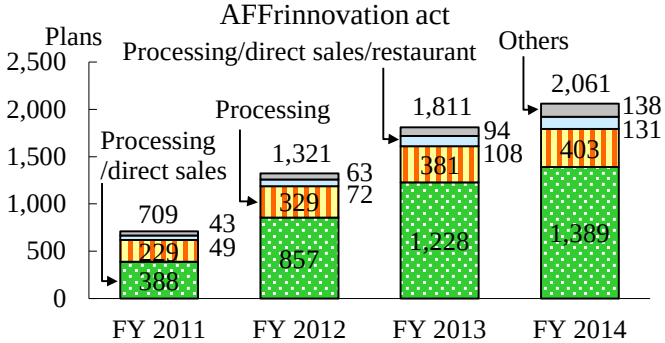
6 Promoting AFFrinnovation, etc.

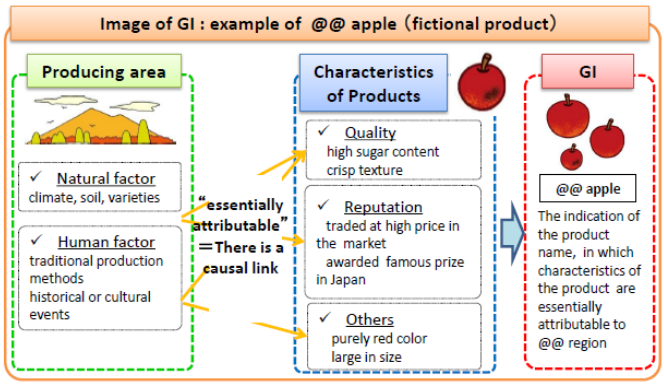
- The number of certificates of business plan approved under the AFFrinnovation act for agriculture, forestry and fisheries workers to undertake processing and direct sales of their products has exceeded 2,000 since the certification started in FY 2011, indicating a steady increase. Of the total, vegetables account for the largest share of 32%, followed by 19% for fruits, 12% for rice and 12% for livestock products.
- Collaboration between the medical care, welfare, food and agricultural sectors is promoted to explore new domestic markets.
- In June 2014, the "Act for Protection of Names of Designated Agricultural, Forestry and Fishery Products and Foodstuffs" (Act No.84 of 2014)" was enacted (entered into force in June 2015) to establish the system to protect geographical indications as intellectual property, which are the names of agricultural, forestry, and fishery products and foodstuffs whose tradition and characteristics are essentially attributable to their geographical origins, thereby contributing to ensure the interests of both consumers and producers.

Certification of business plan approved under the AFFrinnovation act



Source: MAFF surveys
Notes: 1) Accumulation since FY 2011
2) "Others" include direct sales, processing/direct sales/export, export, restaurant and fund-approved plans (newly approved).

Image of geographical indication

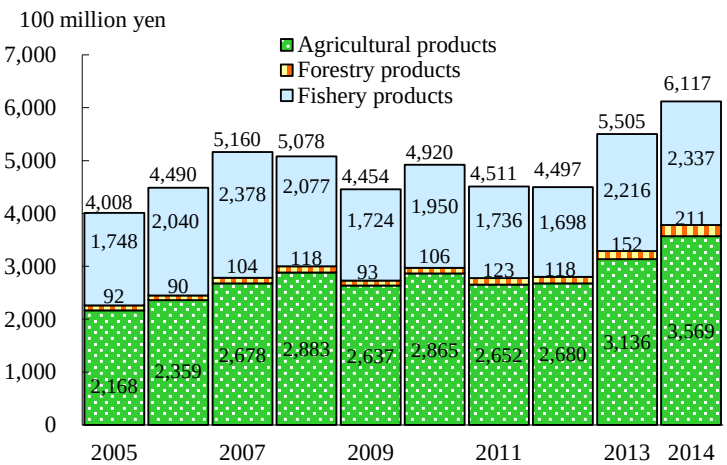


Source: MAFF

7 Communicating Japanese foods and dietary cultures and promoting exports

- In 2014, exports of Japan's agriculture, forestry and fishery products and foods increased 11.1% from the previous year to 611.7 billion yen, the highest record since 1955 when export statistics began to be compiled.
- Under the Executive Committee for Export Promotion Strategy established in June 2014, the nation wide export promotion institutions of seven major products are playing a central role in accelerating initiatives to expand exports to Europe and North America as well as Asia.
- As interests are growing in Japanese foods through the registration of "WASHOKU" as a UNESCO Intangible Cultural Heritage, the government and private sectors are cooperating in building the Japanese pavilion and implementing public relations activities for the 2015 Milan Expo to take place between May and October 2015 in Italy's Milan under the theme of foods.

Trends of agriculture, forestry and fishery products and foods exports



Source: Prepared by MAFF, based on MOF, "Trade Statistics"

Overview of Japanese pavilion at 2015 Milan Expo

2015 Milan Expo Theme
"Feeding the Planet, Energy for Life"

Japan pavilion theme
"Harmonious Diversity"

JAPAN EXPO 2015 MILANO

Image of Japanese pavilion

Building	Exhibition
Bowl of diversity	Diversity of food culture and agricultural production
Restaurant	**Events**
Feel the Japanese Passion	Japan pavilion event square

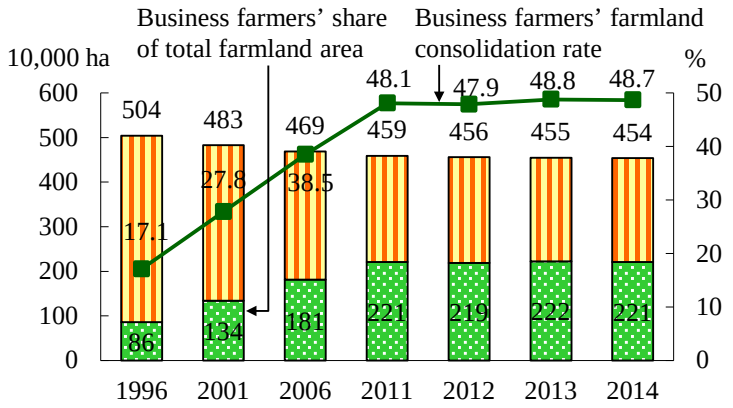
Source: MAFF

1 Promoting the structural reform of agriculture

(1) Launching Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks)

- "Business farmers' share of the total farmland area" had steadily increased since the creation of the certified farmer system in 1993 thanks to effects of measures for certified farmers, before leveling off over recent years due to a measure that targeted all farmers implemented from 2010.
- In order to increase business farmers' share of the total farmland area to 80% in the next decade, Farmland Banks have been created as public intermediate receivers of farmlands for consolidating farmland to business farmers. By November 2014, Farmland Banks were designated had been established in all 47 Japanese prefectures. Each prefecture is promoting the development of the organization.

Changes in business farmers' share of Japan's total farmland area



Sources: MAFF, "Statistics on Cultivated Land and Planted Area," "Survey on Community-based Farm Cooperatives" (aggregate calculation after reclassification), MAFF surveys

Notes: 1) Data are at the end of March for each year.
2) "Business farmers' share of total farmland area" represents farmlands managed by certified farmers (including specified agricultural corporations), farmers who reach the level as specified in basic plans made by municipal governments, and community-based farm cooperatives (from FY 2003) based on ownership, land-utilization rights or contracts (only farming operations under contracts for community-based farm cooperatives).

Initiatives of Kumamoto Prefecture's Public Corporation for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Bank)

Kumamoto Prefecture under its governor's strong leadership has proactively promoted farmland consolidation through its Farmland Bank. It has deployed 40 officials for coordination of local talks and designated 64 priority districts for promoting farmland consolidation. The prefecture is using the Farmland Bank for (i) consolidation farmlands totaling 400 to 500 ha into a new corporation, (ii) for consolidating farmland to business farmers in a region where infrastructure development is undergoing, and (iii) for introducing corporation for orchards where business farmers have aged so much.

Image of leased farmlands after infrastructure development

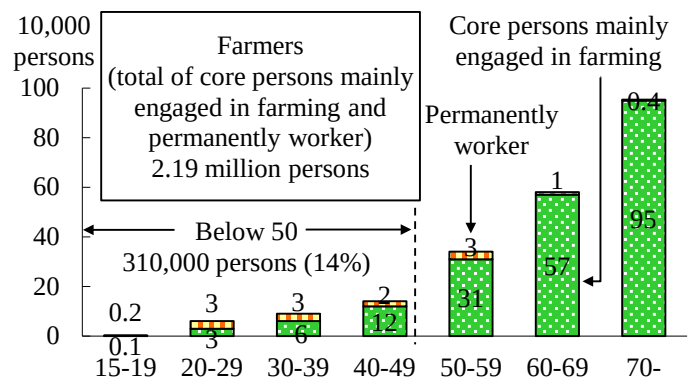
Before infrastructure development

After infrastructure development

(2) Trends of business farmers

- As farmers (core persons mainly engaged in farming and permanently hired worker on farm (hereinafter referred to as "permanently worker")) are aging, their age distribution is remarkably unbalanced.
- The number of corporation farms has continued an upward trend, increasing three times from 2000.
- The entry of corporation into the agriculture sector is in progress at the quintuple pace after the revision of Agricultural Land Act in 2009 (1,712 corporation farms entered into the sector after the revision).

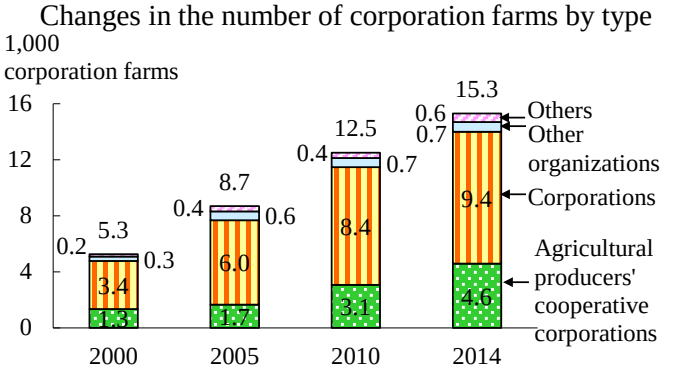
Farmers by age group (2010)



Sources: Prepared based on MAFF, "Census of Agriculture and Forestry," and MIC, "Population Census" (data were aggregated by MAFF based on survey slips)

Notes: 1) "Core persons mainly engaged in farming" are those whose mainstay jobs are farming among a population mainly engaged in farming (household members mainly engaged in self-employed farming).
2) "Permanently worker" are those employed mainly for farming for a period of seven or more months under employment agreements.

Changes in the number of corporation farms by type



Sources: MAFF, "Census of Agriculture and Forestry," "Survey on Movement of Agricultural Structure"

Notes: 1) Corporation farms are agricultural holdings other than farm households for sales purposes, excluding household corporations.
2) Corporation grass farms are covered for 2014.
3) Corporations are stock corporations, ordinary and limited partnerships, and limited liability companies under the Companies Act, and mutual companies under the Insurance Business Act. Corporations in and before 2005 include limited private companies.
4) "Other organizations" include agricultural cooperatives, agricultural mutual relief associations, agriculture-related organizations and forest owners' cooperative associations.

○ New farmers aged below 40 have numbered 13,000 to 15,000 in recent years. But only some 10,000 of them are expected to remain as farmers.
○ In order to promote new entries into agriculture, local governments have implemented their respective measures for supporting new entries, in addition to Young Farmers Payments.

Changes in new farmers

Source: MAFF, "Survey on Newcomers in Agriculture"
Note: New entries in 2010 and survey results from 2011 do not cover regions where surveys were impossible due to the Great East Japan Earthquake.

An initiative for supporting new entries into horticulture

Fukui Prefecture opened Fukui Horticulture College in FY 2014 in Awara city as a training organization to nurture new farmers engaged in horticulture.
In a course for trainees willing to make a living in horticulture, each trainee manages an exclusive garden, undergoing management simulation training in which each trainee integrally selects, produces and sells horticulture products in a financially independent manner for a period of up to two years. The course is designed to develop practical management capabilities. In FY 2014, 23 trainees entered the college.
A trainee says, "I feel that I am steadily growing toward my future entry into agriculture."


Trainees for new entries into agriculture

(3) Promoting operations of women farmers

○ In 2014, women farmers accounted for 42% of core persons mainly engaged in farming, playing a key role in supporting agriculture and local activities. Women farmers are demonstrating their capabilities and implementing farm management for high goals or aims throughout Japan.
○ Under the ongoing "Nougyou-Joshi Project" (a campaign for women farmers to be more active in agricultural business through cooperation with various industries to tap women farmers' knowledge and experiences), women farmers and companies cooperate in new product development and other operations.

"Nougyou-Joshi Project"

○ The "Nougyou-Joshi Project" has been implemented to enhance women farmers' presence and increase women choosing to engage in farming by linking women farmers' wisdom to various companies and communicating their operations to the entire society.
○ Under the project, women farmers and companies cooperate in new product development and other operations.


Women farmers cooperate with Daihatsu Motor Co. in developing mini-trucks.


Women farmers and Iseki & Co. cooperate in a project regarding agricultural machines.

A young woman farmer seeking to invigorate local communities through agriculture

Ms. Ai Sato in Yokote city, Akita Prefecture, found the attractiveness of farming interacting with nature and chose to work at her family's farm in 2012 after graduating from a university. At present, she and her family use farmlands totaling 16 ha to cultivate rice, cucumbers, melons, komatsuna (Japanese mustard spinach) and other crops and process fruits produced in Akita Prefecture into jam. She has participated in the Nougyou-Joshi Project. She was selected as a student of a school for nurturing next-generation leaders for women's farming in FY 2014 and has positively participated in training to improve business management capabilities.
She intends to brush up her farming skills, implement farming taking advantage of women's sensibilities and positively conduct operations to invigorate local communities through agriculture in the future.


Ms. Ai Sato

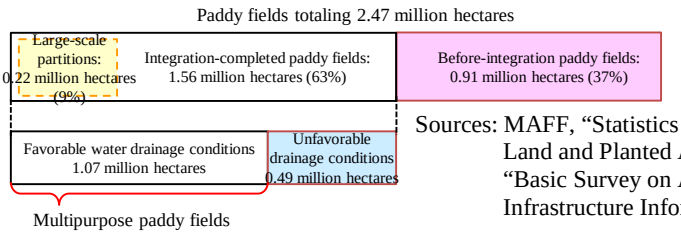
(4) Promoting the Farming Income Stabilization Measures and rice policy reform measures

○ From production in 2015, the government is implementing the direct payment for upland field crops and the payment to mitigate impact of reduced income for rice and upland field crops targeting business farmers such as certified farmers, certified new farmers and community-based farm cooperatives. No scale requirement will be imposed so that a wider range of business farmers will be eligible for these measures.
○ In order to promote production of the crops on demand, the government improved direct payment for the use of paddy fields, and provided detailed information on supply-demand situation and price. In addition to a conventional production target, the government also set a reference production target for farmers to produce other crops than table rice by their own decisions.

2 Developing and conserving agricultural production infrastructure

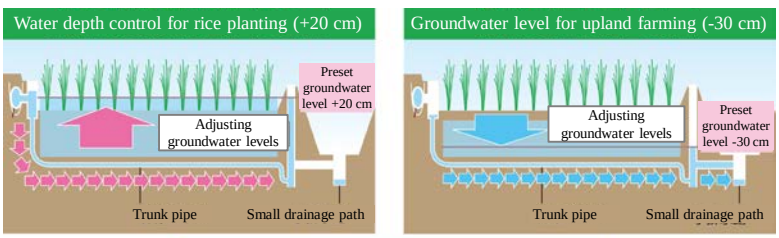
- Of paddy fields totaling 2.47 million hectares in Japan, about 60% have been integrated into 30-are or larger partitions. Only one-tenth have been integrated into large (1-hectare or larger) partitions. About one-third of integrated paddy fields have unfavorable drainage conditions.
- It is important to promote infrastructure development including the expansion of farmland partitions and the creation of multi-purpose paddy fields in cooperation with Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks) to enhance the competitiveness of Japan's agriculture.
- Given that the number of facilities exceeding their service lives has risen with natural disasters increasing, the government is promoting measures to lengthen service lives and strengthen anti-earthquake resistance of farm irrigation facilities, preparing hazard maps and enhancing surveillance and management arrangements from the viewpoint of making national land more resilient.

State of paddy fields improvement (2013)



Sources: MAFF, "Statistics on Cultivated Land and Planted Area" and "Basic Survey on Agriculture Infrastructure Information"

Overview of a groundwater level control system



The groundwater level can be adjusted freely.

Source: MAFF

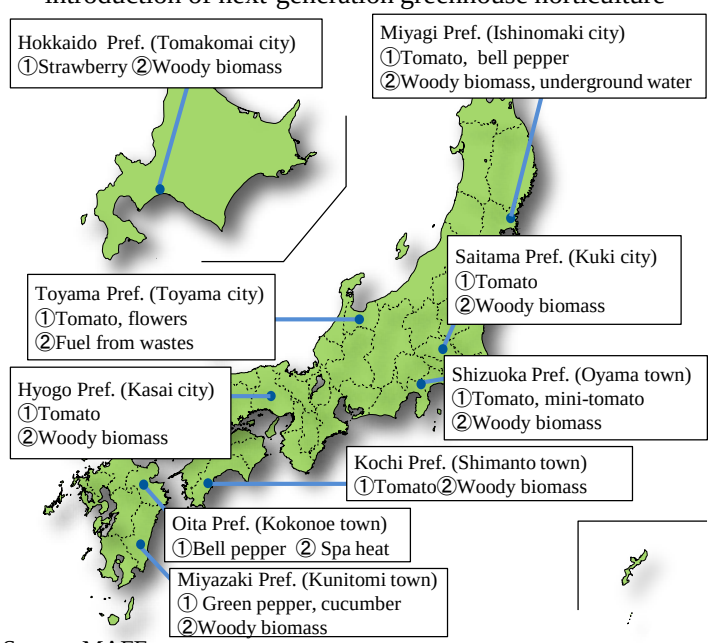
Irrigation pond improvement flow

Source: MAFF

3 Innovating production and distribution systems

- Promoting next-generation greenhouse horticulture to utilize woody biomass and other local energy resources and advanced technologies for reducing dependence on fossil fuels, increasing income and creating local jobs at locations where such energy resources are massively accumulated.
- In order to develop agriculture into a growth industry despite population aging, a shortage of new farmers and other difficult problems facing agriculture, Japan should promote new smart agriculture in which robot and information/communications technologies would be introduced for labor-saving, high-quality production.

Districts for implementation of support projects to accelerate introduction of next-generation greenhouse horticulture



Source: MAFF

Note: ① Crops for cultivation ② Local energy sources

New agricultural initiatives using robot and information/communications technologies

1. Developing autonomous-driving systems for tractors, etc.

Promoting the development of autonomous-driving systems for tractors and other agricultural machines to save farming labor and realize large-scale production. Promoting a study for demonstrating systems for cooperation between manned and unmanned machines and securing their safety to accelerate the development.

A system for cooperation between unmanned (left) and manned (right) machines

2. ICT used for efficient control of dispersed rice paddies

Nabehachi Nosan, a limited liability company in Yatomi city, Aichi Prefecture, has introduced ICT to efficiently manage dispersed rice paddies with a small number of workers, cutting seedling production costs by 25% and labor costs by 5%.

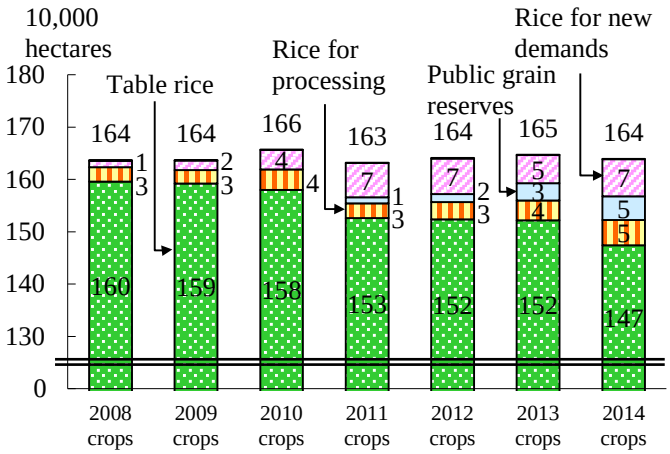
Computer terminals used in an office to integrally control operations

4 Production trends for major farm and livestock products

(1) Rice

- Japan's total area for planting table rice in 2014 totaled 1.474 million hectares, down 48,000 hectares from the previous year. Meanwhile, the area for planting non-table rice including rice for feed and other new demands, processing and reserves increased substantially. As a result, the total rice-planted area leveled from 2008 at 1.639 million hectares.
- The area for planting rice for feed totaled 34,000 hectares in FY 2014, up 12,000 hectares from the previous year. Given that rice for feeding is assessed as having the same nutrition value as imported corn, substantial demand is expected for rice for feed. Therefore, it is important to improve production efficiency by introducing high-yielding varieties and low-cost production technologies.

Changes in total rice-planted area including paddies subject to early harvests



Sources: MAFF, "Statistics on Cultivated Land and Planted Area," MAFF surveys

Initiatives to reduce production costs and increase value added for rice for feed

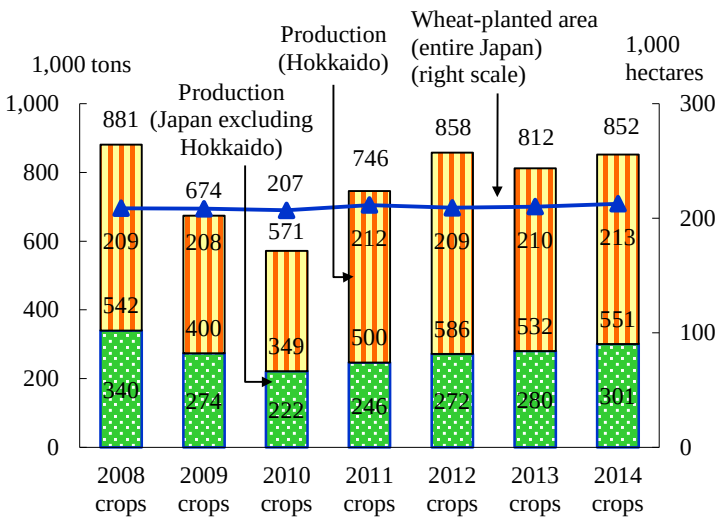
Sowing iron-coated rice seeds directly at a rice paddy

In Kamewada and Kitaakazuka, Kanuma city, Tochigi Prefecture, a 20-member community-based farm cooperative was established in 2008 to produce rice for feed. Since 2010, the cooperative has directly sowed iron-coated rice seeds on flooded paddy fields to reduce labor and costs with seeding and other costs saved. Rice produced for feed there is used at local chicken farms. Eggs produced at these farms are used by a local confectionery store for developing and selling western confectioneries. The cooperative has thus promoted initiatives to increase valued added to rice for feed through cooperation within a local community.

(2) Wheat, soybeans

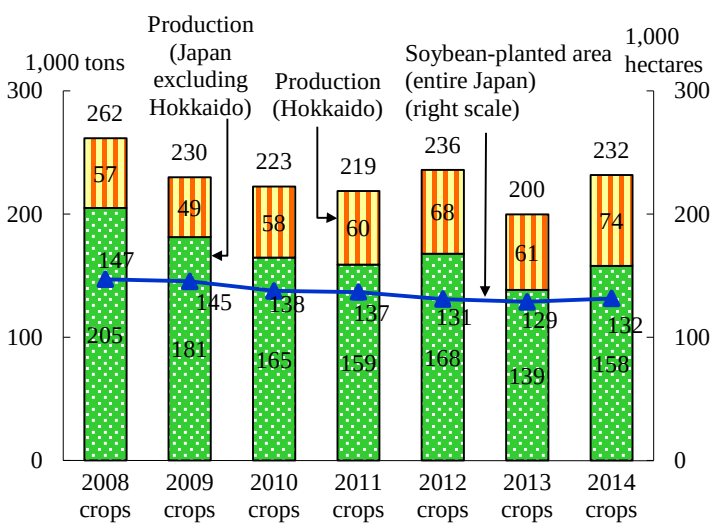
- Japan's wheat-planted area in 2014 came to about 210,000 hectares, remaining almost unchanged since 2002.
- In Japan, wheat is usually harvested in the rainy season and cultivated on rice paddies so that yields and quality are unstable due to moisture damage. Therefore, wheat producers must thoroughly implement drainage measures and fertilizer management based on soil diagnostics.
- Japan's soybean-planted area increased by 2,800 hectares to 132,000 hectares due to some farmers' switching to soybean from other crops.
- Soybeans are used for edible oil as well as tofu soybean curd, natto (fermented soybeans), soy sauce and other food products. Soybeans for oil accounted for 63% of 3.01 million tons for domestic consumption including imports in FY 2013. Those for food products accounted for 31%.

Changes in wheat-planted area and wheat production



Sources: MAFF, "Crop Statistics"

Changes in soybean-planted area and soybean production

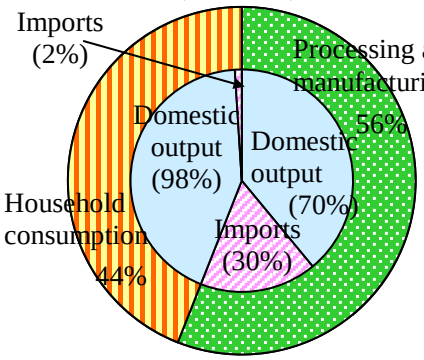


Sources: MAFF, "Crop Statistics"

(3) Vegetables, fruits

- Imports account for 30% of vegetables for processing and manufacturing uses covering 60% of total domestic vegetable demand. Japan must promote production of vegetables for processing and manufacturing uses to raise domestic production's share of total domestic demand.
- Domestic fruit output covers 40% of total domestic fruit demand, with the remaining 60% met by imports. Of domestic output, 90% is used as fresh food. Fruits for processing into juice and other products account for 60% of fruit imports. To explore fruit demand, domestic fruit producers must promote their switching to better varieties meeting users' and consumers' needs and their development of new processed fruit products.

Main vegetables by use and procurement source (FY 2010)



Source: Surveys by MAFF Policy Research Institute
Note: Percentages in parentheses are domestic output's and imports' shares of vegetables for each use.

Unique technology used for cut apples sold throughout Japan

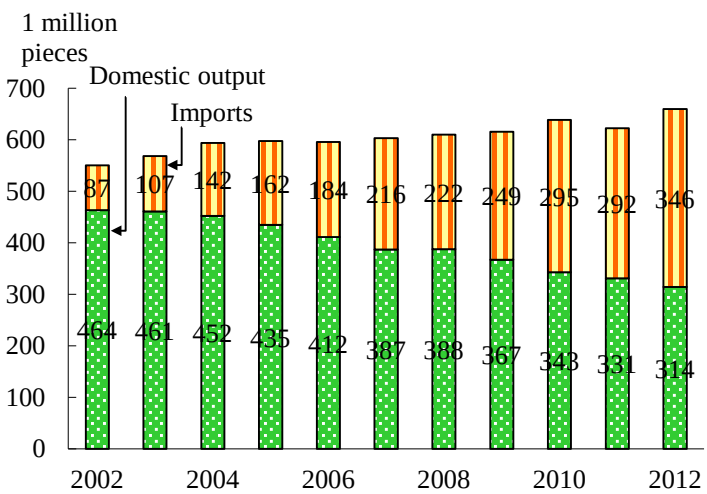
Cut apples for retailing

Mr. Tomomi Oyu, president of Apple Factory Japan, Inc. in Hirakawa city, Aomori Prefecture, has handled cut apples since around 1999, establishing a unique technology to keep cut apples fresh with their color remaining unchanged. In 2008, he founded Apple Factory Japan as a joint venture with a trading company with a nationwide sales network to sell cut apples throughout Japan. At present, Apple Factory Japan provides cut apples for not only school lunches and hospital meals within Aomori Prefecture but also for school lunches outside the prefecture, hotels, convenience stores and supermarkets. It has developed cut apple vending machines for the first time, installing them at 16 locations in Japan, including subway stations, office buildings and expressway service areas. The company plans to develop new products for overseas expansion.

(4) Flowers, tea

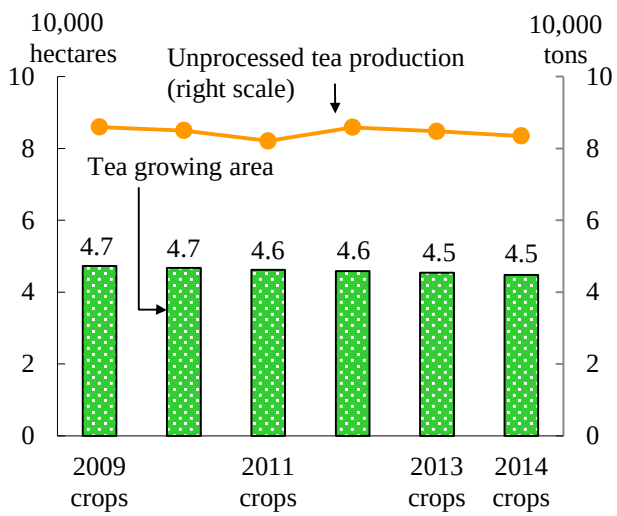
- Domestic flower output covers 90% of total domestic flower demand on a financial value basis, with the remaining 10% met by imports. Meanwhile, particularly cheap cut flower imports have increased. Therefore, Japanese flower producers are required to increase domestic output's share by improving freshness and durability to which consumers give priority among quality aspects. Under such circumstances, Japan implemented the Ornamental Plants Promotion Act in December 2014 to promote initiatives for the flower industry and cultures.
- Japan's tea growing area has leveled off, with annual output remaining between 80,000 and 90,000 tons over recent years.
- Under the Tea Promotion Act, the government has promoted initiatives to improve tea quality and productivity through variety replacements, level tea growing operations and expand tea exports to help stabilize tea producers' business.

Trends of cut carnation shipment and import volumes



Sources: MAFF, "Statistics on Production and Shipment of Flowers" and "Plant Quarantine Statistics"

Changes in tea growing area and tea production



Source: MAFF, "Crop Statistics"
Notes: Unprocessed tea production in 2011 and 2012 covers major tea-producing prefectures.

(5) Livestock products

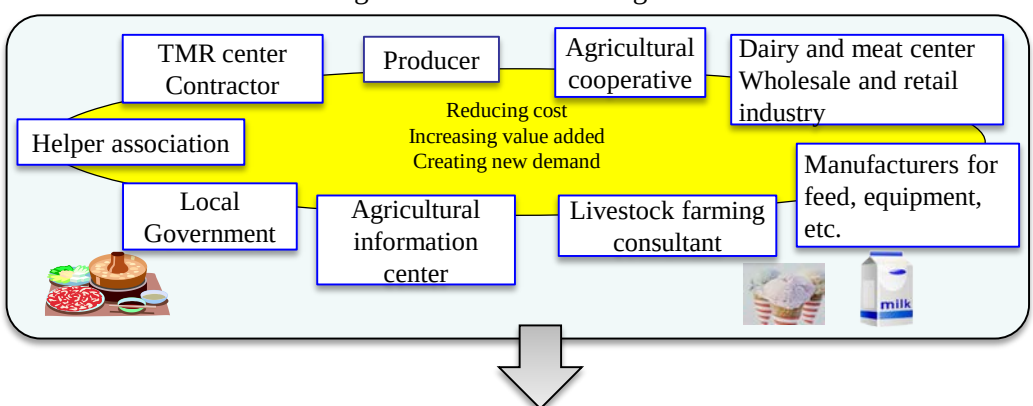
- The number of livestock farms has decreased in Japan over recent years. On the other hand, the scale of the farms continues to expand and the number of animals per farm has increased.
- Capital investment burdens and appropriate management of animals with limited labor have become challenges for further expansion. Given these challenges, farms and related parties promote “livestock farming clusters” where they cooperate and get together to improve profitability in order to preserve and consolidate the production base.
- “The Basic Policy For Modernizing Dairy and Beef Cattle Production” calls for efforts of entire locality rather than each farm to improve livestock farming profitability and enhance production base. “The Plan Concerning Improvement and Increased Production of Livestock” seeks to improve livestock for stable supply of livestock and dairy products that can accurately respond to various needs of consumers.
- While milk product consumption has remained stable over recent years, raw milk output had followed a downward trend. Given the situation, the government has steadily taken measures to increase raw milk production base. Given a butter shortage expected for 2014, the government conducted additional imports and requested the milk industry to expand home-use butter supply as much as possible.
- Beef calf prices rose as calf births declined due to a drop in cows for breeding, with dressed carcass prices recovering.
- Based on the Swine Industry Promotion Act, the government drafted “The policy for promoting hog farming”.
- Livestock farming is structurally vulnerable to feed price fluctuations as feed costs account for as much as 40-50% of total production costs for cows and 60-70% for pigs and hens. Therefore, MAFF will promote the domestic production and utilization of feed.

Changes in the numbers of livestock farms and animals per farm

		Number of livestock farms					Number of animals per farm				
		2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Dairy cattle	Hokkaido	7,690	7,500	7,270	7,130	6,900	107.5	110.4	113.1	113.2	115.3
	Excluding Hokkaido	14,300	13,500	12,800	12,200	11,700	46.0	47.4	49.0	50.5	51.2
Beef cattle		74,400	69,600	65,200	61,300	57,500	38.9	39.7	41.8	43.1	44.6
	Cows for breeding	63,900	59,100	56,100	53,000	50,000	10.7	11.3	11.4	11.7	11.9
	Fattening cattle	11,700	11,200	10,400	10,000	9,660	72.1	73.5	77.9	79.0	79.9
	Dairy cattle for beef	6,370	6,110	5,920	5,810	5,750	152.0	146.4	150.6	150.3	148.1
Pigs		…	6,010	5,840	5,570	5,270	nc	1,625.3	1,667.0	1,738.8	1,809.7
Layers (×1000)		…	2,930	2,810	2,650	2,560	nc	46.9	48.2	50.2	52.2
Broilers (×1000)		…	…	…	2,420	2,380	nc	nc	nc	54.4	57.0

Sources: MAFF, “Statistics on Livestock”
Note: 1) Layers are those raised by households having 1,000 or more layers.
2) Broilers are those raised by households with annual shipments totaling 3,000 or more broilers.
3) Data for cows for breeding, fattening cattle and dairy cattle for beef raised per household were computed based on MAFF, “Statistics on Livestock.”

Image of a livestock farming cluster



Local stakeholders strengthen coordination and cooperation to improve the profitability of local livestock farming and consolidate the production base by:
(1) Reducing production costs and increasing value added
(2) Reorganizing and developing local farms into core livestock farms

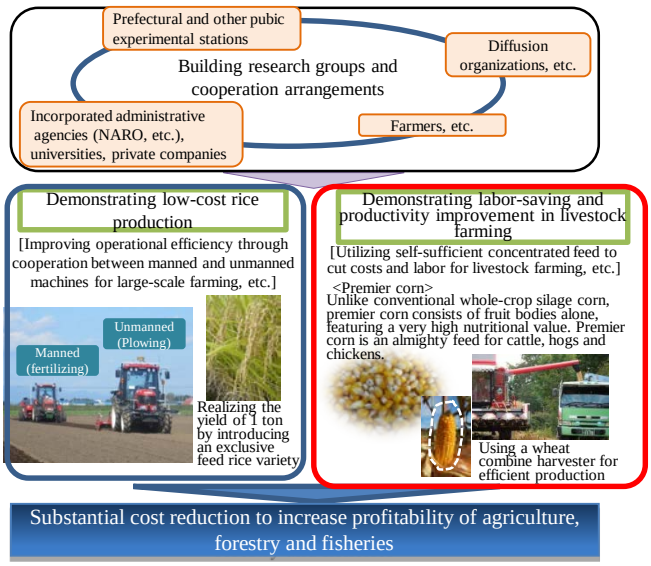
Source: MAFF

5 Promoting research and technology development

○ Research and development should be advanced to support growth of the agriculture, forestry and fisheries. Excellent research achievements should be transferred to and extended to producers. In March 2015, MAFF decided the new “Basic Plan for Agriculture, Forestry and Fisheries Research” that provides key R&D targets for the next 10 years and specific policies.

○ Empirical research to establish an innovative technology system based on advanced technologies is promoted to realize an aggressive agriculture, forestry and fisheries.

Image of research promotion for establishing an innovative technology system for realizing an aggressive agriculture, forestry and fisheries



Source: MAFF

Remarkable research achievement

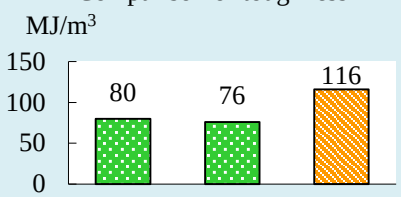
Generating the line of transgenic silkworm spinning a “hybrid-silk” with spider dragline

The National Institute of Agrobiological Sciences (NIAS) has introduced spider genes into silkworms for silk production. The generated line of silkworm successfully produced new transgenic spider silk that combines the characteristics of gloss and tenderness of native silk with strength and toughness of spider dragline.

The new transgenic spider silk is 1.5 times stronger than conventional silk. Development of clothing products using the new silk and stronger medical materials including suture thread for surgery are expected.

Vest and scarf knitted from transgenic spider silks

Comparison of toughness



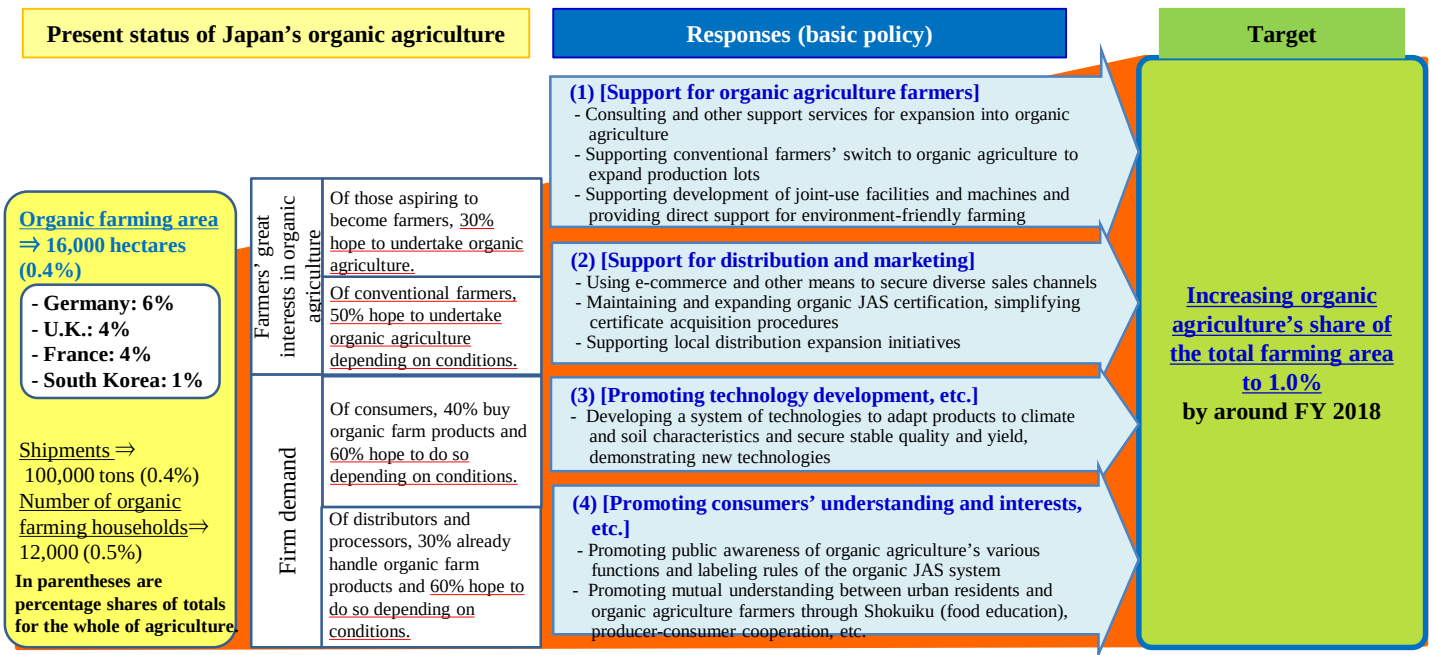
Source: Simplified by MAFF from the original data of NIAS

6 Promoting agricultural production giving priority to environmental conservation

○ The number of certified eco-farmers who try to integrally improve soil and reduce chemical fertilizer and agrichemical consumption in a bid to harmonize agricultural production with the environment stood at 186,000 as of March 2014 (including 7,600 certified in FY 2013).

○ New farmers and consumer demand are expected to increase for organic agriculture. In a basic policy on promotion of organic agriculture decided in April 2014 to further expand organic agriculture, MAFF set a target of increasing organic agriculture’s share of Japan’s total cultivated land area from 0.4% at present to 1%.

Overview of the new basic policy on promoting organic agriculture



Source: MAFF

7 Agriculture-related organizations supporting agriculture

- ○ Major agriculture-related organizations to support farmers include agricultural cooperatives, agricultural committees, agricultural mutual relief organizations and land improvement districts that conduct operations contributing to the stability and development of farming and to stable food supply.
- ○ The agricultural cooperative system will be revised for allowing local agricultural cooperatives to freely conduct economic operations and focus on the improvement of farmers' income through profit-boosting sales of agricultural products and other measures and for leading their regional federations and central union to appropriately support local cooperatives' free economic operations.
- ○ The agriculture committee system will be revised to achieve the optimization of farmland uses by business farmers' (for example, farmland consolidation to business farmers) in areas.

Overview of major agriculture-related organizations

Organization name	Major duties	Number of organizations
Agricultural cooperatives	Agricultural cooperatives are mutual aid organizations that farmers and others voluntarily found for the purpose of increasing agricultural production capacity and improving farmers' economic and social positions. They implement such operations as the distribution of farm products and the provision of production materials.	712 cooperatives (FY 2013)
Agricultural committees	Agricultural committees are municipal administrative committees to permit farmland buying/selling and leasing deals, concentrate farmland uses, and prevent and eliminate idled farmlands.	1,710 committees (as of October 1, 2013)
Agricultural mutual relief organizations	Agricultural mutual relief organizations include agricultural mutual relief associations for regional mutual relief operations and their prefectural federations for insurance operations, implementing the agricultural disaster compensation system.	211 agricultural mutual relief associations 30 federations of agricultural mutual relief associations (as of April 1, 2014)
Land improvement districts	Land improvement districts are organizations founded by regional farmers to develop regional irrigation and drainage facilities, implement land improvement projects such as farmland partition adjustment, and maintain and manage land improvement facilities.	4,795 districta (as of March 31, 2014)

Source: MAFF, "Comprehensive Agricultural Cooperative Statistics" and MAFF survey
Note: The number of agricultural cooperatives is as compiled in the Comprehensive Agricultural Cooperative Statistics.