

# Plant Variety Protection System in JAPAN

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# Plant Variety Protection system in Japan

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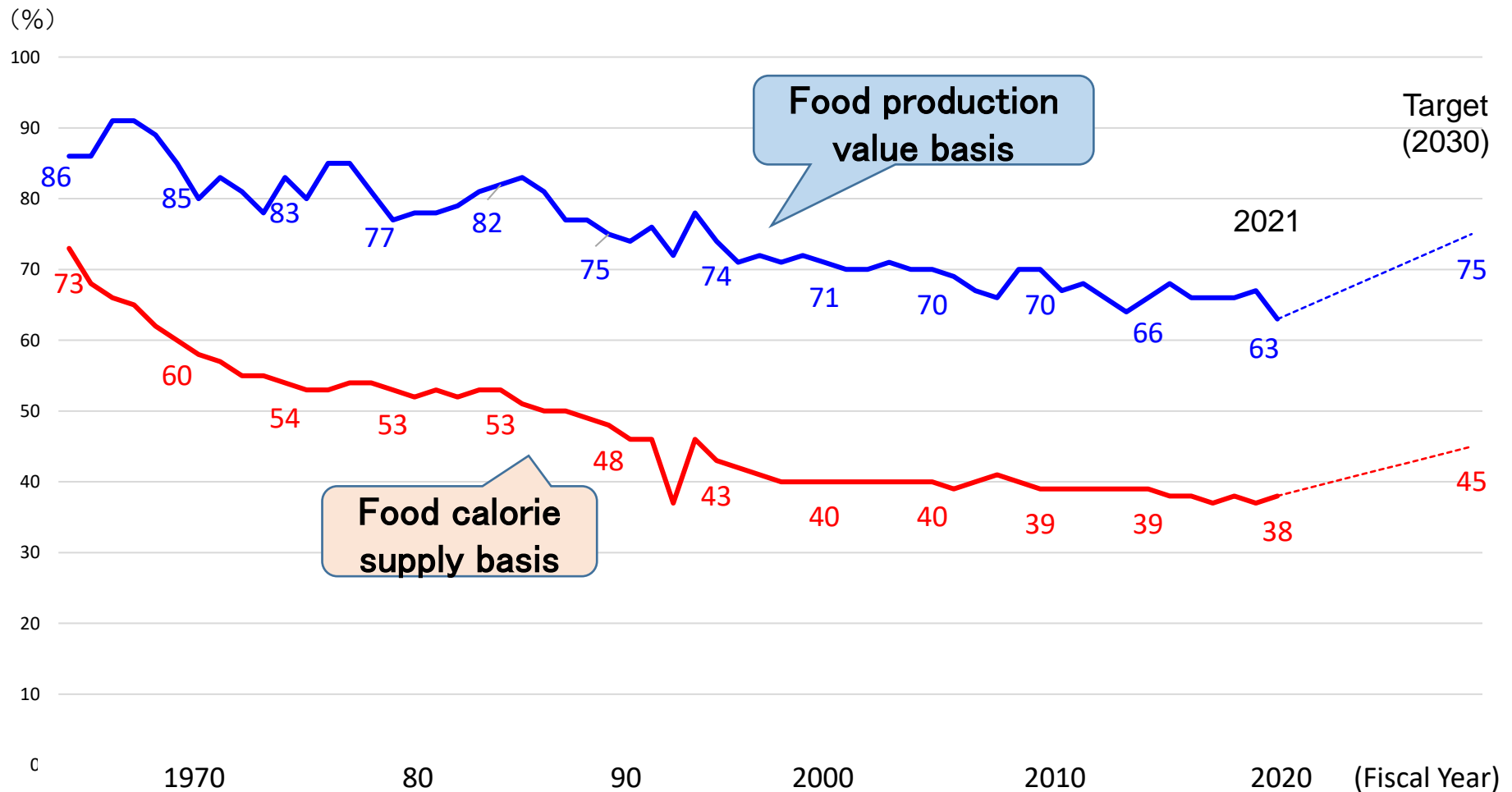
# 1. Introduction - agriculture and plant varieties

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# Self-sufficiency ratio

Until 2000, food self-sufficiency ratio has been trending downward over the long term due to such factors as changes in dietary patterns.

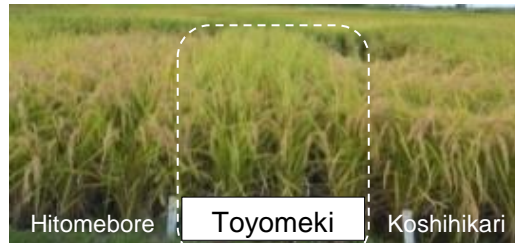


# Japan's Agriculture Supported by Superior New Plant Varieties

- **New plant variety** is one of important factor supporting the **development of agriculture in Japan**.
- **Both farmers and consumers enjoy the benefits** from **the development of new plant varieties** that meet environmental and consumers' preferences, such as, improved productivity, better taste etc.

## [Super high-yield rice]

Super high-yield paddy rice “TOYOMEKI”, of which yield is 800 kg/10a or more, 1.5 times more than other varieties



## [Chestnuts easy to peel]

Japan chestnut “Porotan”, which can be very easily peeled and cooked.



## [Pears resistant to disease and pests]

Pears "Gold Twentieth Century", resistant to black spot disease which is the weaknesses of conventional varieties

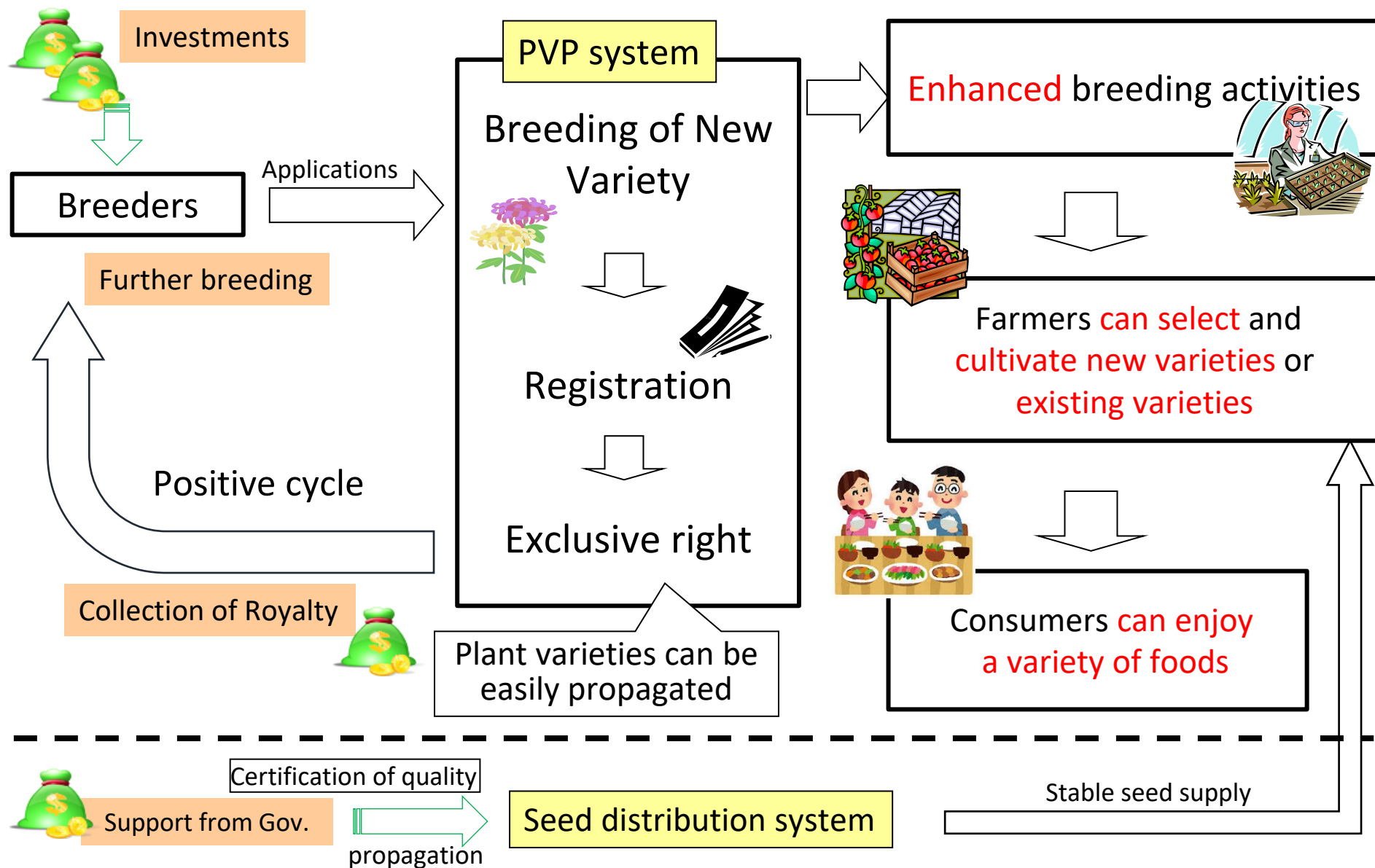


## [Cold-resistant and delicious rice]

Paddy rice “Kirara 397” has achieved unprecedented excellent taste in addition to cold resistance. This variety led to the later strategy of brand-name rice.

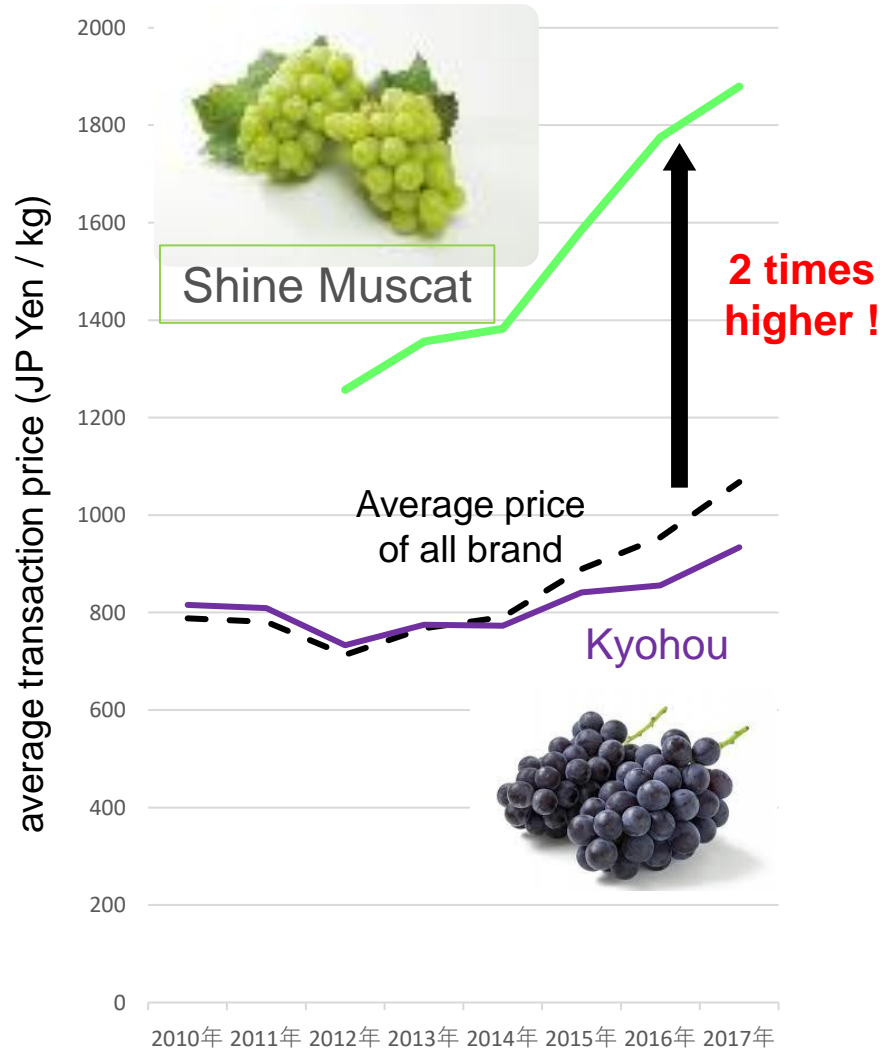


# Why Plant Variety Protection (PVP) System

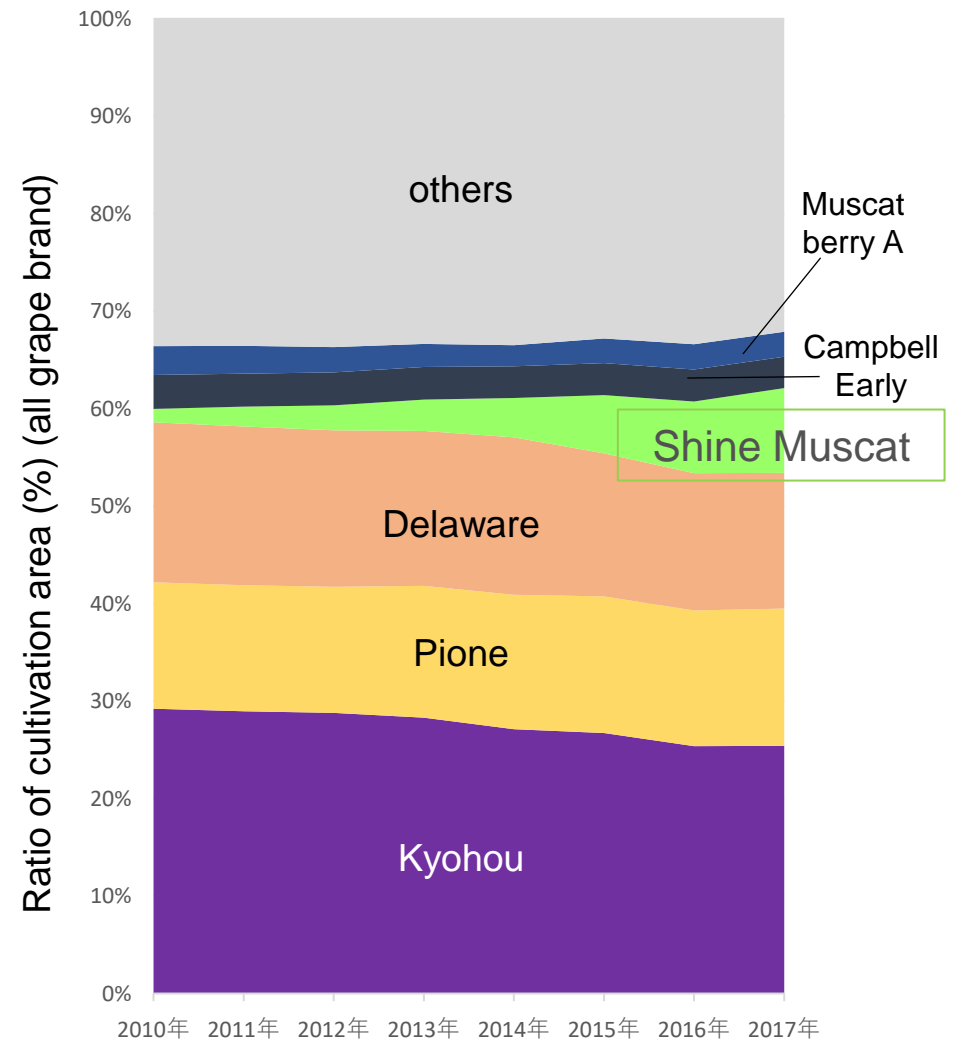


# Effect of PVP (case 1: table grape variety “Shine Muscat”)

## Trend of table grape price



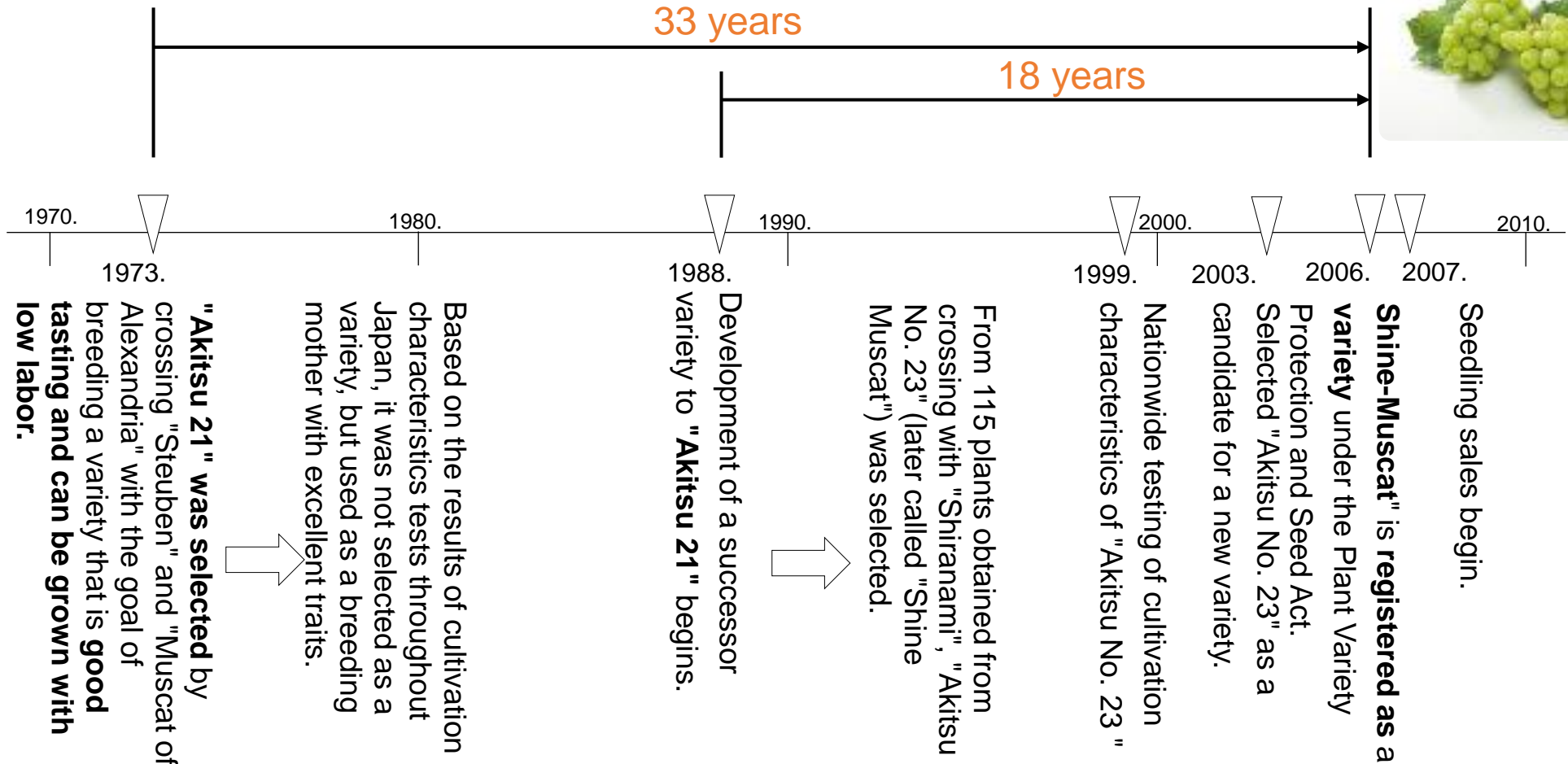
## Ratio of cultivation area (all grape varieties)



# Breeding requires a lot of time and cost

- The grape variety "**Shine Muscat**" developed by the National Agriculture and Food Research Organization(NARO) took **33 years** from the selection of the parent line "Akitsu 21" to its registration, and **18 years** from the start of crossbreeding tests of "Akitsu 21".
- In the last 18 years alone, **13 researchers have been involved in the development of the variety.**

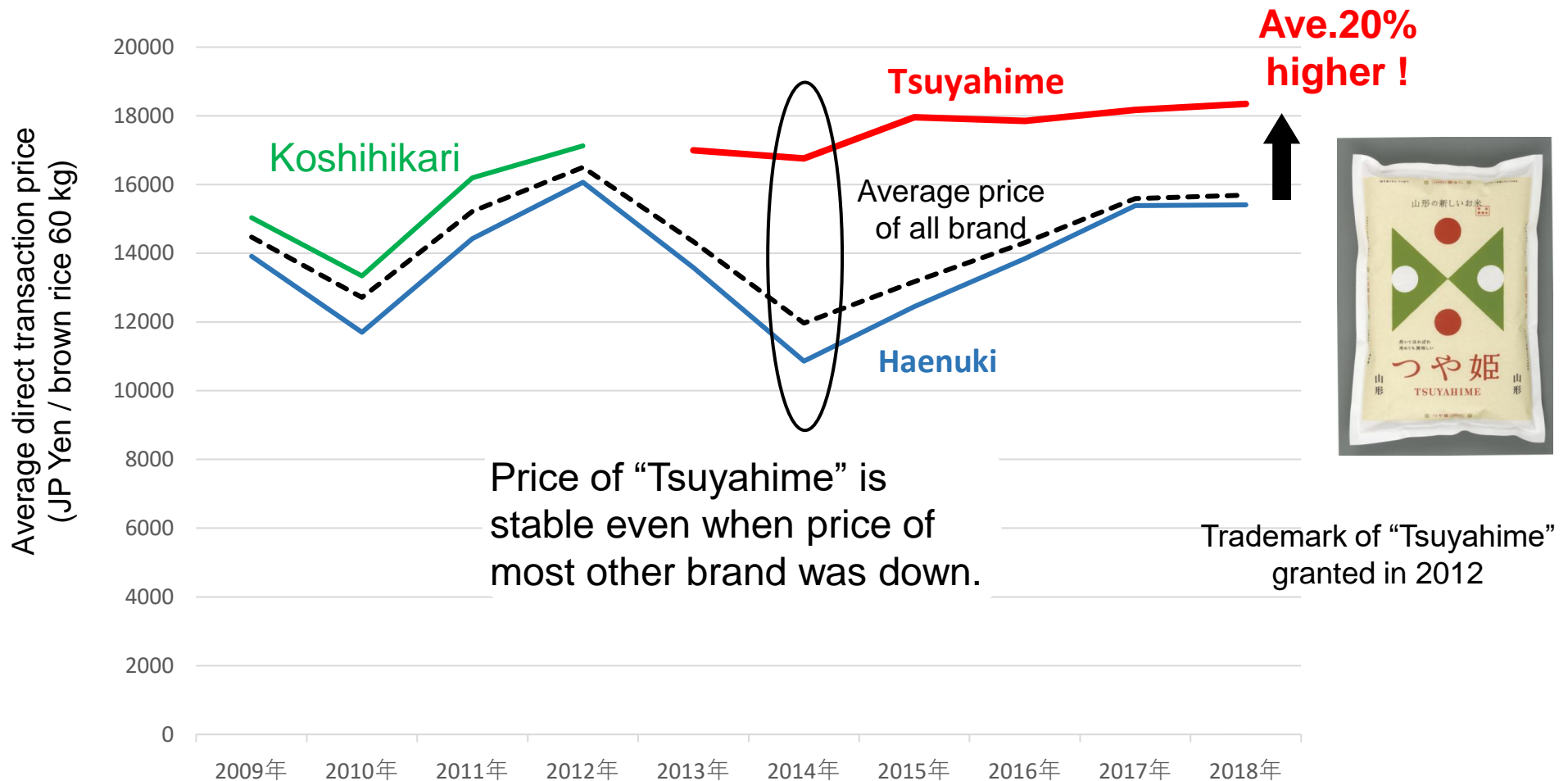
## Long Progress in the development of "Shine Muscat" variety at NARO





# Effect of PVP ( case 2: rice variety “Tsuyahime”)

Trend of price in Yamagata pref.



# Case study 1: PVP as a tool of branding

## つや姫 : TSUYAHIME:

New rice variety bred by Yamagata Prefecture  
PBR granted in 2011

Comprehensive branding strategy of Yamagata  
to compete other rice brands in Japan



- ◆ Using PVP system to secure high quality
  - Authorized skilled farmers in Yamagata pref.  
**Cultivation area:** allowed only for designated suitable area  
**Limited farmers:** accredited farmers passed check on knowledge  
**Methods:** Follow organic or reduced chemical farming  
**Royalty:** Free
  - Authorized other farmers in other pref. **with royalty**
  - Criminal accusation to unauthorized user
- ◆ Advertising strategy, sales promotion

Trademark of "Tsuyahime"  
granted in 2012

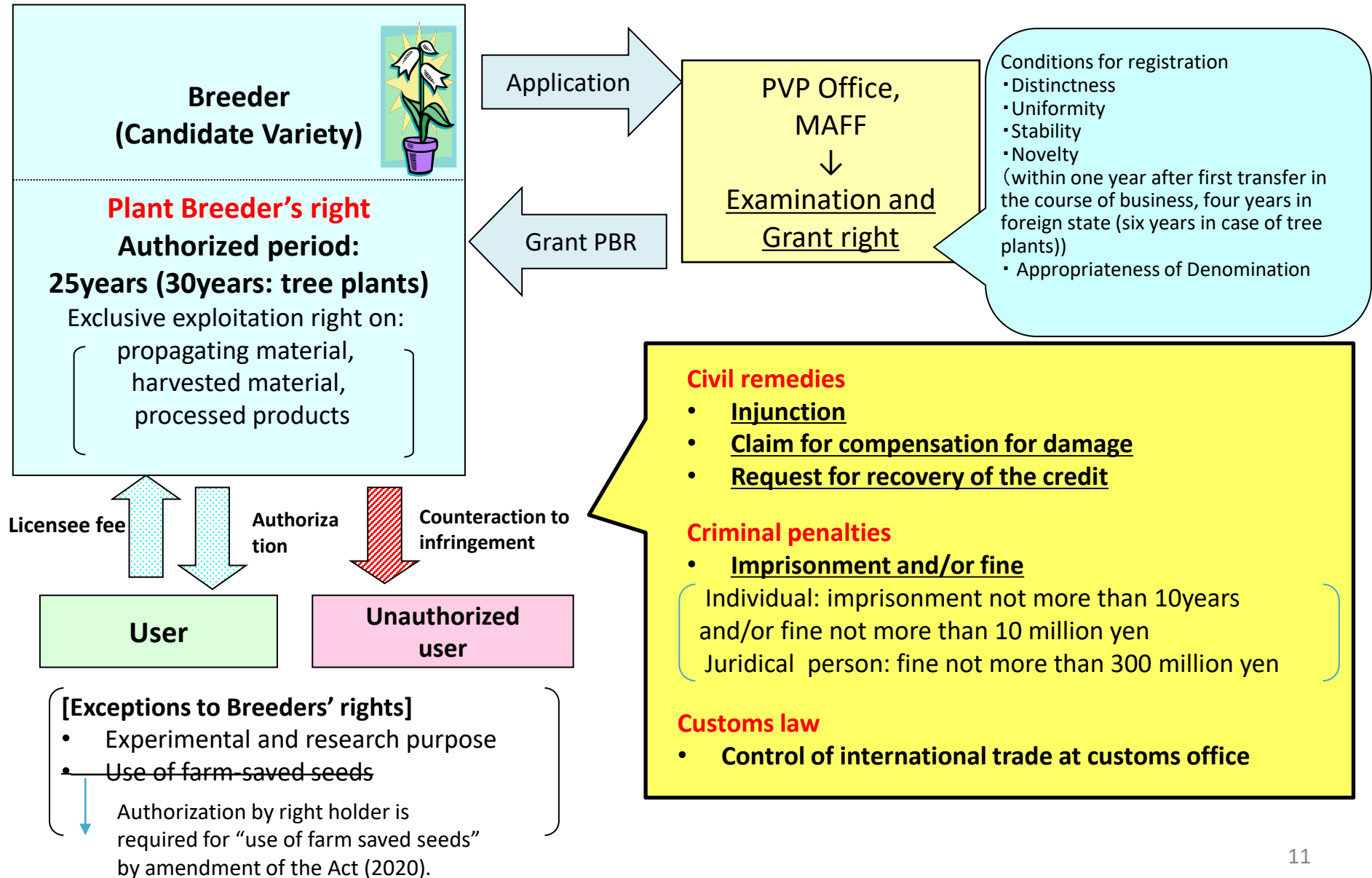


## 2. Plant Variety Protection in Japan

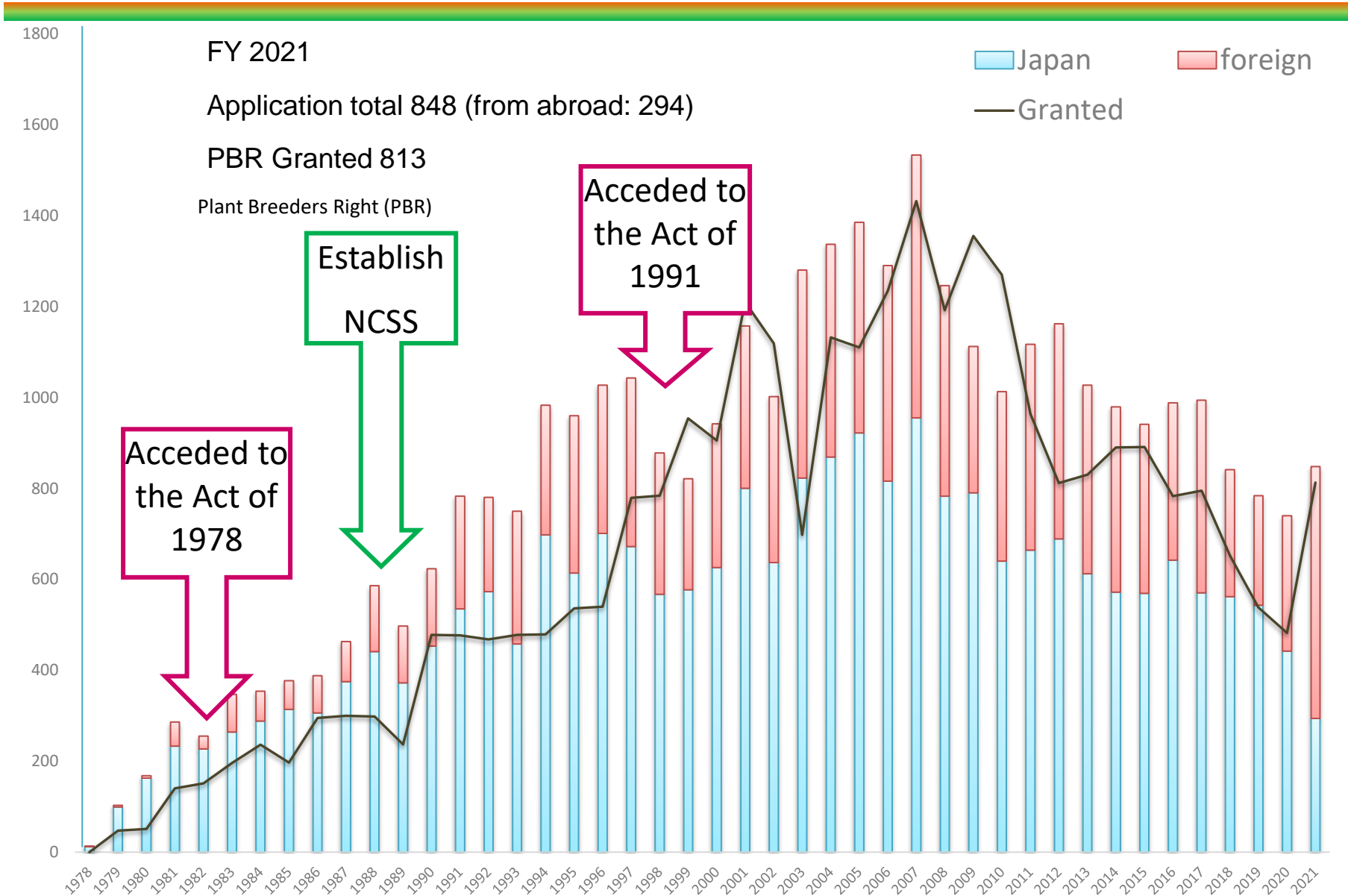
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# Outline of PVP System in Japan

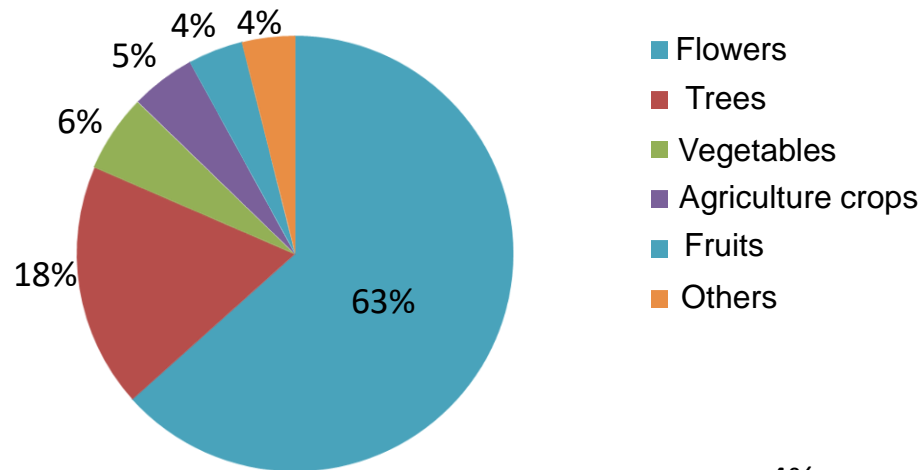


# History and trend of annual application and grant



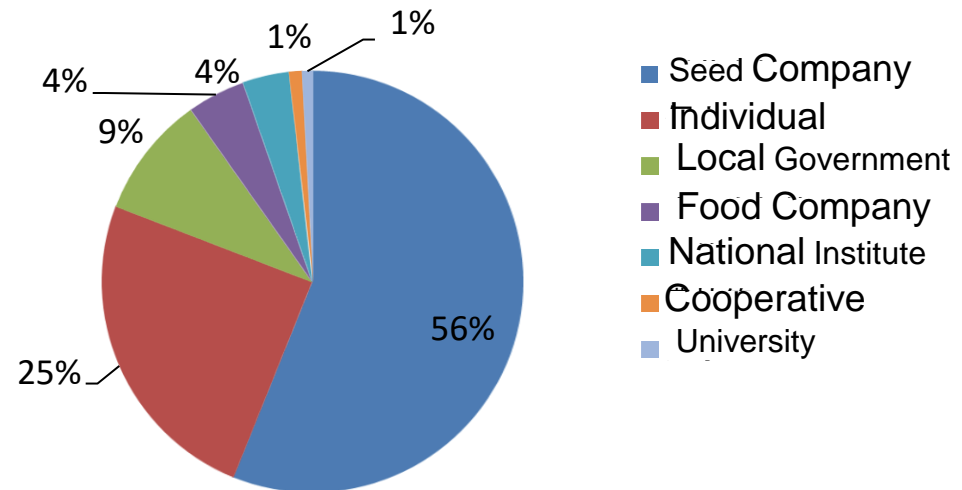
# Percentage of protected varieties (by crop type, right holder type)

**Percentage of protected varieties  
(by crop type)**



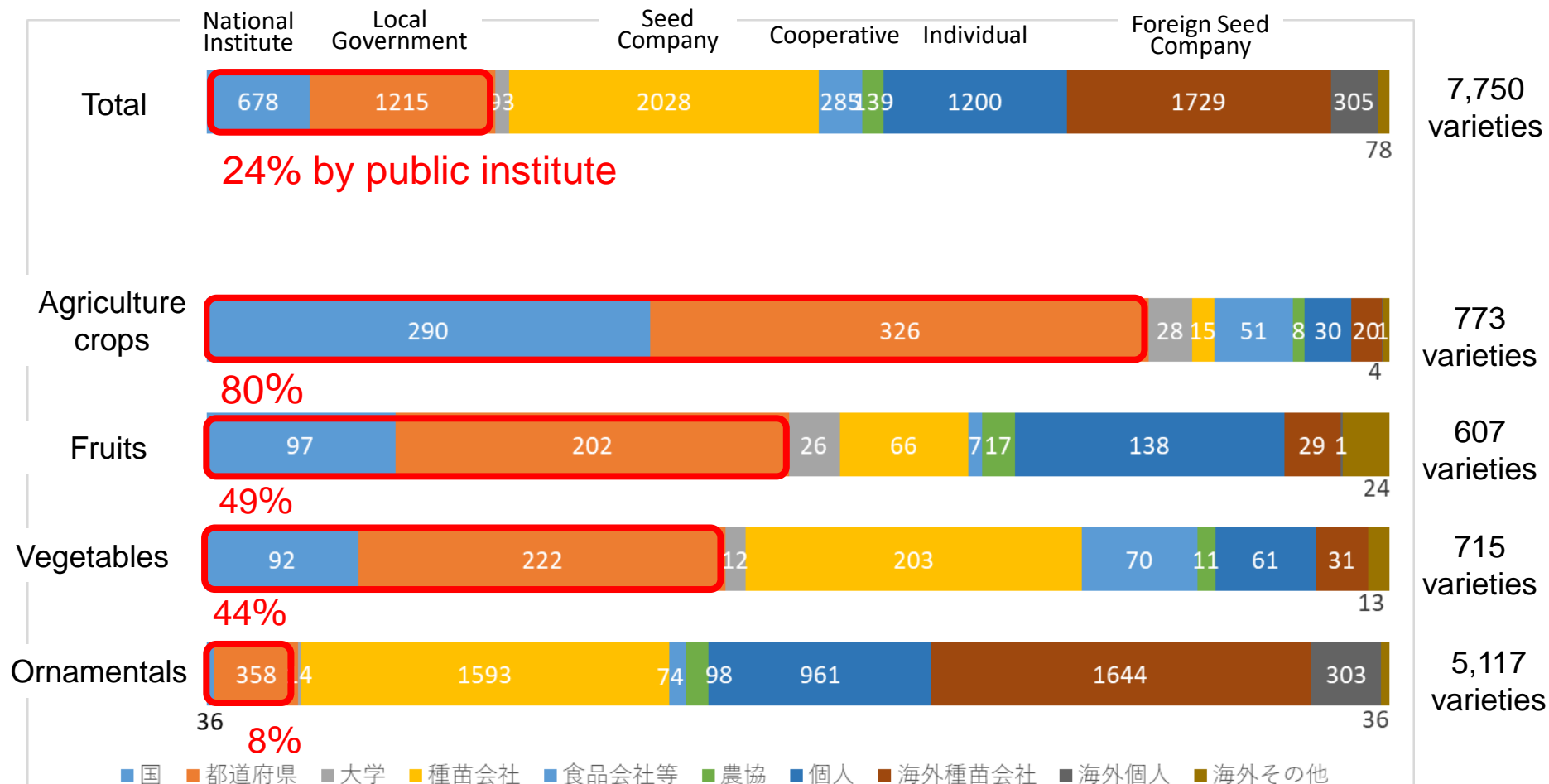
Total registered varieties 7,444  
(as of March 2021)

**Percentage of protected varieties  
(by right holder type)**



# Trend of PBR Titles in force (by crop type, right holder type)

- Sensitive crops for national food security, such as, rice, wheat, beans, potato, fruits and vegetables, are bred by **public institute**, **domestic companies**, or **individual**.



Data as of  
March 2020

# PVP in Japan - challenges

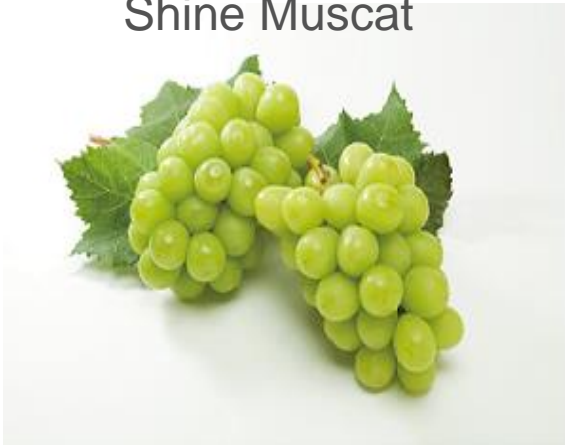
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# Unintended outflow of plant varieties: case 1

Shine Muscat



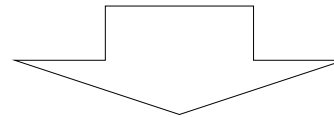
## 【Japan】

- Bred in Japan
- Registered in 2006
- Period of breeding is 33 years !!
- It has a strong sweetness, excellent taste, and can be eaten with the skin, so it is traded with high price.
- It is high expected as a main product of export.

**Japan  
Brand!!!**

As the background of this case, two factors are identified:

1. Because domestic seed/seedling market was large enough to sustain breeding activities, Japanese breeders haven't tended to acquire PBRs for their new varieties outside Japan.  
→ Duration of Novelty was already over, and breeders could not apply for their variety to overseas
2. Under the Japan's PVP Act before its amendment, PBRs were not valid on export once protected seed/seedlings are transferred by breeders or with their consents.






Consequently,,,



Production, Trade, or Marketing of “Shine Muscat” has been widely spread in Asia, and which is not the intention/strategy of the breeder of “Shine Muscat” at all.

→ This situation caused not only a loss of Japan's export market, but also damage of Japan's Brand

## Case 2 Unintended outflow of plant varieties developed in Japan

Plant	Name of Variety	Infringement
strawberry	Red Pearl (~ Nov. 2008)  PBR holder (Individual)	In 1998, PBR holder granted a non-exclusive exploitation right to <u>only designated farmers</u> in Korea. From 2000, A lot of propagating material have outflowed to Korean market, and they were reproduced, cultivated and exported to Japan, <u>without authorization of PBR holder</u> . PBR holder filed a lawsuit against the <u>importer</u> .
	Akihime (~ Jan. 2007)  PBR holder (Individual)	In 1996, PBR holder granted a non-exclusive exploitation right to <u>only designated farmers</u> in Korea. From 2000, A lot of propagating material have outflowed to Korean market, and they were reproduced, cultivated and exported to Japan, <u>without authorization of PBR holder</u> .
	Benihoppe (~ July 2002)  PBR holder (Shizuoka pref.)	“Benihoppe” were reproduced, cultivated in China, <u>without authorization of PBR holder</u> . (The route of outflow of propagating material is still <u>unknown</u> ) At that time, PBR holder could not apply his variety to China because 4 years Novelty duration had been over.

## Case 3 Unintended outflow of plant varieties developed in Japan

Plant	Name of Variety	Infringement
cherry	<p>Benisyuhou (~ Sep. 2009)</p>  <p>PBR holder (Yamagata pref.)</p>	<p>In 2005, PBR holder has filed a criminal complaint against those who had produced and sold fruits in Australia, alleging that propagating materials have been <u>illegally taken out to Australia</u>. In 2007, the settlement was made on the condition that “defendant could never export until 2012”.</p>
rush	<p>Hinomidori (~ Jun. 2021)</p>  <p>PBR holder (Kumamoto pref.)</p>	<p>In 2005, <u>the Nagasaki Customs</u> caught "Hinomidori" about to be imported from China, and PBR holder has filed a criminal accusation of the importer. <u>The importer was sentenced</u> to a fine of 1 million yen, a sentence of 1.5 year in prison, a suspended sentence of 4 years, and the confiscation of about 8.8 tons of rush.</p>

# Challenges

- **Lack of awareness** around importance of PVP system
- **Unintended outflow** of Japan's excellent varieties to overseas
  - Undermine competitiveness
  - Lose potential foreign markets
- **Stagnation in number of application** for PBR in Japan
  - may be linked to reduced breeding activities
- To promote and enhance **competitiveness of breeding on both public and private sector**
- To increase **UPOV members**, and implement **cooperation system** of application and examination (**e.g. e-PVP Asia**)
- To participate in **UPOV PRISMA**
  - working on connecting Japan's system (VIPS) with PRISMA



# The main points of Amendment of the Plant Variety Protection and Seed Act

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# Main points of the amended Plant Variety Protection and Seed Act

<amendment April 2020>

- I. Designation of export destination country by right holders  
→ **PBR holders** will be able to restrict their protected varieties **to be brought to foreign countries.**



- II. **Mandatory labeling** as a protected variety

→ **all protected varieties** should be accompanied with labeling **on each package,**

- 1) The fact that the seed has been registered as a protected variety,
- 2) That there are restrictions by right holders on bringing overseas.



- III. **Any acts** in respect of the propagating material of **protected varieties (including use of farm saved seeds)** shall **require the authorization of right holders** (except with “Compulsory exceptions”)



→ PBR are strengthened to extend to any acts, including the propagation of **protected varieties by farmers.**



- IV. Change of Examination, Application and Registration fees

→ to cover the actual cost for growing trial or on-site inspection,  
to reduce the total cost of maintaining the registration for a long period.

