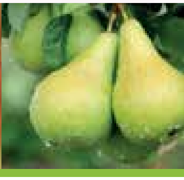
FreshFacts

NEW ZEALAND HORTICULTURE 2017



Horticulture™ New Zealand

Plant & Food RESEARCH
RANGAHAU AHUMĀRA KAI

Reporting basis: unless stated otherwise, all statistics are for the year ending 30 June 2017 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.

Fresh Facts has been published annually since 1999 by The New Zealand Institute for Plant & Food Research Ltd. Further copies are available from: Plant & Food Research, Corporate Communications, Private Bag 92169, Mt Albert, Auckland, Tel: 09 925 7000, plantandfood.co.nz

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Cover image:
'Wakefield' raspberries are a new cultivar bred by Plant & Food Research.

New Zealand horticulture – reaching new highs

The value of New Zealand's horticultural products continues to rise, and now exceeds $8.8 billion. This includes more than $5.1 billion of exports, keeping the sector on track to meet Horticulture New Zealand's ambitious $10 billion by 2020 target.

Our horticultural produce is exported to 128 countries around the world. Five markets account for more than two-thirds of New Zealand's total exports – Australia, Continental Europe, the USA, Japan and China. Exports to Asian markets total $1.9 billion – around 40% of total horticultural exports, compared to 30% of exports in 2007.

Exports of wine, kiwifruit and apples dominate New Zealand's horticultural exports, but there has been significant growth in other crops. Avocado exports have increased from $82 million in 2016 to $147 million in 2017, likely in part to the biennial nature of avocado production – in 2015, avocado exports were valued at $115 million.

The success of New Zealand's horticulture is due to its reputation for delivering high quality produce that commands a premium in overseas markets. To maintain our position in the marketplace, the industry must continue to enhance quality and innovate – delivering new products with characteristics desired by the consumer and new technologies that allow us to deliver high quality with minimal environmental and social impacts.

Plant & Food Research is proud to support the horticulture industry with research across the value chain. By working together, we help identify new opportunities that ensure New Zealand's horticultural sector remains sustainable into the future.

David Hughes.

David Hughes
CEO, Plant & Food Research

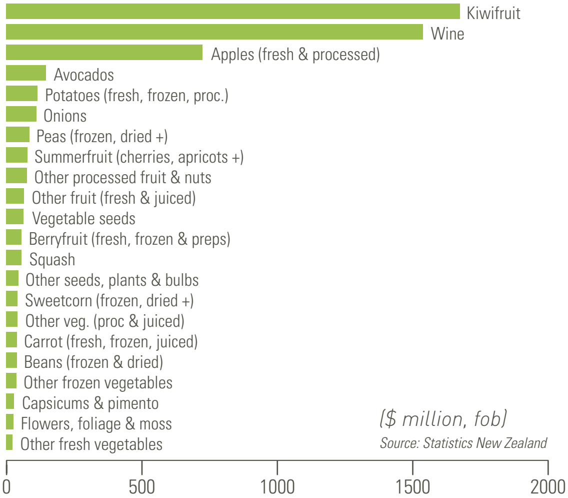
Horticultural exports, year ended June *($ million, fob)*

	1985[a]	1995[b]	2005[b]	2015[b]	2016[b]	2017[b]
Fresh fruit						
- Apples	108.2	343.6	387.0	561.8	691.8	691.1
- Kiwifruit	171.9	320.8	720.2	1,181.9	1,673.1	1,663.9
- Avocados	n/a	n/a	29.0	115.5	82.6	147.5
- Other fresh fruit	28.4	57.6	51.5	122.9	154.5	155.9
Total fresh fruit	308.5	722.0	1,187.7	1,982.1	2,602.0	2,658.4
Processed fruit						
- Wine	3.0	42.0	432.7	1,406.2	1,556.1	1,539.0
- Fruit juices	9.6	30.5	34.5	46.5	51.5	60.9
- Jams	n/a	n/a	18.1	29.9	34.7	4.8
- Other processed fruit	40.3	44.3	49.2	84.7	90.2	101.2
Total processed fruit	52.9	116.8	534.5	1,567.3	1,732.5	1,705.9
Fresh vegetables						
- Onions	17.7	92.6	61.6	81.5	112.5	111.9
- Squash	14.6	57.7	72.1	58.7	58.2	56.2
- Other fresh vegetables	11.6	49.8	66.3	75.8	88.3	82.9
Total fresh vegetables	43.9	200.1	200.0	216.0	259.0	251.0
Processed vegetables (frozen/dried/other processes)						
- Peas	22.0	34.3	36.9	84.8	84.3	84.6
- Potatoes		14.1	56.9	92.5	83.6	93.8
- Sweetcorn	9.5	30.6	43.4	38.5	41.8	41.5
- Mixed vegetables (frozen)	4.6	23.9	36.0	34.2	32.5	25.6
- Other vegetables (frozen)			16.4	21.2	21.8	22.0
- Other vegetables (dried)			25.5	7.8	9.5	10.9
- Vegetable juices			6.6	30.3	23.8	28.8
- Other processed vegetables	20.9	75.6	42.6	65.8	58.6	59.2
Total processed vegetables	57.0	178.5	264.3	375.1	355.9	366.4
Other horticultural exports						
Flowers & foliage	10.5	49.9	38.5	22.9	27.1	21.1
Vegetable seeds	n/a	n/a	30.2	62.2	74.2	64.4
Seeds, plants & bulbs etc.	2.1	17.4	42.1	43.7	48.8	46.0
Sphagnum moss	6.3	17.3	8.8	5.2	5.4	5.4*
Total other horticultural exports	18.9	84.6	119.6	134	**155.5**	**136.9**
Total exports in current $	**481.2**	**1,302.0**	**2,306.1**	**4,274.5**	**5,104.9**	**5,118.6**
Horticultural exports as % of NZ merchandise exports	4.4	7.0	7.5	8.8	10.3	10.3

*Source: [a]Bollard (1996) [b]Statistics New Zealand *Estimate*

- → New Zealand horticultural produce exports in 2017 again exceeded $5.1b fob value and represent a 91% increase in the total value of New Zealand horticultural exports of a decade earlier (2007: $2.7b). New Zealand's horticultural produce exports were $3b in 2008 and only exceeded $4b fob value in 2015.
- → In 2017 five markets each exceeding $500m (fob) value accounted for close to $3.5b of New Zealand fruit and vegetable exports and more than two-thirds (67.7%) of New Zealand's total horticultural exports: Australia $855m (2016: $806m), Continental Europe $778m ($742m), the USA $726m ($685m), Japan $606m ($597m), and China $502m ($498m).
- → Fresh and processed fruit exports were comparable to values in 2016 with the exception of avocado exports which achieved a record $147.5m (fob) (26,000t) of which $125m (22,000t) was to Australia.
- → The value of vegetable exports was unchanged. However, an increase in processed vegetables offset a 3% lesser value in fresh vegetable exports.

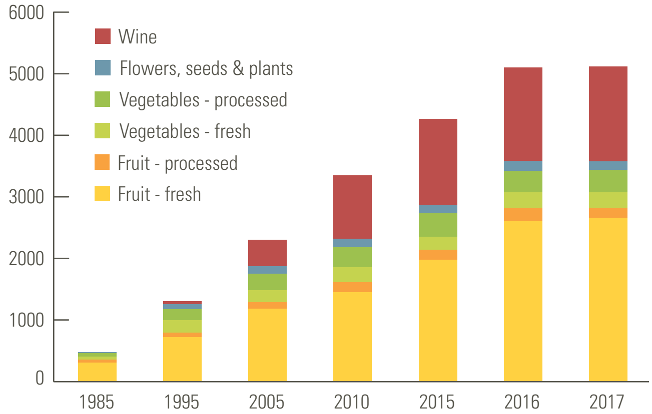
Horticultural exports 2017 *($ million, fob)*



- → Total investment in New Zealand's horticultural sector is estimated to be in excess of $52b (2015: $40b) inclusive of off-farm postharvest facilities:
  - since 2015, apple orchards have increased in value by approx. 70% reflecting the strong performance of New Zealand apples in international markets
  - kiwifruit orchards also increased by approx. 70% in value, reflecting the strong performance of the new gold kiwifruit cultivars
  - wine grape vineyards had a lesser increase. New Zealand wine continues to receive accolades from international markets
  - avocado orchards increased in value by approx. 180%, reflecting that sector's strong performance.

  These four fruit types are collectively 84% of fruit crop hectares in New Zealand.

Horticultural exports – *Years to June ($ million, fob)*

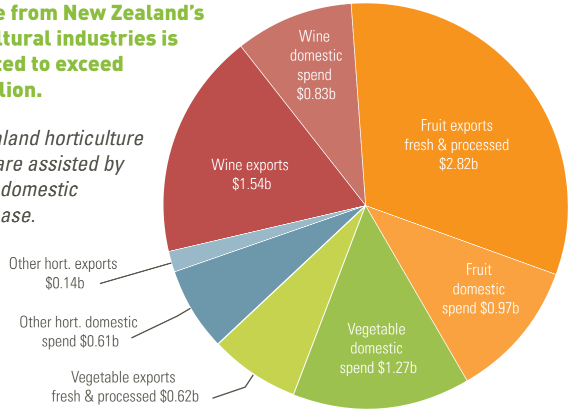


Source: Statistics New Zealand

Exports/imports

Produce from New Zealand's horticultural industries is calculated to exceed $8.8 billion.

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



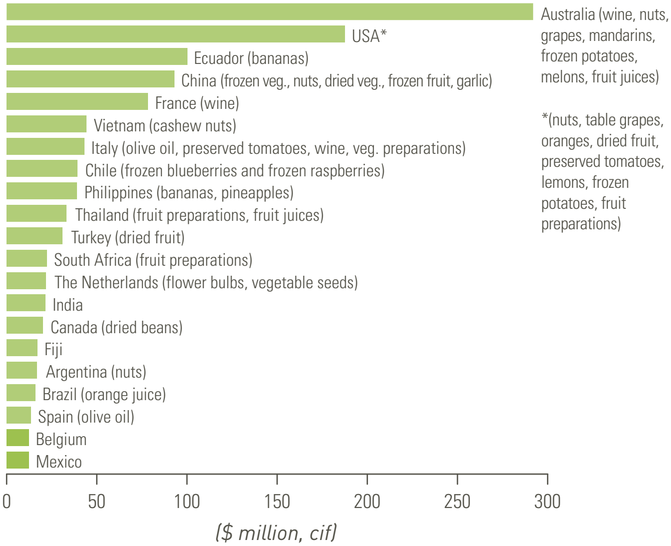
Source: Statistics New Zealand merchandise exports, with domestic market figures derived from the triennial Household Economic Survey (HES) 2016 and Statistics New Zealand estimate of mean number of private dwellings year to 30 June 2017.

Top 10 export destinations *($ million, fob)*

	2010	2016	2017	
Australia	702	804	855	Wine, avocados, processed veg, potatoes, kiwifruit, beans, blueberries, honey*, peas, fruit preparations, sweetcorn, fruit juices
Continental Europe	618	742	778	Kiwifruit, apples, wine, onions, honey*, carrot seed, radish seed
USA	352	679	726	Wine, apples, kiwifruit, honey*
Japan	483	594	605	Kiwifruit, squash, honey*, veg. juice, capsicums, other frozen veg, onions, sweetcorn, wine
China	100	498	502	Kiwifruit, honey*, apples, wine, cherries, frozen peas, fruit juices
UK	367	471	484	Wine, apples, honey*
Taiwan	108	273	250	Kiwifruit, apples, cherries
Canada	74	135	134	Wine, kiwifruit, apples
Korea	85	83	116	Kiwifruit, squash
Thailand	30	98	92	Apples

*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 $10 million 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, 2017

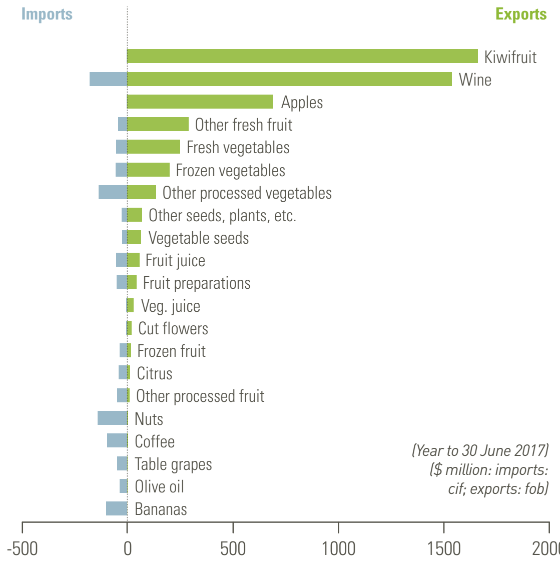


The countries listed in this diagram send us more than $10m (cif) of fruit and vegetables.

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.

Source: Statistics New Zealand; Overseas Trade statistics for year ended June 2017.

Comparisons of imports and exports 2017 *($ million)*



Source: Statistics New Zealand; Overseas Trade Statistics

Export destinations

United Kingdom & Ireland

2017	2010	↑
$509m	$384m	$125m

Wine	$358m
Apples	$92m
Honey*	$60m

Continental Europe

2017	2010	↑
$778m	$611m	$167m

Kiwifruit	$442m
Apples	$151m
Wine	$125m
Onions	$41m
Honey*	$28m
Seeds-carrot	$12m
Seeds-other veg.	$11m
Seeds-radish	$10m
Tulip bulbs	$7m

Middle East

2017	2010	↑
$76m	$36m	$40m

Apples	$37m
Kiwifruit	$17m
Frozen veg.	$9m
Honey*	$8m
Wine	$6m

Asia

2017	2010	↑
$1,954m	$1,156m	$798m

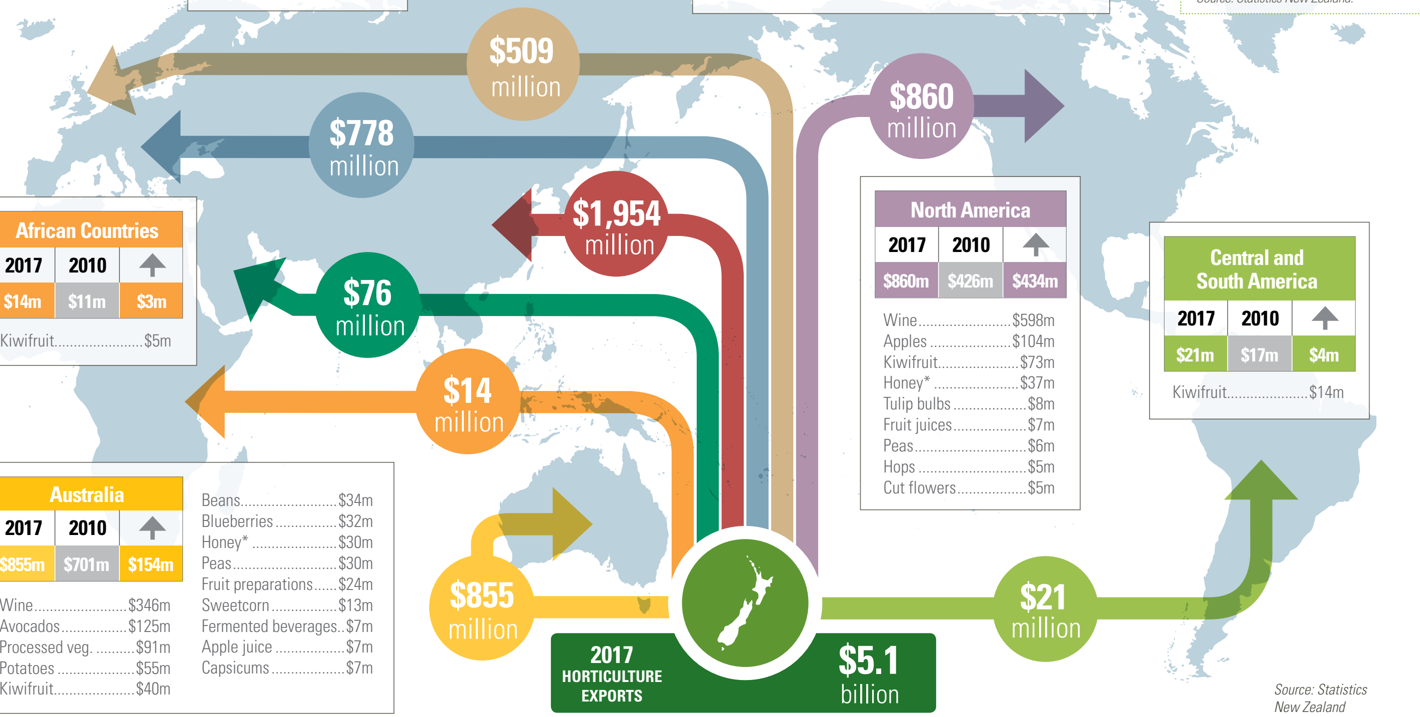
Kiwifruit	$1,099m
Apples	$295m
Honey*	$165m
Wine	$96m
Cherries	$69m
Squash	$56m
Onions	$52m
Potatoes	$34m
Peas	$34m
Fruit juices	$33m
Veg. juices	$28m
Sweetcorn	$23m
Avocados	$22m
Capsicums	$21m
Lilium bulbs	$15m
Radish seeds	$11m
Orchids	$7m
Strawberries	$7m
Processed fruit	$7m
Other veg. seeds	$6m
Cabbage seeds	$6m
Other cut flowers	$5m
Persimmons	$5m

Reference

Entries only included if value to a destination exceeded NZ $5 million.

*Honey exports of $329m (2010 $98m) are listed where value to a destination exceeded $5m and for consistency of reporting are in addition to total horticultural exports listed on page 2 and not included in the total country/region summary totals on these two pages.

Source: Statistics New Zealand.



African Countries

2017	2010	↑
$14m	$11m	$3m

Kiwifruit	$5m

North America

2017	2010	↑
$860m	$426m	$434m

Wine	$598m
Apples	$104m
Kiwifruit	$73m
Honey*	$37m
Tulip bulbs	$8m
Fruit juices	$7m
Peas	$6m
Hops	$5m
Cut flowers	$5m

Central and South America

2017	2010	↑
$21m	$17m	$4m

Kiwifruit	$14m

Australia

2017	2010	↑
$855m	$701m	$154m

Wine	$346m
Avocados	$125m
Processed veg.	$91m
Potatoes	$55m
Kiwifruit	$40m
Beans	$34m
Blueberries	$32m
Honey*	$30m
Peas	$30m
Fruit preparations	$24m
Sweetcorn	$13m
Fermented beverages	$7m
Apple juice	$7m
Capsicums	$7m

Source: Statistics New Zealand

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 fruit, vegetables and flowers were exported to 128 countries in 2017 compared with 117 countries in 2010.
- Exports to 31 countries exceeded $10m (fob) in 2017, up from 25 countries in 2010.
- New Zealand also earned $100m from horticultural machinery and components exports (2010: $52m), as well as additional income from royalties and licence agreements.

Trends

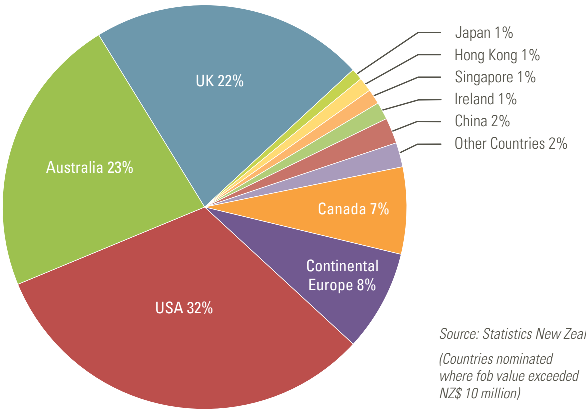
- In 2017 New Zealand fruit and vegetable exports to five markets exceeded $500m (fob) value: Australia, Continental Europe, the USA, Japan and China. These five export markets accounted for close to $3.5b and more than two-thirds (67.7%) of New Zealand's total horticultural exports in 2017.
- Exports to four other countries exceeded $100m: The UK $484m, Taiwan $250m, Canada $134m and Korea $116m. Horticultural exports to 22 other countries exceeded $10m, of which nine countries in Asia imported an average of $52m fob.
- The diversity of horticultural products exported is apparent in the 22 products exported to Asia each between $5m and over $1b, and to Australia with 13 categories between $7m and over $440m (fob) value. These are more than $200m in natural honey exports to Asia and Australia combined.

Grape and wine production 2012 & 2017

Variety	Production area (ha)		Production (tonnes)	
	2012	2017	2012	2017
Sauvignon blanc	20,270	22,085	181,121	285,862
Pinot noir	5,388	5,653	23,285	28,760
Chardonnay	3,229	3,203	22,855	26,843
Pinot gris	2,485	2,469	15,347	20,755
Merlot	1,234	1,217	8,046	7,714
Reisling	770	737	4,989	3,880
Syrah	387	431	1,431	1,733
Gewurtztraminer	347	237	1,249	1,047
Cabernet sauvignon	305	251	1,120	974
Malbec	140	119	694	697
Other white vinifera	241	213	2,794	3,225
Other red vinifera	391	92	1,013	919
Other and unknown	147	422	5,056	13,591
Total	35,334	37,129	269,000	396,000
Region				
Auckland/Northland	411	392	1,312	1,055
Waikato/Bay of Plenty	24	3	7	
Gisborne	1,635	1,371	15,590	16,337
Hawke's Bay	5,030	4,694	32,793	33,679
Wairarapa	979	1,017	4,271	3,822
Marlborough	22,956	25,135	188,649	302,396
Nelson	1,011	1,155	6,129	8,540
Canterbury/Waipara	1,371	1,425	7,079	8,240
Otago	1,917	1,896	8,115	8,324
Other and unknown	0	41	5,055	13,607
Total	35,334	37,129	269,000	396,000

Source: New Zealand Winegrowers Annual Report 2017. Varieties aggregated as 'other red' or 'other white' all had production < 500 tonnes in 2017

Wine exports by country 2017 *(% by value)*



Source: Statistics New Zealand

(Countries nominated where fob value exceeded NZ$ 10 million)

→ The creation of New Zealand Winegrowers Incorporated has resulted in New Zealand now being the only major wine producing nation with a single industry body representing and advocating for its entire grape and wine industry.

Understanding Pinot noir

A new research programme is building understanding of the link between productivity and wine quality for New Zealand Pinot noir. The New Zealand Wine Research Centre project will look at the full wine value chain, from grape growing and winemaking to consumer science, to build a better picture of what makes a high quality Pinot noir and how this can be achieved in an economically sustainable manner to support export growth.

→ New Zealand produces less than 1% of the world's wine but has developed a strong following in major export markets for its range of high quality varieties and styles. New Zealand wine exports to the USA and Canada combined were $600m for the first time. New Zealand wine became the third most valuable wine import to the USA behind only France and Italy.

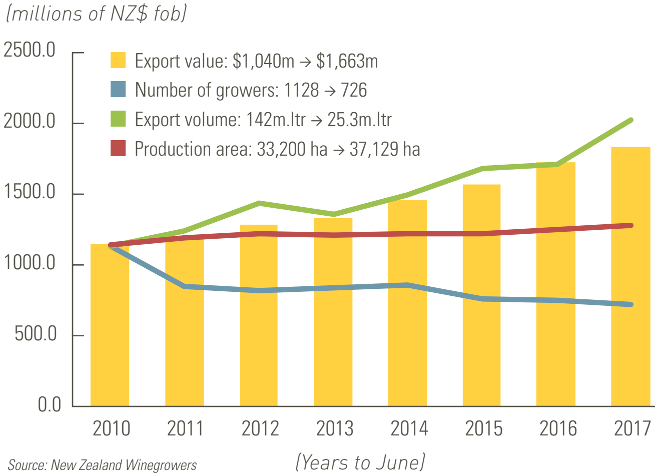
→ Important to New Zealand's wine success has been the moderating effect of New Zealand's temperate maritime climate, the passion of its wine producers and highly distinctive nature of its wine styles:

- Sauvignon blanc from the Marlborough region put New Zealand on the international wine market map
- Cabernet blends and Syrah excel in the Hawke's Bay and Auckland regions
- Pinot noir and Riesling achieve great success in the Wairarapa, Marlborough, Canterbury, Waipara and Central Otago regions.

→ The characteristics of these regions can now be formally recognised by registration of the region's name under New Zealand's Geographical Indications (Wine and Spirits) Registration Act (the GI Act).

Growth in wine exports volume (litres) and value (fob):

2010 to 2017 compared with relative change in production area and number of growers *(relative change scaled to 2010 datum point)*



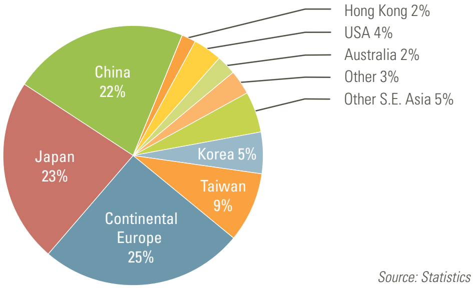
Source: New Zealand Winegrowers Annual Report 2017

Kiwifruit industry: Zespri Group Ltd
New Zealand grower and chain statistics to 2017

Season (ends 31 March)	2000	2005	2010	2016	2017
Crop volumes (million)					
Trays submitted*	54.2	85.8	107.0	123.8	148.9
Trays sold	51.8	79.7	96.5	117.1	137.7
General Statistics					
Yield (trays/ha)	5,295	7,847	8,546	10,157	11,838
Area planted# (ha)	10,234	10,934	12,525	12,185	12,578
Growers/suppliers‡ (no.)	2,681	2,760	2,711	2,516	2,435
Packhouses (no.)	118	88	71	51	50
Coolstores (no.)	106	89	77	64	73
Orchard Gate Return ($/ha)	15,366	34,738	39,142	60,758	68,868

**A tray weighs 3.6 kg. # Producing hectares ‡ Refers to number of submitters*
Source : Zespri International Ltd Annual Review 2016/17.

New Zealand kiwifruit export markets *(year to 30 June 2017)*



Source: Statistics New Zealand

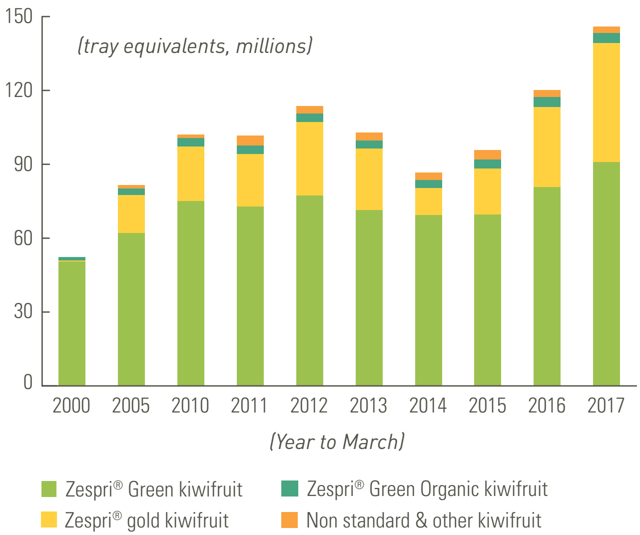
- The value of New Zealand kiwifruit exports in 2017, at $1.664b fob, was similar to that in 2016, but 41% above 2015 export value.
- In 2017, New Zealand-produced kiwifruit were exported to more than 50 countries and of the $1.091b that went to Asian countries, two imported more than $300m: Japan $381m (2016: $390m) and China $365m ($373m). Kiwifruit to the value of $422m ($435m) went to countries in Continental Europe.
- The average orchard gate return per hectare increased in 2017 to more than $68,868 (2016: $60,750).
- 'Zesy002', the gold-fleshed kiwifruit marketed as Zespri® SunGold Kiwifruit, continued to receive strong customer and consumer support with volume increasing from 32.6m trays 2015/16 to 48.5m trays 2016/17 and the average per-hectare return increasing 39% to $98,838. In addition to the 400ha of SunGold licensed in 2016, Zespri allocated a further 400ha in 2017.
- The 'Zespri Global Supply' initiative aims to fill the gaps in New Zealand supply to international markets and provide consumers with year-round Zespri-branded kiwifruit. In addition to exports from New Zealand of 490,755t* (2016: 487,630t*), Zespri procured a further 59,760t (2016: 52,200t) from contracted producers in Italy, France, Korea, Japan, and Australia to maintain year-round availability of its brand.
- Zespri expanded production outside New Zealand to meet demand primarily for SunGold with the release in Europe of 1,880 ha of licences over the next three years, adding to the 1,650ha already planted in Italy and 270ha in France, expecting to quadruple European volumes of SunGold from the 2016/17 non-New Zealand sourced supply of 16,000t.

*Sources: Zespri International Annual Reviews, y/e March; * data Statistics New Zealand exports, all exporters year ending June*

Economic value of kiwifruit

A report from the University of Waikato concluded that the kiwifruit industry contribution to GDP will increase from $2.6 billion in 2015/16 to $6.14 billion in 2030. This industry growth is based primarily on the success of Zespri SunGold® Kiwifruit, released from the joint Plant & Food Research-Zespri breeding programme in 2011. The report also suggests that a further 29,000 jobs will be created nationwide by 2030.

Zespri Group Ltd production profile (TEs) 2000 - 2016



Sources: Zespri International Annual Reviews, years to 31 March

Apple statistics

Year ending 31 Dec.	2010	2013	2014	2015	2016	2017
Crop volumes ('000 tonnes)						
National export production	260	320	311	331	350	343
Growing method: IFP	94%	95%	94%	94%	93%	93%
Certified organic	6%	5%	6%	6%	7%	7%
General statistics						
Export FOB $/TCE *(*)*	$22.93	$27.69	$29.64	$32.83	$37.15	$35.72
Area planted (ha)	8,630	8,372	8,429	8,566	8,809	9,535
Export orchards (no.)	985	953	921	919	953	1,015
Export packhouses (no.)	62	61	56	56	55	58
No. of exporters	95	84	76	79	77	75

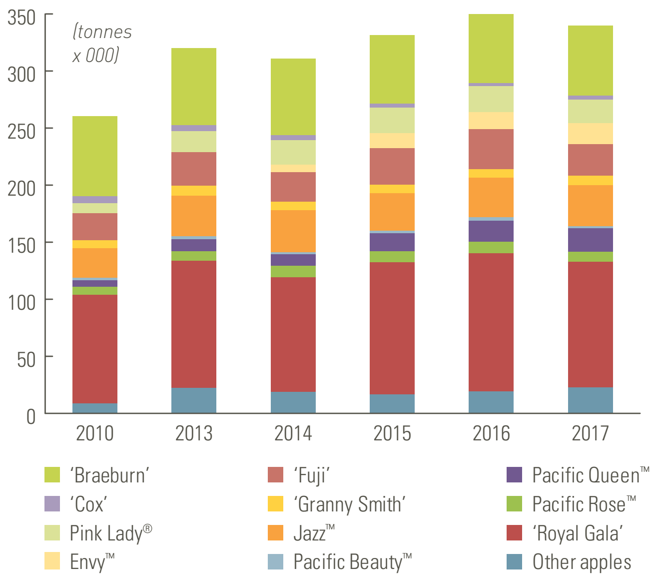
IFP: Integrated Fruit Production sustainability; TCE: tray equivalents 18 kg sale weight.
Source: New Zealand Apples & Pears Inc., (*) Statistics New Zealand, export fob. Year ending June 2017

In 2017 New Zealand exported 343,000t of apples (total production of 384,000t) and although only 4.4% of global fresh apple export volume, it was globally the eighth largest exporter.

→ 'World Apple Review 2017' ranked New Zealand #1 amongst 33 major apple–producing countries after measuring 23 criteria covering production efficiency, industry infrastructure and financial and market factors. The review cited New Zealand's 80.5% production in new varieties and average yield 2014-2016 of 62.0t/ha compared with all other apple-producing countries average of 23.9t/ha. The next highest yields were four countries achieving yields of 40 to 46 t/ha, with all others being less than 40t/ha.

→ *"Our (New Zealand's) world leading growing systems which produce apples and pears with the lowest levels of residues of any other exporting country gives New Zealand priority market access, and New Zealand developed world leading post-harvest technology ensures only the highest quality fruit enters the market … leading to increased employment opportunities with more skilled labour demand in Gisborne, Waikato, Hawke's Bay, Wairarapa, Nelson, South Canterbury and Central Otago"*
Source: New Zealand Apples & Pears Inc. Chief Executive Allan Pollard.

Apple export production by variety: 2010 – 2017



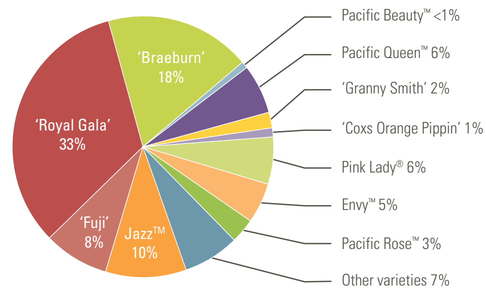
Source: New Zealand Apples & Pears Inc. Year ending 31 Dec. 2017

A winning apple

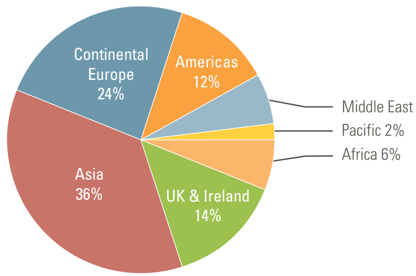
The Envy™ apple was crowned "favourite apple" by American consumers in a US Apple Association competition comparing 32 of the world's most popular varieties. The tournament, with more than 31,000 consumer votes, saw the New Zealand-bred Envy beat traditional favourites, such as 'Braeburn' and Pink Lady®, as well as other new varieties, such as SweeTango®.

→ *"The New Zealand apple industry has long recognized that the key to overcoming its distance from major markets is innovation, in new varieties, in superior quality, and in branded promotions."* Source: World Apple Review 2017. Significantly, New Zealand exported 16,800t of apples to China (year ending Dec. 2017), despite difficult import requirements and China itself being the world's largest producer at 42.6m tonnes and 50% of 2015 global production of 85.3m tonnes. China exported 830,000t apples in 2015.

Apple exports by variety



Apple export destinations by region



Source for above charts: New Zealand Apples & Pears Inc. (Weight basis, year ending Dec. 2017)

Other fresh fruit

	Growers[a] (no.)	Planted area[a] (ha)	Crop volume[a] (tonnes)	Sales value ($m) Domestic[b] 2016/17	Sales value ($m) Export[c] (fob) 2017
Avocados *(year to 30 April)*	1,041	3,787	43,375	40.3[d]	155.5[d]
Berryfruit	240	3,072	22,844	51.4	40.0
- Blackcurrants	*32*	*1,636*	*8,915*	*1.0*	
- Boysenberries	*19*	*206*	*2,700*	*4.5*	
- Raspberries	*50*	*150*	*945*	*3.0*	
- Blueberries	*75*	*740*	*3,284*	*21.0*	*32.3*
- Strawberries	*110*	*220*	*6,500*	*21.3*	*7.7*
- Other berryfruits		*120*	*500*	*0.6*	
Citrus	330	1,660	30,692	61.0	13.0
- Grapefruit	*18*	*15*	*302*	*0.3*	
- Lemons	*75*	*257*	*6,291*	*13.0*	*9.5*
- Limes	47	*27*	*410*	*2.0*	
- Mandarins	*140*	*556*	*11,079*	*24.0*	*1.4*
- Oranges	*121*	*783*	*11,708*	*16.0*	*2.0*
- Tangelos	*28*	*22*	*902*	*1.0*	*0.1*
Feijoas	220	238	1,200	3.8	0.3
Grapes - table		43			0.8
Hops	18	442	760		
Kiwiberries	28	35	200	0.3	3.9
Nashi	18	25	650	1.3	0.1
Nuts		1,344			0.9
- Cashews					*0.1*
- Chestnuts	*100*	*142*	*350*		
- Macadamias		*195*			
- Pisachios					
- Hazelnuts		*433*			
- Walnuts		*574*			
- Other nuts					*0.8*
Olives	300	2,172	4,000		
Passionfruit	47	38	125	0.7	1.0
Pears	76	397	3,594		9.4
Persimmons	50	154	1,630	1.5	8.4
Summerfruit	280	1,808	17,690	62.2	77.6
- Apricots	*52*	*318*	*2,567*	*6.4*	*5.2*
- Cherries	*88*	*645*	*5,025*	*16.8*	*71.2*
- Nectarines	*56*	*328*	*4,074*	*17.1*	*0.2*
- Peaches	*73*	*300*	*3,604*	*13.6*	*0.7*
- Plums	*78*	*217*	*2,420*	*8.3*	*0.3*
Tamarillos	40	100	450	2.4	0.1
Other fruit		250			0.4
Total fresh fruit *(excl. Kiwifruit, Grape Wine, Apples)*					**303.4**

Sources: [a]Sector estimates, [b]Sector estimates of first point of sale values, [c]Statistics New Zealand Overseas Trade Statistics. [d]Sector adjusted data for product group reporting period. Blank entries indicate either that the information is not available or items are valued at less than $100,000. Year ending June 2017.

- Fresh fruit exports in 2017 were 882,300t worth $2.66b. The average value for fresh fruit exports for the previous five years was $1.95b.
- Kiwifruit exports $1.66b (2016: $1.67b) were 63% of the total fresh fruit export value; apple exports $691.1m ($691.8m) were a further 26%. Other fresh fruit exports were avocados $156m[d] ($91m[d]), cherries $71m ($68m), blueberries $32m ($37m), and 23 other fresh fruit crops with a combined value of $54m.
- Cherries exports of $71m were $27m above the 2012 to 2016 average of $44.3m.

Breeding bluer blueberries

A new government-funded research project is looking to produce a new type of blueberry with healthy, colourful flesh. The project will investigate the potential for a new commercial crop that would provide New Zealand with a unique product in the marketplace, combining the taste and growing characteristics of blueberries with the colourful flesh of bilberries.

Processed fruit

	Sales value ($m) Domestic[a] 2016/17	Sales value ($m) Export[b] (fob) 2017
Apple juice	80.0[c]	19.8
Avocado oil	4.5	4.0
Blackcurrant concentrate		9.0
Other fruit juices	92.1	28.2
Other fermented beverages		10.7
Dried fruits		4.8
Frozen fruits		17.7
- Blackcurrants		*1.1*
- Blueberries	2.8	*2.7*
- Boysenberries	2.7	*2.9*
- Kiwifruit		*7.7*
- Raspberries		*0.2*
- Other		*3.1*
Fruit preparations		44.0
- Apples		*14.0*
- Blackcurrants		*0.1*
- Kiwifruit		*3.4*
- Fruit mixture preps		*19.9*
- Pears		*0.1*
- Other		*6.5*
Hops	7.4	20.0[a]
Jams, jellies and purees		4.8
Nuts		3.4
Olive oil	12.0	0.5
Total processed fruit		**166.9**

Fruits used for processing is produced on the orchard areas described in the fresh fruit table. [a]Sector estimates of first point of sale values, [b]Statistics New Zealand, Overseas Trade Statistics [c]Author's estimate . Blank entries indicate either that the information is not available or items are valued at less than $100,000. Year ending June 2017.

- New Zealand avocado industry reached record exports of $155.5m, with the previous highest export value being $103m in 2014. An industry challenge is the biennial profile of the avocado crop where the volume in successive seasons can vary significantly.
- The commercial production of New Zealand hops from selected aroma cultivars has had increasing demand from international brewers, with 2017 exports worth close to $20m fob (average export value previous five years: $12.6m). New Zealand production includes 15 unique varieties. 500t were exported in 2017 from a total production of 760t.

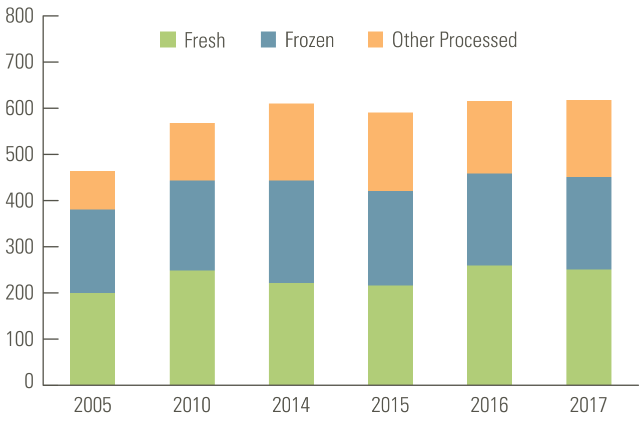
Fresh and processed vegetables

Sales value *($ million, fob)*

	Growers[c] (no.)	Planted[c] area (ha)	Crop volume[c] (tonnes)	Domestic[c] 2017	Exports 2017[g] Fresh	Exports 2017[g] Processed[b]
Asparagus	39	521[c]	1,500	7.0	1.6	
Beans	25	1,200[c]	16,300	10.3		38.7
- fresh	*5*	*300*	*3,000*	*6.0*		
- processed	*25*	*900*	*13,300*	*4.3*		
Beetroot	50	430	28,000	8.0		
- fresh	*42*	*130*	*8,000*	*5.0*		
- processed	*8*	*300*	*20,000*	*3.0*		
Brassicas	125	2,800[c]	105,000	80.3	2.2	
- Broccoli	*75*	*1,500[c]*	*19,000*	*35.0*		
- Cabbage	*75*	*800[c]*	*56,000*	*25.3*		
- Cauliflower	*25*	*500[c]*	*30,000*	*20.0*		
Capsicums	20	75[c]	19,000	47.0	28.7	
Carrots	40	1,410[c]	154,000	56.0		
- fresh	*20*	*800*	*88,000*	*40.0*	9.5	
- processed	*20*	*610*	*66,000*	*16.0*		2.4
Cucumbers	50	50[c]	1,770	20.0		
Eggplant/Aubergines				8.5		
Garlic	8	200[c]	900	7.0	1.3	
Kumara	46	1,600[c]	22,000	35.0		
Lettuces	100	1,350		42.0	0.6	
- outdoor	*40*	*1,300[c]*		*17.0*		
- greenhouse	*60*	*50[c]*		*25.0*		
Melons	20	273[f]	4,800	28.0	1.2	
Mushrooms	7	25[c]	8,500	42.0	1.2	
Onions	95	5,235[c]	206,322	30.0	112.0	
Peas	442					
- fresh	*42*					
- processed	*400*	8,250[f]	62,000	25.0		84.6
Potatoes	169	10,329[c]	525,000	149.0	21.9	93.8
Pumpkins	40	1,048[f]	38,000	13.0		
Shallots	4	30[c]	1,200	3.0	0.4	
Silverbeet/Spinach	15	200[c]	3,500	12.0		
Squash	25	6,526[c]	82,725	3.0	56.2	
Sweetcorn	150	4,664[f]	90,000	29.5	0.1	41.5
- fresh			*22,000*	*11.0*		
- processed			*68,000*	*18.5*		
Tomatoes	155	770	102,900			
- outdoor, processed	*15*	*650[c]*	*60,500*	9.0		4.4
- greenhouse	*130*	*120[c]*	*42,500*	172.2	12.0	
Truffles[d]	75	70	0.2	0.5		
Mixed vegetables	Made from combinations of the above crops.					25.6
Dried vegetables	Excluding peas, beans, corn.					10.1
Vegetable preps						24.1
Vegetable juices						28.8
- carrot juice[d]						*27.3*
- other veg. juices						*1.5*
Other vegetables[a]		2,457			2.1	12.4
Total	800[e]	50,163[f]			251.0	366.4

Crops areas are predominantly sector estimates. [a]Includes taro, celery, parsnips, spring onions, Asian vegetables (excl. Chinese cabbage), yams, witloof, leeks, vegetable shoots, shallots, swedes and some others. [b]Processing includes freezing, canning, juicing and artificial drying. [c]Sector estimates. Blank entries indicate that the information is not available. [d]Authors' estimates. [e]Growers produce multiple crops. [f]Statistics New Zealand Production Census crop areas as at 30 June 2012. [g]Statistics New Zealand from export entries.

Vegetable exports 2005 – 2017 *($ million, fob)*



Source: Statistics New Zealand. Years ending 30 June.

→ Total value of vegetable exports in 2017, at $617m, was $2.5m above 2016. Exports of fresh and chilled vegetables were $8.0m less, but exports of dried vegetables increased by $6.6m and vegetable juice (predominantly carrot juice), increased by $5.0m.

→ In 2017 New Zealand exported more than 20 significant varieties of vegetables, the dominant varieties being: potatoes $112.8m, onions $111.9m, peas $84.6m, squash $56.2m, sweetcorn $41.5m, beans $37.8m and capsicums $28.7m. These seven varieties were 76% by value of 2017 exports.

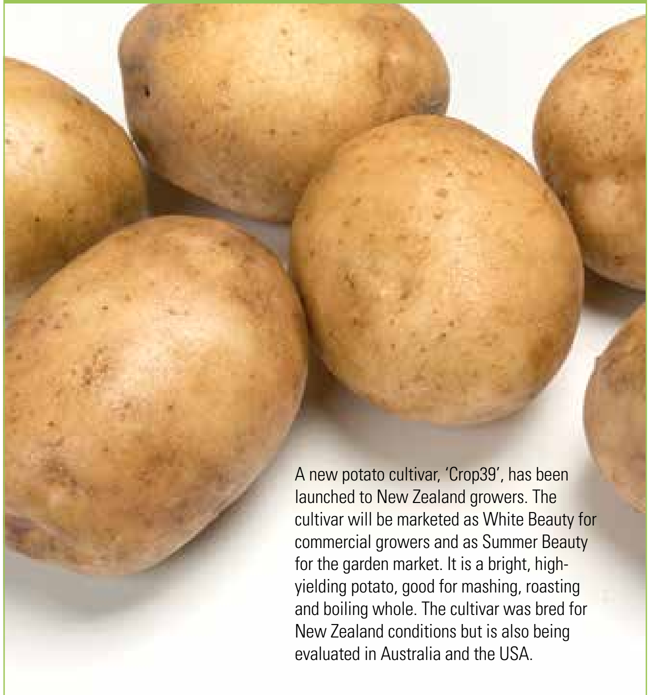
→ Net weight of vegetable exports in 2017 was 494,000t and 3.4% less than in 2016 (511,150t).

→ Fresh and processed vegetables were exported to 81 countries in 2017 (2016: 91), with more than half (57.8%) to two countries:

- 32.7% to Australia: $202.1m (fresh veg. $10.4m, frozen $117.2m [potatoes $55.2m, peas $24.8m, mixed veg. $18.0m], vegetable preparations $58.2m [of beans: $27.6m]).
- 25.1% to Japan: $154.7m (fresh $85.1m [squash $40.6m, capsicums $20.8m]), frozen $26.6m, vegetable juice $26.0m (predominantly carrot).

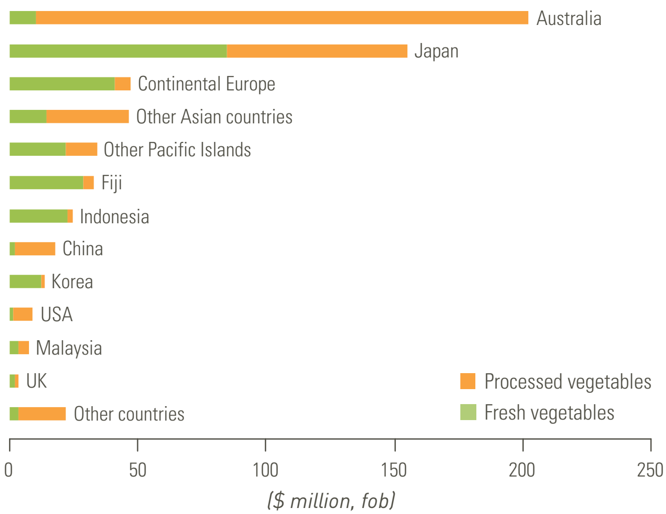
→ New Zealand imported 107,100t of vegetables with a cif value of $243.0m (2016: 107,240t/$243.8m cif) from 80 countries in 2017. Largest volume vegetable imports were 26,480t of preserved tomatoes (Italy 11,600t, the USA 8,100t) and 17,040t of frozen potatoes (Continental Europe 6,440t, Australia 6,700t).

Bright new potato



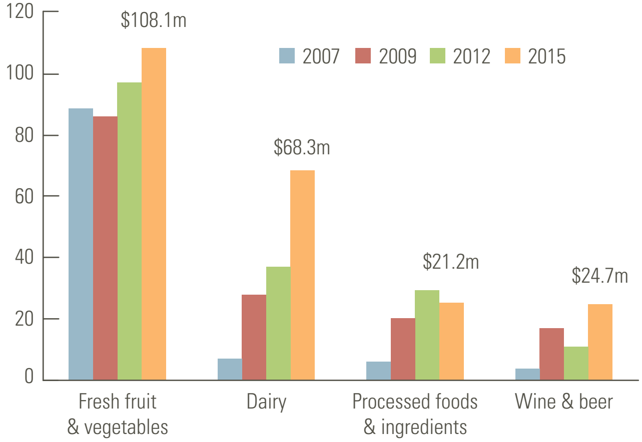
A new potato cultivar, 'Crop39', has been launched to New Zealand growers. The cultivar will be marketed as White Beauty for commercial growers and as Summer Beauty for the garden market. It is a bright, high-yielding potato, good for mashing, roasting and boiling whole. The cultivar was bred for New Zealand conditions but is also being evaluated in Australia and the USA.

Destinations of New Zealand vegetable exports



Source: Statistics New Zealand. Year ending 30 June 2017.

New Zealand exports of organically certified produce *($ millions)*

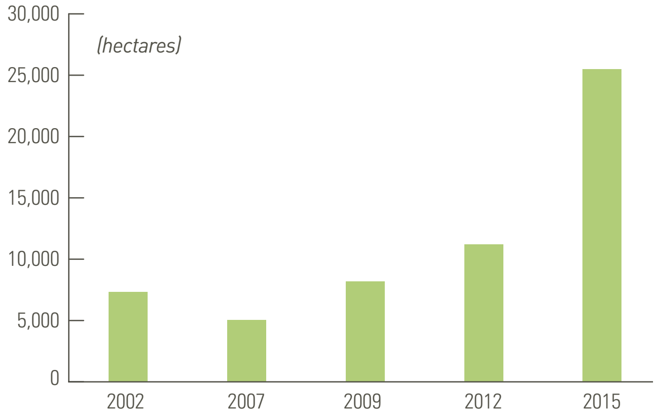


Source above and below: New Zealand Organic Market Report 2016. Years ending March.

Organic production

- → New Zealand horticultural land area under organic certification increased by 128% in the three years from 2012 (11,188 ha) to 2015 (25,476 ha), reflecting significant growth principally in certified organic pipfruit and vineyard production.
- → In 2015 there were 610 organic operations in horticulture, down 5% from 2012.
- → Export values of organically certified fresh fruit and vegetables in 2015 were calculated to be $108m and 45% of total organic sector produce exports.
- → In 2015, the New Zealand market for organic food, including both exported and domestically consumed, was estimated at between $457m and $467m. This compares with an estimated $350m in 2012 – a 30% increase.

New Zealand land area under organic certification, horticulture and viticulture



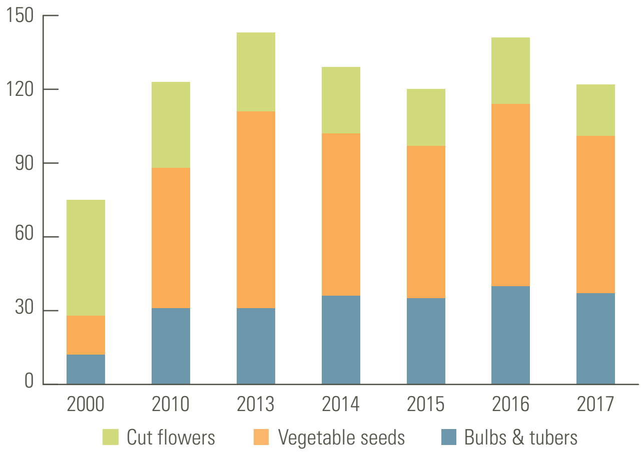
Exports of flowers, plants, seeds and other products *($ million,fob)*

	2000	2010	2015	2016	2017
Cut flowers					
- Chrysanthemums		0.2	0.1	0.1	0.1
- Hydrangeas		2.7	2.8	2.4	2.4
- Lilium	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	14.6	11.7
- Paeonies	0.5	1.7	2.0	2.7	2.7
- Pittosporum		1.2	0.5	0.6	0.6
- Proteaceae	1.4	0.9	0.3	0.3	0.3
- Sandersonias	3.1	0.2	0.1	0.2	0.1
- Zantedeschia (Calla lily)	7.7	3.7	0.9	1.0	0.3
- Other foliage	0.6	0.6	0.3	0.2	0.6
- Other cut flowers	8.5	2.7	2.8	4.7	2.1
Plants					
- Other live plants	5.6	6.6	4.8	5.2	4.8
Seeds					
- Flower seeds	2.1	0.3	0.4	0.2	0.4
- Fruit seeds		1.9	2.4	2.8	3.1
- Cabbage seeds		5.0	4.7	4.9	6.5
- Carrot seeds		7.6	12.2	17.3	12.8
- Radish seeds		21.4	23.9	28.5	22.8
- Silverbeet seeds			4.0	6.1	2.4
- Other veg. seeds	15.9	23.4	17.7	17.4	19.9
- Tree seeds	1.6	1.5	1.0	1.1	1.4
Bulbs, tubers, corms					
- Lilium		16.8	24.2	22.7	20.6
- Sandersonias		0.7	0.2	0.4	0.2
- Tulips		9.6	9.7	16.3	15.3
- Zantesdeschia (Calla lily)	1.5	3.5	0.1	0.1	0.1
- Others	10.1	0.4	0.6	0.1	0.1
Sphagnum moss	15.3	6.1	5.2	5.4	5.4*
Total	98.8	139.9	134.0	155.5	136.9

*The term "bulbs" is used to include bulbs, corms, tubers, tuberous roots, crowns & rhizomes. *Authors' estimate.*
Source: Statistics New Zealand. Years ending 30 June.

→ Cut flowers and foliage exports decreased in value to $21.1m in 2017 having averaged $28.2m for the previous five years. Seeds exports were $69.3m (prev. 5 yr average: $72.4m). 2017 imports in these categories (cif value) were cut flowers and foliage $6.0m, seeds $27.0m (veg. seed $23.2m), and bulbs and other live plants $9.9m.

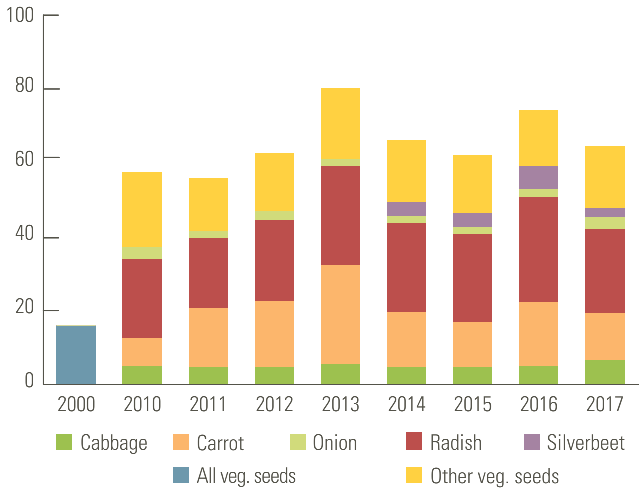
Exports of flowers, seeds and bulbs *($ million, fob)*



→ Of the $20.5m of cut flowers exported to 33 countries in 2017 (2016 $26.8m), Asia was the largest destination region $11.5m ($15.7m), dominated by Japan at $7.8m ($11.9m). The next largest destination markets were the USA $4.4m and Hong Kong $1.4m, with exports to other countries each being less than $1.0m.

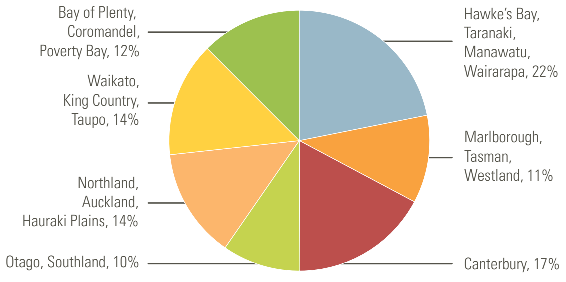
→ Vegetable seed valued at $64.4m in 2017 (2016: $74.3m) was exported to 50 countries, having been only $15.9m in 2000. Largest export value destinations were: Continental Europe $32.0m (The Netherlands $25.2m, Germany $3.2m, France $2.1m, Italy $1.2m), Asia $22.9m (Korea $8.0m, Japan $5.9m, Vietnam $3.4m), the USA $3.4m and Australia $2.3m. Exports to 41 other countries were each less than $1.0m fob.

Vegetable seed exports *($ million)*



Source for above graphs: Statistics New Zealand. Years ending 30 June.

New Zealand honey production *(14,855 tonnes)*

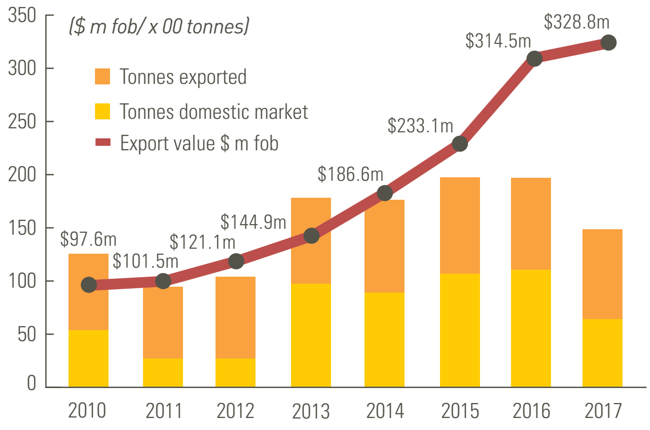


Source: AsureQuality Ltd. Year ending June 2017.

A vital contributor to horticulture

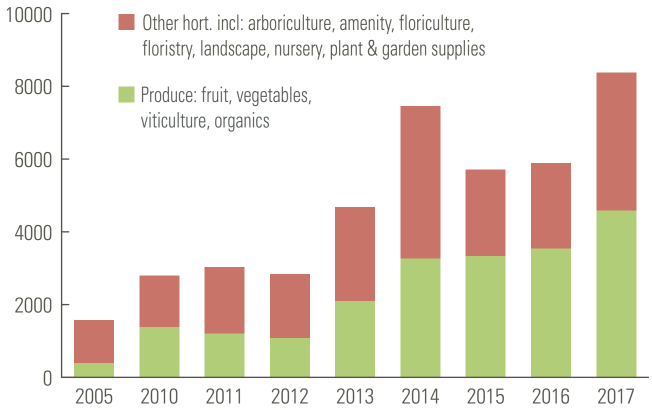
- Bees are crucial to New Zealand's primary sector, pollinating approximately one third of our food sources.
- Honey production in 2017, at 14,855t was down by 5,030t (2016: 19,885t), but above the ten-year average of 14,712t. Average yield per hive at 18.7kg was 62% of the 10-year average of over 30kg per hive, because of what the Ministry for Primary Industries described as "*unfavourable climatic conditions impacting on crop flowering, bee activity and nectar flows in several districts.*"
- In 2017 New Zealand's honey exports went to 56 countries, with a total value of $328.8m fob (2016: $314.5m), 81% by weight in retail packs.
- As at June 2017 New Zealand's 7,814 registered beekeepers (2016: 6,735) had 795,578 hives, an increase of 111,532 on 2016 and now double the number of hives in 2011.

New Zealand natural honey exports 2010 - 2017



Source: Statistics New Zealand *(Years to June)*

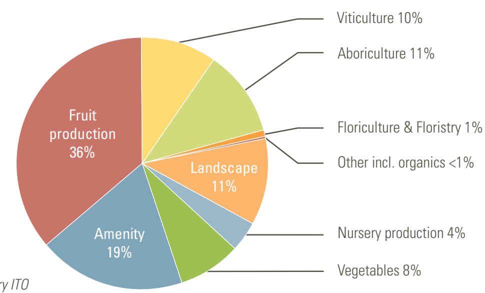
People in horticultural training, per year 2005 - 2017



Source: Primary ITO *(Years to December)*

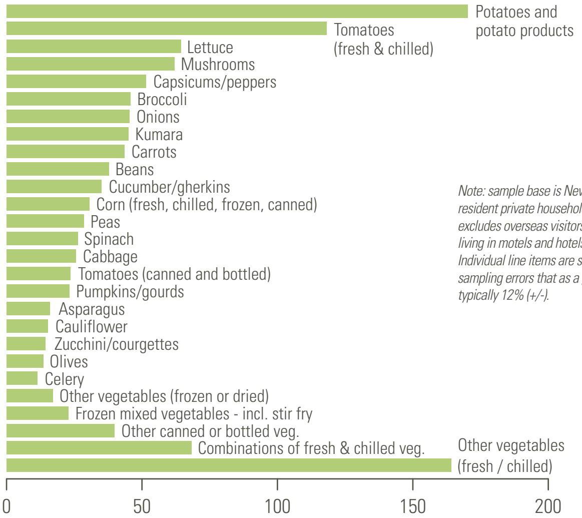
- In 2017 trainees in the different fields of horticulture totalled 8,379 (2016: 5,894).
- Trainee numbers in the subjects of fruit, vegetables and viticulture (wine grape) production, and in organics totalled 4,592 in 2017 and exceeded the previous record of 3,546 in 2016.
- The average number of trainees in produce production subjects for the four years 2014 to 2017 was 3,172 per year compared with the four years prior (2010 to 2013) average of 1,890.

Trainees by category *(year to December 2017)*



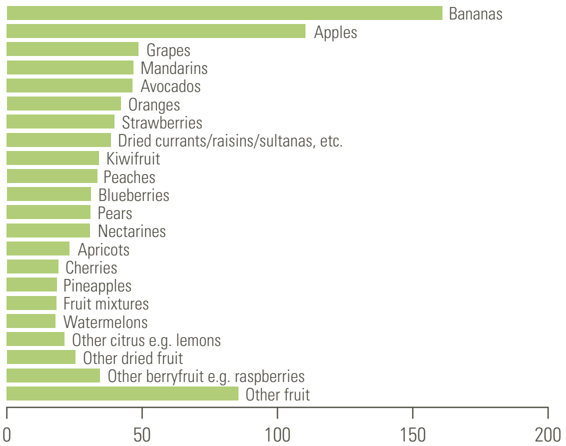
Source: Primary ITO

New Zealand consumer spending on vegetables *($ 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 *($ million)*



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

In 2016 New Zealand households spent an estimated $3.0b on fruit, vegetables and wine, with:

- → $ 800m on fresh and chilled fruit
- → $ 160m on processed fruit
- → $ 930m on fresh and chilled vegetables
- → $ 330m on processed vegetables
- → $ 820m on wine

Source: Statistics New Zealand: triennial Household Economic Survey (HES), 2016 . 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, 2017

	Crop area (ha)	On-farm ($ million)	Off-farm ($ million)	Total ($ million)
Apples, pears & nashi	9,535	1,765	1,510	
Wine grapes	37,129	7,465	21,050	
Kiwifruit	12,578	7,670	2,330	
Summerfruit	1,808	155	110	
Avocados	3,787	1,005	550	
Citrus	1,660	145	80	
Berryfruit	3,072	265	180	
Nuts	1,344	115	30	
Olives	2,172	190	130	
Other subtropical fruit	750	65	30	
Hops	442	40	70	
Other fruit	923	80	350	
Total fruit	75,200	$18,960	$26,420	**$45,380**
Potatoes	10,330	645	310	
Peas & Beans	9,750	680	330	
Onions	4,895	305	150	
Squash	6,525	520	250	
Sweetcorn	4,664	305	145	
Broccoli, cabbages & cauliflowers	2,800	180	90	
Carrots	1,410	90	45	
Asparagus	521	35	15	
Lettuce	1,350	90	50	
Other vegetables	7,235	470	195	
Total vegetables (outdoor)	49,480	$3,320	$1,580	**$4,900**
Floriculture - outdoor	590	40	20	
Protected - high tech	85	340	100	
- greenhouse tomatoes	120	360	110	
- low/medium tech.	320	480	140	
- floriculture (under cover)	340	510	50	
Total floriculture & protected crops	1,455	1,730	420	**$2,150**
Total horticultural	126,135	$24,010	$28,420	**$52,430**

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 2017 (pgs 8 to 16 incl.) with author adjustments for informal production and differ from Statistics New Zealand Agricultural Production Census hectares as at June 2012 (pgs 26 & 27). No adjustment has been made for non-productive farm/orchard/vineyard areas that 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. Off-farm investment levels have been estimated from industry advice and guidance including integrated producers whose supply chain includes both production and post production.

- → The highest value investments are in the apple, wine grape, kiwifruit and avocado orchards and vineyards that are collectively 84% of fruit crop hectares. Since 2015, apple orchards have increased in value by approx. 70% (strong performance in international markets); kiwifruit orchards also increased by approx. 70% in value (export success with new gold kiwifruit cultivars and emergence from the Psa bacteria impact); wine grape vineyards had a lesser increase (New Zealand wine continues to receive accolades from international markets); avocado orchards increased in value by approx. 180% (strong performance in export markets).

- → Total investment in New Zealand's horticultural industry is estimated to be in excess of $52b (2015: $40b) inclusive of off-farm postharvest and related facilities. Investment in vegetable crops and related facilities 2015 to 2017 increased by approx. 8%.

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

As at 30 June 2012

Regional Council	Apples	Wine grapes	Kiwifruit	Summerfruit	Avocados	Citrus	Berryfruit	Nuts	Olives	Other subtropical	Other fruits	Total fruits
Year ended 30 June 2012												
Northland	17	82	574	17+	1,547	295+	22+	62+	201	117+	29	2,963+
Auckland	96	300	363	50+	148	103+	137	112+	250	91	29	1,679+
Waikato	141	26	726	37	176	20+	342+	44+	55	79+	15	1,661+
Bay of Plenty	5	C	9,912	6+	2,081	106	45+	72	42	112+	34	12,415+
Gisborne	110	1,685	326	C	60	1151	C	8+	C	115+	14	3,469+
Hawke's Bay	5,115	4,936	222	854	28	13+	23+	14+	321	222+	25	11,773+
Taranaki	C	C	0	0	62	C	C	C	C	17+	C	79+
Manawatu-Wanganui	34	8	C	21+	22	5+	30+	53+	43	50+	C	266+
Wellington	C	895	C	29+	16	4+	8+	33	216	49+	30	1,280+
Tasman-Nelson	2,496+	821+	497+	22+	7	1+	688	59+	129	284+	47	5,051+
Marlborough	18	22,627	C	68+	C	0	C	31+	134	15+	C	22,893+
West Coast	C	0	0	0	0	0	C	6	0	5+	C	11+
Canterbury	226	1,550	C	102	C	C	1,008	639	240	18+	23	3,806+
Otago	459	1,577	0	1,046	C	0	27+	116+	22	16+	13	3,276+
Southland	C	C	0	C	0	C	5+	33+	0	C	C	38+
Other/non allocated	128	55	137	24	2	159	263	62	4	75	137	1,046+
Total New Zealand	**8,845**	**34,562**	**12,757**	**2,276**	**4,149**	**1,857**	**2,598**	**1,344**	**1,657**	**1265**	**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
%	-4%	17%	-4%	-1%	4%	1%	4%	-9%	-24%	-16%	-1%	5%

Major changes reflected in 2012 Agricultural Production Census: total fruit production area has increased by 13,171ha (23%) since 2002 census: wine grapes doubled since 2002 census of 17,359ha; kiwifruit reduced 502 ha since 2007, but was 793ha above 2002 census of 11,964ha; olives decreased 24% (-516ha) since 2007 census and is now 36% below 2002 census of 2,590 ha. Total outdoor vegetables area is 3,014ha (-6%) less than the 2002 Census but almost unchanged since 2007; since the 2007 census, sweetcorn ha is -25% (-1,564ha) but onions inceased +24% (+1,124ha) and carrots by +55% (+727ha); peas & beans (predominantly peas), increased 5% since 2007, but the census area is 14% (1,250ha) less than the 2002 figure of 9,108ha. 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 2002, 2007 & 2012. 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)*

Regional Council	Asparagus	Broccoli Cab & Caulis	Carrots	Peas & Beans	Lettuce	Onions	Potatoes	Squash	Sweet corn	Other veg	Total veg
Year ended 30 June 2012											
Northland	C	28	6	2+	C	C	22	C	84	1,354	1,496+
Auckland	C	940	194	79	469	1,621	1,444	C	38	572	5,357
Waikato	459	75+	166	2+	73	1,837	2,074	C	42	298+	5,026+
Bay of Plenty	C	53+	0	C	0	C	C	C	15	94+	162+
Gisborne	0	C	0	283+	C	C	C	2,406	2,493	429+	5,611+
Hawke's Bay	110	85	C	2,506	10	662	589	3,248	1,050	537+	8,797+
Taranaki	C	C	C	C	C	C	23	C	C	C	23+
Manawatu-Wanganui	173	859	429	43	339	392	1,260	241	23	472+	4,231+
Wellington	0	39+	C	1+	41	C	19	C	C	32+	132+
Tasman-Nelson	4	346+	C	C	132	55+	13+	14+	37+	203+	804+
Marlborough	C	C	C	742	C	C	2	C	601	109+	1,454+
West Coast	0	0	0	0	C	0	0	0	0	0	0
Canterbury	29	323	823	4,155	23	1,035	5,754	C	255	651	13,048
Otago	C	149	C	C	25	4	153	C	C	2	333
Southland	0	C	300	0	C	C	210	0	0	C	510
Other	45	1,238	129	333	138	167	28	942	63	560	2,723
Total New Zealand	**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
%	-6%	-7%	55%	5%	-5%	24%	15%	-12%	-25%	-15%	0%

Distribution of indoor crops *(m^2; 000s)*

Regional Council	Capsicum	Cucumber	Lettuce/ Salad Greens	Mush-rooms (Cased)	Toma-toes	All other veg. & herbs (Indoors)
Northland	C	18	21	C	109	21+
Auckland	327	144	63	C	483	138
Waikato	85	46	31	C	348	43
Bay of Plenty	C	C	29	C	6	C
Gisborne	0	0	0	0	C	0
Hawke's Bay	3	2	1	C	6	2+
Taranaki	C	0	C	0	C	C
Manawatu-Wanganui	C	C	C	0	C	4+
Wellington	1	C	1	0	C	7+
Tasman-Nelson	50+	C	7	0	C	C
Marlborough	0	0	C	0	C	C
West Coast	C	0	C	0	C	C
Canterbury	22	31	35	C	49	28+
Otago	C	C	9	C	6	C
Southland	0	0	C	0	C	C
Other	84	28	41	152	174	116
Total New Zealand	**572**	**269**	**238**	**152**	**1,181**	**359**
2007	585	266	n/a	n/a	1,005	n/a
%	-2%	1%			18%	

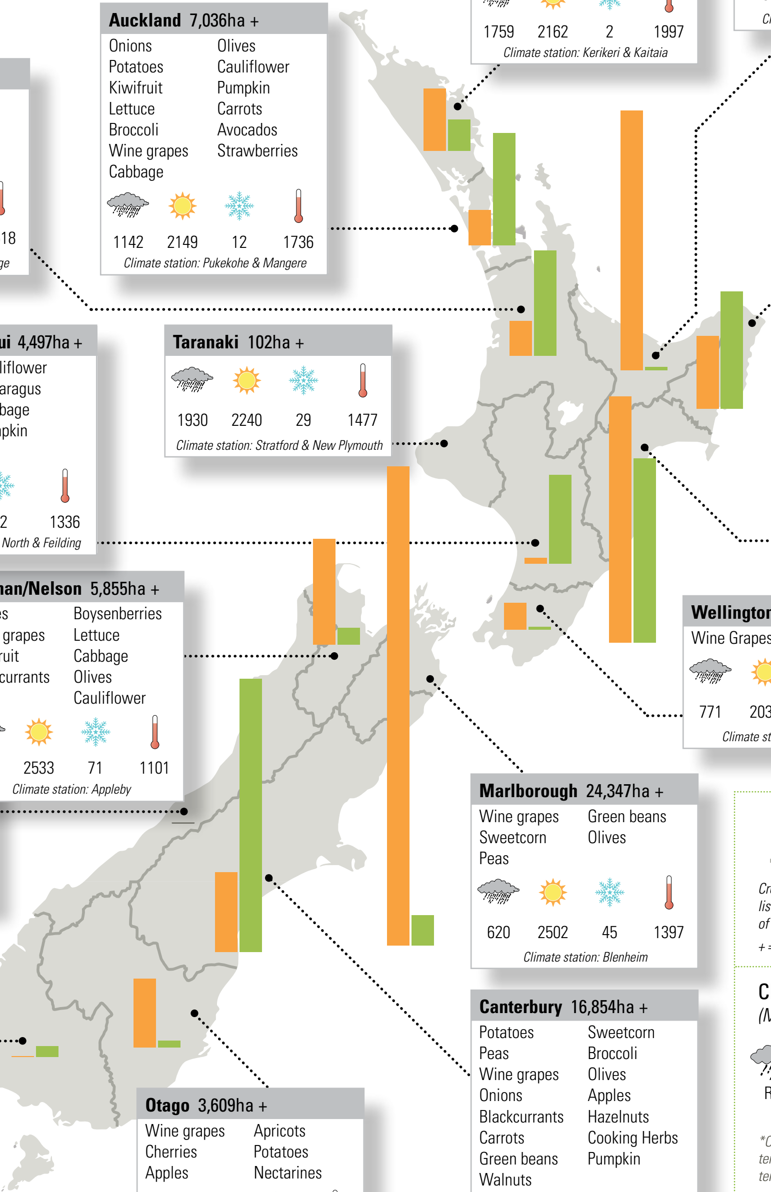
See above notes

(1 ha = 10,000 m^2)

For more information visit www.statistics.govt.nz

Regional resources

Horticultural activities are distributed throughout New Zealand



Northland 4,459ha +
Avocados, Mandarins, Kumara, Olives, Kiwifruit

Rainfall	Sunshine	Ground frost	Heat units
1759	2162	2	1997

Climate station: Kerikeri & Kaitaia

Bay of Plenty 12,577ha +
Kiwifruit, Avocados

Rainfall	Sunshine	Ground frost	Heat units
1266	2420	24	1905

Climate station: Tauranga & Hiruera

Auckland 7,036ha +
Onions, Olives, Potatoes, Cauliflower, Kiwifruit, Pumpkin, Lettuce, Carrots, Broccoli, Avocados, Wine grapes, Strawberries, Cabbage

Rainfall	Sunshine	Ground frost	Heat units
1142	2149	12	1736

Climate station: Pukekohe & Mangere

Waikato 6,687ha +
Potatoes, Blueberries, Onions, Avocados, Asparagus, Carrots, Kiwifruit, Apples

Rainfall	Sunshine	Ground frost	Heat units
1192	2027	53	1518

Climate station: Ruakura & Cambridge

Gisborne 9,080 ha +
Sweetcorn, Tomatoes, Squash, Kiwifruit, Wine grapes, Peas, Oranges, Lemons, Mandarins, Apples

Rainfall	Sunshine	Ground frost	Heat units
1029	2294	28	1748

Climate station: Gisborne

Hawke's Bay 20,570ha +
Apples, Peaches, Wine grapes, Pumpkin, Squash, Nectarines, Peas, Kiwifruit, Sweet corn, Pears, Onions, Plums, Potatoes, Asparagus, Green beans, Apricots, Olives

Rainfall	Sunshine	Ground frost	Heat units
747	2329	63	1807

Climate station: Whakatu & Napier

Manawatu/Wanganui 4,497ha +
Potatoes, Cauliflower, Broccoli, Asparagus, Carrots, Cabbage, Onions, Pumpkin, Squash

Rainfall	Sunshine	Ground frost	Heat units
932	1755	42	1336

Climate station: Palmerston North & Feilding

Taranaki 102ha +

Rainfall	Sunshine	Ground frost	Heat units
1930	2240	29	1477

Climate station: Stratford & New Plymouth

Tasman/Nelson 5,855ha +
Apples, Boysenberries, Wine grapes, Lettuce, Kiwifruit, Cabbage, Blackcurrants, Olives, Pears, Cauliflower

Rainfall	Sunshine	Ground frost	Heat units
860	2533	71	1101

Climate station: Appleby

Wellington 1,412ha +
Wine Grapes, Olives

Rainfall	Sunshine	Ground frost	Heat units
771	2031	46	1303

Climate station: Martinborough

Westland 11ha +

Rainfall	Sunshine	Ground frost	Heat units
2297	1936	32	1138

Climate station: Arapito

Marlborough 24,347ha +
Wine grapes, Green beans, Sweetcorn, Olives, Peas

Rainfall	Sunshine	Ground frost	Heat units
620	2502	45	1397

Climate station: Blenheim

Canterbury 16,854ha +
Potatoes, Sweetcorn, Peas, Broccoli, Wine grapes, Olives, Onions, Apples, Blackcurrants, Hazelnuts, Carrots, Cooking Herbs, Green beans, Pumpkin, Walnuts

Rainfall	Sunshine	Ground frost	Heat units
604	2059	67	959

Climate station: Lincoln & Rangiora

Southland 548ha +
Carrots, Potatoes

Rainfall	Sunshine	Ground frost	Heat units
1140	1790	103	584

Climate station: Invercargill Airport

Otago 3,609ha +
Wine grapes, Apricots, Cherries, Potatoes, Apples, Nectarines

Rainfall	Sunshine	Ground frost	Heat units
359	2330	124	963

Climate station: Clyde & Cromwell

Reference

Fruit
Vegetables
Regional Boundary

Crop is named where the regional area exceeds 100ha and listed in decending order of hectares planted. Some 3,769ha of crops could not be assigned to a specific region.

+ = incomplete data set for region

Climate summaries
(Mean annual values for 2001-2010)

Rainfall (mm) | Sunshine (hours) | Ground frost (days) | Heat units (degree days)*

**One degree day is accumulated when the average daily temperature is above 10.0°C for one day e.g. An average daily temperature of 15.0°C will generate 5 degree day units.*

Source: Statistics New Zealand 2012 Agricultural Production Census. Climate information copyright holder and source: National Institute of Water and Atmospheric Research Ltd (NIWA). Data from multiple climate stations have been used to build near complete data sets for the decade.

For more information visit
www.niwascience.co.nz/ncc

Horticentre Charitable Trust

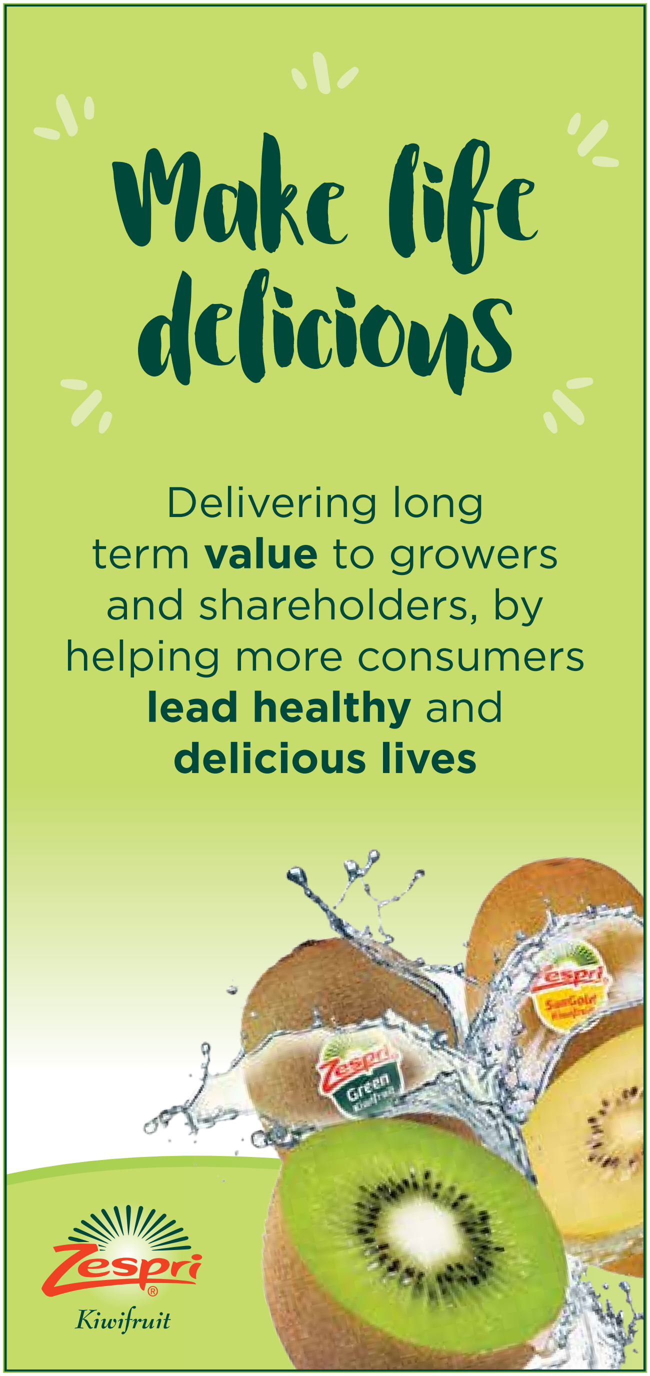
About the Trust

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

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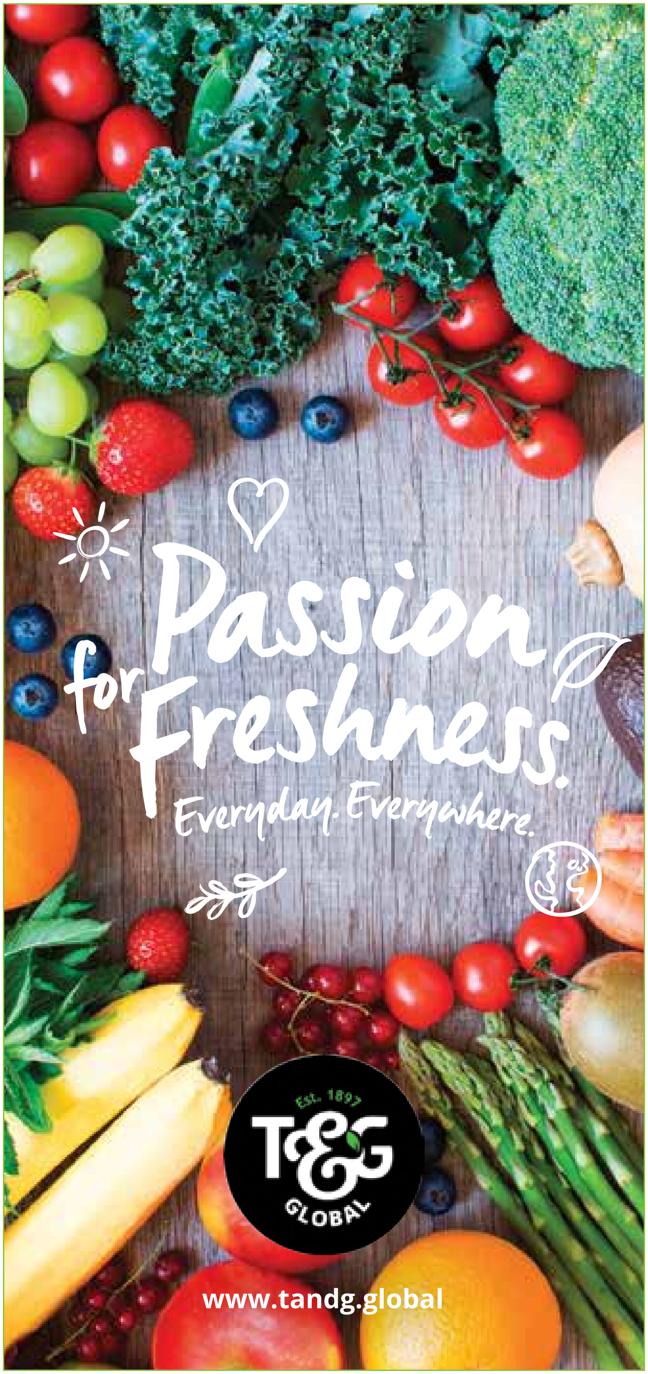
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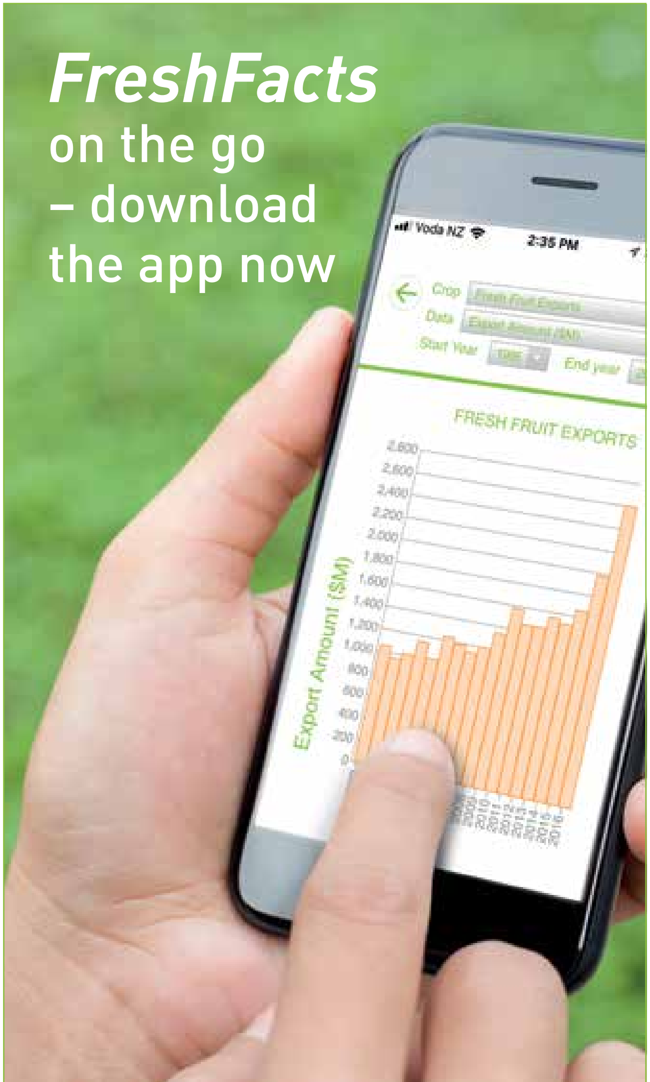

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New Zealand Apples & Pears

Potatoes™ NEW ZEALAND

United Fresh New Zealand Incorporated

Horticentre Charitable Trust

New Zealand Fruitgrowers Charitable Trust

Est. 1897 T&G Global

Zespri Kiwifruit

Ministry for Primary Industries Manatū Ahu Matua

References used to compile this booklet:

1. *Statistics New Zealand, PO Box 2822, Wellington*
    a. *Agricultural Production Census for year ended 30 June 2012.*
    b. *Household Economic Survey (HES) for year ended 30 June 2016.*
    c. *Overseas Trade Export Statistics for year ended 30 June 2017.*
    d. *Import statistics for year ended 30 June 2017.*

2. *New Zealand Winegrowers Annual Reports to 2017.*
   New Zealand Winegrowers. PO Box 90-276, Auckland. www.nzwine.com

3. *Pipfruit Industry Statistical Annual 2017 (year to Dec. 2017)*
   New Zealand Apples and Pears Inc. PO Box 11-094, Hastings. www.applesandpears.nz

4. *World Apple Review, 2017 Edition, Belrose, Inc.*

5. *Zespri Group Annual Reports & Annual Reviews to 2017.*
   Zespri Group Ltd. PO Box 4043, Mt Maunganui. www.zespri.com

6. *Horticulture New Zealand, PO Box 10232, Wellington. www.hortnz.co.nz*

7. *Avocado Industry Council Annual Report 2017. New Zealand Avocado Growers' Association and Avocado Industry Council Ltd. www.nzavocado co.nz*

8. *Orchard and farm valuation advice, Logan Stone Ltd. www.loganstone.co.nz*

9. *Further prospects for horticulture - the continuing importance of research, Bollard, ES, New Zealand Fruitgrowers Charitable Trust, Wellington. 1996.*

10. *Apiculture Monitoring Report 2017, Ministry for Primary Industries. www.mpi.govt.nz and AsureQuality Ltd. www.asurequality.com*

11. *Primary ITO (primary industries training organisation) data to Dec. 2017. www.primaryito.ac.nz*

12. *National Institute of Water & Atmospheric Research Ltd (NIWA): National Climate Centre. www.niwascience.co.nz/ncc*

13. *Organic sector data are from New Zealand Organic Market Report 2016, commissioned by OANZ (Organics Aotearoa New Zealand). www.oanz.org*

14. *Multiple product group contacts for updating available domestic production data.*

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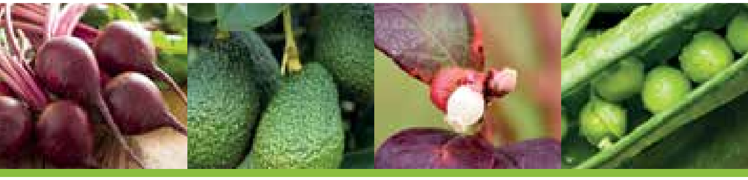

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