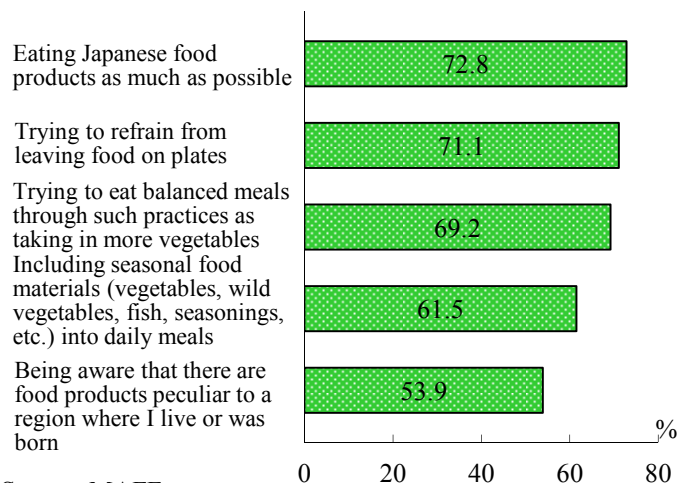


(2) Promotion of Shokuiku (food and nutrition education), conservation and succession of WASHOKU

- The Third Basic Plan for Shokuiku Promotion for five years between FY2016 and FY2020 was prepared in March 2016.
- Shokuiku programs, including the practice of the Japanese dietary pattern and the experience of agricultural, forestry and fishery activities, represent initiatives to promote consumers' understanding about food and nutrition, and the agriculture, forestry and fisheries sector and expand the consumption of domestically produced agricultural products.
- Given the diversification of food and changes in family environments, it is important to deepen citizens' interest in and understanding about "WASHOKU" for the protection and succession of "WASHOKU" through the promotion of Japanese school lunches and regional Shokuiku activities.

Practices of which you have become more conscious through your participation in agricultural, forestry and fishery activities



Source: MAFF surveys

"WASHOKU" school lunches on "WASHOKU" Day

On "WASHOKU" Day on November 24, 2015, about 2,000 elementary and junior high schools implemented a "WASHOKU" school lunch program to include plain soup with stock into school lunches and think about "WASHOKU" culture.

Taimei Elementary School in Tokyo's Chuo-ku served a school lunch including a soup with tofu soybean cake and vegetables in five colors, grilled Spanish mackerel with starchy sauce made from multiple beans, and young sardines mixed with vegetables and sesame vinegar sauce. After the lunch, a "WASHOKU" cook provided a Shokuiku class under the theme of "Let's understand the wonder of "WASHOKU" by tasting soup stock."

Pupils deepened their understanding of soup stock as the base of "WASHOKU" by tasting a "WASHOKU" school lunch and trying soup with stock they made.

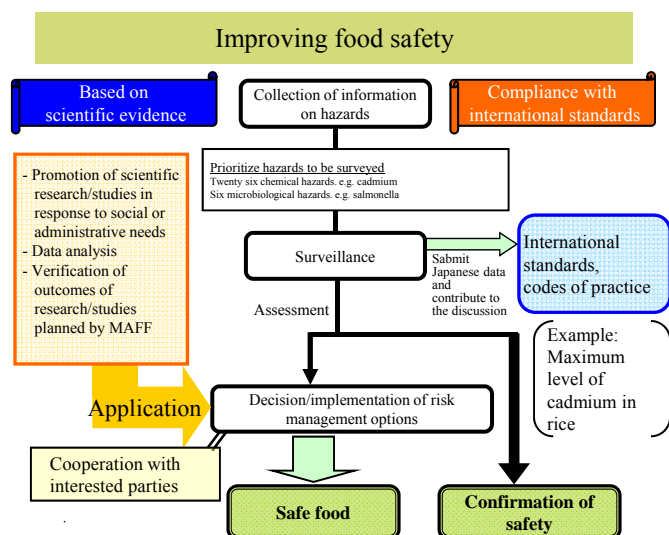


"WASHOKU" school lunch scene

4 Ensuring food safety and consumer confidence

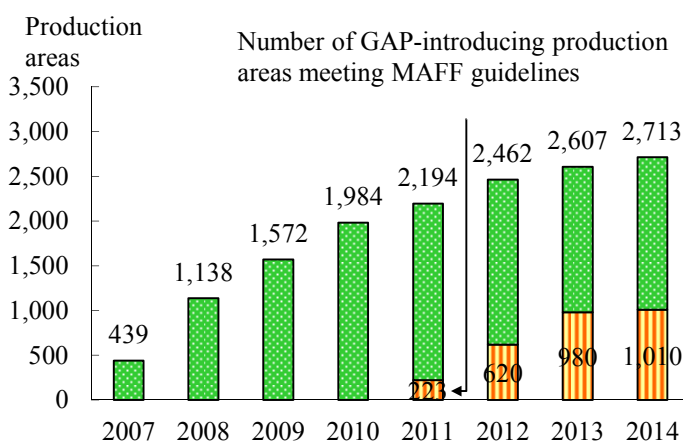
(1) Efforts for improving food safety

- Risk management based on scientific evidence targeting throughout the food chain, from production to consumption, is essential to improve food safety.
- While the GAP (Good agricultural practice) has diffused for the production stage, only some 20% of GAP initiatives meet the MAFF guidelines. In the manufacturing stage, the gradual introduction of the HACCP (Hazard Analysis and Critical Control Point) system is promoted.



Source: MAFF

Trends of GAP-introducing agricultural production areas

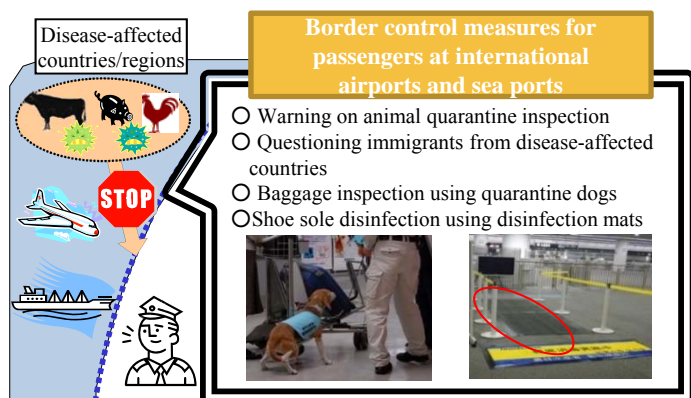


Source: MAFF surveys

(2) Animal epidemic prevention and phytosanitary measures

- The government implements border control measures against foot-and-mouth and other animal infectious diseases and plant pests. Given an increase in the number of foreign tourists visiting Japan in recent years, the government has enhanced inspections.
- To prevent the epidemic of oriental fruit flies and other plant pests confirmed in Japan and exterminate them, the government checks epidemic areas, restricts host plant movements and takes preventive measures.
- To ensure the quality and volume of fruit and vegetable exports, the government conducts export inspections at production and consolidation sites at the request of exporters. The government also implements the development of animal and plant quarantine methods and systems for easy use by business operators and other measures to pave the way for farm and livestock products to be sold as souvenirs.

Border control to prevent invasion of animal infectious diseases



Source: MAFF

Consolidation site inspections to promote the export of fruits and vegetables

- Export inspections are conducted at production and consolidation sites for farm products for exports at the request of exporters.
 - Lettuce for Taiwan produced in Kawakami Village, Nagano Prefecture
 - Unshu-Mikan orange (citrus unshiu) for Taiwan at the Osaka Central Wholesale Market, etc.

(Consolidation site inspections)
About 4,000 inspections (2009)
→ About 8,000 inspections (2014)



Source: MAFF

(3) Efforts to ensure consumers' confidence

- Given intentional food poisoning and tampering cases in recent years, the government hosted meetings of food industry group, consumer group and press representatives and experts and revised the five basic principles for food business operators to add the concept of concrete estimation of product recalls, appropriate initial response, information provision and others in January 2016.
- The government established a comprehensive, unified system for food labelling under the Food Labelling Act, which took effect in April 2015. Major changes adopted in the new system include (1) the mandatory nutrition labelling for processed food products, (2) the improvement of rules for allergen labelling and (3) the establishment of the system of Foods with Function Claims.

Major changes under the new Food Labelling System

Improvement of labelling layouts		
Setting up columns for individual items to clarify raw material and additive categories		
Name	Snack confectionery	
Ingredients	Potato (non-genetically-modified), vegetable fat and oil, common salt, dextrin, lactose, protein hydrolysate (including wheat), yeast extract powder, powder soy sauce (including soybean), seafood extract powder (including crabs and shrimps)	
Additives	Spices, seasoning agents (including amino acid), egg shell calcium	
Net contents	81g	Expiration date Written on the right of this side
Storage conditions	Avoid direct sunlight and hot/humid places for preservation	
Manufacturer	XXXXX Co., Ltd. Address	

Requirement for nutrition labelling	
Nutrition information per package	
Energy	483kcal
Protein	3.8g
Fat	35.3g
Carbohydrate	37.6g
Salt equivalent	0.8g

Change for allergen labelling

- In principle, allergenic substances components must be individually labelled. In blanket labelling, all specific raw materials of a food product must be labelled at the end of the column for ingredients.
- Specific processed food products, expected generally to include specific raw materials, and their expanded labelling were abolished.

Function claims of Unshu-Mikan orange (citrus unshiu)

The Mikkabi agricultural cooperative in Shizuoka has implemented an initiative to create new demand for Unshu-Mikan oranges by function claims. The cooperative analyzed the content of β -cryptoxanthin as a functional substance of the Unshu-Mikan orange in preparation for reporting and submitted the function claim labelling to the Consumer Affairs Agency in August 2015. After the Unshu-Mikan orange was registered as the first fresh food product with function claims, the cooperative held briefings for producers, shipping cooperatives and markets before launching "Mikkabi Mikan" on November 5, 2015.

The Mikkabi agricultural cooperative expects the research on β -cryptoxanthin to make further progress for expansion of Unshu-Mikan orange consumption throughout Japan. The cooperative plans to promote the product taking advantage of qualitative improvements and function claims.



A cardboard box with a "foods with function claims" label

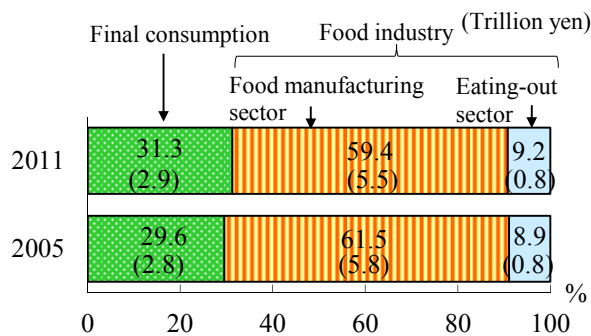
Source: Prepared by MAFF based on data from CAA

5 Food industry trends

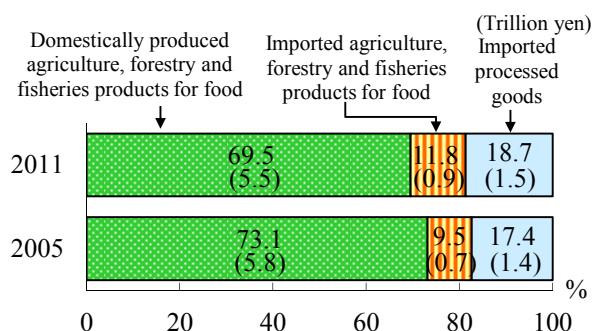
- Of agricultural, forestry and fisheries products, 70% are used in the food industry, which is the largest destination for domestically produced agricultural, forestry and fisheries products. Of raw materials (agricultural, forestry and fisheries products and imported processed food), domestically produced agricultural, forestry and fisheries products account for 70%.
- The food industry must grab food-related markets around the world to sustain its development. To this end, food manufacturers have accelerated their overseas expansion. The number of their overseas subsidiaries and their sales are increasing.

Food industry's raw material procurement sources

(Breakdown of domestically produced agricultural, forestry and fisheries products by use)

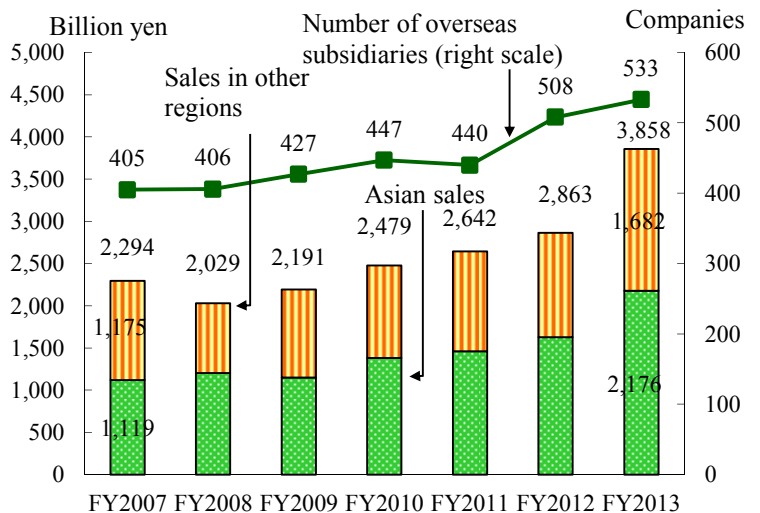


(Breakdown of food manufacturers' raw material procurement [domestically produced products, imports])



Source: MAFF, "2011 Input-Output Tables for Agriculture, Forestry and Fisheries, and Related Industries"

Trend of food manufacturers' overseas subsidiaries and sales

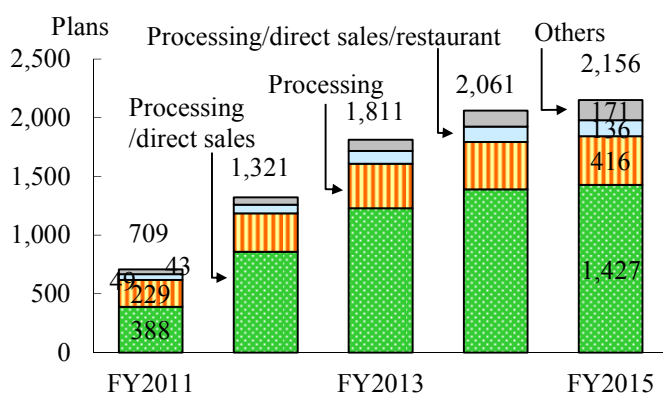


Source: METI, "Survey of Overseas Business Activities"

6 Exploring new demand for agriculture, forestry and fisheries products and food

- The number of certificates of business plans approved under the AFFrinnovation Act for agriculture, forestry and fisheries workers to undertake processing and direct sales of their products has exceeded 2,100, indicating a steady increase. Of the total, vegetables account for the largest share of 32%, followed by 18% for fruits, 12% for rice and 12% for livestock products.
- To promote AFFrinnovation, the government supports the expansion of sales channels after business launching and relevant regional community initiatives. AFFrinnovation planners are distributed throughout Japan.
- MAFF promotes collaboration between the medical care, welfare, food and agricultural sectors to explore new domestic markets.

Trends of the number of certificates of business plans approved under the AFFrinnovation Act
(As of March 31, 2016)



Source: MAFF

Business diversification through AFFrinnovation using crop rotation

Hatsuyoshi Oka, who represents Yatsushiro Nanohana Farm 987 in Yatsushiro, Kumamoto Prefecture, has combined rape, rice, rush and whole crop silage to develop a two-year four-crop rotation system, processing rush into tatami mats and developing and selling dry rush as an interior accessory.

Under an initiative using rotation crops for AFFrinnovation, he has used rape for producing honey and rape oil, brewed Japanese sake rice wine in cooperation with a local sake brewer. He also started vinegar production after meeting with a vinegar maker when visiting Tokyo to sell sake. Oka has thus developed various goods to diversify his business.

Oka has also launched a community-building initiative using rape blossoms. He plans to open a farming school to nurture his successors.



People of Yatsushiro Nanohana Farm 987

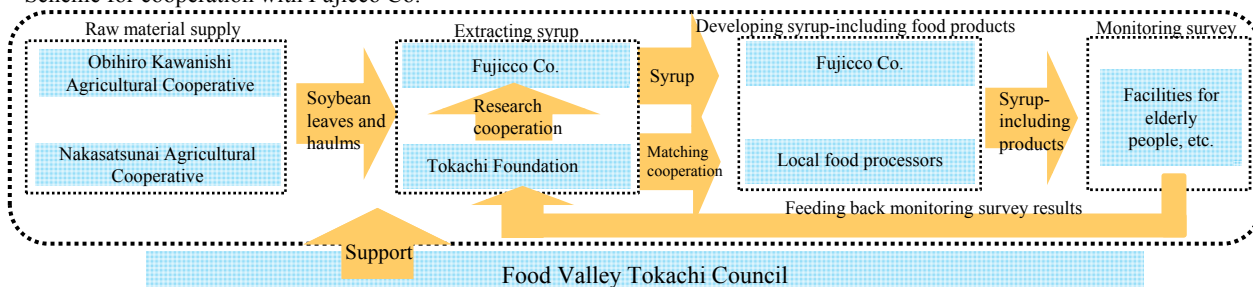
Regional community initiative for AFFrinnovation

The Food Valley Tokachi Council in Tokachi Region of Hokkaido Prefecture consists of local governments, relevant groups, financial institutions, universities and research laboratories to take advantage of agriculture and food as the region's strength to promote the region.

The council has gathered momentum to develop new products and launch new businesses through Tokachi food matching services and human resources development. It has promoted public relations activities, making progress in improving the awareness of regional products and expanding their sales channels.

The council has concluded a comprehensive cooperation agreement with Fujicco Co., under which regional agricultural cooperatives, research institutes and food processors have cooperated with Fujicco in developing new goods using syrup extracted from soybean leaves and haulms. It plans to exploit research achievements for improving added value in Tokachi.

Scheme for cooperation with Fujicco Co.



Priority theme

Structural changes in agriculture

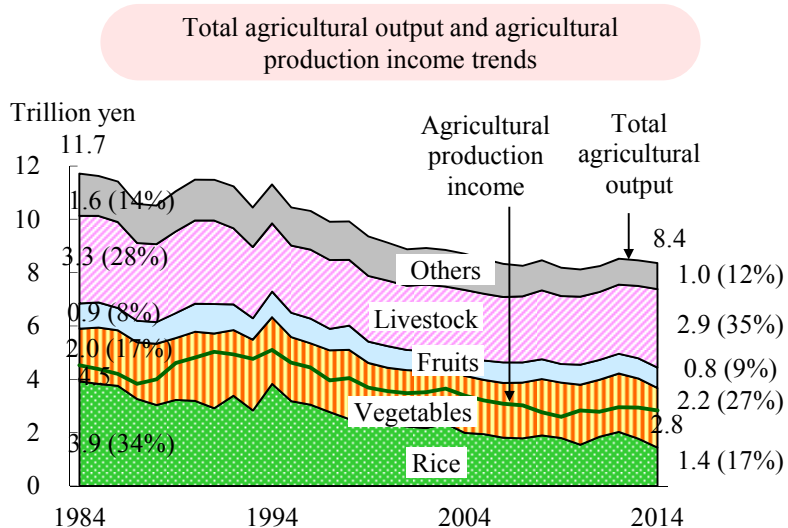
Japan's total agricultural output has remained above 8 trillion yen since 2001. The total farmland area slowly declined in recent years, standing at 4.496 million hectares in 2015. Dilapidated farmlands in 2014 aggregated 276,000 hectares. The number of core persons mainly engaged in farming has followed a downward trend. Farms have made progress in their expansion.

Total agricultural output trends

Japan's total agricultural output reached 11.7 trillion yen in 1984 before following a downward trend with a slight recovery seen in some years. Since 2001, the annual total output has remained above 8 trillion yen.

Among product categories, vegetable output increased by 200 billion yen from 1984 to 2014, while rice, livestock and fruit output declined. In particular, rice output decreased by 2.5 trillion yen due mainly to price drops for 2014 output. Prices for 2015 output have increased as the supply-demand balance for table rice has tightened.

Of the total agricultural output, rice accounted for the largest share in 1984, followed by livestock and vegetables. In 2014, however, livestock captured the largest share, followed by vegetables and rice, indicating a major ranking change.

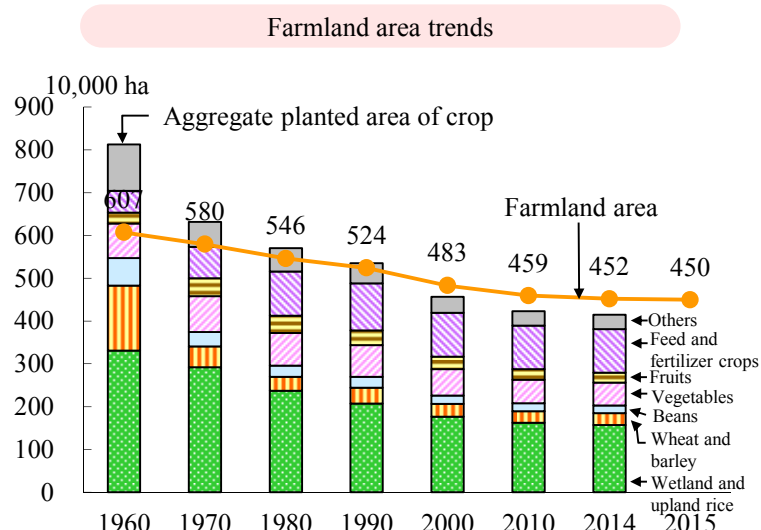


Source: MAFF, "Agricultural Production Income Statistics"

Farmland area trends

The total farmland area in 2015 decreased 22,000 hectares from the previous year to 4.496 million hectares, continuing a slow downward trend in recent years.

Dilapidated farmland that has been concluded by municipal governments and agricultural committees as unavailable for cultivation totaled 276,000 hectares in 2014, including 132,000 hectares available for restoration.



Source: MAFF, "Statistics on Cultivated Land and Planted Area"

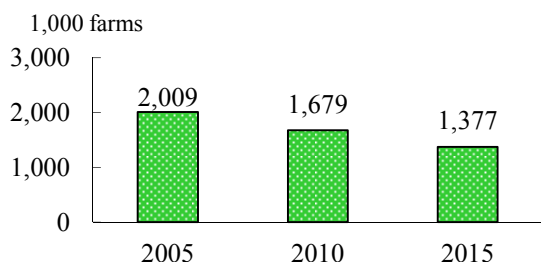
Trends of farms

The number of farms in 2015 stood at 1.377 million, continuing a downward trend. However, the number of corporation farms has increased steadily year by year. In the future, more farms should be incorporated.

Farms broken down by size group indicate that the number of farms in 2015 increased from 10 years earlier for 50-hectare or larger farms in Hokkaido and for 5-hectare or larger farms in other prefectures, with a remarkable rise being seen in the number of 100-hectare or larger farms in Hokkaido and 20-hectare or larger farms in other prefectures, indicating progress in farm size expansion.

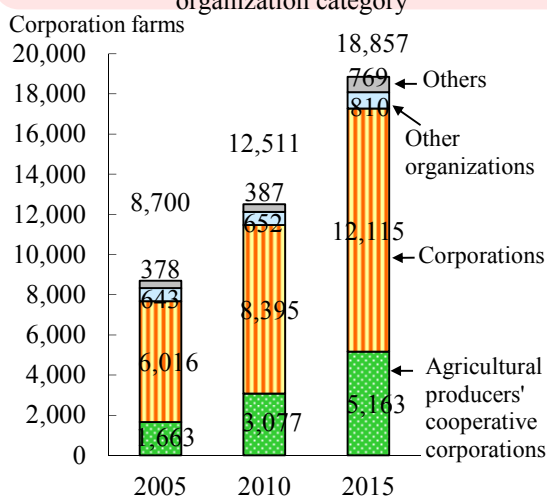
The number of core persons mainly engaged in farming in 2015 came to 1.754 million, continuing a downward trend. Their breakdown by age group indicates that those aged 65 or more accounted for 65% of the total number, those aged 40 or less capturing 10%, showing a remarkable imbalance. Particularly, rice farmers have been aging.

Changes in the number of farms



Source: MAFF, "Census of Agriculture and Forestry"

Changes in the number of corporation farms by organization category



Source: MAFF, "Census of Agriculture and Forestry"

Changes in the number of farms by size group

(Hokkaido)

(Unit: farms)

	2005	2015	Change (%)
Less than 5 ha	16,312	10,195	-37.5
5 ha or more, less than 20 ha	20,553	13,197	-35.8
20 ha or more, less than 50 ha	12,608	11,570	-8.2
50 ha or more, less than 100 ha	4,438	4,584	3.3
100 ha or more	705	1,168	65.7

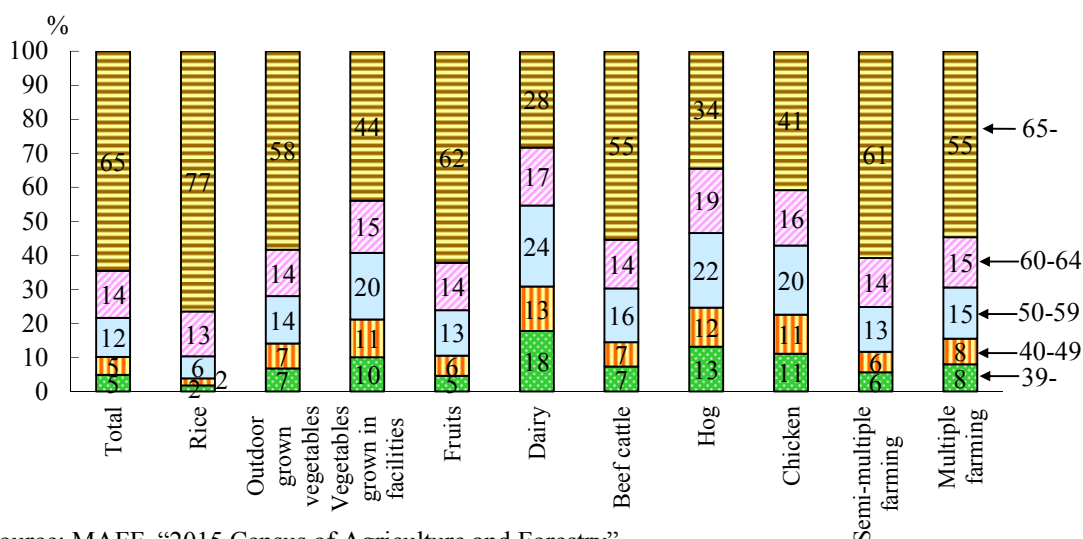
(Other prefectures)

(Unit: farms)

	2005	2015	Change (%)
Less than 5 ha	1,899,393	1,262,058	-33.6
5 ha or more, less than 20 ha	51,634	64,428	24.8
20 ha or more, less than 50 ha	3,119	8,107	159.9
50 ha or more, less than 100 ha	459	1,537	234.9
100 ha or more	159	422	165.4

Source: MAFF, "Census of Agriculture and Forestry"

Core persons mainly engaged in farming by farming type and age group



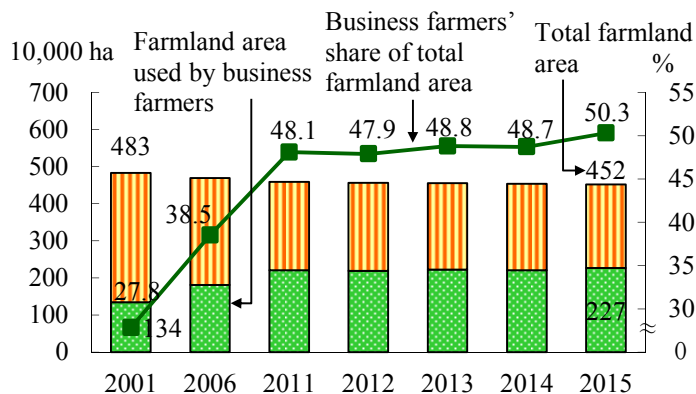
Source: MAFF, "2015 Census of Agriculture and Forestry"

1 Farmland consolidation and trend of business farmers

(1) Farmland consolidation initiative

- As business farmers have decreased, with more farmland dilapidated, the government promotes the preparation and regular review of personnel and farmland plans indicating the future picture of regional business farmers and farmland use through talks.
- In order to increase business farmer's share of the total farmland area to 80%, the government has established Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks). In their first year (FY2014), the Farmland Banks rented 29,000 hectares of farmland and subleased 24,000 hectares. They should be put on track as early as possible to substantially expand farmlands for business farmers.

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

Note: Data are at the end of March for each year.

Farmland consolidation initiative using Farmland Banks

Miyauchi in Daisen Town, Saihaku Country, Tottori Prefecture is a hilly, mountainous area with 28 farming families and 27.7 hectares of farmland. Young business farmers undertake most farming operations under contracts. In 2014, residents in the area considered using the prefectural Farmland Bank when talking about their personnel and farmland plans. They used the Farmland Bank to provide 15.5 hectares of farmland from 20 families to business farmers, raising business farmers' farmland consolidation rate from 9% in 2013 to 56% in 2014.

Farmland providers have established a Miyauchi farmland conservation association, under which farming families plan to share grass-cutting operations on nearby farm roads and causeways to support business farmers and conserve farmlands.

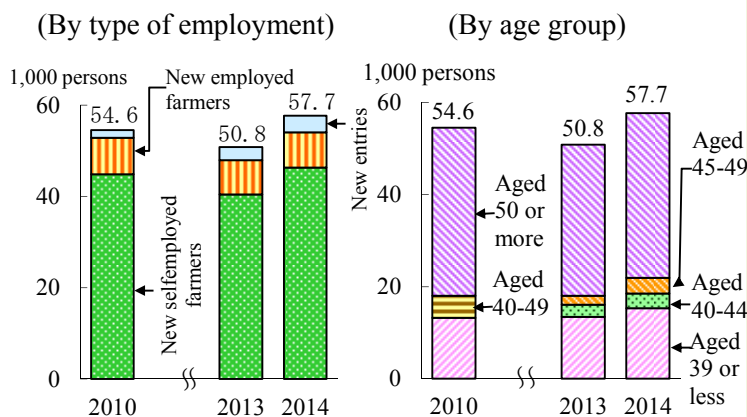


Community meeting on a personnel and farmland plan

(2) Initiatives to secure business farmers and trends of women farmers

- It is important to nurture farmers with excellent business sense as well as farming skills.
- The government promotes corporation farms that are favorable for efficient and stable farming.
- To secure new farmers, national and local governments implement various measures to help people to launch farming.
- Women farmers accounted for 43% 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.
- The entry of corporations into the agriculture sector is in progress at the quintuple pace after the revision of the Agricultural Land Act in 2009. By the end of June 2015, 1,898 corporations had entered the agriculture sector.
- The government provides certified and other business farmers with support under farming income stabilization measures.

Changes in newcomers in agriculture



Source: MAFF, "Survey on Newcomers in Agriculture"

AFFrinnovation initiative based on women's sense

Hiromi Ogawa of Ogawa Farm in Kobayashi City, Miyazaki Prefecture, moved to the city along with her husband Michihiro in 2006 and underwent training at the Miyazaki Farmers Academy and farms before launching the cultivation of vine-ripened mini-tomatoes. She has also launched an AFFrinnovation initiative to develop mini-tomato jam, tomato sauce, tomato puree and other products.

Based on women's sense, she has devised a recyclable bottle that carries an easily-removable tag instead of a paper label for these tomato products. As a member of the "Nougyou-Joshi Project" (campaign for women farmers to be more active in agricultural business by cooperating with various industries to tap women farmers' knowledge and experiences), Hiromi has participated in market and other events in Tokyo.

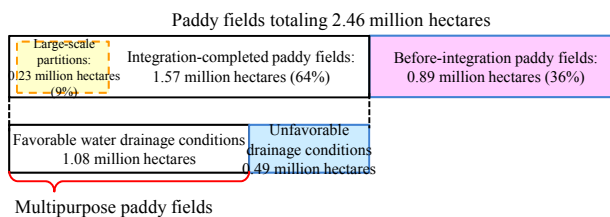


Hiromi Ogawa (left) and Michihiro Ogawa (right)

2 Developing and conserving agricultural production infrastructure

- Of paddy fields totaling 2.46 million hectares in Japan, about 60% have been integrated into 30-are or larger partitions. Only 10% 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 general use of farmlands to improve domestic agriculture's productivity and support a strong agriculture.
- Given that agricultural irrigation facilities are out of date and that torrential rain and other disaster risks are going, the government promotes the systematic and efficient repair and renewal of agricultural irrigation facilities and disaster prevention/reduction measures combining hardware and software to make rural areas more resilient.
- Even in hilly, mountainous and other areas with disadvantageous conditions for agricultural production, there are some cases in which large agricultural production areas have been developed through production cost cuts triggered by infrastructure improvement and through the creation of unique brands.

State of paddy field improvement (2014)



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

Agriculture production infrastructure development in hilly and mountainous areas and its effects

Nara Prefecture's Gojo City, which has traditionally developed as a Japanese persimmon production area, had had difficulties in stabilizing persimmon harvest and quality due to many steeply inclined orchards and insufficient irrigation until the first half of the 1970s. Infrastructure development from 1974 created mildly inclined orchards and new irrigation facilities including dams and drains, helping expand persimmon harvest 30% and enlarge persimmon sizes.

Even in a hilly and mountainous area with disadvantageous conditions for agricultural production, infrastructure development has helped the city grow into one of the leading persimmon production sites in Japan.



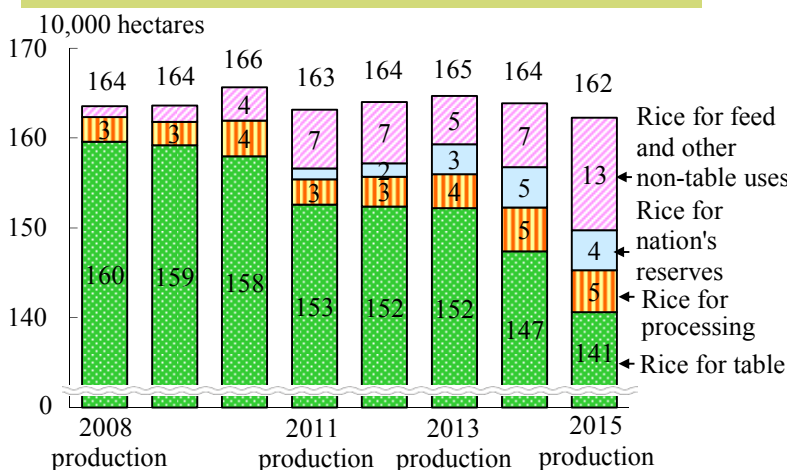
A persimmon orchard in Gojo, Nara Prefecture

3 Production trends for major farm and livestock products

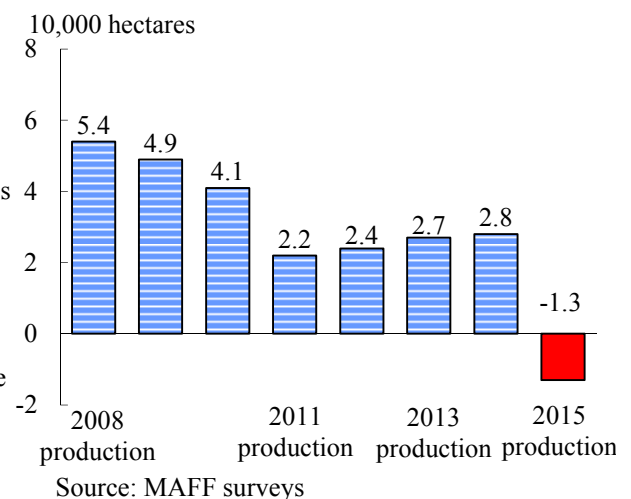
(1) Rice

- Japan's total area for planting table rice in 2015 indicated that excess planting disappeared for the first time since the commencement of production target volume allocation in 2004 as farmers promoted a switch from table rice to feed rice, wheat or soybeans.
- The government will continue efforts to pave the way for farmers by 2018 to appropriately determine their production volume meeting demand in view of market trends by themselves, without depending on the administrative sector's allocation of target production volume.
- As the supply-demand balance for table rice produced in 2015 tightened, the average negotiated price for all rice brands in March 2016 rose by 1,309 yen per 60 kilograms over the last year to 13,252 yen per 60 kilograms (annual average price in 2015 was the record low).

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

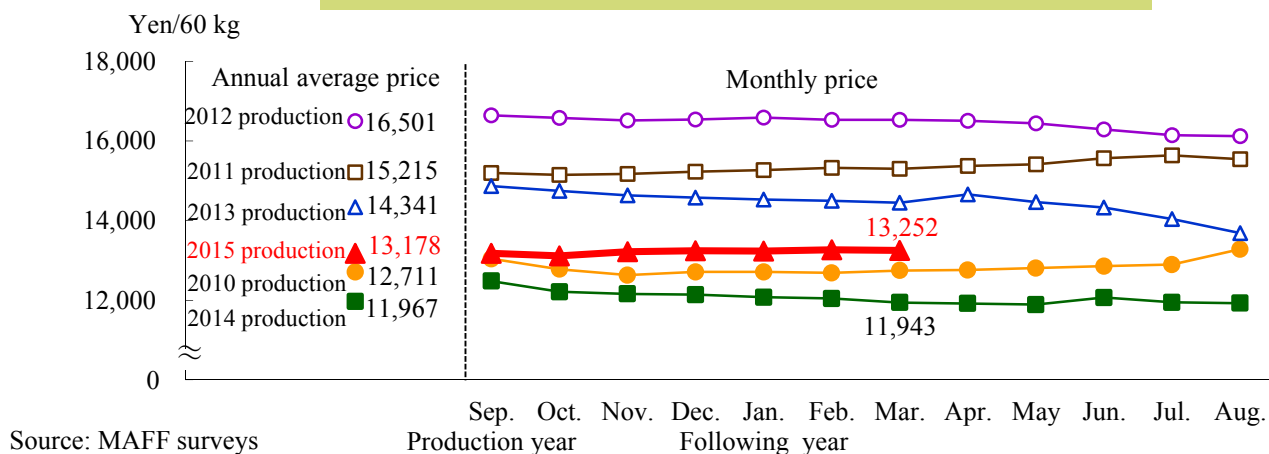


Changes in excess planting for table rice



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

Changes in the monthly average negotiated price for all table rice brands



- To effectively use rice paddies as an excellent production tool to maintain and improve Japan's food self-sufficiency potential and ratio, the government is leading farmers to promote rice for feed and many other non-table uses, or to wheat and soybeans, for which demand is higher.
- To further promote the production of rice for feed, the government promotes efforts to secure matching between producers and users, and to reduce production and distribution costs. For production cost cuts, MAFF has published a manual for reducing feed rice production costs.
- Initiatives to use feed rice for increasing the added value of livestock products have made progress. The government is promoting the further expansion of feed rice consumption.

Outline of the manual for reducing feed rice production costs

Realizing higher yield

Achieving higher yield with high-yield varieties and more fertilizers



Cost reduction know-how

Introducing advanced know-how to rationalize operations
Introducing direct seeding, manuring, streamlining fertilization



Farmland expansion

Production cost cuts through farmland concentration and intensification, production season distribution to expand production scales

Intensification	
Table rice	
(Koshihikari [fast-growing])	
Feed rice	Feed rice
Momiroman (Medium-growing)	Kusanohoshi (Late growing)

An initiative to improve feed rice yield and cut costs

An agriculture revitalization council in Aira City, Kagoshima Prefecture, has promoted feed rice production since 2009. The council uses the high-yield variety of Mizuhochikara to improve yield and holds seminars at rice paddies for discussions on cultivation know-how. In 2015, 96 farmers produced feed rice. The council conducts demonstration tests on low-cost production know-how including direct seeding on dry paddies and the use of poultry manure, considering varieties and cultivation know-how suitable for the region. It has developed the initiative to use feed rice production for stabilizing regional rice farming.



A seminar scene

Source: MAFF

Using feed rice to raise added value of pork

Frieden Daito Farm, which undertakes integrated swine production including breeding and fattening in Ichinoseki City, Iwate Prefecture, launched a Frieden group council to promote the use of feed rice along with local farming and other organizations in 2006, aiming to use idle and unfavorable rice paddies and farm compost for a resource-recycling feed rice cultivation program. Its feed rice planting area expanded from 11 hectares in 2007 to 119 hectares in 2015. Crop production families cultivate high-yield varieties to raise the yield and stabilize the protein content at high levels. They also try to reduce agricultural chemical consumption and use compost and liquid fertilizers to cut costs. Daito Farm uses feed rice for 15% of feed to increase oleic acid and reduce linoleic acid in pork. And the pork's flavor is improved.



Using feed rice to brand pork

Using feed rice to increase added value for eggs and processed egg products

Ogawa Chicken Farm in Daisen Town, Tottori Prefecture, began to use feed rice in cooperation with a nearby agricultural producers' cooperative corporation in 2010 after international prices of feed corn prices rose sharply. It now purchases 100 tons of feed rice from a cooperation partner, using feed rice for 8% of feed for ordinary eggs and for 100% of feed instead of corn for eggs with white yolks.

Given that eggs with white yolks can be used for roll cakes and other sweets sold at a farm stand to improve their colors, such eggs are increasingly being used for processed products.



Processed products using eggs from chickens raised with feed rice

- Japan's wheat-planted area has leveled off in recent years. As the development and introduction of special wheat varieties for bread and noodles have made progress, products using domestically produced wheat have increased. Given that the stabilization and improvement of yield and quality is a challenge for wheat, which is vulnerable to moisture damage, the government promotes thorough drainage measures and fertilizing management.
- Japan's soybean-planted area increased 10,000 hectares from the previous year. Planted areas of farms that plant soybeans on 5 hectares or more accounted for 67% of the total soybean-planted area, indicating that business farmers' soybean production expanded. Given that slumping yields and price fluctuations depending on crop conditions are challenges, the government considers initiatives to improve yield and stabilize transactions, and promotes stable, systematic production meeting requests from users.

Figure 1: Wheat production and planted area in Japan

Top Chart: Yield (kg/10a)

Year	Yield: Hokkaido (kg/10a)	Yield: Other prefectures (kg/10a)
2006	427	331
2007	480	350
2008	450	380
2009	350	300
2010	300	250
2011	420	280
2012	480	300
2013	430	320
2014	440	350
2015	596	302

Bottom Chart: Wheat-planted area and Production (10,000 tons)

Year	Wheat-planted area: entire Japan (1,000 hectares)	Production: other prefectures (10,000 tons)	Hokkaido (10,000 tons)
2006	218	32	84
2007	210	35	85
2008	210	38	82
2009	210	30	70
2010	210	25	60
2011	215	30	75
2012	210	30	80
2013	210	32	78
2014	215	35	80
2015	213	27	100

(3) Vegetables, fruits

Top Chart: Yield of Soybeans (kg/10a)

Year	Yield: Hokkaido (kg/10a)	Yield: Other prefectures (kg/10a)
2006	249	140
2007	235	150
2008	235	165
2009	195	150
2010	235	145
2011	225	150
2012	245	165
2013	225	135
2014	255	155
2015	253	145

Bottom Chart: Production of Soybeans (1,000 tons)

Year	Hokkaido (1,000 tons)	Other prefectures (1,000 tons)	Total (1,000 tons)
2006	70	159	229
2007	55	165	220
2008	60	200	260
2009	50	175	225
2010	55	165	220
2011	60	160	220
2012	65	160	225
2013	55	140	195
2014	70	165	235
2015	86	157	243

Source: MAFF, "Crop Statistics"

- The total vegetable planting area has followed a moderate downward trend in Japan. In response to growing demand for processed food products, the government promotes initiatives to reduce vegetable production costs through the introduction of vegetable varieties for processing and manufacturing uses, and mechanized integrated production systems and to increase domestically produced products' share of vegetables for processing and manufacturing uses.
- The total fruit production area has followed a moderate downward trend. The government promotes the acceleration of switching to superior items or varieties and the introduction of low-cost, labor-saving cultivation know-how for stable production and supply of fruits for processing and manufacturing uses toward stable production of high-quality fruit in response to changes in demand from consumers.

Figure 1 is a combined bar and line chart showing the production of vegetables in the Republic of Serbia from 2006 to 2014. The left Y-axis represents production volume in tons (0 to 10,000), and the right Y-axis represents the vegetable-planted area in hectares (0 to 500). The X-axis shows the years from 2006 to 2014, with 2014 data marked as estimates. The stacked bars represent production volume, categorized into four types: leafy and stem vegetables (green), root crops (orange), vegetable fruits (light blue), and fruity vegetables (pink). The line graph represents the vegetable-planted area. The total production volume is 12,360 tons in 2006 and 12,010 tons in 2014. The vegetable-planted area is 419 ha in 2006 and 400 ha in 2014. Production estimates for 2014 are shown for leafy and stem vegetables (598 tons) and root crops (288 tons).

Year	Leafy and stem vegetables (tons)	Root crops (tons)	Vegetable fruits (tons)	Fruity vegetables (tons)	Total production (tons)	Vegetable-planted area (ha)
2006	589	306	258	419	12,360	419
2007	-	-	-	-	-	-
2008	-	-	-	-	-	-
2009	-	-	-	-	-	-
2010	-	-	-	-	-	-
2011	-	-	-	-	-	-
2012	-	-	-	-	-	-
2013	-	-	-	-	-	-
2014 (Estimates)	598	288	245	400	12,010	400

Figure 1 is a combined bar and line chart showing the production and fruit tree-planted area of Mikan oranges, apples, and others in Japan from 2006 to 2014. The left Y-axis represents production in 10,000 tons (0 to 500), and the right Y-axis represents fruit tree-planted area in 1,000 ha (0 to 300). The X-axis shows the years from 2006 to 2014, with labels for 'production' and '(Estimates)'. The chart is divided into three categories: Mikan oranges (green dotted bars), Apples (orange striped bars), and Others (gray solid bars). A green line with square markers represents the fruit tree-planted area. Arrows indicate the corresponding axes for each data series.

Year	Mikan oranges (10,000 tons)	Apples (10,000 tons)	Others (10,000 tons)	Total Production (10,000 tons)	Fruit tree-planted area (1,000 ha)
2006	84	83	154	322	262
2007	108	85	158	351	258
2008	94	88	158	340	254
2009	101	85	158	344	250
2010	82	73	135	290	246
2011	94	65	135	294	242
2012	88	77	140	305	238
2013	92	73	138	303	234
2014	88	82	141	310	234

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(4) Livestock products

- While the number of livestock farms has decreased in Japan due mainly to livestock farmers' growing retirement as they age and shortages in their successors, the number of animals per farm has increased.
- In FY2015, after a butter production fall in the previous year, the government implemented measures to enhance raw milk production infrastructure, used the state trade system to import butter in periods and forms meeting demand and shared supply and demand outlook information with retail stores.
- Beef calf prices rose as calf births declined due to a drop in cows for breeding.
- It is important to promote livestock farming clusters in which distributors, processors, municipal governments and other relevant parties cooperate and collaborate to promote dairy farming and beef cattle production and improve the profitability of livestock farming.

Changes in the numbers of livestock farms and animals per farm

		Number of livestock farms		Number of animals per farm	
		2005	2015	2005	2015
Dairy cattle	Hokkaido	8,830	6,680	97.1	118.6
	Excluding Hokkaido	18,800	11,000	42.4	52.6
Beef cattle		89,600	54,400	30.7	45.8
	Cows for breeding	76,200	47,200	8.2	12.3
	Fattening cattle	13,600	8,210	52.7	90.2
	Dairy cattle for beef	7,910	5,320	132.6	155.6
Pigs		8,880	5,270	1,095.0	1,809.7
Layers (×1000)		4,090	2,560	33.5	52.2
Broilers (×1000)		2,652	2,380	38.6	57.0

Source: Prepared by MAFF based on "Statistics on Livestock"

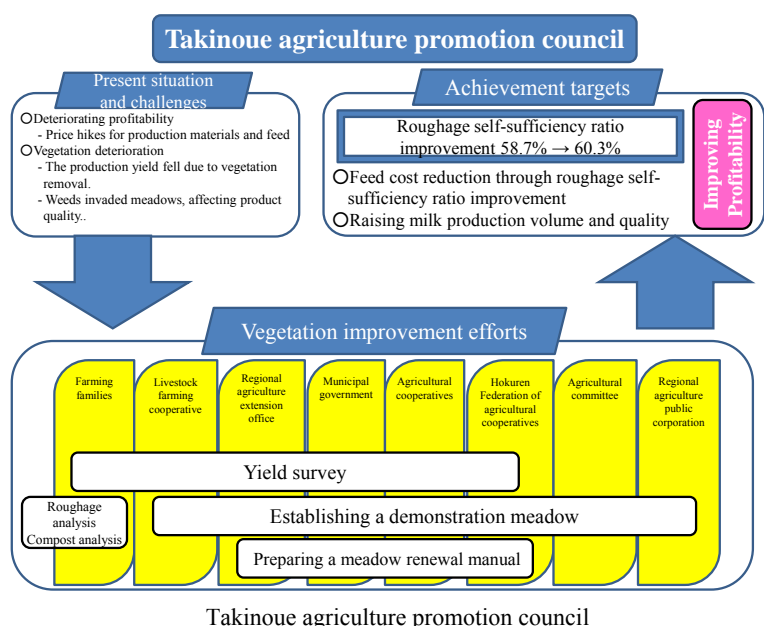
Notes:

1) Data for pigs and layers for 2005 are from 2004 as the survey was suspended in 2005.

2) Data for pigs, layers and broilers for 2015 are from 2014 as the survey was suspended in 2015.

Livestock farming cluster to raise the roughage self-sufficiency ratio, and milk volume and quality through meadow improvement

The Takinoue livestock farming cooperative in Monbetsu County, Hokkaido Prefecture, though realizing excellent milk production volume and quality, found a problem in that there were far more weeds in meadows than expected. In FY2014, therefore, the cooperative formed a Takinoue agriculture promotion council along with local agricultural cooperatives, the Hokuren Federation of agricultural cooperatives, the regional agriculture extension office and other relevant regional organizations to launch a livestock farming cluster to realize a target roughage self-sufficiency ratio in three years through meadow vegetation improvement. In February, the cooperative prepared a meadow vegetation improvement manual in a bid to cut feed costs by raising the roughage self-sufficiency ratio, to increase milk production volume and quality by improving roughage, and to expand earnings for farming families.



4 Promoting technological innovation on production/distribution fronts

(1) Strategic R&D and new industry-academia research cooperation initiatives

- To develop the agriculture, forestry and fisheries sector into a growth industry, the government promotes a new industry-academia research cooperation system (integration and utilization of “Knowledge”) to externally grab new ideas and technologies in different fields, produce innovative research achievements and promptly link research achievements to goods and business projects.
- The government promotes the creation of agricultural, forestry and fisheries products with advantages using new varieties meeting demand from consumers and users, and research, development and demonstration to dramatically improve productivity to enhance production fronts.

Three-step structure to move integration and utilization of “Knowledge”

STEP 1: Industry-Academia-Government collaboration conference on integration and utilization of “Knowledge”

The government promotes the building of a research and development platform covering researchers, producers and local governments through seminars and workshops.

STEP 2: Research and development platform

Research challenges, intellectual property treatments and business plans are considered in a run-up to the building of a research and development consortium.

STEP3: Research and development consortium

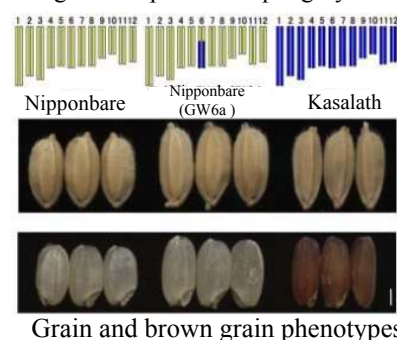
Accelerating the development of innovative technologies for commercialization

Source: MAFF

A gene that enlarges grains of rice

A research team lead by Nagoya University discovered that *GW6a* (Grain Weight 6a) gene of indica rice variety “Kasalath” controls the size of rice grains. The team found that the introduction of the *GW6a* gene of “Kasalath” to japonica rice variety “Nipponbare” significantly increased its grains by about 15% in weight. The utilization of this gene in breeding will help to develop high-yield rice varieties efficiently.

The information of *GW6a* genes of other crops, such as corn and wheat, is also useful for their high-yield breeding. The development of high-yield crop varieties is expected to defuse the impending food crisis.



(2) Using advanced technologies to innovate production and distribution systems

- As business farmers’ aging and labor shortages grow more serious, saving agricultural labor force and the succession of cultivation know-how to new farmers become important challenges. The government promotes the research, development and on-site demonstration of “smart agriculture” using robot, information and communications technologies to substantially save human labor and realize high-quality production.
- The government promotes next-generation greenhouse horticulture to take advantage of woody biomass and other regional energy resources and advanced technologies to reduce costs and realize year-round systematic production.

Smart agriculture initiatives

R&D bringing about new technological innovations



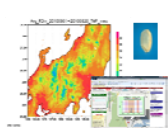
An automatic harvesting robot



A causeway-weeding robot for steep slopes



A timely operation and fertilization system



A pest forecasting and removing system

Accelerating introduction of innovations through effect demonstrations in demonstration areas



Agricultural machine operation assistance



An assist suit to reduce labor



A system for passing on know-how from practical farmers



Stable production of high-sugar-content peaches using sensing

A next-generation greenhouse horticulture initiative

Toyama Kankyo Seibi Co. in Toyama, Toyama Prefecture, launched the Toyama Smart-Agri Next Generation Greenhouse Horticulture Base Development Council along with the Toyama Prefecture government and other parties in 2014 to develop a next-generation greenhouse horticulture base that integrates a 4-hectare greenhouse with seeding and shipment preparation facilities and uses electricity and heat generated from a neighboring waste disposal facility for cultivation. The base began to produce fruit tomatoes, *Eustoma grandiflorum* and others in 2015, realizing year-round systematic production by introducing a system to use information and communications technologies to check greenhouse temperatures and other environmental data and the growth situation with mobile sensors and keep an optimum environment for plant growth. The company has also begun to produce processed tomato products, planning to create new industries and jobs in the rice monoculture region.



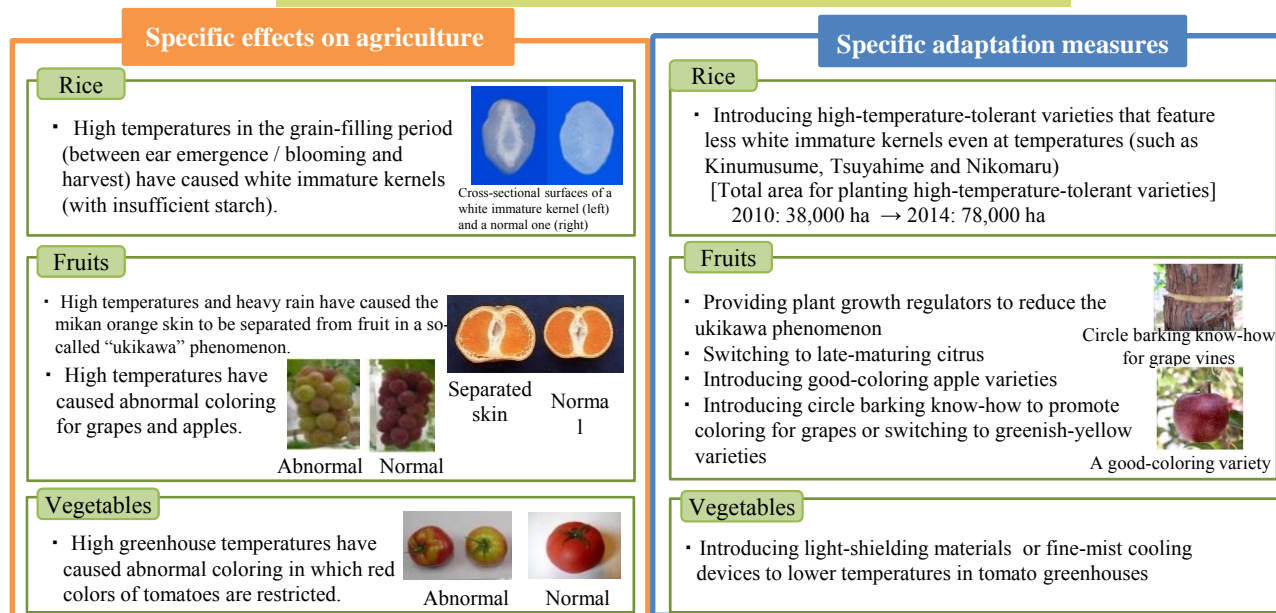
A mobile sensor

Source: MAFF

5 Promotion of environmental policy such as responses to climate change

- In December 2015, the 21st Conference of Parties to the United Nations Framework Convention on Climate Change adopted the Paris Agreement as a new international framework replacing the Kyoto Protocol to reduce greenhouse gas emissions in and after 2020. It is the first ever unbiased agreement in which all countries take part.
- To systematically proceed with climate change adaptation measures in response to effects that cannot be addressed by mitigation measures alone, the government assesses future effects, conducts research and development of adaptation technologies and promotes adaptation measures responding to emerging effects including farm product quality deterioration.

Emerging climate change effects and specific adaptation measures



Source: MAFF

6 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.
- In April, an act to revise the Agricultural Cooperatives Act took effect to integrally reform agricultural cooperatives, agricultural committees and agricultural production legal persons to develop agriculture into a growth sector by paving the way for business farmers to operate more proactively.

Legal framework to reform agricultural cooperatives

Revisions to the Agricultural Cooperatives Act

Allowing local agricultural cooperatives to conduct free economic operations and concentrate all their energies into improving agricultural income

- ◆ [Clarifying business objectives] Agricultural cooperatives should give full consideration to increasing agricultural income and realize high profitability with accurate business operations to pay special patronage dividends to farmers.
- ◆ [Pursuing agricultural cooperatives selected by farmers] Agricultural cooperatives must not force farmers to use cooperative business projects.
- ◆ [Responsible management system] The majority of directors at an agricultural cooperative are required in principle to be certified farmers or people with practical capabilities for selling agricultural products.
- ◆ [Providing local residents with services] Local agricultural cooperatives are allowed to reorganize their divisions into stock companies or consumers' cooperative societies.

The National Federation and Central Union should adequately support local agricultural cooperatives' free economic operations

- ◆ [National Federation] The National Federation of Agricultural Cooperative Associations (ZEN-NOH) is allowed to choose to be reorganized into a stock company.
- ◆ [Prefectural Central Unions] Shifting to federations of agricultural cooperatives to undertake business consulting, audit, representing opinions, comprehensive coordination, etc.
- ◆ [Central Union] Shifting to a general incorporated association to represent opinions of cooperatives and conduct comprehensive coordination. The Central Union's compulsory audit on cooperatives is abolished. Instead, certified public accountants' audit is required.

Revisions to the Act Concerning Agricultural Committees and Related Organizations

Promoting optimum utilization of farmlands, etc. (Farmland concentration/intensification for business farmers, preventing and eliminating idled farmlands, promoting new entrants in farming)

- ◆ The public election of agricultural committee members is replaced with their appointment by the municipal mayor subject to approval by the municipal assembly.
- ◆ Creating committee members for promoting optimization of farmland utilization
- ◆ Prefectural and national network support organizations are designated to support agricultural committees

Source: MAFF

Priority theme

Regional revitalization movement

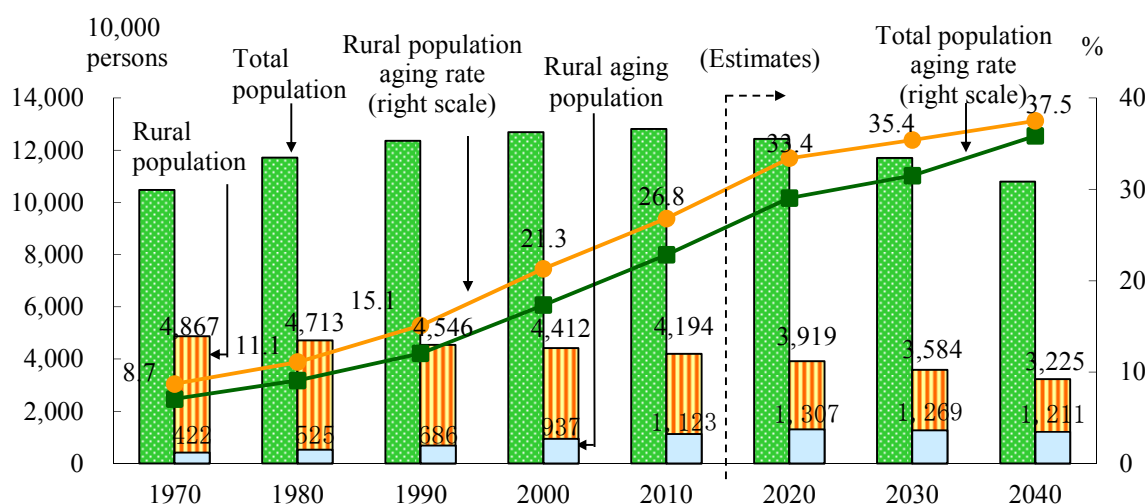
As the population declines and ages in Japan, a movement of “coming back to rural areas” is seen, with rural areas’ values rediscovered. In the meantime, residents in rural areas are carrying out various initiatives to take advantage of local resources for invigorating their communities.

Regional revitalization and rural invigoration

As population declines and ages in rural areas with the base for the sustainable development of agriculture, agricultural production and local community activities are seen to grow more vulnerable and lead to the devastation of local resources. As local government officials in charge of agriculture, forestry and fisheries are decreasing along with relevant spending, how to secure rural agriculture administration has become a challenge.

In such situation, rural residents should voluntarily form consensus on future pictures of their communities and promote initiatives to realize those pictures. Multiple rural communities are expected to cooperate in maintaining local resources and increasing added value on agricultural products.

Population and aging trend and outlook in rural areas



Sources: Estimated by MAFF based on MIC, “Population Census;” National Institute of Population and Social Security Research, “Estimates of Japan’s Future Population by Region (estimated in March 2013)”

A regional invigoration initiative taking advantage of local resources

In Mimata, Kanagicho, Hamada City, Shimane Prefecture, where the population has declined and aged, local residents have taken the initiative to utilize local resources, including food materials, for regional invigoration.

The Mimata yugenosato-zukuri (spa village building) committee established by local residents in 2011 paid attention to the local specialty of ancient black rice and considered cultivating, processing and commercializing the variety. It held workshops and other events for all local households to decide on product names and their package designs. The committee founded Mimata Yume Eight as a non-profit organization, which has successfully commercialized a *shochu* product into which black rice is processed. Along with a tofu product into which black soybeans, another local specialty, have been processed, the *shochu* is sold as a black food material at Mimata Hot Springs. The promotion of branding has led income for farmers cultivating black rice and soybeans to triple, achieving regional AFFrinnovation by taking advantage of local resources.

(Mimata was selected in the 2nd Discover Countryside Treasures in Japan)

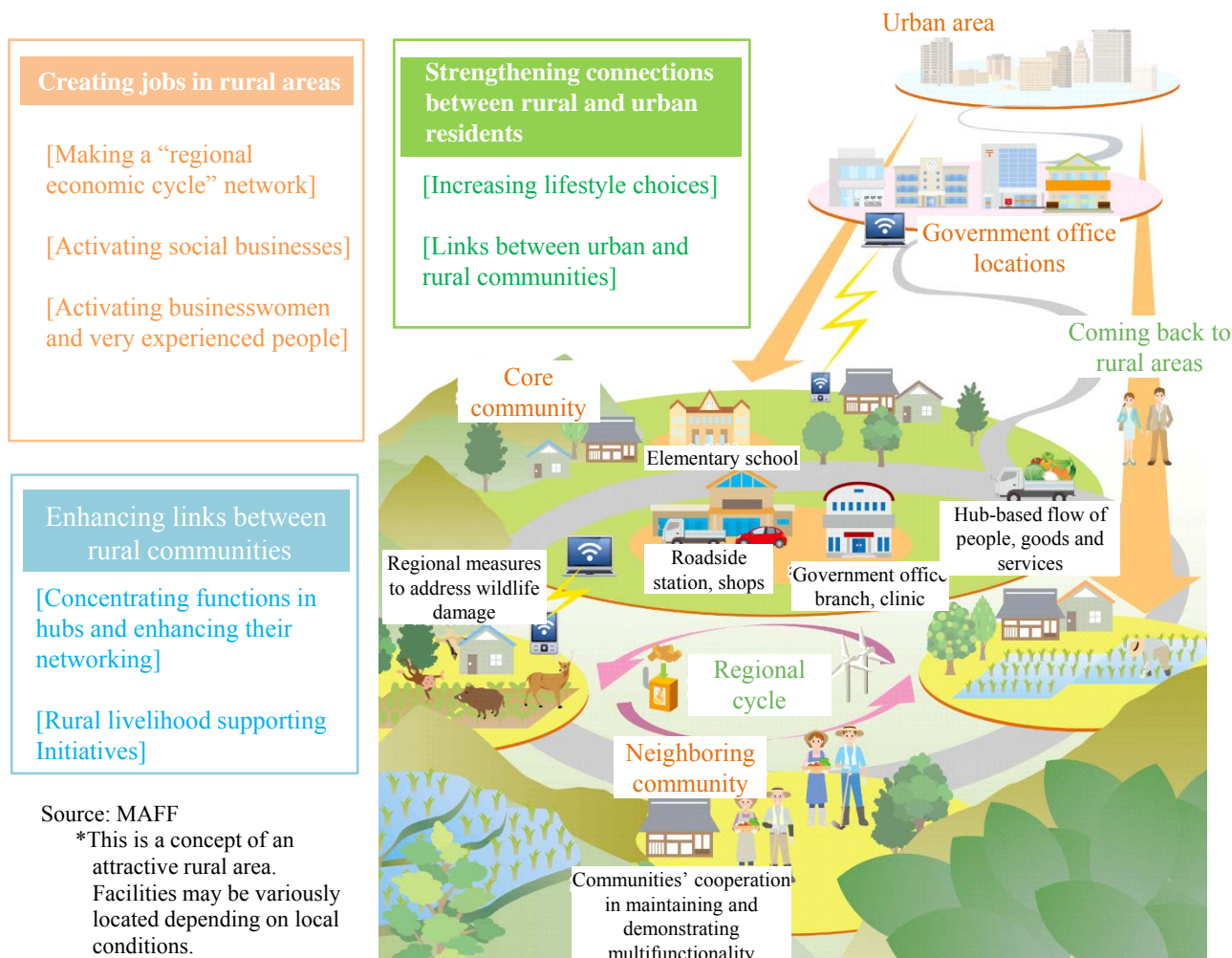


Shochu made from black rice and tofu made from black soybeans

Rural invigoration vision

As relevant government agencies promoted the deepening of regional revitalization, MAFF created a rural invigoration plan titled “Building Attractive Rural Areas” along with a basic plan in March 2015. The vision features three pillars -- (1) creating jobs in rural areas, (2) establishing higher connection between rural communities, and (3) strengthening connections between rural and urban residents. Under the vision, MAFF promotes rural invigoration measures and backs up local practices.

Building Attractive Rural Areas



A rural invigoration initiative taking advantage of vacant houses in hilly and mountainous areas

In Kamikawa Town located almost at the center of Hyogo Prefecture, residents are aging and population is declining as is the case with other hilly and mountainous areas. A major challenge there is how to use vacant houses scattered around the town. It has promoted an initiative to invigorate the local community by accepting urban residents willing to live in vacant houses.

In 2010, contractors and local resident representatives established a “Kamikawa rural life promotion association” to promote urban residents’ moves to the town through rural life experience events, vacant house tours and vacant house restoration in cooperation with the town’s vacant house bank and vacant land management.

The association has hosted vacant house restoration workshops in which urban volunteers have learned vacant house refurbishment and repair know-how from local professionals. As a result, a total of 140 people moved to the town by FY2014 to live in refurbished vacant houses. Some of them opened their own shops. The association also opened two rural life experience centers using vacant houses and 11 shops (including six rural exchange centers) using vacant houses or shops. As a result, the annual number of visitors to the town reached about 700,000, contributing along with the increase in new residents to revitalizing the town.

(The initiative won an examination committee chair prize in the 13th All Right! Nippon Grand Prix)

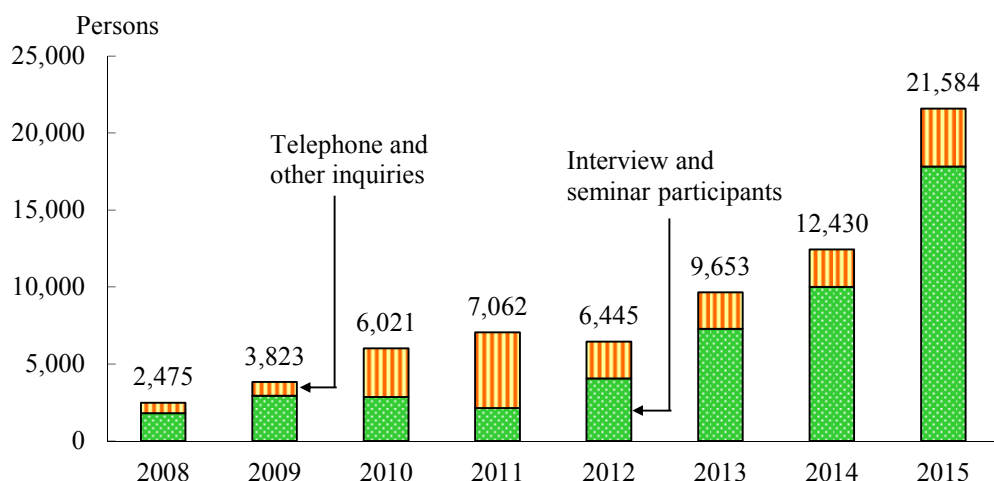


A vacant house restoration workshop

Various urban residents' moving to or settling in rural areas

As a growing number of urban residents hope to settle in rural areas, a system should be built to strategically develop exchanges between urban and rural residents into urban residents' moving to or settling in rural areas. Support should be proactively given for rural areas that try to secure and nurture women, elderly people, very experienced people and other people to shoulder the future invigoration of rural areas.

Changes in the number of people inquiring about moving



Source: Survey by Furusato Kaiki Shien Center

Promoting farm-inns and settlement to maintain and invigorate rural areas

Nakatsugawa is an area in Iide Town in southern Yamagata Prefecture, a region plagued with a declining and aging population. The area has launched Nakatsugawa community development council to promote farm-inns, and moving and settling.

In FY2014, a total of 1,165 tourists stayed at farm-inns in Nakatsugawa, invigorating exchanges between urban and rural areas and contributing to securing places for elderly people's activities.

In supporting moving and settling, the council has agriculture, life, employment and other specialized supporters to back up those hoping to move to and settle in Nakatsugawa. As a result, 15 people (seven families) have moved to the area since FY2011. These new residents have taken up various jobs including farming, café management and plant dyeing. In a bid to further invigorate the area through getting people to move to and settle in the area, the council has opened a website. It plans an initiative for new residents to provide consulting services to people hoping to move to and settle in Nakatsugawa and provide information to urban residents through social networking services.

(The council won the 12th All Right! Nippon Grand Prix)



Farm-inn owner



A new resident's house

Demand for inbound travel and rural approaches

As foreigners interest in Japan have grown over recent years, the number of foreign tourists visiting Japan in 2015 hit a record high of about 19.74 million. Foreign tourists placed great expectations on Japanese food and dietary culture, spending about 640 billion yen on food and drinks in Japan.

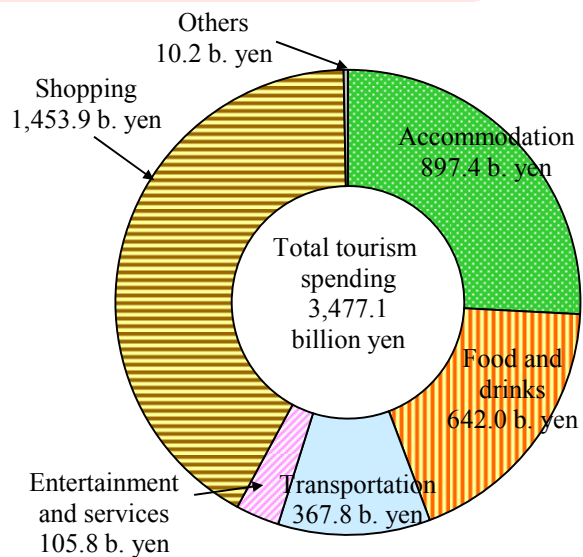
To attract foreign tourists, the number of which is expected to increase further, into rural areas, Japan must intensify various rural resources including local dishes, histories and landscapes, increase their added value and communicate them to foreigners. It is important to link these initiatives to developing agriculture, forestry and fisheries, and food manufacturers into growth sectors and invigorating agriculture and rural areas.

MAFF and the Japan Tourism Agency have formulated the logo “Japan. Farm Stay” for farm-inns that provide experience in agriculture, forestry and fisheries and are ambitious to accommodate foreign tourists, in a bid to brand such inns.

Changes in the number of foreign tourists visiting Japan and their spending breakdown (2015)



Source: Japan National Tourism Organization (JNTO)
(Released in January 2016)



Source: Japan Tourism Agency, “Survey on Consumption Trends for Foreign Visitors to Japan” (Released in January 2016)

Inviting foreign travel agencies to a farming and rural experience tour

Tono City in Iwate Prefecture is known as an advanced green tourism area. It was included in an inspection tour for foreign travel agencies under the VISIT JAPAN Travel Mart 2015 campaign sponsored by the JNTO. The Tono/Sumita Rural Experience Council accepted 30 people from 13 Western and Asian countries and impressed upon them the attractiveness of Japan’s farming and rural areas.

Meals, accommodation and harvest experiences at farm-inns certified for the “Japan. Farm Stay” program contributed to deepening the tour participants’ understanding about rural life, food and agriculture in Japan.

The inspection tour proved popular as participants voiced their plans to develop tours targeting Japanese agriculture and rural areas.

Given such needs, rural areas in Japan must urgently make arrangements to accept foreign tourists.

(Tono was selected in the 2nd Discover Countryside Treasures in Japan)



Experience of rice harvest