

# Ministry of Agriculture, Forestry and Fisheries' Intellectual Property Strategy 2020

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Ministry of Agriculture, Forestry and Fisheries

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# Ministry of Agriculture, Forestry and Fisheries' Intellectual Property Strategy 2020

## **I. Recognition of the present situation**

### **1. Necessity to Revise the Intellectual Property Strategy**

Various kinds of intellectual property have been created through longstanding production activities in the food industry, consisting of the agriculture, forestry, and fisheries industries, and other related industries (hereinafter referred to as the "food industry, etc."), and the food industry, etc. is now positioned as a knowledge-based/information industry.

On the other hand, in the general industrial field, some companies are having a difficult time competing against advanced countries and catching-up emerging countries due to insufficient ingenuity in associating business models and intellectual property management. In addition, technology outflow, leaks of trade secrets, and other problems are occurring even at companies with competitive technology. Thus, the importance of business models and the intellectual property management supporting them is now recognized again.

The same situation is also occurring in the food industry, etc., and it is necessary to recognize that a wide variety of competition in relation to intellectual property affects national interests. Moreover, it is also necessary to recognize that, as Japanese research and development outcomes are at a comparable level of to that of other countries, they are sought after by countries around the world.

Japanese dietary culture is attracting global attention owing to the registration of "Washoku, traditional dietary cultures of the Japanese" as an Intangible Cultural Heritage of Humanity of UNESCO in December 2013 and exhibition at EXPO Milano 2015. Dietary culture is important intellectual property, and its appropriate protection and utilization contributes to promoting the food industry, etc. and local revitalization.

Under such circumstances, the government will aim at acquiring a global food market (expanding to a trillion yen scale by 2020) by developing overseas expansion of the Japanese food industry and promotion of export of Japanese agriculture, forestry, fisheries, and food products in an integrated manner while working on the dissemination of Japanese dietary culture. The government will also take the great opportunity of holding of the "Tokyo 2020 Olympic and Paralympic Games" and will, thanks to it, aim at increasing the number of foreign travelers visiting Japan to twenty million toward 2020 for the purpose of further facilitating Japan's becoming

of a tourism-oriented country.

In terms of legal systems relating to the food industry, etc., the Act on Protection of the Names of Specific Agricultural, Forestry and Fishery Products and Foodstuffs (Act No. 84 of 2014; commonly called the "Geographical Indication Act") was enacted in June 2014 and is to become effective in June 2015 in order to establish a geographical indication protection system intended to protect the names of products whose quality, social valuation or any other established characteristic is associated with their production areas as intellectual property. Moreover, the system of "Foods with Function Claims" was established under the Food Labelling Act (Act No. 70 of 2013), which became effective in April 2015, and the system makes it possible to indicate the function of a foodstuff, that is, the foodstuff is expected to accomplish a specific health purpose (useful for maintenance and improvement of health).

The Ministry of Agriculture, Forestry and Fisheries formulated the "Ministry of Agriculture, Forestry and Fisheries' Intellectual Property Strategy" in March 2007 and its succession strategy titled the "Ministry of Agriculture, Forestry and Fisheries' New Intellectual Property Strategy" in March 2010. Thereby, the ministry has been strategically promoting intellectual property-related measures. The strategy formulated in 2010 mainly described the handing down and utilization of on-site skills, know-how, etc. of farmers, forestry workers, and fishery workers, promotion of discovery, creation, and utilization of local brands and dietary culture, etc., and improvement of brand value of Japanese food and food materials overseas, and it was intended to lead to the strengthening of international industrial competitiveness and local revitalization. However, prompt and precise measures against increasingly-sophisticated counterfeit products and pirated copies, technology outflow, and leaks of trade secrets have recently been required due to the globalization of the food industry, etc. In addition, it is also necessary to take action in light of the enforcement of the Geographical Indication Act in relation to the effective utilization of intellectual property. Furthermore, new problems, such as the utilization of intellectual property rights with the aim of expanding earnings, have become visible.

The appropriate protection and utilization of intellectual property is a problem that should be further actively worked on in order to comprehensively elevate the food industry, etc. to one step higher around the world and create new values in light of these changes in the situation and the present situation where attention to and interest in the food industry, etc. are dramatically increasing. Therefore, a new strategy to strongly promote related measures is required.

## **2. Background to Revision of the Strategy**

The strategy formulated in 2010 was designed with five years up to the end of FY2014 in mind. During this period, the "Plan to Create Dynamism through Agriculture, Forestry, and Fisheries and Local Communities" (decided by the Headquarters on Creating Dynamism through Agriculture, Forestry, and Fisheries and Local Communities in December 2013; revised in June 2014) was formulated, and the plan focused on the global expansion of the food industry, establishment of the food industry as the 6<sup>th</sup> industry, etc. The plan mainly consists of the industrial policy and the regional policy, and it showed comprehensive utilization of intellectual property, etc. as the direction of policy development.

In addition, it was stated in the "Basic Plan for Food, Agriculture and Rural Areas" (decided on by the Cabinet on March 31, 2015; hereinafter referred to as the "Basic Plan") that "The Ministry of Agriculture, Forestry and Fisheries' New Intellectual Property Strategy is to be formulated by May 2015 from the perspective of efficiently and effectively promoting intellectual property-related measures."

In light of such situations, the "Ministry of Agriculture, Forestry and Fisheries Intellectual Property Strategy Commission" consisting of external intellectuals was established. The Commission verified efforts under the current strategy from a broad standpoint and comprehensively considered them with the cooperation of the Cabinet Office and related ministries, and thereby formulated the "Ministry of Agriculture, Forestry and Fisheries' Intellectual Property Strategy."

## **3. Implementation Period of the Strategy**

The implementation period of the Strategy is set basically as five years up to fiscal 2019 in the same manner as the strategy formulated in 2010, in consideration of consistency with the point that the Basic Plan is reviewed and changed as required basically every five years in light of changes in the situation surrounding food, agriculture, and rural areas and evaluation on the effects of measures.

## **II. Creation of New Values through Utilization of Intellectual Property**

It is first necessary to create values for consumers in order to aim at creating new values through the utilization of intellectual property, and it is important to devise business models and intellectual property management supporting them so that values for consumers work in conjunction with values for companies. Moreover, it is important to disseminate and provide education to the whole nation on the awareness of showing

respect for the creation, protection, and obtainment of rights, and utilization of intellectual property.

### **1. Creating new consumer values**

The following methods are effective to create new consumer values through the utilization of intellectual property.

- Clarifying the attractiveness of products through the eyes of consumers and making appropriate suggestions, and creating a purchasing environment where products are easily available to consumers
- Creating consumer values through utilization of various types of intellectual property, in particular, brands (Japan brands, regional/local brands, manufacturer brands, store brands, item/product brands, etc.), in light of the characteristics of the products

### **2. Constructing business models and creating new values through utilization of intellectual property management supporting such business models**

Intellectual property can be licensed to another person after obtaining a right therefor and can be used as *coordination power* to form a new market by making intellectual property publicly known or a standard, etc. On the other hand, it can also be used as *competitive power* by appropriately combining confidentiality and obtainment of rights. The appropriate combination of them is intellectual property management.

In light of this, it is necessary to appropriately carry out intellectual property management in formulating a business model that leads consumer values to company values so that the profitability of a product is maximized.

Therefore, it is important to systematize, disseminate, and provide education on related knowledge so that companies can plan and implement appropriate business models and the intellectual property management supporting them.

## **III. Promotion of Strategic Intellectual Property Management**

In other countries, there are actually moves to enclose the whole value chain covering from the upstream to downstream of business, for example, by vertically integrating seeds, fertilizers, and agricultural chemicals through coordination of advanced biotechnology and selling them as a package, among large companies in the agricultural field. In response to such moves, the ministry will provide policy-based support for measures taken by the Japanese food industry, etc. to prevent the entire market from being occupied by overseas companies, while cooperating with overseas companies in

the areas where cooperation is required.

Moreover, the ministry will promote the appropriate and active utilization of business models and intellectual property management supporting them in order to rectify the situation where the Japanese food industry, etc. has gotten a late start in moves taking advantage of biotechnology, ICT, artificial intelligence, and other leading-edge technologies and to promote the dissemination of such technologies to the actual scenes.

Japanese agriculture, forestry, fisheries, and food products consist of agricultural artistic products and food artistic products, whose scale is small but which enhance the brand value of Japan, and agriculture industrial products and food industrial products, whose industrial scale is large. The ministry will provide policy-based support for the development of an environment that makes it possible to develop appropriate business models and intellectual property management supporting them according to the characteristics of those products, respectively, while separating and associating those products.

Furthermore, it is necessary to cultivate the sense of ethics that shows respect for intellectual property, as well as widely disseminating to and providing education on knowledge about intellectual property not only to producers, companies, and researchers but also the whole nation, including consumers. In the agricultural field, information has been provided, for granted, as some sort of public property without charge. However, information includes that which is considered public property which should be widely shared by all people and that which is considered private property or regional property which should be handled as individual's property, and it is important to distinguish them from each other. It is important to foster the sense that information which is economically of value should, in principle, not be unnecessarily disclosed without charge and that a person who receives information should pay legitimate consideration when obtaining the information.

#### **IV. Direction of Specific Measures**

##### **1. Measures against technology outflow and promotion of brand management**

Regarding measures against technology outflow, it is important to take into account experience in damage from outflow, counterfeit products, pirated copies, etc. not only in the general industrial field but also in the fields of the food industry, etc., including agricultural products, as well as examples of measures against them, etc. On that basis, it is important that those involved in the food industry, etc. learn about desirable business models and the intellectual property management supporting them in an integrated manner and actively participate in the existing efforts in the general

industrial field. Therefore, the ministry will promote the dissemination of and education about such learning and participation.

Regarding brand management, it is important to improve the power of a brand by utilizing the intellectual property system, including trademark rights, patent rights, breeder's rights, and geographical indications, and the new system of Foods with Function Claims in combination, as well as to further carry forward the utilization of regional collective trademarks, etc. Therefore, the ministry will promote the utilization of brands through the dissemination and provision of education using the "Strategic Intellectual Property Utilization Manual."<sup>\*1</sup>

On this occasion, the ministry will carry forward the consideration of a development method whereby Japan's strengths are further exerted through the combination of technology and brand management, which differ from each other.

Moreover, while the size of the market for health food is increasing, the ministry will educate companies in the food industry to have progress made in research and development and in the business models/intellectual property management supporting them work in conjunction with each other so that they can actively carry forward the industrial development of functional food materials on the occasion of the introduction of the new system of Foods with Function Claims.

## **2. Developing overseas markets through protection and utilization of intellectual property**

### **(1) Promoting utilization of intellectual property aimed at expanding earnings**

Toward strategic acquisition of a global food market, which is expected to double in the decade ahead, the ministry will carry forward [i] promotion of the utilization of Japanese food materials in the global culinary field (*Made from Japan*), [ii] overseas expansion of the Japanese dietary culture and food industry (*Made by Japan*), and [iii] efforts for the export of Japanese agriculture, forestry, fisheries and food products (*Made in Japan*) in an integrated manner through cooperation between the public and private sectors. Furthermore, the ministry will promote the dissemination of and education about measures for utilizing intellectual property rights, etc. with the aim of increasing royalty income from overseas.

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<sup>\*1</sup> Published by the Food Industry Affairs Bureau of the Ministry of Agriculture, Forestry and Fisheries in April 2014.

As it is important to establish a unified brand for a country in the overseas market, the ministry will plan and promote the establishment of a Japan brand that pursues the agriculture and food of Japan as the third brand after the examples of "made-in-Japan" industrial products that stormed the world and "cool Japan" content that is represented by Kawaii, and will provide support for Japan-wide efforts for creating a brand of agriculture, forestry, fisheries, and food products.

In doing so, the ministry will continue to promote the utilization of unified marks that were designed for Japanese-produced beef, fruits, and other products and the export promotion logo (Oishii logo) because logos for outward transmission are very important in establishing a brand.

In addition, the ministry will work on "Action Plan 10 for Transmission of Japanese Food's Attraction,"<sup>\*2</sup> which contains the foundation of the system of goodwill ambassadors for the dissemination of Japanese food, foundation of the Japanese dietary culture supporter system, and foundation of the education and qualification system, etc., in order to transmit the attractiveness of Japanese food and dietary culture.

## **(2) Making counterfeit products that go through third countries visible, and measures based thereon**

The distribution of counterfeit products of Japanese agriculture, forestry, fisheries, and food products is increasing and getting worse overseas. It is necessary to cooperate with the Ministry of Economy, Trade and Industry, Overseas Establishments, JETRO, and other related organizations for the purpose of promptly and precisely coping with counterfeit products that are very sophisticated, such as those in the case where a mark registered as a trademark is printed on a package of a product in a country where it has not been registered as a trademark and the product on which the mark is printed is exported to a third country. Moreover, the ministry will strengthen the implementation of surveys in the overseas market through the "Agriculture, Forestry and Fisheries Intellectual Property Protection Consortium" (hereinafter referred to as the "Consortium") based on cooperation between the public and private sectors and support for measures against infringement taken by companies, etc. Specifically, the ministry will promote the monitoring of infringements through the utilization of local Japanese nationals' networks and the

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<sup>\*2</sup> Formulated on February 9, 2015.

utilization of a country-by-country consultation service to which former employees in charge of intellectual property of companies engaging in overseas expansion are allocated, etc.

Furthermore, the ministry will effectively utilize provisions on intellectual property in the EPAs which Japan has already concluded and consider the revision of such provisions as needed for the purpose of strengthening efforts for intellectual property protection overseas.

### **(3) Measures against trademark registrations of geographical names**

From the standpoint that geographical names are property, it is first important to make it widely known that geographical names can be protected as brands by intellectual property rights through utilization of the geographical indication protection system and the regional collective trademark system.

On that basis, the ministry will try to strengthen measures against the problem of applications for trademark registrations being filed for Japanese geographical names by third parties overseas through cooperation with related organizations and the Consortium.

## **3. Strategically utilizing international standards**

### **(1) Improving trustworthiness through utilization of standards, etc.**

It is first necessary that trust for safety and quality is ensured in order to promote the massive expansion of export of Japanese agriculture, forestry, fisheries, and food products. The Japan brand can be an internationally trusted brand only after such trust is ensured.

Therefore, the ministry will strengthen the foundation of an internationally trusted brand for Japanese agriculture, forestry, fisheries, and food products through improvement of safety by disseminating guidelines, such as the HACCP, and international standards, etc., such as GLOBAL G.A.P., in Japan, as well as promoting related education.

Moreover, the ministry will utilize regulatory science<sup>\*3</sup> for improving the safety

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<sup>\*3</sup> This is a scientific field that serves as a bridge between scientific knowledge and administrative measures, such as regulations. It includes both research for obtaining scientific knowledge that can be used in considering administrative measures and administration that decides on measures based on scientific knowledge.

of Japanese food based on scientific grounds. In addition, in developing international standards for Sanitary and Phytosanitary (SPS), the ministry will promote efforts to ensure that the standards are in accordance with the actual conditions of Japan in cooperation with other countries and regions.

## **(2) Formulating standards that are valid in the international community**

While the HACCP is becoming increasingly obligatory in major countries, it is necessary to promote the dissemination of companies' voluntary sanitary control, etc. based on the HACCP and to develop an environment where dissemination efforts are valued by other countries, for the purpose of securing the competitiveness of Japanese food industry companies in international transactions and supplying safer food to consumers.

In addition, there is a need for standards and certification mechanisms that are easy to deal with for Japanese companies in terms of language and costs, etc.

Therefore, the ministry will try to enrich the support system for dissemination of the HACCP in Japan, including implementation of training concerning the HACCP. Moreover, the public and private sectors will work in cooperation with each other with the aim of Japan's leading establishment of standards and certification mechanisms for food safety control that are based on the HACCP and disseminating them so that they can be valid in the international community.

## **4. Creating new businesses through utilization of tradition and local brands, etc.**

The geographical indication protection system also functions to maintain and pass on dietary culture. The ministry will utilize this function to promote efforts for appropriate branding for agriculture, forestry, fisheries, and food products, and to secure consumer trust, and will also work on the following activities to secure profits that producers should originally obtain.

### **(1) Promoting branding through utilization of the geographical indication protection system**

The ministry will thoroughly inform people of the geographical indication protection system that is to be newly introduced and will also promote utilization of the system through introduction of utilization methods, including the ways of choosing between the geographical indication protection system and the trademark system, and combining these systems in accordance with local brand strategies.

In order to secure trust in the system, the ministry will implement prompt and

fair registration examinations and will also implement guidance and supervision concerning thorough quality control after registration and appropriate regulation, etc. of unauthorized use of geographical indications.

Moreover, the ministry will implement activities to publicize the system and registered products in cooperation with producers so that the value of registered products is appropriately communicated to consumers.

Furthermore, in the overseas market, the ministry will utilize the geographical indication mark to have people recognize that products with the mark are Japan's authentic specialty products, and will also implement the development of an environment for promoting export by carrying forward the creation of a framework for appropriate protection with countries that have introduced a geographical indication protection system.

## **(2) Disseminating Japanese food and dietary culture through utilization of traditional vegetables and other local food materials**

Unique vegetables were produced throughout Japan in the past, but first filial generations, etc. were disseminated due to the need for the stable production of vegetables that meet standards in the age of mass production, which made it possible to stably supply products to all over the country without exhaustion. On the other hand, varieties were homogenized, and longstanding varieties were in danger of disappearance. However, the registration of "Washoku, traditional dietary cultures of the Japanese" as an Intangible Cultural Heritage of Humanity of UNESCO and consumer needs for diversity, etc. are serving as spurs to the trend of reviewing the existence and attractiveness of traditional vegetables. Traditional vegetables can contribute to the local economy owing to their high added value even if the amount of production for each of them is small. Therefore, it is effective to aim at revitalizing regional agriculture through the promotion of traditional vegetables, etc. by establishing a cycle where related persons cooperatively take over tradition and connect it to consumers. In doing so, it is necessary to carry forward branding through the utilization of intellectual property, such as geographical indications, and transmit information about the characteristics of products so that the information can reach producers, processors, distributors, and consumers.

In addition, the ministry will reward active excellent cooks who are contributing to the dissemination and development of Japanese food and dietary culture and are committed to efforts in cooperation with producers, food companies, etc.

Furthermore, the ministry will promote the dissemination of and education about rice diet and transmit the attractiveness of Washoku (traditional dietary cultures of the Japanese) that is centered on rice. In addition, the ministry will also promote the creation of new demand through the development and provision of new rice products and services using rice processing technology for rice powder, etc.

Looking at the flower industry, flower varieties and production technologies in Japan are at a high level, and world-class rich flower-related tradition and culture have been deeply pervasive in the lives of the people. On the other hand, strengthening of international competitiveness is now an urgent issue. Therefore, the ministry will try to promote the flower industry and flower culture based on the Ornamental Plants Promotion Act (Act No. 102 of 2014) while working on the appropriate protection and utilization of intellectual property.

Regarding other agricultural products, the ministry will precisely meet the needs of consumers and actual users by using excellent varieties and advanced production technologies, which are the strengths of Japan, and will also create agricultural products with strengths, such as high quality and brand power, one after another across Japan by strategically utilizing intellectual property. The ministry will accelerate efforts in production areas.

### **(3) Utilizing landscape, traditional culture, and other resources in rural areas**

From the perspective of protecting and passing on landscapes, traditional culture, and other resources in rural areas, the ministry will comprehensively promote the harmonious coexistence of and interactions between urban and rural areas and the revitalization of the local economy by providing support for regional efforts utilizing landscapes, traditional culture, rich nature, food, and other resources in rural areas, as well as the branding thereof, thereby aiming at promoting the agriculture, forestry, and fisheries industries, and rural areas that serve as the basis thereof.

In addition, food with rich local flavor and landscapes in rural areas where such food is produced are inseparable from each other. Regarding farming, there are examples, such as *Mibu no Hana Taue*, the ritual of transplanting rice in Mibu, Hiroshima, which is registered as an Intangible Cultural Heritage of Humanity of the UNESCO. As the combined effect of these elements forms the impression of products and enhances their added value, the ministry will consider utilization measures ("Remarkable Site for Food and Agriculture") in cooperation with the Cabinet Office and related ministries, etc. in reference to France's "Site

Remarquable du Goût (Remarkable Site for Taste),<sup>\*4</sup> etc.

#### **(4) Taking protective measures for livestock genetic resources and promoting breeding and improvement**

Japanese-produced wagyu beef is the outcome of longstanding breeding and improvement with the engagement of public organizations and producers, and it is important to work on the appropriate protection and utilization thereof.

Therefore, from the perspective of efficient breeding and improvement, the ministry will promote genetic ability evaluation utilizing SNP (single nucleotide polymorphism) information and will also promote efforts to secure the diversity of genetic resources.

Other than these, the ministry will continue to promote efforts for appropriate management of the semen of wagyu beef, such as the use of bar codes. Moreover, regarding the indication of "wagyu beef," the ministry will encourage meat distributors, etc. to make voluntary efforts based on guidelines, etc. so that imported wagyu beef is also indicated in a manner that is easy to understand for consumers in the same way as domestic wagyu beef. Furthermore, the ministry will promote the branding of Japanese-produced wagyu beef overseas by utilizing the Universal Wagyu Mark in order to counter foreign-produced wagyu beef.

### **5. Extracting knowledge of the agriculture, forestry, and fisheries industries, and making it property by using ICT and creating new businesses through utilization of the knowledge**

#### **(1) Expanding and promoting utilization of ICT in the agriculture, forestry and fisheries fields**

Amid ongoing aging and labor shortage, the ministry is carrying forward efforts toward the realization of new agriculture that can realize super labor-saving production and high-quality production by utilizing robot technology and ICT in order to further expand the scale of those who engage in agriculture, forestry and fisheries, and promote labor saving and lower costs.

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<sup>\*4</sup> This is a system whereby the areas that satisfy the four requirements ([i] existence of a traditional and characteristic agricultural product, [ii] existence of a characteristic heritage (nature or cultural heritage), such as building or landscape, which is related to a product, [iii] establishment of a framework to accept tourists, including accommodation facilities and paths, and [iv] systematization of related persons in the area) are certified as a "Remarkable Site for Taste," and agriculture and tourism in those areas is promoted.

The ministry will make skills and know-how based on skilled farmers' experience (master's skills) into data, integrate them, and analyze them by using ICT, and feed the results back to farmers. The ministry will also promote the utilization of the results as a method for the smooth succession of skills and know-how by those who newly become farmers, etc. Furthermore, the ministry will provide support for the utilization, etc. of the results in the industries surrounding agriculture so that the results can contribute to improving earnings in the food industry, etc. as a whole.

In addition, not only skilled farmers' skills but also various types of agriculture-related data become big data through the utilization of ICT and can be utilized as intellectual property. Therefore, the ministry will promote educational activity concerning this point.

## **(2) Promoting preventive measures against outflow of agricultural production-related data**

While working on the expansion and promotion of utilization of ICT in the agriculture, forestry and fisheries fields, it is necessary to consider appropriate protection of data obtained through the introduction of ICT because there is concern that the dissemination of ICT in the agricultural field will be hindered due to the absence of appropriate rules for the handling of agricultural production-related data in terms of intellectual property. Furthermore, it is necessary to consider the granting of incentives to farmers, etc. who have provided know-how, such as appropriate return of earnings to such farmers according to their contribution in terms of intellectual property.

Under such circumstances, the ministry will formulate guidelines on the handling of data arising from the introduction of ICT in the agricultural field in terms of intellectual property, and will promote the dissemination of and education about the guidelines.

## **6. Strengthening competitiveness of the seed and seedling industry**

Regarding new plant varieties, the ministry will internationally harmonize and steadily promote variety registration examinations, strengthen the protection of rights, and protect the legitimate interests of right holders, thereby contributing to the promotion of development of new varieties and expansion of the domestic agricultural industry, and seed and seedling industry.

In particular, it is important to improve the level of the partner countries' variety

protection systems and promote cooperation in examinations with such countries in encouraging overseas export to and direct investment in East Asia, etc. in relation to agricultural products, and seeds and seedlings. Therefore, it is necessary to strengthen related efforts.

Moreover, regarding the self-propagation of seeds and seedlings by farmers against which the breeder's rights are deemed in principle not to be effective under the Plant Variety Protection and Seed Act, the ministry will first investigate the actual conditions of production sites, and the seed and seedling industry for each kind of plant and then consider the expansion of the scope of plants for which the breeder's rights are effective against self-propagation.

Furthermore, the ministry will accelerate discussions concerning the strengthening of competitiveness of the seed and seedling industry in light of the fact that there have recently been moves to obtain patent rights for new plant varieties with disease and pest resistance, functionality, and other characteristics, with the production processes thereof included.

## **(1) Strengthening the protection of new plant varieties**

### **(i) Internationally harmonizing and steadily promoting variety registration examinations**

It is important to develop an environment in which breeders can easily obtain breeder's rights both in Japan and abroad in order to promote the development of new excellent plant varieties with international competitiveness.

Therefore, the ministry will [i] participate in the preparation of the Test Guidelines of the International Union for the Protection of New Varieties of Plants (UPOV), which provide international standards for examination standards with respect to each kind of plant, as one of the central members and [ii] conduct a technological study of the effects of differences in the cultivation environment between Japan and the EU, etc. on the expression of the characteristics of plants for the purpose of promoting the mutual use of examination results between the countries. Thereby, the ministry will promote the international harmonization of examinations.

In addition, the ministry will steadily facilitate over 1,000 variety registration examinations every year through [i] preparation of examination standards that can correspond to new plants that have been increasing in recent years, new characteristics that contribute to the strengthening of international competitiveness and branding of Japanese agriculture, forestry and fisheries

products (high temperature resistance, good keeping quality, etc.), etc. and [ii] appropriate implementation of examinations corresponding to the increase in the number of the existing registered varieties.

**(ii) Strengthening measures against infringement of rights**

**A. Enhancing and strengthening support for measures against infringement of rights**

In order to provide support for breeders' exercise of rights, the ministry will make efforts for appropriate provision of information by encouraging the utilization of plant variety protection advisers (who provide consultation services and support in relation to infringement of rights at the request of breeders), implementing DNA analysis-based variety identification at the request of breeders, cooperating with external organizations, and collecting and organizing information about the infringement, and utilization of breeder's rights in Japan and abroad at the National Center for Seeds and Seedlings.

**B. Developing DNA-based variety identification technology, etc.**

It is necessary to ensure that right holders can confirm the fact of infringement of right overseas and take border measures in an appropriate and prompt manner in the cases where a suspected infringement of a breeder's right occurs in relation to an agricultural product for which export to overseas is aimed at or one for which reimport from overseas is concerned.

For this purpose, the ministry will develop technology for identifying a relevant variety at the DNA level and thereby support the protection of rights, and will also provide support in confirming the validity of and manualizing developed DNA identification technology so that the developed DNA identification technology can be used at customs for closing national borders, etc. Moreover, the ministry will provide support for the development of technology for determining in which production area an agricultural product was produced based on scientific grounds, for the purpose of appropriately coping with the problem of varieties being taken overseas and reimported without permission of the holders of breeder's rights. The ministry will make efforts for the strategic protection and utilization of technology, etc. developed as such.

Furthermore, the ministry will strengthen the conservation system for

plants of the varieties for which an application was newly filed, etc. and carry forward the development of a framework for the appropriate handling of infringements.

### **C. Promoting utilization of the border regulation system**

In order to protect the rights of the holders of breeder's rights, etc., the ministry will try to thoroughly inform the holders of breeder's rights and companies, etc. engaged in export and import of the border regulation system whereby it is possible to suspend the export and import of varieties infringing breeder's rights, and it will encourage them to utilize the system. In addition, the ministry will strengthen cooperation with customs and try to thoroughly publicize the Plant Variety Protection and Seed Act and the Customs Act so as to ensure that no unintentional infringement occurs.

#### **(iii) Actively promoting the East Asia Plant Variety Protection Forum**

While the East Asian Region is a promising market that is expected to continue to achieve sustainable economic growth, many countries in the region have yet to develop any plant variety protection system. Therefore, the ministry will aim at developing an environment where varieties that are the intellectual property of Japan are appropriately protected overseas by strategically developing the "East Asia Plant Variety Protection Forum," which was established by 13 countries, consisting of ASEAN countries and Japan, China, and South Korea.

Specifically, the ministry will actively promote [i] the implementation of training in Japan and dispatch of experts in order to develop human resources and improve examination ability in the participating countries, [ii] the implementation of activities toward harmonization of examination skills (experts' meeting for harmonization of examination standards, etc.), [iii] the operation of a website intended to share and transmit information, [iv] awareness-raising of key persons, and [v] support for the development of bills that are necessary for accession to the UPOV.

#### **(iv) Promoting approaches to develop and enhance the variety protection system**

In order to promote the active overseas expansion of the Japanese seed and seedling industry, the ministry will continue to encourage countries which have

yet to develop any variety protection system and those that have yet to conclude the 1991 Act of the UPOV Convention to develop and expand such system and conclude the 1991 Act of the UPOV Convention by utilizing every opportunity, including bilateral consultations, dispatch of public-private joint missions, EPA negotiations, and seminars hosted by the UPOV Secretariat.

## **(2) Establishing a stable seed and seedling supply system and securing overseas genetic resources**

### **(i) Establishing a stable seed and seedling supply system**

It is important to aim at the stable supply of excellent seeds and seedlings according to the status of each crop while appropriately protecting intellectual property.

As epoch-making varieties and varieties with strengths that keep an eye on the overseas market are requested in variety development, the ministry will promote the development of new breeding technology through a combination of the decoding of genome information, DNA marker selective breeding technology, genome editing technology, omics analysis technology,<sup>\*5</sup> etc.

Seed and seedling companies, which are various bodies whose individual business scale is small and coexist, take charge of the production of seeds and seedlings of vegetables, etc. in Japan, and the framework is weakening because of the difficulty of securing isolated farmland in Japan and the aging of seed and seedling producers, etc. Therefore, the ministry will promote the development of the necessary environment, including strengthening of the ability to breed new varieties and the production basis for high-quality seeds and seedlings, toward building a comprehensive approach framework that makes it possible to solve common problems, such as increasingly difficult securing of genetic resources, intensifying competition in breeding, and globalization of businesses. In particular, the ministry will pay close attention to the technology trend of major overseas biotechnology companies that intend to enclose the entire value chain of business not only from a business perspective but also from the perspective of consumer tastes and consider measures against them.

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<sup>\*5</sup> This is a research method intended to comprehensively understand life phenomena not by individually examining fluctuations of genes, mRNA, protein, etc. in the cells of living things as in the past but by exhaustively analyzing them.

Regarding other crops, in order to ensure a stable supply of seeds and seedlings to producers, seeds and seedlings are propagated in Japan based on breeder's stock produced by prefectures for rice, wheat and barley, and soybean and breeder's stock produced by the National Center for Seeds and Seedlings for potatoes and sugar canes. In addition, for fruits, seeds and seedlings are propagated in Japan based on the mother trees of varieties that were developed by research institutes, etc. In addition to such supply of seeds that are now the mainstream, for example, for rice, the ministry will promote efforts for seed supply by various bodies, such as chemical manufacturers' efforts for the development and dissemination of the first filial generation of rice in association with food service enterprises, in order to meet diversifying needs.

Regarding forestry seeds and seedlings, the ministry will encourage the development of seeds and seedlings that are excellent in terms of growth, pollen-free Japanese cedar, etc. and promote the stable supply of the excellent seeds and seedlings.

#### **(ii) Securing overseas genetic resources**

Excellent varieties constitute the root of the value chain of the Japanese food industry, etc. As it is indispensable to introduce new genetic resources for breeding new excellent varieties in the future, the ministry will promote measures for securing genetic resources in light of international frameworks, such as the Nagoya Protocol of the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources for Food and Agriculture. Moreover, the ministry will work on the development of an environment for obtaining overseas genetic resources by promoting bilateral joint research projects on plant genetic resources with Asian countries (PGRAsia), etc.

### **7. Promoting strategic intellectual property management in research and development**

In promoting research and development in the future, the ministry will plot an intellectual property strategy that is effective for commercialization and development into business, including appropriate users of research outcomes and appropriate ways to hand over intellectual property to those who utilize it, from the stage of planning and drafting research and development based on the basic idea that research outcomes are to be utilized in the scenes of agriculture, forestry, and fisheries, etc., and promote research and development in an effective and efficient manner.

In addition, in utilizing research outcomes, the ministry will provide guidance and support for the review of intellectual property management at each research institute so that the most appropriate method is adopted from the perspective of accelerating return to society through business success, with a view to various options, such as obtaining rights, maintaining confidentiality, or making outcomes publicly known at the time of creating an invention and the opening or exclusive licensing, etc. of a patent, etc. after obtaining rights.

Furthermore, in addition to enrichment of the framework of the intellectual property bureau of the competent National Research and Development Agency, the ministry will establish a new specialized department that promotes industry-academia-government cooperation at the Agriculture Research Center for each area, etc. Full-time coordinators will actively implement public relations activity for the possessed intellectual property, coordination toward the utilization of intellectual property rights, including licensing, cooperation with external persons who are good judges of technology and experts in business models and intellectual property management, joint research with private companies that work on the development of business by utilizing intellectual property, and cooperation with venture capital companies, etc.

## **8. Intellectual property strategy-related education and human resources development**

### **(1) Promoting education about the protection and utilization of intellectual property in the agriculture, forestry, and fisheries fields**

The importance of various kinds of education to related persons and the general public has been advocated so far for items covering from the recognition of the present situation to the direction of measures. There is strong concern that producers are vulnerable in relation to the protection of intellectual property and are indifferent to the utilization of intellectual property under such circumstances despite the fact that technology relating to agricultural production can be intellectual property. In particular, it is necessary for farmers to be conscious that know-how, etc. they created can be deemed to be intellectual property. In addition, many persons involved in agriculture, including dissemination organizations, tend to consider that farmers' know-how, etc. are public property and that all of the knowhow should be disclosed, but this idea needs to be changed.

In light of the above, the ministry will provide farmers, agricultural instructors, and other persons involved in agriculture with education about the protection and

utilization of intellectual property and promote the dissemination of and education about business models and strategic intellectual property management supporting them.

Moreover, the ministry will provide, on an ongoing basis, its officials with training concerning knowledge about business models and the strategic intellectual property management supporting them as well as flexible ways of thinking because such knowledge and ways of thinking are indispensable in implementing various measures and operations.

On the other hand, there is the situation where the State, universities, research institutes, organizations, and other related persons disclose actual numerical values for agricultural management that are sufficient to identify individual corporations. It is necessary to review culture where it is considered natural to open all such agriculture-related data itself, and therefore, the ministry will promote education to ensure that this point is recognized.

## **(2) Human resources development**

The necessity of human resources who can be good judges of technology has been emphasized in the Japanese industry in the past. In addition to this, the following human resources are required for performing this Strategy.

- Practical human resources who can understand and utilize business models and the intellectual property management supporting them
- Educational human resources who can provide consumers with explanations about business models and the intellectual property management supporting them in an easy-to-understand manner

Therefore, the ministry will promote the development of such human resources through the provision of learning opportunities, etc.

In order to secure local human resources who have certain knowledge and skills when companies in the food industry expand their business overseas, the ministry will establish endowed chairs in major agricultural or food-related universities with a high academic level in ASEAN countries, and promote efforts to provide lectures with practical knowledge and skills concerning the overall food value chain covering from seeds and seedlings to food processing, distribution, and consumption through the dispatch of experts from Japanese private companies.

## **V. Measures for Promoting the Strategy**

The implementation period of the Strategy is basically five years up to fiscal 2019.

However, it is now necessary to implement an effective PDCA cycle for steadily and strongly implementing the Strategy at a big turn-around point, facing an unprecedented change in the structure of economic society.

For this purpose, the ministry will verify the implementation status of the Strategy on a regular basis with the participation of external intellectuals, and will also review the Strategy, policies, and measures and correct the course as needed.

**List of the Members of the "Ministry of Agriculture, Forestry and Fisheries  
Intellectual Property Strategy Commission"**

- Tatsuo Igarashi: Full-Time Manager, Contract and Trademark Group, Intellectual Property Department, Ajinomoto Co., Inc.
- Yumi Ogose: Professor, Professional Graduate School of the Tokyo University of Science (Acting Chairperson)
- Tsutomu Kagami: Managing Director and Research & Development Division Manager, Sakata Seed Corporation
- Kenichiro Senoo: President, Industry-Academia Collaboration Initiative Nonprofit Organization (Chairperson)
- Susumu Tanaka: President, Salad Bowl Co., Ltd.
- Eriko Namekawa: Managing Editor, Living Shimbun Editorial Department, Sankei Living Shimbun Inc.
- Shinichi Murayama: Merchandising Manager, First Food Merchandising Department, Foods Division, Isetan Mitsukoshi Ltd.
- Hirokazu Yamaoka: Director of the Overseas Business Support and Intellectual Property Department, Japan External Trade Organization
- Kaori Yamane: President of Shufuren (Japan Housewives' Association)

(Japanese syllabary order; titles omitted)