



PN-ABR-610

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**KENYA EXPORT DEVELOPMENT SUPPORT**

**JAPAN MARKET SURVEY  
FOR  
SELECTED KENYAN FRESH/  
PROCESSED PRODUCE  
AND  
CUT FLOWERS**

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## OVERVIEW

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### Introduction

The market surveys included in this report are part of a larger series of market surveys covering select North American, European, Asian and Middle Eastern markets for selected fresh and processed fruits and vegetables and cut flowers.

Available data provides enough information to determine that the Japanese market does not present enough market opportunities to warrant prioritization by the KEDS project team. Japan bans a number of fresh fruit and vegetable imports, and has stringent quality standards on processed product. It is a market which requires penetration over the long-term. It is chiefly supplied by low-cost, nearby Asian suppliers.

Notwithstanding its limited potential for absorbing Kenyan exports, examination of the Japanese market should be of some interest to Kenyan producers -- primarily for assessing the rapidly increased fresh and processed production of low-cost Asian countries (particularly Thailand, China, the Philippines and, to a lesser extent, Taiwan). These countries, which dominate the Japanese market for many of the products studied, are also increasing exports to traditional Kenyan markets -- particularly the European Community.

### Kenya's Current Standing in the Japanese Market

Product	Kgs	Yen 000s	US\$000s	US\$ Share
Cut Flowers	30,613	52,478	390	2.27%
Fresh/Dried Nuts	366,082	401,076	2,980	17.31%
Coffee/Tea	1,251,991	406,448	3,020	17.54%
Sisal & Oth Veg Textile Fibers	2,646,804	238,906	1,775	10.31%
Fish	1,275,093	541,132	4,021	23.36%
Other		676,676	5,028	29.21%
<b>TOTAL</b>		<b>2,316,716</b>	<b>17,213</b>	<b>100.00%</b>

Source: Government of Japan Official Trade Statistics

In 1991, Kenya exported US\$17.2 million (¥2.3 billion) worth of goods to Japan. Of this amount, only 2.27% or US\$390 thousand were products studied under this market survey. Furthermore, the entire US\$390 thousand was made up of fresh cut flowers. There were no

reported Japanese imports of any fresh or processed fruits and vegetables. Seventeen percent (US\$3.0 million) of Japanese imports were of fresh/dried macadamia and cashew nuts, and 17.5 percent (US\$3.0 million) was composed of coffee and tea. The largest single import category was for fish, accounting for 23.4 percent or US\$4.0 million of imports.

### Summary of Survey Findings

The products studied under this market survey were rated according to a "0" to "5" numerical scale (summary product ratings are given in Table 2):

- 5      Excellent/Good market prospect, high volume potential
- 4      Excellent/Good market prospect, low volume potential
- 3      Fair market prospect, high volume potential
- 2      Fair market prospect, low volume potential
- 1      Poor market prospect
- 0      No apparent market opportunities exist

Those marked with an asterisk (\*) signify that additional market research is needed before further steps such as trial shipments can be recommended.

There appears to be very few market opportunities for Kenyan producers of the products studied. This is especially true for almost the entire range of fresh and frozen fruits and vegetables. The reasons for this are primarily: (1) phytosanitary restrictions; and (2) intense low-cost competition from regional suppliers (China, Thailand, Taiwan and the Philippines). Canned product faces similar strong competition from regional suppliers, along with stringent quality standards set out by the Food Sanitation Law. The only product opportunities appear to be:

- (1)    Fresh cut flowers (based primarily on Kenya's existing presence in the market);
- (2)    Dried tropical fruits (expected increased demand, possibility of working with Kenyan exporters of fresh/dried nuts); and, less likely,
- (3)    Canned asparagus (probably only white asparagus, and would face stiff competition from China).
- (4)    Tropical juices and purees, for which there is very little market information, but which may warrant additional market research as the Japanese juice import market has become much less restrictive.

Table 2: Summary Product Ratings	
PRODUCT	COMMENTS
<b>No Ranking Possible</b>	
Tropical Fruit Juices, Pulps, Purees*	Little data available on tropicals; market expected to grow rapidly with removal of import quotas; expect strong regional competition (especially pineapple from the Philippines); further market research may be warranted.
<b>3 - Fair Market Prospect, High Volume Potential</b>	
Fresh Cut Flowers	Very competitive market (from both domestic producers and other foreign suppliers); Kenya exported US\$390,000 to Japan in 1991 (need to ascertain receptiveness); possible problems with phytosanitary regulations and transport.
<b>2 - Fair Market Prospect, Low Volume Potential</b>	
Dried Tropical Fruits*	Import statistics may not reveal true extent of this market; demand is expected to increase; Kenyan producers may be able to piggyback on fresh/dried nut exports (which now total nearly US\$3 million to Japan).
Canned Asparagus*	Low-cost production from China dominates import market; domestic production dropping rapidly; distant supplier (South Africa) had sales of US\$850,000 in 1991; white asparagus appears to be most popular canned type; additional research needed to determine opportunity, if any.
<b>1 - Poor Market Prospect</b>	
Frozen Strawberries and Tropical Fruits	Intense regional competition.
Canned Tropical Fruits*	Intense regional competition; large market which might warrant additional research; strict Food Sanitation Law.
<b>0 - No Apparent Market Opportunities Exist</b>	
Fresh Mangoes	Phytosanitary restrictions; Philippines dominate market.
Fresh Avocados	Phytosanitary restrictions; Hass variety most popular; U.S. and Mexico provide virtually all supplies.
Fresh Strawberries	Domestic producers supply 98 percent of market requirements; 97 percent of imports from U.S.

Table 2: Summary Product Ratings

PRODUCT	COMMENTS
<b>0 - No Apparent Market Opportunities Exist (cont.)</b>	
Fresh Asparagus	Domestic producers supply 75 percent of market requirements; low-cost Thai and Filipino production eroding import share of other countries.
Fresh French/Bobby Beans	Data may be unreliable; but show that imports are only around \$1 million for all green beans.
Fresh (Snow) Peas	Import market dominated by low-cost proximate suppliers of China and Taiwan,
Fresh Cherry Tomatoes	Market is completely dominated by domestic producers; import levels are near zero.
Fresh Okra*	Market has grown substantially since 1985 (nearing 2,000 MTs); little market data available; additional research may not be warranted due to possible phytosanitary restrictions.
Fresh Chili Peppers	Import market is practically non-existent; additional research may be warranted on the processed chili market as data was not available.
Fruit Jams and Jellies	Traditionally sourced from European and other developed country suppliers; import sources tend to show high consumer <u>quality</u> expectation.
Frozen Beans	Regional, low-cost suppliers dominate.
Frozen Peas	Regional, low-cost suppliers dominate.
Canned Beans	Relatively low import volume/value; Taiwan dominates import market.

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## SECTION I: FRESH FRUIT

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### Import Regulations

Japan maintains stringent plant quarantine regulations to prevent the importation of harmful plant pests and diseases. Most fresh fruit from Kenya is currently not allowed entry into the Japanese market due to phytosanitary concerns. Notable exceptions include pineapple, green bananas, and coconuts. These import-prohibited items may be allowed entry conditionally after bilateral negotiations between the Japanese and Kenyan governments lead to the establishment of acceptable procedures and treatments to remove the pest and disease threat. These negotiations may take several years and involve the expense of constructing appropriate treatment facilities. The typical process looks like that outlined in Table 3.

Table 3: Process for Conditional Lifting of Import Ban		
Step	Description	Notes
1	Submission of Scientific Data	Government Agency in the country requesting the lifting of the import ban
2	Evaluation of Scientific Data	Japanese plant quarantine authorities
3	Investigation in the Exporting Country by Japanese Experts	Japanese plant quarantine authorities
4	Discussion Between the Two Countries	Between plant quarantine officials of the exporting country and Japan
5	Public Hearing	
6	Amendment of the Regulations Involved	
7	Commencement of Importation	Dispatch of Japanese plant quarantine inspector to the exporting country

Source: JETRO

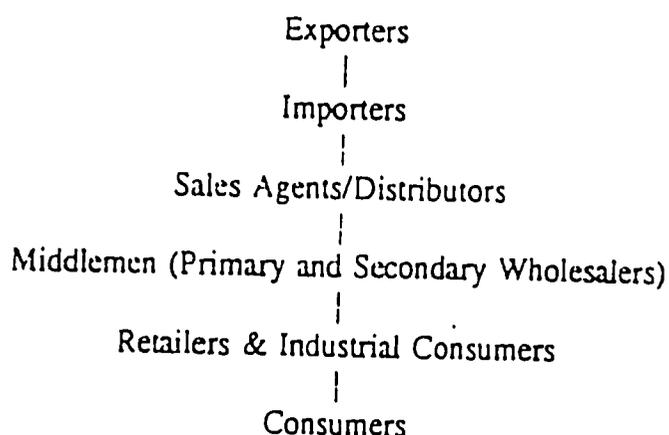
However, for the three fruits studied under this market survey (mangoes, avocados, and strawberries), none appear to have the market potential to warrant the expenses involved.

All fruits (except those prohibited which are destroyed) are subject to import inspection at time of arrival. When pests and/or diseases are found during inspection, treatment or destruction of the cargo is required.

Japan also has strict laws on allowability, residues, and tolerances of pesticides, herbicides, fertilizers and other chemicals applied to fresh product. Producers should make certain that their chemicals are on the "positive" list, allowing their use on fruit imported into Japan. The importer should be able to help in determining whether any problems may exist with current Kenyan practices.

## Distribution Systems

The majority of fresh tropical fruits arrive via the air and sea ports of Tokyo/Yokohama and Osaka/Kobe, where a large proportion of the Japanese population is concentrated. Most fruit is supplied to the retail market through wholesalers, and sales are conducted primarily through prior bidding. In some cases, large supermarket chains may buy directly from the sales agents and distributors. The normal distribution chain appears as follows:



A list of representative importers is provided in Appendix A. For more information on the Japanese food distribution system, see the Japan overview section.

## Grades and Standards

Preservative and film-forming agents which are applied to the outside of any fruit are subject to standards under the Food Sanitation Law.

There are no mandatory standards for labelling of fresh fruit. However, voluntary standards have been adopted by the Japan Agriculture Standard Association, recommending that the following appear: (1) product name and variety; (2) production region or country of origin; (3) name of producer, shipper or importer; (4) weight; and (5) size/grade or variety name.

Product specific grades and standards which are not mentioned in the "Other Notes" sections below would need to be obtained during on-site research. Importers would also be able to provide specifications for particular products.

# MANGOES

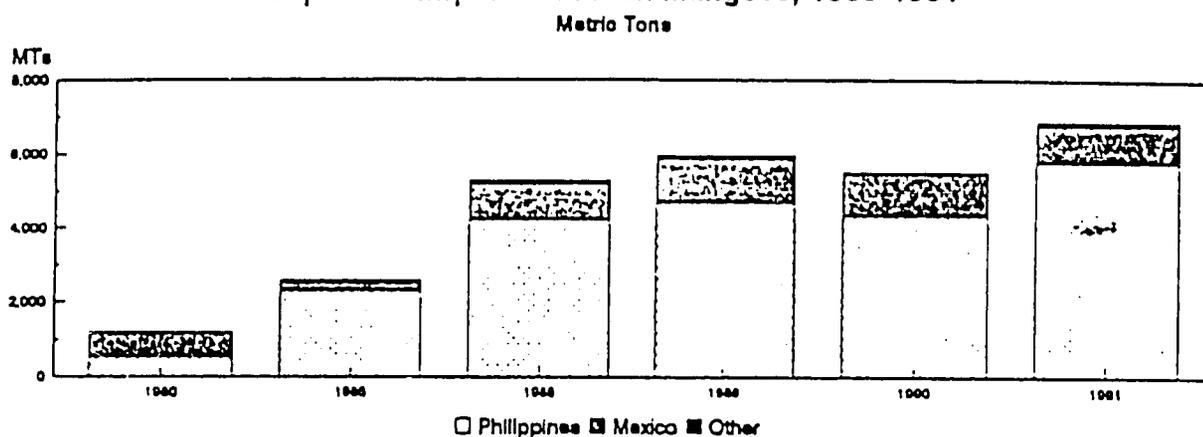
## Domestic Production

No statistics exist for mango production in Japan. It is likely that small quantities are produced on southern Japanese islands, such as Okinawa and the Ogasawara Islands.

## Imports

Japanese imports of fresh mangoes have increased from 1,216 MTs in 1980 to over 6,885 metric tons in 1991. In value terms, imports have increased from ¥717.6 million (US\$3.2 million) to ¥2,564.7 million (US\$19.7 million) over the same period. 1991 imports are also up over 1990 levels of 5,510 MTs and ¥2,319.4 million (US\$16.0 million).

Japanese Imports of Fresh Mangoes, 1980-1991



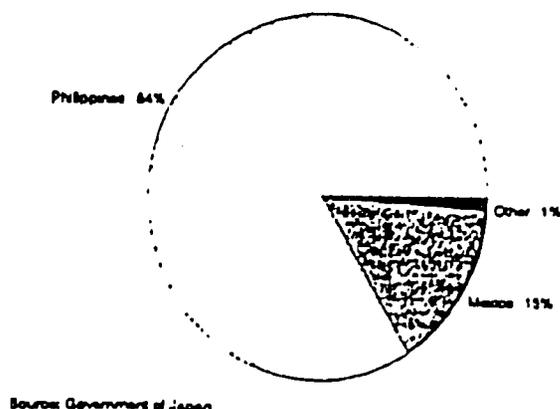
Source: Government of Japan

## Market Share

In 1991, the Philippines accounted for nearly 84 percent, by volume, of all Japanese imports of fresh mangoes. Mexico accounted for most (15 percent) of the remaining imports. Small amounts also arrived from Taiwan, Thailand, the United States, and Fiji.

Import Share of Fresh Mangoes

1991, by weight



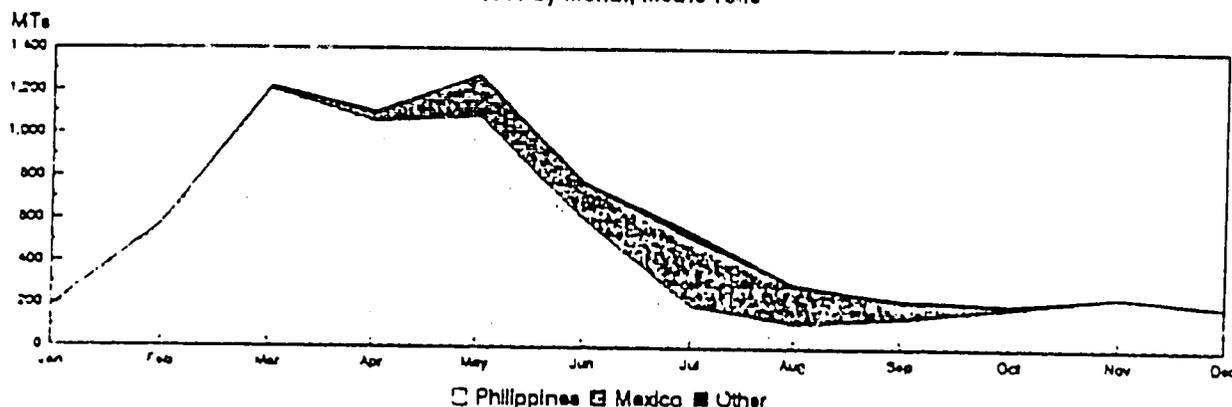
Source: Government of Japan

## Seasonal Supply

In 1991, imports were highest during the period March-May, with over 1,000 MTs arriving per month. Imports for February and June-July ranged from 500 to 775 MTs per month. During all other months, imports were under 300 MTs per month. The Philippines supplied the market during every month in 1991, although 57 percent arrived during the period March-May. Mexico supplied the market during the period March-October, with peak supplies arriving in and around July. The minor suppliers supplied during the following periods: April-May (Thailand), June-July (Taiwan), September-October (United States), and October-December (Fiji).

### Japanese Imports of Fresh Mangoes

1991 by Month, Metric Tons



Source: Government of Japan

## Historical and Monthly Unit Prices

CIF import unit prices for fresh mangoes has declined from ¥590/kg in 1980 to ¥372/kg in 1991. Due to the weakening of the dollar over the period, import unit prices in dollar terms has actually increased from US\$2.60/kg to US\$2.77/kg over the period, although 1991 US dollar unit prices are the lowest in the last four years.

There is no perceptible trend in 1991 monthly CIF import unit prices. For the months of January, July and August, unit prices exceeded ¥400/kg. During the other months, unit prices ranged from ¥327/kg in March to ¥389/kg in October.

## Tariff Rates

Fresh mangoes are subject to the following duty rates:

General	20%
GATT	6%
Preferential	4%

Kenyan mangoes would receive the preferential duty rate, and may also be allowed duty-free treatment under a rate structure established for lesser developed developing countries.

## **Other Market Characteristics**

Mangoes are primarily imported in 5 kilogram cartons.

The Japan External Trade Organization (JETRO) estimates that roughly 50 percent of imported mangoes are sold through supermarkets, with the remainder being sold by small fruit shops.

## **Kenyan Market Prospects**

Imports of mangoes are banned from many countries, including Kenya, for phytosanitary concerns. The most prominent of these being the possibility of fruit fly infestation. Several countries have obtained conditional permits requiring vapor heat treatment to allow specific mango varieties entry into Japan. These include Taiwan (Irwin), Thailand (Nan Klarngwun), and the Philippines (Manila Super). Mangoes imported from these countries are subject to strict requirements, including inspections, limitations of packaging/transportation methods, and designation of controlled producing districts.

This phytosanitary problem could be remedied if the Kenyan and Japanese governments establish procedures to insure the removal of the risk of fruit fly infestation. This may entail years of negotiations and substantial costs in constructing a vapor heat treatment plant (up to US\$1 million). Even if the import ban could be removed, it is uncertain whether Japanese consumers would accept Kenyan mango varieties. In addition, transportation feasibility would need to be assessed, both in terms of quality maintenance and cost competitiveness (especially in relation to mangoes supplied from the Philippines). For these reasons, the author believes that Kenyan opportunities to supply the Japanese market are practically non-existent -- especially in the short to medium term.

# **AVOCADOS**

## **Domestic Production**

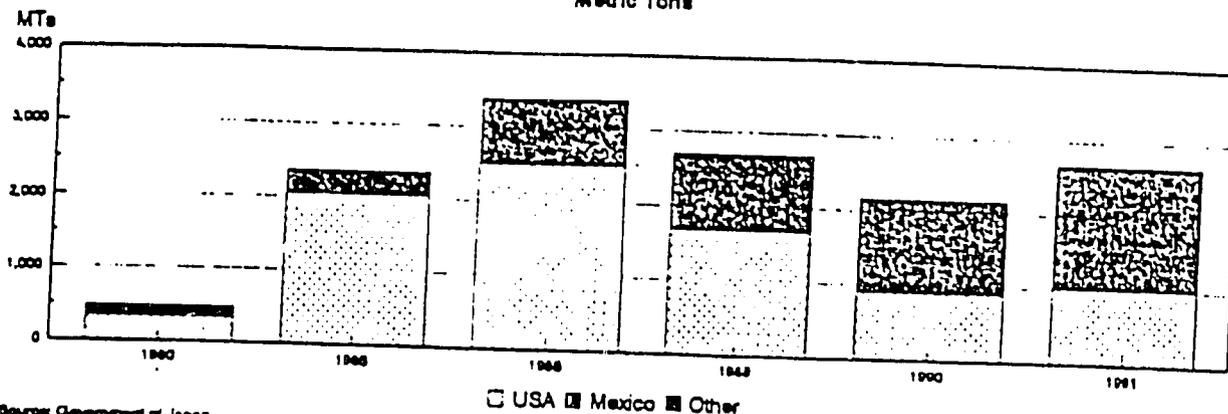
No statistics exist for avocado production in Japan. It is likely that small quantities are produced on southern Japanese islands, such as Okinawa and the Ogasawara Islands.

## **Imports**

Japanese fresh avocado imports have increased dramatically from 1980 to 1991, from 470 MTs (¥342.3 million, US\$1.5 million) to 2,665 MTs (¥879.7 million, US\$6.5 million). While imports are also up 23 percent over 1990 levels, they are down nearly 21 percent from 1988 imports of 3,370 MTs. In recent years, California yields, and therefore production, have dropped due to climatic conditions (primarily drought).

## Japanese Imports of Fresh Avocados, 1980-1991

Metric Tons



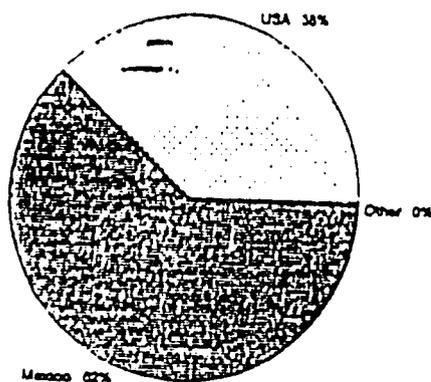
Source: Government of Japan

### Market Share

Mexico accounted for 62 percent (1,646 MTs) of fresh avocado arrivals in 1991, while the U.S. import share stood at 38 percent (1,010 MTs). A very small quantity (9 MTs) also arrived from New Zealand during the year. Over the past decade, but particularly since 1988, the U.S. market share has fallen dramatically. In 1988, the U.S. supplied 74 percent of all Japanese imports. The author believes that U.S. exports to Japan have fallen due to a dramatic production fall-off in California (from reduced yields due to climatic conditions). As Californian production returns to past levels, U.S. exports to Japan, along with its market share, can be expected to rise.

### Import Share of Fresh Avocados

1991, by weight



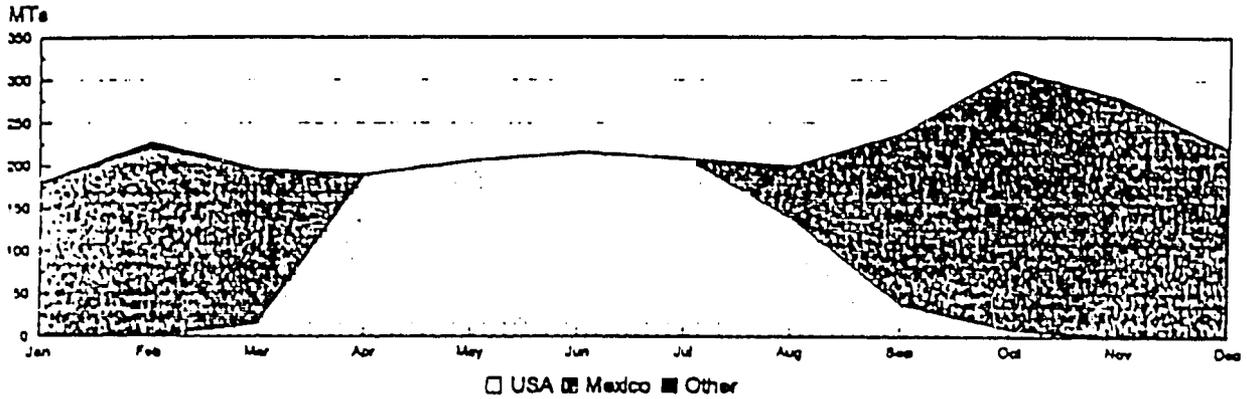
Source: Government of Japan

### Seasonal Supply

1991 Japanese imports averaged around 200 MTs per month during the period January-August. For the period September-December, ranged between 219-311 MTs per month, with the peak occurring in October. The United States supplied the market from March-October (corresponding to California's peak production season for Hass avocados), although in March, September and October small shipments were received. The United States was the sole supplier from April through July. Mexican supply was greatest as U.S. supply was weakening or was

non-existent, during the periods January-March and August-December. It was the only supplier in November and December. New Zealand's small shipments arrived in January and February.

**Japanese Imports of Fresh Avocados**  
1991 by Month, Metric Tons



Source: Government of Japan

**Historical and Monthly Unit Prices**

The following table gives CIF import unit values for avocado arrivals during the period 1980-1991. As can be seen, unit prices in terms of both the Yen and the U.S. Dollar (converted at the average exchange rate for the year in question) have decreased over the period, which corresponds with an increased Mexican market share. The lower prices for Mexican avocados are thought to be due to persistent Mexican quality control problems.

	1980	1985	1988	1989	1990	1991
US\$/kg	3.15	1.62	2.52	2.41	2.81	2.45
¥/kg	714	386	323	332	407	330

Source: Government of Japan Official Trade Statistics

CIF unit values for each month in 1991 are given below. Unit values are highest during the period April through July, when the U.S. is the only supplier on the market. Unit values are considerably lower during the remainder of the year, as lower-cost Mexican supply dominates.

1991	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
¥/Kg	270	281	321	489	425	417	414	343	302	272	252	248

Source: Government of Japan Official Trade Statistics

**Tariff Rates**

Fresh avocados are subject to the following duty rates:

General                      20%

GATT	6%
Preferential	4%

Kenyan avocados would qualify for the preferential rate, and may also be eligible for duty-free entry under a rate structure established for lesser developed developing countries.

### Other Market Characteristics

Avocados are primarily imported in 5 kilogram cartons.

### Kenyan Market Prospects

Additional research is needed to determine whether Kenyan avocados would currently be allowed entry into the Japanese market. Japan's stringent controls on other tropical fruits would seem to signify that this is not the case. Therefore, as with fresh mangoes, the Kenyan government would need to enter into negotiations with the Japanese government to permit entry (see an explanation of this process in Table 3). Hass appears to be the preferred variety, which may exclude Kenya from this market anyhow. As with fresh mangoes, transport costs and times would also pose significant constraints.

## STRAWBERRIES

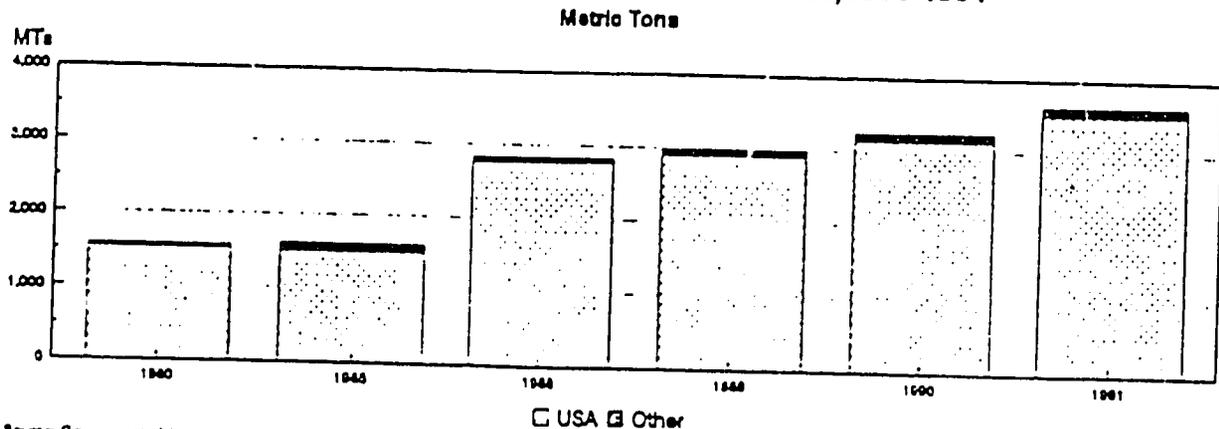
### Domestic Production

Strawberry production stood at 216,000 MTs in 1988. 10,300 hectares were under cultivation.

### Imports

Japanese imports of fresh strawberries have grown from 1,573 MTs (¥1.4 billion, US\$6.2 million) in 1980 to 3,639 MTs (¥3.5 billion, US\$26.2 million) in 1991. 1990 imports stood at 3,244 MTs (¥3.3 billion, US\$22.6 million).

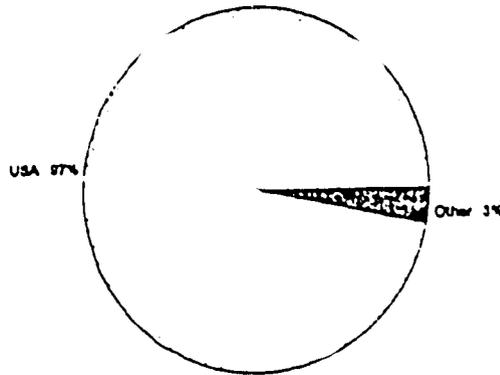
Japanese Imports of Fresh Strawberries, 1980-1991



## Market Share

Based on 1989 domestic production figures, local strawberry producers supplied 98 percent of market requirements. Imports, which account for only a small fraction of total supply, entered primarily from the United States (3,522 MTs in 1991 or 97 percent of all imports). Small amounts also entered from New Zealand (100 MTs) and Taiwan (16 MTs).

**Import Share of Fresh Strawberries**  
1991, by weight

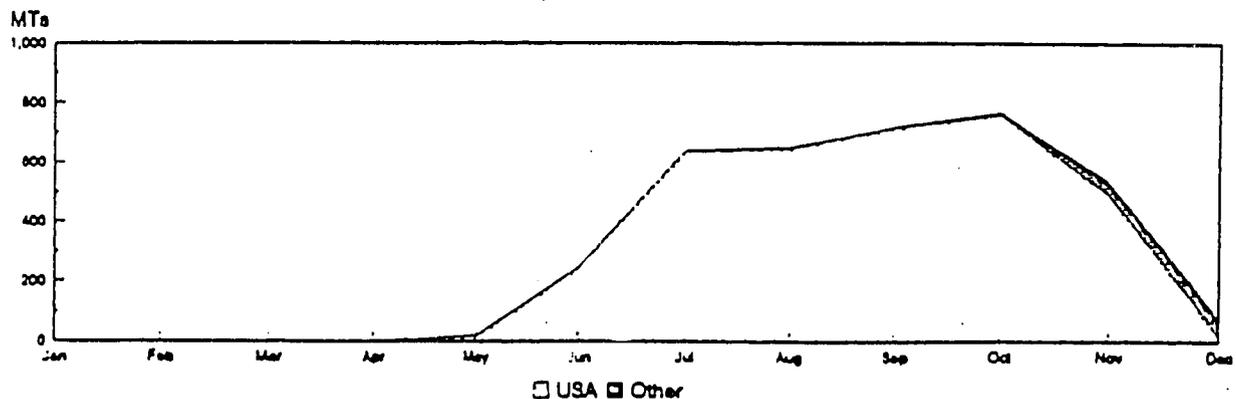


Source: Government of Japan

## Seasonal Supply

During 1991, no fresh strawberries were imported during the period January-March. Only very small quantities were imported in April and May. Most U.S. imports entered the market during the period June-November, with smaller amounts entering in April-May and December. For the period April-September, the U.S. was the only foreign supplier present on the market. New Zealand supplied small quantities during October-December. Taiwan supplied the market in December only.

**Japanese Imports of Fresh Strawberries**  
1991 by Month, Metric Tons



Source: Government of Japan

## Historical and Monthly Unit Prices

The following table gives CIF import unit values for fresh strawberry arrivals during the period 1980-1991. U.S. Dollar unit values (converted at the average exchange rate for the year in

question) have increased over the period, from US\$3.91/kg to US\$7.21/kg. Import unit values in Yen have fluctuated over the period, but for the last three years are hovering around ¥1,000/kg. Based on import CIF value statistics, New Zealand product receives an additional ¥200/kg over U.S. sourced imports (although this may be due to transport costs and not to premium quality).

	1980	1985	1988	1989	1990	1991
US\$/kg	3.91	6.05	6.89	7.26	6.97	7.21
¥/kg	886	1,443	883	1,002	1,009	970

Source: Government of Japan Official Trade Statistics

CIF unit values for each month in 1991 are given below. Unit values are highest during the periods April-May and November-December. Values are lowest when U.S. supply (and, most likely, local supply) is strongest, during the period June-October.

1991	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
¥/Kg	na	na	na	1430	1009	917	928	943	957	954	1054	1444

Source: Government of Japan Official Trade Statistics

### Tariff Rates

Fresh strawberries are subject to the following duty rates:

General	20%	—
GATT	10%	—

Since Kenya is a member of the GATT, they would receive the GATT rate. They may also be eligible for duty-free treatment under a rate structure established for lesser developed developing countries.

### Kenyan Market Prospects

The Japanese market appears to be adequately supplied both by domestic suppliers and by the United States. Most demand is met through local production. New Zealand also supplies small quantities during the last quarter of the year. Little opportunity seems to exist for developing Kenyan supplies into this market.

Even if this were not the case, additional research would be needed to determine whether Kenyan strawberries would currently be allowed entry into the Japanese market — although preliminary research has revealed that most fresh fruits and vegetables (including strawberries) are not currently allowed from Kenya. Therefore, the Kenyan government would most likely

need to enter into negotiations with the Japanese government to permit entry (see an explanation of this process in Table 3).

Table I-1: Japanese Imports of Fresh Avocados, 1980-1991, M/Ts

Source	1980	1985	1988	1989	1990	1991
Philippines		8				
USA	337	2,047	2,495	1,684	911	1,010
Mexico	142	302	867	1,009	1,252	1,646
Colombia		2				
New Zealand			8			9
TOTAL	479	2,359	3,370	2,694	2,163	2,665

Source: Government of Japan

Table I-2: Japanese Imports of Fresh Avocados, 1980-1991, Yen 1,000s

Source	1980	1985	1988	1989	1990	1991
Philippines		3,994				
USA	250,492	771,263	841,040	601,054	527,726	430,342
Mexico	91,801	128,950	244,529	293,081	352,819	444,931
Colombia		6,824				
New Zealand			1,821			4,408
TOTAL	342,293	911,031	1,087,390	894,135	880,545	879,681

Source: Government of Japan

Table I-3: Japanese Imports of Fresh Avocados, 1980-1991, US\$000s

Source	1980	1985	1988	1989	1990	1991
Philippines		17				
USA	1,106	3,234	6,563	4,356	3,644	3,197
Mexico	405	541	1,908	2,124	2,436	3,306
Colombia		29				
New Zealand			14			33
TOTAL	1,511	3,820	8,486	6,480	6,080	6,536

Source: Government of Japan

Table I-4: Japanese Imports of Fresh Avocados, 1980-1991, US\$/kg

Source	1980	1985	1988	1989	1990	1991
Philippines		1.97				
USA	3.28	1.58	2.63	2.59	4.00	3.16
Mexico	2.85	1.79	2.20	2.10	1.95	2.01
Colombia		17.08				
New Zealand			1.74			3.68
TOTAL	3.15	1.62	2.52	2.41	2.81	2.45

Source: Government of Japan

Table I-5: Japanese Imports of Fresh Avocados, 1980-1991, Yen/kg

Source	1980	1985	1988	1989	1990	1991
Philippines		470				
USA	744	377	337	357	579	426
Mexico	645	427	282	290	282	270
Colombia		4074				
New Zealand			223			495
TOTAL	714	386	323	332	407	330

Source: Government of Japan

Table I-6: Japanese Imports of Fresh Avocados, 1980-1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA			14	189	206	216	207	136	36	7		
Mexico	180	221	181					63	202	304	278	219
New Zealand	1	8										
TOTAL	181	228	195	189	206	216	207	199	239	311	278	219

Source: Government of Japan

Table I-7: Japanese Imports of Fresh Avocados, 1980-1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA			7,045	92,231	87,590	89,847	85,608	49,892	13,517	4,612		
Mexico	47,937	60,595	55,453					18,279	58,418	80,035	69,852	54,362
New Zealand	770	3,638										
TOTAL	48,707	64,233	62,498	92,231	87,590	89,847	85,608	68,171	71,935	84,647	69,852	54,362

Source: Government of Japan

Table I-8: Japanese Imports of Fresh Avocados, 1980-1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA			508	489	425	417	414	366	372	664		
Mexico	267	275	307					292	289	264	252	248
New Zealand	700	468										
TOTAL	270	281	321	489	425	417	414	343	302	272	252	248

Source: Government of Japan

Source	1980	1985	1988	1989	1990	1991
Taiwan	24	22	44	10		46
Thailand		1	48	76	23	20
Singapore				2		
Philippines	524	2,269	4,200	4,666	4,307	5,768
USA			2		7	8
Mexico	662	285	978	1,207	1,169	1,037
Colombia			9			
Venezuela			2	1		
New Zealand		7				
Fiji	6	24	8	5	4	7
TOTAL	1,216	2,609	5,291	5,966	5,510	6,885

Source: Government of Japan

Table I-2: Japanese Imports of Fresh Mangoes, 1980-1991, Yen 1,000s

Source	1980	1985	1988	1989	1990	1991
Taiwan	15,029	12,576	26,748	6,338		21,893
Thailand		670	23,769	38,284	12,057	9,070
Singapore				948		
Philippines	292,024	1,200,636	1,554,323	1,729,892	1,750,285	1,973,371
USA			939		5,724	6,951
Mexico	406,748	199,593	486,330	558,222	549,164	549,278
Colombia			5,814			
Venezuela			1,998	729		
New Zealand		5,390				
Fiji	3,844	17,474	3,887	2,618	2,173	4,162
TOTAL	717,645	1,436,339	2,103,808	2,337,031	2,319,403	2,564,725

Source: Government of Japan

Table I-3: Japanese Imports of Fresh Mangoes, 1980-1991, US\$000s

Source	1980	1985	1988	1989	1990	1991
Taiwan	66	53	209	46		163
Thailand		3	185	277	83	67
Singapore				7		
Philippines	1,289	5,035	12,130	12,536	12,086	14,662
USA			7		40	52
Mexico	1,795	837	3,795	4,045	3,792	4,081
Colombia			45			
Venezuela			16	5		
New Zealand		23				
Fiji	17	73	30	19	15	31
TOTAL	3,167	6,023	16,418	16,936	16,016	19,056

Source: Government of Japan

Table I-4: Japanese Imports of Fresh Mangoes, 1980-1991, US\$/kg

Source	1980	1985	1988	1989	1990	1991
Taiwan	2.82	2.40	4.74	4.59		3.54
Thailand		2.49	3.86	3.67	3.62	3.36
Singapore				3.77		
Philippines	2.46	2.22	2.89	2.69	2.81	2.54
USA			4.81		5.50	6.66
Mexico	2.71	2.93	3.88	3.35	3.24	3.94
Colombia			4.95			
Venezuela			6.66	3.93		
New Zealand		3.15				
Fiji	2.64	3.00	3.98	3.85	4.16	4.70
TOTAL	2.60	2.31	3.10	2.84	2.91	2.77

Source: Government of Japan

Table I-5: Japanese Imports of Fresh Mangoes, 1980-1991, Yen/kg

Source	1980	1985	1988	1989	1990	1991
Taiwan	638	372	608	634		477
Thailand		593	494	507	524	432
Singapore				521		
Philippines	557	529	370	371	406	342
USA			616		796	866
Mexico	615	700	497	463	470	530
Colombia			635			
Venezuela			854	542		
New Zealand		752				
Fiji	599	715	510	531	603	633
TOTAL	590	350	398	392	421	372

Source: Government of Japan

Table I-6: Japanese Imports of Fresh Mangoes, 1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan						4	42					
Thailand				14	6							
Philippines	189	578	1,199	1,050	1,075	598	191	113	139	187	245	203
USA									4	3		
Mexico			22	39	196	173	316	166	86	18		
Fiji										4	2	0
TOTAL	189	578	1,221	1,104	1,277	775	550	299	229	213	247	204

Source: Government of Japan

Table I-7: Japanese Imports of Fresh Mangoes, 1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan						1,911	19,982					
Thailand				6,384	2,680							
Philippines	81,338	202,799	380,195	357,153	344,186	196,907	75,412	45,481	54,455	69,840	90,018	75,407
USA									3,864	3,087		
Mexico			19,393	32,967	115,256	100,971	160,127	83,111	30,122	7,331		
Fiji										2,625	1,293	244
TOTAL	81,338	202,799	399,588	396,504	462,128	299,879	255,521	128,592	88,441	82,863	91,311	75,741

Source: Government of Japan

Table I-8: Japanese Imports of Fresh Mangoes, 1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan						546	471					
Thailand				441	479							
Philippines	430	351	317	340	320	329	395	402	391	374	367	371
USA									889	906		
Mexico			892	844	588	583	506	446	352	397		
Fiji										594	681	904
TOTAL	430	351	327	359	382	387	465	430	386	369	370	372

Source: Government of Japan

Source	1980*	1985*	1988	1989	1990	1991
Taiwan		3	6	15	18	16
Korea			1			
Thailand		1				
USSR		8				
USA	1,528	1,500	2,763	2,890	3,142	3,522
Mexico	3					
New Zealand	42	100	60	82	84	100
TOTAL	1,573	1,612	2,831	2,987	3,244	3,639

\* Includes all berries

Source: Government of Japan

Table I-2: Japanese Imports of Fresh Strawberries, 1980-1991, Yen 1,000s

Source	1980*	1985*	1988	1989	1990	1991
Taiwan		3,516	11,240	31,923	38,446	35,182
Korea			1,395			
Thailand		1,470				
USSR		4,371				
USA	1,345,704	2,185,170	2,423,611	2,859,969	3,134,214	3,368,485
Mexico	2,488					
New Zealand	46,084	130,682	64,305	101,052	102,043	125,708
TOTAL	1,394,276	2,325,209	2,500,551	2,992,944	3,274,703	3,529,375

\* Includes all berries

Source: Government of Japan

Table I-3: Japanese Imports of Fresh Strawberries, 1980-1991, US\$000s

Source	1980*	1985*	1988	1989	1990	1991
Taiwan		15	88	231	265	261
Korea			11			
Thailand		6				
USSR		18				
USA	5,939	9,163	18,914	20,726	21,642	25,028
Mexico	11					
New Zealand	203	548	502	732	705	934
TOTAL	6,154	9,751	19,514	21,690	22,612	26,223

\* Includes all berries

Source: Government of Japan

Table I-4: Japanese Imports of Fresh Strawberries, 1980-1991, US\$/kg

Source	1980*	1985*	1988	1989	1990	1991
Taiwan		4.91	13.74	15.76	14.64	16.36
Korea			7.54			
Thailand		6.80				
USSR		2.28				
USA	3.89	6.11	6.84	7.17	6.89	7.11
Mexico	3.39					
New Zealand	4.79	5.50	8.40	8.91	8.41	9.33
TOTAL	3.91	6.05	6.89	7.26	6.97	7.21

\* Includes all berries

Source: Government of Japan

Source	1980*	1985*	1988	1989	1990	1991
Taiwan		1,172	1,781	2,173	2,121	2,202
Korea			967			
Thailand		1,623				
USSR		543				
USA	351	1,457	877	900	997	956
Mexico	768					
New Zealand	1,055	1,311	1,077	1,229	1,218	1,255
TOTAL	886	1,443	333	1,002	1,009	970

\*Includes all berries  
 Source: Government of Japan

Table I-6: Japanese Imports of Fresh Strawberries, 1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan												
JSA				0	18	245	638	648	715	759	488	16
New Zealand										8	48	11
TOTAL				0	18	245	638	648	715	767	535	71

Source: Government of Japan

Table I-7: Japanese Imports of Fresh Strawberries, 1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan												33,152
JSA				595	18,318	224,364	591,950	610,580	684,764	721,806	505,265	10,753
New Zealand										9,972	58,971	56,765
TOTAL				595	18,318	224,364	591,950	610,580	684,764	731,868	564,236	102,700

Source: Government of Japan

Table I-8: Japanese Imports of Fresh Strawberries, 1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan												2202
JSA				1430	1009	917	928	943	957	951	1036	1018
New Zealand										1271	1235	1274
TOTAL				1430	1009	917	928	943	957	954	1054	1444

Source: Government of Japan

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## SECTION II: FRESH VEGETABLES

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### Import Regulations

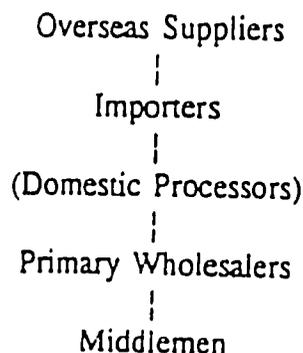
Japan maintains stringent plant quarantine regulations to prevent the importation of harmful plant pests and diseases. Most fresh vegetables from Kenya are currently not allowed entry into the Japanese market for phytosanitary concerns. These import-prohibited items may be allowed entry conditionally after bilateral negotiations between the Japanese and Kenyan governments lead to the establishment of acceptable procedures and treatments to remove the pest and disease threat. These negotiations may take several years and involve the expense of constructing appropriate treatment facilities. See Table 3.

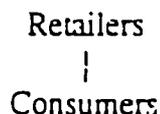
All vegetables (except those prohibited which are destroyed) are subject to import inspection at time of arrival. When pests and/or diseases are found during inspection, treatment (fumigation) or destruction of the cargo is required.

Japan also has strict laws (primarily the Food Sanitation Law) on allowability, residues, and tolerances of pesticides, herbicides, fertilizers and other chemicals applied to fresh vegetables. Producers should make certain that their chemicals are on the "positive" list, allowing their use on produce imported into Japan. The importer should be able to help in determining whether any problems may exist with current Kenyan practices.

### Distribution Systems

While imported fresh vegetables may go through central wholesale markets, most do not in order to avoid severe price fluctuations found in the auction system prevalent in these markets. Therefore, importers establish distribution channels which bypass the central wholesale markets. Much of the volume of imported vegetables are provided to industrial users, including processing firms and restaurants. Supermarkets are expanding their purchases of imported vegetables in order to gain a more stable year-round supply. Some of the larger supermarkets are also beginning to deal directly with the foreign suppliers. The following shows the most common market distribution system for most imported vegetables:





A representative list of importers is given in Appendix A.

### **Grades and Standards**

Preservative and film-forming agents which are applied to the outside of any fruit are subject to standards under the Food Sanitation Law.

There are no mandatory standards for labelling of fresh fruit. However, voluntary standards have been adopted by the Japan Agriculture Standard Association, recommending that the following appear: (1) product name and variety; (2) production region or country of origin; (3) name of producer, shipper or importer; (4) weight; and (5) size/grade or variety name.

Product specific grades and standards which are not mentioned in the "Other Notes" sections below would need to be obtained during on-site research. Importers would also be able to provide specifications for particular products.

## **ASPARAGUS**

### **Domestic Production**

In 1988, Japan produced 38,654 tons of asparagus, primarily in the prefectures of Hokkaido, Nagano, Fukushima and Iwate.

### **Imports**

Prior to 1988, Japan did not keep import statistics for fresh asparagus. In 1988, imports stood at 11,926 MTs (¥7.2 billion, US\$58.1 million). Imports were lower for 1989 and 1990, before rebounding to 12,482 MTs (¥8.3 billion, US\$61.5 million) in 1991.

### **Market Share**

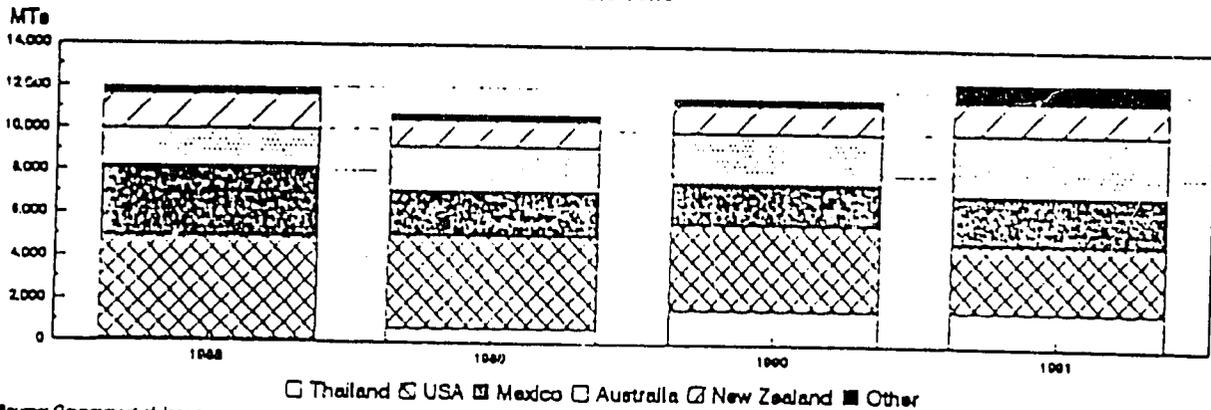
Domestic production is estimated to supply roughly 75 percent of market needs. In 1991, there were six producers which accounted for 99 percent of import supply. In order of size, these were the United States, Australia, Mexico, Thailand, New Zealand, and the Philippines.

U.S. and Mexican market share has decreased from 40 percent and 28 percent in 1988 to their current 25 percent and 19 percent, respectively, in 1991. The chief beneficiary of this has been

Thailand (who's market share has gone from 1 percent to 13 percent over the same period) and, more recently, the Philippines (who supplied nothing in 1988, but now holds a 7 percent share of the import market). Thai and Filipino supplies, and market shares, are expected to increase in the future. Other minor suppliers in 1991 included China, France, Peru and Chile.

### Japanese Imports of Fresh Asparagus, 1988-1991

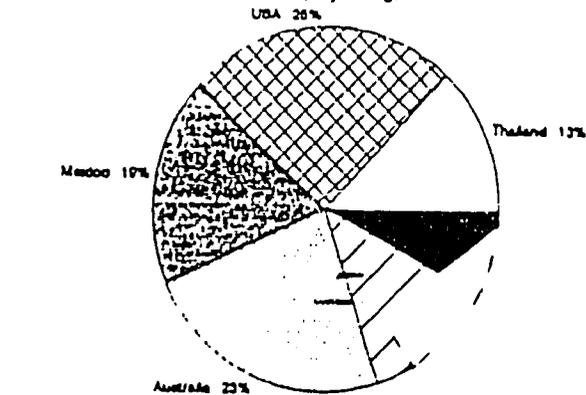
Metric Tons



Source: Government of Japan

### Import Share of Fresh Asparagus

1991, by weight

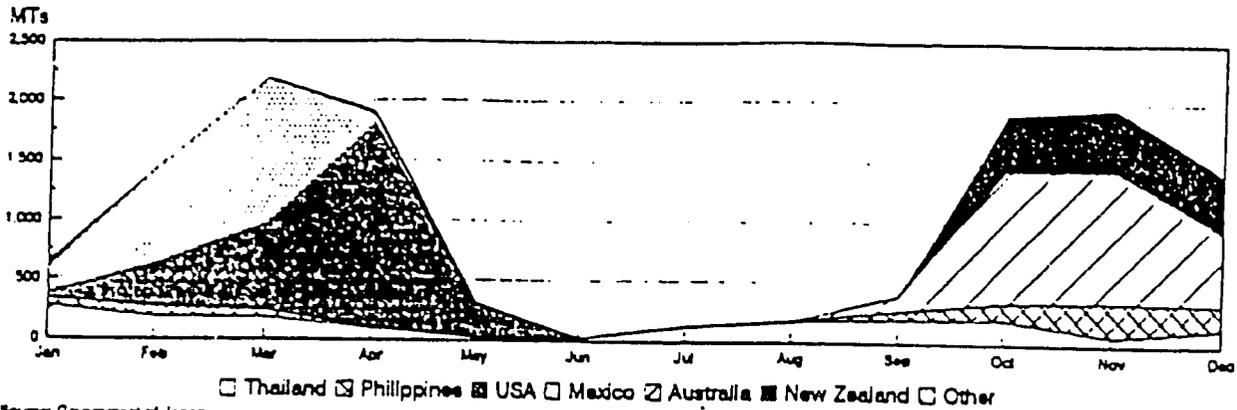


Source: Government of Japan

### Seasonal Supply

Very little imported asparagus arrives on the market during the period May-September -- ostensibly when domestic production is strongest. During the period January-May, the United States and Mexico are the primary suppliers. Their exports to Japan are negligible for the remainder of the year. Australia and New Zealand supply the market primarily from September-December -- again, supplies during the rest of the year are negligible. Thailand is the only producer which supplied the market in every month of 1991, although its export levels are much lower during the summer months. The Philippines supplied during all months except during the summer.

## Japanese Imports of Fresh Asparagus 1991 by Month, Metric Tons



### Historical and Monthly Unit Prices

The following table gives CIF import unit values for fresh asparagus arrivals during the period 1988-1991. U.S. Dollar unit values (converted at the average exchange rate for the year in question) have increased over the period, from US\$4.70/kg to US\$4.93/kg. Import unit values have also increased over the period, from ¥603/kg to ¥663/kg, although 1991 levels are lower than those for the previous two years. Unit prices for asparagus supplied from the Philippines are significantly lower than those received for produce from any of the other suppliers.

	1988	1989	1990	1991
US\$/kg	4.70	4.85	4.86	4.93
¥/kg	603	670	704	663

Source: Government of Japan Official Trade Statistics

CIF unit values for each month in 1991 are given below. As can be seen, unit values were above ¥650/kg in all months but during the period March-June.

1991	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
¥/Kg	822	656	550	613	644	631	690	674	738	754	671	684

Source: Government of Japan Official Trade Statistics

### Tariff Rates

Fresh asparagus are subject to the following duty rates:

General	10%
GATT	5%

Since Kenya is a member of the GATT, Kenyan exports to Japan would receive the GATT rate. Kenyan asparagus (if allowed entry under phytosanitary restrictions) may also be eligible for additional preferential treatment under a rate structure established for lesser developed developing countries.

### Kenyan Market Prospects

Imports, which supply roughly twenty five percent of domestic market requirements, have traditionally been supplied by the U.S. and Mexico (in the Northern Hemisphere) and Australia and New Zealand (in the Southern Hemisphere) – their different growing seasons allowed each to supply the market during the Japanese off-season. However, both Thailand and the Philippines have begun exporting to the Japanese market – seemingly at lower prices and throughout the Japanese off-season. All of the traditional suppliers have lost market share, with the exception of Australia. It is not believed that Kenya could compete with the new much lower cost production from the Philippines once air transport costs are added to the price of Kenyan produce. Therefore, market potential for Kenya appears to be very limited.

## FRENCH/BOBBY BEANS

No separate statistics exist for fresh french or bobby beans entering the Japanese market. Additional on-site research would be required to completely assess the market prospects. The analysis below covers all fresh beans of *Vigna spp.* and *Phaseolus spp.*

### Domestic Production

No domestic production figures are currently available. From 1991 monthly import statistics, it appears that domestic production is strongest from April through October.

### Imports

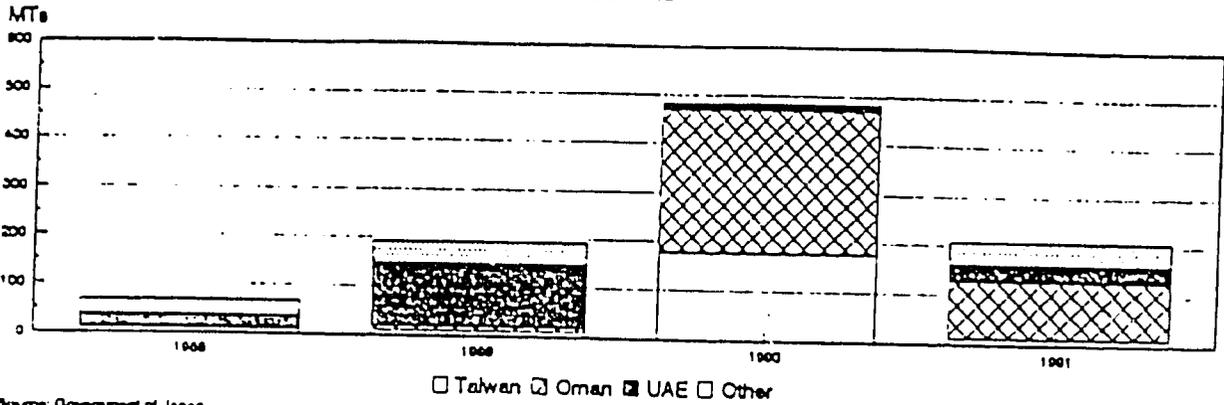
Japanese imports of fresh beans increased from 68 MTs (¥39.6 million, US\$309 thousand) in 1988 to 206 MTs (¥135.3 million, US\$1.0 million) in 1991. 1991 imports, however, are down substantially from 1990 levels of 483 MTs (¥218.2 million, US\$1.5 million).

### Market Share

In 1991, Oman held a 56 percent share of the import market for fresh beans, followed by the United Arab Emirates (16 percent), Mexico (13 percent), the United States (9 percent) and Taiwan (6 percent). Market shares have ranged widely over the last four years -- for instance, in 1990, Taiwan held a 37 percent share and Oman held a 60 percent share. These figures indicate that the import statistics may not be too accurate -- however, what they do show is that fresh french/bobby bean imports are probably minimal.

### Japanese Imports of Fresh Beans, 1988-1991

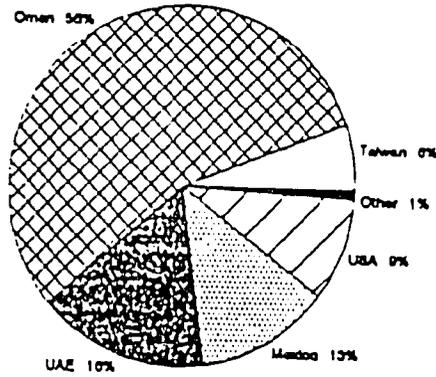
Metric Tons



Source: Government of Japan

### Import Share of Fresh Beans

1991, by weight



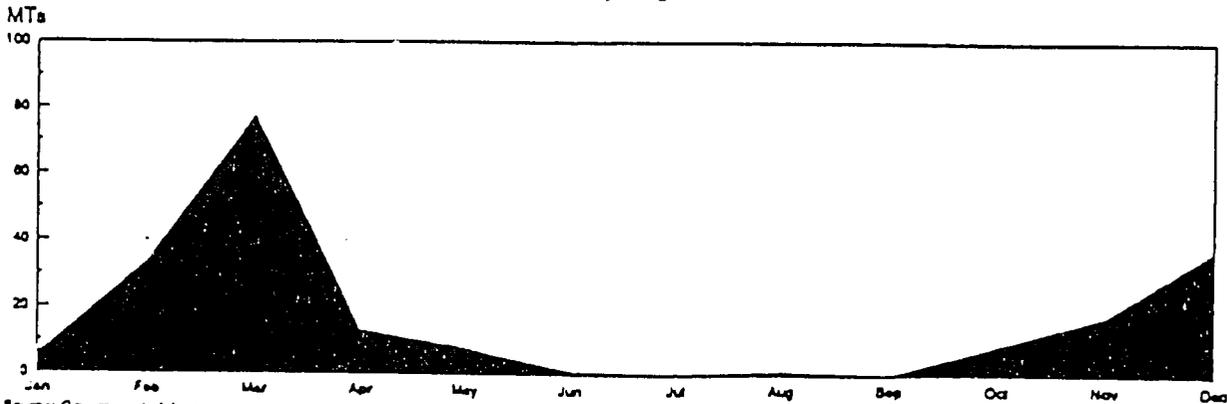
Source: Government of Japan

### Seasonal Supply

In 1991, 99 percent of imports entered during the period October-May. Fifty-four percent of total imports entered during February and March.

### Import Share of Fresh Beans

1991, by weight



Source: Government of Japan

## Historical and Monthly Unit Prices

The following table gives CIF import unit values for fresh bean arrivals during the period 1988-1991. U.S. Dollar unit values (converted at the average exchange rate for the year in question) have increased over the period, from US\$4.56/kg to US\$4.88/kg, although 1990 witnessed a much lower average unit price of US\$3.12/kg (due to imports of much cheaper fresh beans from Taiwan for that year).

	1988	1989	1990	1991
US\$/kg	4.56	4.05	3.12	4.88
¥/kg	584	559	452	657

Source: Government of Japan Official Trade Statistics

CIF unit values for each month in 1991 are given below. As can be seen, unit values ranged widely, making it impossible to determine any specific trends.

1991	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
¥/Kg	1,235	777	661	591	565	877	na	710	na	524	637	618

Source: Government of Japan Official Trade Statistics

## Tariff Rates

Fresh french and bobby beans are subject to the following duty rates:

General	10%
GATT	5%

Since Kenya is a GATT member, it would be subject to the GATT rate. Kenya beans (if allowed entry under phytosanitary restrictions) may also be eligible for more preferential treatment under a rate structure established for lesser developed developing countries.

## Kenyan Market Prospects

Statistical reporting is practically non-existent for fresh bean domestic production, imports, and consumption trends. The author, however, does not recommend that the expense of additional market research is justified at this time -- as it does appear that the quantity of total fresh bean imports is extremely low, most likely signifying either high domestic production or low domestic demand for these products.

## MANGETOUT (SNOW PEAS)

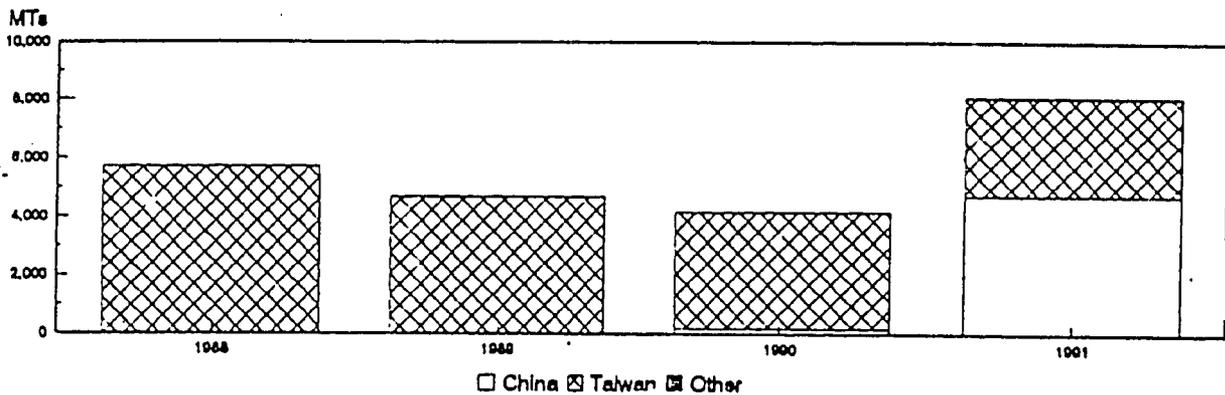
### Domestic Production

Domestic production statistics for snow peas are not known. Based on gaps in the import market, domestic pea production is assumed to be highest from April through September.

### Imports

Japanese imports of fresh peas (*Pisum sativum*) stood at 5,707 MTs (¥1.9 billion, US\$14.6 million) in 1988, before falling to 4,682 MTs (¥1.3 billion, US\$9.6 million) in 1989 and to 4,165 MTs (¥1.3 billion, US\$9.3 million) in 1990. Imports surged in 1991 to 8,067 MTs (¥2.6 billion, US\$19.1 million).

**Japanese Imports of Fresh Peas, 1988-1991**  
Metric Tons

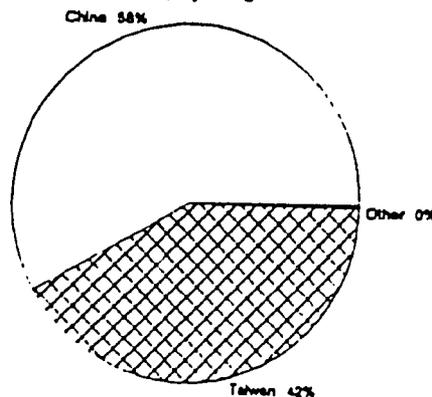


Source: Government of Japan

### Market Share

In 1991, China and Taiwan had a combined import market share of over 99 percent. China, which supplied 58 percent (4,691 MTs) of imported fresh peas in 1991, had only exported 157 MTs to Japan in 1990, and nearly nothing in 1988 and 1989. Taiwan's exports to Japan have steadily decreased since 1988, when they stood at 5,694 MTs. By 1991, Taiwan's exports to Japan had fallen to 3,355 MTs. Other minor suppliers in 1991 included Hong Kong (13 MTs), Nepal (3 MTs), the United States (4 MTs), and Australia (1 MT).

**Import Share of Fresh Peas**  
1991, by weight

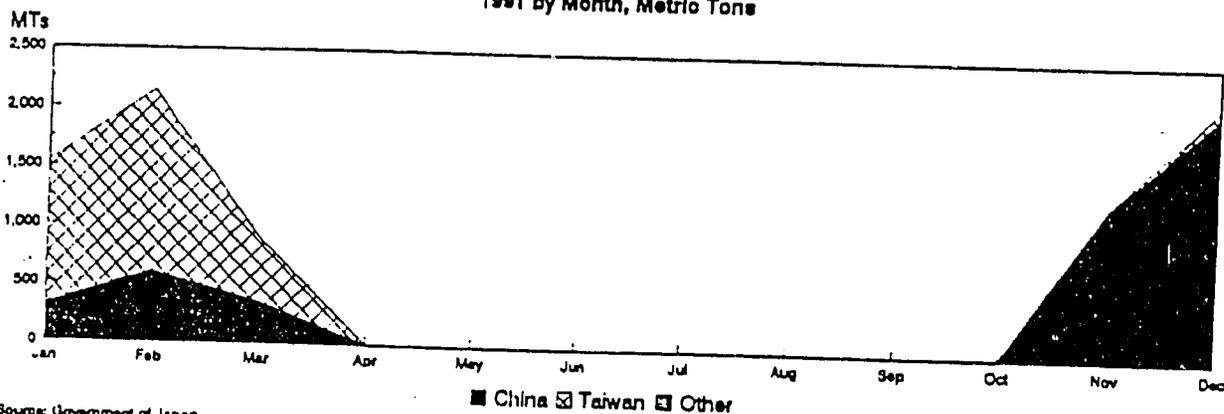


Source: Government of Japan

## Seasonal Supply

In 1991, imports of fresh peas occurred primarily during the period November-March. Over 99 percent of all imports entered during this time. Japan's imports from Taiwan primarily (98 percent) occurred during the period January-March. During this same period, China also shipped sizeable amounts, although the bulk (73 percent) occurred in November and December.

**Japanese Imports of Fresh Peas**  
1991 by Month, Metric Tons



Source: Government of Japan

## Historical and Monthly Unit Prices

The following table gives CIF import unit values for fresh pea arrivals during the period 1988-1991. From 1988 to 1989, both US Dollar and Yen unit values decreased. Although, they had recovered somewhat by 1991. Chinese import unit values are significantly lower than that received by any of the other foreign suppliers.

	1988	1989	1990	1991
US\$/kg	2.55	2.06	2.22	2.37
¥/kg	327	284	322	319

Source: Government of Japan Official Trade Statistics

CIF unit values for each month in 1991 are given below. Unit values for July-September, which are the highest for the year, are skewed as they represent only small shipments from Nepal and the U.S. It cannot be assumed that this is the prevailing market price during this period.

1991	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
¥/Kg	355	325	278				559	990	970	320	381	269

Source: Government of Japan Official Trade Statistics

## Tariff Rates

Fresh peas are subject to the following duty rates:

General	10%
GATT	5%

Since Kenya is a member of the GATT, it would be subject to the GATT rate. Kenyan peas (if allowed entry under phytosanitary restrictions) may also be eligible for more preferential treatment under a rate structure established for lesser developed developing countries.

## Kenyan Market Prospects

Taiwanese, and now it would appear also Chinese, production dominates the import market during Japan's off-season. It is not, therefore, likely that Kenya would be competitive with these low cost (especially on the part of China) producers.

## CHERRY TOMATOES

No statistics are available for the cherry tomato in Japan. In February 1992, Japanese Export Trade Organization reported that cherry tomatoes were relatively new on the market, and are gaining in popularity.

### Domestic Production

Japan produced 773,100 MTs of tomatoes in 1989, down from 820,400 MTs in 1985.

### Imports

Imports of fresh tomatoes are nearly non-existent. In 1988, only 3 MTs (¥985 thousand, US\$8 thousand) were imported. No imports were recorded in 1989 and 1990. In 1991, imports stood at the low level of 11 MTs (¥3.6 million, US\$27 thousand).

### Market Share

Japanese domestic producers in effect supply the entire domestic market. Of the 11 MTs imported in 1991, 10 MTs entered from Korea and the remainder from New Zealand.

### Seasonal Supply

In 1991, all imports entered in December.

### Historical and Monthly Unit Prices

In 1988, CIF import unit values stood at ¥376/kg (US\$2.93/kg). In 1990, unit values were ¥322/kg (US\$2.39/kg). New Zealand unit values are significantly greater than those for Korea.

### Tariff Rates

Fresh tomatoes are subject to the following duty rates:

General	10%
GATT	5%

Since Kenya is a member of the GATT, it would be subject to the lower GATT rate. Kenyan tomatoes (if allowed entry under phytosanitary restrictions) may also be eligible for more preferential treatment under a rate structure established for lesser developed developing countries.

### Kenyan Market Prospects

The market is completely dominated by local producers. Even nearby low cost countries do not compete in this market. There appears to be absolutely no opportunity for Kenyan producers.

### OKRA

Very little information is available on the fresh okra market in Japan. The Japan Fresh Produce Import Facilitation Association reports imports of 1,936 MTs in 1990, up significantly from 1985 levels of 527 MTs. It is believed that low-cost regional suppliers are currently providing most of Japan's import needs. Tariff rates are currently 10 percent (General) and 5 percent (GATT).

Japanese Imports of Fresh Okra, 1985-1990, Tons					
1985	1986	1987	1988	1989	1990
527	441	529	803	1,421	1,936

Source: Japan Fresh Produce Import Facilitation Association

Field research would be required to assess the market more completely. However, given Japan's phytosanitary import restrictions, Kenyan product may not be currently allowed into the market.

## **CHILI PEPPERS**

### **Domestic Production**

Domestic production statistics are not available.

### **Imports**

Fresh pepper imports (official statistics include all belonging to the genus *Capsicum* or the genus *Pimenta*) were nearly non-existent in 1988 and 1989. In 1990, imports of only 2 MTs (¥1.5 million, US\$10 thousand) were recorded. Imports increased to only 8 MTs (¥6.9 million, US\$51 thousand) in 1991.

### **Market Share**

Of the 8 MTs supplied to the market in 1991, 5 MTs were sourced from Korea and 3 MTs entered from New Zealand.

### **Seasonal Supply**

All of Korea's 5 MTs entered in November. New Zealand's exports to Japan, entered in February, March, November, and December.

### **Historical and Monthly Unit Prices**

Given the small quantities imported, the CIF import unit values do not tell much. In 1990, the average stood at US\$5.48/kg, increasing to US\$6.59/kg in 1991. In 1991, Korean peppers had a US\$5.50/kg import unit value, much lower than New Zealand's US\$8.91/kg.

### **Tariff Rates**

Fresh peppers are subject to duty rates of 10 percent (General) and 5 percent (GATT). There may be additional preferential rates available to lesser developed developing countries.

### **Kenyan Market Prospects**

There does not appear to be any import market for any type of chili peppers.

Table II-1: Japanese Imports of Fresh Asparagus, 1988-1991, MTs

Source	1988	1989	1990	1991
China	173	246	121	24
Korea		1		
Taiwan		1		
Thailand	100	667	1,596	1,646
Malaysia	1	1	4	
Philippines		9	206	909
Indonesia			0	
Belgium			0	
France	2	2	0	1
Canada	1	0		
USA	4,765	4,304	3,929	3,132
Mexico	3,320	2,119	1,943	2,323
Guatemala			2	
Peru	26	54	36	40
Chile	149	45	1	4
Australia	1,784	2,072	2,411	2,909
New Zealand	1,606	1,215	1,296	1,493
TOTAL	11,926	10,736	11,607	12,482

Source: Government of Japan

Table II-2: Japanese Imports of Fresh Asparagus, 1988-1991, Yen 1,000

Source	1988	1989	1990	1991
China	81,425	109,033	50,766	12,595
Korea		541		
Taiwan		792		
Thailand	53,290	474,832	1,165,667	1,132,613
Malaysia	793	1,004	2,816	
Philippines		3,776	72,401	320,882
Indonesia			448	
Belgium			221	
France	2,954	2,332	661	1,527
Canada	438	288		
USA	2,334,797	2,413,564	2,601,018	1,931,492
Mexico	1,989,105	1,503,679	1,488,056	1,467,110
Guatemala			1,878	
Peru	22,702	54,736	38,090	42,194
Chile	111,022	39,061	925	4,195
Australia	1,432,715	1,635,300	1,818,072	2,236,392
New Zealand	1,157,757	950,053	933,308	1,125,989
TOTAL	7,186,998	7,188,991	8,174,325	8,274,989

Source: Government of Japan

Table II-3: Japanese Imports of Fresh Asparagus, 1988-1991, US\$000s

Source	1988	1989	1990	1991
China	635	790	351	94
Korea		4		
Taiwan		6		
Thailand	416	3,441	8,049	8,415
Malaysia	6	7	19	
Philippines		27	500	2,384
Indonesia			3	
Belgium			2	
France	23	17	5	11
Canada	3	2		
USA	18,221	17,491	17,960	14,351
Mexico	15,523	10,897	10,275	10,901
Guatemala			13	
Peru	177	397	263	314
Chile	866	283	6	31
Australia	11,181	11,851	12,554	16,616
New Zealand	9,035	6,885	6,445	8,366
TOTAL	56,087	52,098	56,445	61,483

Source: Government of Japan

Table II-4: Japanese imports of Fresh Asparagus, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
China	3.68	3.22	2.90	3.95
Korea		5.77		
Taiwan		5.98		
Thailand	4.15	5.16	5.04	5.11
Malaysia	6.24	5.72	4.92	
Philippines		2.89	2.42	2.62
Indonesia			8.08	
Belgium			10.17	
France	11.58	11.27	14.44	13.04
Canada	4.37	6.21		
USA	3.82	4.06	4.50	4.58
Mexico	4.68	5.14	5.29	4.69
Guatemala			8.65	
Peru	6.90	7.36	7.23	7.84
Chile	5.83	6.26	6.11	6.96
Australia	6.27	5.72	5.21	5.71
New Zealand	5.63	5.67	4.97	5.60
TOTAL	4.70	4.85	4.86	4.93

Source: Government of Japan

Table II-5: Japanese imports of Fresh Asparagus, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
China	472	444	420	532
Korea		796		
Taiwan		825		
Thailand	531	711	730	688
Malaysia	799	789	713	
Philippines		399	351	353
Indonesia			1167	
Belgium			1473	
France	1484	1555	2092	1755
Canada	560	857		
USA	490	581	652	617
Mexico	599	709	768	631
Guatemala			1252	
Peru	884	1016	1047	1055
Chile	747	864	885	937
Australia	803	789	754	769
New Zealand	721	782	720	754
TOTAL	603	670	704	663

Source: Government of Japan

Table II-6: Japanese Imports of Fresh Asparagus, 1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China			2	19	3							
Thailand	274	183	179	90	23	22	120	168	189	193	67	137
Philippines	59	87	60	6				3	72	144	280	198
France				0	0	0						
USA	49	359	726	1,710	283	2			1			
Mexico	224	803	1,217	78				0				2
Peru	26											9
Chile									1	4		
Australia	3									0	4	
New Zealand	29								121	1,096	1,092	596
TOTAL	664	1,432	2,185	1,904	309	25	120	171	391	1,907	1,962	1,412

Source: Government of Japan

Table II-7: Japanese Imports of Fresh Asparagus, 1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China			1,368	10,128	1,099							
Thailand	204,265	115,786	103,402	57,209	31,899	14,011	82,434	113,905	128,968	137,252	47,062	96,400
Philippines	20,607	30,636	20,992	2,113				1,169	24,025	50,555	98,406	72,379
France				577	635	315						
USA	46,035	251,675	416,869	1,043,511	165,426	1,416			1,150			
Mexico	217,217	541,366	659,627	48,666				410				1,564
Peru	26,908								725	3,689		10,672
Chile										474	3,721	
Australia	3,164											
New Zealand	27,326								127,850	878,620	783,709	442,378
TOTAL	545,522	939,465	1,202,258	1,167,204	199,059	15,742	82,434	115,484	288,279	1,437,526	1,317,064	965,679

Source: Government of Japan

Table II-8: Japanese Imports of Fresh Asparagus, 1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China			616	535	436							
Thailand	745	632	578	632	1,397	628	690	679	683	710	699	704
Philippines	352	352	352	351				350	334	352	351	365
France				1,803	1,716	1,750						
USA	941	701	574	613	584	576			798			
Mexico	970	675	542	625				1,206				935
Peru	1,029								725	848		1,279
Chile										979	932	
Australia	983											
New Zealand	951								1,056	802	718	743
TOTAL	822	656	550	613	644	631	690	674	738	754	671	684

Source: Government of Japan

Note: "Fresh Beans" includes Vigna spp. and Phaseolus spp.

Source	1988	1989	1990	1991
Taiwan	9	10	178	12
Thailand	18			
Oman		9	292	116
UAE	29	129	6	33
Netherlands			0	
Mexico	4	19		26
USA			6	19
Nepal				0
Australia				
New Zealand	7	25	1	
TOTAL	68	191	483	206

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	3,089	3,158	44,798	7,229
Thailand	1,928			
Oman		4,500	157,599	73,050
UAE	26,692	68,241	12,066	24,024
Netherlands			268	
Mexico	1,297	9,783		18,647
USA			2,872	11,018
Nepal				420
Australia				885
New Zealand	6,582	21,315	641	
TOTAL	39,588	106,997	218,244	135,273

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	24	23	309	54
Thailand	15			
Oman		33	1,088	543
UAE	208	495	83	178
Netherlands			2	
Mexico	10	71		139
USA			20	82
Nepal				3
Australia				7
New Zealand	51	154	4	
TOTAL	309	775	1,507	1,005

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	2.62	2.27	1.74	4.59
Thailand	0.84			
Oman		3.62	3.72	4.68
UAE	7.07	3.85	14.85	5.48
Netherlands			4.63	
Mexico	2.77	3.70		5.42
USA			3.11	4.38
Nepal				7.80
Australia				5.69
New Zealand	6.88	6.28	7.40	
TOTAL	4.56	4.05	3.12	4.88

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	336	313	252	618
Thailand	107			
Oman		500	539	630
UAE	907	531	2151	738
Netherlands			670	
Mexico	355	510		730
USA			450	589
Nepal				1050
Australia				766
New Zealand	881	867	1072	
TOTAL	584	559	452	657

Source: Government of Japan

Table II-6: Japanese Imports of Fresh Beans, 1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan				3	8						1	
Nepal								0				
Oman	4	21	48	8							7	30
UAE	2	12	13	2				1		1		
USA						1				8	9	1
Mexico		2	17									7
Australia											1	
TOTAL	6	34	78	13	8	1		1		9	18	38

Source: Government of Japan

Table II-7: Japanese Imports of Fresh Beans, 1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan				2,233	4,520						478	
Nepal								420				
Oman	2,589	13,497	29,718	4,318							4,284	18,645
UAE	5,152	11,698	9,066	1,278				325				
USA						547				250	5,653	595
Mexico		1,518	12,802							4,223		4,329
Australia											885	
TOTAL	7,741	26,709	51,586	7,827	4,520	547		745		4,473	11,298	23,570

Source: Government of Japan

Table II-8: Japanese Imports of Fresh Beans, 1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Taiwan				718	565						793	
Nepal								1,050				
Oman	647	649	646	540							630	615
UAE	2,270	982	600	600				500		500		
USA						677				525	615	708
Mexico		910	758									620
Australia											766	
TOTAL	1,235	777	661	591	565	677		710		524	637	618

Source: Government of Japan

Note: "Fresh Peppers" Includes fruits of genus Capsicum & Pimenta

Table II-1: Japanese Imports of Fresh Peppers, 1988-1991, MTs

Source	1988	1989	1990	1991
Korea				5
Saudi Arabia			0	
New Zealand		0	2	3
TOTAL		0	2	8

Source: Government of Japan

Table II-2: Japanese Imports of Fresh Peppers, 1988-1991, Yen 1,000

Source	1988	1989	1990	1991
Korea				3,922
Saudi Arabia			239	
New Zealand		295	1,263	2,999
TOTAL		295	1,502	6,921

Source: Government of Japan

Table II-3: Japanese Imports of Fresh Peppers, 1988-1991, US\$000s

Source	1988	1989	1990	1991
Korea				29
Saudi Arabia			2	
New Zealand		2	9	22
TOTAL		2	10	51

Source: Government of Japan

Table II-4: Japanese Imports of Fresh Peppers, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
Korea				5.50
Saudi Arabia			6.60	
New Zealand		7.95	5.31	8.91
TOTAL		7.95	5.48	8.59

Source: Government of Japan

Table II-5: Japanese Imports of Fresh Peppers, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
Korea				740
Saudi Arabia			956	
New Zealand		1,097	769	1,200
TOTAL		1,097	794	887

Source: Government of Japan

Table II-6: Japanese Imports of Fresh Peppers, 1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korea												
New Zealand		0	1								5	
TOTAL		0	1								0	2

Source: Government of Japan

Table II-7: Japanese Imports of Fresh Peppers, 1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korea												
New Zealand		208	300								3,922	2,256
TOTAL		208	300								235	2,256

Source: Government of Japan

Table II-8: Japanese Imports of Fresh Peppers, 1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korea												
New Zealand		1,095	500								740	1,380
TOTAL		1,095	500								3,133	1,380

Source: Government of Japan

Note: "Fresh Peas" includes *Pisum sativum*

Table II-1: Japanese Imports of Fresh Peas, 1988-1991, MTs

Source	1988	1989	1990	1991
China	5		157	4,691
Taiwan	5,694	4,666	4,008	3,355
Hong Kong			1	13
Nepal				3
USA	7	15		4
Mexico		1		
Australia				1
TOTAL	5,707	4,682	4,165	8,067

Source: Government of Japan

Table II-2: Japanese Imports of Fresh Peas, 1988-1991, Yen 1,000

Source	1988	1989	1990	1991
China	2,167		47,114	1,359,195
Taiwan	1,855,109	1,316,164	1,294,466	1,203,642
Hong Kong			553	5,883
Nepal				2,663
USA	8,499	12,845		2,760
Mexico		993		
Australia				433
TOTAL	1,865,775	1,330,002	1,342,133	2,574,576

Source: Government of Japan

Table II-3: Japanese Imports of Fresh Peas, 1988-1991, US\$000s

Source	1988	1989	1990	1991
China	17		325	10,099
Taiwan	14,477	9,538	8,938	8,943
Hong Kong			4	44
Nepal				20
USA	66	93		21
Mexico		7		
Australia				3
TOTAL	14,560	9,638	9,268	19,129

Source: Government of Japan

Table II-4: Japanese Imports of Fresh Peas, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
China	3.26		2.08	2.15
Taiwan	2.54	2.04	2.23	2.67
Hong Kong			3.82	3.41
Nepal				7.19
USA	9.46	6.40		4.90
Mexico		5.02		
Australia				5.67
TOTAL	2.55	2.06	2.22	2.37

Source: Government of Japan

Source	1988	1989	1990	1991
China	418		301	290
Taiwan	328	282	323	359
Hong Kong			553	460
Nepal				968
USA	1213	883		659
Mexico		693		
Australia				764
TOTAL	327	284	322	319

Source: Government of Japan

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China	322	605	355									
Taiwan	1,221	1,533	540							10	1,298	2,104
Hong Kong											3	59
Nepal											13	
USA								1	2			
Australia							1	1		2		
TOTAL	1,543	2,137	895				1	2	2	13	1,312	2,163

Source: Government of Japan

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China	88,948	154,163	82,401									
Taiwan	459,389	539,654	166,045							2,663	491,396	548,254
Hong Kong											2,668	32,327
Nepal											5,883	
USA							547	723	1,940			
Australia								822		1,391		
TOTAL	548,337	693,817	248,446				547	1,545	1,940	4,054	499,947	581,014

Source: Government of Japan

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China	277	255	232									
Taiwan	376	352	308							259	379	261
Hong Kong											834	551
Nepal											460	
USA								964	970			
Australia							559	1,014		580		
TOTAL	355	325	278				559	990	970	320	381	269

Source: Government of Japan

Table II-1: Japanese Imports of Fresh Tomatoes, 1988-1991, MTs

Source	1988	1989	1990	1991
Korea	2			10
New Zealand	0			1
TOTAL	3			11

Source: Government of Japan

Table II-2: Japanese Imports of Fresh Tomatoes, 1988-1991, Yen 1,000s

Source	1988	1989	1990	1991
Korea	600			3,038
New Zealand	325			612
TOTAL	925			3,650

Source: Government of Japan

Table II-3: Japanese Imports of Fresh Tomatoes, 1988-1991, US\$000s

Source	1988	1989	1990	1991
Korea	5			23
New Zealand	3			5
TOTAL	8			27

Source: Government of Japan

Table II-4: Japanese Imports of Fresh Tomatoes, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
Korea	2.34			2.27
New Zealand	6.00			3.25
TOTAL	2.93			2.39

Source: Government of Japan

Table II-5: Japanese Imports of Fresh Tomatoes, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
Korea	300			306
New Zealand	768			437
TOTAL	378			322

Source: Government of Japan

Table II-6: Japanese Imports of Fresh Tomatoes, 1991, MTs

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korea												
New Zealand												10
TOTAL												11

Source: Government of Japan

Table II-7: Japanese Imports of Fresh Tomatoes, 1991, Yen 1,000

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korea												
New Zealand												3,038
TOTAL												612
TOTAL												3,650

Source: Government of Japan

Table II-8: Japanese Imports of Fresh Tomatoes, 1991, Yen/kg

Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Korea												306
New Zealand												437
TOTAL												322

Source: Government of Japan

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### SECTION III: FRESH CUT FLOWERS

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Trade in cut flowers and plants has become an important segment of international trade in horticultural products. Developing countries have been increasing their share of this trade and, in flowers for example, they have at present over 25% of total international trade, up from 19.6% in 1981. The 1991 value of world trade in floricultural products, of more than US\$5 billion, represents a significant increase on earlier totals for the 1980s (US\$2.5 billion in 1985 and just over US\$2 billion in 1981).

In terms of flower consumption, Japan has one of the highest per capita consumption figures - estimated at about US\$50 in 1989. This was the fourth highest level in the world at that time, exceeded only by Italy, Norway and Switzerland. Given the fact that Japan has a considerably higher population than these three countries taken together it follows that Japan, along with the United States, is among the largest national markets for cut flowers in the world. At consumer price level, the Japanese market was worth around US\$ 6 billion in 1990. It is regarded as probably the most dynamic market in terms of rates of growth at this point in time.

#### Domestic Production

Because Japan is divided into four major islands and many small islands over a significant north to south geographical span it experiences considerable variations in climate - from the temperate to the tropical. This means that a large number of different flowers can be grown outdoors somewhere within national boundaries at any time of the year. In 1991, on average more than two thirds of the acreage (10,000) of flowers in Japan was under open air production.

In value terms, domestic flower production has grown steadily increasing from ¥29 billion in 1970 to ¥102.9 billion in 1980 and to more than ¥200 billion in 1990/91. Deliberate encouragement by government for rice growers to diversify into flower production was partially responsible for this, although of course consumption did also increase accordingly.

According to a survey on floricultural production undertaken by the Ministry of Agriculture in 1988 chrysanthemums represented 37 percent of the 4,786 million stems grown in that year. Other flowers including gladioli, freesia, irises and some foliage represented 35 percent with the rest of production being divided, in descending order, amongst carnations, roses, Matthiola, Gypsophila and Statice. Carnations represented 14.4 percent, roses 7.6 percent, and Statice just over 2 percent of total output.

In terms of the flowers included in this project (carnations, roses, and Statice), domestic production is also relatively significant. In 1990, almost 600 hectares were devoted to the production of carnations worth a value of ¥28.5 billion or some 9% increase over the value figure from 1989. For roses, 470 hectares were cultivated in 1990 at a value of ¥26 billion representing a 15% increase in value over the previous year. Statice, to the value of ¥6 billion

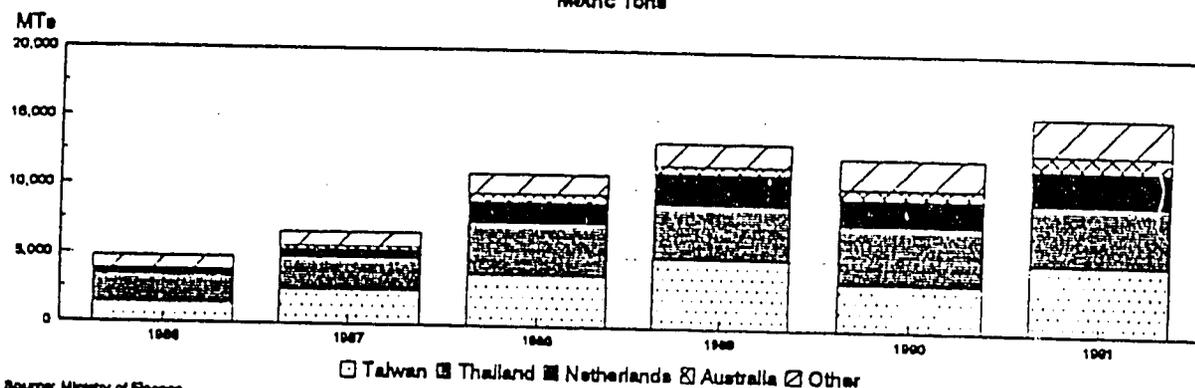
came from 360 hectares in 1990 representing an increase in 23% over the value for 1989. These are not major items of production in Japan however, when compared with chrysanthemums which were cultivated on over 5,500 hectares in 1990 at a value of ¥87.5 billion.

Production of cut flowers in Japan takes place throughout the year with no dramatic seasonal variations. In 1988 the Japanese Ministry of Agriculture estimated monthly production at an average of around 399 million stems, ranging between 314 million stems in June and 511 millions stems in December.

### Japan Imports

Japanese official trade statistics combine all cut flowers into one reporting category. In 1991, imports of all cut flowers stood at 15,629 MTs (¥19.2 billion, US\$142.9 million). This level compares with only 4,761 MTs (¥6.2 billion, US\$37.0 million) in 1986, and 12,410 MTs (¥16.6 billion, US\$114.9 million) in 1990.

Imports of Cut Flowers, 1986-1991  
Metric Tons

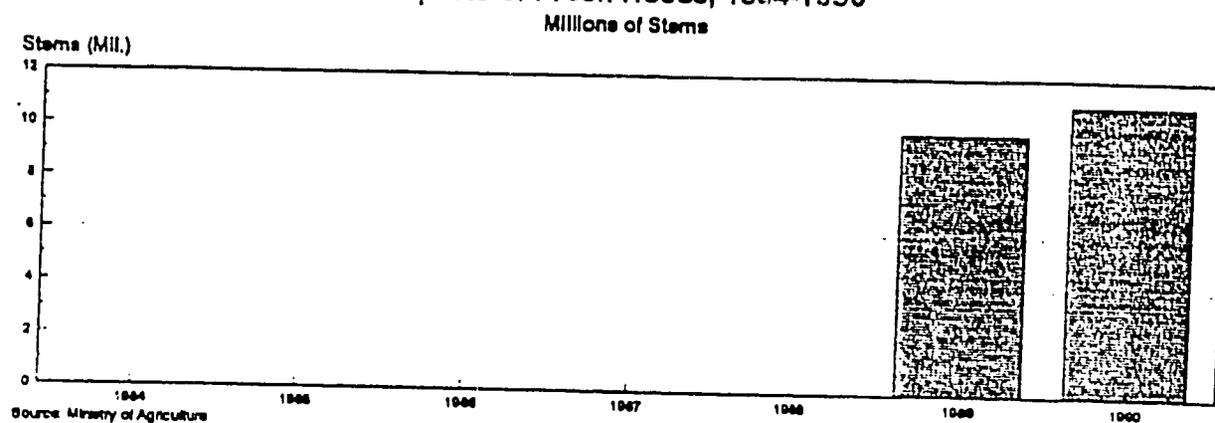


The Ministry of Agriculture, Forestry and Fisheries compile statistics on the number of stems imported by variety. These statistics reveal that orchids are the most imported flower (34 percent of all stems imports in 1990). Other popular imported flowers include: ferns (15% of import volume), other non-specified (11%), chrysanthemums (8%), and bear grass (7%). Carnations and roses accounted for only 4 percent and 3 percent of total cut flower imports in 1990. Stative imports are included in the other non-specified category.

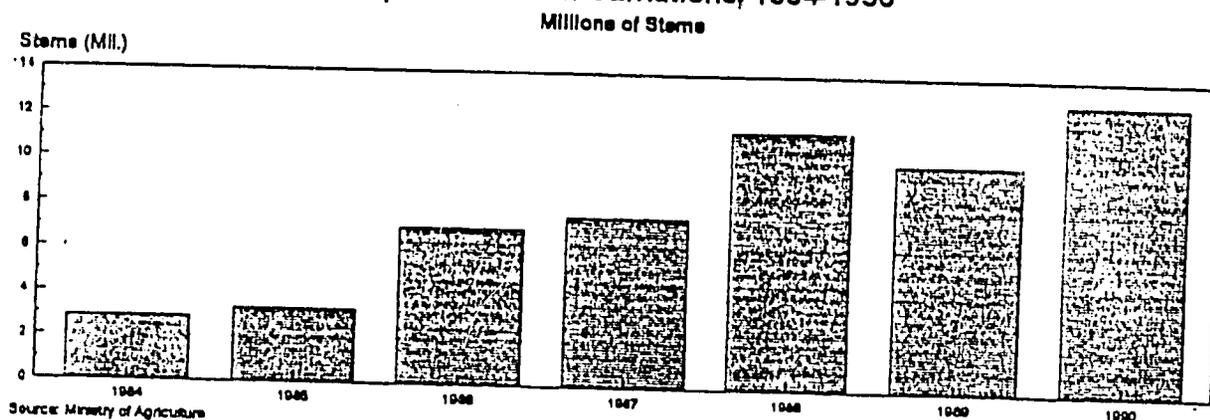
Over the period 1984-1988, there were no reported imports of roses into Japan. In 1989, Japan imported 9.9 million stems, increasing further 11.0 million stems in 1990.

Japanese imports of fresh carnations stood at 12.9 million stems in 1990, up from 10.1 million stems in 1989. 1989 import volume represented a decrease from the 11.5 million stems recorded the previous year. In 1984, Japan imported only 2.9 million stems of fresh carnations.

### Imports of Fresh Roses, 1984-1990



### Imports of Fresh Carnations, 1984-1990



Kenya reportedly exported US\$390,000 worth of cut flowers to Japan in 1991, according to official Japanese trade data. In the tables attached to this section, Kenya is counted under the "others" category. It is impossible to determine which varieties of flowers Kenya exported to Japan from Japanese trade data.

### Market Share

Using volume levels (MTs) as reported by official trade statistics for all cut flowers, Taiwan is the largest foreign supplier to the market with a 32 percent import share. Other significant suppliers include: Thailand (28%), the Netherlands (16%), Australia (7%), New Zealand (4.5%), Singapore (4%), and the United States (2%).

While Thai and Taiwanese exports to Japan have increased considerably, the former's market share has dropped (from 42% in 1984 to its current 28%) and the latter's share has remained relatively stagnant. U.S. market share has also dropped substantially, from 8.6% in 1986 to 2.2% in 1991. Dutch market share has increased from 7 percent to its current 16 percent. Other countries showing steady increases in market share since 1986, include Singapore (2.4%

to 4.3%), Australia (1.7% to 7.1%), Colombia (0.3% to 1.9%), and Mauritius (from zero to 0.7%).

Computing market share by value data changes the share rankings considerably. In this case, the Netherlands has a 34 percent import share in 1991, with Thailand and Taiwan having 22 percent and 9 percent shares, respectively. In order, Taiwan, New Zealand, Singapore, and Australia are the next largest suppliers when total value is used.

Looking at unit value figures (value divided by volume) for 1991 reveals imports of flowers from the Netherlands at a far higher value per unit than those for second and third largest suppliers. The only other relatively significant suppliers of flowers to Japan with a high value per unit are New Zealand, Singapore, the United States, and Mauritius. To some extent this is a reflection of the fact that flowers from distant sources have got to be of the "high value" varieties to absorb the relatively high air-freight costs.

As can be seen from Ministry of Agriculture import data (see tables immediately following this section), the main varieties of flowers imported from the Netherlands are lilies, roses, freesias, nerines and tulips. The Netherlands is almost dominant as the supplier of these relatively high value products, although small quantities are also imported from Taiwan. The Dutch are also the major suppliers of summer flowers, including statice.

For chrysanthemums, however, which are easily the most popular flowers in Japan, the Dutch only exported 2.1 million stems in 1989 compared with Japanese local production of 1.8 billion stems and imports from Taiwan of almost 40 million stems in the same year.

Thailand, while historically the largest exporter to Japan, primarily supplies orchids (in excess of 100 million stems, or 98 percent of all imported cut flowers from Thailand. In 1991, Thailand they lost their position as premier volume supplier to Taiwan which supplies a wider range of products including orchids, lilies, chrysanthemums, gladioli, some carnations and summer flowers.

Other suppliers are relatively unimportant. New Zealand supplies primarily orchids and calla. Singapore supplies almost exclusively orchids. Australia is a comparatively new source of supply with relatively high quality/value flowers such as anigozanthos, wax flowers, carnations and leucadendrons. The United States shows up in the statistics with anthuriums produced in Hawaii and some other products for flower arrangements (ferns and bear grass). The flowers coming in from Mauritius are almost entirely anthuriums.

### **Consumer Preference**

The most popular flower in Japan is the chrysanthemum, which represents, on average more than 35% of all flowers sold in any year. Usually almost all these flowers are grown locally although there are small imports from Taiwan.

The second most popular flower is the carnation representing over 14% of all flowers bought. Again most carnations are locally grown with less than 2% being imported - mainly from the Netherlands.

Third in importance is the rose, accounting for around 7-8% of total consumption. Local production again accounts for almost all demand except for some 9 million stems from the Netherlands and small quantities from Thailand.

Summer flowers such as gypsophila and statice are popular in Japan and rank next in the list of those in greatest demand. Both species are mainly grown locally.

All the locally grown flowers are completely familiar to the Japanese consumer, there being a long tradition of using flowers. The Dutch have been instrumental in marketing and promoting new types of flowers, notably freesias, tulips, lilies, alstroemerias and other species.

Favorite colors in Japan differ from those in many other countries in that white is most desirable followed by soft pastel colors. Pink and light purple are popular as are yellow in spring time. Brighter colors are now becoming popular with the "under thirties".

Flower arrangements are important in Japan and make up around 20% of the total market for cut flowers. It follows therefore that flowers with the color and shape which allow for easy combinations with other flowers are in high demand.

### **Seasonal Patterns of Demand**

In Japan flowers are bought all year round but, as elsewhere, there are of course periods of peak demand coinciding with seasonal ceremonies. The highest consumption is in December - January for Christmas and the New Year but there are regular peaks according to Buddhist ceremonies in August, March and September when the demand for chrysanthemums increases substantially. Mothers Day is held in May/June of each year and at that time the most popular flower on demand is the carnation. Though no figures are available, it is expected that the monthly demand for imported flowers follows roughly the same pattern.

### **Market Structure**

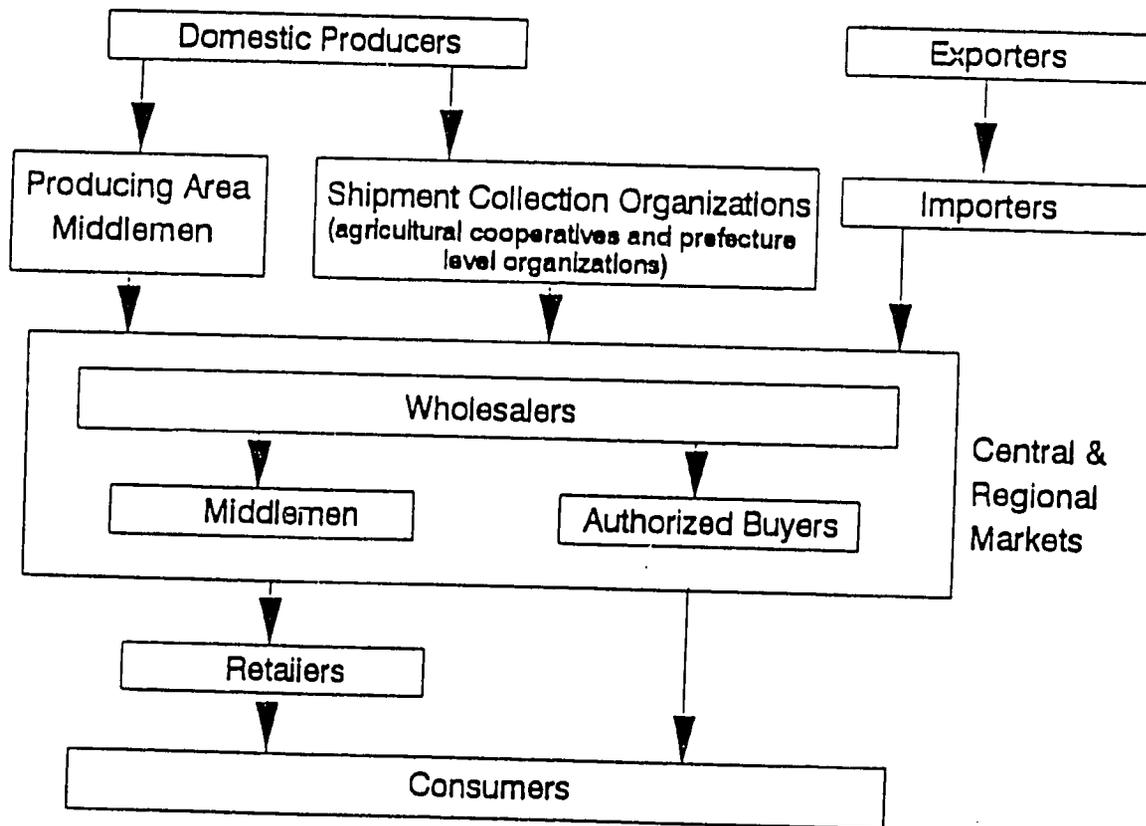
Cut flowers are distributed via two different channels, one which uses the wholesale market and one which goes direct to trade enterprises or major retail chains. At present almost 80% of all cut flowers are distributed through the wholesale markets. Of late, some small retailers have begun to form joint ventures and to establish distribution systems for importing cut flowers which also bypass the wholesale market.

Sales through non member wholesale markets are estimated to account for 20% of total sales through wholesale markets, while 5% of the share is distributed from one wholesale market to another. An additional 10% of the total volume is believed to be distributed without going

through wholesale markets. Taking into account the statistics and the fact that retailers generally mark up flowers 100% or more from wholesale prices, total market size in 1990 can be estimated at ¥825 billion on a retail price basis compared to ¥694.7 billion in 1989.

In principle, imported flowers follow the same route as domestic flowers after leaving the hands of importers. Domestic growers send flowers to agricultural cooperatives or their respective regional organizations for bulk collection. From there they are sent to wholesalers in either central or regional wholesale markets. At wholesale markets, the flowers are sold at auction and only middle-men and authorized buyers can participate in bidding. Most small retailers buy from middle-men who have stalls in the markets. Authorized buyers comprise: major retailers; flower processors and; other large users of cut flowers. Although they are able to bid at auctions they also can and do use middle men.

### Japanese Distribution Channels for Cut Flowers



Source: JETRO

The Tokyo wholesale market takes a 9.5% commission on floricultural products although it is understood that this figure is higher at regional wholesale markets. Wholesalers send the proceeds from auction sales, less their commission, back down the line to the collection organizations and in turn to the producers.

The middle man's function is to break bulk. The minimum auction lot is usually one case or 100 flowers. Given the fact that small retail shops cannot sell such large volumes of the same type and flower, the middle men reduce the quantities available to retailers and often are prepared to sell in groups of 10 stems.

According to the Japanese Ministry of Agriculture and Fisheries, there were 17 central and 229 regional wholesale markets in September 1990. There were also another 80 small scale markets which did not belong to the Japan Flower Wholesale Markets Association. It is expected that the wholesale market system will be the dominant system of distribution for cut flowers in Japan in the short to medium term.

The only possible change to the established traditional distribution system is the fact that large retail chains are increasing their power in the market and are interested in direct sourcing of product. This should not have significant impact for producers like Kenya however because such direct sourcing would only be for very large volume flowers and not small tonnages of high value items.

The system as it exists is well suited for the many small local growers in Japan but is sub-optimal for handling the increasing quantities of imported flowers. It not uncommon for an importer to have to sell at 20 to 30 auctions at the same time, resulting in excessive distribution time, handling and associated costs.

Changes are taking place however, with for instance, some of the 800 members of the All Tokyo Florists Association starting to place direct orders with exporters from overseas. Also some of the large corporations in Japan, eg. steel, electronics and brewing have begun to invest in the flower business. These companies have been setting up their own direct distribution systems making contact with growers as well as auctions. In such cases, imported flowers are sometimes bought directly from the exporter.

One such system is for flowers to be made into bouquets and arrangements and sold on the basis of a color brochure through supermarkets and convenience stores such as gas stations. The consumer buys the flowers merely on the basis of the color photograph and does not actually see them until they are delivered. Such changes in distribution are taking place slowly but are contributing to creating a system which is more conducive to the imported flower trade.

An estimated 50% of all flower consumption in Japan takes place in the Tokyo metropolitan area and therefore most imported flowers arrive at the Narita Airport. On average more than 50% of imported flowers arrive at Narita with Osaka accounting for almost 20%.

There are approximately 30 serious importers in Japan. Twenty of them are members of the newly formed Cut Flowers Importers Associations. A representative listing with contact information is given in Appendix A.

### **Grading and Packaging Requirements**

Grading standards in the Japanese market are extremely strict and great care needs to be taken. For example, if a length of 70 cm is specified, anything under or over that length will be unacceptable. If buyers specify that a plant must have five flowers, only five flowers are acceptable and so on. Suppliers must also follow detailed directions regarding the cutting stage with buyers specifying tight buds, hardly opened flowers or fully opened flowers, etc.

Packaging needs to be adapted to the Japanese market. In the USA, for example, 600 flowers make up a carton. In Japan only 100 flowers are in each carton. In order to avoid damage to packaging it is important to discuss carefully with Japanese importers the materials used. Exporters should also seek importers' advice regarding package labelling.

Imported floricultural products must be accompanied by a phytosanitary certificate which should be obtained after export inspection by the Plant Quarantine Authority of the exporting country. As this certificate is required at the time of import inspection, it must accompany the shipment or be mailed in advance.

### **Import Regulations**

The Japanese market is noted for its stringent requirements in terms of uniformity of color and size. The flowers must be absolutely free of insects, pest and diseases. Every shipment is thoroughly inspected upon arrival in Japan. Air cargo inspections are made at places designated by the Plant Quarantine Inspector while marine containerized cargo is inspected in container yards.

A shipment is considered contaminated even if only one insect is found in it. This means that flowers need to be fumigated and, according to inspection results, an average of 34% of total stems imported are fumigated. Of these, 20% were fumigated with hydro-cyanic gas and 80% with methyl bromide. The consequences of fumigation are, of course, a delay in the passage of the flowers to the markets and the consequent loss of quality. For some flowers, fumigation with methyl bromide is not suitable and in such cases the Plant Quarantine Inspector gives the importer the choice of the measure to be taken, whether methyl bromide fumigation, reshipment, or destruction.

Since freshness is of top priority in the cut flower trade, a system of pre-shipment clearance has been organized by Japanese Plant Quarantine Inspectors. The system can be introduced at the request of the exporting country although the Japanese authority will only agree to it if large volumes of cut flowers have been regularly traded between the exporter and Japan, and there is little history of disease and pests in the consignments.

Pre-shipment inspection facilities would need to be concentrated in a restricted area and the system would need to cover all the cut flowers being exported from that country to Japan. The expenses for the entire pre-shipment operation would have to be paid by the exporting country.

Cut flowers imported under this system require only nominal inspection at ports of entry and can thus be distributed very quickly. The Netherlands has already implemented the system which has resulted in a marked increase in its export volume.

### **Competition and Prices**

The Japanese market is an extremely competitive one and new suppliers will face serious obstacles to market penetration. This will come firstly from local producers whose flowers do not have to incur the stringent quality inspection requirements imposed upon imports and whose production and collection system is perfectly suited to the existing distribution network in Japan. The existence of many small auctions located near producing areas is geared towards effective distribution of local supplies rather than those of imported products.

Apart from having to face local competition, new suppliers from developing countries will also meet intense market competition from exporters in the Netherlands. These have not only introduced pre-shipment inspection systems as described before but have also invested heavily in market promotion of new varieties in Japan. The Flower Council of Holland had a full time representative in Tokyo to look after the interests of Netherlands' exporters and to promote sales of their flowers. Even though a good market has been established in Japan, the Council still places a representative to that country for at least 6 months of the year.

Established market niches also exist for orchids (from Thailand and Singapore), chrysanthemums (from Taiwan), and ferns (from the U.S.), although market share for these flowers has been declining since 1985 as imports of new varieties of flowers have increased. These include new varieties of lilies and tulips and unusual products such as kangaroo paw and wax flower. There has also been diversification in import sources illustrated by the sharp rise in imports from Australia and New Zealand because their season is different from Japan.

Latin American countries are also using their low cost production base to increase their exports. For example, imports of ferns from Costa Rica and carnations from Colombia are increasing.

A further problem for relatively distant suppliers is the potential shift by Japanese importers towards sea transportation, which can cut the cost of imported cut flowers substantially. Progress in technology is leading to the development of new breeds that bloom for longer periods. This coupled with humidified cooling containers, a low cost system for the removal of ethylene gas and new sterilization techniques have been allowing importers to source an increasing number of cut flowers from overseas in large volumes. Therefore, cut flowers shipped by air will only be feasible for those products with very high value or consumer loyalty to offset the cost of air transportation.

Although the developments in technology and new blooms would not necessarily disadvantage distant suppliers, there is still the argument that greater freshness comes from proximity, and therefore any exporter within a seven day sailing distance of Japan will have considerably greater scope for both meeting low cost and freshness requirements.

Prices vary considerably at all levels in the distribution chain although imported flowers frequently cost only half the price of the same flowers grown locally. There is a considerable premium on quality with, for example, flowers from the Netherlands, which have been subject to the pre-inspection scheme, commanding much higher prices than the same flowers from other foreign suppliers. There have been occasions when flowers from the Netherlands have been sold in flower shops in Tokyo at the same price as those grown locally (eg. ¥500-¥600 per stem).

In general, retail prices are very high although they do vary considerably, sometimes by as much as ten times, reflecting the high distribution costs and high trade mark-ups by the retailers - as much as 300-400%.

In 1990 the following prices were observed in stores in Japan:

Pink carnations from the Netherlands	¥250 per stem
Roses from the Netherlands	¥500-¥600 per stem
Medium priced flower arrangements for "hospitals and birthdays"	¥10,000 each.

Prices in top quality shops in central Tokyo are often at least twice the above mentioned levels, with medium sized roses selling between ¥600-¥1,000 per stem and large (100cm) roses selling at ¥1,500 per stem.

Because flowers are very high priced items, this reinforces the tendency to purchase them only as gifts for special occasions. To promote a more widespread use of flowers, a committee to study their production, distribution and consumption was formed in 1989 by the Ministry of Agriculture. This committee made a recommendation in 1991 for the further promotion of what they termed "casual flowers" (i.e. blooms that consumers can purchase for home use rather than special occasions). The report recommended these casual flowers be priced 30-50% lower than the cut flowers that were currently on the market.

It is a moot point, however, as to whether or not Japanese demand for flowers is price elastic in that the average consumer (over 30 years of age) does not customarily purchase flowers for home use. It is felt that purchasing patterns would have to change over time in order for demand to increase, although there is an increasing trend for young females in their 20s to purchase flowers for daily household use. For them, lower prices might indeed increase the demand for casual flowers in forthcoming years.

## Market Access

Cut flowers are imported into Japan duty-free. There are no quantitative restrictions. For those few countries who have not signed the GATT Agreement, there may be duties of 10%. Also, although there is a customs tariff of 5% on cut leaves and branches, there is, for most suppliers, duty-free access.

Although most countries in the world practice a selective plant quarantine system which is only directed at insects that are not indigenous to the importing country, Japan's plant protection service rejects even insects that are abundant within Japan. This is applied to cut flowers even though they are generally considered to be low-risk items. Indeed the ability to supply insect free flowers is possibly one of the most important factors in expanding exports to Japan in the long-term. The fact that this is normally linked to improvements in quality would also assist in the export marketing effort to that country.

Given the high costs of fumigation in Japan together with the high incidence of such action, flowers should be packed to facilitate the process. For example, plastic sheets and polyethylene bags used for packing should have suitably large holes. Also prior to export, the exporting country's plant quarantine agency should conduct an inspection to obtain a phytosanitary certificate.

## Market Opportunities

The Japanese market is regarded as being, probably, the most dynamic of international markets for cut flowers at this point in time. Imports of cut flowers, including dried flowers, in 1991 amounted to 15,627 MTs worth ¥19.2 billion - representing a 25.9% increase in volume and a 15.5% increase in value over the previous year.

The main reasons for this growth are that Japan has embarked on a more liberal import policy after years of protectionism. Marketing methods used by Dutch exporters have also broadened the market which, in conjunction with the strengthening of the Yen, have been particularly effective in increasing the value base of the trade.

Imports are expected to increase because they still account for only a small part of total consumption in the country. Given the high standards of living and the high costs of land and labor, there would seem to be significant opportunities for further market development.

On the other hand, the very strict phytosanitary regulations, difficult conditions at point of entry (in particular the very congested airport Narita), and the very high quality requirements make it an extremely difficult and competitive market.

It is possible that these high "costs of entry" might discourage Kenyan exporters from attempting to break into the market. Furthermore, the problems associated with a fragmented air freight

route from Kenya and the possible need for trans shipment, would also greatly increase the risk associated with such a trade.

The Japanese External Trade Organization (JETRO) gives the following advice to would-be exporters:

"To succeed in the Japanese market, cut flowers must generally fall into one of the following categories:

1. Varieties that are difficult to grow in Japan.
2. Varieties that are available during Japan's off season.
3. New varieties.
4. Varieties indigenous to Japan which can be grown at lower cost overseas.

In addition various other factors such as geographical location, cost and infrastructure of the producing countries are also very important. These include:

1. Short transportation distance to Japan.
2. Production costs 30-50% lower than Japan.
3. Well-established technology to control insects and diseases, to meet the requirements of plant inspection.
4. The financial ability to carry long-term investment until break-even performance can be realized."

There are some importers in Japan who are prepared to set up relationships with exporters to achieve all of the conditions mentioned above, such assistance however is not easily given and, in the past, has mainly been directed to countries nearer to Japan itself.

Imports of Cut Flowers, by Country of Origin, 1986-1991, MTs						
	1986	1987	1988	1989	1990	1991
Taiwan	1,381	2,396	3,669	4,987	3,352	4,998
Thailand	2,023	2,402	3,760	3,917	4,190	4,338
Netherlands	335	562	1,530	2,284	1,952	2,495
Australia	84	230	558	512	757	1,109
New Zealand	219	285	398	440	615	710
Singapore	112	164	275	361	435	665
U.S.A.	409	346	403	309	388	351
South Africa	33	35	102	107	115	135
Malaysia	25	23	52	80	127	87
Colombia	16	23	38	54	128	294
Spain	44	56	45	51	54	38
Mauritius			16	48	53	102
Mexico		3	0	37	45	21
Israel	5	26	43	32	43	44
Sri Lanka	22	16	18	25	25	36
Others	53	43	48	126	131	206
Total	4,761	6,610	10,956	13,370	12,410	15,629

Source: Ministry of Finance

Imports of Cut Flowers, by Country of Origin, 1986-1991, Import Share by Weight						
	1986	1987	1988	1989	1990	1991
Taiwan	29.0%	36.2%	33.5%	37.3%	27.0%	32.0%
Thailand	42.5%	36.3%	34.3%	29.3%	33.8%	27.8%
Netherlands	7.0%	8.5%	14.0%	17.1%	15.7%	16.0%
Australia	1.8%	3.5%	5.1%	3.8%	6.1%	7.1%
New Zealand	4.6%	4.3%	3.6%	3.3%	5.0%	4.5%
Singapore	2.4%	2.5%	2.5%	2.7%	3.5%	4.3%
U.S.A.	8.6%	5.2%	3.7%	2.3%	3.1%	2.2%
South Africa	0.7%	0.5%	0.9%	0.8%	0.9%	0.9%
Malaysia	0.5%	0.3%	0.5%	0.6%	1.0%	0.6%
Colombia	0.3%	0.3%	0.3%	0.4%	1.0%	1.9%
Spain	0.9%	0.8%	0.4%	0.4%	0.4%	0.2%
Mauritius			0.1%	0.4%	0.4%	0.7%
Mexico		0.0%	0.0%	0.3%	0.4%	0.1%
Israel	0.1%	0.4%	0.4%	0.2%	0.3%	0.3%
Sri Lanka	0.5%	0.2%	0.2%	0.2%	0.2%	0.2%
Others	1.1%	0.7%	0.4%	0.9%	1.1%	1.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Ministry of Finance

Imports of Cut Flowers, by Country of Origin, 1986-1991, Millions of Yen						
	1986	1987	1988	1989	1990	1991
Taiwan	615	939	1,505	1,663	1,357	1,756
Thailand	2,776	3,352	4,224	3,829	4,077	4,247
Netherlands	852	1,674	3,835	5,705	5,844	6,506
Australia	135	338	799	649	859	1,341
New Zealand	588	744	1,039	1,099	1,541	1,653
Singapore	284	410	624	877	1,091	1,516
U.S.A.	645	549	564	555	647	667
South Africa	44	37	98	116	141	159
Malaysia	35	26	61	88	167	109
Colombia	24	30	50	78	185	428
Spain	92	91	71	85	104	60
Mauritius			33	91	124	234
Mexico		3	0	36	72	34
Israel	10	34	60	42	62	69
Sri Lanka	35	26	30	38	36	40
Others	96	89	100	294	337	411
Total	6,231	8,342	13,093	15,245	16,644	19,230

Source: Ministry of Finance

Imports of Cut Flowers, by Country of Origin, 1986-1991, US\$ Thousands						
	1986	1987	1988	1989	1990	1991
Taiwan	3,650	6,493	11,745	12,051	9,370	13,047
Thailand	16,475	23,178	32,963	27,747	28,153	31,555
Netherlands	5,056	11,575	29,928	41,342	40,354	48,339
Australia	801	2,337	6,235	4,703	5,932	9,964
New Zealand	3,490	5,144	8,108	7,964	10,641	12,282
Singapore	1,685	2,835	4,870	6,355	7,534	11,264
U.S.A.	3,828	3,796	4,401	4,022	4,468	4,956
South Africa	261	256	765	841	974	1,181
Malaysia	208	180	476	638	1,153	810
Colombia	142	207	390	565	1,277	3,180
Spain	546	629	554	616	718	446
Mauritius			258	659	856	1,739
Mexico		21	3	261	497	253
Israel	59	235	468	304	428	513
Sri Lanka	208	180	234	275	249	297
Others	570	615	780	2,131	2,327	3,054
<b>Total</b>	<b>36,979</b>	<b>57,681</b>	<b>102,178</b>	<b>110,475</b>	<b>114,930</b>	<b>142,878</b>

Source: Ministry of Finance

Imports of Cut Flowers, by Country of Origin, 1986-1991, US\$/MT						
	1986	1987	1988	1989	1990	1991
Taiwan	2,643	2,710	3,201	2,417	2,795	2,610
Thailand	8,144	9,649	8,767	7,084	6,719	7,274
Netherlands	15,094	20,596	19,561	18,101	20,673	19,374
Australia	9,538	10,161	11,174	9,186	7,836	8,984
New Zealand	15,934	18,051	20,372	18,100	17,302	17,298
Singapore	15,049	17,268	17,708	17,605	17,319	16,938
U.S.A.	9,359	10,971	10,921	13,016	11,515	14,119
South Africa	7,913	7,310	7,498	7,856	8,466	8,751
Malaysia	8,309	7,816	9,154	7,971	9,080	9,309
Colombia	8,902	9,019	10,268	10,467	9,980	10,816
Spain	12,409	11,236	12,045	12,078	13,299	11,732
Mauritius			16,095	13,738	16,156	17,045
Mexico		6,915	15,608	7,051	11,048	12,029
Israel	11,869	9,042	10,889	9,511	9,956	11,652
Sri Lanka	9,442	11,236	13,006	11,015	9,944	8,256
Others	10,750	14,311	16,258	16,909	17,764	14,824
<b>Total</b>	<b>7,767</b>	<b>8,726</b>	<b>9,326</b>	<b>8,263</b>	<b>9,261</b>	<b>9,142</b>

Source: Ministry of Finance

1990 Imports of Cut Flowers, by Variety and Country, 1,000 Stems

	Thailand	USA	Holland	Taiwan	Singapore	Australia	N Zealand	Others	Total
Orchid	104,850	40	80	20	16,220	60	1,630	1,320	124,220
Ferns	2,120	31,200			950			18,040	52,310
Chrysanthemum			70	30,430					30,500
Bear Grass		26,710							26,710
Carnation		2,050	2,220		10	720	270	7,620	12,890
Rose		80	7,180			10	300	3,440	11,010
Lily			9,200	230		20	60	90	9,600
Freesia			8,550				10		8,560
Tulip			7,890						7,890
Gladiolus			330	6,430				340	8,230
Nerine			5,840			20		30	6,810
Anthurium		2,320	20	20	620		380	10	6,230
Waxflower		80						4,390	7,370
Kangaroo Paw						3,820		210	4,110
Ruscus		10				3,960			3,960
Dracaena	40	40		40	1800			3,240	3,250
Calla			10					270	2,190
Leucadendron						20	1,810	10	1,850
Others	330	18,620	7,810	770	60	560	380	100	1,040
Total	107,340	81,150	49,200	37,940	19,660	12,020	7,410	45,750	360,470

Source: Ministry of Agriculture, Forestry and Fisheries

1990 Import Market Share of Cut Flowers, by Variety, based on stem volume

	Thailand	USA	Holland	Taiwan	Singapore	Australia	N Zealand	Others	Total
Orchid	84.4%	0.0%	0.1%	0.0%	13.1%	0.0%	1.3%	1.1%	100.0%
Ferns	4.1%	59.6%			1.8%			34.5%	100.0%
Chrysanthemum			0.2%	99.8%					100.0%
Bear Grass		100.0%							100.0%
Carnation		15.9%	17.2%		0.1%	5.6%	2.1%	59.1%	100.0%
Rose		0.7%	65.2%			0.1%	2.7%	31.2%	100.0%
Lily			95.8%	2.4%		0.2%	0.6%	0.9%	100.0%
Freesia			99.9%				0.1%		100.0%
Tulip			95.9%						100.0%
Gladiolus			4.8%	94.4%		0.3%		4.1%	100.0%
Nerine			93.7%				6.1%	0.4%	100.0%
Anthurium		31.5%	0.3%	0.3%	8.4%			0.2%	100.0%
Waxflower		1.9%				92.9%		59.6%	100.0%
Kangaroo Paw						100.0%		5.1%	100.0%
Ruscus		0.3%							100.0%
Dracaena	1.8%	1.8%		1.8%	82.2%			99.7%	100.0%
Calla			0.5%					12.3%	100.0%
Leucadendron						1.1%	97.8%	0.5%	100.0%
Others	0.8%	47.0%	19.7%	1.9%	0.2%	53.8%	36.5%	9.6%	100.0%
Total	29.8%	22.5%	13.6%	10.5%	5.5%	3.3%	2.1%	12.7%	100.0%

Source: Ministry of Agriculture, Forestry and Fisheries

Imports of Cut Flowers, by Variety, 1984-1990, Millions of Stems

	1984	1985	1986	1987	1988	1989	1990
Orchid	49.1	63.2	78.8	84.1	115.3	112.0	124.2
Ferns	12.4	17.0	28.4	31.2	45.6	50.6	52.2
Chrysanthemum	23.3	24.6	15.9	27.7	41.2	44.1	30.5
Bear Grass			5.9	9.7	27.6	26.4	26.7
Carnation	2.9	3.3	7.0	7.6	11.5	10.1	12.9
Freesia		4.6	3.2	4.7	11.9	11.2	8.6
Anthurium	4.9	1.5	5.8	4.4	4.2	4.5	5.1
Gladiolus	0.4		3.7	3.6	6.5	9.9	6.8
Nerine			2.0	3.0	4.9	6.7	6.2
Lily			1.0	3.0	6.0	9.9	9.6
Ornithogalum			0.5	2.1	3.5		
Tulip			0.9	2.2	9.4	10.6	8.2
Daisy			1.7	1.8	1.1		
Ruscus				1.4	1.4	2.0	3.3
Waxflower				1.1	1.4	3.2	4.1
Anigozanthos			0.6	0.8	0.9	0.9	1.0
Leucadendron						9.9	11.0
Rose							
Others	6.0	9.3	7.9	10.6	29.9	82.3	
Total	99.2	123.4	164.1	200.0	324.8	357.3	357.9

Source: Ministry of Agriculture, Forestry and Fisheries

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## SECTION IV: PROCESSED FRUIT

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Very little prior research has been completed on Japanese processed tropical fruit markets. This is particularly the case for processed mangoes, avocados, and passion fruit which are the subject of this report. This section provides Japanese import trends for these and/or related products over the last four years (most data was not broken down until 1988). Any other relevant information [primarily produced by the Japan External Trade Organization (JETRO)], when available, is included.

Statistical import tables of most of the products below can be found at the end of this section. Tables include volume (weight), value (both in Yen and U.S. Dollars), and import unit values (both in ¥/kg and US\$/kg).

### Overall Ratings

<u>Product</u>	<u>Rating</u>	<u>Comments</u>
Frozen Strawberries & Tropical Fruits	1	Intense regional competition
Dried Tropical Fruits	2*	Import Statistics may not reveal true extent of this market; demand is expected to increase
Canned Tropical Fruits	1*	Intense regional competition; large market which might warrant additional research
Tropical Fruit Juices, Pulp, Purees	*	Little data available, market expected to be growing rapidly with removal of import quotas
Fruit Jams & Jellies	0	Traditionally sourced from European and other developed country producers

\* = Further research may be warranted due to insufficient data.

### Frozen Fruit

Total Japanese imports of frozen fruit exceeded US\$66.8 million in 1991, up dramatically from 1980 levels of US\$13.8 million in 1980, but slightly lower than 1990 levels of US\$71.4 million.

Frozen strawberries accounted for 47 percent (of import value) of total frozen imports in 1991. Miscellaneous frozen tropical fruit accounted for only 3 percent of total imports.

Japan imported 19,841 MTs (¥4.2 billion, US\$31.5 million) of frozen strawberries in 1991. 1991 imports are substantially lower than 1990 imports of 26,815 MTs (¥6.2 billion, US\$43.1 million). In 1991, 81 percent of total frozen strawberry imports were product to which sugar had been added -- this share has remained relatively constant over the last four years.

The major suppliers to the market in 1991 were the United States (47 percent of total volume imports), Korea (17%), Thailand (16%), China (8%), and Mexico (3%). Ten other countries supplied the market in 1991, although none with more than 500 MTs of product. Japan's imports have witnessed a substantial decline in supply from Korea, from 12,733 MTs in 1988 (60 percent of total imports) to just under 3,296 MTs in 1991 (17 percent of supplies). Over the same period, imports from Thailand have increased exponentially.

The average import unit value (CIF) increased from US\$1.38/kg (¥177/kg) in 1988 to US\$1.61/kg (¥233/kg) in 1990, before declining slightly to US\$1.59/kg (¥213/kg) in 1991. For 1991, product with sugar added had an import unit value of US\$1.60/kg (¥215/kg), while product without sugar added had a unit value of US\$1.54/kg (¥207/kg). Thailand's per unit value (US\$1.39/kg) is significantly lower than that received for both U.S. (US\$1.70/kg) and Korean (US\$1.66/kg) sourced product, possibly explaining the rapid increase in imports from that country.

In 1988, imports of miscellaneous frozen tropical fruit<sup>1</sup> stood at 2,129 MTs (¥578.2 million, US\$4.5 million). Imports increased in 1989 to 3,179 MTs (¥1.1 billion, US\$7.9 million), before falling substantially to 1,248 MTs (¥420.4 million, US\$2.9 million) in 1990. Imports recovered somewhat in 1991 to 1,840 MTs (¥552.9 million, US\$4.1 million). Imports are almost entirely composed of product to which has been added additional sugar.

In 1991, the leading supplier countries included: Taiwan (40 percent by volume), China (28%), and Thailand (28%). The remaining four percent share is chiefly composed of imports from Indonesia, the Philippines and Vietnam. Taiwan, Thailand and China have supplied the vast majority of the market over all of the past four years.

### **Dried Fruit**

Total dried fruit import statistics are not available, as many fresh and dried import commodities are lumped into the same category for statistical reporting purposes. For those which are

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<sup>1</sup> For the purposes of this section, miscellaneous tropical fruits correspond to papayas, avocados, guavas, durians, bilimbis, champeder, jackfruit, breadfruit, rambutan, rose apple, jambo, jambosa diamboo-kaget, chicomamey, cherimoya, kehapi, sugar apples, mangoes, bullock's heart, passionfruit, dookoo kokosan, mangosteens, soursop, and litchi.

reported separately, it is clear that most dried fruit imports are composed of grapes/raisins, prunes, persimmons, and apricots. These products probably account for more than 90 percent of all Japanese dried fruit imports. JETRO forecasts that total dried fruit imports will increase.

Dried mangoes, guavas and mangosteens, lumped together by Japanese Customs authorities for statistical purposes, witnessed continual import growth over the period 1988 to 1990, from 38.7 MTs (¥10.8 million, US\$84 thousand) to 57.6 MTs (¥17.9 million, US\$123 thousand). In 1991, however, imports fell back to 40.0 MTs (¥13.3 million, US\$99 thousand). China supplied 88 percent of the market in 1991, with the remaining supplies coming from Taiwan. CIF import unit value was at a four-year high in 1991 when it stood at US\$2.47/kg. Chinese product is significantly cheaper than Taiwanese product.

As with dried guava/mango imports, imports of miscellaneous dried tropical fruits<sup>2</sup> are very small. Imports have fluctuated over the last four years, going from 3.9 MTs (US\$17 thousand) in 1988 to 0.5 MTs (US\$3 thousand) in 1989. Imports recovered to 3.0 MTs (US\$13 thousand) in 1990, before again declining to 2.2 MTs (US\$26 thousand) in 1991. Sources of supply are also not consistent: in 1991 Taiwan and the Philippines supplied all product (with import shares of 93 percent and 7 percent, respectively) -- in 1990, Thailand supplied all imported product.

Other dried tropical fruit imports include dried pineapple and dried bananas. Japan imported 18.8 MTs of dried pineapple in 1991 (¥5.0 million, US\$36.9 thousand). Thailand was the only supplier. Imports of dried bananas were 297.7 MTs in 1990 (¥110.1 million, US\$760.3 thousand). Major suppliers and import market share of dried bananas are: Ecuador (82 percent), Taiwan (13%), the Philippines (3%), and Thailand (1%).

## Canned Fruit

Japan Customs authorities combine canned mangoes, guavas, bananas, avocados and mangosteens into one statistical category. Imports have increased over the period 1988 to 1991, going from 387 MTs (US\$581 thousand) to 2,459 MTs (US\$2.3 million). Of the 2,459 MTs entering in 1991, 488 MTs contained product with added sugar and 1,971 MTs was product with no sugar added. In the former category, Thailand accounted for 95 percent of all imports, with four other countries (Taiwan, the Philippines, India, and the United States) accounting for the remaining 5 percent of imports. In the latter category (no sugar added), Honduras provided 99 percent of all imports. Minor suppliers included Thailand, India and Pakistan.

Canned mixed fruit salad or cocktail imports remained relatively steady in US dollar terms for the period 1988-1990 (at around US\$11.5 million per annum). Imports surged to US\$14.6 million (11,153 MTs) in 1991. The vast majority of imports (99.2 percent) was of product

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<sup>2</sup> Includes papayas, durians, bilimbis, champeder, jackfruit, breadfruit, rambutan, rose apple, jambo, jambosa diamboo-kaget, chicomamey, cherimoya, sugar apples, bullock's heart, passionfruit, dookoo kokosan, soursop and litchi.

containing added sugar. The U.S. was the largest supplier to the market in 1991, with an import market share of 43 percent. Other key suppliers included: South Africa (23%), Australia (12%), Thailand (11%), and the Philippines (7%). The remaining four percent of imports came chiefly from Chile, Greece, and Singapore.

Canned mixed fruit is commonly found in a case of two dozen #4 cans (425 g gross weight of can, 10.2 kg for the case). Japan produces significant quantities of canned mixed fruit, and it is one of the few canned fruit products witnessing increased local production. In 1990, local production accounted for 50 percent of total supply (domestic production plus imports less exports). JETRO forecasts that canned mixed fruit domestic production and imports will continue to rise. JETRO reports that canned tropical fruit cocktails typically include pineapple, papaya, natade coco, and cherries.

### **Jams and Jellies**

Japanese imports of fruit jams and jellies (not including those made from citrus) totaled nearly US\$11.1 million in 1991. Of that, jams accounted for 93 percent (US\$10.3 million) of the total. 1991 jam imports are up from US\$9.4 million in 1988, but down from US\$10.9 million in 1990. Ninety-six percent of the total value of jam imports represented jams containing added sugar. There were 23 countries which exported fruit jam to Japan in 1991. Developed country suppliers, mainly Europe (France, the U.K., Switzerland) and the United States, accounted for the majority of imports. The Soviet Union was the largest supplier in terms of tonnage.

Fruit jelly imports totaled US\$772 thousand in 1991, up from US\$678 thousand in 1988. Of the total in 1991, 90 percent was in the form of jellies containing added sugar. The largest suppliers were France and the United States, accounting for 90 percent of total import value.

### **Other Processed Fruit Products**

Total imports of provisionally preserved fruit have increased from US\$50.7 million (¥11.5 billion) in 1980 to over US\$149.8 million (¥20.2 billion) in 1991. Chestnuts make up more than 76 percent of this total. Those tropical products which are included in this market survey, avocados and mangoes, are grouped together with a number of other fruits in the import statistics. Even so, imports for the entire category are extremely low, totaling only 93.0 MTs, by volume, and US\$68 thousand (¥9.2 million), by value, in 1991. Imports have increased from 50.0 MTs (US\$38 thousand, ¥4.8 million) in 1980. In 1991, the Philippines was the largest supplier with 71.1 MTs or a 76 percent import share. Taiwan was the only other supplier in 1991. The Philippines has steadily increased exports to Japan under this category -- import growth is almost entirely due to supplies from this country. The Philippines CIF import unit value is substantially lower than that for Taiwan.

Japanese imports of various tropical fruits, prepared or preserved by vinegar or acetic acid (sugar added), and including mangoes, have witnessed an increase from 1988 to 1989, with a dramatic drop in 1990 and a slight recovery in 1991. 1991 imports totaled 458.4 MTs (US\$495

thousand), with India accounting for 99.8 percent of the total. India has dominated supply in each of the past four years. The only other supplier in 1991 was the United Kingdom. Other suppliers in past years have included Thailand, the Philippines, and Sri Lanka. Given the source of most imports, it is assumed that a large proportion of imports is of mango product. CIF import unit values from India have remained relatively stable in U.S. dollar terms, in the range of \$1.03-\$1.07 per kilogram.

Japanese imports of mango/mangosteens, prepared or preserved by vinegar or acetic acid (no sugar added), have increased from 38.2 MTs (US\$40 thousand) in 1988 to 40.4 MTs (US\$38 thousand) in 1991. In 1991, Thailand (75 percent of total imports), Pakistan (22%), and India (3%) were the only suppliers. CIF import unit values have ranged from US\$0.85/kg to US\$1.24/kg, with the average 1991 unit value being US\$0.95/kg. Thai unit values are significantly lower than those of the other suppliers, which explains the reduction in average import unit values as Thai market share increases.

Imports of strawberry pulp increased from 1988 to 1990 (from 75.4 MTs to 117.3 MTs) before witnessing a sharp decrease to 24.6 MTs in 1991. Import value in 1991 was only US\$81 thousand, down from US\$205 thousand in 1988. France supplied nearly 99 percent of imports, with Italy providing the remainder.

During the period 1988 to 1991, miscellaneous tropical fruit pulp (banana, avocado, mango, guava, and mangosteen) imports have decreased in volume (from 2,277 MTs to 2,108 MTs), but have increased in value (from US\$1.9 million to US\$2.2 million). Of the total amount, 437 MTs was comprised of mangoes/guavas/mangosteens in pulp form with no added sugar, and the remainder was for all products with sugar added. The former category was supplied by seven countries in 1991, chiefly the United States (33 percent of volume), the Philippines (22%), Taiwan (22%), and South Africa (15%). The latter category was supplied primarily by Ecuador (45%), Brazil (38%), and Taiwan (16%).

All non-citrus fruit purees and pastes are included in one statistical import category. 1991 imports of 2,637 MTs (US\$5.5 million) are up from 1988 levels of 1,618 MTs (US\$3.4 million), but down from 1990 levels of 2,902 MTs (US\$5.8 million). In 1991, 70 percent of imports were of pastes and purees not containing added sugar. The top supplier countries were the United States (33% of volume) and France (33%), with thirteen other nations exporting to Japan in 1991.

Japanese imports of other fruit juices (not including citrus, pineapple, grape, apple) stood at 4.2 million liters (US\$20.7 million) in 1990. (Note that juice import statistics do not report concentration levels.) Of the total amount in liters, over 98 percent was for juice with no sugar added, and the great majority of this amount was for juice that had not more than 10 percent sucrose by weight. The largest suppliers were the United States (55 percent of total imports by volume) and Brazil (16%), with sizeable amounts also entering from Taiwan, the Netherlands, Germany, Switzerland, and Austria. A large number of other countries also supplied the market in 1990.

Japanese domestic production is primarily in mandarin orange and apple juices. Since the removal of juice import quotas over the past several years, imports have surged. JETRO believes that continued expansion of the import market will continue, with pineapple juice being a particularly bright prospect. US\$9.5 million worth of pineapple juice was imported in 1990.

### Tariff Rates for Processed Fruit Products

The following tariff rates apply for the processed fruit products discussed in this report (note that Kenya should be eligible for the preferential rate and that those rates in parentheses further provide reduced duty treatment for LDCs):

<u>Tariff #</u>	<u>Description</u>	<u>General</u>	<u>GATT</u>	<u>Preferential</u>	<u>Temporary</u>
0803.00-200	Bananas, including plantains, dried	20%	6%	Free	7.5%
0804.30-090	Pineapples, dried	20%	12%	10% (Free)	
0804.40-090	Avocados, dried	20%	10%	Free	6%
0804.50-090	Guavas, mangoes, and mangosteens, dried	20%	6%	Free	6%
0811.10-100	Strawberries, frozen, containing added sugar	35%			16%
0811.10-200	Strawberries, frozen, no sugar added	20%			
0811.90-120	Papayas, avocados, guavas, mangoes, passion fruit, litchi and various other tropical fruits, frozen, containing added sugar	35%		12%(Free)	20%
0811.90-220	Papayas, avocados, guavas, mangoes, passion fruit, litchi and various other tropical fruits, frozen, not sugar added	20%	12%	10%(Free)	
0812.90-420	Papayas, avocados, guavas, mangoes, passion fruit, litchi and various other tropical fruits, provisionally preserved	20%		10%(Free)	
2001.90-110	Papayas, avocados, guavas, mangoes, passion fruit, litchi and various other tropical fruits, prepared or preserved by vinegar or acetic acid, containing added sugar	35%	15%	6%(Free)	10%
2001.90-220	Mangoes and mangosteens, prepared or preserved by vinegar or acetic acid, not containing added sugar	25%	12%	5.6%(Free)	9%
2007.99-111	Jams, containing added sugar	40%			28%
2007.99-119	Fruit Jellies, containing added sugar	40%			28%
2007.99-121	Jams, not containing added sugar	25%			20%
2007.99-129	Fruit Jellies, not containing added sugar	25%			20%
2007.99-210	Fruit purees and pastes, with added sugar	40%			
2007.99-220	Fruit purees and pastes, not with added sugar	25%			
2008.80-110	Strawberry pulp, prep/pres, w/ sugar added	35%			
2008.80-190	Strawberry prep/preserved NES, w/ sugar added	35%			18.4%
2008.80-210	Strawberry pulp, prep/pres, w/ no added sugar	25%			
2008.80-290	Strawberry prep/preserved NES, w/ no added sugar	25%			20%
2008.92-110	Mixed fruit, fruit cocktail, prep/preserved w/ added sugar	35%	14%		11.2%
2008.92-120	Mixed fruit, fruit cocktail, prep/preserved w/ no sugar added	25%	20%	9.6%(Free)	11.2%

<u>Tariff #</u>	<u>Description</u>	<u>General</u>	<u>GATT</u>	<u>Preferential</u>	<u>Temporary</u>
2008.99-213	Bananas, avocados, mangoes, guavas, and mangosteens, prepared or preserved, containing added sugar, in airtight containers, other than pulp form	35 %			30 %
2008.88-214	Bananas, avocados, mangoes, guavas, and mangosteens, prepared or preserved, containing added sugar, other than pulp form, NES	35 %			30 %
2008.99-221	Bananas, avocados, mangoes, guavas, and mangosteens, prepared or preserved, not w/ added sugar, in pulp form	25 %			20 %
2008.88-224	Bananas, avocados, mangoes, guavas, and mangosteens, prepared or preserved, not w/ added sugar, other than pulp form, in airtight containers	25 %		12 % (Free)	16 %
2008.88-226	Mangoes, guavas, and mangosteens, prepared or preserved, not w/ added sugar, in pulp form	25 %			20 %
2009.80	Other fruit juices, containing added sugar	35 % or ¥27/kg which ever is greater			
2009-80-111	Not more than 10% by weight of sucrose		27 %		
2009-80-119	Other				
2009-80-121	Other fruit juices, not with added sugar, not more than 10% by weight of sucrose	30 %	22.5 %		
2009.80-129	Other fruit juices, not with added sugar, more than 10% by weight of sucrose	30 %			

### Kenyan Market Prospects

Additional field research will need to be conducted to determine the true market potential for Kenyan exporters. Because processing removes some of the barriers to trade with Japan (expensive airfreight rates and, more importantly, phytosanitary import bans), processed products represent the only possible opportunity in the Japanese market at present. Contacts with leading Japanese importers should be established to ascertain consumer acceptance of Kenyan product. It is important to remember that Japanese consumers expect product of the highest quality -- and, equally important, that nearby low-cost regional suppliers (notably the Philippines, China, and Thailand) are increasing their production rapidly. This is clearly seen by the dramatic increase of Thai frozen strawberry exports to Japan.

Even with the limited market data available, several conclusions can be drawn regarding overall market prospects for Kenyan processed fruit:

- Frozen fruit (strawberry and tropicals) export prospects are relatively low given the increasing production in Southeast Asia -- production cost advantages, if any, in Kenya would be completely wiped out by higher transportation costs. It is true that, especially in the case of frozen strawberries, suppliers include higher cost producers such as the United States -- however, it is probable that this is for very high quality product which can command a premium in the Japanese market. [Overall Rating: 1]

- Dried tropical products, according to official import statistics, currently have relatively low import levels (under US\$200,000 for all tropical fruits excluding bananas and plantains). This seems to contradict the general increase in their consumption as developed country consumers become more health conscious. Further study of this market may be warranted, especially given the relatively low tariff rates on these products. [Overall Rating: 2\*]
- Canned tropical fruits face stiff competition from regional suppliers, along with high duty rates. Although, the Kenyan canned pineapple industry is relatively large – no exports to Japan have been reported. Have Kenyan producers attempted to enter this market before? Are they noncompetitive vis-a-vis Asian suppliers (currently the Philippines, Thailand, Malaysia and Taiwan supply most import needs)? Answers to these questions could determine the competitiveness of other canned fruit products (such as the large market for mixed fruit cocktails, including tropical fruit ~~cocktail~~). [Overall Rating: Probable 1\*]
- Tropical fruit juices, as with other juices, have witnessed exceptional import growth into Japan as quotas have been removed. While the majority of fruit juice consumption remains for citrus, grape and apple juice, tropicals (especially pineapple) are expected to also experience import growth according to JETRO market reports. This may also be true for pulps and purees. Again, Kenyan cost competitiveness will need to be more fully assessed. [Overall Ranking: No ranking possible, more research needed]
- Jams and jellies are traditionally sourced from developed country markets. This, wrongly or rightly, probably indicates a Japanese consumer perception that these markets are able to prepare a higher quality product. [Overall Ranking: 0]

Table IV-1: Japanese Imports of Frozen Strawberries, 1988-1991, Kilograms

Source	1988	1989	1990	1991
Korea	12,733,538	7,899,853	7,342,788	3,295,522
China	275,093	567,642	2,735,751	1,524,033
Taiwan	389,043	388,785	451,245	452,184
Thailand	13,072	167,003	1,158,059	3,090,792
Netherlands	93,209	147,019	104,249	76,645
Belgium	1,000	1,700	1,000	2,120
France	4,150	5,646	10,400	7,750
Germany		2,500	6,707	10,000
Portugal		12,405		
Spain	61,400	101,200	424,782	444,219
Italy		40,960	59,100	
Poland	51,383	18,088	68,765	79,415
Czechoslovakia	5,500	9,500	2,750	
Yugoslavia			10,500	7,500
Bulgaria			9,702	
Turkey			20,000	
Canada	23,826	130,870		
USA	6,436,841	8,733,187	11,459,215	9,451,720
Mexico	413,554	355,098	1,800,119	605,506
Chile	4,998	175,021	623,200	409,798
Brazil	52,000			
Mozambique			54,432	
South Africa	643,907	507,980	472,250	383,710
TOTAL	21,202,514	19,264,457	26,815,014	19,840,914
w/ added sugar	17,145,957	15,477,504	20,951,123	16,060,329
w/o added sugar	4,056,557	3,786,953	5,863,891	3,780,585

Source: Government of Japan

Table IV-2: Japanese Imports of Frozen Strawberries, 1988-1991, Yen 1,000s

Source	1988	1989	1990	1991
Korea	2,205,116	1,735,192	1,888,753	737,517
China	35,845	70,635	416,250	255,568
Taiwan	60,258	67,721	96,195	89,726
Thailand	1,680	25,822	211,028	577,486
Netherlands	18,546	31,654	25,817	18,039
Belgium	300	500	404	762
France	2,824	3,743	7,064	3,629
Germany		680	1,593	2,235
Portugal		2,093		
Spain	11,640	17,895	92,058	90,017
Italy		8,050	14,704	
Poland	11,498	4,134	13,998	16,069
Czechoslovakia	2,033	3,635	1,287	
Yugoslavia			5,287	3,387
Bulgaria			2,176	
Turkey			5,491	
Canada	5,565	28,200		
USA	1,218,269	1,835,220	2,800,535	2,162,171
Mexico	58,966	63,489	413,487	126,193
Chile	679	29,544	133,944	72,408
Brazil	10,977			
Mozambique		94,441	11,667	
South Africa	109,959		96,621	80,205
TOTAL	3,754,155	4,022,648	6,238,359	4,235,412
w/ added sugar	2,999,413	3,317,498	5,059,244	3,452,211
w/o added sugar	754,742	705,150	1,179,115	783,200

Source: Government of Japan

Source	1988	1989	1990	1991
Korea	17,209	12,575	13,042	5,480
China	280	512	2,874	1,899
Taiwan	470	491	664	667
Thailand	13	187	1,457	4,291
Netherlands	145	229	178	134
Belgium	2	4	3	6
France	22	27	49	27
Germany		5	11	17
Portugal		15		
Spain	91	130	636	669
Italy		58	102	
Poland	90	30	97	119
Czechoslovakia	16	26	9	
Yugoslavia			37	25
Bulgaria			15	
Turkey			38	
Canada	43	204		
USA	9,507	13,300	19,338	16,065
Mexico	460	460	2,855	938
Chile	5	214	925	538
Brazil	86			
Mozambique		684	81	
South Africa	858		667	596
TOTAL	29,297	29,152	43,077	31,469
w/ added sugar	23,407	24,042	34,935	25,650
w/o added sugar	5,890	5,110	8,142	5,819

Source: Government of Japan

Source	1988	1989	1990	1991
Korea	1.35	1.59	1.78	1.66
China	1.02	0.90	1.05	1.25
Taiwan	1.21	1.26	1.47	1.47
Thailand	1.00	1.12	1.26	1.39
Netherlands	1.55	1.56	1.71	1.75
Belgium	2.34	2.13	2.79	2.67
France	5.31	4.80	4.69	3.48
Germany		1.97	1.64	1.66
Portugal		1.22		
Spain	1.48	1.28	1.50	1.51
Italy		1.42	1.72	
Poland	1.75	1.66	1.41	1.50
Czechoslovakia	2.88	2.77	3.23	
Yugoslavia			3.48	3.36
Bulgaria			1.55	
Turkey			1.90	
Canada	1.82	1.56		
USA	1.48	1.52	1.69	1.70
Mexico	1.11	1.30	1.59	1.55
Chile	1.06	1.22	1.48	1.31
Brazil	1.65			
Mozambique			1.48	
South Africa	1.33		1.41	1.55
TOTAL	1.38	1.51	1.61	1.59
w/ added sugar	1.37	1.55	1.67	1.60
w/o added sugar	1.45	1.35	1.39	1.54

Source: Government of Japan

Table IV-5: Japanese Imports of Frozen Strawberries, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
Korea	173.17	219.65	257.23	223.79
China	130.30	124.44	152.15	167.69
Taiwan	154.89	174.19	213.18	198.43
Thailand	128.52	154.62	182.23	186.84
Netherlands	198.97	215.31	247.65	235.36
Belgium	300.00	294.12	404.00	359.43
France	680.48	662.95	679.23	468.26
Germany		272.00	237.51	223.50
Portugal		168.72		
Spain	189.58	176.83	216.72	202.64
Italy		196.53	248.80	
Poland	223.77	228.55	203.56	202.34
Czechoslovakia	369.64	382.63	468.00	
Yugoslavia			503.52	451.60
Bulgaria			224.28	
Turkey			274.55	
Canada	233.57	215.48		
USA	189.27	210.14	244.39	228.76
Mexico	142.58	178.79	229.70	208.41
Chile	135.85	168.80	214.93	176.69
Brazil	211.10			
Mozambique			214.34	
South Africa	170.77		204.60	209.03
TOTAL	177.06	208.81	232.64	213.47
w/ added sugar	174.93	214.34	241.48	214.95
w/o added sugar	186.05	186.21	201.08	207.16

Source: Government of Japan

Note: "Misc. Frozen Tropical Fruit" includes papayas, avocados, guavas, durians, bilimbis, champeder, jackfruit, breadfruit, rambutan, rose apple, jambo, jambosa diamboos—kaget, chicomamey, cherimoya, kehapi, sugar apples, mangoes, bullock's heart, passionfruit, dookoo kokosan, mangosteens, soursop and litchi.

Source	1988	1989	1990	1991
China	439,558	440,599	257,440	516,654
Taiwan	714,936	1,222,727	239,490	731,869
Vietnam		6,000	16,000	10,000
Thailand	688,204	1,200,033	660,093	515,181
Singapore			219	220
Malaysia			1,410	
Philippines	155,958	179,495	38,833	19,363
Indonesia	12,782	111,988	21,837	43,460
France		3,000	4,300	1,500
USA	15,487	9,525		
Mexico		1,250	8,273	
Chile		4,169		
Brazil	101,920			
Costa Rica				1,829
TOTAL	2,128,845	3,178,786	1,247,895	1,840,076
w/ added sugar	5,004			500
w/o added sugar	2,123,841	3,178,786	1,247,895	1,839,576

Source: Government of Japan

Source	1988	1989	1990	1991
China	92,520	111,742	61,022	111,812
Taiwan	142,515	292,476	59,884	205,093
Vietnam		821	2,967	1,848
Thailand	239,912	529,782	266,034	202,339
Singapore			535	581
Malaysia			354	
Philippines	51,291	88,189	14,332	10,251
Indonesia	4,352	56,795	9,911	19,547
France		2,261	3,531	974
USA	9,862	1,689		
Mexico		738	1,811	
Chile		1,244		
Brazil	37,836			
Costa Rica				438
TOTAL	578,288	1,085,737	420,381	552,883
w/ added sugar	1,878			253
w/o added sugar	576,410	1,085,737	420,381	552,630

Source: Government of Japan

Table IV-8: Japanese Imports of Misc. Frozen Tropical Fruit, 1988-1991, US\$000s

Source	1988	1989	1990	1991
China	722	810	421	831
Taiwan	1,112	2,120	414	1,524
Vietnam		6	20	14
Thailand	1,872	3,839	1,837	1,503
Singapore			4	4
Malaysia			2	
Philippines	400	639	99	76
Indonesia	34	412	68	145
France		16	24	7
USA	77	12		
Mexico		5	13	
Chile		9		
Brazil	295			
Costa Rica				3
TOTAL	4,513	7,868	2,903	4,108
w/ added sugar	15			2
w/o added sugar	4,498	7,868	2,903	4,106

Source: Government of Japan

Table IV-9: Japanese Imports of Misc. Frozen Tropical Fruit, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
China	1.64	1.84	1.64	1.61
Taiwan	1.56	1.73	1.73	2.08
Vietnam		0.99	1.28	1.37
Thailand	2.72	3.20	2.78	2.92
Singapore			16.87	19.62
Malaysia			1.73	
Philippines	2.57	3.56	2.55	3.93
Indonesia	2.66	3.68	3.13	3.34
France		5.46	5.67	4.82
USA	4.97	1.29		
Mexico		4.28	1.51	
Chile		2.16		
Brazil	2.90			
Costa Rica				1.78
TOTAL	2.12	2.48	2.33	2.23
w/ added sugar	2.93			3.76
w/o added sugar	2.12	2.48	2.33	2.23

Source: Government of Japan

Table IV-10: Japanese Imports of Misc. Frozen Tropical Fruit, 1988-1991, Yen/kg				
Source	1988	1989	1990	1991
China	210.48	253.61	237.03	216.42
Taiwan	199.34	239.20	250.05	280.23
Vietnam		136.83	185.44	184.80
Thailand	348.61	441.47	403.03	392.75
Singapore			2442.92	2640.91
Malaysia			251.06	
Philippines	328.88	491.32	369.07	529.41
Indonesia	340.48	507.15	453.86	449.77
France		753.67	821.16	649.33
USA	636.79	177.32		
Mexico		590.40	218.90	
Chile		298.39		
Brazil	371.23			
Costa Rica				239.48
TOTAL	271.64	341.56	336.87	300.47
w/ added sugar	375.30			506.00
w/o added sugar	271.40	341.56	336.87	300.41

Source: Government of Japan

Note: "Misc. Dried Tropical Fruit" includes papayas, durians, bilimbis, champeder, jackfruit, breadfruit, rambutan, rose apple, jambo, jambosa diamboos-kaget, chicomamey, cherimoya, sugar apples, bullock's heart, passionfruit, dookoo kokosan, soursop and litchi.

Table IV-11: Japanese Imports of Dried Misc. Tropical Fruits, 1988-1991, Kilograms

Source	1988	1989	1990	1991
Taiwan	2,855	500		2,000
China	1,040			
Philippines				159
Thailand			3,000	
TOTAL	3,895	500	3,000	2,159

Source: Government of Japan

Table IV-12: Japanese Imports of Dried Misc. Tropical Fruits, 1988-1991, Yen 1,000s

Source	1988	1989	1990	1991
Taiwan	1,764	397		3,329
China	439			
Philippines				227
Thailand			1,828	
TOTAL	2,203	397	1,828	3,556

Source: Government of Japan

Table IV-13: Japanese Imports of Misc. Dried Tropical Fruit, 1988-1991, US\$000s

Source	1988	1989	1990	1991
Taiwan	14	3		25
China	3			
Philippines				2
Thailand			13	
TOTAL	17	3	13	26

Source: Government of Japan

Table IV-14: Japanese Imports of Misc. Dried Tropical Fruit, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
Taiwan	4.82	5.75		12.37
China	3.29			
Philippines				10.61
Thailand			4.21	
TOTAL	4.41	5.75	4.21	12.24

Source: Government of Japan

Table IV-15: Japanese Imports of Misc. Dried Tropical Fruit, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
Taiwan	617.86	794.00		1664.50
China	422.12			
Philippines				1427.67
Thailand			609.33	
TOTAL	565.60	794.00	609.33	1647.06

Source: Government of Japan

Note: "Misc. Provisionally Preserved Tropical Fruit" includes papayas, avocados, guavas, durians, bilimbis, champeder, jackfruit, breadfruit, rambutan, rose apple, jambo, jambosa diamboos-kaget, chicomamey, chenimoya, kehapi, sugar apples, mangoes, bullock's heart, passionfruit, dookoo kokosan, mangosteens soursop and litchi.

Source	1988	1989	1990	1991
Taiwan	20,000		10,000	21,850
China				
Philippines	30,000	38,084	41,058	71,109
India			16,500	
Thailand		7,500		
TOTAL	50,000	45,584	67,558	92,959

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	2,712		1,085	2,978
China				
Philippines	2,107	2,998	3,644	6,217
India			991	
Thailand		648		
TOTAL	4,819	3,646	5,720	9,195

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	21		7	22
China				
Philippines	16	22	25	46
India			7	
Thailand		5		
TOTAL	38	26	39	68

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	1.06		0.75	1.01
China				
Philippines	0.55	0.57	0.61	0.65
India			0.41	
Thailand		0.63		
TOTAL	0.75	0.58	0.58	0.73

Source: Government of Japan

Source	1988	1989	1990	1991
Taiwan	135.60		108.50	136.29
China				
Philippines	70.23	78.72	88.75	87.43
India			60.06	
Thailand		86.40		
TOTAL	96.38	79.98	84.67	98.91

Source: Government of Japan

Table IV-21: Japanese Imports of Dried Guavas/Mangoes/Mangosteens, 1988-1991, Kgs

Source	1988	1989	1990	1991
China	27,045	32,225	50,152	35,300
Taiwan	3,738	10,950	6,446	4,699
Thailand	800	2,600		
Philippines	7,125		1,000	
Brazil		1,050		
TOTAL	38,708	46,825	57,598	39,999

Source: Government of Japan

Table IV-22: Japanese Imports of Dried Guavas/Mangoes/Mangosteens, 1988-1991, Yen 1000

Source	1988	1989	1990	1991
China	5,330	7,501	11,694	7,331
Taiwan	2,080	5,784	4,849	5,952
Thailand	589	1,736		
Philippines	2,771		1,338	
Brazil		544		
TOTAL	10,770	15,565	17,881	13,283

Source: Government of Japan

Table IV-23: Japanese Imports of Dried Guavas/Mangoes/Mangosteens, 1988-1991, US\$000s

Source	1988	1989	1990	1991
China	42	54	81	54
Taiwan	16	42	33	44
Thailand	5	13		
Philippines	22		9	
Brazil		4		
TOTAL	84	113	123	99

Source: Government of Japan

Table IV-24: Japanese Imports of Dried Guavas/Mangoes/Mangosteens, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
China	1.54	1.69	1.61	1.54
Taiwan	4.34	3.83	5.19	9.41
Thailand	5.75	4.84		
Philippines	3.04		9.24	
Brazil		3.75		
TOTAL	2.17	2.41	2.14	2.47

Source: Government of Japan

Table IV-25: Japanese Imports of Dried Guavas/Mangoes/Mangosteens, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
China	197.08	232.77	233.17	207.68
Taiwan	556.45	528.22	752.25	1266.65
Thailand	736.25	667.69		
Philippines	388.91		1338.00	
Brazil		518.10		
TOTAL	278.24	332.41	310.44	332.08

Source: Government of Japan

Note: all statistics below are for mangoes/mangosteens prep/pres by vinegar or acetic acid, no sugar added

Table IV-26: Japanese Imports of Prep/Pres Mangoes/Mangosteens, 1988-1991, Kgs

Source	1988	1989	1990	1991
Taiwan	16,062	15,600		
Thailand	22,140	16,770	31,855	30,442
India		8,400		1,200
Pakistan		1,986	5,184	8,772
TOTAL	38,202	42,756	37,039	40,414

Source: Government of Japan

Table IV-27: Japanese Imports of Prep/Pres Mangoes/Mangosteens, 1988-1991, Yen 1000s

Source	1988	1989	1990	1991
Taiwan	2,358	2,748		
Thailand	2,827	1,881	3,228	3,110
India		1,941		296
Pakistan		760	1,336	1,775
TOTAL	5,185	7,330	4,564	5,181

Source: Government of Japan

Table IV-28: Japanese Imports of Prep/Pres Mangoes/Mangosteens, 1988-1991, US\$000s

Source	1988	1989	1990	1991
Taiwan	18	20		
Thailand	22	14	22	23
India		14		2
Pakistan		6	9	13
TOTAL	40	53	32	38

Source: Government of Japan

Table IV-29: Japanese Imports of Prep/Pres Mangoes/Mangosteens, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
Taiwan	1.15	1.28		
Thailand	1.00	0.81	0.70	0.76
India		1.67		1.83
Pakistan		2.77	1.78	1.50
TOTAL	1.06	1.24	0.85	0.95

Source: Government of Japan

Table IV-30: Japanese Imports of Prep/Pres Mangoes/Mangosteens, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
Taiwan	146.81	176.15		
Thailand	127.69	112.16	101.33	102.16
India		231.07		246.67
Pakistan		382.68	257.72	202.35
TOTAL	135.73	171.44	123.22	128.20

Source: Government of Japan

Table IV-31: Japanese Imports of Misc Tropical Fruit, Prep/Preserved by Vinegar or Acetic Acid, With Added Sugar, Including papayas, avocados, guavas, durians, bilimbis, champeder, jackfruit, breadfruit, rambutan, rose-apple, kehapi, sugar applies, bullock's heart, passionfruit, dooko kokosan, soursop, litchi, mangoes, and mangosteens

Kgs	1988	1989	1990	1991
Thailand	2,000	56,676	1,836	
Philippines	36,660			
India	453,654	499,563	412,005	458,403
Sri Lanka			918	
U.K.	509	1,420	1,421	728
TOTAL	492,823	557,659	416,180	459,131
Yen 1000s				
Thailand	301	5,476	238	
Philippines	4,273			
India	60,747	71,628	61,495	66,285
Sri Lanka			362	
U.K.	253	579	642	398
TOTAL	65,574	77,683	62,737	66,683
US\$000s				
Thailand	2	40	2	
Philippines	33			
India	474	519	425	492
Sri Lanka			2	
U.K.	2	4	4	3
TOTAL	512	563	433	495
US\$/kg				
Thailand	1.17	0.70	0.90	
Philippines	0.91			
India	1.04	1.04	1.03	1.07
Sri Lanka			2.72	
U.K.	3.88	2.95	3.12	4.06
TOTAL	1.04	1.01	1.04	1.08
Yen/kg				
Thailand	150.50	96.62	129.63	
Philippines	116.56			
India	133.91	143.38	149.26	144.60
Sri Lanka			394.34	
U.K.	497.05	407.75	451.79	546.70
TOTAL	133.06	139.30	150.74	145.24

Source: Government of Japan

Table IV-32: Select Other Japanese Processed Fruit Imports, 1988-1991

	1988	1989	1990	1991
	KILOGRAMS			
Jams, not citrus	3,849,169	3,443,542	2,983,427	3,119,204
Jellies, not citrus	413,138	378,660	347,083	413,525
Fruit Puree & Pastes	1,618,349	2,405,943	2,902,024	2,636,516
Strawberry Pulp	75,437	128,164	117,278	24,583
Strawberries, Prep/Preserved N.E.S.	100,084	115,489	131,910	207,370
Mixed Fruit Salad/Cocktail	9,801,675	9,400,786	9,155,257	11,153,058
Mangoes/Guavas in Airtight Containers*	387,474	322,884	1,200,019	2,459,352
Banana/Avocado/Mango/Guava/Mangosteen Pulp	2,277,141	1,831,334	1,037,268	2,107,911
Mangoes/Guavas Prep/Pres, Not Pulp, NES*	2,680,739	2,118,450	1,653,163	1,583,923
	YEN 1,000s			
Jams, not citrus	1,200,644	1,276,414	1,576,424	1,384,487
Jellies, not citrus	86,895	85,534	90,215	103,962
Fruit Puree & Pastes	429,966	636,502	845,284	746,025
Strawberry Pulp	26,256	32,829	46,707	10,969
Strawberries, Prep/Preserved N.E.S.	41,795	58,210	50,022	117,163
Mixed Fruit Salad/Cocktail	1,470,509	1,588,759	1,654,563	1,970,797
Mangoes/Guavas in Airtight Containers*	74,453	77,871	169,404	311,427
Banana/Avocado/Mango/Guava/Mangosteen Pulp	247,431	223,522	137,213	291,955
Mangoes/Guavas Prep/Pres, Not Pulp, NES*	446,231	366,050	300,299	307,149
	US\$000s			
Jams, not citrus	9,370	9,250	10,885	10,287
Jellies, not citrus	678	620	623	772
Fruit Puree & Pastes	3,355	4,613	5,837	5,543
Strawberry Pulp	205	238	323	81
Strawberries, Prep/Preserved N.E.S.	326	422	345	871
Mixed Fruit Salad/Cocktail	11,476	11,514	11,425	14,643
Mangoes/Guavas in Airtight Containers*	581	564	1,170	2,314
Banana/Avocado/Mango/Guava/Mangosteen Pulp	1,931	1,620	947	2,169
Mangoes/Guavas Prep/Pres, Not Pulp, NES*	3,482	2,653	2,074	2,282

\* Also includes bananas, avocados, mangosteens

Source: Government of Japan

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## SECTION V: PROCESSED VEGETABLES

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This section presents Japanese market characteristics for those processed vegetable products included in this survey series: peas (frozen), beans (frozen and canned), and asparagus (canned). Import of frozen asparagus are not included as import statistics reveal that, historically, little or no imports have been recorded (in 1990 there were no imports, only US\$5,000 of imports in 1991).

Statistical import tables of products discussed below can be found at the end of this section. Tables include volume (weight), value (both in Yen and U.S. Dollars), and import unit values (both in ¥/kg and US\$/kg) for the years 1988 through 1991.

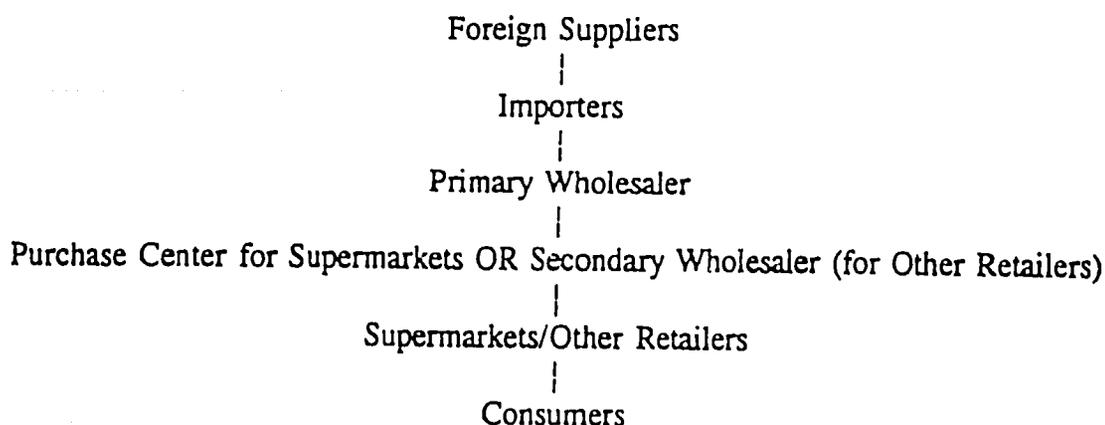
### Overall Ratings

<u>Product</u>	<u>Rating</u>	<u>Comments</u>
Frozen Beans	1	Regional, low-cost suppliers dominate
Frozen Peas	1	Regional, low-cost suppliers dominate
Canned Beans	1	Relatively low import volume, Taiwan dominates
Canned Asparagus 2*		China dominates import market; domestic production dropping rapidly; distant supplier South Africa had sales of US\$850,000 in 1991; white asparagus appears to be most popular canned type; additional field research needed to determine opportunity, if any.*

### Distribution Systems

An overview of the domestic marketing system for imported processed vegetables (destined for home use) is outlined on the next page. For imports destined for the restaurant and catering sectors, imports will generally follow a similar flow through the primary wholesaler, but will then be distributed through a wholesaler specializing in the food service industry.

Importers may have their own domestic distribution network, and therefore may also play the role of the primary wholesalers. Some of the large supermarkets import directly. Supermarkets account for the most sales of canned and frozen vegetables by the different retail groups, according to a 1988 survey conducted by the Japan Canners Association. As in many markets, consumers tend to prefer products with well-known brand names.



Payment terms are generally 60 to 120 days after reception of the product. The primary wholesale price of goods most commonly includes the CIF price, customs duties, the importers commission, and other expenses. Primary wholesalers typically charge a handling commission of 3-5 percent. Secondary wholesalers charge an additional 10 percent, with the retailers marking the product up at least 20 percent.

### **Import Regulations**

There are no known import quotas for canned or frozen vegetables. However, Japanese phytosanitary and labelling regulations must be strictly adhered to, or the product will be destroyed or re-shipped. It is, therefore, imperative that Kenyan exporters work closely with importers who understand fully the laws discussed below.

Canned and/or frozen vegetable products are regulated by a number of laws, acts and standards. Brief descriptions of the key regulations are given below. Space and time limitations prevent full descriptions of each law (more information is available from Fintrac Inc. or the Japan External Trade Organization).

- **The Food Sanitation Law.** Under this law, all importers are required to submit two copies of an import notification form to the director of one of the twenty-six government quarantine stations. These forms are examined by inspectors, who may elect to conduct on-site inspection or laboratory tests of the products. Food determined to be in violation of the law is destroyed. A description of the product(s), list of raw material and ingredients, and an explanation of the manufacturing process must also accompany the import notification. Some measures have been accepted to simplify the import requirements under this law, including: prior notification; planned import; acceptance of inspection results prepared by foreign official laboratories, continuous import of the same foods, etc.
- **Food Additive Regulations.** Japan operates on a positive list, which means that anything not included on this list may not be used on products. If even a trace is found, the product is

not allowed entry into the Japanese market. Similar stringent requirements exist for pesticide residues and other contaminants.

- **Weight and Measures Law.** This law prescribes that the quantity as shown on the label must not be more than the actual amount in the container.
- **Japanese Agricultural Standard (JAS).** This law covers all canned and bottled products distributed in the Japanese market. Products without the "JAS" mark may be imported, but it is strongly recommended that they meet JAS requirements. A JAS approved inspection process determines the grades of the products. Overseas factories, in order to show the JAS mark, must be so authorized by JAS. The JAS requires that ALL products show the following information on the label: product and producer; date of production; names of raw materials; and weight of the contents.
- **Act Against Unjustifiable Premiums or Misrepresentation.** This act requires that foreign product must be clearly labelled. The name of importer and country of origin must be included with other labelling requirements listed above. Labelling requirements cover terminology and letter size.

## **Frozen Beans**

### **Domestic Production**

Domestic production of frozen beans stood at 1,064 MTs in 1987, more than double the 1986 production level of 514 MTs. 1986 production was down from 819 MTs recorded in 1985.

### **Historical Imports**

Japanese imports of frozen beans remained relatively stable, in volume terms, over the years 1988 through 1990 -- at around 20,400 MTs. In value terms however, imports increased from ¥3.1 billion (US\$24.1 million) to ¥3.9 billion (US\$26.9 million) over the period. Imports surged in 1991, reaching 29,815 MTs (¥5.3 billion, US\$39.4 million).

### **Market Share**

In 1991, Taiwan held a 44 percent import market share, followed by Taiwan (37%), Thailand (12%), the United States (5%), and New Zealand (2%). Six other countries (Hong Kong, the Philippines, Sweden, Belgium, France, and Hungary) also supplied the market in 1991, although their combined market share was under one percent.

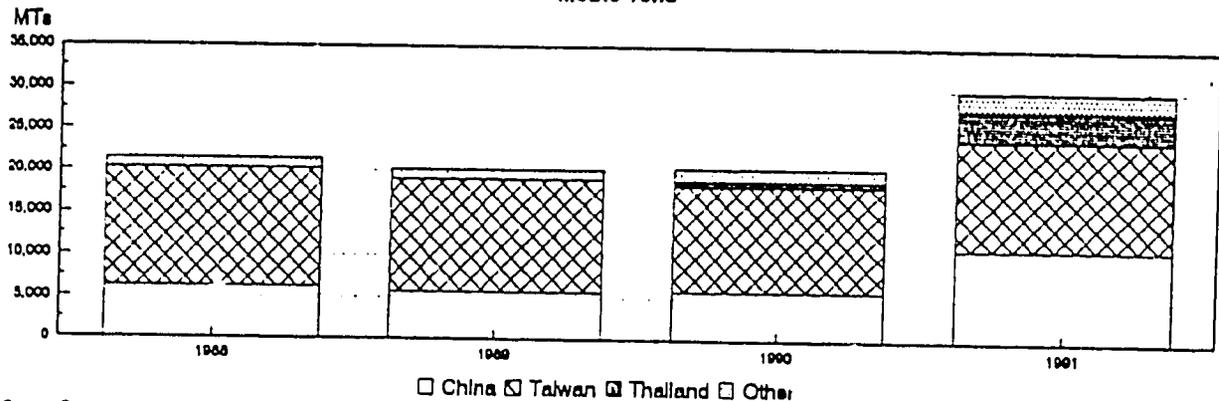
Taiwan has been the largest supplier to the market over each of the last four years, although, as is the case for many other agricultural products, China and Thailand are threatening that position as of 1991. The dramatic increase in Chinese (from 5,795 MTs to 10,933 MTs) and

Thai (690 MTs to 13,084 MTs) exports to Japan from 1990 to 1991 accounted for nearly all of the dramatic increase in exports.

Based on 1987 domestic production statistics (the latest obtained), domestic producers of frozen beans probably account for only 5 percent of total market supplies.

### Japanese Imports of Frozen Beans, 1988-1991

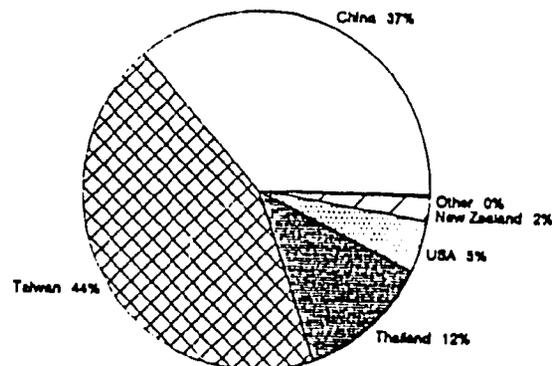
Metric Tons



Source: Government of Japan

### Import Share of Frozen Beans

1991, by weight



Source: Government of Japan

### Import Unit Values

CIF import unit values have generally risen over the past four years, although from 1990 to 1991 unit values remained the same in U.S. dollar terms and decreased in terms of the Yen. Chinese supplies have much lower unit values than those from Taiwan (US\$1.02/kg and US\$1.57/kg, respectively). Thai supplies have slightly lower unit values as compared to those for Taiwan. Surprisingly, the United States and New Zealand have the lowest unit values (each at under US\$1.00/kg).

Import Unit Values	1988	1989	1990	1991
US\$/kg	1.12	1.26	1.32	1.32
¥/kg	144	174	191	178

Source: Government of Japan Official Trade Statistics

## **Customs Tariffs**

Frozen beans fall under tariff number 0710.22-000 ["Beans (Vigna spp., Phaseolus spp.), uncooked or cooked by steaming or boiling in water, frozen"]. Both the general and GATT rates are 10 percent. Lesser developed developing countries may be eligible for even lower rates under a preferential rate structure established for them.

## **Kenyan Market Opportunities**

JETRO recommends that exports to Japan should be for varieties that already have wide consumer acceptance. The White Snow variety is particularly popular amongst consumers, however the stringless Blue Lake variety is also gaining in popularity.

As with many fresh, frozen and canned vegetable products, China is increasing its market share with its low-cost production. In the past several years, Thai exports have also been increasing. With the entry of these two low-cost producers and their close proximity to the market, Kenya's market prospects are considered poor.

## **Frozen Peas**

### **Domestic Production**

Domestic production statistics for snow or green peas are not available.

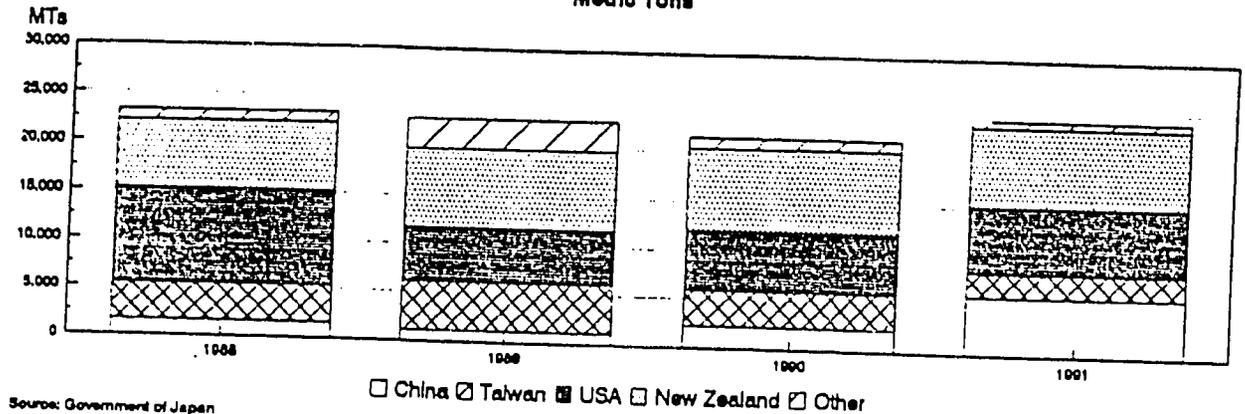
### **Historical Imports**

Imports of frozen peas (including both green and snow) stood at 23,863 MTs (¥4.0 billion, US\$30.0 million) in 1991, up slightly from 21,503 MTs (¥4.2 billion, US\$29.2 million) in 1990. In 1988, imports of frozen peas were 23,236 MTs (¥3.2 billion, US\$24.7 million). Based on country reporting, it is estimated that snow peas make up less than half of all imports.

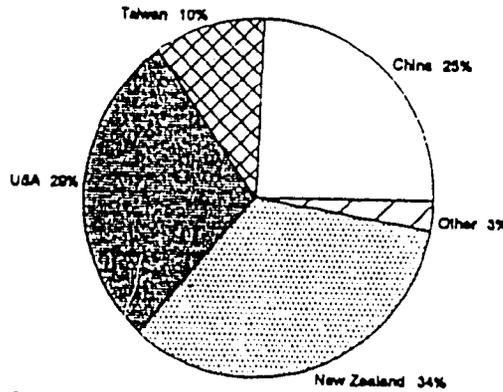
### **Market Share**

New Zealand is the largest supplier of frozen peas to the Japanese market (although much of this is probably not in the form of snow peas) with a 34 percent market share in 1991. The United States, again most likely in the form of green peas, had a 29 percent market share. Taiwan and China (most likely the largest suppliers of snow peas), provided 10 percent and 25 percent, respectively, of import requirements in 1991. Seven other countries (Hong Kong, Thailand, Sweden, Belgium, Peru, Guatemala, and Australia) supplied the market during 1991, although their combined market share was only 3 percent.

### Japanese Imports of Frozen Peas, 1988-1991 Metric Tons



### Import Share of Frozen Peas 1991, by weight



### Import Unit Values

CIF import unit values of frozen peas increased from US\$1.06/kg to US\$1.36/kg from 1988 to 1990, before falling to US\$1.26/kg in 1991. Of the major suppliers, US and New Zealand product was the cheapest (both under US\$1.00/kg in 1991). This lower value is probably due to the fact that shipments were primarily composed of green garden peas. For China and Taiwan, which are assumed to be the major suppliers of snow peas, CIF import unit values stood at US\$1.64/kg and US\$2.40/kg, respectively.

Import Unit Values	1988	1989	1990	1991
US\$/kg	1.06	1.32	1.36	1.26
¥/kg	136	182	197	169

Source: Government of Japan Official Trade Statistics

## Customs Tariffs

Frozen peas fall under tariff number 0710.20-000 ["Peas (*Pisum sativum*), uncooked or cooked by steaming or boiling in water, frozen"]. Both the general and GATT rates are 10 percent. Product from lesser developed countries may be eligible for additional preferential treatment under a rate structure established for them.

## Kenyan Market Opportunities

As with frozen beans, the Japanese import market for snow peas is supplied predominantly by China and Taiwan. There are small shipments from other more distant snow pea producers (i.e. Guatemala), but the amounts are very small (45 MTs or US\$53 thousand from Guatemala). Therefore, Kenyan market opportunity is thought to be poor.

## Canned Beans

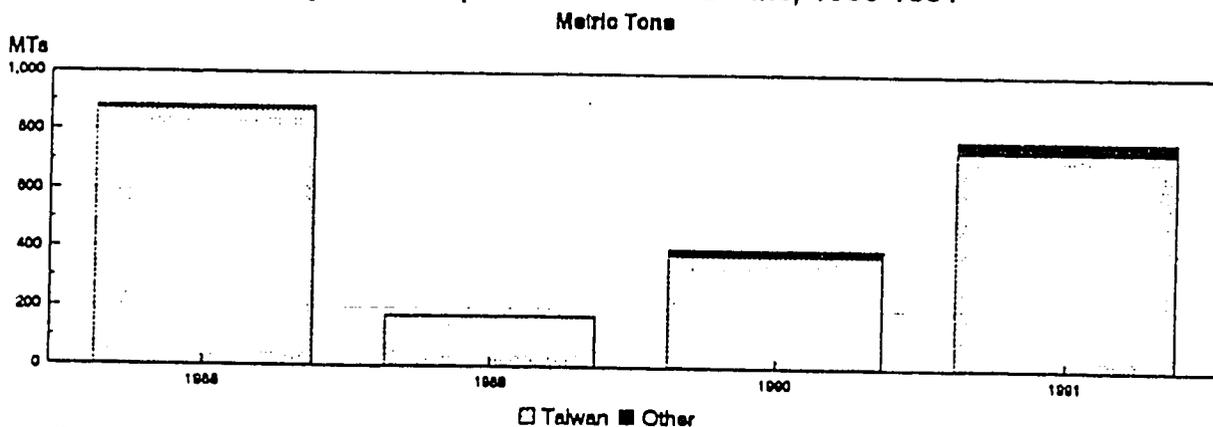
### Domestic Production

Domestic production of canned beans (other than boiled adzuki beans) was 1,396 MTs in 1988, up from 1,189 MTs in 1985.

### Historical Imports

Imports of canned beans have fluctuated widely over the last four years. In 1988, imports stood at 884 MTs (¥136.1 million, US\$1.1 million), before dropping dramatically to 173 MTs (¥27.9 million, US\$202 thousand) in 1989. In 1990, imports increased to 404 MTs (¥78.5 million, US\$542 thousand), and increased again to 779 MTs (¥155.2 million, US\$1.2 million) in 1991.

### Japanese Imports of Canned Beans, 1988-1991



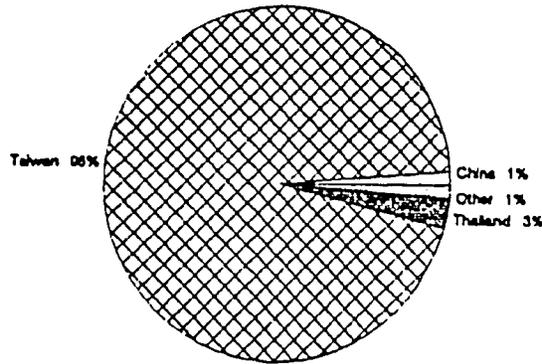
Source: Government of Japan  
Market Share

In 1988 (the latest year in which local statistics were obtained), domestic production accounted for 61 percent of total market supplies of canned beans. From 1988 through 1991, Taiwan has

been the principal foreign supplier, holding on to a 95 percent import share in 1991. Thailand supplied 3 percent of imports, followed by China and the United States, each with 1 percent of total imports. Italy was the only other supplier in 1991, with 1 MT shipped.

### Import Share of Canned Beans

1991, by weight



Source: Government of Japan

### Import Unit Values

CIF import unit values have increased over the period 1988-1991, from US\$1.20/kg (¥154/kg) to US\$1.48/kg (¥199/kg). In 1991, Taiwanese unit value stood at US\$1.50/kg, the highest of all sources except for Italy. Thailand, the second largest yet still minor supplier, had the lowest unit prices at US\$0.85/kg.

Import Unit Values	1988	1989	1990	1991
US\$/kg	1.20	1.17	1.34	1.48
¥/kg	154	161	194	199

Source: Government of Japan Official Trade Statistics

### Customs Tariffs

Canned green beans fall under tariff number 2005.59-210 ["Beans (*Vigna* spp., *Phaseolus* spp.), other than shelled, not containing added sugar, in airtight containers not more than 10 kg each including container"]. A general duty of 25 percent of customs value is applied, with other rates of 20 percent (GATT), 9.6 percent (Preferential), and 12.8 percent (temporary). Product from lesser developed countries may be eligible for duty-free treatment.

### Kenyan Market Opportunities

The canned bean import market is small (well under 1,000 MTs and currently around US\$1 million). Taiwan supplies the majority of the market. Therefore, Kenyan prospects are considered poor.

## Canned Asparagus

### Domestic Production

Domestic production witnessed a steady decline from 1985 to 1989, going from 6,645 MTs to 2,893 MTs. Production is primarily centered in Hokkaido. According to JETRO, production is declining due to lower prices, along with the limited use of canned white asparagus and an increasing consumer demand for fresh green asparagus. Domestic exports of canned asparagus are near zero.

Domestic Production	1985	1986	1987	1988	1989
Metric Tons	6,645	5,529	5,344	3,456	2,893

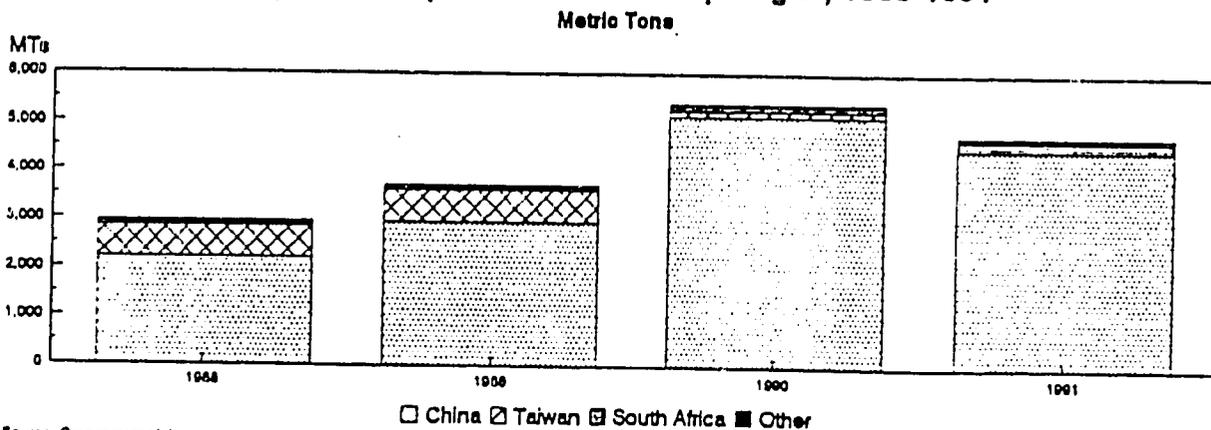
Source: Government of Japan Official Trade Statistics

Domestic production is currently thought to be even lower now, as overall consumption trends have shown an overall decrease. Therefore, although imports have increased substantially over the last four years (see below), this increase has only had the effect of offsetting the equally dramatic decreases in domestic production.

### Historical Imports

Japanese imports of canned asparagus more than doubled between 1985 and 1988, reaching 2,944 MTs (¥980.0 million, US\$7.6 million). Imports increased 25 percent from 1988 to 1989, and an additional 46 percent from 1989 to 1990, when imports stood at 5,394 MTs (¥1.8 billion, US\$12.7 million). In 1991, imports decreased 12 percent to 4,735 MTs (¥1.6 billion, US\$12.2 million).

### Japanese Imports of Canned Asparagus, 1988-1991



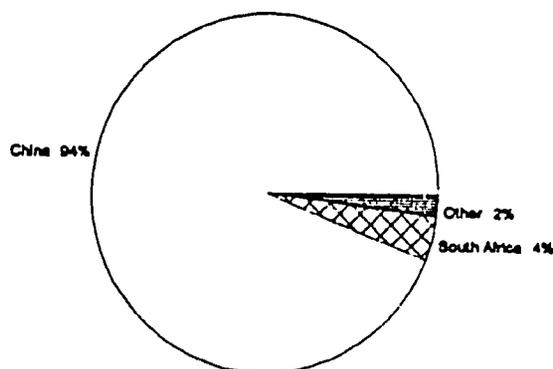
Source: Government of Japan

## Market Share

In 1989, the last year in which we were able to obtain domestic production estimates, domestic producers supplied 44 percent of market needs. Domestic market share has been decreasing rapidly -- in 1986, domestic producers held a 79 percent market share. Based on historical trends (decreased consumption and domestic production, and increasing imports), domestically canned asparagus probably now only accounts for 25 percent of total market supplies.

In 1991, China accounted for 94 percent (4,455 MTs) of canned asparagus imports. The next largest supplier, South Africa, accounted for only 2 percent (188 MTs) of total imports. Seven other countries (Thailand, Indonesia, the Netherlands, France, Spain, Peru, the Gambia) supplied less than 40 MTs each (many significantly less than even this amount) to Japan in 1991. China, which has been the dominant supplier to the Japanese market over each of the last four years, has accounted for most of the import growth in the past four years. Chinese domestic production (possibly as high as 150,000 MTs) and exports have increased dramatically since the mid 1980s. Taiwan, which had held a 22 percent import market share in 1988, has witnessed a steady decline in exports to Japan since then -- with no exports recorded in 1991. Taiwan's exports are now concentrated in Western European and Australia. Production, which stood at nearly 11,000 MTs in 1989, is almost evenly divided between white and green asparagus.

**Import Share of Canned Asparagus**  
1991, by weight



Source: Government of Japan

## Import Unit Values

As can be seen in the table below, CIF import unit values decreased in U.S. dollar terms over the period 1988-1990, while in Yen terms they actually increased slightly. From 1990 to 1991, unit value terms in both currencies increased as supplies decreased. Taiwanese unit values were significantly higher than those for Chinese product when both countries were present in the market (1988-1990), probably explaining the eventual departure of Taiwan from the Japanese market. Chinese product retained the lowest import unit value in 1991, except for the very small quantities which entered from Thailand and Indonesia.

Import Unit Values	1988	1989	1990	1991
US\$/kg	2.60	2.52	2.35	2.58
¥/kg	333	348	340	347

Source: Government of Japan Official Trade Statistics

### Customs Tariffs

Canned asparagus falls under tariff number 2005.60-010 ("Asparagus in airtight containers not more than 10 KG each including container"). A general duty of 25 percent of customs value is applied, with preferential rates of 20 percent (GATT) and 15 percent (Temporary). Product from lesser developed countries may be eligible for duty-free treatment.

### Kenyan Market Opportunities

JETRO is pessimistic about overall growth in consumer demand for canned asparagus. While imports have risen dramatically over the last decade, they have tended to only make up for the loss in domestic production. Furthermore, imports decreased from 1990 to 1991. Overall consumption of canned asparagus has been decreasing, as consumers increasingly come to prefer the fresh product.

The majority of canned asparagus is believed to be of the white variety. Japanese consumers, according to JETRO, tend to perceive canned green asparagus as having unnatural color and taste, and therefore find it less suitable for canning.

It appears, to the detriment of possible new suppliers such as Kenya, that the import growth recorded over the past 5 years, may actually be leveling off. Furthermore, it also appears that China dominates the import market -- and has actually pushed out other low cost suppliers out of the market (Taiwan in particular). Approximately US\$850,000 of imports, however, did arrive from other countries (primarily South Africa). Therefore, there may be a small niche market in Japan. Further field study would be needed, however, to assess Kenyan product acceptability and cost competitiveness.

Note: \*Frozen Beans\* includes Vigna spp. and Phaseolus spp.

Source	1988	1989	1990	1991
China	6,186	5,628	5,795	10,933
Taiwan	14,073	13,438	12,488	13,084
Hong Kong			19	16
Thailand	9	22	690	3,678
Philippines				15
Sweden				38
Netherlands	11			
Belgium	5	2	11	3
France	32	1	4	19
Hungary				5
Canada	16			
USA	893	905	1,042	1,389
New Zealand	220	219	345	636
TOTAL	21,444	20,214	20,394	29,815

Source: Government of Japan

Source	1988	1989	1990	1991
China	613,504	631,565	645,048	1,503,659
Taiwan	2,345,835	2,742,439	2,896,147	2,770,458
Hong Kong			2,029	3,653
Thailand	882	4,576	142,399	750,288
Philippines				3,085
Sweden				8,546
Netherlands	1,543			
Belgium	1,170	457	3,882	878
France	8,783	275	1,339	4,525
Hungary				1,188
Canada	2,176			
USA	91,061	116,973	147,500	171,338
New Zealand	23,540	28,310	50,230	83,854
TOTAL	3,088,494	3,524,595	3,888,574	5,301,472

Source: Government of Japan

Source	1988	1989	1990	1991
China	4,788	4,577	4,454	11,172
Taiwan	18,307	19,874	19,998	20,584
Hong Kong			14	27
Thailand	7	33	983	5,575
Philippines				23
Sweden				63
Netherlands	12			
Belgium	9	3	27	7
France	69	2	9	34
Hungary				9
Canada	17			
USA	711	848	1,019	1,273
New Zealand	184	205	347	623
TOTAL	24,102	25,542	26,851	39,390

Source: Government of Japan

Source	1988	1989	1990	1991
China	0.77	0.81	0.77	1.02
Taiwan	1.30	1.48	1.60	1.57
Hong Kong			0.74	1.72
Thailand	0.80	1.54	1.43	1.52
Philippines				1.58
Sweden				1.67
Netherlands	1.09			
Belgium	1.83	1.66	2.41	2.20
France	2.13	1.99	2.20	1.77
Hungary				1.78
Canada	1.05			
USA	0.80	0.94	0.98	0.92
New Zealand	0.84	0.93	1.01	0.98
TOTAL	1.12	1.26	1.32	1.32

Source: Government of Japan

Source	1988	1989	1990	1991
China	99	112	111	138
Taiwan	167	204	232	212
Hong Kong			107	232
Thailand	103	213	206	204
Philippines				213
Sweden				225
Netherlands	140			
Belgium	234	229	349	297
France	273	275	318	238
Hungary				240
Canada	134			
USA	102	129	141	123
New Zealand	107	129	146	132
TOTAL	144	174	191	178

Source: Government of Japan

Note: "Frozen Peas" includes *Pisum sativum*

Source	1988	1989	1990	1991
China	1,565	1,056	2,219	5,900
Taiwan	3,811	5,070	3,709	2,418
Hong Kong				17
Thailand			7	18
India		8		
UAE		1		
Sweden	770	1,376	683	464
Denmark		12	10	
UK	140	169		
Ireland		80		
Netherlands		82		
Belgium	1	135	5	
France		622	286	28
Poland		21		
Hungary		539	19	
Canada	158		42	
USA	9,851	5,519	6,091	6,897
Peru			24	20
Guatemala	13			45
Australia	8		30	45
New Zealand	6,921	8,119	8,378	8,013
TOTAL	23,236	22,809	21,503	23,863

Source: Government of Japan

Source	1988	1989	1990	1991
China	194,820	157,956	446,107	1,300,723
Taiwan	994,510	1,491,090	1,278,249	780,043
Hong Kong				4,435
Thailand			2,250	5,319
India		1,048		
UAE		233		
Sweden	89,753	193,807	116,167	55,488
Denmark		1,960	1,976	
UK	17,203	27,720		
Ireland		12,832		
Netherlands		11,818		
Belgium	239	19,985	997	
France		100,440	53,653	5,018
Poland		3,211		
Hungary		71,148	2,488	
Canada	17,358		5,720	
USA	1,135,249	902,211	941,140	912,012
Peru			6,189	5,114
Guatemala	3,322			7,081
Australia	858		4,430	4,923
New Zealand	706,069	1,165,319	1,375,049	950,869
TOTAL	3,159,381	4,160,778	4,234,415	4,031,025

Source: Government of Japan

Table V-8: Japanese Imports of Frozen Peas, 1988-1991, US\$000s

Source	1988	1989	1990	1991
China	1,520	1,145	3,080	9,664
Taiwan	7,761	10,806	8,826	5,796
Hong Kong				33
Thailand			16	40
India		8		
UAE		2		
Sweden	700	1,405	802	412
Denmark		14	14	
UK	134	201		
Ireland		93		
Netherlands		86		
Belgium	2	145	7	
France		728	370	37
Poland		23		
Hungary		516	17	
Canada	135		39	
USA	8,859	6,538	6,499	6,776
Peru			43	38
Guatemala	26			53
Australia	7		31	37
New Zealand	5,510	8,445	9,495	7,065
TOTAL	24,656	30,153	29,239	29,950

Source: Government of Japan

Table V-9: Japanese Imports of Frozen Peas, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
China	0.97	1.08	1.39	1.64
Taiwan	2.04	2.13	2.38	2.40
Hong Kong				1.94
Thailand			2.25	2.22
India		0.99		
UAE		2.25		
Sweden	0.91	1.02	1.18	0.89
Denmark		1.17	1.34	
UK	0.96	1.19		
Ireland		1.16		
Netherlands		1.04		
Belgium	1.49	1.08	1.38	
France		1.17	1.29	1.33
Poland		1.11		
Hungary		0.96	0.90	
Canada	0.86		0.94	
USA	0.90	1.18	1.07	0.98
Peru			1.75	1.90
Guatemala	2.01			1.17
Australia	0.89		1.04	0.81
New Zealand	0.80	1.04	1.13	0.88
TOTAL	1.06	1.32	1.36	1.26

Source: Government of Japan

Table V-10: Japanese Imports of Frozen Peas, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
China	124	150	201	220
Taiwan	261	294	345	323
Hong Kong				261
Thailand			325	298
India		137		
UAE		311		
Sweden	117	141	170	120
Denmark		161	194	
UK	123	164		
Ireland		160		
Netherlands		144		
Belgium	191	148	199	
France		161	187	180
Poland		153		
Hungary		132	131	
Canada	110		136	
USA	115	163	155	132
Peru			254	256
Guatemala	258			157
Australia	114		150	109
New Zealand	102	144	164	119
TOTAL	136	182	197	169

Source: Government of Japan

Table V-11: Japanese Imports of Canned Asparagus, 1988-1991, MTs

Source	1988	1989	1990	1991
China	2,194	2,933	5,110	4,455
Taiwan	644	644	110	
Hong Kong	15		15	
Singapore			1	
Thailand				4
Indonesia				33
Netherlands		3	4	8
France	0	2	1	1
Spain	0	1	0	1
USA	2	8	13	
Peru		15	10	30
Gambia				14
Lesotho	17			
South Africa	71	89	131	188
TOTAL	2,944	3,696	5,394	4,735

Source: Government of Japan

Table V-12: Japanese Imports of Canned Asparagus, 1988-1991, Yen 1,000s

Source	1988	1989	1990	1991
China	638,114	908,137	1,714,015	1,527,174
Taiwan	302,147	326,650	45,589	
Hong Kong	5,090		4,459	
Singapore			273	
Thailand				1,349
Indonesia				6,069
Netherlands		1,738	2,139	3,099
France	482	2,759	1,119	1,741
Spain	369	846	304	1,555
USA	883	3,795	7,379	
Peru		5,414	3,428	12,259
Gambia				5,611
Lesotho	5,894			
South Africa	26,998	35,764	57,482	82,763
TOTAL	979,977	1,285,103	1,836,187	1,641,620

Source: Government of Japan

Table V-13: Japanese Imports of Canned Asparagus, 1988-1991, US\$000s

Source	1988	1989	1990	1991
China	4,980	6,581	11,835	11,347
Taiwan	2,358	2,367	315	
Hong Kong	40		31	
Singapore			2	
Thailand				10
Indonesia				45
Netherlands		13	15	23
France	4	20	8	13
Spain	3	6	2	12
USA	7	28	51	
Peru		39	24	91
Gambia				42
Lesotho	46			
South Africa	211	259	397	615
TOTAL	7,648	9,313	12,679	12,197

Source: Government of Japan

Table V-14: Japanese Imports of Canned Asparagus, 1988-1991, US\$/kg

Source	1988	1989	1990	1991
China	2.27	2.24	2.32	2.55
Taiwan	3.66	3.67	2.87	
Hong Kong	2.61		1.99	
Singapore			3.65	
Thailand				2.46
Indonesia				1.37
Netherlands		3.68	3.93	2.97
France	11.50	12.09	12.69	11.50
Spain	5.91	6.90	8.33	10.98
USA	3.67	3.43	4.01	
Peru		2.56	2.46	3.04
Gambia				2.90
Lesotho	2.74			
South Africa	2.99	2.91	3.02	3.27
TOTAL	2.60	2.52	2.35	2.58

Source: Government of Japan

Table V-15: Japanese Imports of Canned Asparagus, 1988-1991, Yen/kg

Source	1988	1989	1990	1991
China	291	310	335	343
Taiwan	469	507	416	
Hong Kong	335		288	
Singapore			529	
Thailand				331
Indonesia				184
Netherlands		508	569	399
France	1,474	1,668	1,837	1,548
Spain	758	953	1,206	1,478
USA	470	474	580	
Peru		354	357	409
Gambia				390
Lesotho	351			
South Africa	383	402	438	440
TOTAL	333	348	340	347

Source: Government of Japan

Note: "Canned Beans" include Vigna spp. & Phaseolus spp.  
No sugar added, each container under 10kg

Source	1988	1989	1990	1991
China				10
Taiwan	871	170	379	738
Thailand			6	21
Brunei			16	
Hong Kong				
Italy	4		1	1
USA	8	3	1	8
TOTAL	884	173	404	779

Source: Government of Japan

Source	1988	1989	1990	1991
China				1,944
Taiwan	134,101	27,558	73,629	148,987
Thailand			560	2,382
Brunei			3,733	
Hong Kong				
Italy	667		277	239
USA	1,291	304	260	1,674
TOTAL	136,059	27,862	78,459	155,226

Source: Government of Japan

Source	1988	1989	1990	1991
China				14
Taiwan	1,047	200	508	1,107
Thailand			4	18
Brunei			26	
Hong Kong				
Italy	5		2	2
USA	10	2	2	12
TOTAL	1,062	202	542	1,153

Source: Government of Japan

Source	1988	1989	1990	1991
China				1.38
Taiwan	1.20	1.18	1.34	1.50
Thailand			0.67	0.85
Brunei			1.58	
Hong Kong				
Italy	1.36		1.42	1.52
USA	1.21	0.82	1.37	1.46
TOTAL	1.20	1.17	1.34	1.48

Source: Government of Japan

Source	1988	1989	1990	1991
China				186
Taiwan	154	162	194	202
Thailand			97	115
Brunei			229	
Hong Kong				
Italy	174		206	204
USA	155	113	199	197
TOTAL	154	161	194	199

Source: Government of Japan

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APPENDIX A: REPRESENTATIVE LIST OF JAPANESE IMPORTERS

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Source: Chiefly the Japan Export Trade Organization(JETRO)

FRESH CUT FLOWERS

Allied Co Ltd  
1001-1275 X Narita  
Chiba 286-01  
Tel: (0476) 351 441  
Telex: 3762108 ALLIED J  
Fax: (0476) 353 050

Dalseco Inc.  
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Tokyo 103  
Tel: (03) 662 7111  
Fax: (03) 661 4025

The All Tokyo Florist's Association  
5-47 11 Higashi-Nippori  
Arakawa-ku  
Hilife Nippori 1003  
Tokyo 116  
Tel: (03) 802 7043

Flora International Co Ltd  
3-13-12 Roppongi, Minato-ku  
Tokyo 106  
Tel: (03) 470 5601  
Telex: J23922  
Fax (03) 405 5906

Bankoku Trading Co Ltd  
1-3 Muromachi 1-chome  
Nihonbashi, Chuo-ku  
Tokyo 103  
Tel: (03) 241 4021  
Telex C2227334 BANKOK J  
Fax: (03) 241 6706

Florameric Enterprise  
Tokyo Branch  
c/o TGA Inc  
4th floor, Sonic Building  
2-12 Nishiazabu 3-chome, Minato-ku  
Tokyo 106  
Tel: (03) 408 5331 ext. 26  
Fax: (03) 408 5505

Classic Japan Ltd  
7th floor, Toyo Building  
6-12-20 Jingumae Shibuya-ku  
Tokyo  
Tel: (03) 797 4950  
Fax: (03) 797 4998  
Osaka office  
Tel: (0727) 216 466  
Bangkok office  
Tel (662) 236 9111

M C Flora Co Ltd  
Matsumura Building  
6-16-20 Ueno, Taito-ku  
Tokyo

Toa Trading Co Ltd  
1-12-1 Esaka-cho  
Suita City  
Osaka 564  
Tel: (06) 385 5022  
Fax: (06) 385 4876

YMS Co Ltd  
10-10 Soneminamimachi 3-chome  
Toyonaka City  
Osaka 561  
Tel: (06) 866 8133  
Telex: 5286145 YMS J  
Fax: (06) 866 8135

A. Yoshikawa Corporation  
21-19 Higashi-Asagirioka  
Akashi City, Hyogo 673  
Tel: 078-914-0738  
Fax: 078-913-1813  
Contact: Shotaro Yoshikawa, Import  
Department

Bankoku Trading Co., Ltd.  
1, Muromachi 1-chome  
Nihonbashi, Chuo-ku, Tokyo 103  
Tel: 03-241-6706  
Fax: 03-241-6706  
Contact: Tokuzo Yanagawa, Import  
Department (241-4021)

S&F Trading Inc.  
Tori 2nd Bldg. 3F  
2-8-6, Okina-cho  
Naka-ku, Yokohama 231  
Tel: 045-641-3973  
Fax: 045-671-1970  
Contact: A. Fujii, Import Department

Sanoh Trading Co., Ltd.  
1-23-6 Sekiguchi  
Bunkyo-ku, Tokyo 112  
Tel: 03-268-0541  
Fax: 03-268-0492  
Contact: Susumu Moriya, Business  
Development Department

Showa Boeki Co., Ltd.  
1-18-27 Edobori  
Nishi-ku, Osaka 550  
Tel: 06-441-3333  
Fax: 06-444-6060  
Contact: G. Sone, Provisions Department

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### FRUIT, FRESH AND PROCESSED

[Code: Fresh (1), Frozen (2), Dried (3), Canned/Processed (4)]

C.G.C. Japan Co. Ltd. [1]  
1-1, Okubo 2-chome  
Shinjuku-ku, Tokyo 169  
Tel: 03-203-1111  
Fax: 03-204-1720  
Contact: Foreign Trade Division

Century Yamakyu Corporation [2]  
2-5-8, Minami-Semba  
Chuo-ku, Osaka 542  
Tel: 06-261-8222  
Fax: 06-261-8280  
Contact: Toshihiro Katoh, Import Dept.

Co-Optrade Japan Ltd. [4]  
Seiko-Sunshine Bldg.  
9-1, 1-chome, Higashi-Ikebukuro  
Toshima-ku, Tokyo 170  
Tel: 03-590-4871  
Fax: 03-980-9545  
Contact: Kuramitsu, Dry Foods Sec.

Eiwa Trading Co., Ltd. [3]  
Kyodo Bldg. (Kanda-bashi)  
2-5-5, Uchikanda  
Chiyoda-ku, Tokyo 101  
Tel: 03-256-1841  
Fax: 03-256-1884  
Contact: Kazuo Uchida, Import Sec.

Fuso Trading Co., Ltd. Kotobuki Bldg., 2-10-5, Tsukiji Chuo-ku, Tokyo 104 Tel: 03-541-5581 Fax: 03-542-0598 Contact: Masahiro Uchiyama, Import Dept.	[1,2,3]	Kansai Boeki K.K. 2-6-19, Dezaike-cho Hyogo-ku, Kobe 652 Tel: 078-671-6021 Fax: 078-681-7609 Contact: Kazuo Takeda, Import Dept.	[1,2]
G.S. International Inc. 4-9, Hiranomachi 1-chome Chuo-ku, Osaka 541 Tel: 06-202-1821 Fax: 06-202-1824 Contact: Tsuneo Sumi, Foreign Trade Dept.	[2,3,4]	New Asia Trading Co., Ltd. 9-301, 3-ban, Semba Chuo 3-chome Chuo-ku, Osaka 541 Tel: 06-245-0251 Fax: 06-245-0255 Contact: Import Dept.	[4]
T. Hasegawa Co. Ltd. 4-4-14, Nihonbashi Honcho Chuo-ku, Tokyo 103 Tel: 03-241-1151 Fax: 03-278-8075 Contact: Masahiko O'hara, Overseas Operations Div.	[2,4]	Nisshin Trading Co., Ltd. Toto Bldg., 3F 5-1-4, Toranomom Minato-ku, Tokyo 105 Tel: 03-431-2333 Fax: 03-432-1002 Contact: H. Fujii, Import Dept.	[4]
Iwatani International Corporation 7-1, Hatchobori 2-chome Chuo-ku, Tokyo 104 Tel: 03-555-5744 Fax: 03-555-5633 Contact: T. Morito, Food Dept.	[1]	Nissin International Corporation Sumitomo Seimei Yokohama-Kannai Bldg. 1-6, Onoe-cho, Naka-ku, Yokohama 231 Tel: 045-651-2861 Fax: 045-651-6159 Contact: Toshihiro Nagata, Import Dept.	[3]
Kadoya & Co. 123-1, Higashimachi Chuo-ku, Kobe 650 Tel: 078-321-8561 Fax: 078-321-8566 Contact: Isamu Kadoya, Import Dept.	[4]	Osama Rice Cracker Co., Ltd. 2-7-5, Senzoku Taito-ku, Tokyo 111 Tel: 03-872-3333 Fax: 03-876-0101 Contact: Toru Inoue, Pacific Trading Co. Ltd., 03-213-3661	[3]
Kaien Trading Co., Ltd. Matsuoka Bldg., 3F 2-14-6, Ginza Chuo-ku, Tokyo 104 Tel: 03-541-9391 Fax: 03-541-9563 Contact: Kohei Morimoto	[1]	Shin Sei Trading Co., Ltd. Rm. 505, Nippon Bldg., 2-6-2, Otemachi Chiyoda-ku, Tokyo 100 Tel: 03-279-6921 Fax: 03-279-6825 Contact: Shinji Watanabe, Import Dept.	[3,4]

Shinyei Kaisha [3]  
77-1, Kyo-machi  
Chuo-ku, Kobe 650  
Tel: 078-392-6876  
Fax: 078-332-0217  
Contact: K. Nishimura, Agri. Products Div.

The Takano Co. [1]  
26-11, Shinjuku 3-chome  
Shinjuku-ku, Tokyo 160  
Tel: 03-354-0222  
Fax: 03-363-5882  
Contact: Mikio Sato, Overseas Div.

Shoëi Foods Corporation [2,3,4]  
5-7, Akihabara  
Taito-ku, Tokyo 110  
Tel: 03-253-1211  
Fax: 03-253-0063  
Contact: Yutaka Yamada, Business Dept.

Tominaga Boeki Kaisha, Ltd. [1,3]  
3, 2-chome, Nishi, Koyo-cho  
Higashinada-ku, Kobe City, Hyogo 658  
Tel: 078-857-0300  
Fax: 078-857-0315

Showa Boeki Co. Ltd. [1,2]  
1-18-27, Edobori  
Nishi-ku, Osaka 550  
Tel: 06-441-3333  
Fax: 06-444-6060  
Contact: G. Sone, Provisions Dept.

Toshin Trading Co., Ltd. [1,2,4]  
6-27-28, Minami-Ohi  
Shinagawa-ku, Tokyo 140  
Tel: 03-298-1801  
Fax: 03-298-1306

T. Waico & Co., Ltd. [2]  
7-23-12, Morikita-machi  
Higashi-Nada-ku, Kobe 658  
Tel: 078-451-3223  
Fax: 078-451-3225

Wako Trading Corporation [4]  
Godo Bldg., 3F  
1-6-17, Kaji-cho  
Chiyada-ku, Tokyo 101  
Tel: 03-258-2241  
Fax: 03-258-2247  
Contact: Takashi Suzuki, Import Dept.

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**VEGETABLES, FRESH AND PROCESSED**  
[Code: Fresh (1), Frozen (2), Dried (3), Canned/Processed (4)]

Cheers International Corporation [2]  
3-4, Yushima 3-chome  
Bunkyo-ku, Tokyo 113  
Tel: 03-839-4151  
Fax: 03-839-4154  
Contact: Nakano, Overseas Dept.

Co-Optrade Japan Ltd. [2]  
Seiko-Sunshine Bldge.  
9-1, 1-chome, Higashi-Ikebukuro  
Toshima-ku, Tokyo 170  
Tel: 03-590-4871  
Fax: 03-980-9545  
Contact: Kuramitsu, Dry Foods Sec.

Fuso Trading Co., Ltd. Kotobuki Bldg., 2-10-5, Tsukiji Chuo-ku, Tokyo 104 Tel: 03-541-5581 Fax: 03-542-0598 Contact: Masahiro Uchiyama, Import Dept.	[1,2,3]	Shinyei Kaisha 77-1, Kyo-machi Chuo-ku, Kobe 650 Tel: 078-392-6876 Fax: 078-332-0217 Contact: K. Nishimura, Agri. Products Div.	[1,2,3]
Hoei Kogyo Co., Ltd. Kyugetsu Kanda Bldg. 2-4, Jinbo-cho, Kanda Chiyoda-ku, Tokyo 101 Tel: 03-288-0271 Fax: 03-288-0275 Contact: Ken Ikenaga, Import Dept.	[3]	Shoei Foods Corporation 5-7, Akihabara Taito-ku, Tokyo 110 Tel: 03-253-1211 Fax: 03-253-0063 Contact: Yutaka Yamada, Business Dept.	[2,4]
Kaien Trading Co., Ltd. Matsuoka Bldg., 3F 2-14-6, Ginza Chuo-ku, Tokyo 104 Tel: 03-541-9391 Fax: 03-541-9563 Contact: Kohei Morimoto	[1]	Showa Boeki Co. Ltd. 1-18-27, Edobori Nishi-ku, Osaka 550 Tel: 06-441-3333 Fax: 06-444-6060 Contact: G. Sone, Provisions Dept.	[1,2]
Kansai Boeki K.K. 2-6-19, Dezaike-cho Hyogo-ku, Kobe 652 Tel: 078-671-6021 Fax: 078-681-7609 Contact: Kazuo Takeda, Import Dept.	[1,2]	Tominaga Boeki Kaisha, Ltd. 3, 2-chome, Nishi, Koyo-cho Higashinada-ku, Kobe City, Hyogo 658 Tel: 078-857-0300 Fax: 078-857-0315	[1]
Mitsuboshi Boeki Limited 113, Higashimachi, Chuo-ku Kobe, Hyogo 650 Tel: 078-391-5101 Fax: 078-391-5324 Contact: T. Mukai, Overseas Dept.	[2]	Toshin Trading Co., Ltd. 6-27-28, Minami-Ohi Shinagawa-ku, Tokyo 140 Tel: 03-298-1801 Fax: 03-298-1806	[1,2,4]
Shin-Nippon Commerce, Inc. Konwa Bldg., 1-12-22, Tsukiji Chuo-ku, Tokyo 104 Tel: 03-542-4711 Fax: 03-545-0507 Contact: Toshiaki Ando	[2]	T. Waico & Co., Ltd. 7-23-12, Morikita-machi Higashi-Nada-ku, Kobe 658 Tel: 078-451-3223 Fax: 078-451-3225	[2,3]