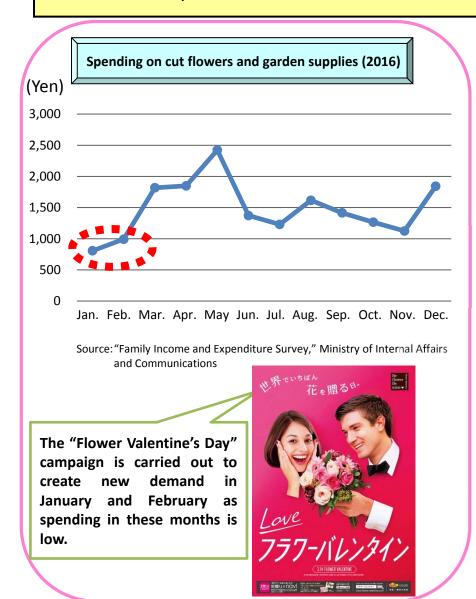
#### **Creation of New Demand**

OCreating new demand through campaigns, including "Flower Valentine's Day," "Flower Biz" and "Flower Friday."



Bring flowers into your life!

# Flower Biz

Work: Flowers at office Have new flowers at your office every Monday



Life: Flowers in everyday life Send flowers or bring flowers home every Friday

っかけに花

Introduce flowers into your lifestyle.

Keep them close in your workplace and home.

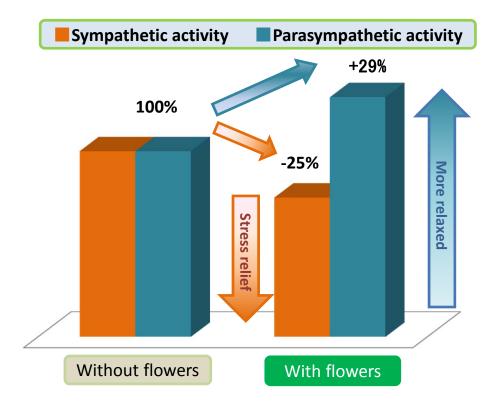
"Flower Biz" "Flower Friday"

How about having flowers around you more frequently in your everyday life and making your living space more comfortable?

Bring flowers into your life for your health!

#### **Benefits of Flowers**

O Flowers and plants have stress relief effects and adjustment effects to optimize people's physical conditions.



	Sympathetic activity (LF/HF)	Parasympathetic activity (HF) (msec2)
With flowers	1.51	828.6
Without flowers	1.13	1072.6

Sympathetic activity: Heightens when nervous and stressed Parasympathetic activity: Heightens when relaxed

Programs for Hospitals/Social Welfare Facilities Leveraging Benefits of Flowers and plants

O To leverage benefits of flowers, some hospitals and social welfare facilities have created green space within their buildings or introduced gardening activity as their programs. These efforts are received well by patients.

Program for hospital leveraging flowers and plants



Decorating 120 locations within hospital with flowers.
"Flower club" held once a week



Creating green space at the four-storied stairwell entrance Program for social welfare facilities leveraging flowers and plants



Group planting workshop



Flower arrangement workshop

#### [Reference] Progress of Discussion on the Flowers and Plants Promotion Act

O The Parliamentary Association for the Flower Industry\* of the Liberal Democratic Party (LDP) requested LDP's Agriculture and Forestry Division to formulate a bill on flowers and plants industry revitalization.

O In response to this, the Task Force for Examining the Bill to Revitalize the Flower Industry headed by Tetushi Sakamoto (director of the Upland Farming Subcommittee) under the Vegetable, Fruit and Upland Field Crops Subcommittee under the Agriculture and Forestry Division, LDP. The members, including Gen Nakatani (Chairman of the Research Commission on Agriculture, Forestry and Fisheries Strategy), Ken Saito (Director of the Agriculture and Forestry Division), and Takeo Kawamura (Director of the Parliamentary Association for the Flower Industry), are working on lawmaker-initiated legislation (Parliamentary Vice-Minister for Finance Yasuhiro Hanashi, who headed the Task Force until the second meeting attends subsequent meetings as an observer).

\*The Parliamentary Association for the Flower Industry was established in 1987 by the late Takami Eto. The current chairman is Takeo Kawamura and director is Taku Eto (former Vice Minister of Agriculture, Forestry and Fisheries).

2013 Sep. 25	Source: Prepared by the Policy Research Council, Liberal Democratic Party  1st meeting of the Task Force for Examining the Bill to Revitalize the Flowers and Plants (LDP)
Nov. 26	(2nd meeting on Oct. 3, 3rd meeting on Oct. 25, 4th meeting on Nov. 15)  5th meeting of 1st meeting of the Task Force for Examining the Bill to Revitalize the Flowers and Plants(LDP)  Bill completed
Dec. 4 2014	Joint meeting with the Agriculture and Forestry Division (LDP) Bill approved
Feb. 6	Meeting of the Agriculture, Forestry and Fishery Division (Komeito)
Feb. 13	Meeting of the Policy Research Council (Komeito) Bill approved by Komeito
Feb. 20	Examination at the Policy Research Council Board (LDP)
Feb. 21	Meeting of the General Council
	Meeting of the policy planners from the ruling parties Bill approved by ruling parties
Mar. 5	Interviews with organizations at the meeting of the Agriculture, Forestry and Fishery Division (DP)
Apr. 8	Opinion exchange between DP executives and flower-related organizations
May 29	Bill screening (LP)
May 30	Bill screening (DP), (JIP), (UP)
,	186th ordinary session of the Diet
Jun. 5	Plenary session of the House of Representatives Approved (Approved on June 4 by the Committee on
	Agriculture, Forestry and Fisheries, House of Representatives (proposed by the Chairman, approved))
Jun. 20	Plenary session of the House of Councilors Approved and passed (Approved on June 19 by the Committee
	on Agriculture, Forestry and Fisheries (explained by Chairman from the House of Representatives, approved)
Jun. 27	Promulgation of the Act (Act No. 102 of 2014)
Dec. 1	Enforcement of the Act

#### Overview of the Flowers and plants Promotion Act (Act No. 102 of 2014)

#### 1. Purpose

To achieve the sound development of the flower and plant industry and enhance public mental well-being

#### 2. Definition

Flowers and plants: Plants for ornamental purposes Flower and plant industry: Business of production, distribution, sale or new variety development

#### 3. Basic policies, etc.

- OThe Ministry of Agriculture, Forestry and Fisheries is to formulate basic policies for revitalizing the flower industry and floral culture
- OPrefectures are to formulate a plan for revitalizing the flower and plant industry and floral culture
- OThe national government, local governments, companies, research institutions, etc. are to strengthen mutual collaboration.

#### 4. Measures for the flower and plant industry

- O Stabilization of management by producers (Article 6)
- O Promotion of productivity and quality improvement (Article 7)
- O Sophistication of processing and distribution (Article 8)
- O Consideration for the importance of freshness preservation (Article 9)
- O Promotion of export (Article 10)
- O Special measures under the Plant Variety Protection and Seed Act (Article 13)
- O Promotion of research and development (Article 15)

#### 5. Measures for floral culture

- OPromotion of use of flowers and plants at public facilities, etc. (Article 16, paragraph (1))
- OPromotion of "floral education" (Article 16, paragraph (2))
- OPromotion of use of flowers and plants in everyday life (Article 16, paragraph (3))

#### 6. Other measures

- **OHolding of expositions (Article 17)**
- Ocommendation of contributors to the revitalization of the flower and plant industry and floral culture (Article 18)
- OGovernment aid aimed at the smooth implementation of revitalization plans (Article 19)
- OEstablishment of the Flower and Plant Utilization 33

  Promotion Council (Article 20)

# Overview of the Special Measures under the Plant Variety Protection and Seed Act (Article 13 of the Act)

- O Special measures under the Plant Variety Protection and Seed Act are applied to varieties cultivated as a result of a R&D project plan certified by the Minister of Agriculture, Forestry and Fisheries.
- O Specifically, application and registration fees (from first year to sixth year) are reduced by three-fourths concerning the cultivation of new varieties contributing to the strengthening of the industry's international competitiveness, such as those with strong disease resistance and longer vase life.

Special measures under the Plant Variety Protection and Seed Act

Category	Standard	Special measure
Application fee	47,200 yen	11,800 yen
Registration fee		
1st-3rd year	6,000 yen/year	1,500 yen/year
4th-6th year	9,000 yen/year	2,250 yen/year
7th-9th year	18,000 yen/year	_
10th-30th year	36,000 yen/year	_

Number of certified R&D project plans (as of July 2017)

18

New variety cultivation subject to the special measures under the Plant Variety Protection and Seed Act (idea)



#### **Expansion of export**

New sweet pea variety with high resistance against gray mold that can be exported under high temperatures and high humidity during summer



#### **Regaining of domestic share**

New chrysanthemum variety with high tolerance for high temperatures that can be stably supplied during the high demand period in summer

#### **Project for Taking Urgent Action to Promote Exports of Japan-Produced Flowers and Plants**

[Included in the FY2016 supplementary budget of 2,997 million yen]

#### Current situation of exports of Japan-made flowers and plants

OAs cheap mass-produced cut flowers from Colombia and Kenya dominate the global market, Japan has promoted Japan-made flowers mainly for flower designers in the US, etc., taking advantage of their quality and uniqueness of varieties (sweet peas, ranunculus, gloriosas, etc.). As a result, the export of cut flowers is steadily growing (0.1 billion yen (2013)→0.3 billion yen (2014)→0.5 billion yen (2015)).







Photos: Cited from the website of Takii & Co., Ltd.

#### Changes in the export value of cut flowers to the US

- OThe spread of ikebana culture is effective in promoting Japan-made flowers.

  However, the situation is such that flowers available in individual countries are used.
- OThe same transportation method as domestic shipment is used for exports. Boxes are not standardized and newspapers are used for packing, which lessens the brand value.



Japanese market

#### Challenges concerning exports of Japan-made flowers and plants

OIn order to further increase exports, it is necessary to hold trade fairs and business meetings and constantly provide opportunities for people to see and purchase Japan-made flowers and plants.

OIt is necessary to provide Japan-made flowers in a timely manner to ikebana events in overseas countries.

Olt is necessary to improve transportation materials (box, buffer, etc.) for exports that can contain multiple items at a time and have a high customer appeal effect.

#### **Content of the project**

➤ Strengthening of promotional activities in export partner countries

With a view to further expanding overseas markets, constantly promote promotional activities for Japanmade flowers via local shops, etc.





➤ Promotion of exports utilizing ikebana events

Promote exports to countries in which ikebana events are held by providing Japan-made flowers and vases as a package to such events

➤ Standardization of the design of export packaging materials

Support efforts for standardizing the design of export packaging materials, with a view to improving the brand value of Japan-made flowers



Kenya uses standardized designs for cardboard boxes for expor 35

# Project to Create Facilities Aimed at Expanding Exports of Agricultural and Livestock Products

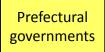
FY2016 supplementary budget: 10,000 million yen

In order to achieve aggressive agriculture, forestry and fisheries, this project supports the development of jointly used facilities and wholesale market facilities necessary to expand exports and strengthen agriculture, from production to distribution, which will contribute to the improvement of quality and value added.

- •Subject of subsidies: Jointly used facilities, wholesale market facilities
- •Subsidy ratio: The ratio is fixed for all prefectures (for project implementers, 50% of project costs, etc.)
- Project implementers: Prefectural governments, municipal governments, agricultural organizations, etc.
- Flow of the project:









Organizations of farmers, etc.

#### (Examples of facilities)

HACCP-certified meat processing facilities



US, EU, etc. require HACCP certification for meat processing facilities

#### CA storage facilities



Establishing a system for long-term preservation that enables supply of fruits and vegetables to export partner countries in high demand periods

### Wholesale market facilities for the cold chain



By shutting out outside air and controlling the temperature inside wholesale market facilities, establish a comprehensive cold chain system up to export destination countries

Project to Develop Facilities for Expanded Export of Agricultural and Livestock Products (Naniwa Flower Auction Co., Ltd (Osaka City, Osaka Prefecture)): Expanding Exports of Quality Cut Flowers with Optimal Temperature Control

#### **Current situation**

The exports of cut flowers have grown thanks to the promotional activities for overseas flower designers conducted by Naniwa Flower Auction.

2012: 0.5 million yen/year → 2015: 160 million yen/year [Japan: 500 million yen/year]

OHowever, this wholesale market does not have any dedicated facilities for exports.

Osaka Tsurumi Regional Flower Wholesale Market





#### Issues in expanding exports

- O Maintenance issues
- 1 Low efficiency due to manual sorting
- 2 Short vase life due to the lack of thorough cold chain
- 3 Lack of fumigation facilities, which leads to the disposal of products at quarantines in export destination countries.

Sick ranunculus

#### O Distribution issues

 Individual production areas use different boxes, which damages the brand image and raises logistics costs

#### Solutions for the issues

#### **Tangible aspects**

○Establish collection and shipment facilities in the vicinity of the wholesale market.

#### **Intangible aspects**

Standardize the designs and specifications for export packing materials

#### Plan after facility development

- O Solving maintenance issues
- ① Effective cargo handling using dock shelters (entrance used for cargo shipment and receipt that allows workers to directly bring the products from the truck to storehouse)
- ② Low-temperature packing center that can be used for the sorting of flowers, and storehouse that allows for item-specific temperature control
- ③ By establishing a fumigation space as a disease and pest control measure, improve efficiency and flowers' longevity and reduce risks of loss due to disposal
- O Solving distribution issues
  - Improve the brand image of Japan-made flowers and reduce logistics cots
- Objective: Increasing annual export value from 160 million yen to 550 million yen

Establishing the image of Japanese flowers as high-end cut flowers

**37** 

#### **Project to Promote Innovative Measures for Domestically Produced Flowers (Enhanced)**

Approved budgetary request for FY2017: 751 (702) million yen

O In order to regain share and expand exports of domestically produced flowers, this project works on the establishment of a cost-efficient system that enables the stable supply of quality cut flowers in high demand periods. It also supports efforts for shortening time for raising seedlings, which is necessary for strengthening the production system for garden trees and bonsais.

#### 1. Support for coordination among people in the flower and plants industry

 Holding meetings of prefectural councils, which consist of producers, researchers, distribution and sales companies, exporters, and other people involved in the flower and plant industry, to discuss measures to revitalize the regional flower industry.



#### 2. Strengthening production and supply systems to enhance the strengths of domestically produced flowers and plants

- In order to strengthen production supply systems to enhance the strengths of diverse, quality Japan-made flowers, support [1] demonstration of flower processing and distribution under wide-area collaboration, [2] improvement of logistics efficiency, and [3] introduction of management technologies to extend vase life.
- In order to achieve the stable supply of domestically produced cut flowers that can compete with imported products, support <a href="efforts to realize low-cost production">efforts to realize low-cost production</a> and shipping of quality cut flowers in high demand periods, by such means as the demonstration of new technologies to control quality loss with greenhouse temperature control (e.g. EOD heating), and selection of varieties less affected by weather conditions.
  - \*End-of-day-Heating Treatment
  - A technology to reduce production costs while maintaining the quality and growth condition at the same level as ordinary cultivation methods, by controlling temperature before and after sunset
- In order to strengthen the production system to expand exports of garden trees and bonsais, support <u>efforts to shorten the time for raising</u> <u>seedlings through the utilization of large-sized plant cutting and</u> <u>demonstration of innovative cultivation practices</u>.

#### (Current situation of cut flowers)



 Although there are needs for domestic products, production areas' supply capability falls short.

#### (Current situation of garden trees and bonsais)

- Garden trees and bonsais are in high demand overseas due to Japanese gardens and the bonsai boom overseas.
- There is a risk of running out of exportable garden trees and bonsais due to weakening of the domestic production system.

# Shipments in high demand periods Earlier flowering Introduction of new technologies Selecting varieties less affected by weather 2-3 years Normal cutting

Underlined are enhanced measures.

#### 3. Increasing demand for domestically produced flowers and plants

• In order to increase demand for domestically produced flowers and plants, promote [1] holding of flower contests and floral culture-related exhibitions, [2] floral education, and dissemination of benefits of flowers, [3] use of flowers and plants at offices, nursing homes, etc., and [4] promotional activities in collaboration with other industries.

#### Bring flowers into your life!





Large cutting



1-2 years

#### Structure of the Project to Promote Innovative Measures for Domestically Produced Flowers and Plants

Under this project, 47 prefectures across Japan have established councils that unite people in the flower and plant industry. These councils carry out various measures across the country to promote collaboration among people in the industry, strengthen production and supply systems, and expand demand for flowers and plants.

#### Regionally promoted programs

#### **Nationally promoted programs**

#### 1. Support for collaboration among people in the flower and plant industry

- Discussion on measures for revitalizing the flower and plant industry
- Holding technological exchange events, developing technological manuals

- Activities related to the production and sale of flowers and plants
- Establishment of a system for the stable supply of scarce floral materials

#### 2. Strengthening of production and supply systems to enhance the strengths of domestically produced flowers

- Demonstration of flower processing and distribution under wide-area coordination
- Examination and demonstration concerning the improvement of logistics efficiency
- Examination and demonstration of recycling systems
- Formulation of export strategies
- Establishment of perfect cold chain
- Export measures to be carried out by production areas
- <u>Demonstration concerning the stable supply of domestically</u> produced flowers in high demand periods
- Support for efforts to shorten the time for raising seedlings of garden trees and bonsais

Measures to extend flowers' vase life

#### 3. Expansion of demand for domestically produced flowers

- Holding flower contests, exhibitions, etc.
- Promotion of floral education experiences at schools, social welfare facilities, etc.
- Promotion of use of flowers and plants at companies and nursing care facilities (Commendation of best practices)
- Dissemination of information on floral culture and domestically produced flowers and plants

- Verification and dissemination of the benefits of flowers and plants
- Fostering of floral education practitioners
- Creation of new demand for flowers and plants in everyday life

#### Initiatives for Next-Generation Greenhouse Horticulture

- O In order to improve the profitability of greenhouse horticulture in Japan, Centers for Next-Generation Greenhouse Horticulture will be established, by arranging Netherlands' highly profitable greenhouse horticulture model to suit the Japanese flower industry.
- O The Centers for Next-Generation Greenhouse Horticulture are expected to raise incomes and create jobs through [1] improvement of productivity by the introduction of advanced environmental control technologies, [2] breaking dependence on fossil fuels by utilizing regional energy sources, [3] introduction of large-sized greenhouses and accumulation of facilities for all processes from production to shipment.

#### **Greenhouse horticulture in Netherlands**

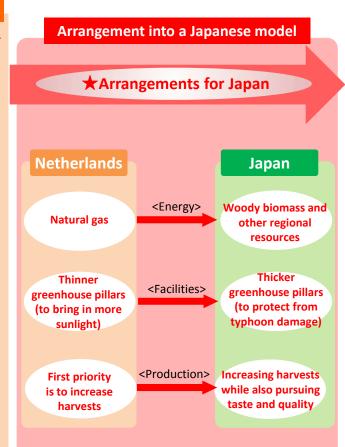
- Cluster formation under industry-academiagovernment collaboration
- Pursuing mechanization and ICT utilization
- Yield of tomatoes per 10a: 50t or more (average in Japan: 11t)
- Utilizing abundant natural gas to supply heat, electricity and CO<sub>2</sub>



Accumulated facilities



Automated production (moving phalaenopsis orchids)



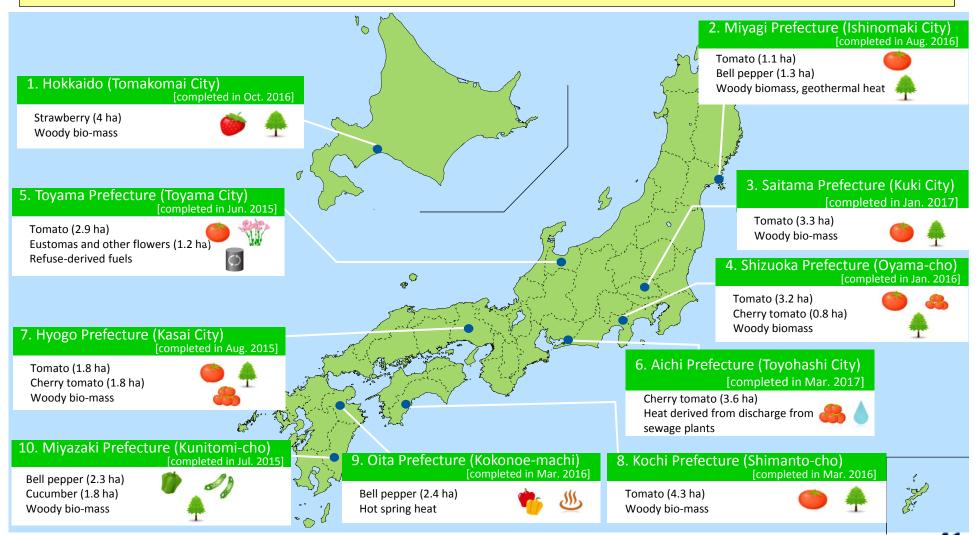
#### **Next-generation greenhouse horticulture**

The Ministry of Agriculture, Forestry and Fisheries supports the development of Centers for Next-Generation Greenhouse Horticulture in ten locations.

- Accumulate a large concentrations of facilities and create centers to carry out all processes from energy supply using woody bio-mass and other regional resources, to production, preparation and shipment.
- Break dependence on fossil fuels, while reducing costs and creating local jobs
- Promote collaboration between the agriculture industry and other industries to utilize their knowledge and knowhow concerning ICT etc.
- Achieve all-season, planned production with advanced environmental control

## Areas Subject to the Project to Accelerate the Introduction of Next-Generation Greenhouse Horticulture

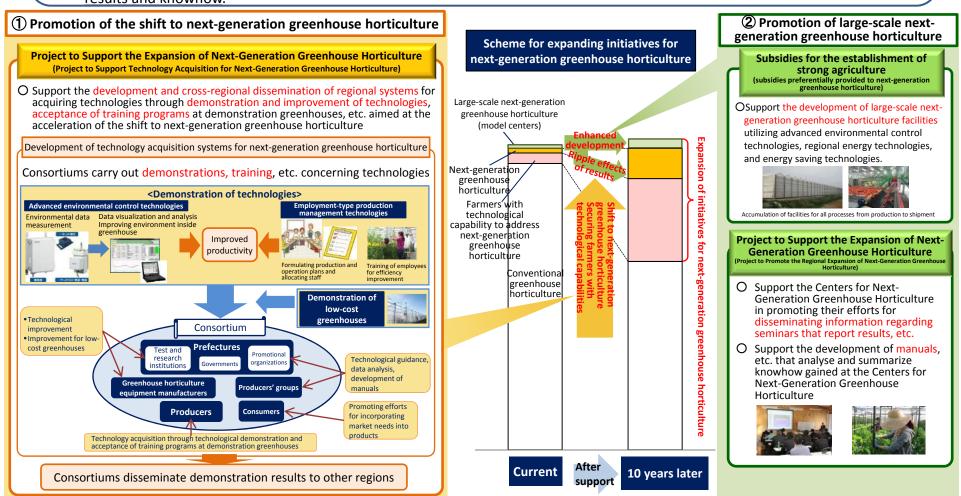
- OThe development of Centers for Next-Generation Greenhouse Horticulture started in FY2013 in ten locations across Japan, all of which are completed in FY2016.
- O Local governments, producers, consumers, etc. formed consortiums to promote large-scale greenhouse horticulture utilizing regional energy and advanced environmental control with ICT.



#### **Enhancement of Initiatives for Next-Generation Greenhouse Horticulture**

[Approved budgetary request for FY2017: 2,501 (2,540) million yen]

- O Challenges in expanding initiatives for next-generation greenhouse horticulture include the scarcity of farmers equipped with necessary technologies for shifting to next-generation greenhouse horticulture, and securing the enormous funds and vast land required by large-scale next-generation greenhouse horticulture.
- O For this reason, initiatives for next-generation greenhouse horticulture will be enhanced using the following two approaches.
  - ① Support for demonstration, training, and other regional activities for learning technologies, with an aim of accelerating the shift to next-generation greenhouse horticulture
  - 2 Support the development of large-scale next-generation greenhouse horticulture facilities and analysis and dissemination of the results and knowhow.



	Output of Flowers and Plants by Prefecture (2015)	(Unit: B. yen)				
Prefecture C		Prefectural flower	Prefecture	Output		Prefectural flower
					tropical orchids (pot-grown), chrysanthemum,	
Hokkaido		Rugosa rose	Shiga			Rhododendron
	chrysanthemum, flowering trees and shrubs				cutting, chrysanthemum, tropical orchids (pot-	
Aomori	n 0 //	Apple tree	Kyoto	1.2	grown)	Weeping cherry
1		Paulownia	01	1.0	chance at he accord Condent to a condition of like	Di
Iwate	<u> </u>	tomentosa	Osaka			Plum, primrose
Miyagi		Lespedeza thunbergii	Hyogo			Chrysanthemum japonense
Miyagi	2.9cm ysanthemum, rose, Gerbera	tiiuiibeigii	Hyogo		chrysanthemum, cutting,	Double cherry
Akita	3.1chrysanthemum, eustoma, gentian 2	Butterbur scape	Nara		, · · · · · · · · · · · · · · · · · · ·	blossoms of Nara
Yamagata		Safflower	Wakayama			Plum
ramagata		Rhododendron	wakayama	0.0	station (g), orn your triefficially basy o stream	1 14111
Fukushima		brachycarpum	Tottori	2.6	lawn②, stock③, tropical orchids	20th century pear
	0@/ - / - / - / - / - / - / - / - / - / -	7			·	Japanese tree
Ibaraki	14.6 cutting(1), lawn(1), chrysanthemum	Rose	Shimane	1.6	chrysanthemum, cyclamens (pot-grown), rose	
	chrysanthemum, tropical orchids (pot-grown),	Rhododendron				
Tochigi	6.9 rose	pentaphyllum	Okayama		1 1 0 77 7	Peach
					chrysanthemum, tropical orchids (pot-grown),	
Gunma		Japanese azalea	Hiroshima			Maple
	Lily①, tropical orchids (pot-grown)②, flowering				chrysanthemum, rose, tropical orchids (pot-	
Saitama	18.5 trees and shrubs (pot-grown) ②	Primrose	Yamaguchi		0 - 7	Citrus natsudaidai
Chiha	25 Etropical archide (not grown) Hipaki(T) cornation	Dana blassam	T - 1		tropical orchids (pot-grown), tropical orchid①,	Citrus sudashi
Chiba	25.6 tropical orchids (pot-grown), Hinoki①, carnation cut leaves①, foliage plants (pot-grown),	kape biossom	Tokushima	3.7	chrysanthemum, flowering trees and shrubs	Citrus sudachi
Tokyo		Yoshino cherry	Kagawa			Olive
TORYO	tropical orchids (pot-grown), rose, pansy (flower	rosimio cherry	Ragawa	5.5	(pot grown), carnation	Olive
Kanagawa	5.2seedlings) ②	Golden rayed lily	Ehime	3.5	rose, cutting, tropical orchids (pot-grown)	Satsuma orange
Niigata	9.3Lily(2), tulip(1), tulip (bulbs)(2)	Tulip	Kochi			Wax myrtle
	767 107 107 107 107 107 107 107 107 107 10	•			chrysanthemum(3), garden tree seedlings(1),	,
Toyama	1.0tulip (bulbs)①, chrysanthemum, tulip③	Tulip	Fukuoka			Plum
Ishikawa	0.7 Stock, tropical orchids (pot-grown), cutting	Kamchatka lily	Saga		, , ,	Camphor
					, , , , , , , , , , , , , , , , , , , ,	Rhododendron
Fukui		Narcissus	Nagasaki			serpyllifolium
	tropical orchids (pot-grown), cyclamens (pot-				tropical orchids (pot-grown), Baby's breath ①,	
Yamanashi	3.6 grown), rose	Fuji cherry	Kumamoto	10.9		Gentian
Nessana	14.0 compation (1) show so with a record	Cantina	0:4-	г.с		Prunus mume var.
Nagano	14.9 carnation ①, chrysanthemum, eustoma flowering trees and shrubs (pot-grown), foliage	Gentian	Oita	5.6	chrysanthemum, rose, sweet pea 2	Bungo
Gifu	6.6 plants (pot-grown), tropical orchids (pot-grown)	Δstragalus	Miyazaki	7 /	tropical orchids (pot-grown), lily, sweet pea ①	Crinum
Gild	o.opiants (por grown), tropical ordinas (por-grown)	nsti agaius	iviiyazaki	7.4	propical orcinus (pot-growing, my, sweet pea ()	Rhododendron
Shizuoka	18chrysanthemum, rose②, Gerbera①	Azalea	Kagoshima	14 1		kiusianum
223010	chrysanthemum(1), tropical orchids (pot-grown)				chrysanthemum②, cut leaves③, tropical	
Aichi	1	Japanese iris	Okinawa	10.8		Erythrina
	Garden tree seedlings②, foliage plants②,				9	
Mie		Sword leaved iris	Total	380.1		