

NO. **64** (AG-86)

March
2002

JETRO
Japanese Market
Report –Regulations & Practices–

Seeds and Seedlings

Introduction

Flower consumption in Japan grew rapidly during the high-growth economy following the Tokyo Olympic Games in 1964, and enjoyed a more than 20% annual growth for several years. The growth began to see decline, however, as Japan suffered from the oil shock of the 1970s and the resulting economic fallout. Notwithstanding, a 6 to 9% annual growth was seen into the 1980s, which was the zenith of what has been called “the bubble economy.” The Flower Expo of 1990 also helped to stimulate further growth in demand. But when the bubble economy collapsed in 1990, demand fell off for flowers as gifts and decorations. Cut flower demand, for one, has never recovered. The demand for potted plants, particularly as gifts, has also suffered a decline, but the gardening boom that started around 1993 greatly generated an interest in bedding plants, and the potted plant market as a whole continued to grow steadily until 1998. The boom slowed down after 1999, and growth hit a ceiling, after which potted plants sales also stopped increasing.

Note: This report concentrates on importable seeds and nursery plants for growers. However, bulbs and tubers imported in large quantities are also described, while general information about Japan’s flower industry is provided.

Table of Contents

Summary	1
I . Market Overview	3
A . Domestic Production Trends of Flowers	3
B . Market Trends (Domestic Flowers)	5
C . Production Trends (Seeds and Nursery Plants)	6
D . Import Trends (Seeds and Nursery Plants)	7
II . Import System and Related Regulations	11
A . The Plant Quarantine Law and Import Inspection	11
B . Import Custom Tariffs	13
C . The Seeds and Seedlings Law, and Registration of New Plant Varieties	15
. Distribution Trends and Business Practices	17
A . Types and Uses of Seeds and Nursery Plants Distributed to Growers	17
B . Wholesale Markets	19
C . Distribution of Bedding Plants	20
D . Distribution of Seeds	21
E . Distribution of Bulbs and Tubers	21
F . Function of Wholesale Markets	22
. Consumption Trends	23
A . Consumption Trends: Potted plants, Seeds, Nursery Plants, Bulbs and Tubers	23
B . Consumption Trends: Bedding Plants	25
C . The Price of Seeds, Nursery Plants, Bulbs and Tubers	25
. Advice on Market Access	26
A . Items That Suit the Japanese Climate	26
B . High Added Value Items	26
C . Distinctive Items	26
D . Commissioned Production	26
E . Participation in Fairs and Exhibitions	27
F . Contacting with Agricultural Organizations	27
G . Partnerships with Mass Sales Stores	27
Reference 1 . Quarantine Inspections of Imported Main Flower Genera or Families (Bulbs and Tubers, Seeds and Nursery Plants), at Nationwide Plant Quarantine Stations	28
Reference 2 . A Price List for Growers of Seeds and Nursery Plants	32
Reference 3 . Related Organizations	34
Reference 4 . Importing Companies of Seeds, Nursery Plants, Bulbs and Tubers	35

Reference 5 . Seed Companies, Breeding Companies	35
Reference 6 . Wholesale Companies and Organizations.....	36
Reference 7 . Major Flower Shows and Exhibitions.....	36

Appendix

Yen-US Dollar Exchange Rates

<u>End of Year</u>	<u>Yen/US\$</u>
1997	129.2
1998	115.2
1999	102.1
2000	114.9
2001	131.5

N o t e : Mean value between offer and bid in the inter-bank foreign exchange market in Tokyo.

Source: Bank of Japan, "Financial and Economic Statistics Monthly"

Summary

Flower Production Trends

Flower sales enjoyed steady growth in wholesale value from 1991, peaking in 1998 at 583 billion yen. Sales began a downturn, dropping to 519 billion yen in 2000. The market is estimated at 600 billion yen in wholesale value and 1,500 billion yen in retail, based on the assumption that wholesale markets hold 85% of total flower distribution, while the remaining 15% is held by non-wholesale markets.

Imports of Seeds, Nursery Plants, Bulbs and Tubers

Since 1998, the domestic flower market has shrunk, thus reducing imports of seeds, nursery plants, bulbs and tubers in the past few years. In 2000, total value dropped to 25.8 billion yen. The largest imports in this group are bulbs and tubers (47% of the total), 90% of which are imported from Netherlands. In terms of value, lily bulb imports are the highest. Woody plants (cuttings, canes and others) are imported mainly from Asia and Latin America, with the most popular variety being the Dracaena. Herbaceous seeds and nursery plants of all kinds are imported from all over the world. The largest nursery plant imports of this kind in volume are unrooted cuttings of chrysanthemums, and the most popular seed imports are sunflower seeds.

Distribution Trends

While some 85% of cut flowers and potted plants are distributed through wholesale markets, most seeds, bulbs and tubers, and about 40% of bedding plants (part of the potted plant category), are handled outside of wholesale markets. Most bulbs and tubers are directly imported by bulb companies (trading companies are rarely involved), and then sold directly to growers and shops. Consumers purchase some 30% (in value) of bulbs, known as “dry sale” bulbs, while the remaining 70% are sold to growers. Most of the woody nursery plants are imported by specialty trading companies. As for herbaceous nursery plants, large volume items such as chrysanthemums and carnations are imported by seed companies specializing in the particular item. Others are imported by specialty trading companies. Seeds are largely imported by seed companies.

Consumption Trends

Among potted plants, the largest consumer item is the Cyclamen, followed by the Begonia, the Primula and the carnations. For bedding plants, the pansy definitely outnumbers others, totaling 210 million pots – a quarter of all supplies in 2000. This is followed by petunias, Tagetes (marigolds) and salvias. The most popular bulb is the tulip, followed by the lily.

Advice on Market Access

Certain difficulties exist when considering competing with the many existing Japanese companies, which are strong and have good reputations internationally. Furthermore, it is a challenge to find items that suit the Japanese climate, which is generally hot and humid in summer, and cold and dry in winter. Since so many kinds of seeds and nursery plants are imported from all over the world, it may also prove hard to promote new items in Japan. However, one of the keys to penetrating the Japanese market would be the promotion of patently distinctive items, such as species and varieties that have yet to be introduced to Japan, or those with high added value or high productivity.

I . Market Overview

A . Domestic Production Trends of Flowers

Chart 1 shows the cropped area and supply volume of main crops for domestic production in 2000. In terms of cropped area, the largest item is cut flowers at 19,700 ha (80.3% of the total), followed by potted plants at 2,160 ha, bedding plants at 1,670 ha, and bulbs and tubers at 995 ha. It is noteworthy that Japanese flower production is typified by the predominance of cut flowers, which represent 80% of all production. Chart 2 shows the top five prefectures in flower supply, by commodity. Of the four commodities, Aichi Prefecture leads in three (cut flowers, potted plants and bedding plants), establishing a position as the leading prefecture of the industry.

Chart 1 . Cropped Area and Supply Volume of Main Flower Crops (2000)

Cropped area: hectares Supply volume: 1,000 stems (bulbs or pots)

Ratio to the previous year: %

Commodity	Cropped area	Supply volume	Ratio%	Ratio to the Previous Year	
				Cropped Area	Volume
Total	24,525	7,064,200	-	-	-
Cut flowers	19,700	5,593,000	100.0	100	99
Chrysanthemum	6,260	2,027,000	36.2	100	100
Carnation	491	495,300	8.9	97	97
Rose	585	459,500	8.2	97	96
Gentiana	646	101,100	1.8	96	95
Limonium	319	137,700	2.5	103	103
Gerbera	112	179,900	3.2	99	109
Campanula	460	123,600	2.2	101	102
Lily	914	205,100	3.7	104	101
Bulbs and tubers	995	309,000	100.0	96	113
Lily	218	41,500	13.4	97	105
Tulip	430	95,400	30.9	93	106
Gladiolus	95	52,100	16.9	86	123
Potted plants	2,160	305,300	100.0	103	104
Cyclamen	239	20,600	6.7	100	103
Primula	72	17,800	5.8	104	111
Orchids	283	24,100	7.9	101	100
Cymbidium	107	4,400	n.a.	100	94
Dendrobium	30	3,560	n.a.	108	103
Other Orchids	147	16,000	n.a.	101	100
Cacti and Succulents	72	20,100	n.a.	99	99

ornamental plants	363	51,200	16.8	105	96
trees and shrubs	493	57,200	18.7	103	112
Bedding plants	1,670	856,900	100.0	108	109
Pansy	368	209,600	24.5	112	108
Salvia	67	31,200	3.6	104	98
Tagetes	83	37,900	4.4	102	100
Petunia	85	43,000	5.0	114	110

Source: The Ministry of Agriculture, Forestry and Fisheries

Chart 2 . Top Five Prefectures in Cropped Area and Supply Volume, by Commodity (2000)

Prefecture	Cropped Area	Supply Volume
	(hectares)	(1,000 stems)
1) Cut Flowers		
Nationwide	19,700	5,593,000
Aichi	1,870	786,500
Okinawa	1,210	378,600
Shizuoka	1,170	349,300
Nagano	1,050	336,800
Chiba	968	314,200
1-A) Bulb Cut Flowers (Cut Flowers)		
Nationwide	2,170	611,800
Niigata	195	56,900
Chiba	167	51,400
Saitama	92	47,300
Aichi	115	42,800
Nagano	158	39,600
2) Bulbs		
Nationwide	995	309,000
Niigata	252	60,600
Kagoshima	140	59,500
Toyama	243	53,100
Ibaraki	60	31,900
Chiba	30	20,200
3) Potted plants		
Nationwide	2,163	305,300
Aichi	377	65,700
Saitama	232	35,700
Gifu	83	24,300
Niigata	105	17,000
Fukuoka	107	11,400
4) Bedding Plants		
Nationwide	1,675	856,900
Aichi	130	93,400
Chiba	97	75,200
Saitama	160	60,100
Hyogo	79	47,300
Fukuoka	42	30,300

Source: The Ministry of Agriculture, Forestry and Fisheries

B . Market Trends (Domestic Flowers)

Chart 3 shows flower wholesale volume and value by commodity from 1998 to 2000 and chart 4 shows flower wholesale value from 1991 to 2000.

As is seen in Chart 3 and Chart 4, flower wholesale value rose steadily after 1991, peaking in 1998 (583 billion yen), and then declining by 5-6% per year in 1999 and 2000. Assuming that 85% of domestic production goes through wholesale markets and the remaining 15% is handled outside the wholesale arena, the entire domestic market value is estimated at roughly 600 billion yen. In 2000, cut flowers held 69% of market value, and potted plants and bedding plants 31%. Based upon the 600 billion yen wholesale figure, the retail market is estimated at around 1,500 billion yen.

Charts 5 and 6 show trends in wholesale volume and average prices of potted plants and bedding plants. Between 1991 and 2000, sales volume of potted plants grew steadily, yet average prices fell year after year. In the same manner, the sales volume of bedding plants grew every year for the last 10 years, yet average prices remained at around 58-60 yen, followed by a sudden 13.6% drop to 51 yen in 2000. This drop in prices for potted plants was caused mainly by the decline in demand of high-priced gift items such as orchids and cyclamens after the gardening boom began, and by the rapid increase in demand of low-priced, simple items such as flowerpot arrangements. The whole market shifted in the direction of smaller pots and lower prices, while the market share of these low-priced items grew quickly. In other words, the overall price drop was caused by a drastic change of market items due to the change in demand trends.

Chart 3 . Flower Wholesale Volume and Value by Commodity (1998 - 2000)

Item	Wholesale volume Millions of items (pots)			Wholesale value Millions of Yen			Wholesale average price Yen		
	1998	1999	2000	1998	1999	2000	1998	1999	2000
Flower Totals	n.a.	n.a.	n.a.	583,318	547,074	518,927	n.a.	n.a.	n.a.
Cut Flowers	6,881	6,892	6,927	421,646	384,457	360,376	61	56	52
Potted plants	346	369	374	134,361	132,592	129,398	388	360	346
Bedding Plants	456	507	575	27,311	30,025	29,198	60	59	51

Source: The Ministry of Agriculture, Forestry and Fisheries

Chart 4 . Flower Wholesale Value (1991 - 2000)

billions of yen									
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
497	495	534	530	533	559	572	583	547	519

Source: The Ministry of Agriculture, Forestry and Fisheries

Chart 5 . Potted Plants, Wholesale Volume and Average Price

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Volume (millions of stems)	215	229	250	255	265	310	336	346	369	374
Average price (Yen/Stem)	508	501	482	475	469	445	411	388	360	346

Source: The Ministry of Agriculture, Forestry and Fisheries

Chart 6 . Bedding Plants, Wholesale Volume and Average Price

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Volume (millions of pots)	167	201	237	266	303	356	403	456	507	575
Average Price (Yen/Pot)	59	58	60	58	58	59	60	60	59	51

Source: The Ministry of Agriculture, Forestry and Fisheries

C . Production Trends (Seeds and Nursery Plants)

Many companies in Europe and the United States produce nursery plants only, but in Japan, companies often commission the production of nursery plants to contracted growers.

Flowers have traditionally been cultivated from seeds by growers and consumers alike. However, many now believe that planting from seeds is now a thing of the past, so more growers have started cultivating cut flowers and potted plants from nursery plants.

The plug seedling system has become widespread because greater awareness has been raised through a registration system of new plant varieties that prohibit private propagation of registered items. Consequently, growers have started to learn that more efficient and faster production was possible by cultivating from nursery plants. Due to such circumstances, growers use more nursery seedlings today.

While the seed market is oligopolistic, led by large companies, the nursery plant market has more room for flexible, small businesses to be active. There are many such companies; namely, small importers solidly connected to growers, or seed companies that have close contacts with individual growers and introduce new cultivation technologies to them. The role of small businesses in this growing industry, therefore, is very important.

The demand of seeds grew rapidly while the production of bedding plants rose quickly. Since production costs are phenomenal in Japan, the shifting of production to overseas locations is highly advantageous, and has been increasing year by year. This trend will continue to increase in the future.

D . Import Trends (Seeds and Nursery Plants)

Bulbs and tubers hold the largest share of import value at 55.8%, more than half of the total, as shown in Chart 7. Chart 8 shows import volume during the same period.

Charts 9 – 13 show major import source countries for seeds, nursery plants, bulbs and tubers. The source is Ministry of Finance trade statistics, which cover import value and volume only, with no data on the kinds of plants, thus the information is insufficient for precisely determining imports by type. There are, however, other statistics from Plant Quarantine Stations that include data on the kinds of plants that were inspected between 1997 and 1999. Reference 1. is extracted from these statistics and shown in the four commodity categories of imported plants (bulbs and tubers, woody nursery plants, herbaceous nursery plants and seeds). Only these statistics are classified by the name of the family and genus. In the two sets of statistics, the import volume from the Ministry of Finance (Chart 8) and the import inspection volume from the Quarantine Stations (Reference 1) the figures were not exactly equal. Let us now examine the actual varieties, and from which countries these plants were imported. This is based on the 1999 data, the classified statistics for which are not available elsewhere.

Bulbs and Tubers

Bulb and tuber imports from Netherlands are 90% of the total in terms of value, and 94% in volume. The largest import item in volume is the tulip (246 million bulbs), nearly 100% of which are from Netherlands. The lily comes next (187 million bulbs), 99% of which are from Netherlands. Only these two items exceed 100 million in annual imports. Others that exceed 10 million are the Muscari (27.6 million), the Iris (22.8 million), the Crocus (21.8 million), the Gladiolus (16.2 million), and the Narcissus (10.4 million).

Woody Nursery Plants

Woody nursery plant imports are mainly *Dracaena*, *Hedera* (ivy), *Ficus* (*F.benjamina*, *F.elastica*, etc), *Pachira*, *Yucca*, and palms, which are mostly from Asia and Latin America. The largest import is *Dracaena* (13.6 million plants), of which the most popular item is *D.fragrans*, a plant known in Japan as “the happiness tree.” *Dracaena* is imported from Costa Rica (3.7 million plants; 27.3 % share) mainly as cut canes, and from Sri Lanka (4.8 million plants; 35.4% share) mainly as layerings.

Herbaceous Nursery Plants

The largest imports are the *Chrysanthemum* (unrooted cuttings), with 82.2 million stems imported from Brazil, Indonesia, South Africa and other nations in 1999. The second

largest at 30.0 million stems are the Dianthus, imported primarily from Turkey, Netherlands and Germany. This is followed by carnations at 9.0 million stems, which come primarily from Israel, Netherlands and Spain, etc. Some 6.1 million Dendrobium is also imported, mostly from Thailand.

Flower Seeds

Various varieties of flower seeds are imported, but only three types exceed 10 tons: sunflower (54.2 tons), Cosmos (50.6 tons) and Chrysanthemum (36.7 tons).

Chart 7 . Import Value (Seeds, Nursery Plants, Bulbs and Tubers) (thousands of yen)

HS No.	Item	1998	1999	2000	Ratio (2000)
0601.10-010	Bulbs and tubers (Lily)	6,933,077	7,161,272	6,073,308	n.a.
20	Bulbs and tubers (Tulip)	4,608,170	3,542,941	3,128,791	n.a.
90	Bulbs and tubers (Others)	3,904,733	3,055,955	2,819,116	n.a.
20-000	Bulbs(Grown or with flowers)	41,544	58,537	42,154	n.a.
0601 Total	Bulbs and tubers (Total)	15,487,524	13,818,705	12,063,369	55.8%
0602.10-000	Cuttings and slips without roots	1,201,639	1,165,608	1,189,886	5.5%
0602.30-000	Rhododendrons and azaleas (grafted or not)	24,443	19,053	21,851	0.1%
0602.40-000	Roses (grafted or not)	265,859	300,618	306,620	1.4%
0602.90-090	Cuttings and slips with roots	6,568,221	6,346,080	5,980,918	27.7%
1209.30-000	Flower seeds	1,941,873	2,426,573	2,063,513	9.5%
	Total	25,489,559	24,076,637	21,626,157	100.0%

Source: Ministry of Finance, Trade statistics

Note: For a detailed description of each HS Code, see Chart 14.

Chart 8 . Import Volume (Seeds, Nursery Plants, Bulbs and Tubers)

HS No.		Unit	1998	1999	2000
0601.10-010	Bulbs and tubers (Lily)	1,000 items	176,159	189,878	193,889
020	Bulbs and tubers (Tulip)	1,000 items	238,231	240,325	252,180
090	Bulbs and tubers (Others)	1,000 items	212,310	203,253	204,107
20-000	Bulbs (Grown or with flowers)	1,000 items	1,515	2,212	3,400
0601 Total	Bulbs and tubers (Total)	1,000 items	628,215	635,668	653,576
0602.10-000	Cuttings and slips without roots	1,000 items	137,330	103,486	122,766
0602.30-000	Rhododendrons and azaleas (grafted or not)	1,000 items	277	262	302
0602.40-000	Roses (grafted or not)	1,000 items	627	971	1,115

0602.90-090	Cuttings and slips with roots	Kg	5,913,541	6,388,650	6,446,331
1209.30-000	Flower seeds	Kg	660,357	592,516	655,667

Source: Ministry of Finance, Trade Statistics

Note: For a detailed description of each HS Code, see Chart 14.

Chart 9 . Major Import Source Nations (Bulbs and Tubers)

Commodity Nation	Value (thousands of yen)			Volume (thousands of items)		
	1998	1999	2000	1998	1999	2000
Lily						
Total	6,933,077	7,161,272	6,073,308	176,159	189,878	193,889
Netherlands	6,822,757	6,983,635	5,760,525	174,273	186,597	188,495
New Zealand	88,149	142,130	248,034	1,516	2,654	3,861
Tulip						
Total	4,608,170	3,542,941	3,128,791	238,231	240,325	252,180
Netherlands	4,608,170	3,542,677	3,128,791	238,231	240,321	252,180
Others						
Total	3,904,733	3,055,955	2,819,116	212,310	203,253	204,107
Netherlands	2,959,576	2,292,963	1,917,184	179,916	170,747	171,944
U.S.A.	345,913	208,055	371,496	3,265	2,585	3,593
New Zealand	336,444	342,591	338,001	4,145	4,284	4,926
Thailand	50,040	51,952	50,978	1,108	1,241	1,209
China	15,383	27,809	25,196	2,345	8,171	7,645
Grown or with Flowers						
Total	41,544	58,537	42,154	1,515	2,212	3,400
Netherlands	10,402	10,164	14,465	121	321	1,075
China	29,195	31,856	22,543	1,388	1,684	2,159

Source: Ministry of Finance, Trade Statistics

Chart 10 . Major Import Source Nations (Cuttings and Slips without Roots)

Nation	Value (thousands of yen)			Volume (items)		
	1998	1999	2000	1998	1999	2000
Total	1,201,639	1,165,608	1,189,886	137,329,575	103,485,605	122,766,316
Costa Rica	217,085	179,241	167,691	3,879,578	4,801,416	4,657,130
Brazil	121,734	124,086	130,291	26,416,300	32,636,250	38,332,760
Honduras	159,846	140,916	128,943	1,239,584	1,353,404	1,195,015
Taiwan	120,725	112,082	95,662	556,876	1,281,991	853,222
Kenya	14,161	57,734	79,018	1,786,680	3,447,436	4,368,036
Netherlands	92,571	100,007	77,636	51,436,197	4,766,503	4,438,448
Israel	40,052	41,113	72,140	2,240,001	1,729,618	2,367,185
Denmark	89,392	68,763	65,423	3,954,521	3,168,763	5,583,707
South Africa	23,712	51,931	64,531	9,475,150	15,585,775	17,552,060
Germany	54,945	44,948	62,559	1,901,615	1,930,250	2,679,944
Guatemala	70,254	52,461	56,373	8,265,365	4,525,568	4,771,503
China	6,698	14,729	39,556	1,360,770	5,324,640	11,644,475
Sri Lanka	74,513	58,540	34,207	2,440,289	2,135,635	1,617,017

Source: Ministry of Finance, Trade Statistics

Chart 11 . Major Import Source Nations (Rhododendrons, Azaleas and Roses)

Commodity Nation	Value (thousands of yen)			Volume (items)		
	1998	1999	2000	1998	1999	2000
Rhododendrons and Azaleas (grafted or not)						
Total	24,443	19,053	21,851	277,460	261,606	301,629
Belgium	16,705	18,072	17,132	181,220	255,080	241,288
Netherlands	7,301	n.a.	4,719	95,840	n.a.	60,341
Roses (grafted or not, including their roots)						
Total	265,859	300,618	306,620	626,580	971,283	1,114,631
Netherlands	106,409	189,105	205,312	354,372	685,116	803,031
U.S.A.	40,799	27,878	31,526	73,211	40,244	40,091
Germany	17,359	16,348	23,374	39,096	45,055	63,026

Source: Ministry of Finance, Trade Statistics

Chart 12 . Major Import Source Nations (Cuttings and Slips with Roots)

Nation	Value (thousands of yen)			Volume (kilograms)		
	1998	1999	2000	1998	1999	2000
Total	6,568,221	6,346,080	5,980,918	5,913,541	6,388,650	6,446,331
Taiwan	1,448,323	1,632,720	1,712,292	2,500,464	2,715,682	2,837,249
Netherlands	2,297,944	2,067,978	1,649,716	1,018,731	953,955	873,478
Thailand	529,668	564,070	575,705	333,133	373,420	396,570
China	327,366	269,685	245,716	260,847	262,073	258,989
Singapore	307,315	246,926	223,837	99,401	105,598	108,627
U.S.A.	169,345	127,930	173,317	85,910	92,672	104,033
Turkey	154,189	163,365	160,877	113,981	122,220	127,291
Israel	202,339	185,255	158,963	73,075	62,590	59,519
Germany	160,289	167,956	155,048	72,651	59,789	61,741
Denmark	134,827	138,643	136,126	66,308	123,682	151,796
Costa Rica	108,521	97,280	104,176	203,313	259,707	362,728
Sri Lanka	134,775	103,523	101,353	304,889	222,726	105,457
Guatemala	119,715	108,652	95,685	450,041	647,855	527,016

Source: Ministry of Finance, Trade Statistics

Chart 13 . Major Import Source Nations (Flower Seeds)

Nation	Value (thousands of yen)			Volume (kilograms)		
	1998	1999	2000	1998	1999	2000
Total	1,941,873	2,426,573	2,063,513	660,357	592,516	655,667
Chile	611,777	834,943	645,486	4,624	22,807	8,327
China	285,956	317,144	407,561	338,198	200,392	346,575
Netherlands	325,575	425,051	397,279	59,169	41,512	33,964
U.S.A.	353,811	386,928	208,315	152,833	193,769	103,370

Source: Ministry of Finance, Trade Statistics

II . Import System and Related Regulations

A . The Plant Quarantine Law and Import Inspection

In order to protect domestic plants from pests and disease, all imported plants, whether brought by cargo, claimed as personal effects, or sent by post, must undergo inspection under the Plant Quarantine Law. This law also stipulates the attachment of the Plant Quarantine Certificate (issued by the governmental organization in the exporting country) upon application, and regulates which genus or family necessitates inspection within the exporting country where it is grown, as well as indicates seaports and airports where import inspection is performed. Imported plants are classified into three categories: prohibited imports, imports requiring inspection, and imports requiring no inspection.

1. Prohibited Imports and Imports Requiring Inspection

Prohibited imports

It is prohibited to import plants or soil containing pests and disease which are nonexistent in Japan and have universally been proven harmful.

Imports requiring inspection

Plants that do not fall in the prohibited import category, i.e. items that are proven free of pests and disease by inspection can be imported. Any plant (nursery plants, ornamental plants, cut flowers, bulbs and tubers, seeds, fruits, vegetables, grains, beans, woods, raw spices, raw medicinal herbs, etc.) requires import inspection.

Imports not requiring inspection

Highly processed plants such as lumber and tea.

2. Quarantine Stations

Inspection is conducted by plant quarantine officers of quarantine stations at major seaports and airports. The main stations are in Yokohama, Nagoya, Kobe, Moji and Naha, while branch stations are located at other designated seaports and airports.

3. Plant Quarantine Procedure

The procedure starts with a quarantine application at a plant quarantine station of a port. A plant quarantine certificate, issued in the exporting country, must be attached to the application form. Documents are studied and goods inspected by the officers. If no pests and disease are found, goods go to customs clearance and the importation process is complete. Items that fail inspection are earmarked for sterilization, destruction or return. (see Diagram 1.).

4. Plants Prohibited from Importation

It is prohibited to import certain plants, depending on the family or genus and the regions of pest and disease infestation. Most cases are raw fruits and underground parts of the plant (roots, tubers and others). Flower seeds in general are not prohibited from importation, while some bedding plants are. Thus, a query beforehand at a Quarantine Station is recommended.

5. Cultivation Quarantine of Bulbs and Tubers

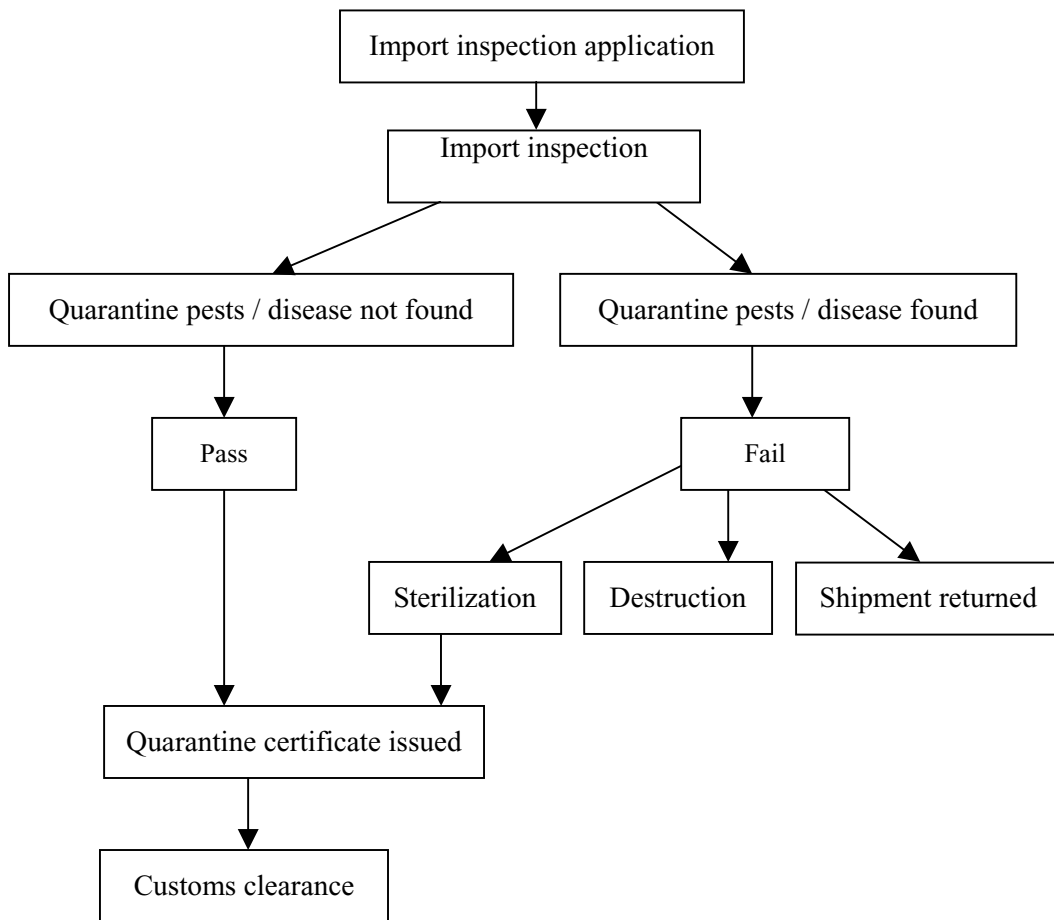
Because some plants require a certain amount of time for quarantine to rule out the possibility of virus contagions, it is necessary to inspect them while cultivating them in isolation at a farm. The items that fall into this category are mostly bulbs and tubers, such as lilies and tulips, and the process basically requires one growth season.

6. Alternative to Cultivation Quarantine

Cultivation quarantine after import can be avoided by going through the same level of inspection beforehand in the exporting country. This system was first introduced for tulip bulbs and tubers from Netherlands in 1988. It has since been applied to other bulbs and tubers in turn, and is presently used for 2,700 varieties of eight items (Tulips, Lilies, Hyacinthus, bulb formed irises, Crocus, Freesia, Gladiolus and Hippeastrum). In 1999, the system was newly instituted for New Zealand, and applied to some 40 varieties of two items (Lilies and Tulips) from that country.

In recent years, there has been a substantial increase in bulbs and tubers imports, while new varieties are constantly being produced. Therefore, as far as it is technically feasible, it is expected that this type of pre-import inspection will increase.

Diagram 1 .Import Quarantine Process



B . Import Custom Tariffs

Import Custom tariffs are shown in Chart 14.

Chart 14 . Import Custom Tariffs

HS No.	Item	Tariffs	
		WTO	Preferential
06.01	Bulbs & tubers (Bulbs, tubers, tuberous roots, corms, crowns & rhizomes), dormant, in growth or in flower; chicory plants and roots (except 12.12):		
0601.10	Bulbs & tubers (Bulbs, tubers, tuberous roots, corms, crowns & rhizomes), dormant: - Liliun spp. - Tulips - Other	No tax	
0601.20	Bulbs & tubers (Bulbs, tubers, tuberous roots, corms, crowns & rhizomes), in growth or in flower; chicory plants and roots	No tax	
06.02	Other live plants (roots included), cuttings and slips; mushroom spawn:		
0602.10	Unrooted cuttings and slips	No tax	
0602.30	Rhododendron spp., grafted or not	No tax	
0602.40	Roses, grafted or not	No tax	
0602.90	Other:	No tax	
12.09	Seeds, fruit and spores, of a kind used for sowing:		
1209.30	Seeds of herbaceous plants cultivated principally for their Flowers (Flower seeds)	No tax	

Source: Ministry of Finance, Customs Bureau

Chart 15 . Application and Registration of Foreign-bred Varieties (As of the end of 1999)

Region	Nation	Herbaceous Plants		Ornamental Trees and Shrubs		Total	
		Application	Registration	Application	Registration	Application	Registration
Asia and the Middle East	Israel	198	100	n.a.	n.a.	198	100
	Thailand	21	9	n.a.	n.a.	21	9
	China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	South Korea	1	n.a.	n.a.	n.a.	1	n.a.
	Taiwan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Europe	Netherlands	1,094	646	249	127	1,343	773
	Germany	310	171	273	146	583	317
	France	125	105	142	110	267	215
	Italy	153	85	41	27	194	112
	U.K..	104	50	74	25	178	75
	Denmark	85	44	53	43	138	87
	Ireland	6	n.a.	1	n.a.	7	n.a.
	Belgium	2	1	2	1	4	2
	Switzerland	4	1	n.a.	n.a.	4	1
	Spain	3	1	1		4	1

	Austria	1	n.a.	n.a.	n.a.	1	n.a.
	Sweden	n.a.	n.a.	1	1	1	1
	Norway	n.a.	n.a.	1	1	1	1
	Slovakia	1	n.a.	n.a.	n.a.	1	n.a.
	Poland	4	n.a.	n.a.	n.a.	4	n.a.
	Portugal	n.a.	n.a.	1	n.a.	1	n.a.
The Americas	U.S.A.	270	147	128	101	398	248
	Costa Rica	6	6	n.a.	n.a.	6	6
	Canada	n.a.	n.a.	2	2	2	2
	Brazil	1	n.a.	n.a.	n.a.	1	n.a.
Oceania	Australia	57	13	n.a.	n.a.	57	13
	New Zealand	8	2	36	22	44	24
Africa	South Africa	2	1	n.a.	n.a.	2	1
Total		2,456	1,382	1,005	606	3,461	1,988

Source: The Ministry of Agriculture, Forestry and Fisheries

Chart 16 . Application and Registration of Varieties under the Seeds and Seedlings Law, by Commodity (As of the end of 1999)

		Total	Individuals	Seed Companies	Food Companies	Japan Agricultural Co-operatives (JA), etc	Prefectural Governments	Central Government
Herbaceous Plants	Application numbers	7,639	2,211	4,478	547	139	237	27
	Registration numbers	4,577	1,439	2,649	223	90	158	18
Ornamental Trees and Shrubs	Application numbers	1,950	629	1,179	90	0	40	12
	Registration numbers	1,265	426	747	57	0	28	7
Total	Application numbers	9,589	2,840	5,657	637	139	277	39
	Registration numbers	5,842	1,865	3,396	280	90	186	25

Source: The Ministry of Agriculture, Forestry and Fisheries

C . The Seeds and Seedlings Law, and Registration of New Plant Varieties

The Seeds and Seedlings Law regulates plant variety registration, and is designed to protect newly bred varieties, as well as to encourage further variety breeding and promote fair distribution of seeds and nursery plants by regulating the labeling of specific items. Under this law, the Registration of New Plant Varieties was established in 1978. As a universal regulation to protect new plant varieties, there is the International Union for the Protection of New Varieties of Plants Treaty (the UPOV Treaty), which Japan ratified in 1982. Upon revision of this treaty in April 1998, the Japanese Seeds and Seedlings Law was greatly revised in May of the same year,

and was enacted in December, which led to further enforcement of breeders' rights. Chart 15 shows application and registration of foreign-bred varieties, and Chart 16 indicates application and registration by country at the end of 1999.

Inquiries about Registration of New Plants Varieties should be addressed to: Society for Techno-innovation of Agriculture, Forestry and Fisheries. (See Reference 3.)

. Distribution Trends and Business Practices

Japanese flower growers generally run small operations and purchase seeds and nursery plants from Japan Agricultural Co-operatives (JA) or seed companies, while many of the potted plant growers make their purchases not only from domestic vendors, but also from suppliers overseas. Many large-scale bedding plant growers also source their purchases of seeds and nursery plants overseas, because of the costliness of domestic products.

A . Types and Uses of Seeds and Nursery Plants Distributed to Growers

1 . Seeds

Since the plug seedlings system has become popular recently, high quality seeds have been required, even among growers. Most seeds are yearly plants, but due to the gardening boom, perennial plant seeds also are in high demand. Growers continue to purchase the yearly plant seeds since the varieties are well developed, while continued purchase of perennial plant seeds is unusual, as there is little variety, and the germination rate is low when the plants are in a dormant stage. This can be improved, however, by immediately sowing after the harvest.

2 . Plug Seedlings

Plug seedlings are distributed as young seedlings cultivated from seeds in honey-comb-like plug trays. This method is applied mainly for growing yearly plant seedlings, and has been rapidly spreading over the past ten years. In addition to yearly plants, rooted cuttings (cultivated from tiny cuttings) and acclimatized plants (grown by tissue culture) have increasingly come to be cultivated as plug seedlings as well.

3 . Stock Plants

Stock plants are distributed as mother plants, which are used to propagate other plants using cutting and sticking. Since registered varieties for which private propagation is prohibited have increased in number, fewer stock plants are being distributed. Nevertheless, unregistered varieties, in which private propagation is not prohibited, are grown from stock plants. They are either purchased from seed companies or, in many cases, from wholesale markets.

4 . Cuttings

Importation of unrooted *Chrysanthemum* cuttings produced overseas, by air, has increased since cultivation method of embedding them directly into flowerbeds or pots was established. Cuttings of *Dracaena* and *Ficus elastica* used to come from Hachijojima Island, then Okinawa, but most recently, importation from the Philippines is increasing. The leaves of the *Saintpaulia* and *Kalanchoe* also are imported as leaf cuttings for growers.

5 . Rooted Cuttings

Rooted cuttings are distributed to growers in perennial plants, trees and shrubs, and ornamental plants. Recently, many are provided as plug seedlings, while some are sold as nursery plants in soft plastic pots (7.5-9cm in diameter).

6 . Canes

Dracaena fragrans (mainly 'Massangeana') and *Yucca* are imported as canes. Growers cut log-like stems of plants into small pieces in order to grow them into salable commodities by cutting and sticking them into soil, and letting the roots and sprouts grow. In the case of such items as *Nolina* (*Beaucarnea*), *Pachira*, *Dracaena marginata*, after discarding most of the roots, the stem is cut into a log to prepare them for exportation. *Pachira* comes from Okinawa and Taiwan, while more than half of the others are from Costa Rica and Guatemala.

7 . Lifted Dormant Perennials

Lifted dormant perennials are perennial plants with thick roots that grow during their dormant phase. They are then distributed after removing the soil around the thick roots. Normally they go to market as divisions, but some are sold prior to division. After the soil has been removed from their roots, balloon flowers are sold as lifted and cleared perennial stocks.

Examples belonging to this group are: *Convallaria*, bearded irises, herbaceous peonies, and *Hosta*.

8 . Layerings

Layerings are young plants in which the roots are grown by layering. Although layerings from many varieties of woody ornamental plants used to be distributed, presently

almost all domestic products of this kind have disappeared. The only item still on the market is *Dracaena marginata* from Sri Lanka.

9 . Stocks Cultivated over a Year after Grafting, Sticking, or Seeding Down

Woody nursery plants, such as trees and shrubs, and fruit, after grafting, sticking or seeding down are cultivated more than a year to be large enough for distribution. Not many perennial plants require this method, but grafted nursery peony plants are one of the rare examples.

10 . In-vitro Plants

Mericlone first became popular in orchid propagation, and nearly all nursery stocks of *Cymbidium* and *Dendrobium phalaenopsis* hybrids are produced with mericlone. Nearly 100% of *Cymbidium*, for one, are produced domestically using mericlone, while most of the *D.phalaenopsis* hybrids are imported from Thailand. *Phalaenopsis* used to be provided as seeded down in-vitro plants, but lately tissue culture plants (many of which are stem tissue culture) are more commonly distributed. Acclimatized plants are being supplied in all these varieties.

11 . Acclimatized Plants through Aseptic Tissue Culture

Most acclimatized plants are distributed as plug seedlings in trays. While mericlone is used to propagate mother plants for the cultivation of carnation cuttings, acclimatized plants are distributed for the cultivation of *Limonium*, *Delphinium*, and *Gypsophila*. Tissue culture, which proved difficult in varieties such as *Cyclamen* and *Phalaenopsis*, has recently become available.

B . Wholesale Markets

According to research by the Ministry of Agriculture, Forestry and Fisheries, as of June 1999 there were 277 wholesale markets throughout Japan, 23 of which were Central Markets, 188 provincial, and 66 under-size markets.

The ratio of wholesale market dealings is roughly estimated as 90% in the cut flower area and 80% of potted plants, making up a combined 85% of the overall flower market. Compared to 75% in the fruit and vegetable market and 70% in the fish market (both are estimates by the industries themselves), the flower market is highly concentrated in its wholesale market

dealings.

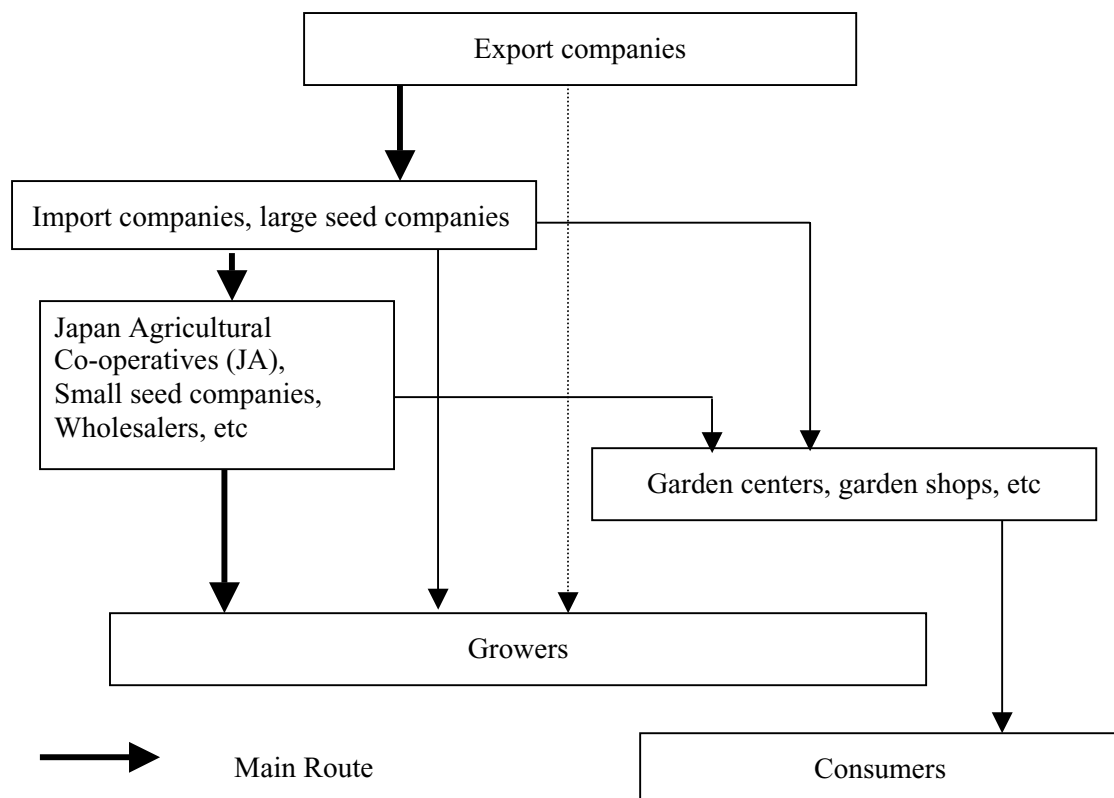
C . Distribution of Bedding Plants

It is estimated that wholesale dealings in bedding plants represents some 60% of the market, which is lower than that of cut flowers and potted plants. Bedding plants and potted plants are similar in nature, as are their production and marketing.

One distinction, however, is that potted plants are sold in hard containers for end-users to enjoy them as is, while containers for bedding plants are simple, soft plastic since consumers usually transplant them into flowerbeds or planters.

A good many bedding plants are dealt with outside the wholesale market because they are mostly yearly plants that show little disparity in quality due to the short cultivation period. Accordingly, compared to potted plants, they are much easier to grow. In other words, just about anyone can grow them, without expertise, regardless of growing facilities. Since consumers who buy bedding plants buy soil, fertilizer, pots and other garden goods at the same time, bedding plants are very attractive merchandise for home improvement centers and have become one of their key commodities.

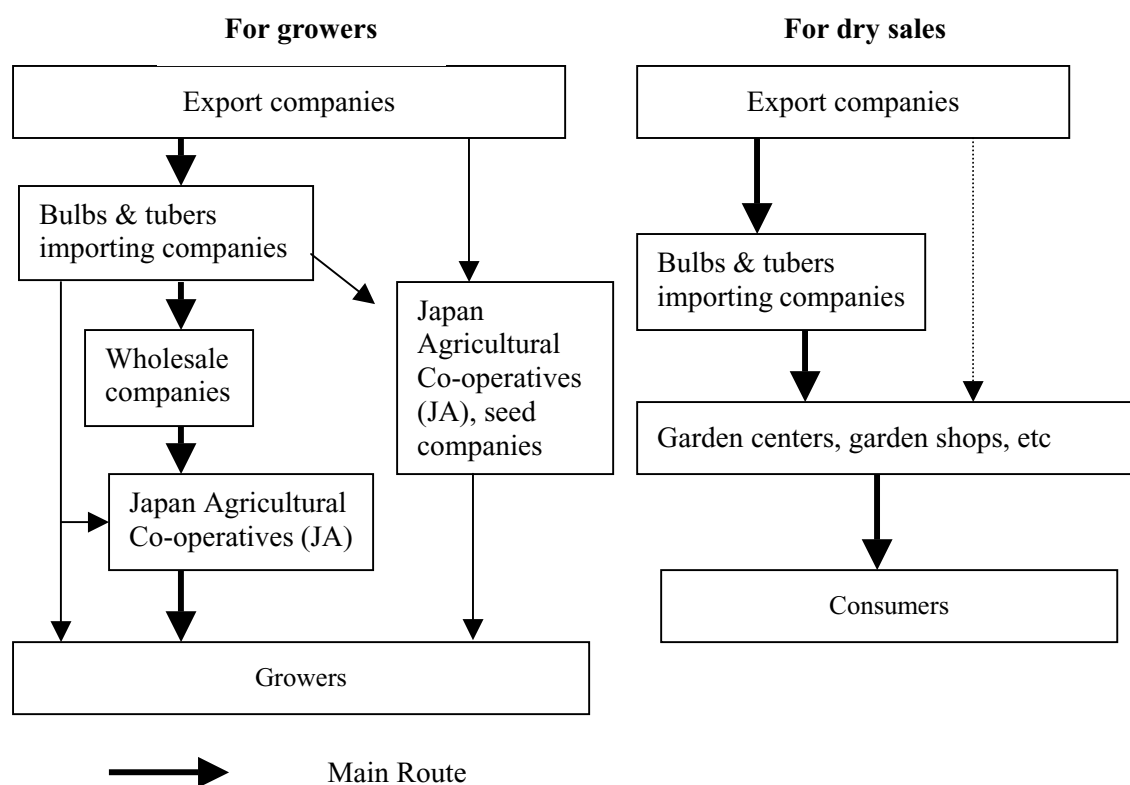
Diagram 2 . Distribution of Imported Seeds and Seedlings



D . Distribution of Seeds

Within Japan, large seed companies buy out the sales rights of varieties bred by private breeders, who then are commissioned to produce them. The varieties bred by seed companies themselves go to consignment production for both domestic and overseas clients. As for varieties bred overseas, some are imported by Japanese growers who buy sales right directly from the breeders, while others are imported through large foreign seed companies. Seeds are generally distributed from large seed companies to growers through wholesalers or small seed companies (see Diagram 2).

Diagram 3 . Distribution of Imported Bulbs and Tubers



E . Distribution of Bulbs and Tubers

The distribution routes for bulbs and tubers are more complicated. Diagram 3 shows

distribution routes of imported bulbs and tubers. These are classified into: “for use by growers” and “dry sales”¹, and these distribution routes differ. The total quantity is close to fifty-fifty for the two groups. The average price is higher for use by growers, and about 70% in value is sold to growers (cut flower farmers, for example). The remaining 30% is in “dry sales.”

F . Function of Wholesale Markets

Though there has been a gradual increase in large-scale retailers, most flowers are sold through small retailers, and the demand they impose for small orders of a wide variety of products can only be met by wholesale markets, making their role essential. The wholesale market includes wholesale companies and middle wholesalers. Only 30% of all incoming flowers (about 85% of all distribution) go through middle wholesalers. Most of the remaining 70% goes through wholesalers of potted plants outside the market, or by wholesalers directly to retailers, which typically include garden centers, home improvement centers and large-scale retailers.

¹ “Dry Sales” refers to bulbs and tubers sold to retailers (such as garden centers, home improvement centers, garden shops), which are mainly meant for sale to individual consumers.

. Consumption Trends

A . Consumption Trends: Potted plants, Seeds, Nursery Plants, Bulbs and Tubers

Chart 17 shows the wholesale volume and value of potted plants and bedding plants for 2000. Some 129,398 million yen worth of potted plants were sold, as well as 29,198 million yen worth of bedding plants. In potted plants, Orchids took the lead with a value of 30,093 million yen, followed by 21,779 million yen in ornamental plants, and 19,881 million yen in trees and shrubs.

Potted plants

Orchids came first (30,093 million yen) among potted flowers, followed by Begonia (2,606 million yen), Primula (2,345 million yen), carnations (1,886 million yen). In ornamental plants, Dracaena (typically *D. fragrans*) totaled 2,821 million yen, while, poinsettia (2,370 million yen) were at the top in trees and shrubs.

Bedding plants

There are no wholesale market statistics for bedding plants, so it is not possible to list value by item. Estimating from the Cropped Area and Supply Volume of Main Flower Crops (see Chart 1.), however, the pansy supply outnumbers all others, accounting for 209.6 million pots (24.5% of all bedding plant supply) in 2000.

This is followed by Petunia (43 million pots; 5.0% share), Tagetes (37.9 million pots; 4.4% share), and Salvia (31.2 million pots; 3.6% share).

Bulbs and Tubers

It is believed that nearly all bulbs and tubers are sold outside of wholesale markets. Accordingly, there isn't a good source of statistics.

Estimating from import statistics and cropped area information from the Agriculture Ministry, the most widely distributed are tulips, which total 350 million bulbs (250 million in imports, and 100 million from domestic production), a figure which includes flowerbed, cut flower and bulb culture figures. This is followed by lilies, which account for 230 million bulbs (imports of 190 million, 40 million from domestic production).

Chart 17 . Wholesale Volume and Value of Potted Plants and Bedding Plants (2000)

Commodity	Wholesale volume (thousands of pots or stems)	Wholesale value (thousands of yen)	Wholesale average price Yen/pot(each)
Potted plants total	374,210	129,398,396	346
Chrysanthemum	6,248	1,560,958	250
Cushion mum	1,000	270,054	270
Potted mum	2,145	560,711	261
Cyclamen	14,726	8,835,738	600
Primula	16,415	2,345,280	143
P. obconica	1,220	339,212	278
P. juliae	5,373	585,107	109
P. polyantha	5,990	749,567	125
Begonia	10,324	2,605,681	252
Elatior Begonia	5,029	1,908,184	379
Carnation	3,976	1,885,551	474
Cineraria	4,834	1,170,695	242
Geranium	6,685	1,295,093	194
Saintpaulia	2,931	521,360	178
Catharanthus	2,907	208,717	72
Gentiana	1,692	485,732	287
Cacti, Succulents	17,708	4,415,828	249
Kalanchoe	7,664	1,383,697	181
Aloe	1,302	286,632	220
Orchids	14,548	30,093,092	2,069
Cattleya	590	588,989	998
Cymbidium	3,641	8,132,415	2,234
Dendrobium	2,221	2,435,373	1,097
D.phalaenopsis hybrids	1,515	2,389,469	1,577
Phalaenopsis	3,642	13,356,840	3,667
Ornamental Plants	57,096	21,778,510	381
Spathiphyllum	1,437	789,875	550
Dieffenbackia	1,163	418,193	360
Pothos	4,757	1,674,794	352
Schefflera	585	533,747	912
Ferns	3,127	718,591	230
Dracaena	3,222	2,821,011	876
Ficus elastica	1,062	304,671	287
F. benjamina	896	915,373	1,022
Trees and Shrubs	51,746	19,881,025	384
Gardenia	667	169,306	254
Hydrangea	2,854	2,108,420	739
Pyracantha	217	122,379	564
Azalea	2,369	621,783	262
Leptospermum scoparium	356	104,629	294
Hibiscus	2,925	1,276,958	437
Poinsettia	7,225	2,369,620	328
Other potted plants	162,375	32,315,136	199
Bedding plants	574,750	29,198,234	51

Source: The Ministry of Agriculture, Forestry and Fisheries

B . Consumption Trends: Bedding Plants

The demand in seeds, nursery plants, bulbs and tubers has been primarily for the production of cut flowers, bedding plants, potted plants and woody nursery plants, so the volume reaching the retail market has traditionally been small. However, due to the recent gardening boom, many more nursery stocks of perennial plants have started being displayed in garden shops and garden centers.

Until the early 1990s, consumers mostly enjoyed flowers by placing them in a pot. Around 1993, however, as many gardening magazines, lifestyle magazines, and women's magazines started carrying fashionable gardening articles, the gardening boom exploded, and greatly changed the production structure, distribution trends and consumption configuration of flowers. The primary reason for this boom was the definitive change in the image of gardening, from a senior citizen hobby image to a smart, fashionable pastime. Until then, it was only common for consumers to buy flowers at a neighborhood flower shops and place them in pots. In the early 1990s, people started finding new enjoyment in original arrangement and decoration (arranged flower pots, for example), and this type of gardening started to become a general habit. Also, the shifting of the flower scene from indoors to outdoors affected the sales of potted flowers, orchids and ornamental plants, which used to be popular gift items and enjoyed only indoors, and greatly pushed up the sales of potted plants and nursery stocks (of annual plants, perennial plants, and trees and shrubs) which are enjoyed outdoors. The gardening boom peaked in around 1997, and is presently in hiatus.

According to survey questionnaires conducted in 1997 by the Osaka Agricultural Technology Center concerning the purchase locations of bedding plants and the reasons for the purchases, the most preferred shopping locations were garden shops (26.7%), garden centers (25.3%) and then home improvement centers (20.3%). In the past few years, large-scale retailers such as garden centers and home improvement centers have increased in both numbers and sales area. Presently, garden centers seem to be at the top, and it is estimated that garden centers and home improvement centers combined account for more than 50% of all such shops.

C . The Price of Seeds, Nursery Plants, Bulbs and Tubers

Reference 2 is an example of prices for growers imposed by Hakusan International Inc., a large Japanese seed and nursery stock import and distribution company. Generally, the numbers of units of seeds and nursery plants dealt with in Japan is small, and overseas companies may think they seem expensive. However, the lot sizes shown in the Hakusan price list are considered standard units in Japan.

. Advice on Market Access

A. Items That Suit the Japanese Climate

Japan belongs to the temperate zone; traveling from north to south, extreme climatic differences exist between the northernmost major island of Hokkaido and the southernmost major island of Okinawa. Even on Honshu, the largest island, where most growers and consumers are concentrated, it is hot and humid in summer, and cold and dry in winter. Compared to Europe, for example, this is not the easiest climate in which to grow flowers. Items that grow well in other countries do not always garner the same results in Japan. It is essential to conduct a sufficient survey on growth suitability when planning the export of new items to Japan.

B . High Added Value Items

Japanese growers want seeds and nursery stocks with high added value. Stocks after flower bud differentiation and stocks that have undergone low temperature treatment for vernalization have a good yield and high productivity. Foreign enterprises planning to export to Japan should consider such items.

C . Distinctive Items

Japan has a number of seed companies and breeding companies of worldwide repute. In order to compete with these companies and sell foreign products in Japan, it is essential to specialize in distinctive items, such as uncommon varieties not yet available locally, or new varieties resistant to pests and disease. Consequently, chance varieties born through breeding are one type of item to promote in the Japanese market.

D . Commissioned Production

The high cost of doing business in Japan is universally known. Production and breeding costs of seeds and nursery plants are no exception. For this reason, many Japanese companies entrust their production to overseas companies, and are always in search of foreign companies with good reputations in this field. Therefore, it is highly recommended to form partnerships with such Japanese companies and handle commissioned production as a means of entering the Japanese market.

E . Participation in Fairs and Exhibitions

In order to get the latest information on the industry, Japanese growers often visit exhibitions and fairs held not only in Japan but also overseas. Foreign enterprises planning to enter the Japanese market should participate in such events to garner more contacts with the visiting Japanese companies and individuals in the flower industry.

F . Contacting with Agricultural Organizations

Japan has many agricultural organizations, among which the National Federation of Agricultural Co-operative Association (*ZEN-NOH*) and the Japan Agriculture Corporations Association are two nationwide organizations that have detailed knowledge of the industry in every region. While getting in touch with individual growers is difficult, it is relatively easy for foreign enterprises to make contact with the headquarters of those organizations, which is a valuable way to gain access to the Japanese market (see Reference 3).

G . Partnerships with Mass Sales Stores

Recently, consumers have been buying more seeds and nursery plants at mass sales stores, such as garden centers and home improvement centers. Some of these stores import their goods directly from overseas companies. Since many of them operate chain stores nationwide, it is not too difficult to secure financially rewarding business dealings with them. This venue also provides a good opportunity to become familiar with the needs of average Japanese consumers, and incorporate their opinions and suggestions in order to select more appropriate items to offer. This is one of the more promising ways of getting into the Japanese market.

Reference 1 . Quarantine Inspections of Imported Main Flower Genera or Families (Bulbs and Tubers, Seeds and Nursery Plants), at Nationwide Plant Quarantine Stations

Bulbs and Tubers				
Genera or Families Common name (scientific name)	Nation	Inspection (case)		
		1997	1998	1999
Tulip (Tulipa)	Netherlands	220,277,220	243,426,778	246,414,706
	Total	220,278,652	243,426,838	246,420,706
Lily (Lilium)	Netherlands	195,538,950	160,540,442	185,258,478
	New Zealand	4,466	261,530	1,476,699
	France	n.a.	n.a.	200,200
	Chile	3,679	4,650	158,224
	Taiwan	59,010	63,823	38,813
	Total	195,613,113	160,870,528	187,135,585
Muscari (Muscari)	Netherlands	20,567,187	24,294,183	27,577,129
	Total	20,567,387	24,294,183	27,577,129
Iris (Iris)	Netherlands	18,847,443	21,586,730	22,765,501
	Total	18,964,743	21,611,120	22,768,585
Crocus (Crocus)	Netherlands	21,774,521	22,843,092	21,636,777
	China	210,000	50,000	200,000
	Total	21,984,661	22,893,102	21,836,777
Gladiolus (Gladiolus)	Netherlands	19,096,596	20,707,352	15,831,132
	Israel	313,000	637,000	371,520
	Total	19,409,596	21,424,352	16,202,652
Narcissus (Narcissus)	Netherlands	9,738,014	9,240,570	10,292,068
	Israel	n.a.	n.a.	100,200
	Total	9,788,936	9,240,678	10,392,278
Hyacinthes Oriental (Hyacinthus Orientalis)	Netherlands	7,613,618	4,848,363	5,903,180
	Total	7,613,618	4,848,375	5,903,180
Hyacinthes (Hyacinthus)	Netherlands	2,220,644	5,786,535	5,359,192
	Total	2,448,397	5,786,541	5,359,192
Christmas-bell (Sandersonia)	New Zealand	5,971,166	4,936,301	5,198,555
	Netherlands	177,000	147,140	74,483
	Total	6,148,166	5,160,101	5,331,088
Woody Nursery Plants				
Genera or Families Common name (scientific name)	Nation	Inspection (Case)		
		1997	1998	1999
Dracaena (Dracaena)	Costa Rica	6,237,983	3,448,774	3,707,625
	Sri Lanka	4,912,787	4,704,975	4,807,280
	Taiwan	216,216	688,448	2,086,964
	Philippines	586,520	522,929	1,420,708
	Thailand	398,450	903,119	1,117,907
	Total	13,199,223	10,855,530	13,584,822
Ivy (Hedera)	Guatemala	11,015,101	6,915,500	3,160,000
	Netherlands	2,441,868	3,064,335	2,171,941
	Denmark	475,529	2,577,073	1,133,724
	Vietnam	n.a.	520,000	757,000

	Total	13,938,289	13,384,617	7,445,886
Fig (Ficus)	Netherlands	1,191,686	2,596,863	2,540,007
	Philippines	35	366,637	418,270
	Taiwan	30,825	61,515	60,280
	Thailand	4,850	72	38,425
	Total	1,366,125	3,086,629	3,076,970
Parlor palm (Chamaedorea)	Netherlands	3,469,241	4,186,774	2,408,040
	Total	3,473,708	4,203,878	2,416,622
Pachira (Pachira)	Taiwan	2,304,203	2,854,362	2,119,840
	Philippines	35,189	18,007	29,538
	Total	2,401,625	2,930,183	2,171,369
Yucca (Yucca)	Honduras	1,888,327	1,285,805	1,371,174
	Guatemala	450,778	362,816	360,604
	Total	2,504,031	1,650,557	1,736,431
Rose (Rosa)	Netherlands	359,853	330,711	696,526
	Denmark	51,480	18,449	83,033
	U.K..	78,361	64,589	52,508
	U.S.A.	45,638	59,978	41,140
	Canada	1,200	26,064	35,883
	Total	619,986	629,910	1,002,940
Palm (Palmae)	Netherlands	118,200	74,830	449,015
	Australia	67,000	24,394	63,800
	Malaysia	173,352	155,980	48,200
	Total	503,129	437,310	603,175
Croton (Codiaeum)	Sri Lanka	246,112	264,342	288,428
	Philippines	n.a.	36,000	299,317
	Total	247,462	309,043	597,063
Cypresses (Chamascypris)	Netherlands	312,287	463,607	487,978
	Denmark	n.a.	544	20,046
	Total	312,743	467,460	516,337
Herbaceous Nursery Plants (Cuttings, roots and underground stems included)				
Genera or Families Common name (scientific name)	Nation	Inspection (Case)		
		1997	1998	1999
Chrysanthemum (Chrysanthemum)	Brazil	18,050,525	26,702,300	33,165,675
	Indonesia	12,013,317	22,796,200	22,637,730
	South Africa	5,814,150	9,597,900	16,017,850
	China	637,850	2,853,220	6,705,400
	Kenya	1,927,000	1,644,800	1,611,095
Total	41,836,481	65,973,552	82,173,522	
Dianthus (Dianthus)	Turkey	2,134,380	6,000,970	9,119,435
	Netherlands	10,190,315	9,109,225	8,672,402
	Germany	4,888,290	4,624,425	5,310,881
	Spain	2,577,626	2,264,474	2,436,692
	Israel	4,093,566	2,974,587	2,155,561
	Total	27,597,975	26,224,968	30,020,562
Carnation (Dianthus caryophyllus)	Israel	673,205	2,612,299	3,098,481
	Netherlands	470,271	2,864,328	2,378,462

	Spain	437,470	518,799	1,221,950
	Turkey	2,036,160	415,750	731,500
	Kenya	n.a.	n.a.	564,850
	Total	4,370,505	7,715,460	8,954,919
Dendrobium (Dendrobium)	Thailand	7,193,930	5,969,406	6,058,730
	Taiwan	36,960	60,878	16,148
	Total	7,260,723	6,096,931	6,098,827
Begonia (Begonia)	Netherlands	1,997,675	1,596,101	2,788,656
	Denmark	2,259,102	2,241,961	2,229,413
	Total	4,330,056	3,851,791	5,029,222
Phalaenopsis (Phalaenopsis)	Taiwan	2,951,281	2,812,526	3,305,621
	China	604,929	393,182	863,225
	Netherlands	121,888	251,340	250,034
	Thailand	273,913	21,844	124,454
	Indonesia	174,419	65,167	109,855
	Total	4,141,385	3,548,236	4,656,997
Impatiens (Impatiens)	Costa Rica	464,625	687,225	2,421,728
	Israel	269,641	319,465	560,240
	Netherlands	91,231	109,597	322,160
	Total	844,191	1,140,769	3,522,247
Lily family (Liliaceae)	Netherlands	697,837	961,504	1,243,194
	China	12,160	185,460	286,510
	Sri Lanka	n.a.	4,049	93,411
	U.S.A.	53,687	14,755	89,196
	New Zealand	3,680	87,270	71,861
	Total	888,852	1,311,215	1,869,934
Aster family (Asteraceae)	Costa Rica	189,420	533,100	506,400
	Netherlands	693,534	549,724	498,621
	Denmark	160,356	57,557	225,926
	Germany	10,300	101,155	144,508
	U.S.A.	1,858	6,650	78,359
	Total	1,088,097	1,580,660	1,573,501
Transvaal daisy (Garbera)	Netherlands	1,042,436	972,677	1,370,883
	Denmark	478	123,096	55,116
	Total	1,091,318	1,143,625	1,468,470
Tillandsia (Tillandsia)	Guatemala	802,780	1,196,650	1,076,777
	Philippines	27,644	92,550	102,910
	U.S.A.	44,424	20,880	26,668
	Total	974,693	1,325,837	1,256,095
Saintpaulia (Saintpaulia)	Spain	578,400	740,800	690,300
	Netherlands	380,194	197,049	284,992
	Zimbabwe	n.a.	n.a.	226,180
	Total	962,237	979,343	1,204,316
Spathiphyllum (Spathiphyllum)	Netherlands	365,300	527,876	739,478
	China		17,000	321,100
	Total	456,544	632,056	1,149,823
Pothos (Scindapsus)	Sri Lanka	1,628,681	1,184,004	1,002,600
	Thailand	n.a.	n.a.	54,700
	Costa Rica	n.a.	n.a.	50,000

	Total	1,665,781	1,372,504	1,109,300
Campion (Caryophyllaceae)	Israel	663,889	1,285,720	995,040
	Netherlands	14,423	19,517	38,326
	Total	706,108	1,343,779	1,039,726
Aroid (Araceae)	Guatemala	333,500	448,000	546,500
	Taiwan	87,351	54,830	157,968
	Malaysia	94,000	67,850	93,570
	Netherlands	44,479	43,527	72,802
	Thailand	21,110	37,270	62,015
	Total	762,967	782,206	1,016,049
Flower seeds				
Genera and Families Common name (Scientific name)	Nation	Inspection (KG)		
		1997	1998	1999
Sunflower (Helianthus annuus)	U.S.A.	6,607	15,879	18,302
	Australia	13,500	6	12,776
	Chile	7,894	13,121	12,450
	Taiwan	8,092	3,574	2,603
	China	1,325	326	2,373
	Total	41,870	42,042	54,160
Cosmos (Cosmos)	China	8,639	16,013	13,525
	Netherlands	3,631	13,454	12,254
	Thailand	3,887	2,267	7,020
	Chile	2,411	28	6,448
	Taiwan	2,716	2,571	6,025
	Total	27,925	45,090	50,607
Chrysanthemum (Chrysanthemum)	Denmark	6,456	355	35,202
	China	747	480	663
	U.S.A.	240	368	281
	Netherlands	334	187	276
	Total	8,317	7,107	36,661
Sweet pea (Lathyrus odoratus)	U.S.A.	2,440	1,026	4,374
	Netherlands	40	293	1,381
	Total	2,510	1,502	5,991
Zinnia (Zinnia)	Chile	779	482	1,333
	Italy	525	395	680
	France	811	773	331
	Netherlands	304	492	198
	U.S.A.	1,112	144	134
	Total	5,260	2,951	4,093
Dianthus (Dianthus)	Chile	n.a.	n.a.	2,261
	Taiwan	n.a.	173	681
	France	91	343	408
	Netherlands	393	431	330
	Total	1,541	1,449	3,694
Marigold (Tagetes)	Netherlands	547	981	1,909
	U.S.A.	626	395	689
	Taiwan	499	149	326

	France	308	249	184
	Total	2,293	1,851	3,252
Tickseed (Coreopsis)	China	1,330	4,700	2,050
	Netherlands	380	675	576
	U.S.A.	625	19	156
	India	40	70	150
	Total	2,379	5,464	2,933
Violet (Viola)	Chile	801	524	1,622
	Netherlands	137	132	586
	China	197	55	122
	Total	2,335	830	2,425
Garden Pansy (Viola x wittrockiana)	China	519	677	1,119
	Chile	717	881	508
	Netherlands	11	71	128
	Total	1,521	1,731	1,842
Sage (Salvia)	Taiwan	323	462	916
	Netherlands	66	148	375
	U.K..	130	78	179
	Italy	117	163	100
	Total	930	1,000	1,756
Gypsophila (Gypsophila)	France	804	1,573	757
	Netherlands	791	489	454
	Denmark	911	361	421
	Total	3,305	2,542	1,702
Pot Marigold (Calendula)	Taiwan	431	194	534
	Netherlands	174	242	364
	Chile	804	n.a.	312
	Denmark	912	573	250
	China	18	824	167
	Total	2,720	1,915	1,631

Source: The Ministry of Agriculture, Forestry and Fisheries, Yokohama Plant Quarantine Station

Reference 2 . A Price List for Growers of Seeds and Nursery Plants

Commodity		Minimum Order	Contents	Price (Yen)	Note
Name	Series				
Seeds					
Impatiens	F1 Impulse	2 packs	1,000 pieces/pack	2,200/pack	
Gerbera	Harmony	1 pack	2,000 pieces/pack	45,000/pack	
Carnation	F1 Mini Spice	3 packs	1,000 pieces/pack	8,630/pack	
Snapdragon	F1 Montego	1 pack	1,000 pieces/pack	1,050/pack	
Platycodon	Astra	2 packs	1,000 pieces/pack	5,200/pack	
Salvia	Cirrus farinacea	1 pack	1,000 pieces/pack	1,080/pack	
Cyclamen	F1 Pannevis	1 pack	1,000 pieces/pack	21,960/pack	
Sweet pea	Cupid	1 pack	About 1,200 pieces/pack	2,200/pack	
Geranium	F 1 Video	1 pack	1,000 pieces/pack	15,400/pack	

Dahlia	Harlequin	1 pack	About 1,200 pieces/pack	2,400/pack	
Pansy	F1Fama	2 packs	1,000 pieces/pack	2,860/pack	
Viola	F1Sorbet	2 packs	1,000 pieces/pack	2,570/pack	
Primula juliana hyb.	Ruffle Bell	3 packs	400-500 pieces/pack	4,400/pack	
Begonia Semperflorens	F1 Ambassador	5 packs	1,000 pieces/pack	800/pack	
Petunia multiflora	F1Hurrah	5 packs	1,000 pieces/pack	1,070/pack	
French Marigold	Safari	5 packs	About 4,000 pieces/pack	1,480/pack	
Nursery Plants					
Alstroemeria	Alamo	1,080 pieces	360 pieces	220 Yen/piece	#72plugs
Anthurium	Robino	1 case	600 sets/case	215/set	2PP set
Impatiens	Seashell	1 item, 1 case	4 trays/case	80 Yen/piece	#72plugs
Elatior Begonia	Jurttta	1 item, 1 case	1,000 piece	47 Yen/piece	URC
Campanula	Blue Wonder	1 case	5 trays/case	60 Yen/piece	#200plugs
Geranium	Eurostar	1 item, 1case	150 pieces/case	100 Yen/piece	#50plugs
New Guinea Impatiens	Tropical	1 case	4 trays/case	65-80 Yen/piece	Seasonally flexible prices #72plugs
Hydrangea	Cityline	1,000 piece	1,000 piece	120 Yen/piece	URC
Begonia semperflorens	Doublet	Each item, 1case	4 trays/case	100 Yen/piece	#72plugs
Poinsettia	Petarstar	Each item, 1case	200 pieces/case	40-45 Yen/piece	URC
Chrysanthemum	Yodermum	Less than 50,000 pieces a year More than 50,000 pieces a year	1,000 pieces	22 Yen/piece 20 Yen/piece	URC
Lavender	Kew Red	1 case	4 Trays/case	68 Yen/piece	#200plugs

Note: Prices are taken from price lists (May 2001 – April 2002) for growers by Hakusan International Co.

Reference 3 . Related Organizations

Organization	Address	Phone Fax	URL
Seeds and Seedlings Division, Agricultural Production Bureau, The Ministry of Agriculture, Forestry and Fisheries of Japan	1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950	03-3591-0524 03-3502-5301	http://www.maff.go.jp/ eindex.html
Plant and Protection Division, Agricultural Production Bureau, The Ministry of Agriculture, Forestry and Fisheries of Japan	1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950	03-3593-6496 03-3502-0889	http://www.maff.go.jp/ eindex.html
Fruit and Flower Division, Agricultural Production Bureau, The Ministry of Agriculture, Forestry and Fisheries of Japan	1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950	03-3501-3964 03-3591-6640	http://www.maff.go.jp/ eindex.html
Japan Seed Trade Association	2-26-11 Hongo, Bunkyo-ku, Tokyo 113-0033	03-3811-2654 03-3818-6039	
Japan Flower Promotion Center	Yamaichi Bldg., 3-6-17 Higashi-Nihonbashi, Chuo-ku, Tokyo 103-0001	03-3664-8739 03-3664-8743	www.jfpc.or.jp (Japanese only)
The Japan Home Garden Association	Hori Bldg., Nihonbashi Kodenmachi, Chuo-ku, Tokyo 103-0001	03-3249-0681 03-3249-0683	www.kateiengei.or.jp (Japanese only)
Society for Techno-innovation of Agriculture, Forestry and Fisheries (STAFF)	1-9-13 Akasaka, Minato-ku, Tokyo 107-0052	03-3586-8644 03-3586-8277	web.staff.or.jp (Japanese only)
National Federation of Agricultural Co-operative Association (<i>ZEN-NOH</i>)	1-8-3 Otemachi, Chiyoda-ku, Tokyo 100-004	03-3245-7111 03-3245-7442	http://www.zennoh.or.jp/ ENGLISH/ALACALTE/ 1998-1999/base.html
Japan Agriculture Corporations Association	Yoshi Kaikan 1-9-4 Yurakucho, Chiyoda-ku, Tokyo 100-0006	03-5220-4551 03-5220-4550	http://www.nca.or.jp/ hojin/index.html (Japanese only)

Reference 4 . Importing Companies of Seeds, Nursery Plants, Bulbs and Tubers

Companies	Address	Phone Fax	URL
Hakusan Trading Co., Ltd	631 Sunago, Nagakude-cho, Aichi-gun, Aichi 480-1112	0561-62-8466 0561-62-8519	http://www.hakusan1.co.jp/english/index2.html
Tact Co., Ltd.	65 Kanowari, Jinno Shinden-cho, Toyohashi, Aichi 441-8077	0532-31-9476 0532-32-6620	http://www.sala.or.jp/~tact/tact_eng.html
Yamaki Noen Co., Ltd.	1280-1 Machihara, Horinouchi, Kitauonuma-gun, Niigata 949-7422	02579-4-2455 02579-4-4168	
Yamada Nurseries, Inc	1-12-26 Takasu, Nishi-ku, Hiroshima 733-0871	082-271-1282 082-271-1298	www.yamaen.co.jp
Takii & Company Ltd.	180 Umekoji-Inokuma, Shimogyo-ku, Kyoto, 600-8686	075-365-0123 075-365-0150	http://www.takii.co.jp/english/english.html
Sakata Seed Cooperation	2-7-1 Nakamachidai, Tsuzuki-ku, Yokohama, Kanagawa 224-0041	045-945-8804 045-945-8805	http://www.sakataseed.co.jp/english/company_index.html

Reference 5 . Seed Companies, Breeding Companies

Companie	Address	Phone Fax	URL
Takii & Company Ltd.	180 Umekoji-Inokuma, Shimogyo-ku, Kyoto 600-8686	075-365-0123 075-365-0150	
Sakata Seed Cooperation	2-7-1 Nakamachidai, Tsuzuki-ku, Yokohama, Kanagawa 224-0041	045-945-8804 045-945-8805	
Kaneko Seeds Co., Ltd.	1-50-12 Furuichi-cho, Maebashi, Gumma 371-0844	0272-51-1611 0272-53-5981	www.kanekoseeds.co.jp (Japanese only)
Miyoshi & Co., Ltd.	2-1-8 Hachimanyama, Setagaya-ku, Tokyo 156-0056	03-3302-4755 03-3306-5344	www.miyosi.co.jp
Daiichi Seed Co., Ltd.	Aoyama Flower Bldg., 1-1-4 Shibuya-ku, Tokyo 150-0002	03-5467-8895 03-5467-8948	www.daiichi-engei.co.jp (Japanese only)
Yokohama Ueki Co., Ltd.	15 Karasawa, Minami-ku, Yokohama 232-0034	045-262-7417 045-243-1701	www.yokohamaueki.co.jp (Japanese only)
Tsunoda Nursery Co., Ltd.	14-1 Hashigami, Hagiwaracho, Ichinomiya, Aichi 491-0353	0586-69-6351 0586-68-0901	www.garden-goods.com/~tsunoda (Japanese only)
Jardin Shinohara Co., Ltd.	470-4 Takefukuro, Inzai, Chiba 270-1325	0476-42-5858 0476-42-3114	

H.A.I. Flower Corporation	337 Hatsudo, Hanyu, Saitama 348-0063	048-565-3271 048-565-3671	www.haiflower.or.jp (Japanese only)
Dia Engei, Inc.	Kakinuma Bldg 1-19-13, Uchikanda, Chiyoda-ku, Tokyo 101-0047	03-5283-2121 03-5283-2123	www.dia-engei.co.jp (Japanese only)
Verdy Co., Ltd.	197 Kikawacho, Toyohashi, Aichi 441-8002	0532-32-3352 0532-32-4061	
Fukukaen Nursery & Bulb Co., Ltd.	2-9-29 Matsubara, Naka-ku, Nagoya, Aichi 460-0017	052-321-5541 052-331-1009	
Yamamoto Farm Co., Ltd.	191 Ogaisu, Kuwana, Mie 511-0848	0594-21-1388 0594-22-9439	

Reference 6 . Wholesale Companies and Organizations

Companies	Address	Phone Fax	URL
Japan Flower Wholesale Market Association	Fukuroku Bldgs, 2-7 Kandatsukasa-cho, Chiyoda-ku, Tokyo 101-0048	03-3291-6987 03-3291-8570	
Ota Floriculture Auction Co., Ltd.	2-2-1 Tokai, Ota-ku, Tokyo 143-0001	03-3799-5000 03-3799-1871	http://www.otakaki.co.jp/english_top.htm
Flower Auction Japan Inc.	2-2-1 Tokai, Ota-ku, Tokyo 143-0001	03-3799-5440 03-3799-5521	http://www.faj.co.jp/english/hpe.htm
Toyoake Kaki Co., Ltd.	121 Sanbongi, Ano-cho, Toyoake, Aichi 470-1411	0562-96-1187 0562-96-1188	http://www.toyoake.or.jp/ (Japanese only)
Osaka Kaki Co., Ltd.	2-7-70 Omiya, Ibarada, Tsurumi-ku, Osaka 538-0031	06-6914-2300 06-6914-2070	

Reference7 . Major Flower Shows and Exhibitions

<p>Japan Flower and Garden Show Venue: Tokyo Big Sight Convened: Annually in March. Organized by: The Japan Home Garden Association 17-12 Kodenma-cho, Nihonbashi, Chuo-ku, Tokyo 103-0001 Phone 03-3249-0681, Fax 03-3249-0683, www.kateiengei.or.jp (Japanese only)</p>
<p>International Rose & Garden Show Venue: Seibu Dome (Saitama) Convened: Annually in May. Organized by: International Rose & Garden Show Bureau Imazato Bldg., 1-19-12 Tsukiji, Chuo-ku, Tokyo 104-0045 Phone 03-5551-9542, Fax 03-5551-9495 www.bara21.org/ (Japanese only)</p>

Japan Flower Festival

Venue: In prefectures wishing to host such an event.

Convened: Annually in the spring or fall.

Organized by: Japan Flower Festival Executive Committee

(Japan Flower Promotion Center and others)

Yamaichi Bldg., 3-6-17 Higashi-Nihonbashi, Chuo-ku, Tokyo 103-0001

Phone 03-3664-8739, Fax 03-3664-8743

www.jfpc.or.jp (Japanese only)

Japan Gardening Fair

Venue: Pacifico Yokohama (Kanagawa)

Convened: Annually in autumn.

Organized by: Japan Gardening Fair Bureau

Akasaka-Hikota Bldg., 2-8-16 Akasaka, Minato-ku, Tokyo 107-0052

Phone 03-3588-0777, Fax 03-3588-0790

www.gardeningfair.com (Japanese only)

IHE (Japan Greenhouse Horticulture) Japan

Venue: Makuhari Messe (Chiba)

Convened: April of every other year.

Organized by: Japan Greenhouse Horticulture Association

Japanese Society of Environmental Control in Biology

Japan Management Association

3-1-22 Shibakoen, Minato-ku, Tokyo 105-8852

Phone 03-3434-1988, Fax 03-3434-8076

www.jma.or.jp/CONVENTION/ihe/2002/en/index.htm