

PVP system in Japan

Implementing the system and benefit of the system

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1. Agricultural and Food Industry in Japan



1-1 Basic data of agriculture in Japan

Main data of Agriculture, Forestry, Fisheries (AFF) and Food industry (1)



	Items		Remarks
Land area	Land area (total)	378	1,000Km2
	Forestry	248	Share 67%
	Cultivated land	44.4	Share 11.7%
	paddy field	24.2	
	upland field	20.3	
Labor force	Total	6671	10 thousands
	Agriculture	182	average age 66.8
	mainly engaged in agriculture	151	
Population	Total	12,703	10 thousands
	Members of Farm households	465	



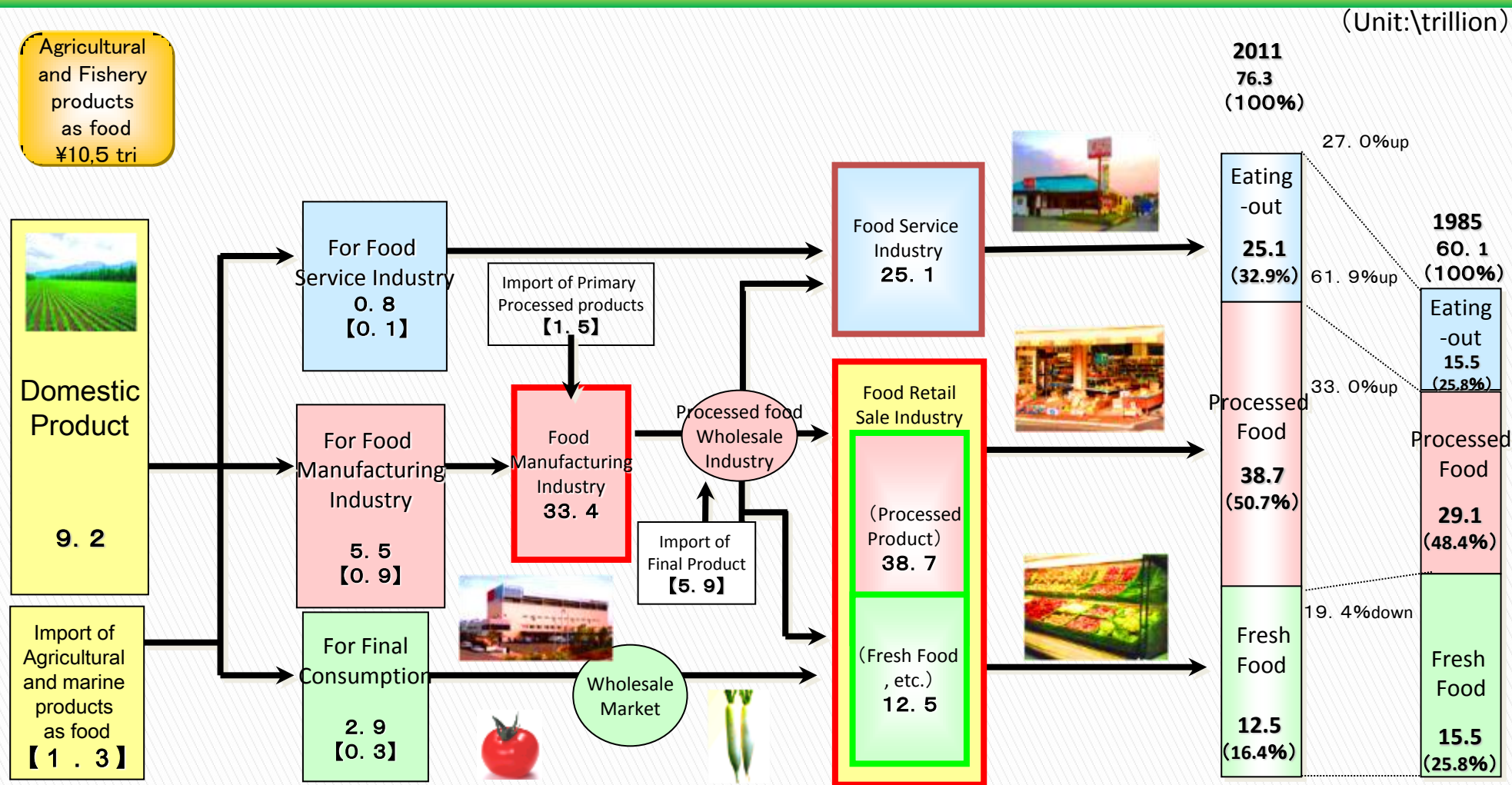
1-2 Current status of agriculture in Japan

Main data of Agriculture, Forestry, Fisheries (AFF) and Food industry (2)

	Items		Remarks
Production output	Gross Output (total)	1001.58	\trillion
	AFF & food industry	111.85	Share 11.2%
	Food related industry	95.43	Share 9.5%
	AFF production	12.20	Share 1.2%
	rice	1.50	
	vegetable	2.39	
	livestock	2.94	
Self-sufficiency rate	Food (calorie supply)	38	%
	Food (production value)	68	%
	Foliage	27	%
Trade	Import	8.55	\trillion
	Export	0.75	\trillion



1-3 Agricultural products and food flow, and role of food industry



(source) MAFF estimates using "2011 Input-Output Tables" by MIAC, etc.

*1:【 】- Imported value

*2: Milled grains, meats and chilled fish are classified as Final Consumption due to low processing.

*3: Meal at hotels and hospitals are not classified as Eating-Out, but a part of which are classified as Fresh Food or Processed Food respectively, using only expense of food stuffs.

1-4 Establishing the Food Value Chain (FVC)

Connect the created value

Production



Manufacturing & Processing



Distribution



Consumption



Value

- Seeds and farming machines
- Agricultural infrastructure
- Chemical inputs

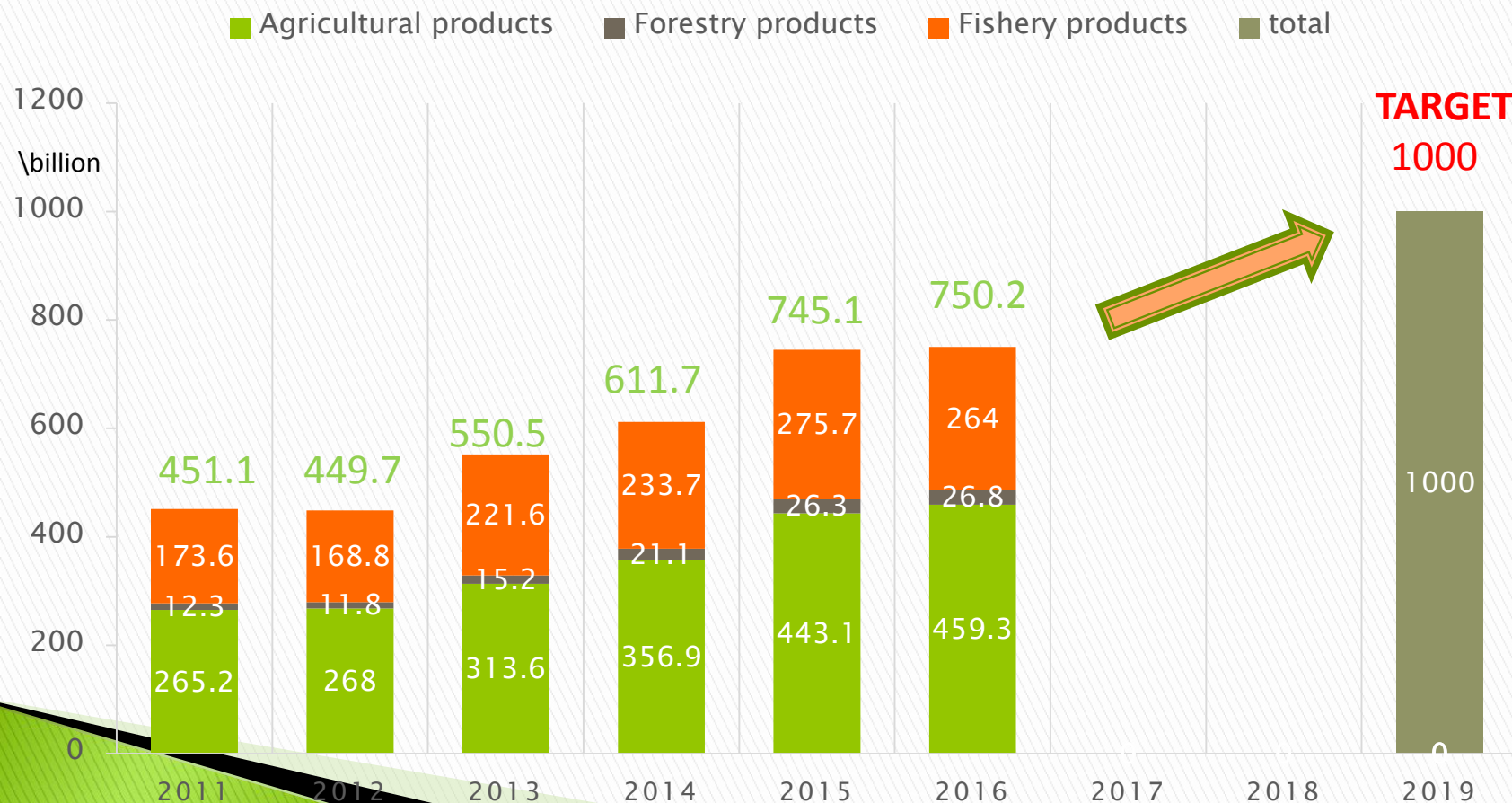
- Food manufacturing facilities

- Cold chains
- Cold distribution centers
- Wholesale
- Supermarkets, department stores

- Restaurants

1-5 Export of Agricultural products and foods

Expansion target of the export value of AFF and Foods



2. Seed industry in Japan



2-1 Seeds in the Food Value Chain

Seeds are at the upstream of the Food Value Chain.
High quality seeds are essential to start expected production.
Without qualified seeds, effective and efficient food value chain cannot be implemented.

Processing & Distribution

**Production
Sites**

**Consumption
Market**

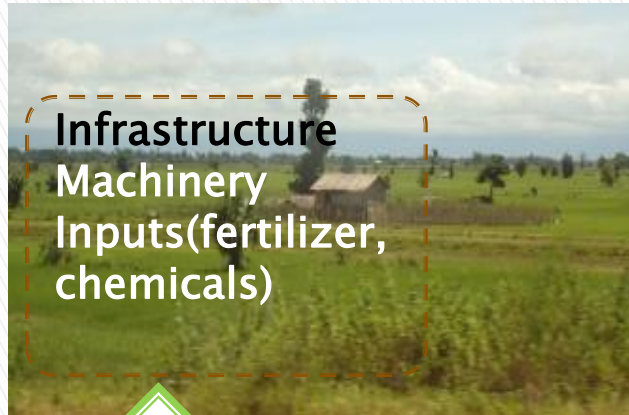
Infrastructure
Machinery
Inputs(fertilizer,
chemicals)

Food Company

**Transportation
Cold chain**

**Wholesale
Retail
Supermarket
Restaurant**

Seeds



2-2 Registered new variety and Seeds industry

1. Application and registration (last three fiscal years)

application: 941(2015), 979(2014), 1027(2013)

registration: 891(2015), 890(2014), 830(2013)

2. Seed industry

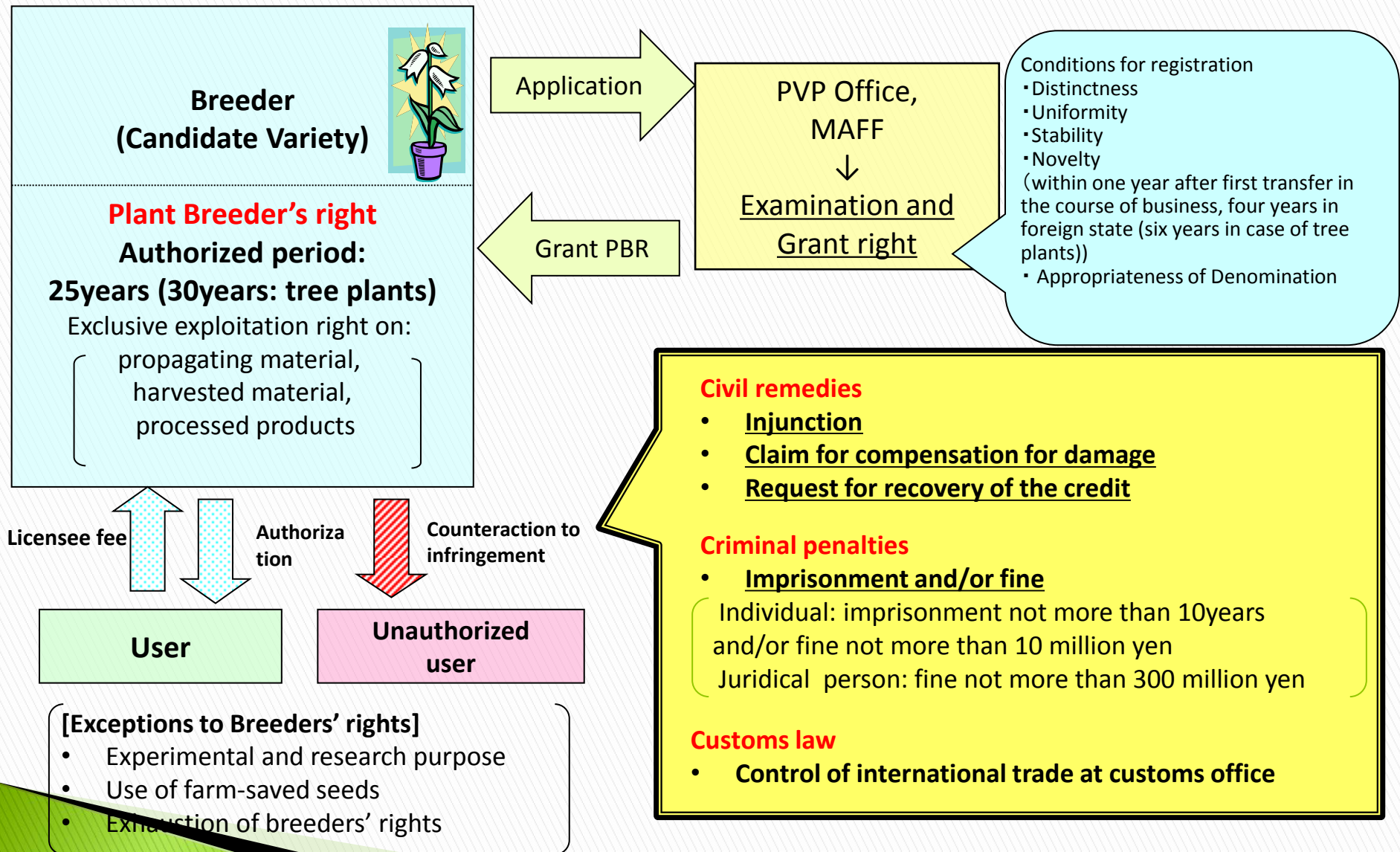
Japan Seed Trade Association(JASTA) has more than 1000 members include retail stores.

- two big companies, Sakata seed corporation, Takii & company
- about 60 breeding companies
- about 10 companies have overseas branches
- Trade of seed and seedling in 2015
 - Export: 37.9 billion yen (360 million US\$)
 - Import: 15.5 billion yen (150 million US\$)

3. Plant variety Protection system in Japan



3-1 Outline of PVP System in Japan



3-2 History of PVP System in Japan

The UPOV Convention

1961 Adopted

(Entry into force in 1968)

1972 Amendment

1978 Amendment

(Entry into force in 1981)

1991 Amendment

(Entry into force in 1998)



JAPAN

1978 “Plant Variety Protection and Seed Act”

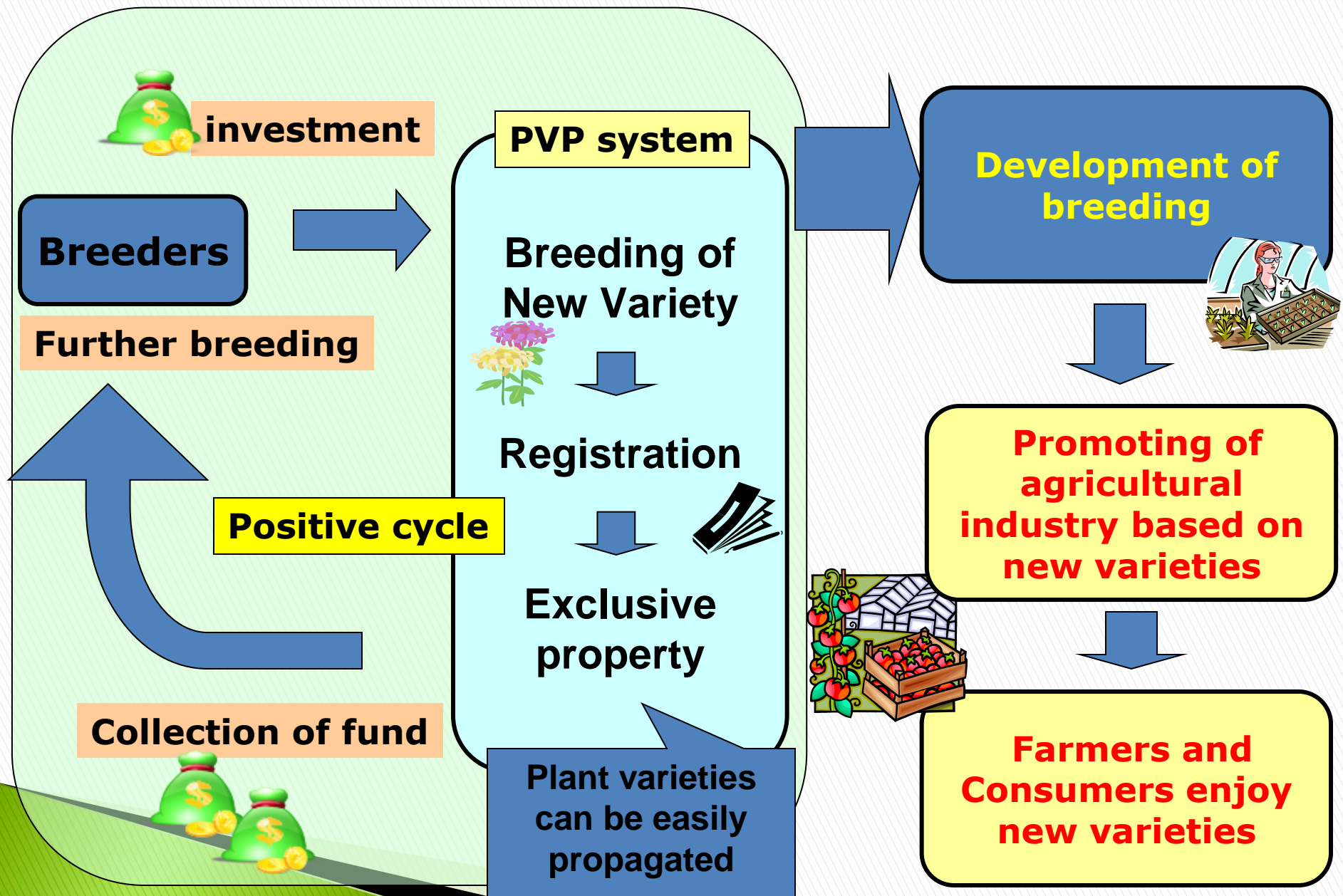
1982 Accession to the 1978 UPOV Convention

1998 Full-Amendment on “Plant Variety Protection and Seed Act”

Authorization of “Breeder’s right”

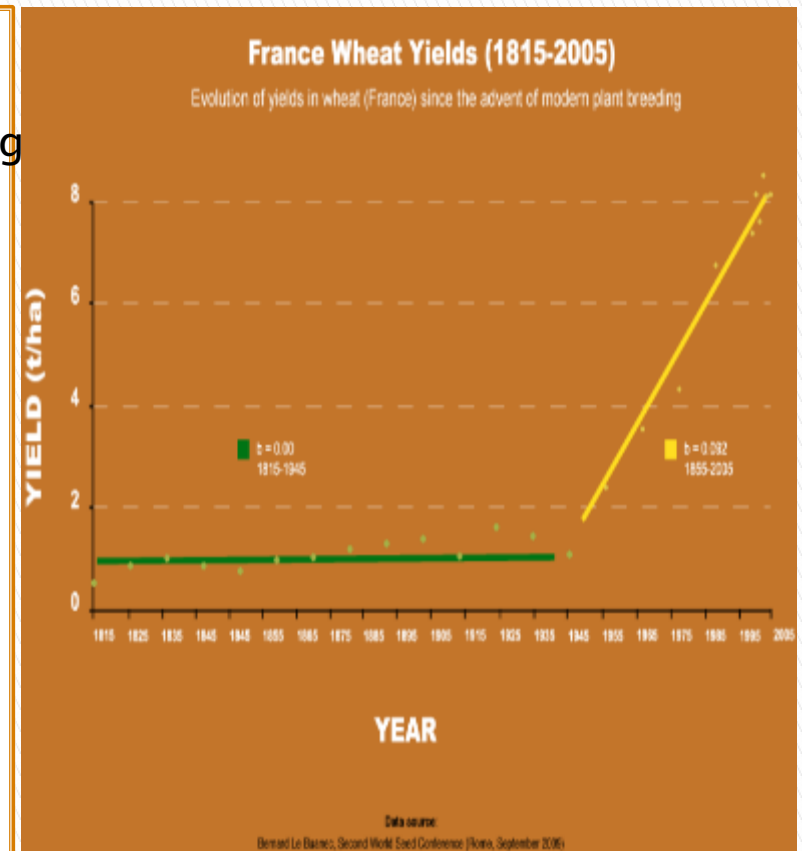
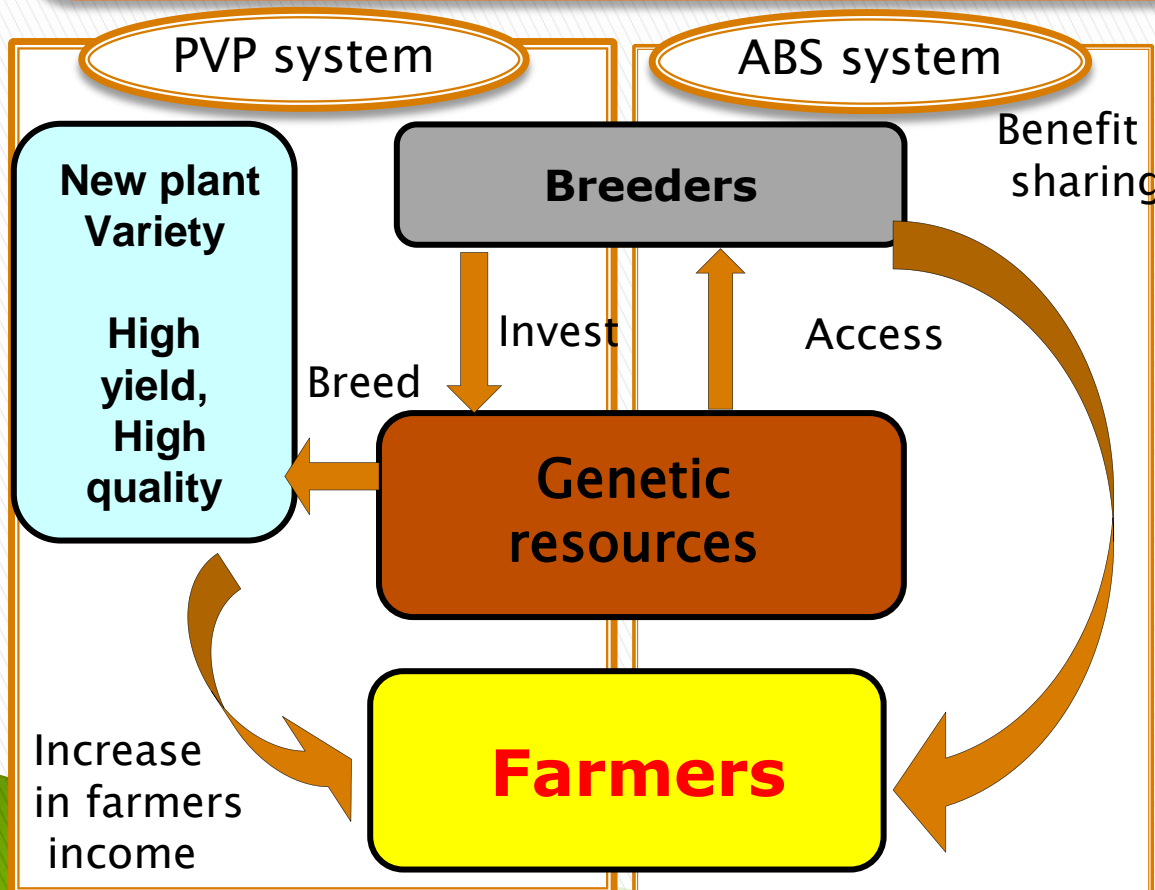
Accession to the 1991 UPOV Convention

3-3 Significance of PVP System

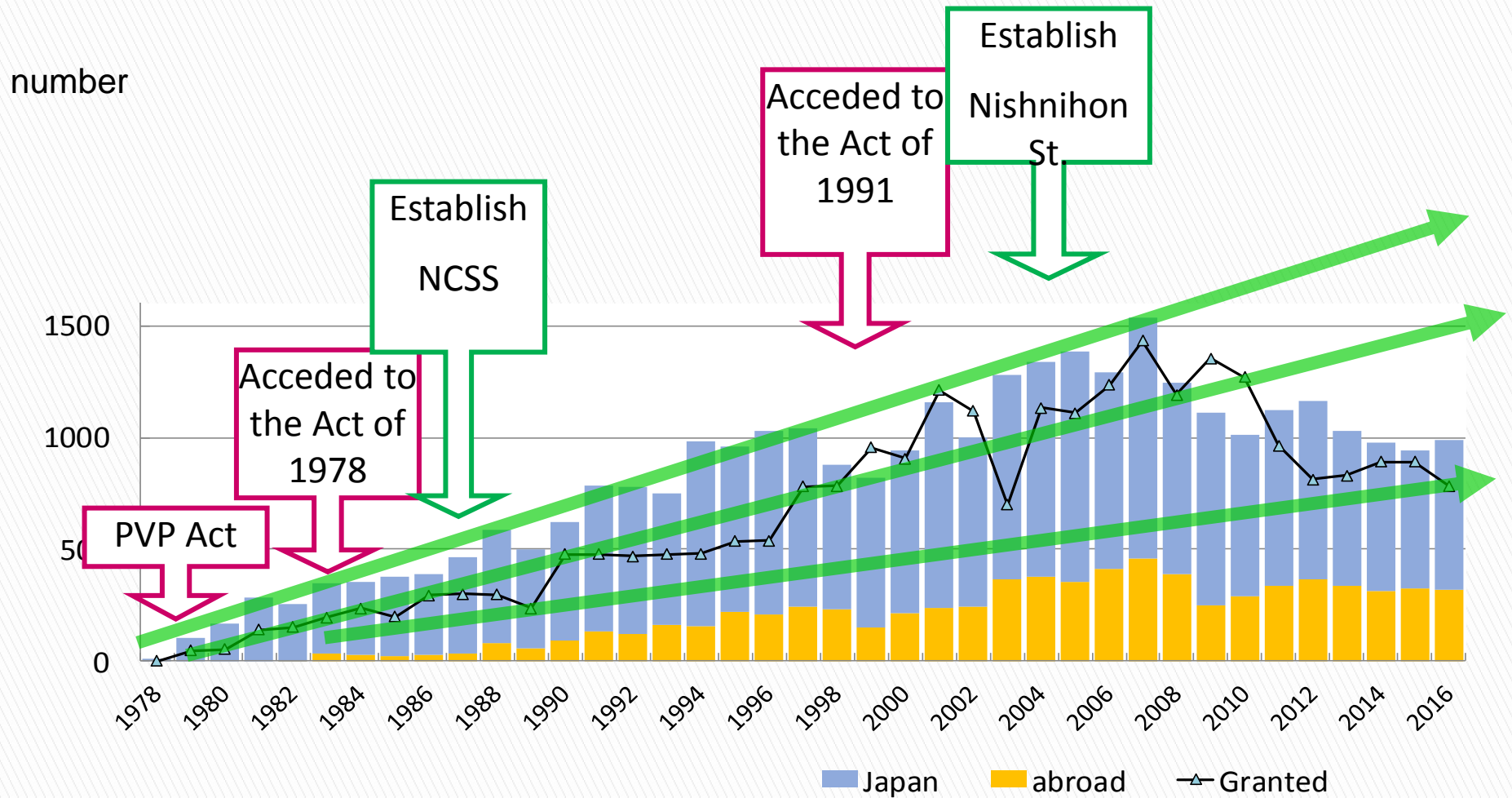


3-4 PVP system and proper management of genetic resources

- Under the appropriate PVP system, breeders can invest for development of new plant variety at ease.
- PVP system contribute to increase Agricultural productivity, which result in higher income for farmers.
- Some countries have concern PVP system may draw piracy on their own genetic resource. However, by combining PVP system, farmers can enjoy higher quality variety as well as security revenue from their genetic resource.



3-5 Trend of Applications



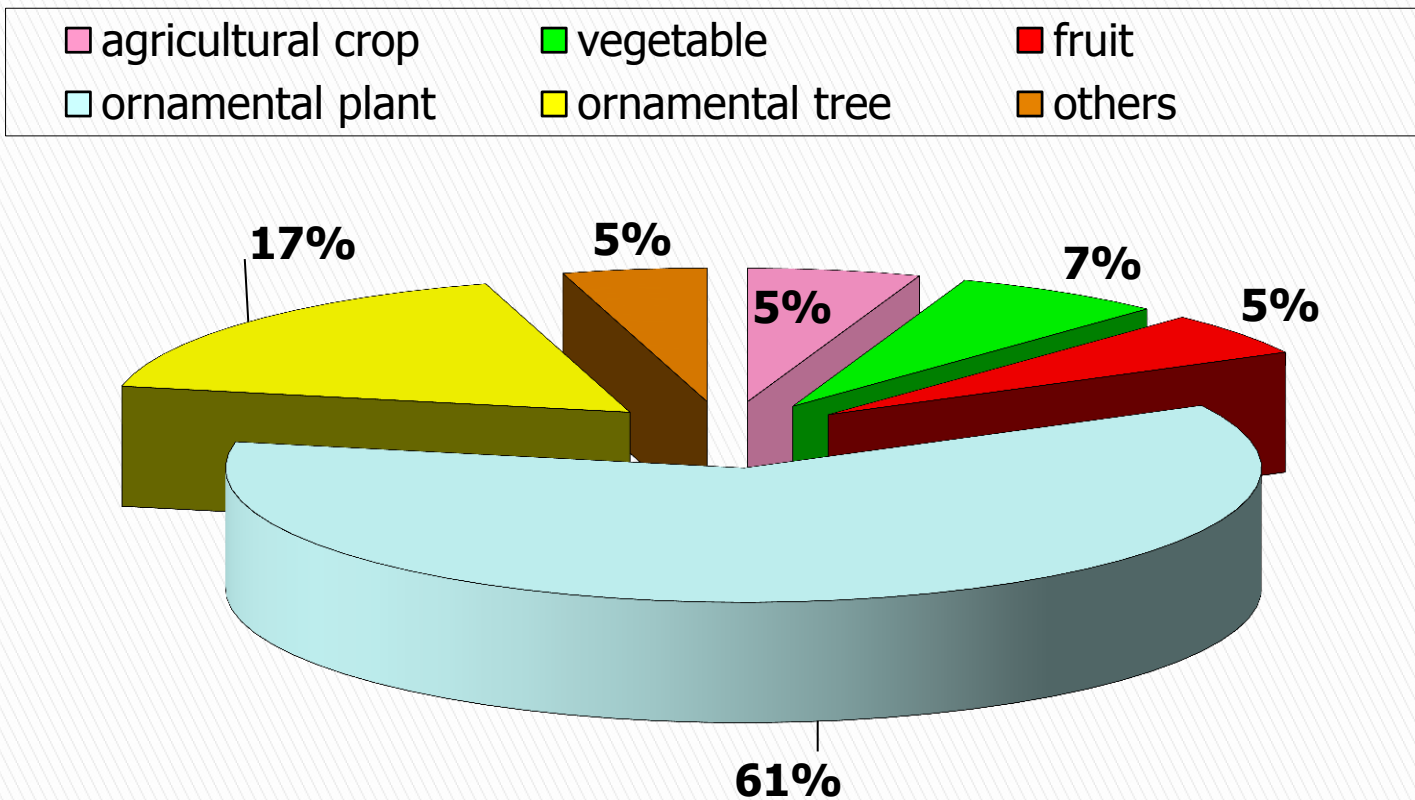
(2015FY)

Application(Total) : 941 (100%)

// (from abroad): 372(40%)

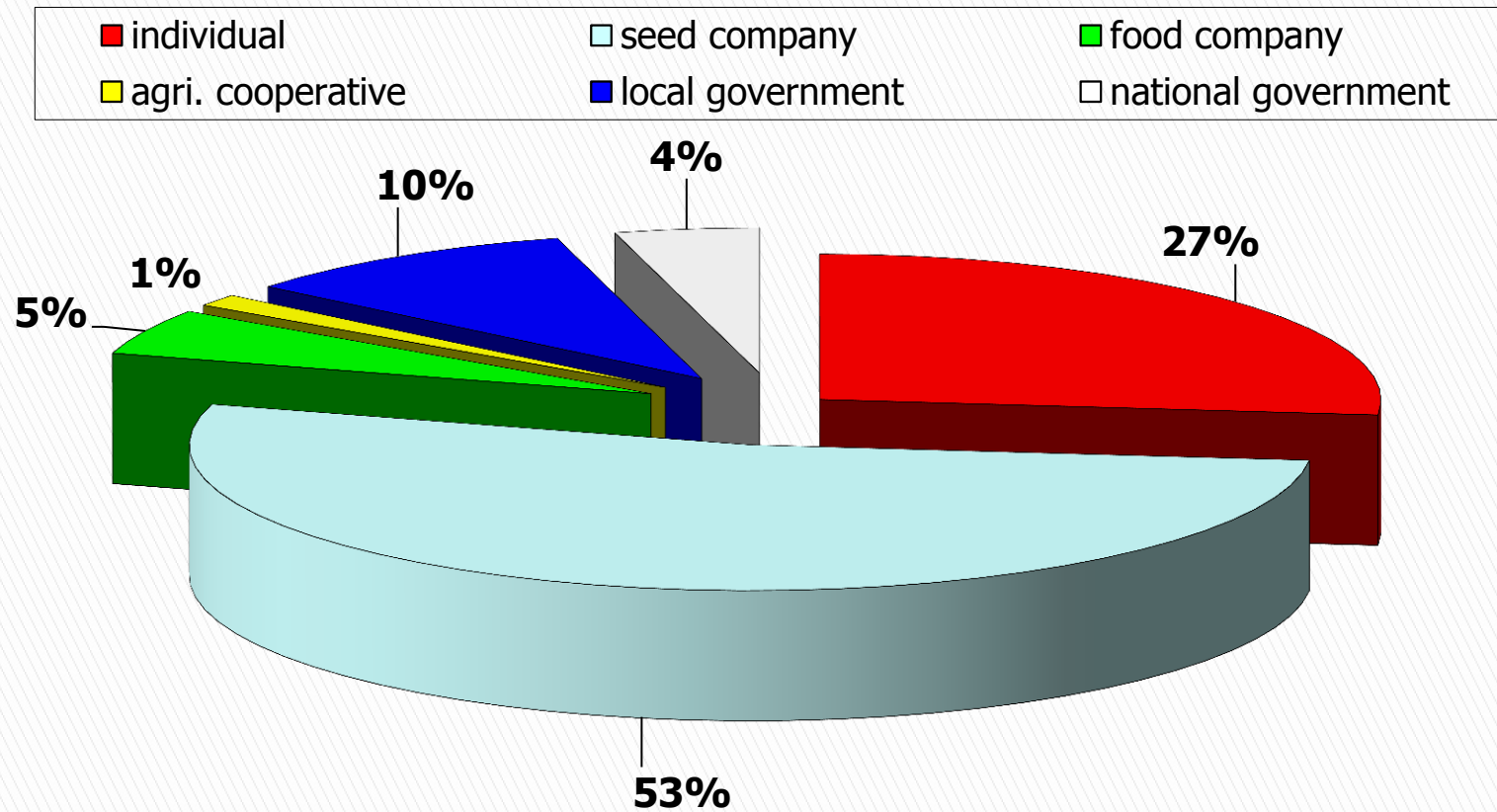
3-6 Granted PBRs by Crop

Total Number: 25,166 (~Mar. 31, 2016)



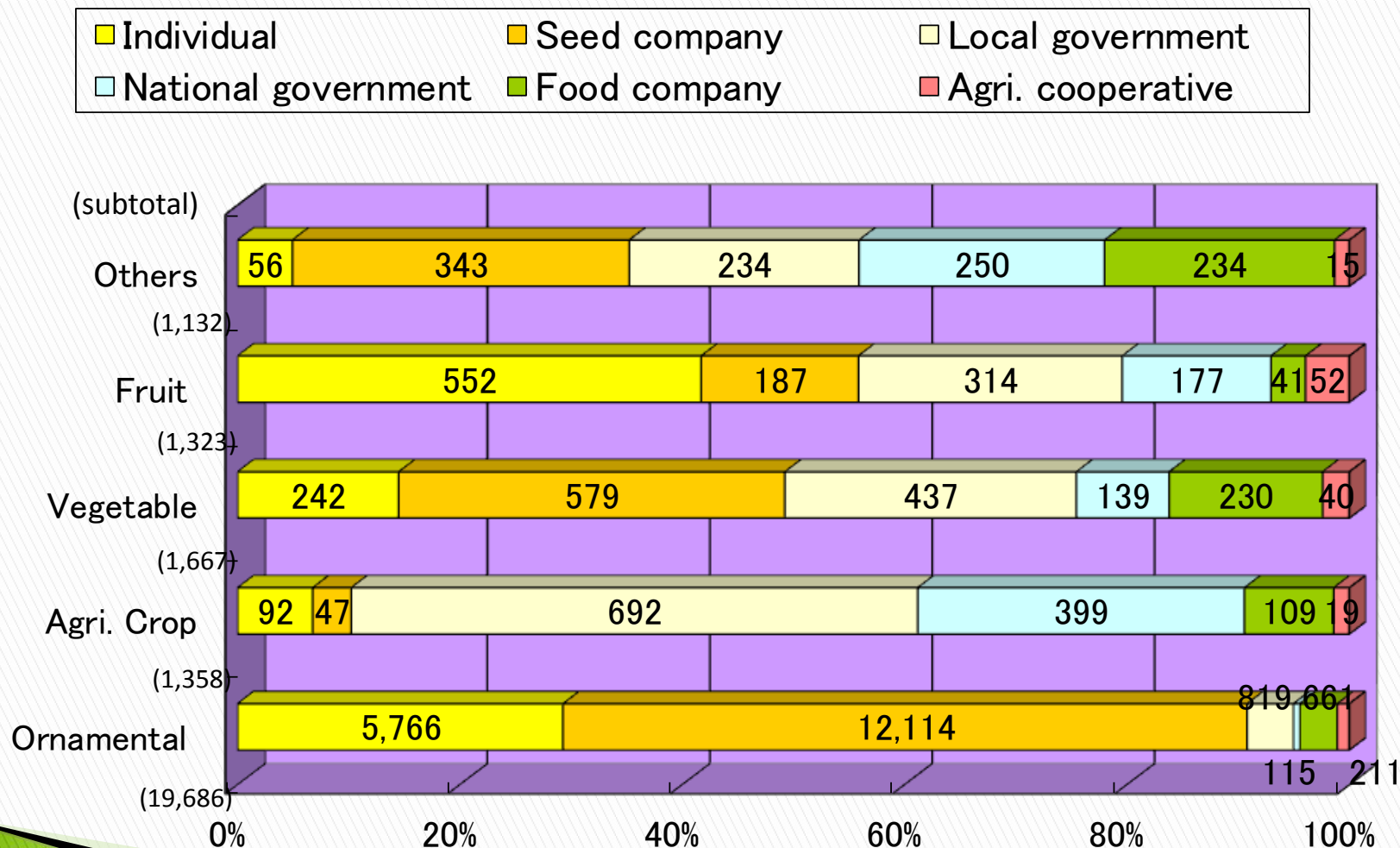
3-7 Granted PBRs by Type of Breeder

Total Number: 25,166 (~Mar. 31, 2016)



3-8 Granted PBRs by Crop and Type of Breeder

Total Number: 25,166 (~Mar. 31, 2016)



3-9 Examination Procedure in Japan

- Formality examination
- Planning for DUS Test
 - Distinctness
 - Uniformity
 - Stability
- ✓ Decision on the test method
 - growing Test (NCSS)
 - Breeder Testing (On-site Inspection)
 - Documentary Examination (including International Cooperation)
- Examination on Denomination
- Examination on Novelty



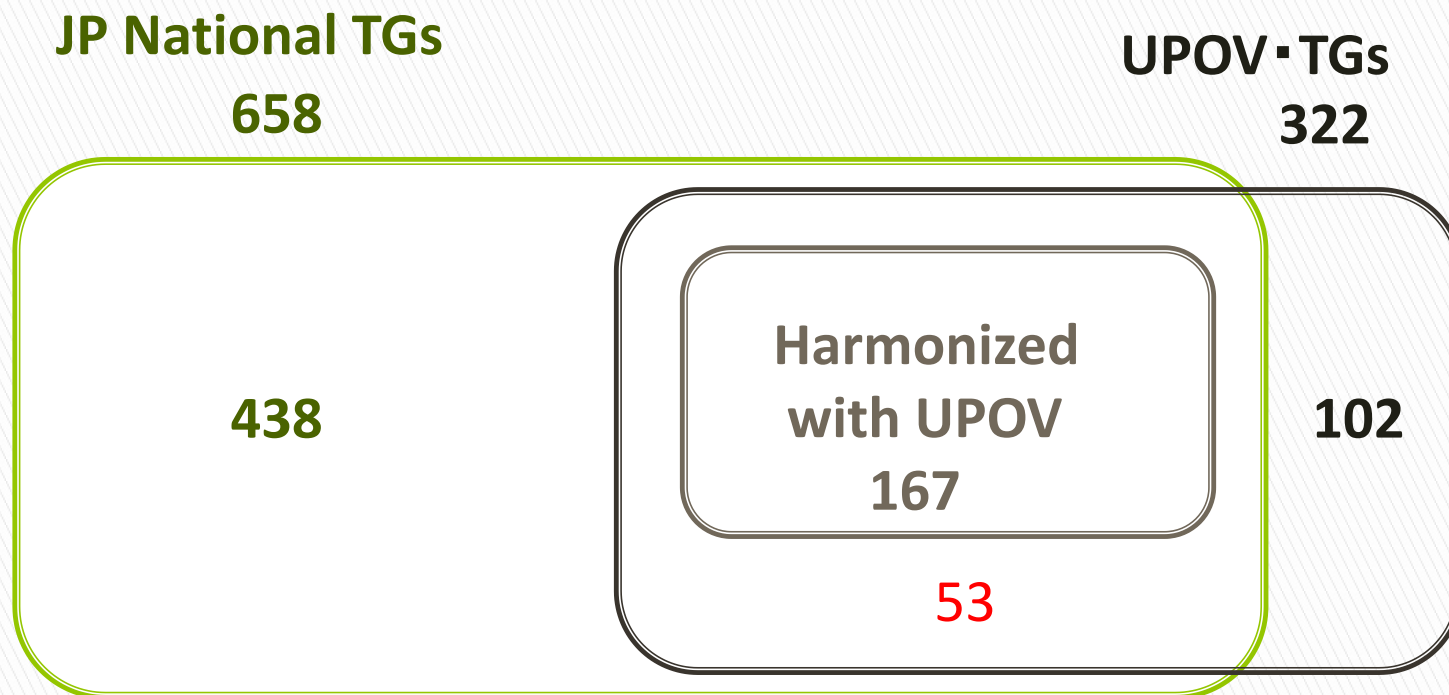
3-10 Developing and Harmonizing National TGs

- ▶ Japanese PVP Office has more than 600 National Test Guidelines (TGs).
 - After ratifying 1991 UPOV convention in 1998 Japan received about 20 applications of new plant group in every years.
 - Developing National TGs for new species or genera.
 - Harmonizing National TGs according to UPOV TGs.
 - Japanese National TGs in English on website by Latin name order.

http://www.hinsyu.maff.go.jp/en/en_top.html



3-11 Developing and Harmonizing National TGs



- Harmonization of TGs has been conducted since 2007.

Strengthening of Test Guidelines (TGs)

- Development of new national TGs : 11 genera and species in 2016
- Revision of existing national TGs harmonizing with the UPOV TGs : 4 genera and species in 2016

3-12 Cooperation in Examination

- EU (CPVO) ; Petunia, Calibrachoa (2007)
Chrysanthemum (2010)
Rose (2011)
- Example variety set for East Asia on UPOV TG for rice (2003–2008, Japan–China–Korea)
 - UPOV TGs for RICE will start revision under the TWA
- MOU between NCSS and Naktuinbouw for technical cooperation on the manual development



3-13 Conclusion of MOU concerning free provision of Japan's examination

- ◆ To expand export of seeds and seedlings bred in Japan, it's essential that intellectual properties owned by Japanese seed companies are protected overseas.
- ◆ Under the UPOV Convention, it is provided that UPOV Members can utilize results of examination of new varieties when they examine the same varieties.



Japan has concluded MOU related to free provision of examination results of Japan's authority to corresponding authorities of the following 11 countries where many applications of Japan's seed companies have been done.

Parties



Australia



Brazil



New Zealand



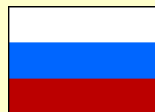
Swiss



Vietnam



European Union (EU)



Russian Federation



Kenya



Mexico



Israel



Netherland



Further promotion of conclusion of MOU concerning free provision of examination results with other UPOV Members

3-14 The East Asia Plant Variety Protection(EAPVP) Forum

- Framework to promote mutual cooperation for members to facilitate international harmonization of the PVP system.
- For the overall goal of achieving food security and other benefits to the society, through sustainable plant breeding activities.
- Endorsed at ASEAN+3 Ministers on Agriculture and Forestry (AMAF+3) Meeting in 2007 and established in 2008.
- Regional cooperation activities to provide assistance in human resource development and awareness raising of benefit derived from the harmonized PVP system.
- The 10th anniversary forum was held in Naypyidaw, Myanmar, 11 September 2017, and adopted to prepare EAPVP's Next 10 year strategic plan at the next forum.



4. Agricultural and Social benefit by the PVP system



4-1 Consumer's demands and supply from agriculture sector

Consumers' needs/ interest

- Price
 - Taste/ Delicious
 - Freshness
 - Nutrient/ Health
 - Environment friendly (organic etc)
 - Good looking (uniformity)
 - Production region (branding)
- etc.

Manufacturer's/ distributor's needs

- Price
- Uniformity
- Stability etc.

Farmer's challenge

New variety

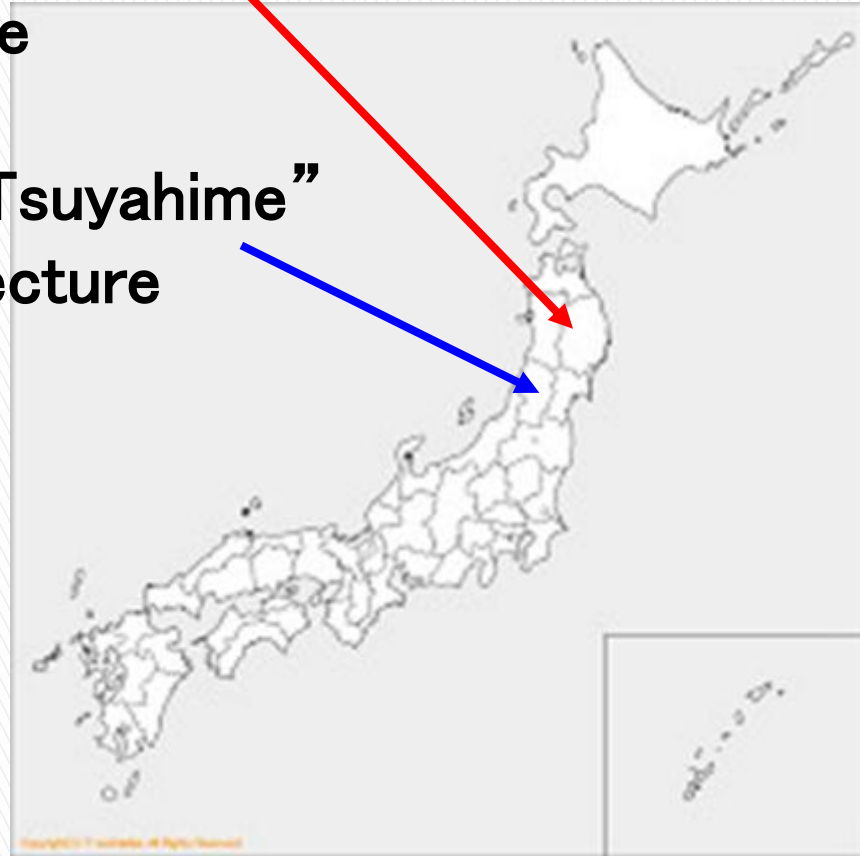
- High yield
- High/Low content of components
- Desirable shape, color, (Characteristics)
- Disease/Pest resistance
- Uniformity
- Stability

New technology

4-2.Case study in Japan

(2) Gentian “Ashiro Rindo” Hachimantai city,
Iwate Prefecture

(1) *Oryza sativa* “Tsuyahime”
Yamagata Prefecture



4-3 Tsuyahime: Promotion of a brand new high quality rice

つや姫: TSUYAHIME: New rice variety granted in 2011

Under the comprehensive branding strategy organized by Yamagata Prefecture

- ◆ Securing high quality

Limited farmers, cultivation area and methods, severe standard for shipping

- ◆ Advertising strategy

Nationwide TV promotion film, Newspaper AD, Registered trademark of package design

- ◆ Sales promotion

Top sales by the Governor, PR by “Tsuyahime lady” at events, tasting events

High appreciation from market and consumers

Expansion of Production



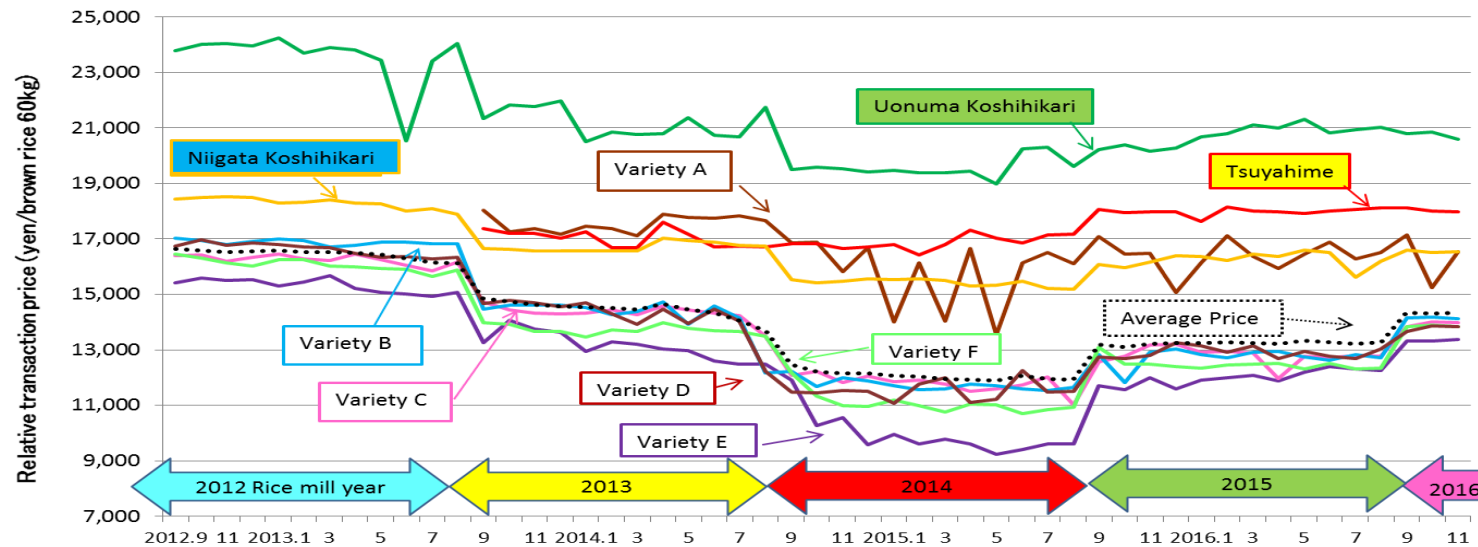
4-4 Securing high quality by a guideline

Farmers who wish to grow “Tsuyahime” need to be certified by the branding board (headed by the Governor of Yamagata prefecture) according a guideline follows; .

- Under the designed planting area for optimum growing
(Planting area map is published considering climate and geographical condition)
- Cultivation methods are allowed only Organic or Reduced chemical farming
- Comply to restricted shipment rule
Grain quality 1st grade or 2nd grade
Protein content less than 6.4%

4-5 Result of the promotion (1)

- Secure price position equal to or better than Niigata Koshihikari



- Cultivation area and distribution volume increase about 3 times

cultivation area 2,500ha(2010) → 8,807ha(2016)

growers 2,520 unit(2010) → 5,320unit(2016)

distribution inspection amount

12,267t(2010) → 35,949t(2016)

- However, nationwide awareness is still on progress
Production share 0.8% (Koshihikari 36.1%)

4-6 Result of the promotion (2)

Case of infringement

- After investigation, Yamagata Prefectural Police Department arrested the suspect on suspicion of violating the PVP and Seed Act. The Yamagata District Court gave a sentence of one and half years' imprisonment with a three years' stay of execution, and a fine of 500,000 yen to the accused.

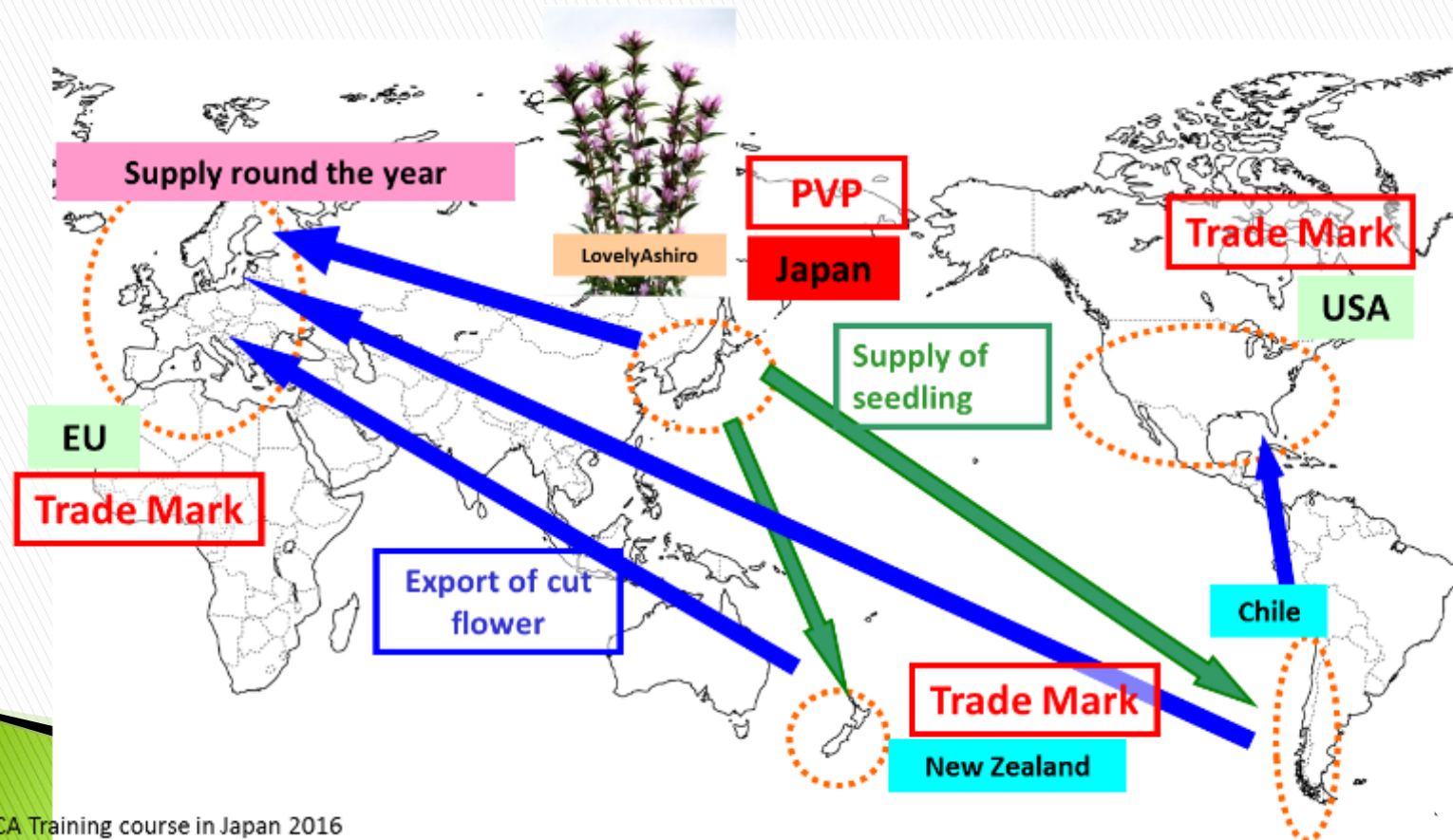
Lesson learned from the promotion

- In order to establish a price position and raise awareness until it is nominated from consumers, it is necessary that Prefecture continues to undertake branding.

4-7 Ashiro rindo: Promotion of varieties under the harmonized system

安代りんどう:ASHIRO RINDO (Gentian)

- PBR and Trade Mark granted in Japan also granted some third countries.
- Producers not only export their flowers but also supply seedlings some producers in Southern hemisphere by exclusive use contract with royalty.
- ASHIRO gentian is now shipped to EU and USA round the year.



4-8 Varieties and trademark

➤ Registered Varieties of “Ashiro Rindo” (Ashiro Gentian)

Ashiro no Aki (1996)

Merhen Ashiro (1999) **E**

Lovely Ashiro (2002) **E,N,C**

Ashiro no Hatsuaki (2007)

Ashiro 2007-1 (2009)

Ashiro 2008-1 (2010)

Ashiro 2012-1 (2014)

Ashiro 2012-3 (2015)

E: EU, N: NZ, C: CI, U: US

Ashiro no Natsu (1999)

Shine Blue Ashiro (1999) **E**

Ashiro no Hitomi (2007)

Cristal Ashiro (2008)

Ashiro 2007-2 (2009)

Ashiro 2010-1 (2012)

Ashiro 2012-2 (2014)

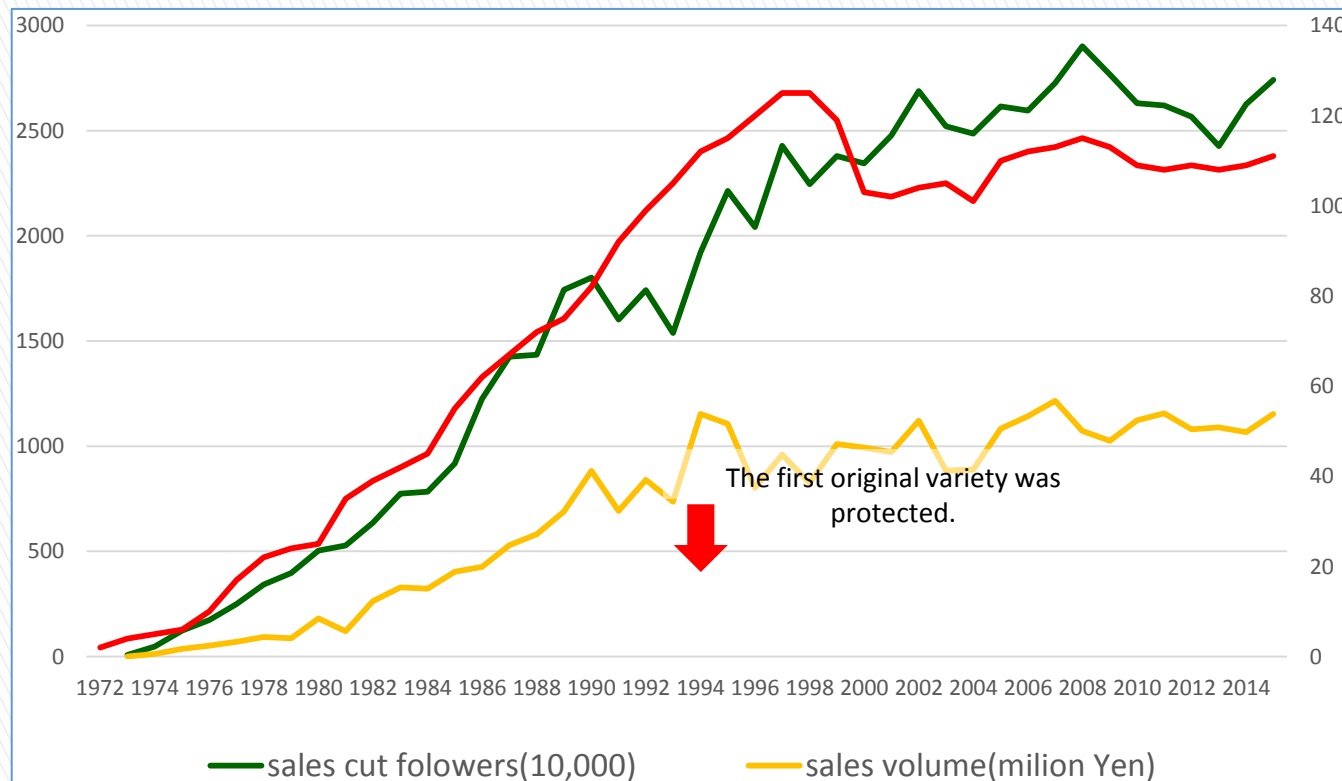
RI0405128 (2015) **E,N,U**

➤ Trademark “Ashiro Rindo” registration in Japan and overseas (**JP, CN, EU, NZ, US**)



4-9 Result of the activity

- Under the same registered trademark “Asiro Rindo”, some registered varieties are now delivered not only Japan but also in US or EU.
- As a result, Asiro is now one of the leading “Rindo” production area in Japan.



- ✓ Achieved 30 billion yen from the start of production in 1972
- ✓ Achievement of 1 billion yen of year production amount last 10 years

5. Conclusion

- PVP system can be strong tool for branding to ensure high quality under proper management.
- Using the PVP system under the given condition, tailor made strategy need to be considered.
- Combination of other IP tool including patent or trademark can be considered for more efficient way.
- International strategy including protection and cooperation of target country should be considered.
- Continuous effort by breeders for promoting and maintaining “brand” is essential



Thank you for your attention

MAFF's mission is to hand down “**food**” as the basis of human life and a secure “**environment**” to future generations.

We make our utmost efforts to always directly address people's expectations and propose and implement visionary policies.

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