

4. Imports of Flowers and Plants

- Cut flowers account for the vast majority of imported flowers and plants. Cut flowers import has been on an increasing trend since 1985 when the custom duty was abolished.
- Major import partner countries include Colombia, Malaysia and China.
- Looking at items, imports of carnations and chrysanthemums are increasing remarkably due to improved vase life.

Changes in the domestic shipment volume and import volume of cut flowers

(0.1 billion units)

	1985	1990	1995	2000	2005	2013	2014	2015
Domestic shipment volume	42.5	53.2	55.8	55.9	50.2	40.7	39.5	38.7
Export volume	1.2	3.6	6.6	8.3	10.4	13.5	12.7	12.7
Total	43.7	56.7	62.4	64.2	60.7	54.2	52.2	51.4
Proportion of imported cut flowers (in volume terms)	3%	6%	11%	13%	17%	25%	24%	25%

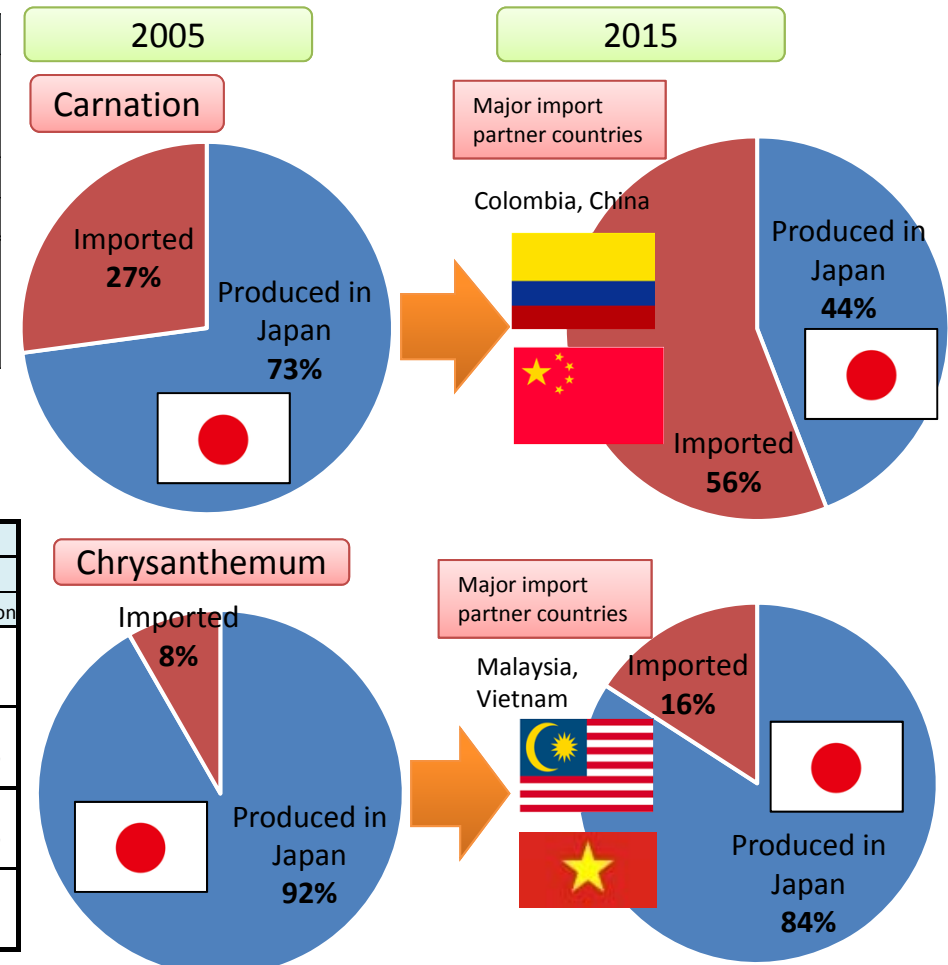
Source: "Statistics on Flower Production and Shipment" and "Statistics on Plant Quarantine," Ministry of Agriculture, Forestry and Fisheries

Import ratio and import volume by major cut flower item (2015)

Item	Import ratio	Import volume (0.1 billion units)	Major import partner countries					
			1st	Proportion	2nd	Proportion	3rd	Proportion
Carnation	56%	3.42	Colombia	65%	China	21%	Ecuador	9%
Chrysanthemum	16%	2.98	Malaysia	62%	Vietnam	19%	China	15%
Rose	18%	0.61	Kenya	38%	India	21%	Colombia	11%
Lily	5%	0.07	South Korea	92%	Vietnam	6%	Ecuador	1%

Source: "Statistics on Flower Production and Shipment" and "Statistics on Plant Quarantine," Ministry of Agriculture, Forestry and Fisheries

Changes in the import ratio of cut flowers (carnation and chrysanthemum)



Source: "Statistics on Flower Production and Shipment" and "Statistics on Plant Quarantine," Ministry of Agriculture, Forestry and Fisheries

Comparison of Carnation Production in Japan and Colombia ①

- While there is no significant difference in annual average temperature between Japan and Colombia, the monthly temperatures are virtually constant throughout a year in Colombia. For this reason, heating facilities are unnecessary. ⇒ Facility expenses and heating and lighting expenses (fuel expense, in particular) are not required.
- Since there are no prominent seasonal changes in Colombia, seasonal shifting in production areas does not occur and products are stably supplied throughout the year. In addition, there is a big temperature difference within a day, which is ideal for the color and growth of carnations.
- Flower production in Colombia started as farm and auxiliary facility development by some wealthy people worked in harmony with guidance on crop diversion by the US and the Colombian government's domestic security measures.

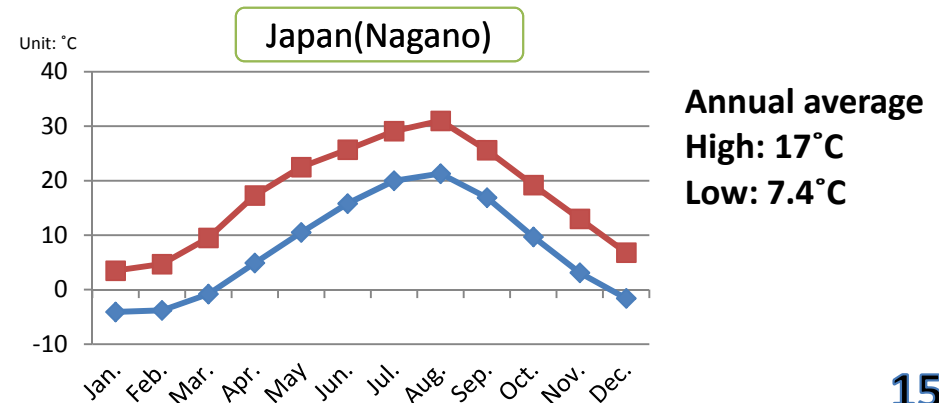
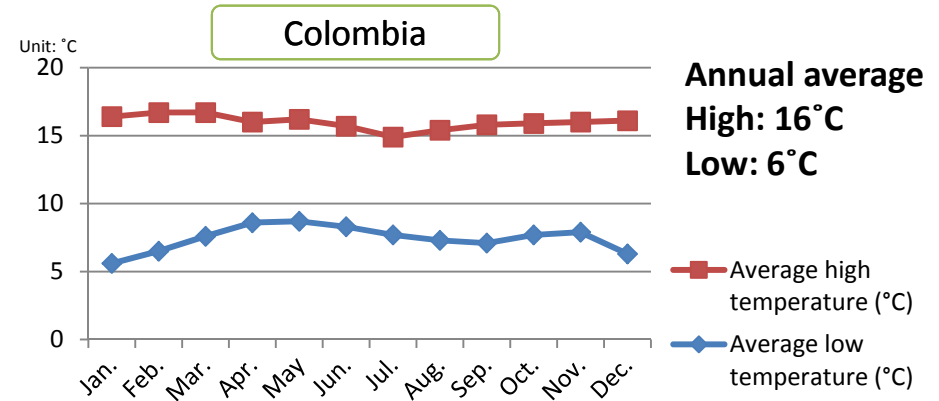
Comparison of the overview of carnation production

Japan		Colombia
318 ha (2015)	Area	1,066 ha (2015)
12.6 billion yen (2015)	Production value	26.1 billion yen (2015)* (Export value to Japan: 7.8 billion yen)
High: 17°C Low: 7.4°C	Annual average temperature*	High: 16°C Low: 6°C
Approx. 1,500 m	Altitude*	2,600 m

Source: "Statistics on Production and Shipment of Flowers" , "Statistics on Agricultural Production Income" (Statistics Department); International Statistics Flowers and Plants 2015(AIPH)

* Calculated at 136 yen to a euro, Figures for annual average temperature and altitude are those in the vicinity of production areas in Nagano Prefecture and Bogotá.

Comparison of average temperature



Comparison of Carnation Production in Japan and Colombia ②

- The average cost per unit in Colombia is half that of Japan (excluding distribution costs).
- While gray mold is a common disease in Japan, the risk of infection is lower in Colombia due to the weather conditions and cultivation environment.
- Colombia conducts thorough post-harvest temperature control and freshness control using antimicrobial agents, etc. In Japan, post-harvest processing and temperature control are still insufficient. Comprehensive efforts covering the production, distribution and retail phases need to be taken.

Comparison of costs of carnations

Japan (Nagano)		Colombia
264,000 yen/year	Fuel cost	0
Greenhouse	Facility cost*1 (per 10a)	Wooden frame and polyethylene film
3,711,000 yen		240,000 yen
130,000 yen/month	Labor cost per capita*2	260 dollars/month (Approx. 25,000 yen)
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28.7 yen	Production cost per unit	14 cents (Approx. 13 yen)
10.4 yen (Production area → Market)	Distribution cost per unit	12 – 15 cents (Bogotá → Narita)

*1: Since Colombia is free from typhoons, simple facilities are sufficient.

*2: Figure for Nagano is calculated with the minimum hourly wage (713 yen).

Botrytis cinerea

- Botrytis cinerea is a fungus that is a great threat to flowers, as it causes gray mold disease.
- As it is a common disease in Japan, thorough temperature control and crop dusting are needed, which adds to costs.

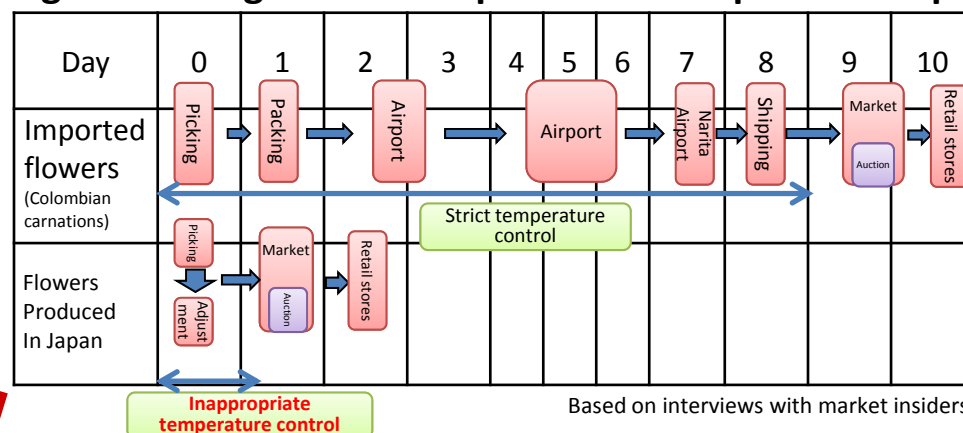
Greenness control for carnations

- Sorting after harvesting is conducted at room temperature in Japan, while in Colombia it is carried out in a room at 2-3 °C and flowers are then transported to airports at a low temperature.
- Since imported products have to endure lengthy transportation, freshness control is conducted in a thorough manner, through means such as using antimicrobial agents, preservation solutions and other chemical solutions.
- Such temperature control process is discontinued upon arrival at a Japanese airport and imported products are exposed to the same temperature conditions as the domestic products in the course of distribution to markets and retail stores.

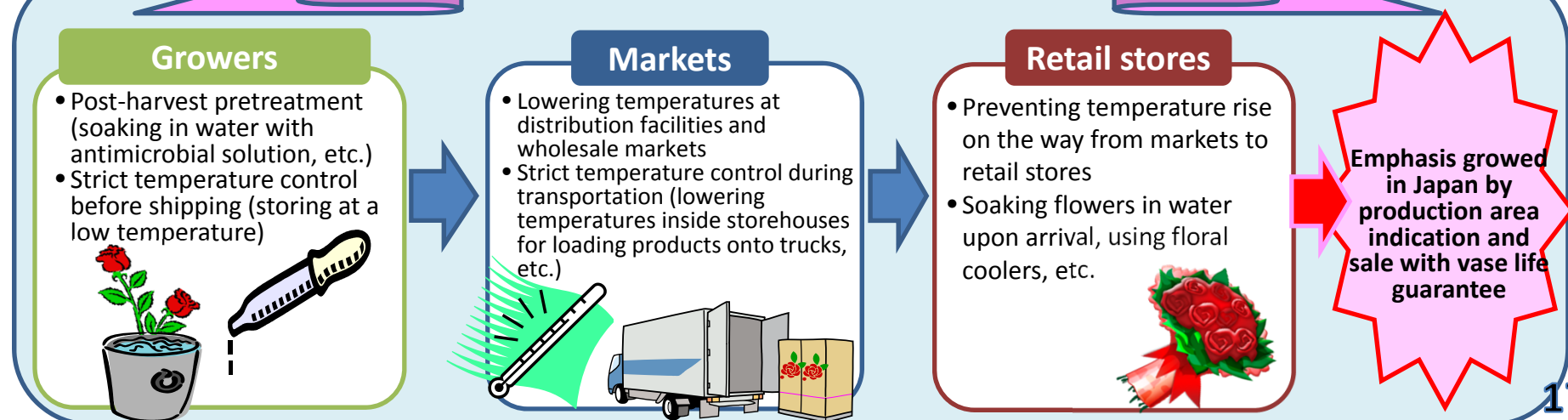
[Reference] Regaining the Domestic Share: Establishment of a Distribution System That Enhances the Strengths of Domestically Produced Flowers, Such as Longevity

- In order to recapture the market share seized by imported flowers and plants, it is important to leverage the strengths of domestically produced flowers, such as freshness and longevity.
- In order to extend the vase life, on which consumers put a high priority in determining product quality, [1] temperature control (establishment of the cold chain), [2] hygiene control and [3] use of preservative solutions must be thoroughly conducted in each phase of production, distribution and retail.

■ Timeline from harvesting to retailing for flowers produced in Japan and imported flowers and plants



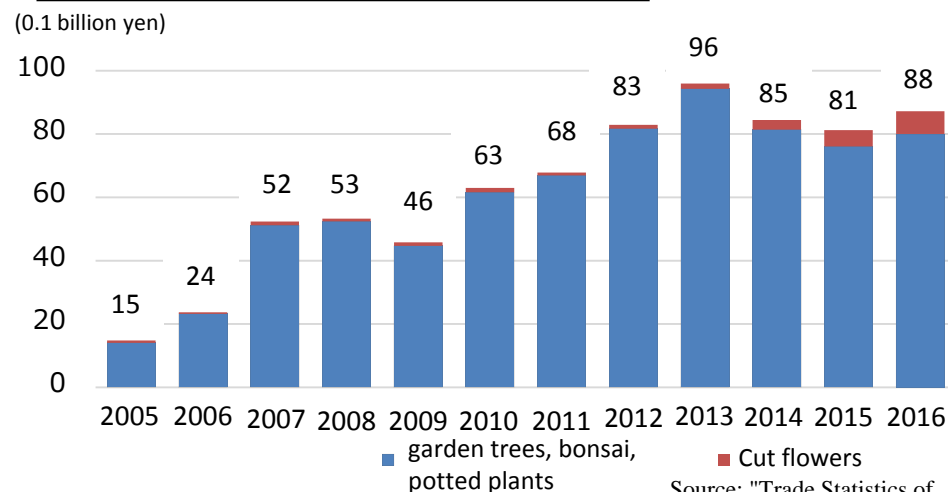
Establishment of a distribution system to enhance the freshness and vase life of flowers



5. Exports of Flowers and Plants ①

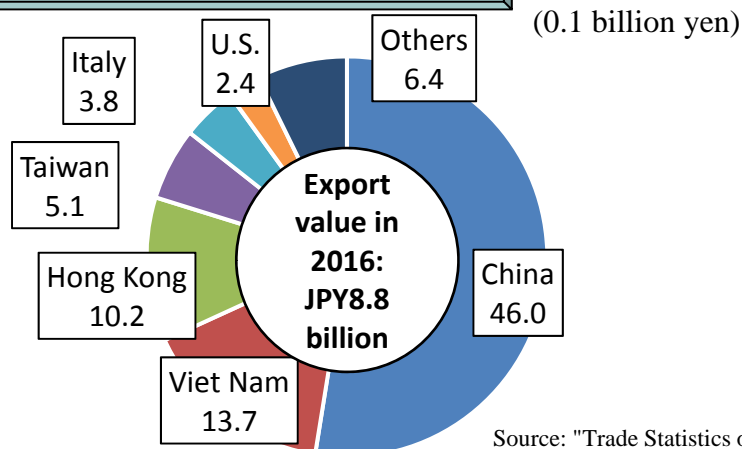
- The export value of flowers and plants (export items of focus) in 2016 was 8.8 billion yen, with garden trees, bonsai and potted plants accounting for the vast majority. Although the share of cut flower is low, the absolute value is growing thanks to promotional activities in export partner countries, etc.
- Based on the Strategy on the Enhancement of Export Power in the Agriculture, Forestry and Fishery Industries formulated in May 2016, Japan aims to increase the export value of garden trees, bonsai, potted plants and cut flowers to 15 billion yen by 2019 by communicating the attractive features of Japan-made flowers and plants that flowers and plants made in mass producing countries lack.

Export values for flowers and plants



Source: "Trade Statistics of Japan," Ministry of Foreign Affairs

Export values for flowers and plants



Source: "Trade Statistics of Japan," Ministry of Foreign Affairs

		2016 (results)		2019 target	
		Export value (B. yen)	Major export partner countries	Export value (B. yen)	Major export partner countries
Export items of focus	Garden trees, bonsai, potted plants	8.03	China, Vietnam, Hong Kong	14	China, Hong Kong, EU
	Cut flowers	0.72	Hong Kong, US, China	1	Hong Kong, Singapore, US, Canada, Russia
	Total	8.75		15	
Flower bulbs, etc.		0.32			
Total		9.07			

Source: "Trade Statistics of Japan," Ministry of Foreign Affairs



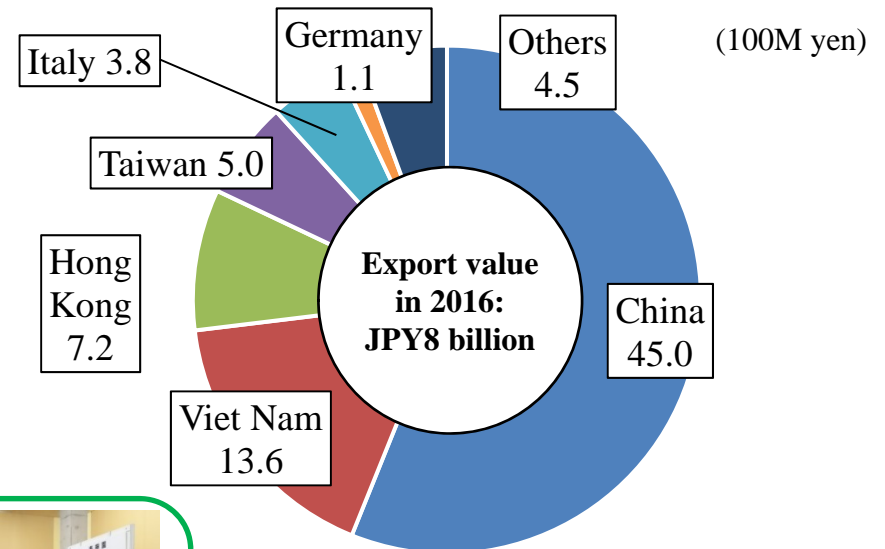
Demonstration by Japanese flower designers using Japan-made flowers (U.S.)

Export of Garden Trees and Bonsais

- Japanese garden trees are gaining a high reputation among wealthy people attracted by genuine Japanese gardens, and have grown to become a main pillar of Japanese flower exports. "Bonsai" has already become a universal word, and has fans all over the world including the EU (e.g. Italy, Spain), China and South Africa.
- The World Bonsai Convention was held in Saitama, Japan from April 27 to 30 in 2017, for the first time in 28 years. MAFF opened a plant quarantine counter at a bonsai shop booth, so as to facilitate export of bonsais, including purchasing by inbound tourists.
- Negotiating with EU to lift the export quarantine restriction on Japanese black pine. (Made a request for lifting the restriction in March 2016)



Export value of garden trees/bonsais (by country)



[8th World Bonsai Convention (in Saitama)]

Period: April 27-30, 2017

Venue: Saitama Super Area/Omiya Sonic City

Turnout:

(Number of visitors)

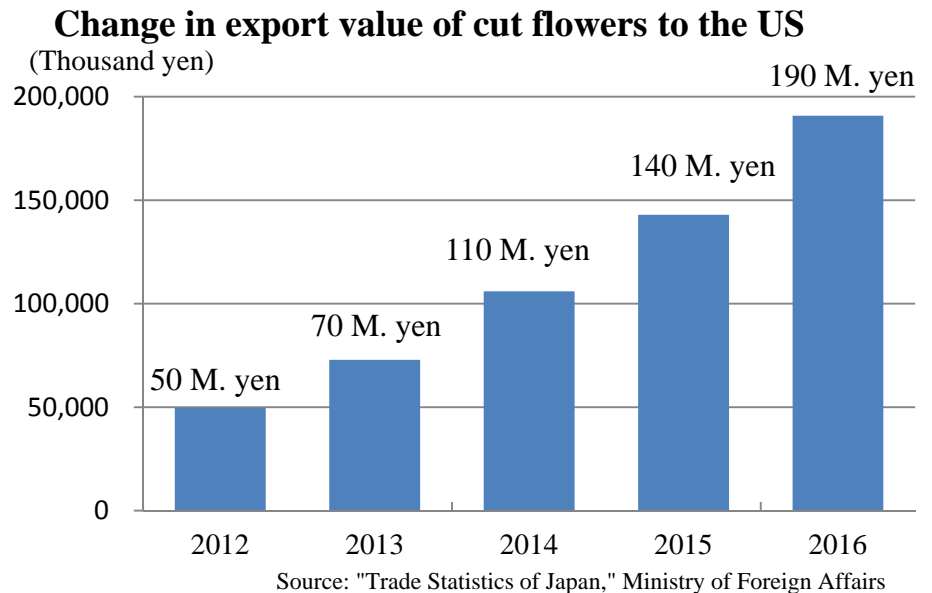
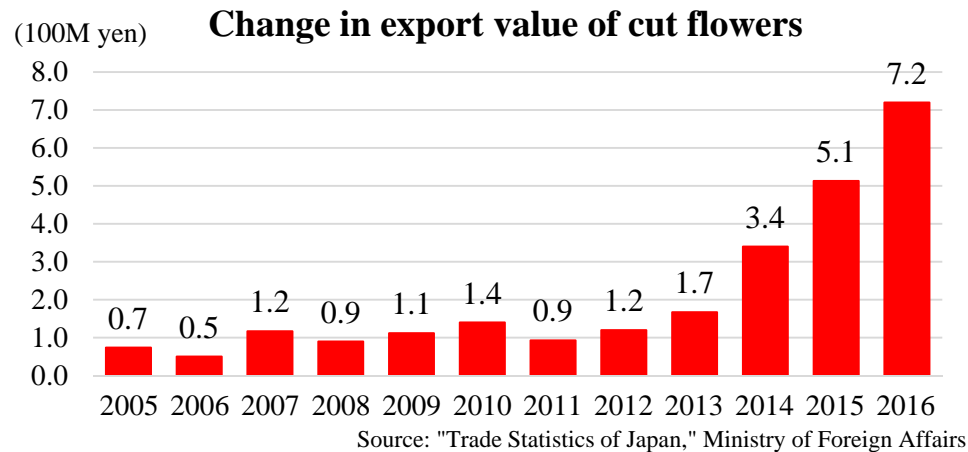
- General visitors: about 45,000
- Registered participants: about 1,200 (about 800 foreign participants)



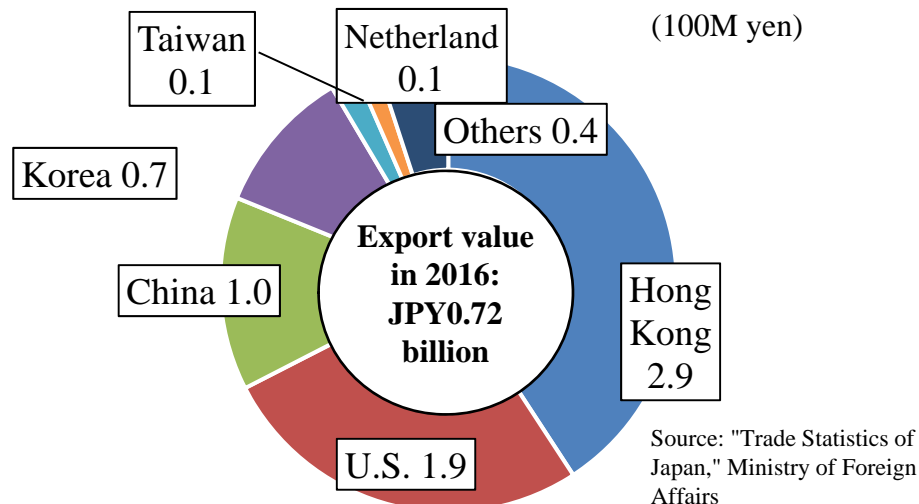
Plant quarantine counter

About Export of Cut Flowers

- Export value of cut flowers in 2016 increased to 0.72 billion yen.
- Particularly in the U.S., there is demand for rare flowers and gorgeous floral materials for high-end parties, fashion events, etc. As Japan started efforts for expanding the export of quality Japanese flowers, export value of cut flowers to the U.S. in 2016 reached 0.19 billion yen, or a 3.8-fold increase compared to four years ago.



Export value of cut flowers (by country)



Japan-made gloriosa used in decoration at the reception of the Consulate General of Japan in New York in celebration of the Emperor's birthday

5. Exports of Flowers and plants ②

○ In order to increase the flower and plants export value to 15 billion yen by 2019, it is important to study outstanding cases from major exporting countries and investigate the market situation of export partner countries of focus.

[Examples of investigations on one of the major cut flower exporting countries, Kenya]



- In order to acquire foreign currencies, the government implemented a national policy to stimulate cut flower production and export, with a focus on roses.
- A unified Kenyan brand was established and common promotional activities were carried out by the entire country.
- The cold chain from production areas to airports was established.
- Producers are engaged in the whole process, from production to processing, transportation, overseas marketing and branding.
- They are also making active efforts to obtain environmental certifications, such as MPS.



Unified Kenyan brand



Refrigerated warehouse in production area



Established cold chain



Produced and processed in production area according to the needs of export partner countries



Refrigerator truck owned by producer



Refrigerated warehouse at quarantine near airport

[Examples of investigations on one of the export partner countries of focus, Singapore]



- Singapore is a multi-ethnic country of the same size as Tokyo 23 special wards, and its population is about 5.54 million. Singapore has many residents from abroad.
- Agricultural land is scarce, and the only domestically-grown flower species is the orchid. In spite of this, Singapore is rich in plants and is called "Garden City." People have strong interest in flowers.
- In recent years, Singapore has been importing flowers from China, EU, Africa, etc., but species of imported flowers are limited.



Cut flower market heavily relying on import flowers



Store with flower showcase

[Examples of investigations on one of the export partner countries of focus, Hong Kong]



- Hong Kong is the logistics center for East Asia and thus is a very important export destination for potted plants and cut flowers. Many cargoes are forwarded to casinos in Macau.
- There is strong demand for flowers in vivid colors, such as red and yellow, which are believed to bring good luck, especially on Chinese New Year and Valentine's Day. Flowers are also in high demand at shopping malls, hotels, etc.
- It is important to improve the profile of Japan-made flowers that are rich in variety and have delicate colors.



Flower shop street filled with people and bouquet in vivid colors



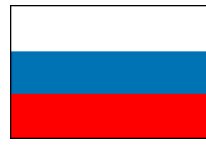
Hotel lobby



Entrance at a shopping mall

Export Japanese Flowers and Plants ,and then Culture to the World through Collaboration among Producers(year-round supply etc.)

To EU that has a rich flower and plant culture and Russia that has potential demand!



Tulips



Hokkaido



Delphiniums

Iwate



Gentians

Niigata

Ranunculus



Nagano

Chiba



Garden trees

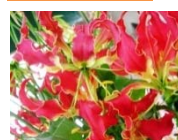
Aichi



Tropical orchids

Kagawa

Kochi



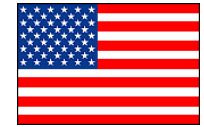
Gloriosas

Miyazaki



Sweet peas

Bonsais



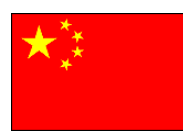
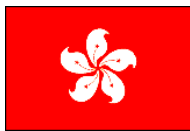
To North America beyond the Pacific!
(US, Canada)



Measures to be taken

- Collecting information on the situation of overseas markets
- Communicating information on Japanese flowers and plants including culture
- Improving quality control technologies to prepare for long distance transportation
- Measures for plant quarantine, such as the development of nematode control and elimination technologies
- Inviting overseas buyers

To Asian countries with rapid economic growth!
(Hong Kong, Singapore, China)



Case 1

Ashiro Rindo (Hachimantai Flower Production Group, Shin-Iwate Agricultural Cooperative)

- Efforts for Developing World-Class Brands with Original Varieties -

Won the Emperor's Cup Award at the FY2015 Agriculture, Forestry and Fisheries Festival

<management>

- Gentian production area that accounts for approximately one-fourth of cultivation area and approximately 30% of the shipment volume in Japan.
- [Number of members] 170 farmers; [Cultivation area] 110ha; [Shipment Volume] Cut flowers - 24.69 million units, Potted flowers - 0.14 million units. The sales have been over 1 billion yen for 10 consecutive years since 2005.

<initiatives>

(1) Producers and local government work together in growing regional original varieties

30 kinds of cut flowers and 9 kinds of potted plants are currently being produced. In developing these varieties, Ashiro Rindo Development Corporation, whose employees are all cooperative members, concluded a joint research contract with the Hachimantai Flower Research Center. They cooperated in the characteristics inspection of candidate lineages and establishment and management of test fields for growing parent strains. The corporation also entered into a license agreement on exclusive user rights with the city government, which limits the use of original varieties to cooperative members. In addition, producers contribute 2% of their sales to the research fund so as to ensure stable corporation management and inclusion of producers' opinions in the process of variety development.



"Red Gentian" developed under joint breeding with New Zealand

(2) Establishment of production area brands built on strong ties among producers

The corporation has established the brand named "Ashiro Rindo" and an advantageous position at markets with [1] stable shipment under a joint sales system that maintains the lineage shipment ratio at 90% or more; [2] production of quality original varieties by jointly raising all seedlings, visiting all fields and providing instruction, and carrying out strict self-inspection; and [3] cost reduction efforts, such as strict freshness preservation measures and mechanization of shipment and adjustment work.

(3) Export and overseas production of cut flowers, and export of intellectual property

Export of cut flowers to Netherlands started in 2002. In recent years, new sales channels have been developed in Hong Kong, Singapore, and North America. As for potted flowers, the corporation entered into a cultivation licensing agreement with overseas bodies and is also working on the export of intellectual property.

Overseas production is carried out in New Zealand and Chile based on cultivation agreements. Cut flowers can be stably supplied throughout the year by cultivating them in the southern hemisphere in which the seasons run the opposite of Japan.

Case2

Overseas Sales of the Prefecture-Developed Carnation Varieties, “Mini Tiara” Series (Kagawa Prefecture)

1. Overview

- Kagawa Prefecture entered into a five-year license agreement with Hilverda Kooij, a major seed and seedling company in Netherlands, for the overseas production and sales of seedlings of two carnation varieties under the prefecture-developed “Mini Tiara” series.
- The two varieties subject to licensing are “Mini Tiara Coral Pink” and “Mini Tiara Lilac.”
- User countries are EU, Kenya and Colombia.
- It is hoped that sales in overseas markets will raise the international profile of the prefecture’s original varieties and increase not only overseas demand, but also significantly increase domestic demand.

2. History

- In 1994, prefectural agricultural test fields started interspecific crossing between carnation cultivars and wild dianthus.
- In 2007, the prefecture grew a new carnation variety “Mini Tiara,” which has pointed petals.
- In 2011, “Mini Tiara Coral Pink” and “Mini Tiara Lilac” were grown.
- The petal shape and color variations of “Mini Tiara” caught the attention of Hilverda Kooij. In March 2012, the company and Kagawa Prefecture entered into two-year agreement on cultivation in Netherlands.
- In January 2014, the license agreement was concluded (currently preparing to file variety registration applications to above mentioned three countries (regions)).

【Carnation: “Mini Tiara” series】

It was named after the ornamental crown for women as the petal shape resembles it and the flower is small and pretty. Seven varieties have been developed so far, for which variety registration applications have been filed.

Name of the seven varieties:

“Mini Tiara Pink,” “Mini Tiara Cream,” “Mini Tiara Coral Pink,” “Mini Tiara Lilac,” “Mini Tiara Star Yellow,” “Mini Tiara Milk White,” “Mini Tiara Baby Pink,”

【Hilverda Kooij】

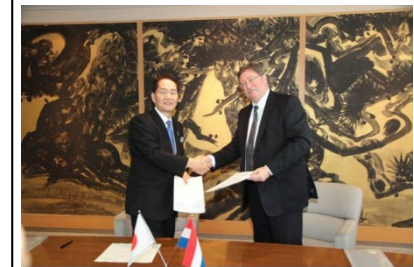
One of the world’s largest seed and seedling companies that develop flower variety and seed/seedling sales with a focus on carnations. It accounts for approximately 20% of the world’s carnation seed and seedling production. Many of the varieties developed by the company are also produced in sold in Japan.



Mini Tiara Coral Pink



Mini Tiara Lilac



Signing ceremony with Kagawa Prefectural Governor Hamada and Hilverda Kooij CEO Tas (January 17, 2014)

6. Japanese Flowers and Plants in the world

- Japan participated in the EXPO 2016 Antalya International Horticultural Exposition held in Antalya, Turkey, from April 23 to October 30, 2016.
- During this exposition, approximately 160,000 people visited the Japanese government's exhibition, which won the gold prize for the indoor exhibition section. In addition, many Japan-made flowers and plants also won prizes at the contest with some attaining record high scores, gaining international reputation for Japanese flowers and plants.

○ Outline of the EXPO 2016 Antalya

Name: EXPO 2016 Antalya

Theme: Flowers and Children - A Green Life for Future Generations

Period: April 23 to October 23, 2016

Participating countries/regions:
55 (including Turkey)

Number of visitors:
4.5 million

Turkey's first EXPO



○ Indoor exhibition at the EXPO 2016 Antalya



Government exhibition



Flowers for competitions



160 thousand people has visited



Japan won many medals

○Varieties that won the gold prize at the contest



Tulip



Haru-otome



Tulip



Haru-no-awayuki



Tulip



Nagori-yuki



Lily



Petit Luna



Lily



Petit Cheminée



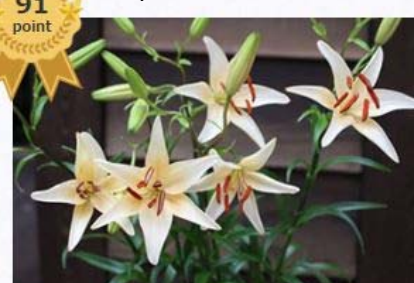
Lily



Petit Selene



Lily



Petit Fraise



Lily



Petit Blanc



Bonsai



Shinpaku (Chinese juniper)



Bonsai



Acer palmatum



Eustomas

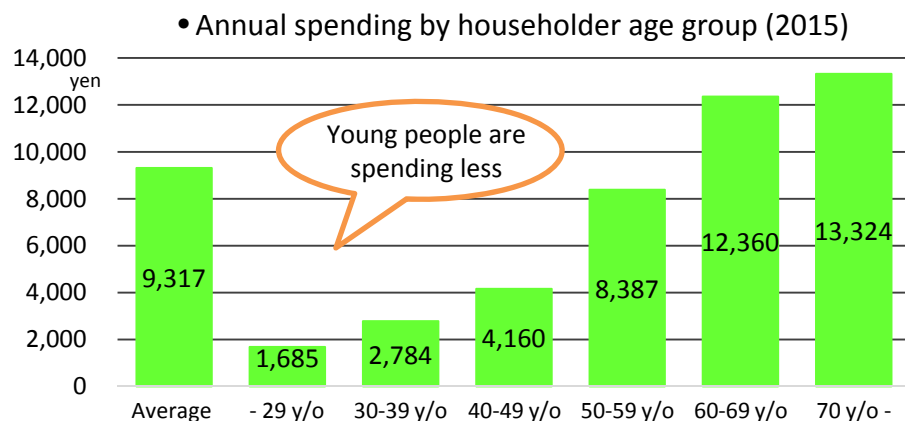
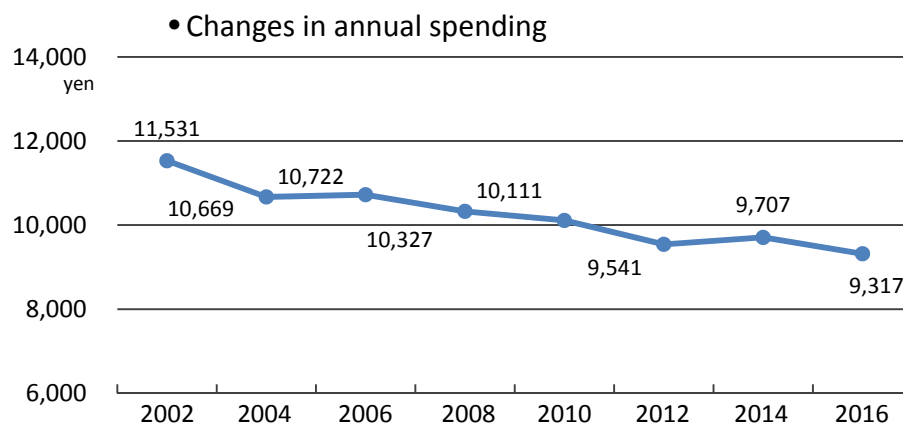


Miyabi

7. Consumption of Flowers and Plants

- Spending of cut flowers has been on decrease over a long term. According to the statistics by the age group of heads of household, the younger generation spends less on cut flowers.
- Among flower and plants dealers, retailers specialized in flowers and plants constitute 60% of number of stores and 70% of sales turnover.

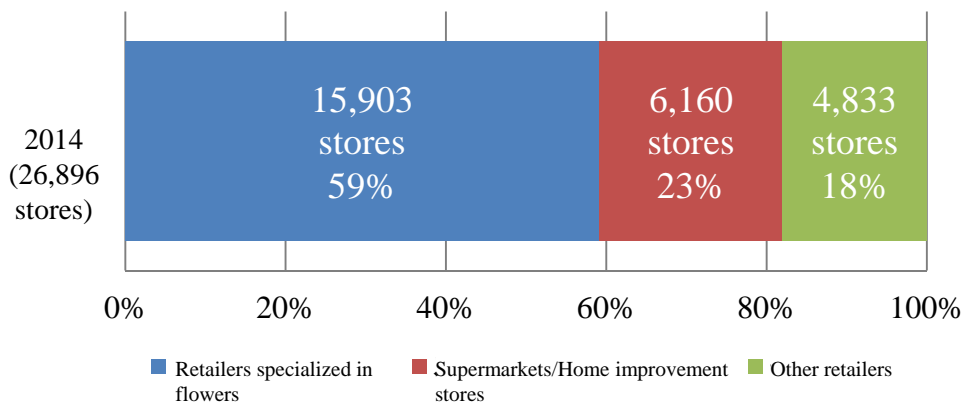
○ Household spending on cut flowers



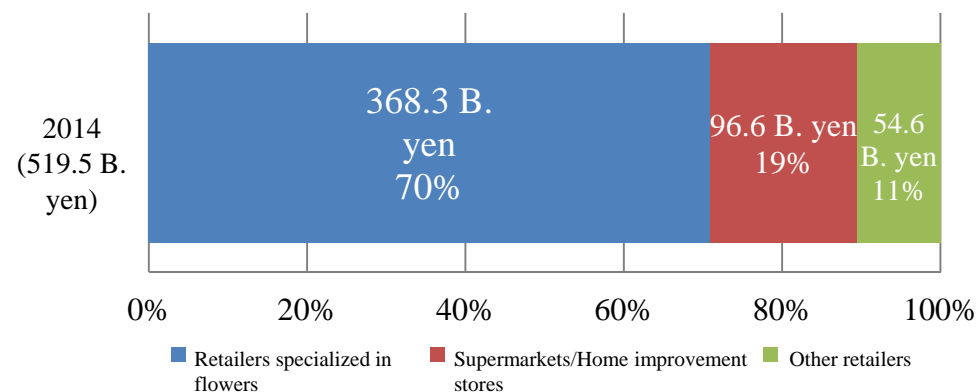
Source: "Annual Report on the Family Income and Expenditure Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

Note: Figures for 2008 and onward are the spending of "households with two or more members (including agriculture, forestry and fishery households)." Other figures are the spending of "households with two or more members excluding agriculture, forestry and fishery households."

○ Number of flower and plants dealers



○ Sales of flower and plants dealers



Source: "Census of Commerce," Ministry of Economy, Trade and Industry

Note 1: Figures for retailers specialized in flowers, etc. are the total of the figures for "retailers specialized in flowers" and "retailers mainly handling flowers (50% or more of the goods dealt in are housing-related goods (including flowers and garden trees))."

Note 2: Figure for supermarkets/home improvement stores is the figure for specialized supermarkets.

Expanding Demand: Revitalization of Floral Culture

○ In order to revitalize floral culture, the following measures need to be promoted:

- use of flowers and plants in city planning and at public facilities and other facilities where flowers and plants bring about beneficial effects, such as social welfare facilities;
- promotion of educational programs using flowers and plants (floral education) for pupils and students and regional events using flowers and plants; and
- promotion of use of flowers and plants in everyday life, succession of floral traditions, and creation of new floral culture.

Use of flowers and plants in city planning and at public facilities

- Indoor greening at offices, etc.
- Greening of stations and airports
- City planning featuring flowers and greens



Use of flowers and plants in education and regional activities

- Promotion of regional floral education activities
- Flower festivals held in individual prefectures



Dissemination of benefits of flowers and plants

- Utilizing flowers' healing effects at social welfare facilities, etc.



Succession of floral traditions



Creation of new floral culture



Flower Biz
Flower Friday
きっかけに花を。