

Policies of Development, Protection and Promotion of New Varieties and Technologies in Japan

Part 1

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EXPLANATORY NOTE FOR TRANSLATION

This is a summarized translation of a policy document “Development, Protection and Promotion Policies for New Varieties and New Technologies” formulated by the Ministry of Agriculture, Forestry and Fisheries. It is in line with the general direction authorized in “The Grand Design for Japan’s Agriculture, Forestry and Fisheries,” which was adopted on 10th December 2013 by a policy deliberation group headed by the Prime Minister.

The Grand Design states that “the Government will induce innovation in agriculture by utilizing technology and knowledge that has been accumulated in other industries through cooperation among different types of industries, promoting “smart agriculture” using robot technology and ICTs, developing and disseminating new varieties and technologies, utilizing intellectual property in a holistic manner, and sophisticating production and distribution system.”

The policy document gives details of the general direction authorized in the Grand Design. It contains common policies applicable to all products and product-specific policies in 11 product categories.

Common Policies

1 Need for creating agricultural and livestock products with “strengths”

Creating agricultural and livestock products with “strengths” by developing new varieties and technologies is essential for facilitation of sixth-order industrialization, growth of exports and domestic consumption and reduction of production costs.

(a) Sixth-order industrialization

Agricultural and livestock products that can provide values such as high quality and brands.

- Create unique varieties that are suitable to local cuisine or local food industries (e.g. "Ra-mugi" or "Ra-wheat" that is suitable to manufacturing ramen noodles.)
- Create agricultural and livestock products that have unique values such as health functions (e.g. developing mandarin orange varieties that contain a high level of β -cryptoxanthin.)

(b) Retrieving share of domestic products in processing and commercial use

Low-cost agricultural and livestock products that have standards and qualities suitable to processing and commercial use

- Developing varieties that are suitable to processing and have a high rate of edible portion (e.g. Hokko-one Onion.)
- Cost reduction through mechanization (e.g. cabbage harvester.)

(c) Growth of exports

Agricultural and livestock products with unique strengths that can attract consumers in destination countries

- Creating varieties with colors and traits that are preferred in foreign countries
- E.g. Efficient production of Kuroge Washu beef (Japanese Black wagyu beef) that have quality better than other varieties

(d) Expanding domestic consumption that are currently shrinking

New agricultural and livestock products that can stimulate consumption

- Developing new varieties such as fruits that do not discolor when processed into cut fruits
- Egg production using poultry varieties such as Okazaki Ouhan that lay large-yolk eggs suitable to tamago kake gohan (rice with raw egg)

(e) Reduction of production costs and stabilization of production amount

- E.g. developing high yield varieties of rice
- E.g. introduction of soybean varieties with stable yields

2 Acceleration of creating agricultural and livestock products with "strengths" by utilizing new varieties and production technologies

The goal is to create many agricultural and livestock products (more than 100 items in the next 3 years) with "strengths" in Japan by responding to the consumer and commercial needs utilizing Japan's "distinguished varieties" and "sophisticated production technologies" and strategically utilizing intellectual property rights. To do so, the government will establish product-specific basic directions and will accelerate efforts in each production area (Breed, Utilize, Protect and Support - "B-Ups project.")

- Breed: Breeding of new "strengths"

By adopting market-in approach in breeding through collaboration with both demand and supply side and speed-up of breeding process through use of genetic markers, the government aims to generate needs-based excellent varieties that also adapt to changes in production environment such as global warming.

- Utilize: Utilization of the "strengths"

By rediscovering unused varieties and introducing new varieties, sophisticated methods of production and quality control through utilization of ICTs, robot technologies and other new technologies and introducing on-farm testing of such technologies, the government aims to formulate production areas that utilize the "strengths" all over Japan.

- Protect: Protection of the "strengths"

By strategically protecting intellectual property rights through for example combining different rights such as plant breeder's rights and trademark rights, the government aims to protect "strengths" of each production area.

- Support: Supporting the "strengths"

Through strategic gathering of foreign genetic resources, establishing Netherlands-like support systems for seed companies, rediscovering unused varieties and technologies and establishing speedy seed supply systems, the government aims to establish environment that support the utilization of "strengths."

In this context, the government aims to promote establishment of consortiums all over Japan for strategically advancing the efforts from breeding of new varieties to formulation of production areas, connecting research institutes, producers/production areas, users, administration/extension services, private seed, ICT and other companies. Through these efforts, the government aims to create more than 100 product items with "strengths" all over Japan in the next 3 years.

(To be continued)

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