

The Plant Variety Protection System in JAPAN

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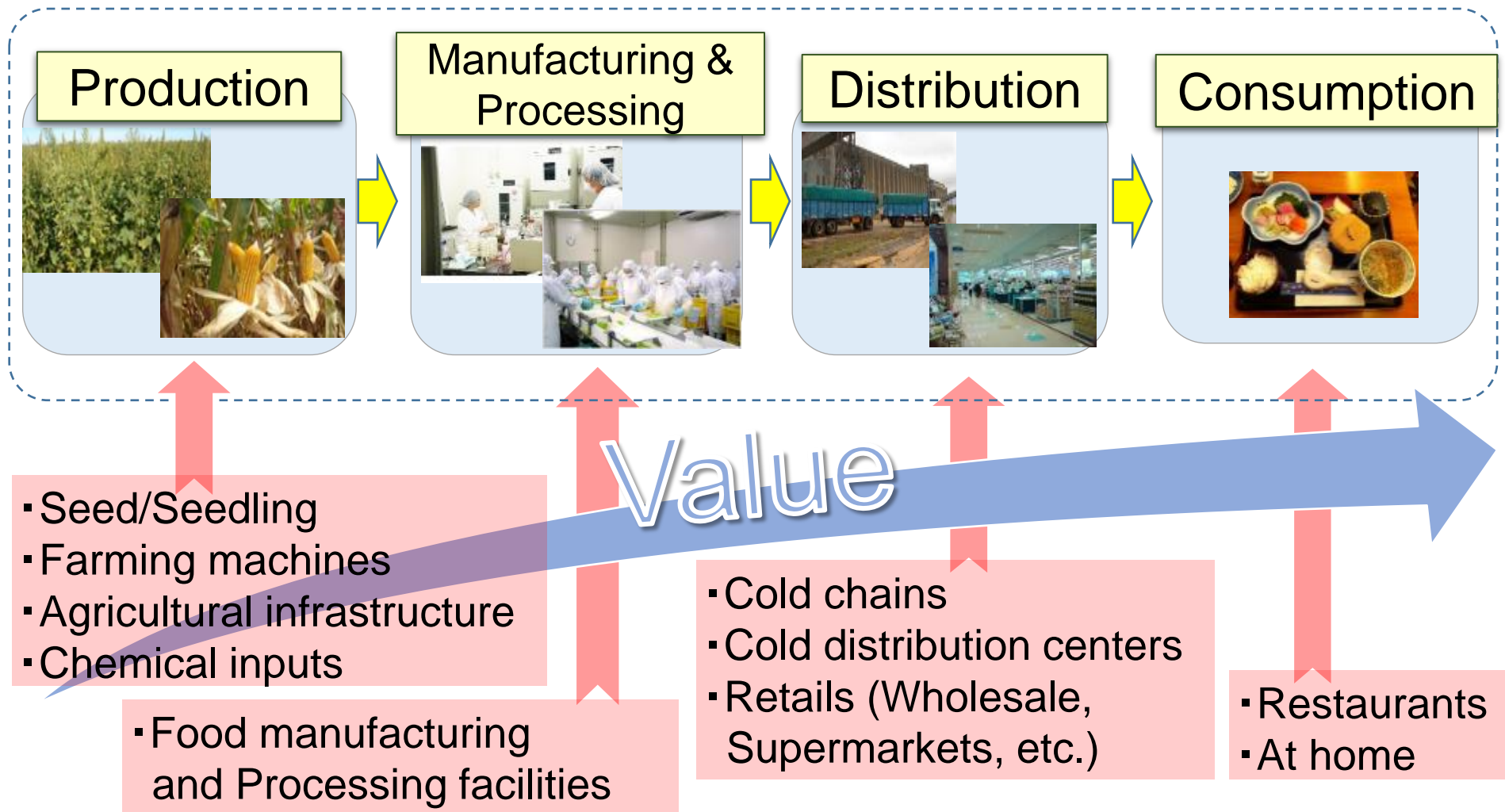
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Agriculture and Intellectual Property

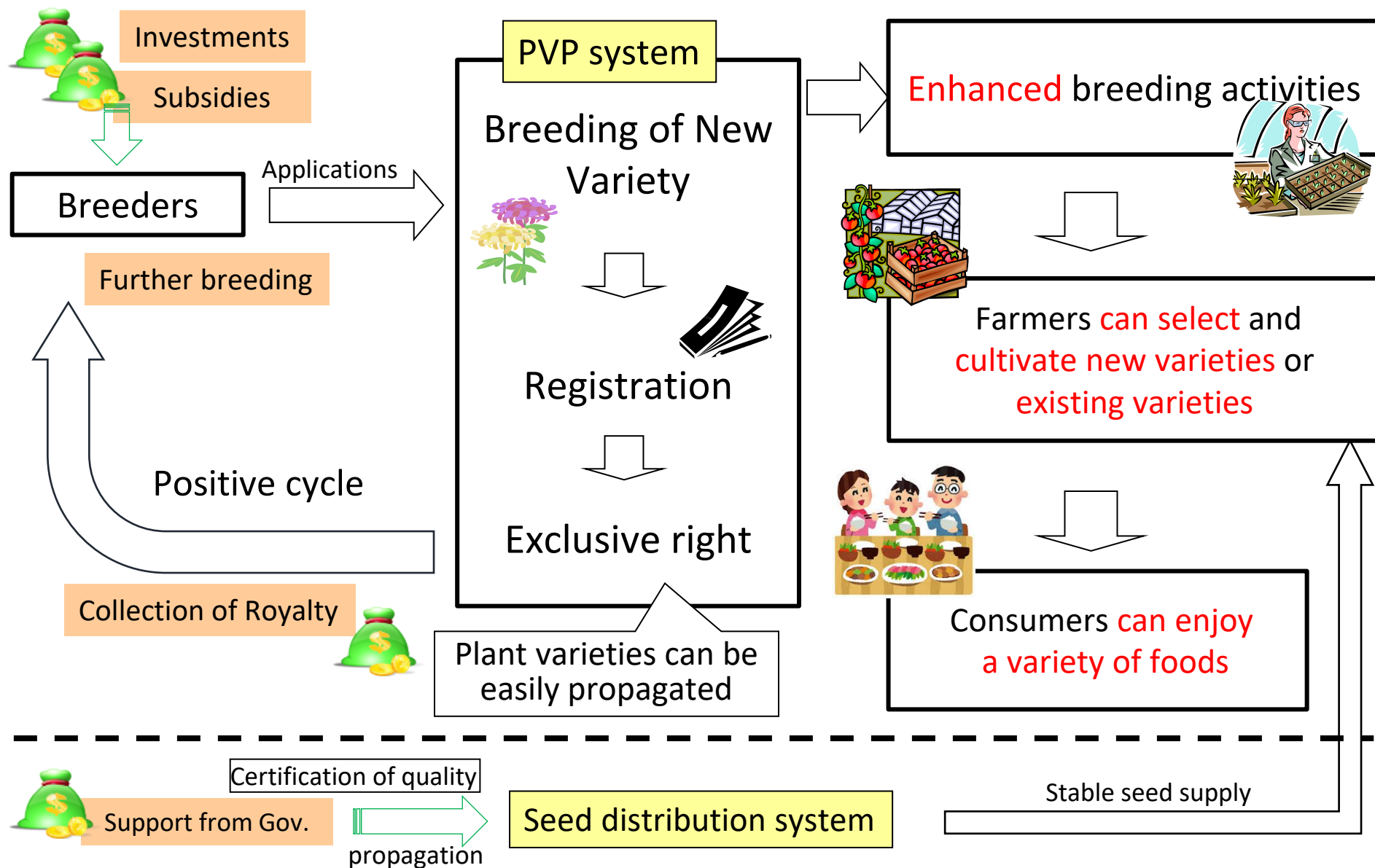
Establishing a Food Value Chain by Intellectual Property

Connect the created value



General Information of Plant Variety Protection System In Japan

Why Plant Variety Protection (PVP) System



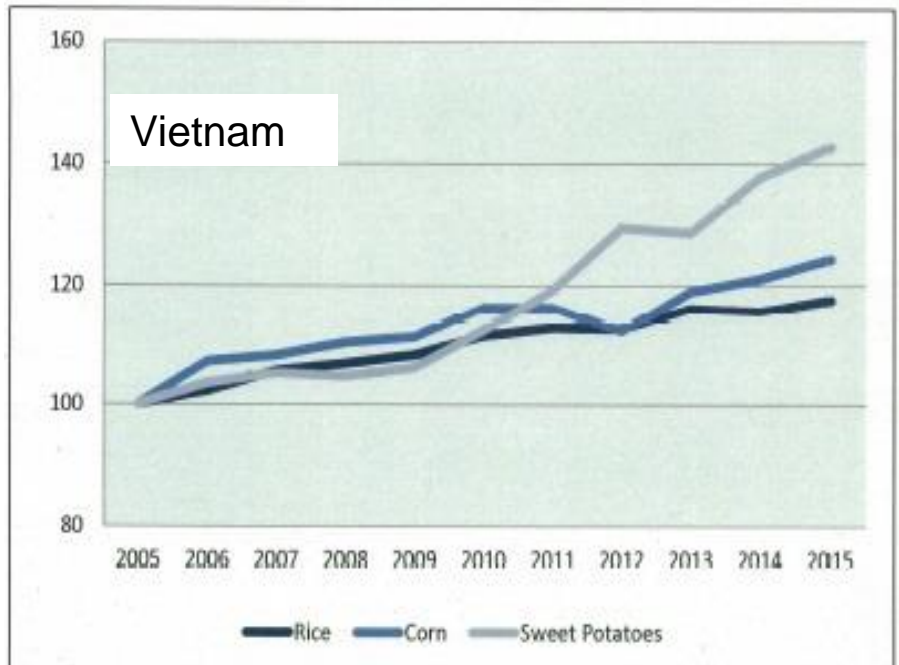
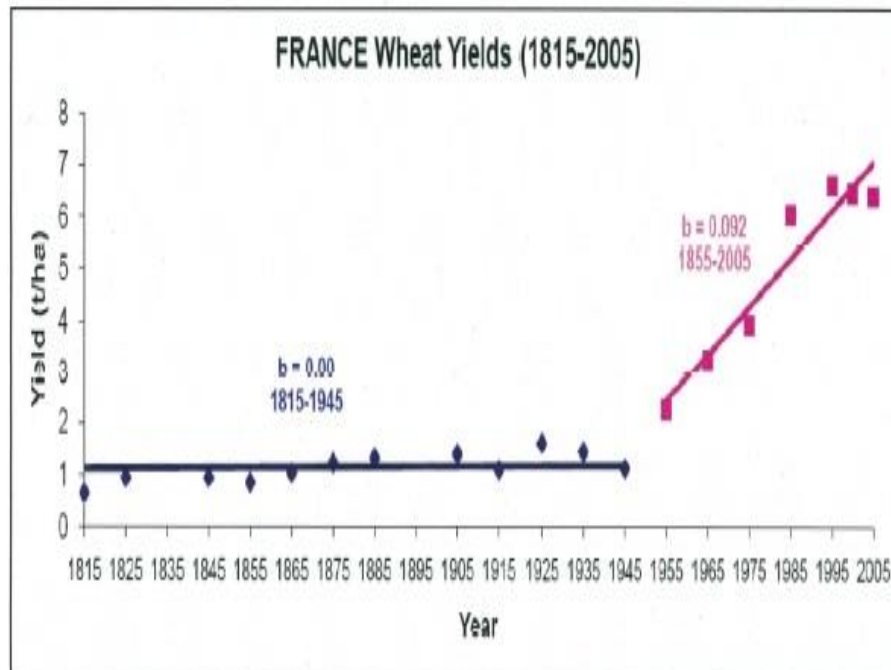
Impact of PVP system

France

- Productivity of wheat in France after 1955 has shown tremendous increase comparing before 1945

Vietnam

- Productivity of sweet potato and maize in Vietnam have shown high increase 3.8% per year and 1.8% per year respectively after becoming UPOV member in 2006



UPOV Convention

- UPOV Convention provides **International harmonized common basic principle**, which dictate rules and conditions for protect **new plant varieties** including level of protection, minimum period of protection.
- In order to protect **new varieties**, breeders need to apply their new varieties **for Plant breeder's right (PBR)** to each UPOV member country.

UPOV : Union Internationale pour la Protection des Obtentions Végétales

Headquarter: Geneva in Switzerland

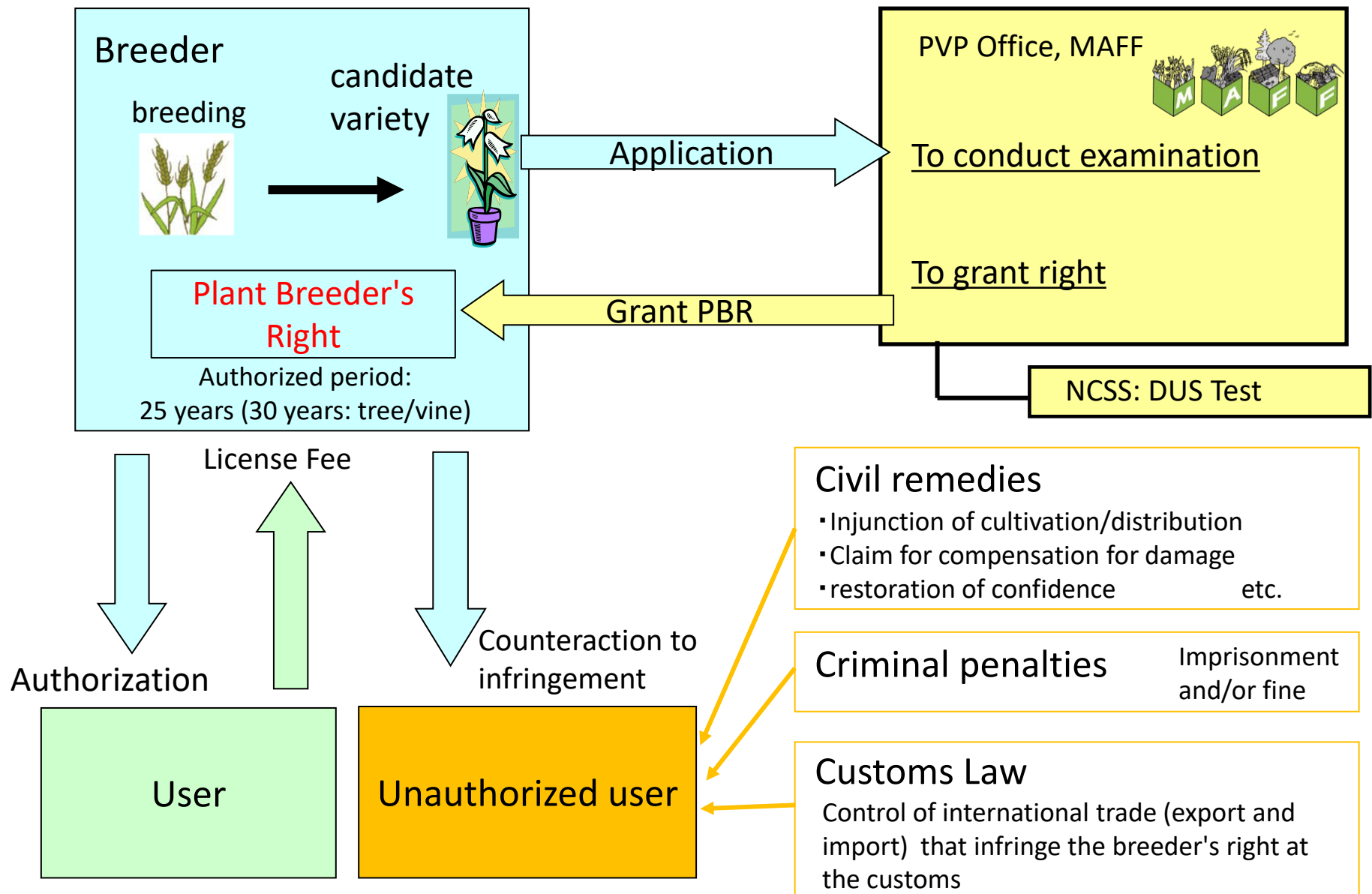
	1991 Convention 61 members	1978 Convention 17 members
Genera and species to be protected	All plant genera and species	More than 24 plant genera and species
Scope of PBR	Seed/Seedling, harvested material, processed material (Injunction of infringed Seed/Seedling, harvested material, processed material)	Seed/Seedling (Injunction of infringed Seed/Seedling)
Act covered by PBR	Reproduction, Selling, export/import of Seed/Seedling and Harvested material *Including farmers' act	Reproduction, Selling of Seed/Seedling *Excepting farmer's act
Duration of PBR	Not shorter than 20 years (25 years for woody plants) from the date of grant	Not shorter than 15 years (18 years for woody plants) from the date of grant
Members in East Asia	Japan, Korea, Singapore, Viet Nam	China
other countries	EU, UK, Russia, Turkey, USA, Canada, Australia, Egypt	Mexico, Chili, Brazil, NZ, South Africa



UPOV Members
(78 countries and Unions)

[Non UPOV Members]
Thailand, Indonesia, Malaysia, Philippine, Cambodia, India, Mongol
(Brunei and Myanmar are on the accession process)

Outline of PVP System in Japan

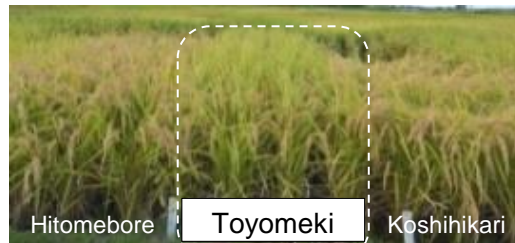


Japan's Agriculture Supported by Superior New Plant Varieties

- **New plant variety** is one of important factor supporting the **development of agriculture in Japan**.
- **Both farmers and consumers enjoy a lot of 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]

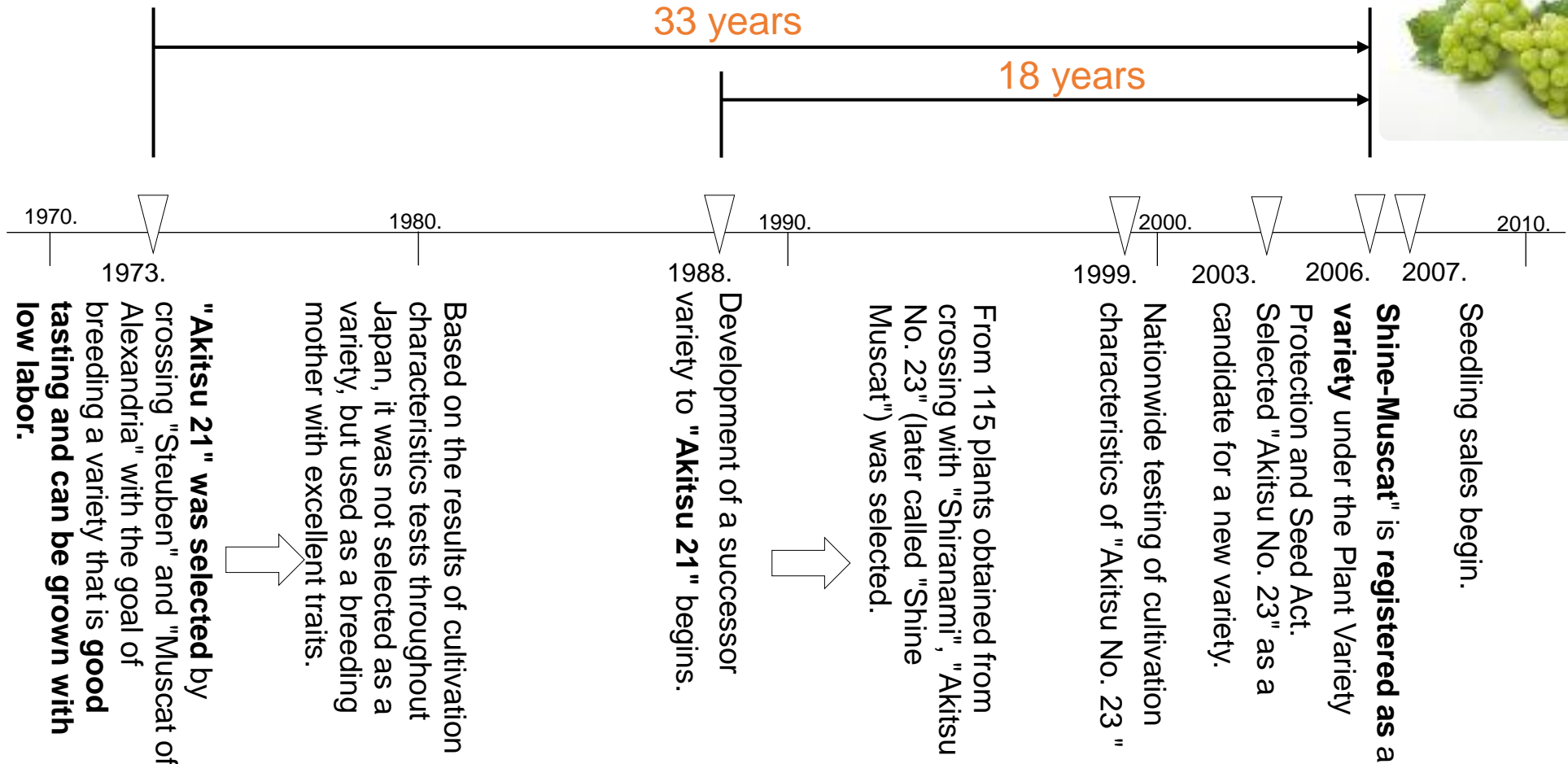
Paddy rice “Kirara 397” has achieved unprecedented excellent taste in addition to cold resistance. This variety led to the later strategy of brand-name rice.



New Plant Variety Development requires a lot of time and cost.

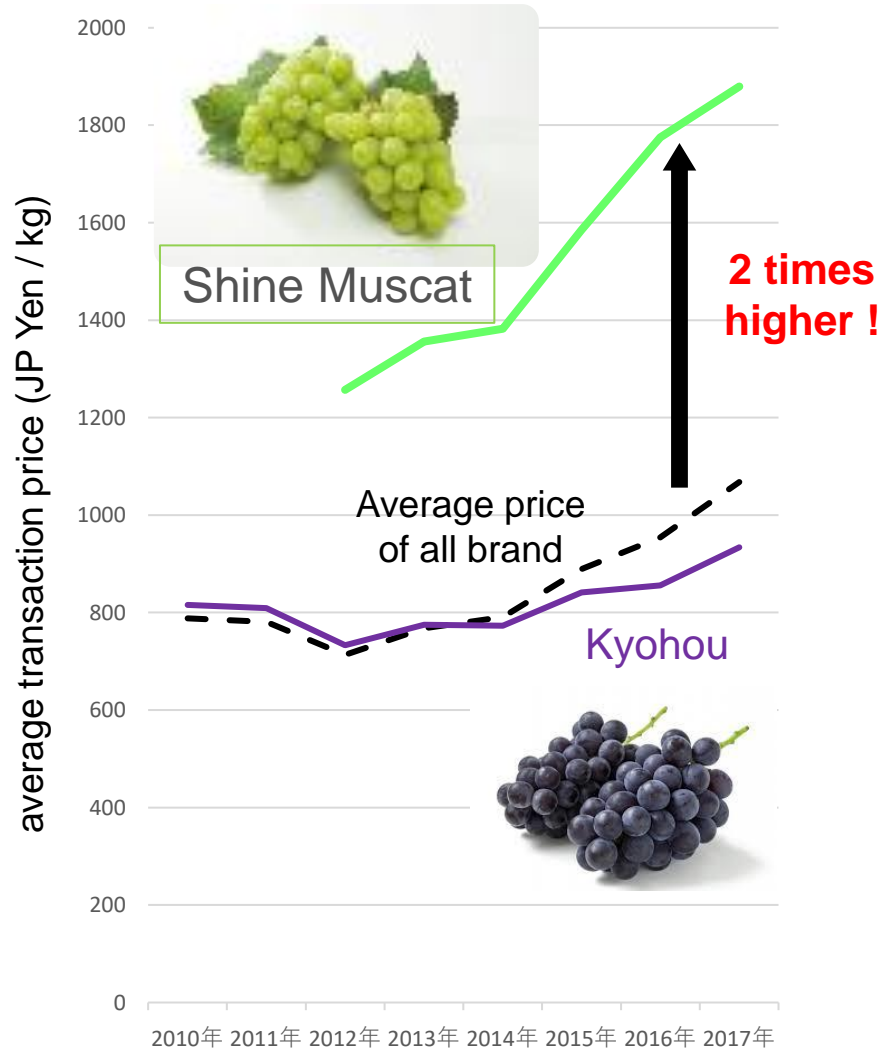
- The grape variety "**Shine Muscat**" developed by the National Agriculture and Food Research Organization(NARO) took **33 years** from the selection of the parent line "Akitsu 21" to its registration, and **18 years** from the start of crossbreeding tests of "Akitsu 21".
- In the last 18 years alone,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

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

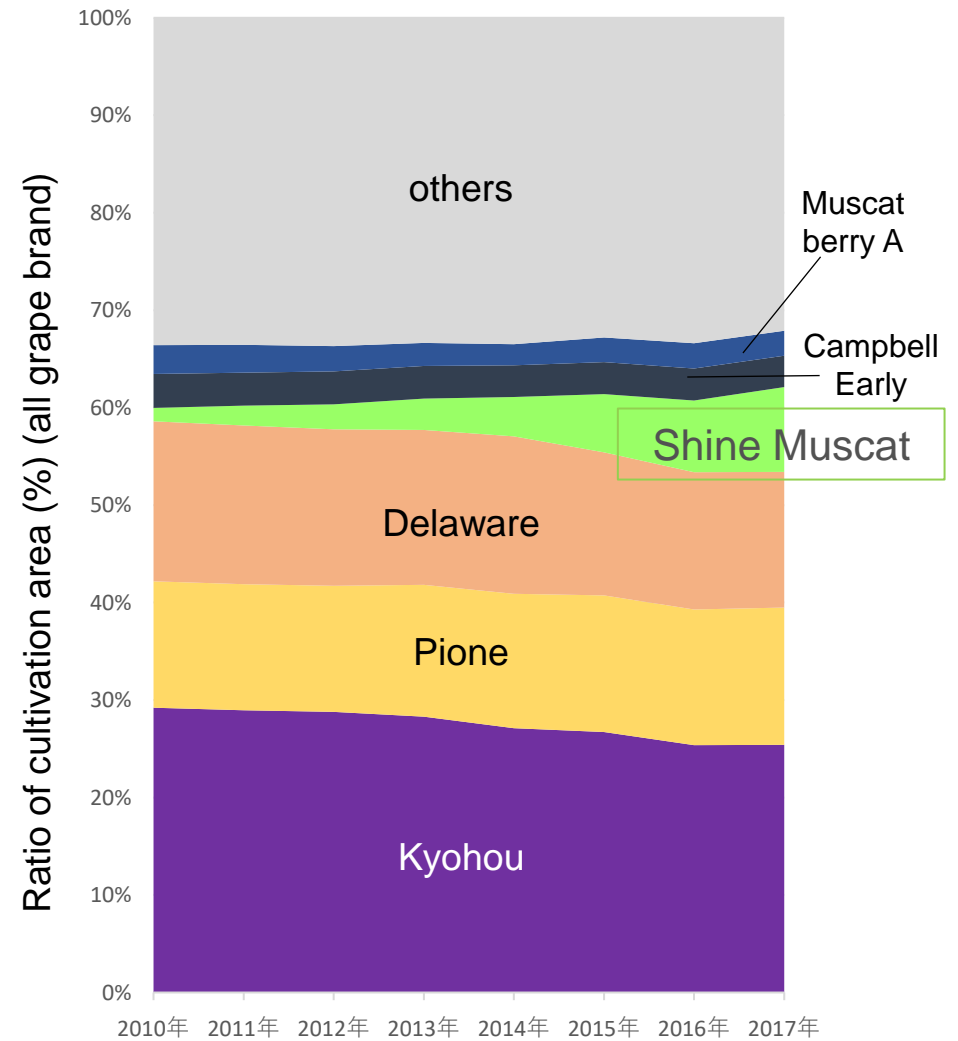


Effect of the PVP (table grape variety “Shine Muscat”)

Trend of table grape price

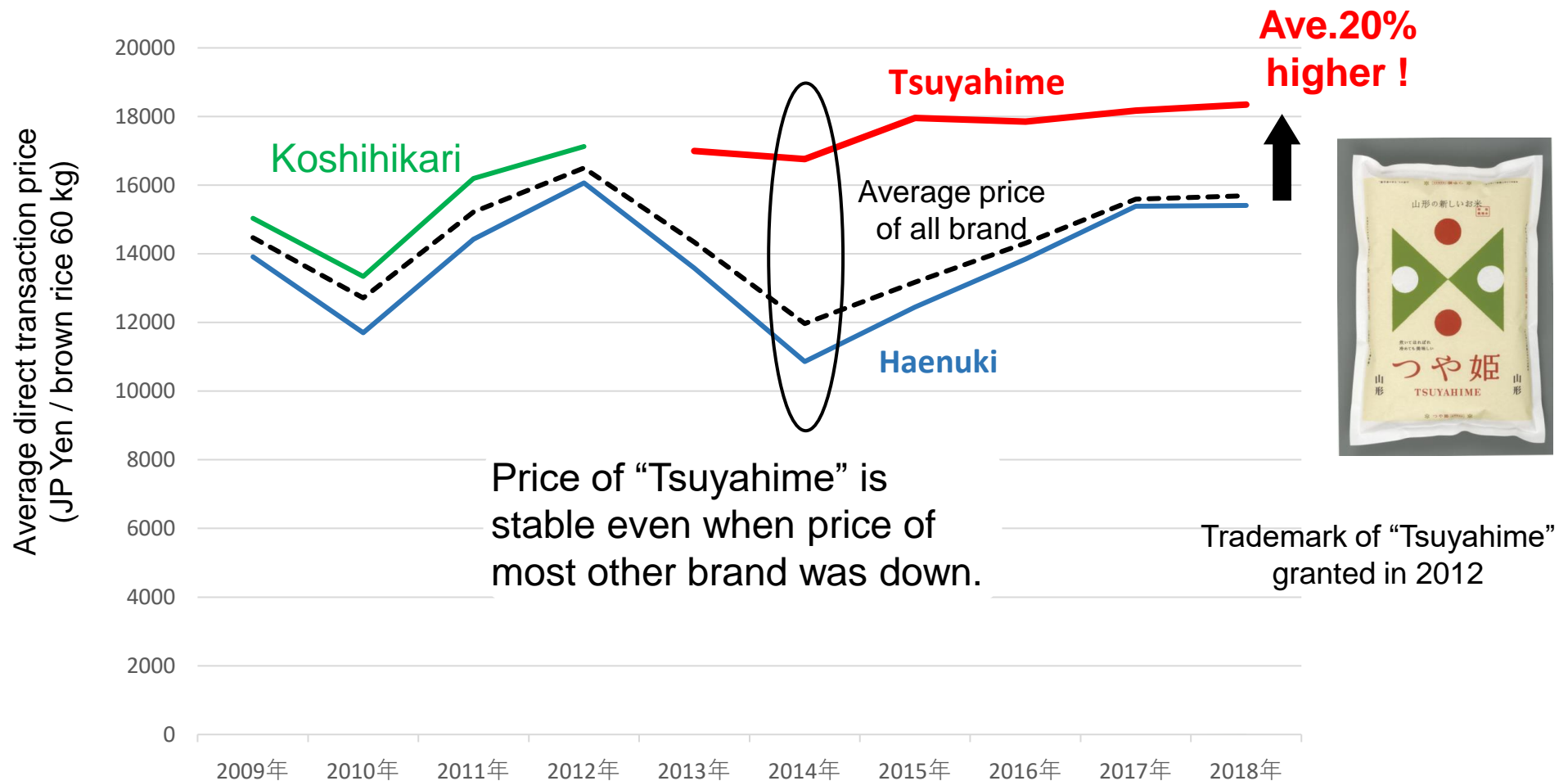


Ratio of cultivation area (all grape varieties)



Effect of the PVP (rice variety “Tsuyahime”)

Trend of price in Yamagata pref.



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



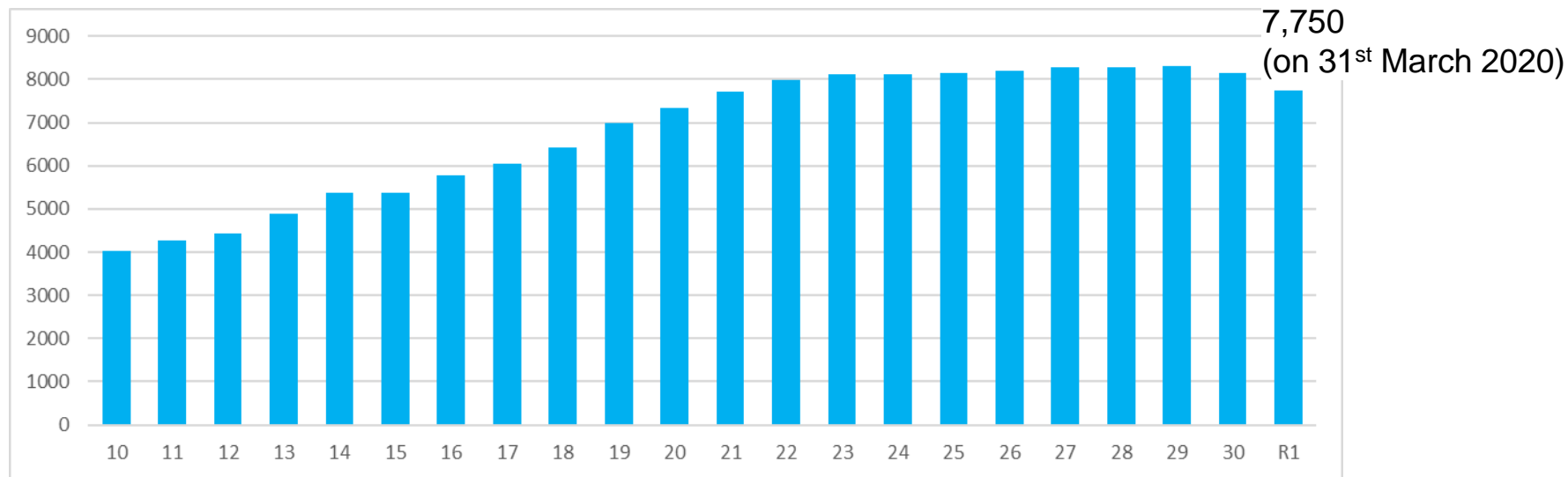
- ◆ Using PVP system to secure high quality
 - Authorized skilled farmers in Yamagata pref.
Cultivation area: allowed only for designated suitable area
Limited farmers: accredited farmers passed check on knowledge
Methods: Follow organic or reduced chemical farming
Royalty: Free
 - Authorized other farmers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

Trademark of "Tsuyahime"
granted in 2012

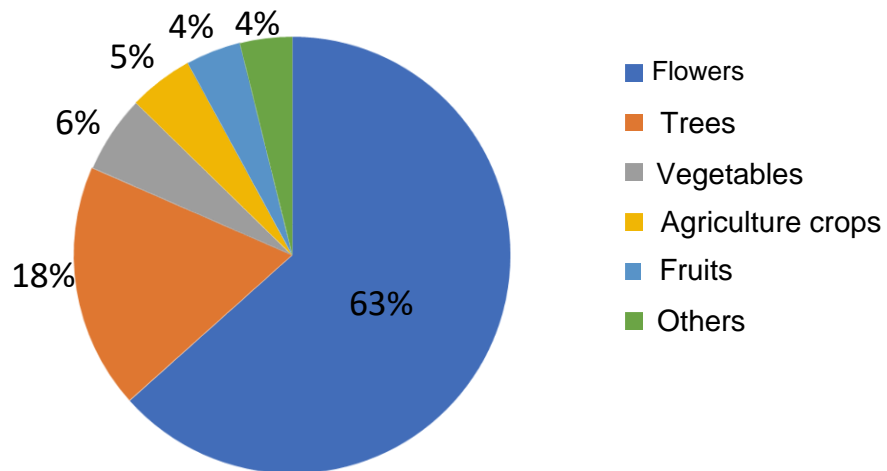


Trend of PBR Titles in force (by crop type, right holder type)

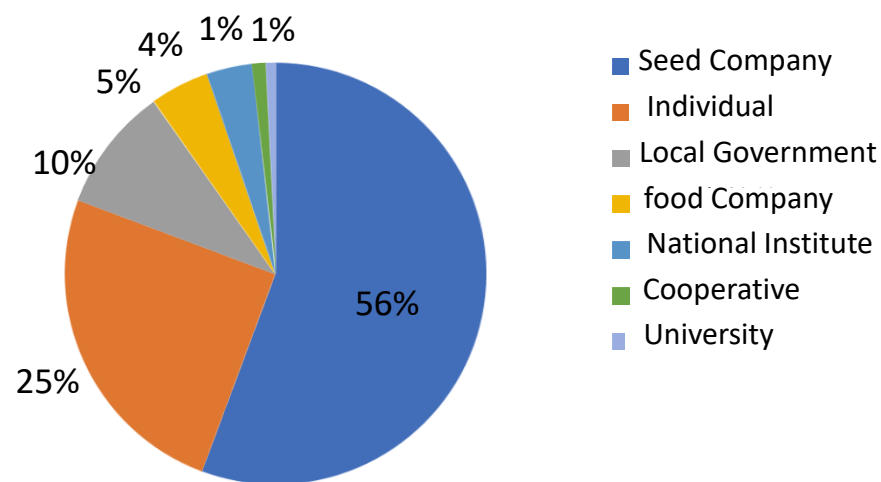
Trend of PBR Titles in force (JP fiscal year)



Percentage of protected varieties (by crop type)

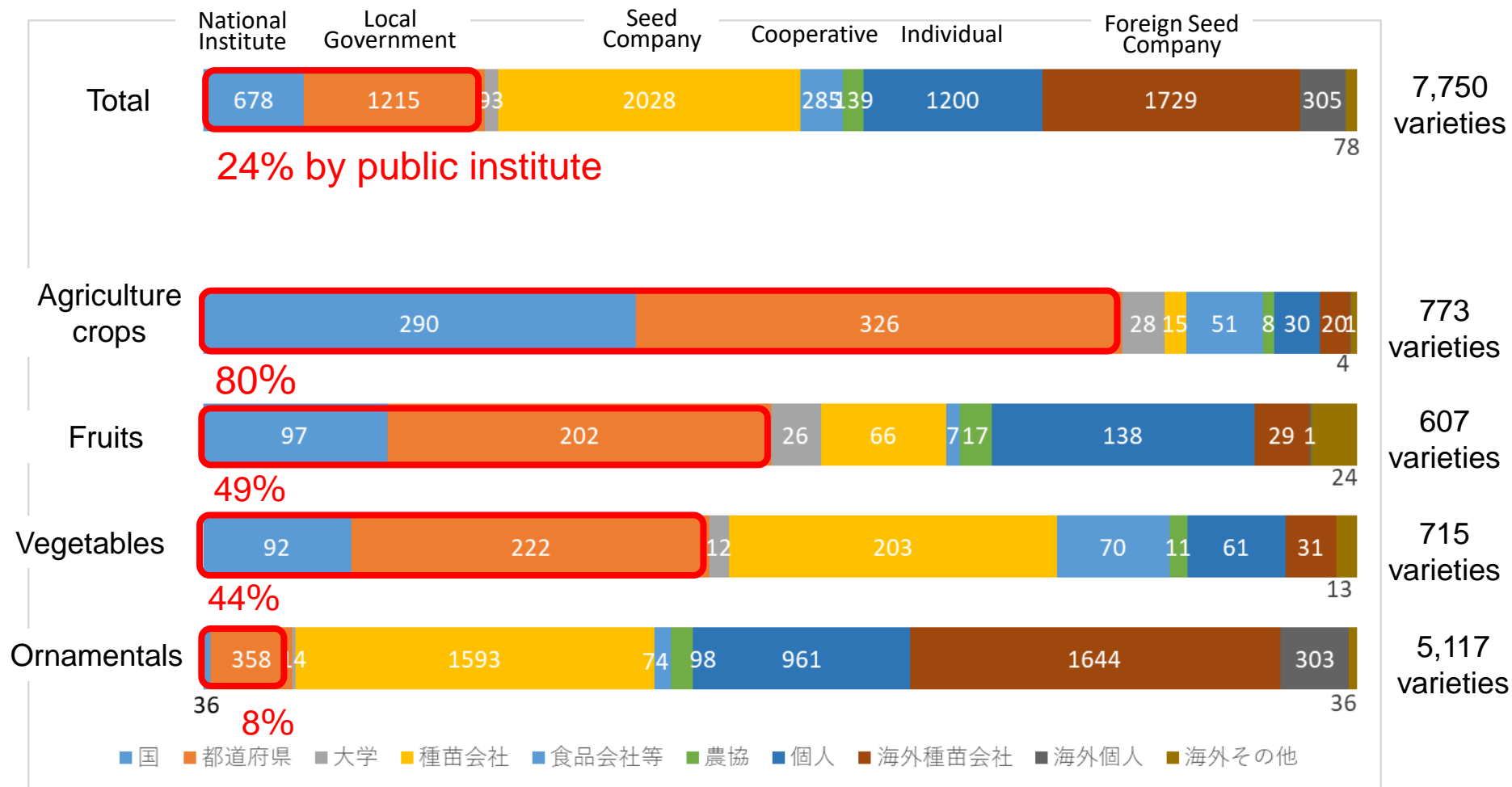


Percentage of protected varieties (by right holder type)

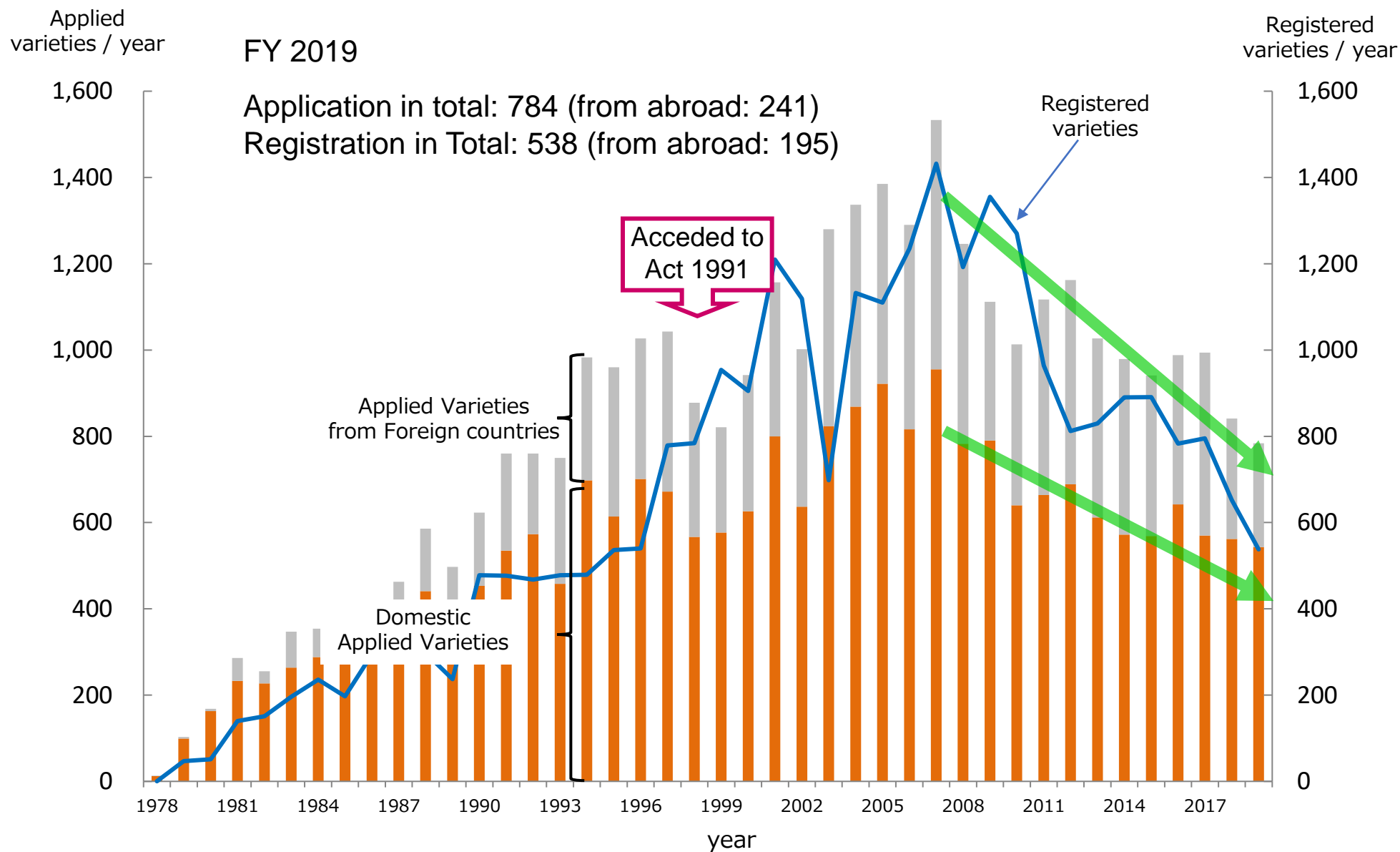


Trend of PBR Titles in force (by crop type, right holder type)

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

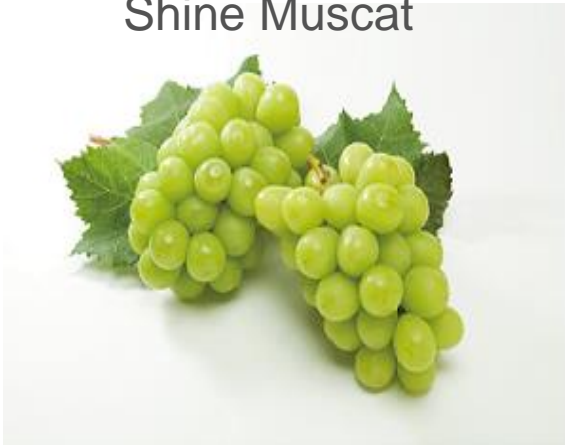


Trend of annual PBR Application and Grant



Case 1 Unintended outflow of plant varieties developed in Japan

Shine Muscat



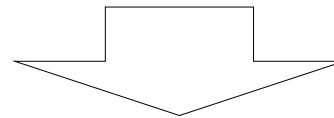
【Japan】

- 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

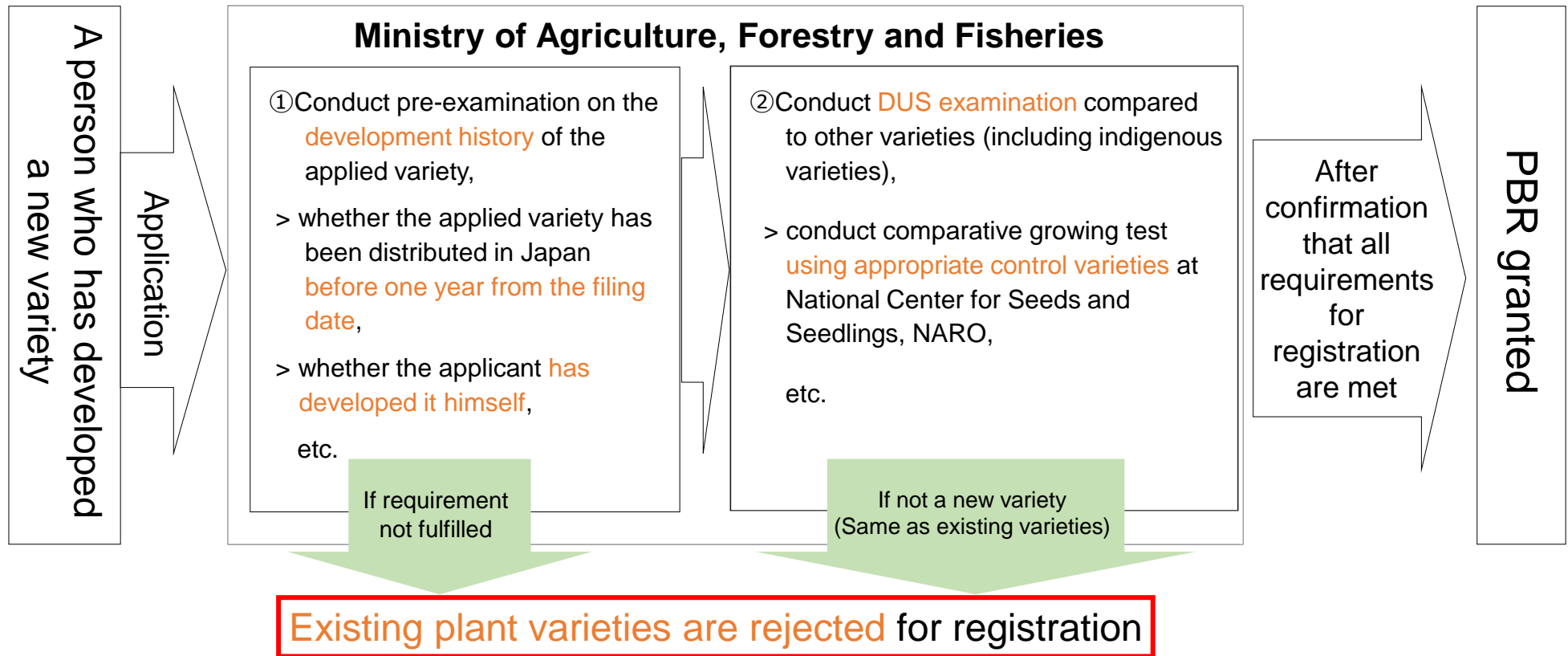
Plant	Name of Variety	Infringement
strawberry	Red Pearl (~ Nov. 2008)  PBR holder (Individual)	In 1998, PBR holder granted a non-exclusive exploitation right to <u>only designated farmers</u> in Korea. From 2000, A lot of propagating material have outflowed to Korean market, and they were reproduced, 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>

Big Misunderstanding

“existing plant varieties will be registered by large companies”



Misregistration cases have never happened in the past, but,

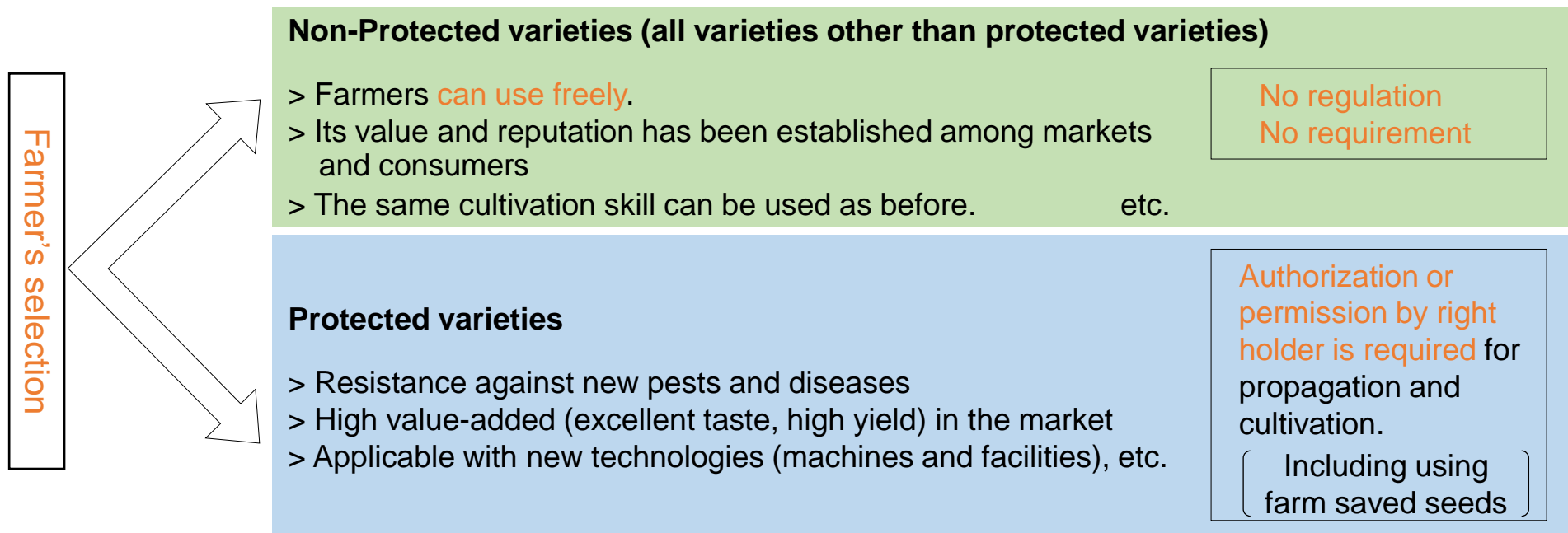
- In case it is found that an existing variety (including indigenous varieties) is registered by mistake,
⇒ Nullity of registration
- In case it is found that the information on the application for the registered variety is false, such as, declaring false development history on purpose.
⇒ Criminal penalties (individuals: imprisonment for not more than 3 years or a fine of not more than 3 million yen; corporations: a fine of not more than 100 million yen)

Big Misunderstanding

“Farmers are forced to use a particular protected variety”

- The PVP and Seed Act is a system to prevent unauthorized propagation or cultivation of “protected varieties”.
- This Act does never force farmers to choose a particular protected variety.
- Farmers can select varieties freely to be planted, including non-protected varieties* that are widely and freely distributed.

* non-protected varieties : 1) indigenous varieties, 2) varieties that have never been registered,
3) varieties whose registration period has expired

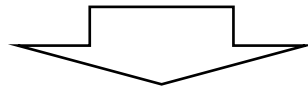


	Rice	Mandarin Oranges	Apple	Grape	Potato	Vegetable
Percentage of protected varieties	17%	3%	5%	13%	10%	9%

米：「令和元年度産水稻うるち米の品種別作付動向について」（米穀安定供給確保支援機構）における作付面積の割合より農林水産省作成
 みかん、りんご、ぶどう：2017年産特産果樹生産動態等調査（農林水産省）における作付面積より作成
 ばれいしょ：2017年産ばれいしょの品種別、都道府県別作付面積（農林水産省）より作成
 野菜：野菜品種名鑑2019（日本種苗協会）に掲載されている品種数より農林水産省作成

Challenges of Japan

- **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 result in reduce innovation of Japanese agriculture new breeding technology
- To promote and enhance **competitiveness of breeding on both public and private sector**
 - to develop new plant varieties for needs of farmers and consumers, etc.
- To enlarge **UPOV system**, and to develop, implement and maintain **cooperation system** of application and examination procedure in east Asia (**e-PVP Asia**)
- To Harmonize with **UPOV PRISMA**



Japan's PVP and Seed Act was amended in December 2020

- with a view to providing PBR holders with legal measures to exercise their right effectively

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

Main points of the amended Plant Variety Protection and Seed Act

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



- II. Mandatory labeling as a protected variety [In Effect]
→ 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”)

[Effective from April 1, 2022.]

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



- IV. Change of Examination, Application and Registration fees [Effective from April 1, 2022.]
→ 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.



- V. Other revisions

Any acts in respect of the propagating material of protected varieties shall require the authorization of right holders (except with “Compulsory exceptions”)

- Authorization by right holders is required for the propagation of protected varieties by farmers. (including use of “farm saved seeds”)

In the case where seeds/seedlings are purchased annually, or where license fee for repeatable propagation is included in the initial seed cost, there will be no change under the amended Act.

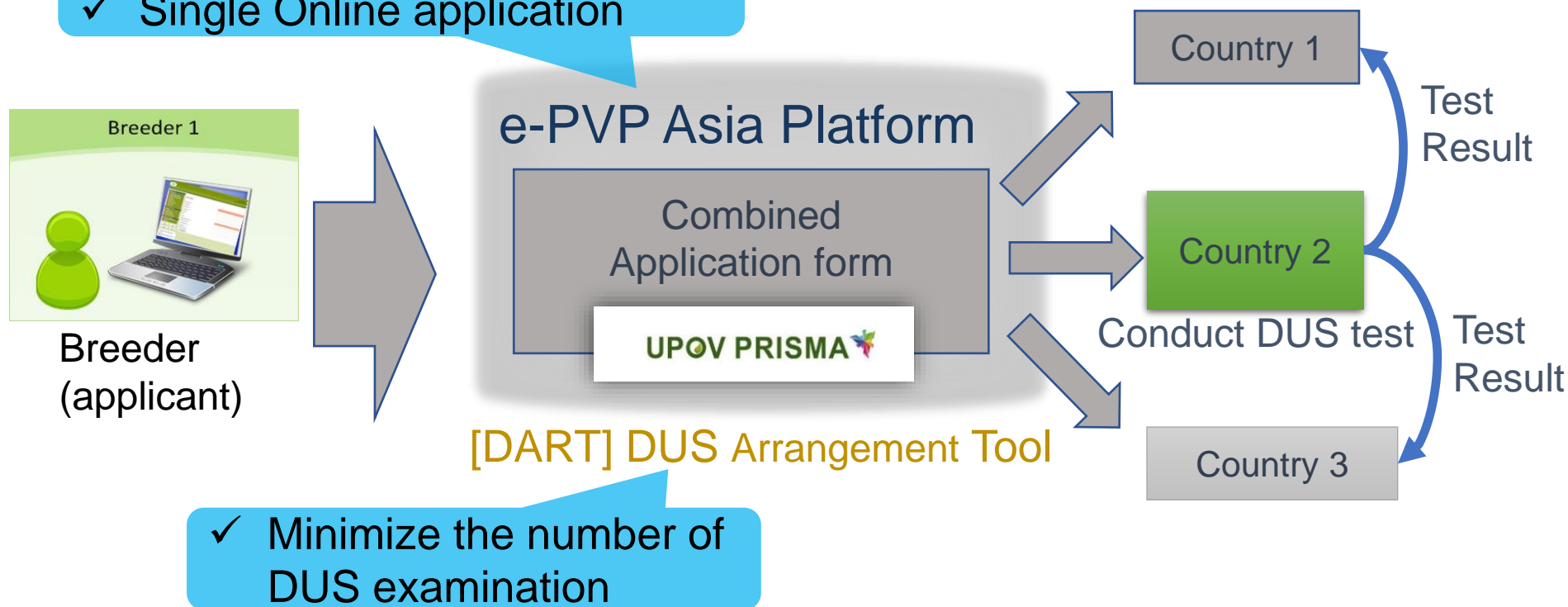
- Because farmers can acknowledge the conditions on use of varieties correctively in the contract, etc., more appropriate management of varieties are expected.
- It is also possible for an organization, cooperative etc. to collectively receive exclusive / non-exclusive license from right holders for the propagation by individual farmers.
- If right holder clearly indicates that his protected variety is not required licensing procedures for propagation, farmers may reproduce propagating material as before without any new procedures.

As a method of clearly indication that licensing procedures are not required, the followings might be considered; labeling on seeds/seedlings at the time of transfer, explanation in catalogs or public notice issued by right holder, notice on the website administrated by right holder, etc.

Japan's International Cooperation on PVP

What is “e-PVP Asia” ?

- ✓ Combined Application Form
- ✓ Single Online application



- Current participating countries: JP, VN, BN, MM, MY
Observers: other EAPVP Forum members
- Resource partner: UPOV Office

- 1st meeting: in Hanoi, Viet Nam on 11 October 2018
- 2nd meeting: in Vung Tau, Viet Nam on 26-27 February 2019
- 3rd meeting: in Hanoi, Viet Nam on 3-4 September 2019
- 4th meeting: by corresponding, on 13-15 May 2020
- 5th meeting: by corresponding, on 23-24 November 2020
- 6th meeting: by corresponding, on 8-10 March 2021
- 7th meeting: by corresponding, on 8-9 July 2021
- 8th meeting: by corresponding, on 15-16 December 2021

Thank you very much for your attention !!

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