GREEN BEANS

MANAWATŪ CROPS // UNLOCKING LAND DIVERSIFICATION OPPORTUNITIES

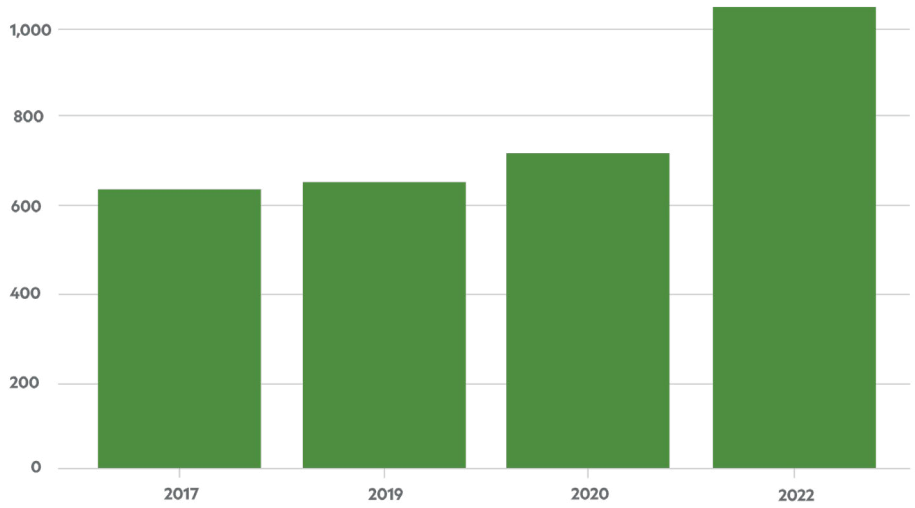
CEDA CENTRAL ECONOMIC DEVELOPMENT AGENCY | MANAWATŪ

GREEN BEAN PRODUCTION

NEW ZEALAND'S GREEN BEANS PRODUCTION FALLS INTO THE FROZEN PROCESSING CATEGORY, WITH THE MAJOR CONTRIBUTING REGIONS BEING CANTERBURY (HEINZ WATTIE) AND HAWKE'S BAY (MCCAINS).

In recent years, the production area increased from 700ha to about 1000ha in 2022 with yields of 10.7t per hectare (Fresh Facts 2023).

GREEN BEANS HARVESTED IN NEW ZEALAND
2017-2022, HECTARES HARVESTED



Stats NZ

Production in Manawatū may be suited to the fertile silt loams on river flats and could form part of a crop rotation or as a crop in a pasture renewal system. Although the rainfall pattern in the region varies little from month to month, as green beans are planted in summer farmers will likely need to make adjustments to their current irrigation system. The risk of not making these adjustments means it is unlikely for there to be adequate available soil moisture to support the crop to get good yields.

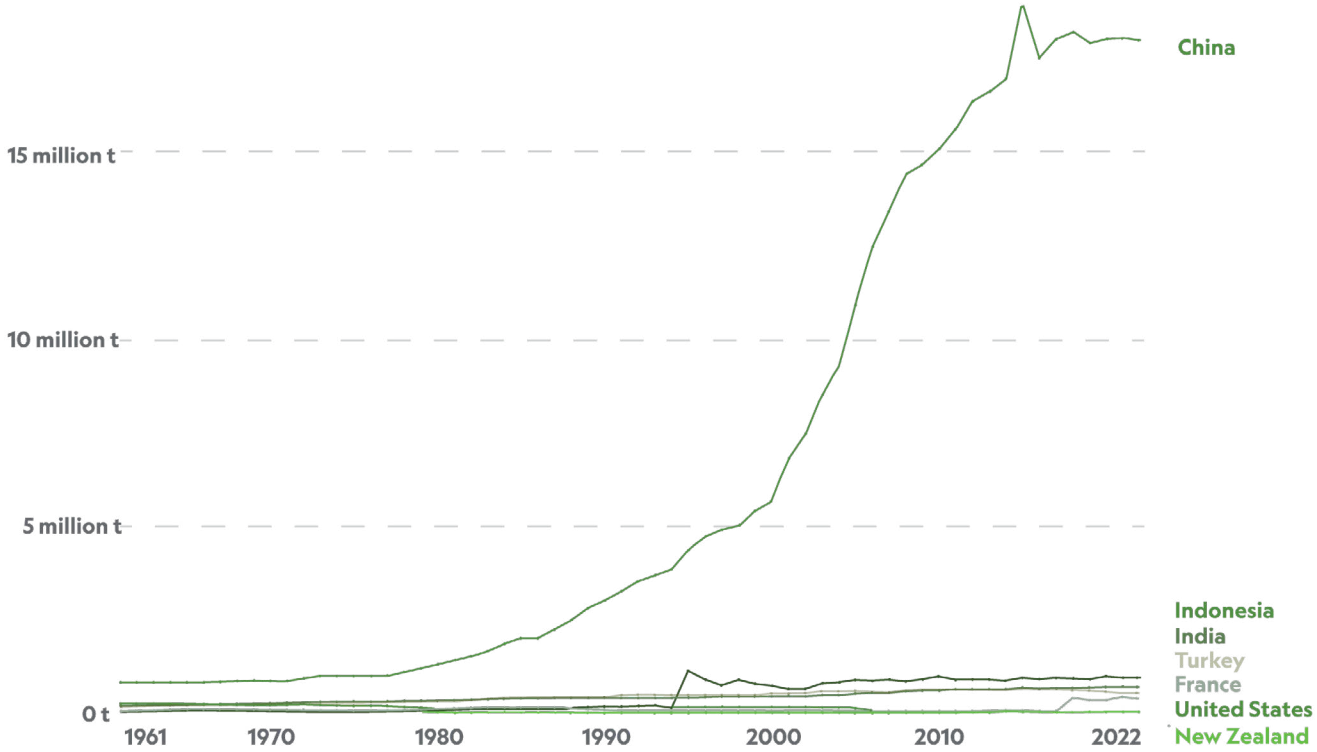
There are a number of cultivars of green beans for fresh consumption which may need to be evaluated to select cultivars suited to the region to supply green beans for as long a harvest window as possible.

Global green bean production was 20.8M tonnes ($69.8b NZD) in 2023. China accounts for 72% of the global production of green beans and has remained relatively stable, producing 16.3m tonnes over the period of 2013 to 2022. Other major producers Indonesia and the US have had more fluctuation in their production with Indonesia increasing production at a rate of 0.4% per year and the US decreasing by 1.9% per year.

In 2023, the global green bean harvested area was estimated at 1.7M hectares with a yield of around 14 tonnes per hectare and both area and yield have been relatively static at that level.

Note: All currency was converted to NZD on 15/08/24 unless stated otherwise.

GREEN BEAN PRODUCTION
1961 TO 2022



UN Food and Agriculture Organization (FAO)
Note: This crop refers to green beans, the vegetable product
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ACCESSING THE GREEN BEAN MARKET

Supply fresh New Zealand green beans to the local market in southern lower North Island
Supply fresh New Zealand green beans into the North Island domestic market
Supply New Zealand green beans for processing and potentially export
Potentially export fresh green beans to key Pacific nations

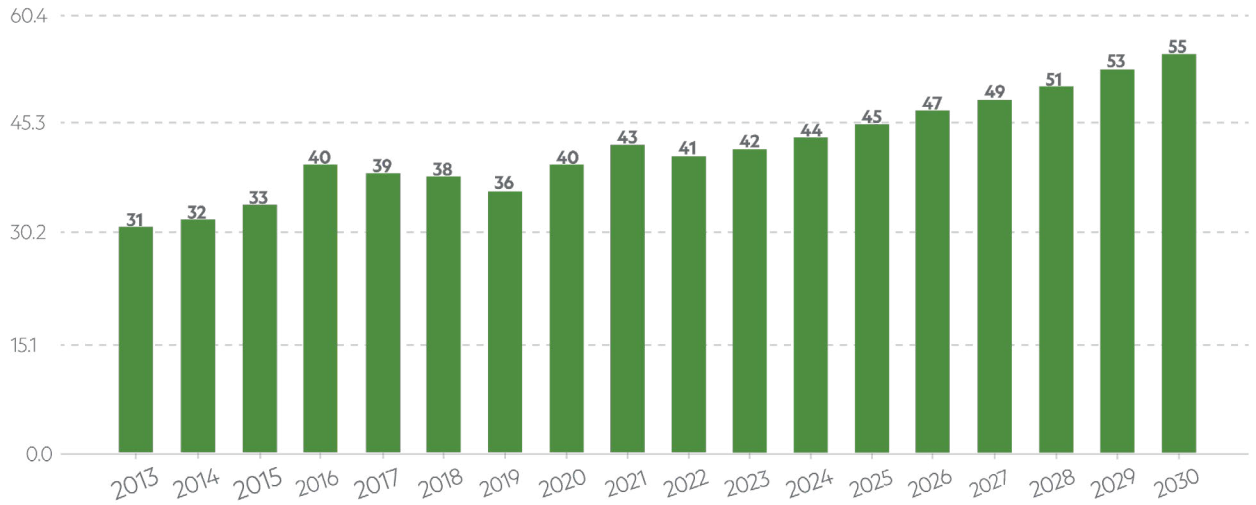
ACCESSING THE GREEN BEAN MARKET

GREEN BEANS ARE THE SECOND LARGEST FRESH VEGETABLE IMPORT TO NEW ZEALAND IN VALUE, WITH $8.1M (NZD) AND 1700T IN VOLUME (FRESH FACTS 2023).

The global market is driven by increasing demand for green beans worldwide and the market is expected to continue an upward consumption trend over the next seven-year period from a current 23-25M tonnes. Market performance is forecast to accelerate, expanding with an anticipated compound annual growth rate (CAGR) of +2% for the period from 2023 to 2030, which is projected to bring the market volume to 26.3M tonnes by the end of 2030. In value terms, the market is forecast to increase with an anticipated CAGR of +4% of value for the period from 2023 to 2030, which is projected to bring the market value to $91.6b NZD by the end of 2030.

MARKET VALUE

BILLION USD, IN NOMINAL WHOLESALEPRICES



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In 2023, after two years of decline, there was growth in the global consumption of green beans, when volume increased by 1.2% to 22M tonnes. The global green bean market revenue rose to $69.8b NZD in 2023, surging by 2.1% against the previous year. This figure reflects the total revenues of producers and importers. The market value increased at an average annual rate of +3% from 2013 to 2023. The global market hit record highs at $71.1b NZD in 2021; however, from 2022 to 2023, consumption stood at a somewhat lower figure.

The country with the largest volume of green bean consumption was China with18M tonnes at a value of $32.3b NZD), accounting for 72% of total volume. Indonesia is a distant second with919K tonnes at $4.5b NZD, and third position was held by the United States with 777K tonnes, with a 3.1% share. From 2013 to 2023, the average annual rate of growth in terms of volume in China was relatively modest at +4.3%. The countries with the highest levels of green beans per capita consumption in 2023 were China at 13 kg per person, France at 8 kg per person, and Turkey with 6.9 kg per person. From 2013 to 2023, the most notable rate of growth in terms of consumption, amongst the main consuming countries, was attained by France with a CAGR of +5.8%, while consumption for the other global leaders experienced mixed trends in the per capita consumption figures.

GREEN BEAN IMPORTS AND EXPORTS

ACCORDING TO THE INDEXBOX GLOBAL GREEN BEAN MARKET REPORT 2024, FRESH GREEN BEAN IMPORTS FOLLOW A RELATIVELY FLAT TREND PATTERN. IMPORTS PEAKED AT 622K TONNES IN 2021 AND HAVE SINCE SEEN A REDUCTION FROM THAT LEVEL IN THE LAST TWO YEARS.

In value terms, green bean imports stood at $1.8b NZD in 2023. The total import value increased at an average annual rate of +1.4% over the period from 2013 to 2023.

In value terms, the largest green bean importing markets worldwide were the United States ($386.6m NZD), Spain ($300m NZD) and the Netherlands ($206.6m NZD), together comprising 47% of global imports by value. The United States, with a CAGR of +8.2%, recorded the highest growth rate of the value of imports.

IMPORT VALUE BY COUNTRY

COUNTRY	WEIGHT (TONNES)	VALUE ($) NZD	SHARE OF TOTAL IMPORTS
United States	105k	$386.6m	52% of total imports
Spain	91.6k	$300m	
Belgium	90.7k		21% share of total imports
Netherlands	46.2k	$206.6m	
France	40k		
United Kingdom	27.4k		
Singapore		$25m	

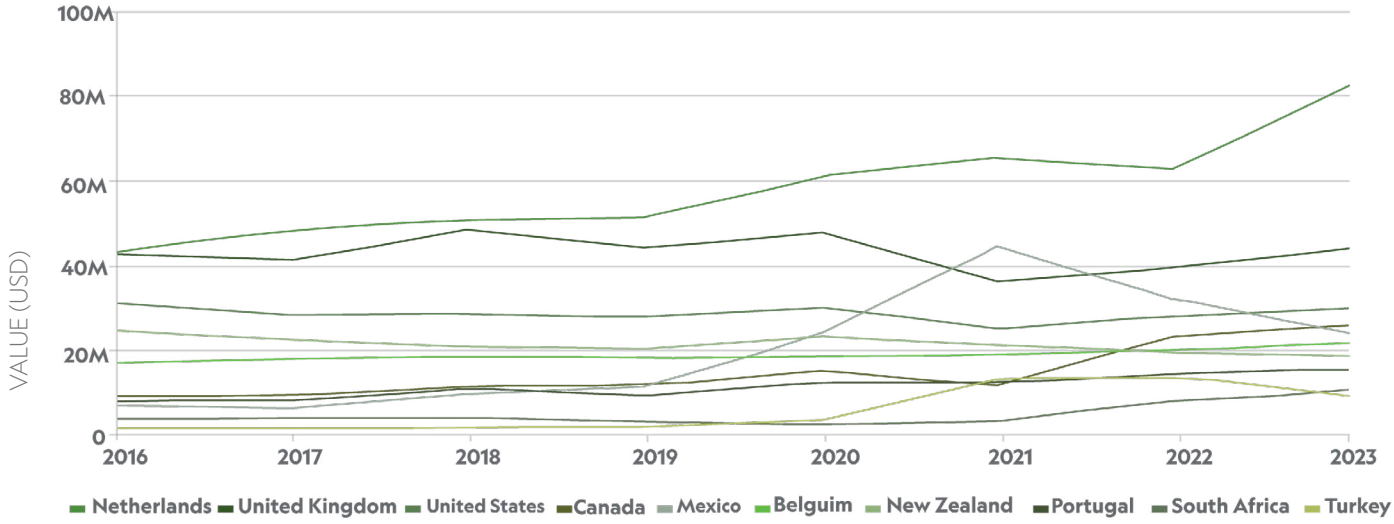
In 2023, export shipments of fresh green beans decreased by -5.2% to 560.6K tonnes at $2,984 NZD per tonne (up 12% on previous year) resulting in an increase in export value to $2b NZD despite the drop in volume. Over the period under review, exports recorded a relatively flat trend but price increased by 3.3% per annum. The most prominent rate of growth was recorded in 2020 when exports increased by 21%. In general, total exports indicated a noticeable expansion from 2013 to 2023 and value increased at an average annual rate of +3.8% over the last decade. Based on 2023 figures, exports increased by +56.7% against 2015 indices. The global exports are likely to see steady growth in years to come. Morocco (108.8K tonnes 19% of total) and France (105K tonnes 18.5% of total) were the largest exporters of green beans in 2023, with China (59K tonnes and 10% of total exports).

Prices varied noticeably by country of origin, with the highest price from Kenya at $6,247.86 NZD per tonne, while Malaysia, at $1,102.55 NZD per tonne, was amongst the lowest. From 2013 to 2023, the most notable rate of growth in terms of prices was attained by China, with +21.2% and the Netherlands at +5.1%.

Green beans are also processed goods, with the key countries and import and export trends differing for processed green beans compared to fresh beans with New Zealand being in the top ten for processed green bean exports at 17,500t valued at NZ$51m (Fresh Facts 2023).

TRENDS OF TOP 10 EXPORTERS

TOP 10 EXPORTERS OF VALUE ADDED GREEN BEANS FROM 2016 TO 2023



Value Added Green Beans Global Experts and top exporters 2024 (tridge.com)

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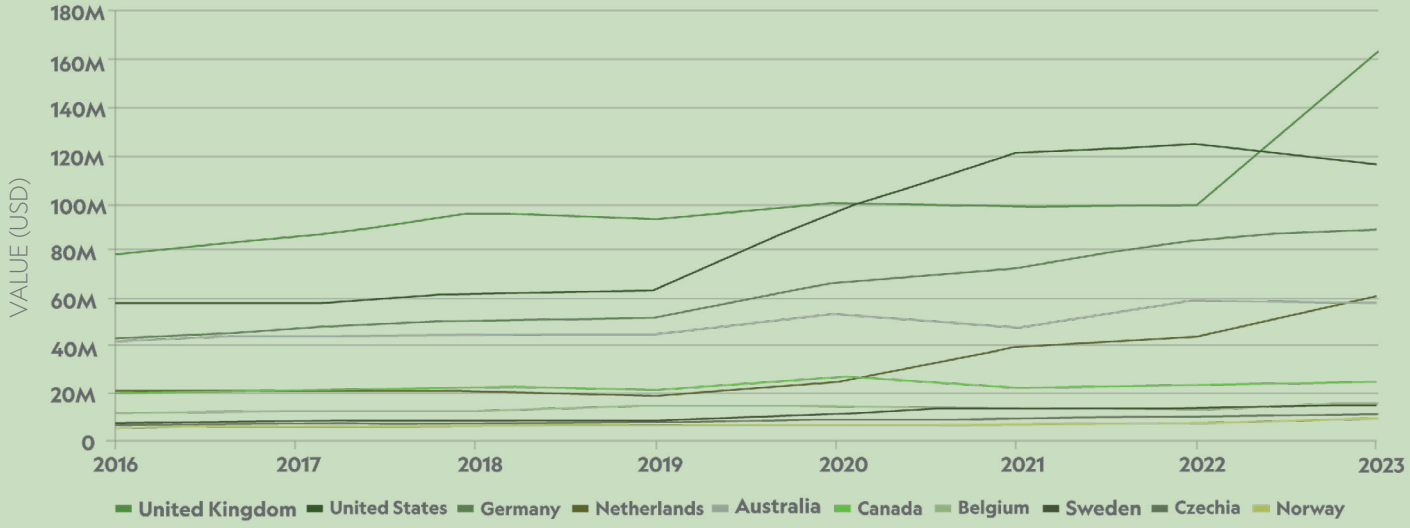

Value Added Green Beans Global Experts and top exporters 2024 (tridge.com)

GREEN BEAN DISTRIBUTION AND MARKETING

WITHIN NEW ZEALAND, DISTRIBUTION AND MARKETING OF GREEN BEANS WOULD UTILISE SIMILAR CHANNELS TO OTHER FRESH VEGETABLES WITH SUPERMARKETS BEING THE MAJOR RETAIL OUTLETS.

The export of fresh green beans is expected to be via airfreight to Asia Pacific countries and to target premium markets, in particular food service markets. A robust cool chain would need to be established from the field, to export terminal, to market to enable fresh bean exports.

Storage life is up to 4 weeks with good storage at 4-8C. Cool storage using controlled atmosphere with air composition (3% O2+3%CO2 at 8 °C) can extend the storage life of green beans (Sanchez-Mata et al 2003).

GREEN BEAN INFRASTRUCTURE

THE ON-FARM INFRASTRUCTURE FOR GREEN BEAN PRODUCTION WILL REQUIRE TRACTORS, CULTIVATORS, DRILLS, SPRAYERS AND HARVEST EQUIPMENT.

As the crop is grown through the summer period irrigation would be required. Off farm, good cool store facilities that can rapidly remove field heat and maintain high humidity will be needed.

Labour for harvesting will be critical and could fit around other crops in the system or labour used in kiwifruit harvesting for example.

GREEN BEAN OPPORTUNITIES IN MANAWATŪ

>> Produce fresh green beans for supply into the local and domestic market and partner with other farmers in other regions with earlier or later planting dates to provide supply over a longer season.

>> Produce premium fresh green beans for export to some key Asia Pacific nations such as Singapore.

>> Green beans can fit well into a farm system either in a pasture renewal or in a long term cropping system. As a legume in a long term crop system, it can fix nitrogen which may be available to subsequent crops.

>> Fresh green bean packing and storage could utilise a centralised, possibly toll based packing and storage facility along with other vegetable crops.

>> Labour required for harvest may be when other seasonal labour in the region is not at peak, or labour could be spread across the year with a long term crop system.

ManawatuNZ.co.nz/land-diversification

TE MAURI O MANAWATŪ

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