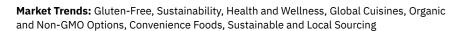
Pacific Trade Invest | New Zealand Market Insights

Ginger (Zingiber officinale)

1. OFFER ANALYSIS

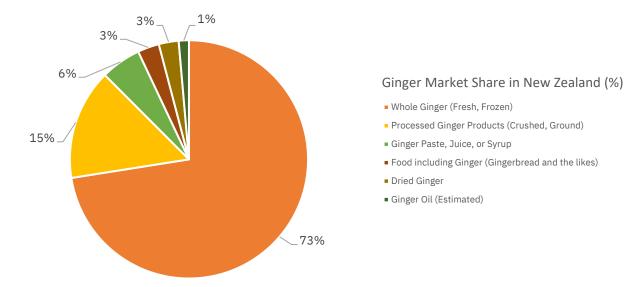
Description & Market Trends

Ginger (Zingiber officinale) is a rhizome that has been treasured for its culinary and medicinal properties for centuries. Originating in Southeast Asia, ginger cultivation has found a fertile ground in Fiji's tropical climate. Ranking among the world's top producers, Fiji is known for its high-quality, organically grown ginger. It contains 2-3% essential oils and oleoresins that are responsible for its unique flavor and aroma. Ginger is primarily used as a spice and flavoring agent in both food and beverages, but it also has various medicinal uses, including antiinflammatory and digestive benefits. The commercial ginger cultivation in Fiji started as early as 1950 and the produce was exported to New Zealand and USA1. Planting season of ginger in Fiji is during September to early November and 70% of the ginger is harvested during January-March for fresh immature rhizomes. The remaining crop is harvested during June-July as matured ginger. Ginger is cultivated in Suva/Nausori/Navua areas of Viti Levu by Fijian small and marginal farmers. Exporters and processors buy ginger from these farmers.²



New Zealand top market trends in 2022 vs YA, with market size

- Whole Ginger (Fresh, Frozen) ≈ 1560 Tons in 2022 (-20% vs YA)
- Processed Ginger Products (Crushed, Ground) ≈ 323 Tons in 2022 (+8% vs YA)
- Ginger Paste, Juice or Syrup ≈ 118 Tons in 2022 (-26% vs YA)
- Food including Ginger (Gingerbread and the likes) ≈ 63 Tons in 2022 (+2% vs YA)
- Dried Ginger ≈ 58 Tons in 2022 (+18% vs YA)
- Ginger Oil ≈ Estimate 3 Tons in 2022 (Worlwide the market grew by 5.3% between 2018 and 2022)





² "Spices of the Pacific region with special reference to vanilla and ginger production: Challenges and the way forward" By K Kandiannan, Shalendra Prasad & Amena Banuve



GINGER NUTRITIO	NAL CONTENT
Nutrient	Amount (per 100g)
Calories	80 kcal
Protein	1.82 g
Fat	0.75 g
Carbohydrates	17.77 g
Fiber	2.0 g
Sugars	1.7 g
Calcium	16 mg
Iron	0.6 mg
Magnesium	43 mg
Phosphorus	34 mg
Potassium	415 mg
Sodium	13 mg
Zinc	0.34 mg
Vitamin C	5 mg
Thiamin (Vitamin B1)	0.025 mg
Riboflavin (Vitamin B2)	0.034 mg
Niacin (Vitamin B3)	0.75 mg
Vitamin B6	0.16 mg
Folate (Vitamin B9)	11 mcg
Vitamin E	0.26 mg
Vitamin K	0.1 mcg

Here's a showcase of the various value add products that can be created from Ginger, the below products underligned are identified as being top market trends by assessing the offering in main retailers across New Zealand.

Food and Beverage

- Ginger Powder Dried and ground ginger used as a spice.
- Ginger Tea Made from fresh or dried ginger.
- Ginger Ale A carbonated soft drink flavored with ginger.
- Ginger Beer A fermented, non-alcoholic beverage made from ginger.
- Ginger Candy Candied ginger, often coated in sugar or syrup.
- Ginger Juices and Smoothies Often combined with other fruits and vegetables.
- Ginger Based Cakes A type of cake or cookie flavored with ginger.
- Pickled Ginger Often used as a palate cleanser in Asian cuisines.
- Ginger Sauce A sauce made with ginger, often used in Asian dishes.
- Ginger Snaps Crisp cookies flavored with ginger.
- Ginger Juice Extracted juice used in cooking or as a health drink.

Health and Wellness

- Ginger Oil Extracted oil used for its anti-inflammatory and digestive benefits.
- Ginger Capsules Dried ginger powder encapsulated for easy consumption.
- Ginger Tincture A concentrated liquid extract.
- Ginger Cream or Salve Used topically for pain relief.
- Ginger Bath Soaks Used for relaxation and muscle relief.

Beauty Products

- Ginger Shampoo Used for strengthening hair.
- Ginger Conditioner Complements the shampoo for hair care.
- Ginger Face Masks Used for its anti-inflammatory properties.
- Ginger Body Scrub Used for exfoliation and improving blood circulation.

Miscellaneous

- Ginger Potpourri Dried ginger used in aromatic blends.
- Ginger Incense Burned for its calming and uplifting scent.
- Ginger-Infused Liquor For cocktails or medicinal purposes.

Agricultural Byproducts

• Ginger Pulp - Leftover material from juicing can be used as animal feed or compost.

Understanding Consumer Demand in New Zealand Market

Ginger and ginger-related products, such as ginger beer, teas, whole ginger, and supplements, have established themselves as popular choices in the New Zealand market. The appeal of ginger transcends demographic boundaries, making it a versatile ingredient in the country's culinary and wellness landscape. New Zealand's multicultural population plays a significant role in ginger's popularity. With people from various ethnic backgrounds residing in the country, ginger has become a common ingredient in a wide range of cuisines. From Asian stir-fries to Indian curries and traditional Kiwi baking, ginger's versatile flavor and health benefits make it a staple in many households.

New Zealand's immigrant communities, particularly those with Asian and Indian backgrounds, have a strong affinity for ginger. It is a fundamental ingredient in the cuisines of these groups, contributing to consistent demand. Ginger is not only used in savory dishes but also in traditional beverages and sweets, adding to its cultural significance. Beyond cultural associations, ginger has found a place among culinary enthusiasts and home cooks. Its distinctive flavor can elevate a wide range of dishes, from marinades and sauces to desserts. Ginger's versatility makes it a popular ingredient with a high potential for growth and new products developpment.



The trend towards healthier eating habits has further developed ginger's status in New Zealand. Consumers of all ages and backgrounds are increasingly drawn to ginger due to its perceived health benefits. The anti-inflammatory and digestive properties of ginger align with the desires of health-conscious individuals looking to incorporate natural remedies into their diets. Individuals seeking natural remedies and wellness products are also a significant consumer group for ginger-based supplements and teas. Ginger's reputation for aiding digestion, reducing nausea, and offering anti-inflammatory benefits appeals to those looking for holistic solutions to health concerns. It has the potential to find its place in virtually every household, from any ethnic group and any socio-economic group, presented in one form or another.

Overall Market Insights

Imports of Ginger, crushed or ground in value to New Zealand (NZD) with Ranking

	2022		2021		2020		2019		2018	
<u>↑↓</u>	Value (NZD)	% Total	Value (NZD) '	% Total	Value (NZD)	% Total	Value (NZD)	% Total	Value (NZD)	% Total
China	671 465 NZD	42,17%	489 418 NZD	32,52%	939 466 NZD	52,68%	478 165 NZD	47,47%	509 660 NZD	43,24%
India	450 933 NZD	28,32%	521 260 NZD	34,63%	396 209 NZD	22,22%	296 112 NZD	29,40%	349 845 NZD	29,68%
Australia	225 687 NZD	14,17%	276 778 NZD	18,39%	203 215 NZD	11,40%	185 867 NZD	18,45%	251 206 NZD	21,31%
Germany	89 979 NZD	5,65%	80 121 NZD	5,32%	123 961 NZD	6,95%	8 635 NZD	0,86%	15 403 NZD	1,31%
Fiji	85 147 NZD	5,35%	99 741 NZD	6,63%	75 039 NZD	4,21%		0,00%	9 467 NZD	0,80%
Sri Lanka	18 681 NZD	1,17%	10 108 NZD	0,67%	6 535 NZD	0,37%	7 803 NZD	0,77%	11 532 NZD	0,98%
Indonesia	13 765 NZD	0,86%	5 NZD	0,00%		0,00%	1 953 NZD	0,19%	1 054 NZD	0,09%
Thailand	7 922 NZD	0,50%	6 876 NZD	0,46%	5 696 NZD	0,32%	6 147 NZD	0,61%	8 090 NZD	0,69%
Vietnam	7 136 NZD	0,45%	4 818 NZD	0,32%	10 628 NZD	0,60%	3 692 NZD	0,37%	817 NZD	0,07%
Peru	5 943 NZD	0,37%		0,00%	9 284 NZD	0,52%	4 307 NZD	0,43%	3 234 NZD	0,27%
Hong Kong	5 110 NZD	0,32%	4 123 NZD	0,27%	1 551 NZD	0,09%	3 236 NZD	0,32%	719 NZD	0,06%
Netherlands	2 050 NZD	0,13%	2 644 NZD	0,18%	2 110 NZD	0,12%	3 181 NZD	0,32%	3 106 NZD	
Philippines	2 036 NZD	0,13%		0,00%		0,00%		0,00%		0,00%
Korea, South	1 959 NZD	0,12%	3 283 NZD	0,22%	1 879 NZD	0,11%		0,00%	2 124 NZD	0,18%
Malaysia	1 838 NZD	0,12%		0,00%	344 NZD	0,02%	343 NZD	0,03%	314 NZD	-,
Bangladesh	1 129 NZD	0,07%	331 NZD	0,02%		0,00%	734 NZD	0,07%	748 NZD	0,06%
United States	701 NZD	0,04%	580 NZD	0,04%		0,00%		0,00%	1 230 NZD	0,10%
United Kingdom	316 NZD	0,02%	585 NZD	0,04%	1 036 NZD	0,06%		0,00%	1 094 NZD	
Italy	213 NZD	0,01%		0,00%		0,00%		0,00%		0,00%
Iran	120 NZD	0,01%		0,00%	409 NZD	0,02%		0,00%		0,00%
Nigeria	70 NZD	0,00%	1 442 NZD	0,10%		0,00%		0,00%		0,00%
Canada	9 NZD	0,00%		0,00%		0,00%		0,00%		0,00%
Belgium		0,00%	1 676 NZD	0,11%	4 759 NZD	0,27%	5 371 NZD	0,53%	7 756 NZD	0,66%
Austria		0,00%		0,00%		0,00%	917 NZD	0,09%	350 NZD	0,03%
Ethiopia		0,00%		0,00%	290 NZD	0,02%		0,00%		0,00%
Syria		0,00%	574 NZD	0,04%		0,00%		0,00%		0,00%
Turkey		0,00%		0,00%	2 NZD	0,00%		0,00%		0,00%
Cook Islands		0,00%		0,00%		0,00%		0,00%	351 NZD	0,03%
Ukraine		0,00%		0,00%	727 NZD	0,04%		0,00%		0,00%
United Arab Emirates		0,00%		0,00%	134 NZD	0,01%	73 NZD	0,01%		0,00%
Latvia		0,00%		0,00%		0,00%	593 NZD	0,06%		0,00%
Israel		0,00%	37 NZD	0,00%		0,00%		0,00%		0,00%
Pakistan		0,00%		0,00%		0,00%		0,00%	297 NZD	0,03%
Japan		0,00%		0,00%		0,00%	166 NZD	0,02%		0,00%
Jordan		0,00%	622 NZD	0,04%		0,00%		0,00%	294 NZD	0,02%

Imports of Ginger, crushed or ground in volume to New Zealand (NZD) with Ranking

	2022		2021		2020		2019		2018	
↓ ↓	Quantity (Kg)	% Total	Quantity (Kg) %	% Total	Quantity (Kg)	% Total	Quantity (Kg)	% Total	Quantity (Kg)	% Total
China	167 887	52,0%	122 003	40,8%	210 385	58,7%	141 621	59,9%	144 928	54,9%
India	90 615	28,1%	101 930	34,1%	77 526	21,6%	72 339	30,6%	89 676	34,0%
Fiji	29 258	9,1%	36 073	12,1%	24 784	6,9%		0,0%	6 413	2,4%
Australia	16 656	5,2%	19 152	6,4%	15 297	4,3%	15 417	6,5%	15 741	6,0%
Germany	14 150	4,4%	15 540	5,2%	24 662	6,9%	1 700	0,7%	1 625	0,6%
Vietnam	778	0,2%	774	0,3%	1 448	0,4%	525	0,2%	25	0,0%
Thailand	578	0,2%	1 778	0,6%	614	0,2%	808	0,3%	1 012	0,4%
Sri Lanka	512	0,2%	295	0,1%	190	0,1%	338	0,1%	339	0,1%
Indonesia	511	0,2%	0	0,0%		0,0%	25	0,0%	100	0,0%
Hong Kong	408	0,1%	408	0,1%	135	0,0%	294	0,1%	68	0,0%
Peru	400	0,1%		0,0%	650	0,2%	350	0,1%	250	0,1%
Netherlands	321	0,1%	420	0,1%	350	0,1%	888	0,4%	893	0,3%
Bangladesh	241	0,1%	31	0,0%		0,0%	62	0,0%	166	0,1%
Philippines	231	0,1%		0,0%		0,0%		0,0%		0,0%
Malaysia	130	0,0%		0,0%	2	0,0%	12	0,0%	24	0,0%
Italy	34	0,0%		0,0%		0,0%		0,0%		0,0%
United States	30	0,0%	3	0,0%		0,0%		0,0%	30	0,0%
Korea, South	24	0,0%	42	0,0%	72	0,0%		0,0%	18	0,0%
United Kingdom	10	0,0%	2	0,0%	11	0,0%		0,0%	12	0,0%
Iran	8	0,0%		0,0%	50	0,0%		0,0%		0,0%
Nigeria	3	0,0%	70	0,0%		0,0%		0,0%		0,0%
Canada	1	0,0%		0,0%		0,0%		0,0%		0,0%
Ukraine		0,0%		0,0%	134	0,0%		0,0%		0,0%
Ethiopia		0,0%		0,0%	100	0,0%		0,0%		0,0%
Syria		0,0%	10	0,0%		0,0%		0,0%		0,0%
Belgium		0,0%	720	0,2%	1 705	0,5%	1 980	0,8%	2 610	1,0%
Austria		0,0%		0,0%		0,0%	29	0,0%	12	0,0%
Turkey		0,0%		0,0%	3	0,0%		0,0%		0,0%
Pakistan		0,0%		0,0%		0,0%		0,0%	11	0,0%
Cook Islands		0,0%		0,0%		0,0%		0,0%	15	0,0%
United Arab Emirates		0,0%		0,0%	40	0,0%	6	0,0%		0,0%
Israel		0,0%	2	0,0%		0,0%		0,0%		0,0%
Latvia		0,0%		0,0%		0,0%	18	0,0%		0,0%
Japan		0,0%		0,0%		0,0%	4	0,0%		0,0%
Jordan		0,0%	48	0,0%		0,0%		0,0%	12	0,0%

Average Price per Kg of Ginger, crushed or ground imported to New Zealand by trade partner

-1	2022	2021	2020	2019	2018
Korea, South	81,63 NZD	78,17 NZD	26,10 NZD		118,00 NZD
Sri Lanka	36,49 NZD	34,26 NZD	34,39 NZD	23,09 NZD	34,02 NZD
United Kingdom	31,60 NZD	292,50 NZD	94,18 NZD		91,17 NZD
Indonesia	26,94 NZD	0,00 NZD		78,12 NZD	10,54 NZD
United States	23,37 NZD	193,33 NZD			41,00 NZD
Nigeria	23,33 NZD	20,60 NZD			
Iran	15,00 NZD		8,18 NZD		
Peru	14,86 NZD		14,28 NZD	12,31 NZD	12,94 NZD
Malaysia	14,14 NZD		172,00 NZD	28,58 NZD	13,08 NZD
Thailand	13,71 NZD	3,87 NZD	9,28 NZD	7,61 NZD	7,99 NZD
Australia	13,55 NZD	14,45 NZD	13,28 NZD	12,06 NZD	15,96 NZD
Hong Kong	12,52 NZD	10,11 NZD	11,49 NZD	11,01 NZD	10,57 NZD
Vietnam	9,17 NZD	6,22 NZD	7,34 NZD	7,03 NZD	32,68 NZD
Canada	9,00 NZD				
Philippines	8,81 NZD				
Netherlands	6,39 NZD	6,30 NZD	6,03 NZD	3,58 NZD	3,48 NZD
Germany	6,36 NZD	5,16 NZD	5,03 NZD	5,08 NZD	9,48 NZD
Italy	6,26 NZD				
India	4,98 NZD	5,11 NZD	5,11 NZD	4,09 NZD	3,90 NZD
Bangladesh	4,68 NZD	10,68 NZD		11,84 NZD	4,51 NZD
China	4,00 NZD	4,01 NZD	4,47 NZD	3,38 NZD	3,52 NZD
Fiji	2,91 NZD	2,76 NZD	3,03 NZD		1,48 NZD
Turkey			0,67 NZD		
Belgium		2,33 NZD	2,79 NZD	2,71 NZD	2,97 NZD
United Arab Emirates			3,35 NZD	12,17 NZD	
Pakistan					27,00 NZD
Ethiopia			2,90 NZD		
Cook Islands					23,40 NZD
Ukraine			5,43 NZD		
Latvia				32,94 NZD	
Israel		18,50 NZD			
Austria				31,62 NZD	29,17 NZD
Syria		57,40 NZD			
Japan				41,50 NZD	
Jordan		12,96 NZD			24,50 NZD

Imports of Ginger, neither crushed nor ground in value to New Zealand (NZD) with Ranking

		2022		2021		2020		2019		2018	
	<u>~1</u>	Value (NZD)	% Total	Value (NZD) %	6 Total	Value (NZD) 9	% Total	Value (NZD) 9	% Total	Value (NZD)	% Total
Thailand		2 901 891 NZD	79,26%	4 655 072 NZD	68,85%	3 180 396 NZD	59,40%	3 153 502 NZD	95,43%	2 748 352 NZD	93,07%
China		606 124 NZD	16,55%	1 887 702 NZD	27,92%	1 943 216 NZD	36,30%	5 077 NZD	0,15%	31 042 NZD	1,05%
Fiji		89 537 NZD	2,45%	184 509 NZD	2,73%	229 084 NZD	4,28%	145 879 NZD	4,41%	128 293 NZD	4,34%
United States		36 372 NZD	0,99%		0,00%		0,00%		0,00%		0,00%
Australia		25 183 NZD	0,69%		0,00%		0,00%		0,00%	1 726 NZD	0,06%
Vietnam		1 952 NZD	0,05%	32 225 NZD	0,48%		0,00%		0,00%		0,00%
India		385 NZD	0,01%	1 232 NZD	0,02%	369 NZD	0,01%		0,00%		0,00%
Tonga			0,00%		0,00%		0,00%	100 NZD	0,00%	1 NZD	0,00%
Vanuatu			0,00%	150 NZD	0,00%		0,00%		0,00%		0,00%
Japan	·		0,00%		0,00%	733 NZD	0,01%		0,00%		0,00%
Togo			0,00%		0,00%		0,00%		0,00%	34 317 NZD	1,16%
Netherlands			0,00%		0,00%		0,00%		0,00%	309 NZD	0,01%
Peru			0,00%		0,00%	•	0,00%		0,00%	9 027 NZD	0,31%

Imports of Ginger, neither crushed nor ground in volume to New Zealand (NZD) with Ranking

		2022		2021		2020		2019		2018	
	↓ ↓	Quantity (Kg)	% Total	Quantity (Kg) %	6 Total	Quantity (Kg)	% Total	Quantity (Kg)	% Total	Quantity (Kg)	% Total
Thailand		1 212 530	77,8%	1 255 933	64,0%	808 942	53,6%	1 221 366	95,1%	1 218 716	92,5%
China		290 176	18,6%	630 270	32,1%	616 258	40,8%	1 245	0,1%	11 166	0,8%
Fiji		29 058	1,9%	66 892	3,4%	83 206	5,5%	61 552	4,8%	65 951	5,0%
United States		23 222	1,5%		0,0%		0,0%		0,0%		0,0%
Australia		2 390	0,2%		0,0%		0,0%		0,0%	108	0,0%
Vietnam		630	0,0%	8 320	0,4%		0,0%		0,0%		0,0%
India		100	0,0%	360	0,0%	275	0,0%		0,0%		0,0%
Tonga			0,0%		0,0%		0,0%	10	0,0%	20	0,0%
Vanuatu			0,0%	20	0,0%		0,0%		0,0%		0,0%
Japan			0,0%		0,0%	24	0,0%		0,0%		0,0%
Togo			0,0%		0,0%		0,0%		0,0%	20 160	1,5%
Netherlands			0,0%		0,0%		0,0%		0,0%	90	0,0%
Peru			0,0%		0,0%		0,0%		0,0%	992	0,1%

Average Price per Kg of Ginger, neither crushed nor ground imported to New Zealand by trade partner

	2022		2020		2018
Australia	10,54 NZD				15,98 NZD
India	3,85 NZD	3,42 NZD	1,34 NZD		
Vietnam	3,10 NZD	3,87 NZD			
Fiji	3,08 NZD	2,76 NZD	2,75 NZD	2,37 NZD	1,95 NZD
Thailand	2,39 NZD	3,71 NZD	3,93 NZD	2,58 NZD	2,26 NZD
China	2,09 NZD	3,00 NZD	3,15 NZD	4,08 NZD	2,78 NZD
United States	1,57 NZD				
Togo					1,70 NZD
Tonga				10,00 NZD	0,05 NZD
Vanuatu		7,50 NZD			
Japan			30,54 NZD		
Netherlands					3,43 NZD
Peru					9,10 NZD

Imports of Ginger, Dry, neither Crushed nor Ground in value to New Zealand (NZD) with Ranking

	2022		2021		2020		2019	2018	
→ 1	Value (NZD)	% Total	Value (NZD) 9	% Total	Value (NZD)	% Total	Value (NZD) % Tota	l Value (NZD)	% Total
China	193 165 NZD	73,10%	149 276 NZD	57,25%	134 263 NZD	12,79%	9 413 NZD 1,08	% 8 841 NZD	1,08%
Sri Lanka	27 707 NZD	10,49%	18 310 NZD	7,02%	29 847 NZD	2,84%	27 932 NZD 3,20	% 32 297 NZD	3,93%
India	21 045 NZD	7,96%	665 NZD	0,26%	5 628 NZD	0,54%	16 272 NZD 1,87	% 9 500 NZD	1,16%
Australia	8 373 NZD	3,17%	11 595 NZD	4,45%	26 363 NZD	2,51%	6 229 NZD 0,71	% 20 903 NZD	2,54%
Germany	4 580 NZD	1,73%	7 287 NZD	2,79%	3 283 NZD	0,31%	16 320 NZD 1,87	% 28 920 NZD	3,52%
Fiji	3 520 NZD	1,33%		0,00%	25 097 NZD	2,39%	0,00	61 350 NZD	7,47%
Hong Kong	2 533 NZD	0,96%	3 872 NZD	1,48%	3 644 NZD	0,35%	2 959 NZD 0,34	% 1 409 NZD	0,17%
Malaysia	921 NZD	0,35%	575 NZD	0,22%		0,00%	0,00	%	0,00%
United Kingdom	884 NZD	0,33%		0,00%		0,00%	0,00	%	0,00%
Japan	675 NZD	0,26%	1 476 NZD	0,57%	517 NZD	0,05%	104 NZD 0,01	% 328 NZD	0,04%
Korea, South	488 NZD	0,18%		0,00%	18 NZD	0,00%	0,00	%	0,00%
Taiwan	351 NZD	0,13%		0,00%		0,00%	0,00	%	0,00%
Ghana		0,00%	20 NZD	0,01%		0,00%	0,00	%	0,00%
France		0,00%	2 NZD	0,00%		0,00%	0,00	%	0,00%
Thailand		0,00%	64 548 NZD	24,75%	805 790 NZD	76,78%	791 998 NZD 90,83	657 973 NZD	80,08%
New Zealand		0,00%		0,00%		0,00%	0,00	% 104 NZD	0,01%
Vietnam		0,00%	2 439 NZD	0,94%	6 563 NZD	0,63%	0,00	%	0,00%
Peru		0,00%		0,00%	8 441 NZD	0,80%	0,00	%	0,00%
Canada	·	0,00%	697 NZD	0,27%		0,00%	748 NZD 0,09	%	0,00%

Imports of Ginger, Dry, neither crushed nor ground in volume to New Zealand (NZD) with Ranking

		2022		2021		2020		2019		2018	
	4 1	Quantity (Kg)	% Total								
China		54 179	92,3%	27 609	55,5%	43 653	14,9%	2 129	0,6%	866	0,2%
India		1 843	3,1%	130	0,3%	490	0,2%	1 622	0,4%	729	0,2%
Sri Lanka		750	1,3%	520	1,0%	783	0,3%	700	0,2%	700	0,2%
Australia		540	0,9%	1 206	2,4%	3 061	1,0%	186	0,0%	3 530	1,0%
Germany		537	0,9%	775	1,6%	260	0,1%	2 090	0,6%	3 246	0,9%
Fiji		481	0,8%		0,0%	7 248	2,5%		0,0%	15 420	4,4%
Hong Kong		144	0,2%	240	0,5%	242	0,1%	192	0,1%	96	0,0%
Japan		132	0,2%	264	0,5%	12	0,0%	5	0,0%	8	0,0%
Malaysia		40	0,1%	32	0,1%		0,0%		0,0%		0,0%
United Kingdom		25	0,0%		0,0%		0,0%		0,0%		0,0%
Taiwan		8	0,0%		0,0%		0,0%		0,0%		0,0%
Korea, South		5	0,0%		0,0%	5	0,0%		0,0%		0,0%
Thailand			0,0%	18 480	37,1%	234 820	80,4%	366 107	98,1%	323 766	92,9%
France			0,0%	0	0,0%		0,0%		0,0%		0,0%
Canada			0,0%	16	0,0%		0,0%	17	0,0%		0,0%
Ghana			0,0%	210	0,4%		0,0%		0,0%		0,0%
Vietnam			0,0%	297	0,6%	1 000	0,3%		0,0%		0,0%
New Zealand			0,0%		0,0%		0,0%		0,0%	10	0,0%
Peru			0,0%		0,0%	600	0,2%		0,0%		0,0%

Average Price per Kg of Ginger, Dry, neither crushed nor ground imported to New Zealand by trade partner

-1	2022		2020		2018
Korea, South	97,60 NZD		3,60 NZD		
Taiwan	43,88 NZD				
Sri Lanka	36,94 NZD	35,21 NZD	38,12 NZD	39,90 NZD	46,14 NZD
United Kingdom	35,36 NZD				
Malaysia	23,03 NZD	17,97 NZD			
Hong Kong	17,59 NZD	16,13 NZD	15,06 NZD	15,41 NZD	14,68 NZD
Australia	15,51 NZD	9,61 NZD	8,61 NZD	33,49 NZD	5,92 NZD
India	11,42 NZD	5,12 NZD	11,49 NZD	10,03 NZD	13,03 NZD
Germany	8,53 NZD	9,40 NZD	12,63 NZD	7,81 NZD	8,91 NZD
Fiji	7,32 NZD		3,46 NZD		3,98 NZD
Japan	5,11 NZD	5,59 NZD	43,08 NZD	20,80 NZD	41,00 NZD
China	3,57 NZD	5,41 NZD	3,08 NZD	4,42 NZD	10,21 NZD
Thailand		3,49 NZD	3,43 NZD	2,16 NZD	2,03 NZD
Vietnam		8,21 NZD	6,56 NZD		
New Zealand					10,40 NZD
Ghana		0,10 NZD			
Peru			14,07 NZD		
Canada		43,56 NZD		44,00 NZD	
France		0,00 NZD			

Weaknesses **Strengths**

Natural Resources: Favorable climatic conditions make Fiji ideal for high- Fluctuating Market Share: Fiji's market share has been inconsistent, quality ginger cultivation.

Unique Selling Proposition: Fiji's ginger may have unique characteristics that differentiate it in the market.

Local Expertise: A strong tradition of ginger farming in Fiji lends valuable Limited Scale: Fiji's scale of production is smaller compared to countries

Export Experience: Fiji has experience in exporting ginger, contributing to 5.35% of total exports in 2022.

Competitive Pricing: Priced at 2.91 NZD in 2022, Fiji offers one of the most cost-effective options.

ranging from 0.8% to 5.35% over the past 5 years.

Volume-Value Discrepancy: Fiji's market share in terms of value is generally lower than its share in terms of volume.

like China and India.

Price Fluctuations: There was a significant price increase from 2018 to 2020, followed by a slight decrease.

Opportunities Threats Competition: Dominance by countries like China and India poses a Niche Markets: Organic or specialty ginger could attract a premium. significant threat. Value-Added Products: Products like ginger paste or dried ginger could **Global Price Fluctuations**: Being a small player, Fiji may be vulnerable offer higher margins. to global price changes. Emerging Markets: New markets like health and wellness could be Climate Change: Alters growing conditions and may affect yield. tapped. Sustainability: Eco-friendly farming could be a unique selling point. Quality Standards: Ensuring consistency in quality can be challenging. Price Positioning Strategy: The low price can be used strategically to Market Sensitivity to Price: Low prices could be seen as low quality. capture price-sensitive markets.

2. MARKET ACCESS

include roots.

Biosecurity Requirements and Advice

Importing Ginger into New Zealand is subject to strict biosecurity controls to protect the country's unique flora, fauna, and agriculture. These regulations apply to all such products unless they meet the requirements specified in an Import Health Standard (IHS). An IHS outlines the specific conditions that must be satisfied before a product can be brought into the country. The full list of fresh fruits and vegetables authorized by countries for import into New Zealand is available via this link: Importation and Clearance of Fresh Fruit and Vegetables 152 02 (mpi.govt.nz)

When Ginger is authorized to be imported to New Zealand from your country, there are particular treatment and quarantine requirements that exporters from Pacific Island countries must adhere to before shipping to New Zealand. These requirements include:

Inspection by the exporting country's national plant protection organization (NPPO) to ensure the absence of visually detectable regulated pests, as specified by the Ministry of Primary Industries .
Pest control measures must be implemented <u>before export</u> .
A valid and completed Phytosanitary Certificate , issued by the exporting country's authority in line with International Plant Protection Convention (IPPC) standards, verifying compliance with the relevant import health standard.
Clean packaging, free from soil and contaminants.
• The Ginger should be intact, sound, and clean , free from rot, signs of shrivelling and dehydration. Free from any visible foreign matter and damage caused by pests affecting the flesh, and abnormal moisture. Should be able to withstand transportation and handling.
Fresh ginger must not include flowers , leaves or any other plant parts . Zingiber officinale must not

Any contamination exceeding acceptable levels must be addressed by washing (for soil contamination) or resorting (for foliage contamination), and the importer bears the cost of these actions, which can be substantial. It's crucial for importers to follow the clearance process diligently, as failure to comply at any stage can have financial implications and impact the product's market value. Please note that these regulations are not specific to any particular product or company.

Biosecurity Clearance of Fresh Fruit and Vegetables for Human Consumption

Step 1	Provision of Documents
	Importers must submit detailed information to MPI before goods arrive.
	Electronic phytosanitary certificates are recommended.
	MPI reviews all accompanying documents for compliance with Import Health Standards (IHS).
Step 2:	Non-compliant Documentation
	Clearance is refused for consignments without valid phytosanitary certificates. Correct documentation must be provided within 48 hours if missing.
-	Transit Requirements
	Short, shipped consignments have exceptions but must meet IHS.
	Transit consignments must meet import or transit requirements of each country.
Step 4	Transport to Approved Inspection Facility
	Compliant produce can be transported to a transitional facility under an MPI Inspector's direction, using pest-proof containers.
Step 5	Phytosanitary Security Before and After Inspection
	Consignments not inspected within 4-6 hours are securely stored.
	Non-compliant consignments are securely stored until inspection or disposal.
Step 6:	Inspection
	MPI conducts risk profiling activities before or upon arrival.
	Visual inspections verify descriptions and absence of pests or contaminants.
	Sampling plans determine inspection quantity based on lot size.
	Biosecurity clearance is granted when all IHS requirements are met.
Step 7:	Reconciliation
	Compliance checks validate phytosanitary certificates, frequency varies based on importer history.

Food Safety Requirement

In New Zealand, food safety regulations are primarily governed by the Food Act 2014 (<u>Available here</u>), the Food Regulations 2015, and the Australia New Zealand Food Standards Code. These regulations apply to all foods sold in New Zealand, including imported foods like taro, cassava, and plantain.

General Requirements

- Traceability: Businesses must be able to trace where their food products came from and where they are going, to ensure that any products that are found to be unsafe can be quickly removed from sale.
- Hygiene: All aspects of food handling, from harvesting to processing, storage, and sale, must adhere to strict hygiene standards.
- Labelling: Food items must be correctly labelled, including ingredients and allergens, and may need to have nutritional information displayed.

Please note this information may be subject to change; it is crucial to consult New Zealand's Ministry for Primary Industries | NZ Government (mpi.govt.nz) or similar authorities for the most current guidelines. They are country specific and product specific. *Please note that failure to adhere to these regulations can result in fines, business closure, or other penalties.

Pharmaceuticals and Cosmetic Requirements

In regard to essential oils extracts or other compounds extraction, pharmaceutical industries usually prefer the CO2 extraction for obtaining high-quality essential oils from ginger. The technique offers several advantages, such as high purity, selectivity, and the ability to operate at lower temperatures compared to traditional methods like steam distillation, therefore preserving the diversity of active components.³ The technique can extract a wide range of phytochemicals, including those sensitive to heat, which may be lost in steam distillation. Specialized equipment capable of maintaining high pressures and temperatures is required. This often represents a significant investment.

The maximum level of GEO consumption determines its safety. According to fragrance raw material monographs, the typical acceptable concentrations of GEO in detergent, soap, fragrances, and creams-lotion are 0.001, 0.001, 0.08, and 0.005, respectively. The safety regulations as additive users, GEO has notified the ECHA (European Chemical Agency) to be classified and labeled as an aspiratory toxin (H304), skin irritant (H315), allergic skin (H317), eye irritant (H319), and respiratory irritant (H319).

Furthermore, for ingredients extracted to be utilized in the pharmaceutical industry, they must comply with all pertinent regulations. These regulations differ depending on the intended use food safety standards for nutraceuticals and cosmetic regulations for cosmetic products as well as the target export markets. In New Zealand, this typically involves adhering to Good Manufacturing Practices (GMP) and meeting the criteria set forth by the New Zealand Medicines and Medical Devices Safety Authority (Medsafe). For products aimed at the U.S. market, compliance with local authorities such as the Food and Drug Administration (FDA) will also be required.

³ From interview with Emmett from Pure Ingredients

⁴ Mahboubi, M., 2019. Zingiber officinale Rosc. Essential oil, a review on its composition and bioactivity. Clin. Phytosci. 5, 1–12.

Certifications

HACCP (Hazard Analysis and Critical Control Points) is a systematic approach to food safety that identifies, evaluates, and controls potential hazards in food production. It's a preventive system that focuses on identifying critical points in the food production process where hazards can be controlled or eliminated. It aims to ensure the safety of food products by identifying and managing potential risks at key stages of production.

New Zealand GAP (Good Agricultural Practices)

is a set of voluntary standards that focus on agricultural and aquaculture practices to ensure the safety and sustainability of food production. These requirements cover various aspects such as environmental conservation, worker welfare, and food safety. Essentially, Global GAP aims to establish and maintain standardized practices in farming and food production to meet quality and safety standards for global markets.

Both of these certifications are considered to be the baseline in the market.

Overview of export process from the Pacific Islands to New Zealand



Technical Barriers to Trade (TBT)

Must comply with New Zealand standards for labelling, safety, and quality.

3. NZ Buyers' Requirements

Quality^{5,6}

Whole Fresh or Frozen: Imported young ginger is perfect for confectionary ginger candies and mature ginger for the juice and paste. Buyers require big root, disease free ginger. Major factors that contribute to the export demand/potential of a commodity is quality.

Crushed Ginger: The product should have uniform particle size, natural color, and a strong, characteristic ginger flavor. Chemically, it should meet criteria for moisture content, oil content. Microbiologically, it should have acceptable levels of total plate count, yeast and mold, and be free of harmful pathogens like E. coli and Salmonella. Commercial packs sually contain salt, Acidity Regulator and permitted preservatives.

Dried Ginger: Rhizomes must be dried to a moisture level of 8 to 10 percent and stored properly to avoid infestation by storage pests. Improperly dried ginger is susceptible to microbial growth. Ginger that is cleaned, peeled, and dried with no other processing is known commercially as rough or unbleached ginger. This serves as the starting material for the preparation of ginger powder, essential oil, and oleoresin.

Ground Ginger: The ground ginger should be derived from clean, mature, and well-dried ginger rhizomes. It should be free from adulterants, contaminants, and any foreign materials. The powder should have a bright, uniform color, strong aroma, and flavor, characteristic of high-quality ginger. It is crucial to verify that the product complies with food safety standards, including microbial limits and the absence of pesticides and heavy metals. Certifications like ISO, HACCP, or organic labels can offer additional assurance of quality.

Ginger Essential Oil: In ginger essential oils quality parameters are volatile oil content, and non-volatile ether extract. The extraction of Ginger Essential Oils from the ginger rhizome is variable from 1% to 3%, depending upon the source of the rhizome. Chemical analysis of ginger shows more than 200 types of components.⁷

Volume

Minimum quantity is often a full container load for sea freight for fresh or frozen Ginger. For ground Ginger it can be a pallet.

Packaging

Fresh ginger: Often packed in Cardboard boxes lined with food-grade plastic, 10kg to 20kg, or 30kg mesh bags or cartons. The ginger roots are typically separated, cleaned, and dried before packaging.

Frozen ginger: Packaging should be made of food-grade material capable of sustaining low temperatures without damage. The packaging must be sealed tightly to prevent contamination and should include a unique batch number for traceability. Labels should provide essential information such as date of production, expiry date, and country of origin.

Dried or processed ginger: Presented in small, sealed food grade pouches or bulk bags, depending on the final product's form.

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⁵ From interviews.

⁶ Balakrishnan KV (2005) Postharvest and industrial processing of ginger. In: Ravindran PN, Nirmal Babu K (eds) Ginger-The genus Zingiber. CRC Press, Boca Raton, Florida, pp 391–434

⁷ Nayik, G. A., & Ansari, M. J. (2023). Essential Oils Extraction, Characterization and Applications. In Essential Oils Extraction, Characterization and Applications (Chapter 13, p. 348).

Ginger paste: For packaging ginger paste, use food-grade material that is capable of maintaining the product's freshness and quality. The packaging should be airtight to prevent contamination and extend shelf life, often achieved through vacuum-sealing or the use of preservatives. In the use of jars, a food grade layer can be glued ont the rim of the jar between the product and the lid to maintain optimale freshness.

Essential Oils: They are considered hazardous goods that require special care in storage and transportation. They must be stored in a temperature range of 5–25°C, away from direct sunlight and heat. The containers used for storage should be made of inert materials like steel, aluminum, or glass, and cork is not advised for sealing due to its porosity and potential chemical interactions with the oils. Ginger Essential Oil is claimed to have a shelf life of at least two years when stored under appropriate conditions.

Transport recommended and precautions

Sea Freight: This is the most common method for importing ginger, especially in bulk quantities. It's cost-effective for large shipments but can take longer than air freight. Major ports of entry are Auckland, Tauranga, Lyttelton, and Wellington are among the major ports in New Zealand.

Air Freight: Faster but more expensive. Suitable for smaller quantities or when the ginger needs to be in New Zealand quickly. Majors Airports are in Auckland, Wellington, and Christchurch.

Storage during Transport: Ginger should be stored in cool and well-ventilated conditions during transport. For fresh ginger, maintaining a temperature of around 12-13°C is ideal. For frozen a refer will be preferably used.

Essential oils must comply with a variety of international regulations, such as ADR for land, IMDG for sea, RID for rail, ICAO for air, and ADN for inland waterways. Packaging should be tightly sealed to prevent liquid or vapor loss, and it is important to leave a free space of 5% to 10% in the container to accommodate any changes in temperature during transit. Ginger Essential Oils has a strong odor and should therefore not be stored near food. Provided that these guidelines are followed, and the oils are transported in suitable and sufficiently robust containers, there is minimal risk of loss or damage.

4. Types Buyers/Distributors

Pharmaceuticals/Skin Care industry: Buyers and manufacturers such as Pure ingredients or Shieling Laboratories require high quality Ginger for cosmetic sector, production and distribution of essential oils. Also, cosmetic grade ground Ginger.

Beverage industry: Companies such as Hakanoa, or Redshoots which preferably import frozen organic certified Ginger to avoid fumigation on fresh products.

Processed Food industry: For integration into preparations with companies such as Foodstuff and their own brand Pam's (Dried Ginger, Plum & Green Ginger Paste...) Whittaker's (Fijian Ginger chocolate),

Fresh Ginger Buyers

- Large commercial & wholesalers: Foodstuff (Gilmours, Trents Wholesale), Foodstuffs (New World, Pak'n Save, Four Square), Woolworth (New Zealand Grocery Wholesalers) Bidfood New Zealand, Moore Wilson's Wholesale. Buying for supermarkets or restaurants.
- **Specialty shops:** Moshims, Naturally Organic, Eco Organic, Huckleberry Farms, Commonsense Organics, Kerkeri Organic

5. Key Success Factors

- 1. Quality Assurance
- 2. Price Competitiveness
- 3. Adherence to NZ Import Regulations
- 4. Strong Marketing & Branding
- 5. Efficient Logistics and Distribution