking a response in 2019 after separate male Qfly detections; no breeding population has been found.



**SPOTTED WING DROSOPHILA**  
(alias SWD)

**ORIGIN:** Southeast Asia, but now a major pest in the USA and Europe.

**APPEARANCE:** Resembles a vinegar fly – about 2-3.5 mm long with a yellow-brown body and red eyes. Males have a black spot near the tip of each wing.

**IMPACTS:** It lays its eggs in ripening fruit, posing a serious threat to summerfruit, particularly cherries.



**SPOTTED LANTERNFLY**

**ORIGIN:** Asia, but has invaded the USA.

**APPEARANCE:** About 2.5 cm long, with greyish wings with black spots and a body that looks like it's glowing red.

**IMPACTS:** It feeds on woody and non-woody plants. It sucks sap, which leaks out and promotes mould growth. It can lay its eggs on smooth surfaces, like shipping containers, and covers its eggs in wax so they are hard to see.



CATCH IT



SNAP IT



REPORT IT

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Ko Tātou This Is Us asks all New Zealanders to play a role in preventing pests and diseases from spreading. New Zealand has 4.7 million potential biosecurity champions who can help protect our economy, livelihoods and health from incoming pests and diseases. **ThisIsUs.nz**

*Freshfacts is available online at **freshfacts.co.nz***

DJS | 2020 | J008768

