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Japan

Grain and Feed Update

2018 Grain and Feed Semi Annual Report

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Report Highlights:
Typhoons, heavy rains, and prolonged high temperatures in the summer of 2018 are expected to negatively affect both the yield and quality of rice and wheat produced in Japan. Accordingly, FAS/Tokyo estimates marketing year (MY) 2018/19 Japanese wheat production to decrease 10 percent to 870,000 MT, with higher volumes of off-grade wheat than last year. MY2018/19 rice production is expected to be lower than last year's reduced crop (7.7 MMT) with an increased volume of undersized and damaged grains. Reflecting strong feed demand, corn imports are forecast to increase to 15.6 MMT in MY2017/18 and remain unchanged in MY2018/19 while sorghum demand is expected to remain stable at 550,000 MT in MY2018/19. As demand for beta glucan rich barley continues, barley imports are forecast to increase to 1.25 MMT in MY 2018/19.

Changes to Reporting Methodologies

FAS/Tokyo has made several changes to its reporting methodology used to calculate data presented in its Production, Supply & Distribution (PS&D) tables in this report:

For **Wheat** and **Barley**, FAS/Tokyo recently became aware of inspection data issued by the Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) (see http://www.maff.go.jp/j/seisan/syoryu/kensa/mugi/index.html {in Japanese}) which includes production data for off-grade wheat and barley that are consumed as either food, feed, or processed in Japan. As this data was not previously included in our PS&D tables, FAS/Tokyo is revising production and consumption data for wheat and barley to include this off-grade production, and revised data on the PS&D online system[1] for the previous 11 years. FAS/Tokyo will henceforth include this data in future PS&D tables for these products.

For **Rice**, FAS/Tokyo recently became aware of data on under-sized rice grain production (see http://www.maff.go.jp/j/tokei/kouhyou/sakumotu/sakkyou_kome/index.html#r {in Japanese}) which is not included in MAFF's regular rice production data set. Like off-grade wheat and barley, these undersized rice grains are also consumed as either food, feed, or processed in Japan. As this data was also not previously included in our PS&D tables, FAS/Tokyo is revising production and consumption for rice to include this undersized grain production, and has revised data on the PS&D online system for the previous 11 years. FAS/Tokyo will henceforth include this data in future PS&D tables for these products.

Wheat

Wheat Production, Supply and Demand

Wheat	2016/2017		2017/2018		2018/2019	
Market Begin Year	Jul 2016		Jul 2017		Jul 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	214	214	213	213	213	213
Beginning Stocks	1288	1288	1210	1293	1214	1271
Production	891	891	972	972	900	870
MY Imports	5911	5911	5876	5876	5800	5900
TY Imports	5911	5911	5876	5876	5800	5900
TY Imp. from U.S.	2880	2858	2994	2937	0	0
Total Supply	8090	8090	8058	8141	7914	8041
MY Exports	277	277	277	270	270	270
TY Exports	277	277	277	270	270	270
Feed and Residual	803	720	717	750	690	680
FSI Consumption	5800	5800	5850	5850	5850	5850
Total Consumption	6603	6520	6567	6600	6540	6530
Ending Stocks	1210	1293	1214	1271	1104	1241
Total Distribution	8090	8090	8058	8141	7914	8041
Yield	4.1636	4.1636	4.5634	4.5634	4.2254	4.0845
(1000 HA) ,(1000 MT) ,(MT/HA)						

NOTE: MAFF's data for off-grade wheat production is now included herein, where available.

[1] See https://apps.fas.usda.gov/psdonline/app/index.html

Production

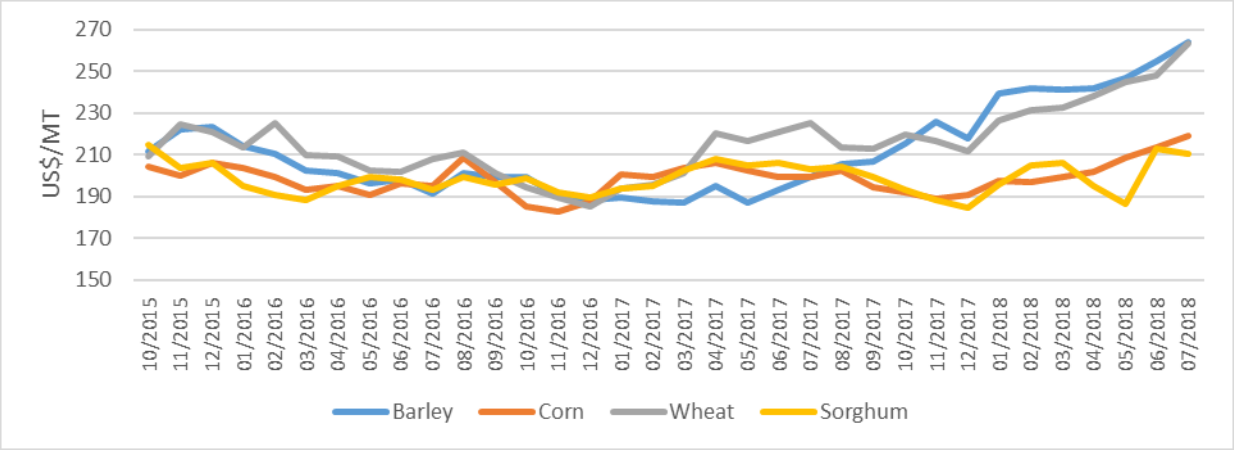
While MAFF has yet to publish its planted area and production data for MY2018/19, winter wheat (by late July) and spring wheat (by mid-August) have already been harvested in Japan. According to industry sources, MY2018/19[2] yields in Hokkaido (where nearly 70 percent of Japanese wheat is produced) were significantly lower than last year because of a lack of sunshine, high temperatures, and many days of rain during the grain maturing period. This weather affected starch development and resulted in thinner grain, and the ratio of unmillable material is believed to be higher than normal. Additionally, wheat yields in the Kanto region (located in the eastern part of Honshu, the main island of Japan), which accounted for approximately nine percent of Japanese production, are also estimated to be lower than the previous year. Heavy snow, low temperatures, and a lack of rain during winter hampered tiller development and resulted in a smaller number of straws. For the remainder of Japan, yields are estimated to be at or near similar levels to last year. Accordingly, FAS/Tokyo estimates total MY2018/19 Japanese wheat production at 870,000 MT, 10 percent lower than the previous marketing year (assuming Japan's planted area remained unchanged at 213,000 hectares {ha}), and with higher volumes of off-grade wheat as well.

Consumption

Unlike rice consumption in Japan, wheat consumption continues to grow, with per-capita consumption inching up year-on-year -- up 0.2 kg to 33.1 kg/person in JFY2017[3] (see Table 2). MY2017/18 Food, Seed & Industrial (FSI) consumption is estimated to have increased slightly (0.8 percent) to 5.85 million MT (MMT), and is expected to remain unchanged in MY2018/19 despite a gradual increase in the Government of Japan's (GOJ's) sales price for food wheat (see Chart 6). MY2017/18 feed and residual consumption is forecast to have increased four percent to 750,000 MT based on an increase in the quantity of wheat and wheat flour used in the production of compound and mixed feed. Despite an unanticipated increase in domestic feed-grade wheat (given higher levels of off-grade production), FAS/Tokyo forecasts feed and residual consumption to decrease to 680,000 MT in MY2018/19 as high wheat prices are incentivizing the use of other grains for feed (namely corn). See Chart 1.

[2] The marketing year (MY) for wheat runs from July to June.
[3] The Japanese Fiscal Year (JFY) runs from April through March.

Chart 1 - CIF Unit Prices for Wheat, Corn and Sorghum for Feed

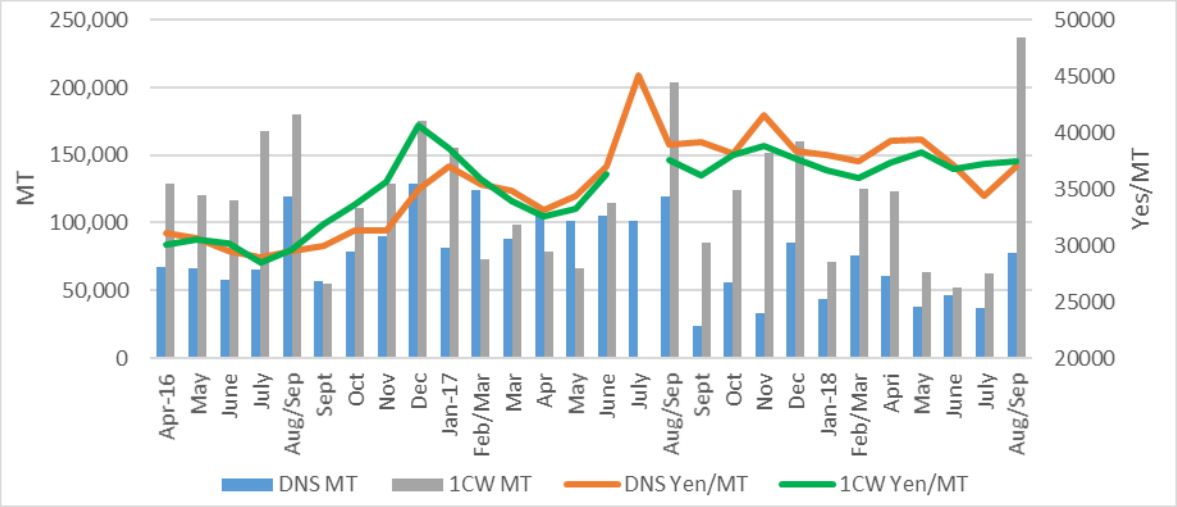


Source: Global Trade Atlas

Trade

MY2017/18 total wheat and wheat product imports were down 0.6 percent to 5.88 MMT due to increased domestic wheat production. While MY2017/18 food wheat imports from Canada increased marginally (0.5 percent), imports from the United States fell 1.7 percent (Table 3) as Canadian 1CW wheat remained price competitive against U.S. DNS, as shown in Chart 2.

Chart 2 - Successful Tender Quantity and Price for DNS Compared to 1CW



Source: MAFF

Additionally, Japan's pasta imports, which accounted for over 90 percent of its wheat product[4] imports, decreased 2.6 percent in MY2017/18 due to a marginal increase in import prices. Despite the overall decline in pasta imports, Turkey increased its import share given its price competitiveness (see Chart 7).

[4] Wheat products in this report are defined as HS1001 wheat flour, HS190219 uncooked pasta, HS190230 other pasta, and HS190240 couscous.

However, when the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) and Japan-EU Economic Partnership Agreement (EPA) eventually come into force, the GOJ's markup for Canadian and Australian wheat and Japan's tariff on Italian pasta will decrease and lead to increased market competition for those wheat and wheat product exports to Japan. For additional information, see JA7153.

MY2018/19 food wheat imports are forecast to increase to supplement expected reductions in domestic production. However, MY2018/19 feed wheat imports are projected to decrease due to an expected increase in domestic feed quality wheat (and the competitive price at which corn can be procured and used in the compound feed mix). MY2018/19 wheat product imports are forecast to remain unchanged at 260,000 MT (wheat equivalent). Because the expected increase in food wheat imports is anticipated to exceed the decrease in feed wheat imports, MY2018/19 total wheat and what product imports are forecast up marginally to 5.9 MMT.

MY2018/19 wheat product (i.e., wheat flour) exports from Japan (predominantly to Hong Kong and Singapore) are forecast to remain unchanged at 270,000 MT (wheat equivalent) as these markets remain stable for Japan.

In 2017, MAFF's new food wheat tender (known as "Category III") was developed in order to expand flexibilities for Japanese flour millers to purchase diversified classes and specifications of wheat at competitive prices (for additional information see JA7081). The first Category III tender was issued in October 2017 and 200,000 MT of wheat was successfully bid between October 2017 and March 2018 (see Table 5). Another 199,788 MT of wheat was successfully bid between April and September 2018, and MAFF is expected to invite bids for another 200,000 MT between October 2018 and March 2019. While any class of wheat can be imported under Category III, the majority of wheat imported is believed to be from the major five classes of wheat[5] from Canada, the United States, and Australia, which are normally imported under MAFF's general import system. As the total volume of in-quota wheat imports remains unchanged, some wheat previously imported under the general import system has now shifted to Category III.

Stocks

With the GOJ extending financial support to flour mills for storage costs for wheat (i.e., for 1.8 months of the 2.3 months of wheat that flour mills hold for contingency), ending stocks are forecast at 1.2 MMT.

[5] Western White (WW), Dark Northern Spring (DNS), Hard Red Winter (HRW), Canadian Western Red Spring (1CW), and Australia Standard White (ASW).

Rice

Rice Production, Supply, and Distribution

Rice, Milled	2016/2017		2017/2018		2018/2019	
Market Begin Year	Nov 2016		Nov 2017		Nov 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1570	1570	1557	1557	1560	1560
Beginning Stocks	2552	2552	2491	2410	2262	2167
Milled Production	7929	7929	7787	7787	7790	7700
Rough Production	10891	10891	10696	10696	10701	10577
Milling Rate (.9999)	7280	7280	7280	7280	7280	7280
MY Imports	709	709	685	700	685	700
TY Imports	679	679	685	685	685	685
TY Imp. from U.S.	303	350	0	0	0	0
Total Supply	11190	11190	10963	10897	10737	10567
MY Exports	50	50	50	60	50	70
TY Exports	50	50	50	60	50	70
Consumption and Residual	8649	8730	8651	8670	8590	8600
Ending Stocks	2491	2410	2262	2167	2097	1897
Total Distribution	11190	11190	10963	10897	10737	10567
Yield (Rough)	6.9369	6.9369	6.8696	6.8696	6.8596	6.7801
(1000 HA) ,(1000 MT) ,(MT/HA)						

NOTE: The quantity of rice in this section is expressed on a milled rice basis, unless otherwise specified.
NOTE: MAFF's data for production of undersized rice grains is now included herein, where available.

Production

As of April 2018, MAFF stopped issuing rice production quotas to Japanese Prefectures and discontinued a 7,500 yen per 0.1 hectare (approximately $67) support payment for table rice. As the price for Japanese table rice has continued to increase, Japanese rice producers were incentivized to produce more table rice, and industry sources report an additional 13,000 ha was planted in MY2018/19.[6] However, the increased planted area for table rice is believed to have been offset by a decrease in the planted area for feed rice. As a result, Japan's total rice planted area is expected to remain unchanged at 1.56 million ha in MY2018/19.

Depending on varieties and regions, rice in Japan is harvested from late August through late October. When MAFF conducted its rice crop assessment in August, it forecasted that Japanese rice yields were "normal" or "above normal"[7] for all regions but Hokkaido. For Hokkaido (Japan's second largest island), MAFF forecasted very poor yields due to a lack of sunshine and low temperatures between the middle of June and July. Since then, however, abnormal weather conditions across Japan (including typhoons, torrential rains, and high temperatures) are expected to have affected most of the country's rice yields and quality. Prolonged extreme temperatures this summer in the Kanto region have accelerated rice maturity and have brought the harvest forward. While yields are anticipated to be normal, the weather is expected to have caused damage to the quality of the rice, leading to cracked and

[6] The marketing year (MY) for rice runs from November to October.
[7] The yield for a "normal" year is defined by MAFF as the expected yield assuming normal weather conditions (and taking into account the yield trend).

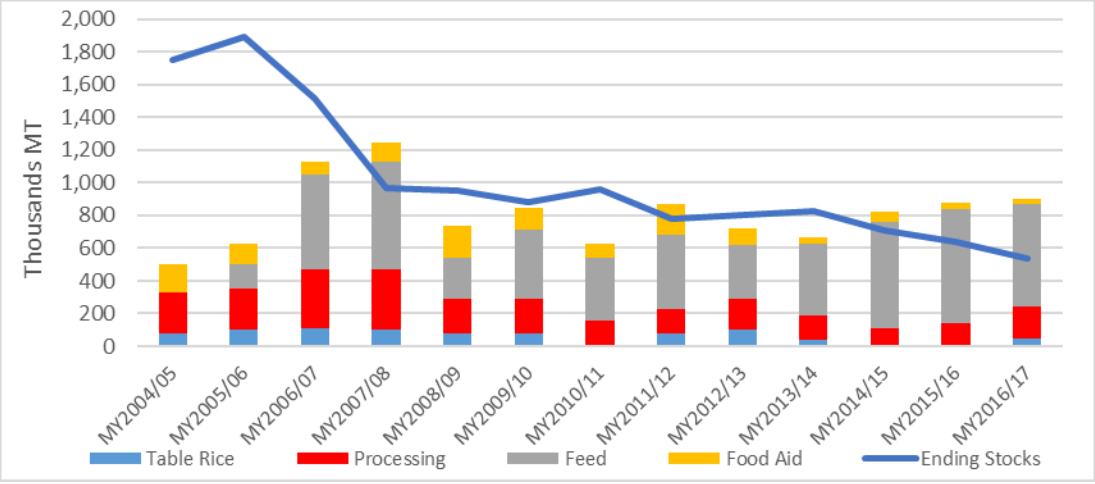
thinner grains. Additionally, heavy rains and a lack of sunshine since late August in the Tohoku region (located in the northeastern portion of Honshu) are reportedly causing maturation delays and yields are expected to be lower than last year. Accordingly, FAS/Tokyo expects MY2018/19 production to be even lower than last year's reduced crop (7.7 MMT) and with an increased volume of undersized/damaged grains.

Consumption

Japanese per-capita table rice consumption has been decreasing year-on-year. With Japan's population having decreased for the seventh consecutive year (in 2017), the overall decline in table rice consumption shows no sign of abatement. Additionally, the increase in table rice prices over the last three years is believed to be partially responsible for an acceleration in the decline in table rice consumption (see Chart 8).

Feed rice consumption decreased six percent to 1.1 MMT in MY2016/17 due to tighter supplies of World Trade Organization (WTO)-required Minimum Access (MA) rice and a tightening of the GOJ's rice reserve. As shown in Chart 3, MA rice has been sold aggressively for feed use (particularly since MY2014/15). However, an increase in rice sales to processors reduced sales for feed in MY2016/17. Additionally, under the GOJ rice reserve program, the GOJ purchases approximately 200,000 MT (brown) of new crop every year (while selling the same volume of five year-old reserve rice for feed.[8] In 2018, the GOJ intended to purchase 200,000 MT (brown) of new crop but was only able to acquire 123,000 MT (brown) as market prices had increased (and the GOJ's purchase prices were not attractive to producers). As a result, the volume of GOJ reserve rice sold for feed is expected to decline in MY2018/19. Feed rice consumption is forecast to decline further as constrained MA rice and GOJ reserve rice supplies are expected to coincide with a decrease in domestic feed rice production. Accordingly, total rice consumption is expected to decrease to 8.67 MMT in MY2017/18 and further to 8.6 MMT in MY2018/19.

Chart 3 - MA Rice Sales by Use and Ending Stocks



Source: MAFF

Trade

[8] In addition, Japan maintains 910,000 MT {brown} of rice in reserve for emergency needs.

In JFY2017, Japan fully utilized its 100,000 MT Simultaneous Buy and Sell (SBS) quota for rice for the first time since JFY2012, as increasing prices for Japanese table rice over the last three years increased the demand for reasonably priced table rice. In JFY2018, Japanese buyers are expected to initially take a wait-and-see approach with regard to the SBS tenders until the domestic rice harvest is completed. Japanese buyers prefer to confirm how Japanese rice prices will adjust to the new crop as an increase in the volume of table rice would put downward pressure on prices for domestic rice (resulting in an easing of demand for imported rice). Nevertheless, Japan is expected to import nearly 700,000 MT of rice to meet its WTO commitments in MY2017/18 and MY2018/19. In addition to the WTO quota, a 6,000 MT country-specific SBS quota will be established for imported Australian rice under the CPTPP, once that agreement is effectuated. For additional information, see JA8039.

In an effort to promote Japanese table rice exports, MAFF is bringing together producers and exporters, and providing a support payment of 20,000 yen/0.1 ha (approximately $179) to farmers who produce rice intended for export (for additional information, see the Rice Policy section in JA8018) . Hong Kong is the largest commercial export destination for Japanese rice, followed by Singapore and the United States (actual tonnage of 3,941 MT, 2,728 MT and 1,028 MT, respectively, in MY2016/17). While Japanese rice exports to China are still limited (430 MT in MY2016/17), they are expected to grow in the coming years.

China only permits Japanese rice milled and fumigated at approved facilities to be exported from Japan. Until recently, only one approved mill and two fumigation facilities in Japan were approved. However, two additional mills and five additional fumigation facilities were approved in May 2018, increasing Japan's ability to export. Accordingly, total rice exports, including food aid, are expected to increase to 60,000 MT in MY2017/18 and further to 70,000 MT in MY2018/19.

Stocks

With production declining in recent years, private table rice stocks have gradually decreased over the last two years. While the quantity of MA rice stocks and GOJ reserves is expected to remain unchanged, private stocks are expected to further decrease to continue to meet demand given the forecasted decline in production. Accordingly, total ending stocks are expected to decrease to 2.17 MMT in MY2017/18 and further to 1.9 MMT in MY2018/19.

Corn

Corn Production, Supply and Distribution

Corn	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1	1	1	1	1	1
Beginning Stocks	1350	1350	1320	1369	1322	1471
Production	1	2	2	2	2	2
MY Imports	15169	15167	15200	15600	15000	15600
TY Imports	15169	15167	15200	15600	15000	15600
TY Imp. from U.S.	12519	13487	0	0	0	0
Total Supply	16520	16519	16522	16971	16324	17073
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	11600	11500	11600	11800	11600	11800
FSI Consumption	3600	3650	3600	3700	3600	3700
Total Consumption	15200	15150	15200	15500	15200	15500
Ending Stocks	1320	1369	1322	1471	1124	1573
Total Distribution	16520	16519	16522	16971	16324	17073
Yield	1	2	2	2	2	2
(1000 HA) ,(1000 MT) ,(MT/HA)						

Production

In an effort to encourage production conversion from table rice to other crops on rice paddies, a support payment (known as the Direct Payment for Strategic Crops) is paid to feed crops including corn (for additional information, see Rice Policy section in JA8018). Efforts have been made to increase production in Hokkaido and other regions, but Japanese corn production remains quite limited.

Consumption

Japanese compound and mixed feed production remains robust and is expected to exceed 24 MMT in MY2017/18[9] (the first time since MY2012/13). Driven by competitive prices, demand for corn for feed remains strong as the composition ratio of corn in compound and mixed feed increased from 46.3 percent in MY2016/17 to 47.9 percent for the first nine months of MY2017/18 -- translating to more than a 300,000 MT increase on an annualized basis (see Table 6). As a result, the use of rice and sorghum in Japanese compound feed production has decreased. Accordingly, FAS/Tokyo increased MY2017/18 feed and residual consumption to 11.8 MMT, and anticipates similar consumption levels in MY2018/19.

A marginal increase in Food, Seed and Industrial (FSI) consumption is forecast due to strong demand from Japanese grain whisky manufacturers. Consequently, FAS/Tokyo revised MY2016/17 FSI consumption upward to 3.65 MMT. MY2017/18 FSI consumption is expected to further increase to 3.7 MMT based on additional demand from the beverage sector – levels which are expected to remain stable in MY2018/19.

Trade

[9] The marketing year (MY) for corn runs from October to September.

Reflecting strong feed demand for corn, MY2017/18 imports are expected to increase one percent to 15.6 MMT, and a similar level is forecast for MY2018/19.

Stocks

Corn is the main feed grain held in the GOJ's contingency reserve program of 850,000 MT of feed materials. Together with the operational stocks held at feed mills and starch plants, approximately 1.4 MMT of corn is estimated to have been held as of the end of MY2016/17. According to industry sources, feed mills are expected to moderately increase operational stocks (currently less than one month) to protect against supply delays that were experienced in MY2016/17 when heavy snow led to delayed shipments from the U.S. Pacific Northwest. Accordingly, FAS/Tokyo has increased MY2017/18 and MY2018/19 ending stocks to 1.5 MMT and 1.6 MMT respectively.

Sorghum

Sorghum Production, Supply and Distribution

Sorghum	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	52	52	52	52	52	71
Production	0	0	0	0	0	0
MY Imports	561	561	600	580	600	530
TY Imports	561	561	600	580	600	530
TY Imp. from U.S.	233	219	0	0	0	0
Total Supply	613	613	652	632	652	601
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	561	560	600	560	600	550
FSI Consumption	0	1	0	1	0	1
Total Consumption	561	561	600	561	600	551
Ending Stocks	52	52	52	71	52	50
Total Distribution	613	613	652	632	652	601
Yield	0	0	0	0	0	0
(1000 HA) ,(1000 MT) ,(MT/HA)						

Production

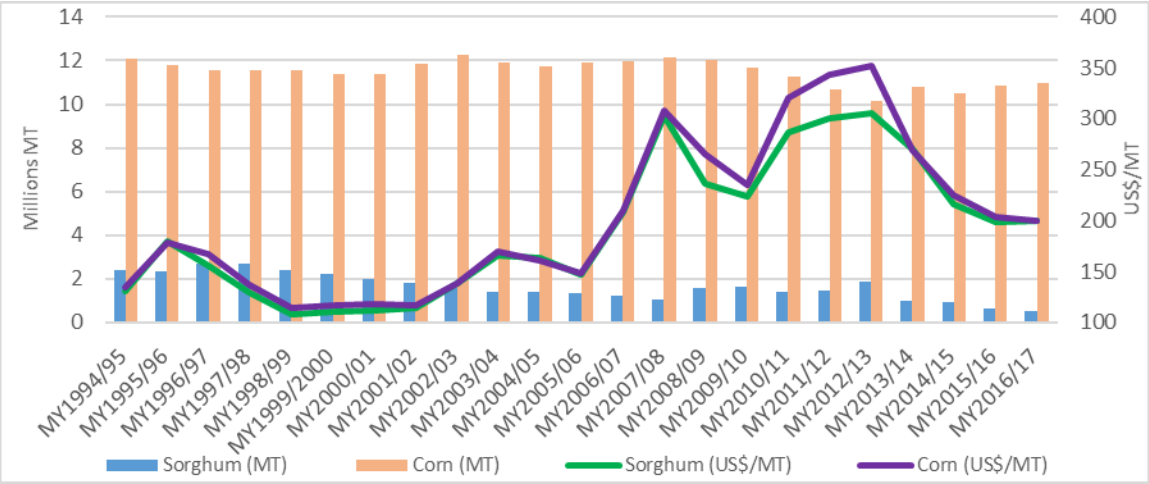
Sorghum production in Japan is negligible.

Consumption

The volume of sorghum used in compound and mixed feed in Japan has steadily declined over the last few years, falling 20 percent in MY2016/17[10] (to 560,000 MT) predominantly due to corn's price competitiveness. As Japanese feed mills generally prefer corn for its nutritional value over sorghum, an increase of sorghum in Japan's feed composition is only anticipated if the price of sorghum falls significantly lower than that of corn (see Chart 4).

[10] The marketing year (MY) for sorghum runs from October to September.

Chart 4 - Sorghum and Corn used in Japanese Compound and Mixed Feed and their CIF Unit Prices



Source: MAFF and Global Trade Atlas

Nevertheless, there is some fixed demand for sorghum from Japan's poultry and swine sectors to satisfy consumer preference for white-colored chicken and pork fat and to improve pork's tenderness. This fixed demand for sorghum is estimated at 500,000 MT per year. While rice can serve a similar purpose to sorghum in the feed recipe, rice for feed has been in shorter supply since MY2016/17. Therefore, MY2017/18 sorghum consumption for feed is expected to total 560,000 MT in MY2017/18. As feed rice supplies are not expected to grow, Japanese sorghum consumption levels are expected to remain unchanged in MY2018/19.

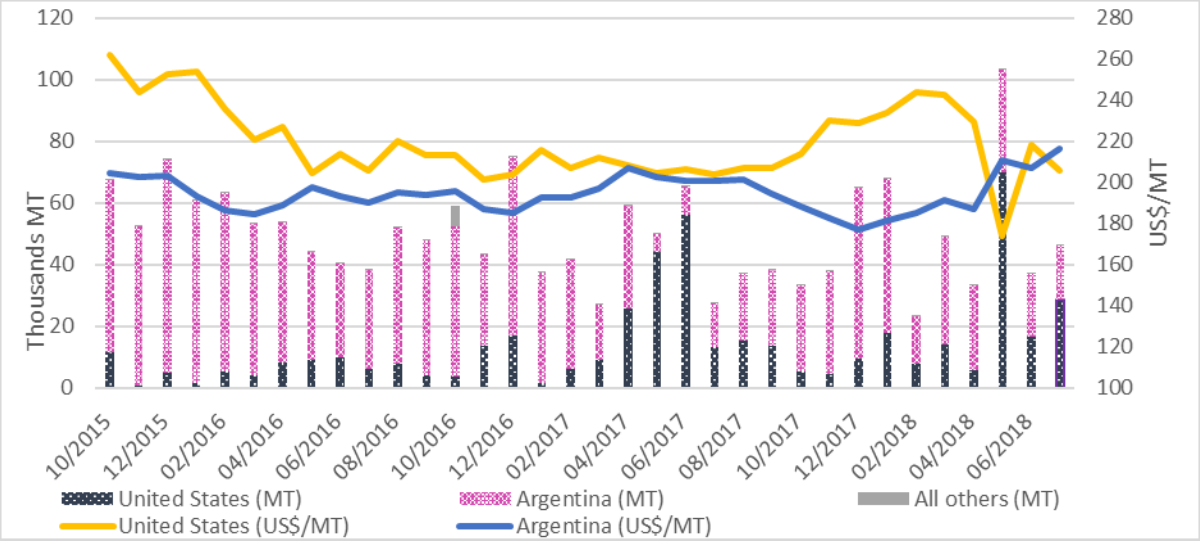
Sorghum for food consumption is estimated at 800 MT in MY2016/17 and is expected to gradually grow to 1,000 MT in MY2017/18 and to 1,200 MT in MY2018/19.

Trade

Argentina and the United States were the dominant sorghum suppliers to Japan (accounting for 59 percent and 39 percent, respectively) in MY2016/17. Only when U.S. sorghum is price competitive do U.S. exports to Japan increase (see Chart 5).

Following China's imposition of anti-dumping and countervailing duties on U.S. sorghum in April 2018 (which were later dropped in May), Japan purchased a shipment of U.S. sorghum destined for China (69,748 MT in May) at a significant discount (US$174.05/MT, 24 percent lower than the price in April). While China again imposed additional duties on U.S. sorghum in July 2018, industry sources do not believe Japan will significantly increase sorghum imports unless the price of sorghum falls far lower than that of corn. Reflecting the price volatility of U.S. sorghum in the spring, MY2017/18 imports are expected to total 580,000 MT. However, MY2018/19 imports are forecast to fall to 530,000 MT as Japanese feed demand is anticipated to remain unchanged.

Chart 5 - Japanese Sorghum Imports and CIF Unit Prices



Source: Global Trade Atlas

Stocks

With the increase in imports, MY2017/18 stocks are expected to increase to 71,000 MT. However, MY2018/19 stocks are forecast to return to 50,000 MT as some stocks will be consumed.

Barley

Barley Production, Supply and Distribution

Barley	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	61	61	61	61	61	62
Beginning Stocks	352	352	309	323	261	289
Production	175	175	186	186	183	178
MY Imports	1197	1196	1200	1230	1100	1250
TY Imports	1197	1196	1200	1230	1100	1250
TY Imp. from U.S.	0	24	0	0	0	0
Total Supply	1724	1723	1695	1739	1544	1717
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	1035	1000	1054	1020	960	1020
FSI Consumption	380	400	380	430	380	450
Total Consumption	1415	1400	1434	1450	1340	1470
Ending Stocks	309	323	261	289	204	247
Total Distribution	1724	1723	1695	1739	1544	1717
Yield	2.8689	2.8689	3.0492	3.0492	3	2.871
(1000 HA) ,(1000 MT) ,(MT/HA)						

NOTE: MAFF's data for off-grade barley production is now included herein, where available.

Production

While MAFF has yet to publish production and planted area data for MY2018/19, FAS/Tokyo estimates the planted area for barley increased marginally to 62,000 ha reflecting strong demand for beta glucan rich glutinous barley. Despite the increase in planted area, production is expected to decrease due to lower yields resulting from unfavorable weather conditions during the growing period. Specifically, in the Kanto region, which accounted for nearly 30 percent of the barley planted area in MY2016/17,[11] a lack of rain coupled with low temperatures in winter negatively affected barley growth and led to a smaller number of ears. As a result, a reduced number of grains were produced (but the quality of the grain was superior, with a bigger grain size). Additionally, low temperatures and insufficient rain delayed panicle formation and heading in Japan's Kyushu region (Japan's third largest island which accounted for 37 percent of the barley planted area). Abundant sunshine in this region coupled with high temperatures in May shortened the maturity period and marginally lowered yields. Accordingly, MY2018/19 barley production is expected to decrease four percent to 178,000 MT.[12]

Consumption

Barley is an essential ingredient for finishing beef (wagyu) cattle in Japan. As no other ingredient can be substituted for barley, feed demand for barley is directly tied to beef cattle inventories. As shown in Table 1, beef cattle inventories have increased in recent years (see also JA8043). Therefore, FAS/Tokyo forecasts feed and residual consumption to increase slightly to 1.02 MMT in MY2017/18, and to remain unchanged in MY2018/19. Additionally, reflecting continued strong demand for beta glucan rich glutinous barley, FSI consumption is expected to continue to grow. Consequently, FAS/Tokyo increased FSI consumption to 430,000 MT in MY2017/18 and to 450,000 MT in MY2018/19.

Table 1 - Japanese Livestock Inventories (as of February 1 each year) (1,000 heads)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018/17
Dairy cows and heifers	1,484	1,467	1,449	1,423	1,395	1,371	1,345	1,323	1,328	0.4%
Beef cattle	2,892	2,763	2,723	2,642	2,567	2,489	2,479	2,499	2,514	0.6%
Swine	9,750	9,768	9,735	9,685	9,537	NA	9,313	9,346	9,189	-1.7%
Chicks and Layers	NA	178,546	177,607	174,784	174,806	NA	173,349	176,366	181,950	3.2%
Broilers	NA	NA	NA	131,600	135,747	NA	134,395	134,923	138,766	2.8%

Source: MAFF

Trade

Reflecting strong food demand, total barley imports are anticipated to increase three percent to 1.23 MMT in MY2017/18. Food barley imports are expected to increase nearly 14 percent to 280,000 MT, while feed barley imports are projected to remain unchanged at 950,000 MT (based on the import volume to date). While feed demand is forecast to continue strong, MY2018/19 feed barley imports are estimated to decrease slightly due to high prices. However, the decrease in feed barley imports is expected to be offset by utilization of some stocks and domestically produced off-grade barley. With regard to food barley, however, to meet the growing demand, MY2018/19 imports are forecast to increase further. Accordingly, MY2018/09 total barley imports are projected to increase 1.6 percent to 1.25 MMT.

[11] The marketing year (MY) for barley runs from October to September.
[12] Domestically produced barley is grown for food use. However, some off-grade barley is consumed each year as feed.

Stocks

Ending stocks are expected to total 289,000 MT in MY2017/18 and are forecast to decrease to 247,000 MT in MY2018/19 as high prices for imports may discourage some imports and encourage consumption of some stocks.

Additional Data

Table 2 - Per-Capita Grain Consumption in Japan

(kilogram/year)

JFY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Rice	61.2	58.8	58.3	59.5	57.8	56.3	56.9	55.6	54.6	54.4	54.2
Wheat	32.3	31.1	31.8	32.7	32.8	32.9	32.7	32.9	32.6	32.9	33.1
Other grain	1.3	1.3	1.1	1.2	1.4	1.4	1.5	1.4	1.6	1.6	1.5

Source: MAFF

Table 3 - Japanese Food Wheat Imports (Year ending June)

Partner Country	Quantity MT			% Share			% Change
	2016	2017	2018	2016	2017	2018	2018/2017
World	5116873	5278557	5236419	100.00	100.00	100.00	- 0.80
United States	2490573	2744617	2698207	48.67	52.00	51.53	- 1.69
Canada	1743326	1645622	1653507	34.07	31.18	31.58	0.48
Australia	876088	880910	878151	17.12	16.69	16.77	- 0.31
France	6738	7253	6486	0.13	0.14	0.12	- 10.57
All others	148	155	68	0	0	0	0

Source: Global Trade Atlas

Table 4 - Japanese Feed Wheat Imports (Year ending June)

Partner Country	Quantity MT			% Share			% Change
	2016	2017	2018	2016	2017	2018	2018/2017
World	358186	371573	381728	100.00	100.00	100.00	2.73
United States	13585	84567	210082	3.79	22.76	55.03	148.42
Australia	21	64550	60026	0.01	17.37	15.72	- 7.01
Russia	9662	47993	53396	2.70	12.92	13.99	11.26
Ukraine	156177	54101	31680	43.60	14.56	8.30	- 41.44
Romania	7994	56918	14098	2.23	15.32	3.69	- 75.23
Canada	69416	32610	12446	19.38	8.78	3.26	- 61.83
Germany	16830	0	0	4.70	0.00	0.00	0.00
United Kingdom	84501	30834	0	23.59	8.30	0.00	100.00

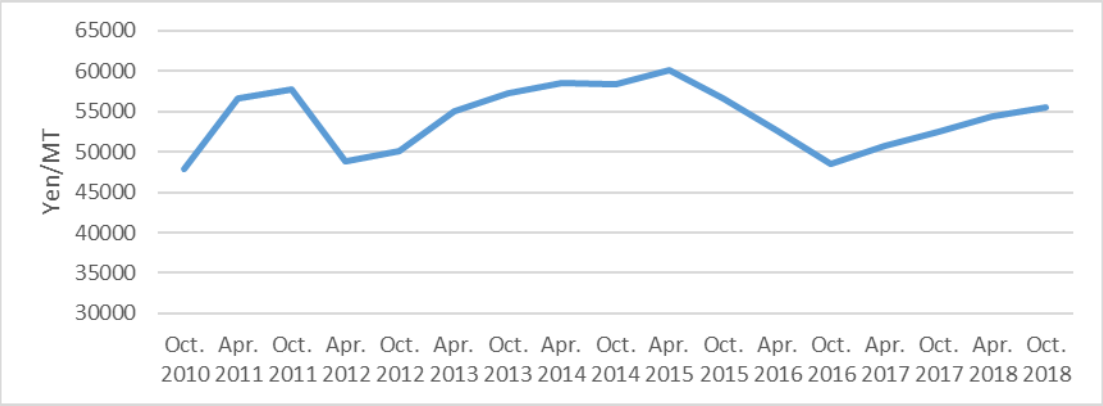
Source: Global Trade Atlas

Table 5 - Successful bid amounts for SBS III (MT)

	Oct-17	Nov-17	Dec-17	Jan-18	Oct 17 - Jan 18	Apr-18	May-18	Jun-18	Aug-18	Apr - Aug 18
USA	58,080	31,900	38,930	16,400	145,310	25,000	28,200	10,640	3,000	66,840
Canada			33,100	21,240	54,340	58,500	58,100		8,000	124,600
Australia	160				160	8,060				8,060
France		190			190	120		168		288
Total	58,240	32,090	72,030	37,640	200,000	91,680	86,300	10,808	11,000	199,788

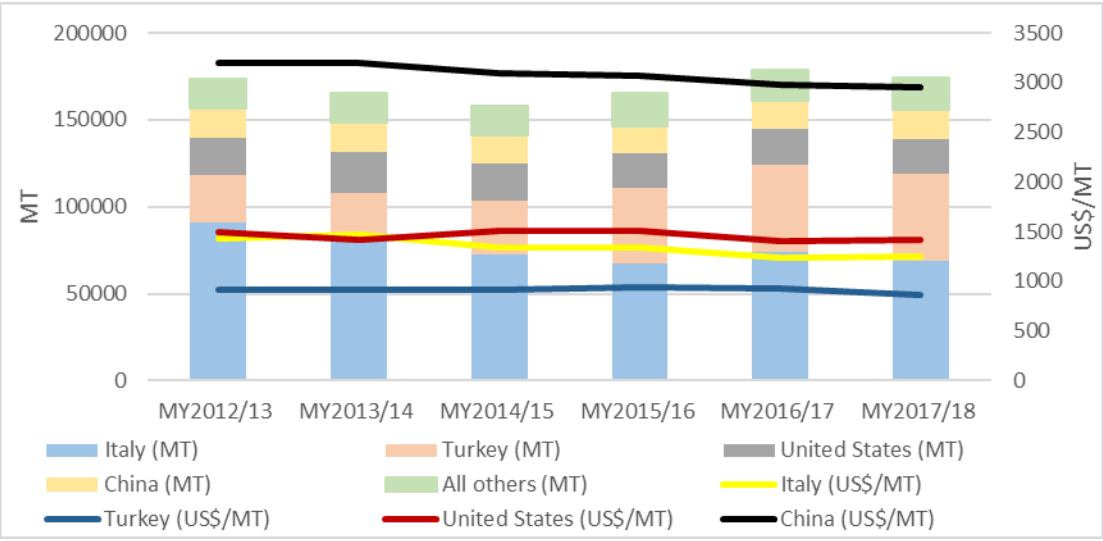
Source: MAFF

Chart 6 - GOJ's Average Sales for Five Classes of Wheat



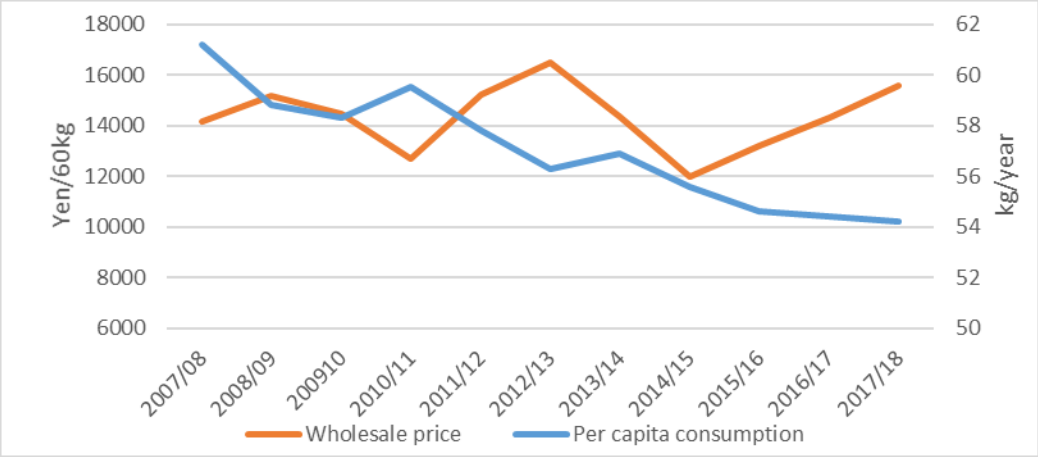
Source: MAFF

Chart 7 - Japanese Pasta Imports and CIF Unit Price (year ending June)



Source: Global Trade Atlas

Chart 8 – Japanese Per Capita Rice Consumption and Wholesale Table Rice Prices



Source: MAFF

Table 6 - Compound and Mixed Feed Production

MY	Corn	Sorghum	Wheat	Wheat Flour	Barley	Rice	Other Grains	DDGS	Soybean Meal	Rapeseed Meal	Other Ingredients	TOTAL
2006/07	11,968,822	1,207,666	95,022	128,407	841,067	501,410	339,008	-	3,403,270	905,696	5,059,301	24,449,669
	49.0%	4.9%	0.4%	0.5%	3.4%	2.1%	1.4%	0.0%	13.9%	3.7%	20.7%	100%
2007/08	12,151,595	1,061,836	99,070	140,704	864,290	604,450	247,691	-	3,363,196	954,442	5,187,245	24,674,519
	49.2%	4.3%	0.4%	0.6%	3.5%	2.4%	1.0%	0.0%	13.6%	3.9%	21.0%	100%
2008/09	12,032,218	1,599,366	131,179	142,216	886,989	240,408	196,327	-	3,292,571	1,024,726	5,157,186	24,703,186
	48.7%	6.5%	0.5%	0.6%	3.6%	1.0%	0.8%	0.0%	13.3%	4.1%	20.9%	100%
2009/10	11,663,020	1,605,491	203,985	133,065	904,803	396,061	230,738	96,210	3,428,260	1,032,870	4,977,265	24,671,768
	47.3%	6.5%	0.8%	0.5%	3.7%	1.6%	0.9%	0.4%	13.9%	4.2%	20.2%	100%
2010/11	11,287,696	1,380,159	245,857	145,289	889,928	537,274	245,270	284,154	3,326,471	1,020,434	4,892,547	24,255,079
	46.5%	5.7%	1.0%	0.6%	3.7%	2.2%	1.0%	1.2%	13.7%	4.2%	20.2%	100%
2011/12	10,688,501	1,461,639	732,039	152,292	882,497	589,640	191,402	400,836	3,178,883	1,095,688	4,897,908	24,271,325
	44.0%	6.0%	3.0%	0.6%	3.6%	2.4%	0.8%	1.7%	13.1%	4.5%	20.2%	100%
2012/13	10,154,181	1,856,711	942,885	176,433	910,896	397,406	169,561	443,993	2,862,672	1,183,477	4,943,907	24,042,122
	42.2%	7.7%	3.9%	0.7%	3.8%	1.7%	0.7%	1.8%	11.9%	4.9%	20.6%	100%
2013/14	10,794,681	1,006,553	649,448	160,815	870,127	732,983	151,688	512,652	2,827,948	1,143,199	4,860,209	23,710,303
	45.5%	4.2%	2.7%	0.7%	3.7%	3.1%	0.6%	2.2%	11.9%	4.8%	20.5%	100%
2014/15	10,530,414	901,173	366,510	161,019	805,315	1,172,993	148,034	476,786	2,848,515	1,196,650	4,773,182	23,380,591
	45.0%	3.9%	1.6%	0.7%	3.4%	5.0%	0.6%	2.0%	12.2%	5.1%	20.4%	100.0%
2015/16	10,868,266	650,398	398,723	177,880	798,662	1,206,845	136,642	405,308	3,018,163	1,115,233	4,784,547	23,560,667
	46.1%	2.8%	1.7%	0.8%	3.4%	5.1%	0.6%	1.7%	12.8%	4.7%	20.3%	100%
2016/17	10,963,813	537,868	451,748	198,078	822,410	1,113,796	137,883	501,962	2,929,498	1,188,101	4,839,950	23,685,108
	46.3%	2.3%	1.9%	0.8%	3.5%	4.7%	0.6%	2.1%	12.4%	5.0%	20.4%	100%
Oct	961,655	44,153	38,570	17,761	70,524	84,911	12,301	46,792	254,831	95,869	415,005	2,042,372
	47.1%	2.2%	1.9%	0.9%	3.5%	4.2%	0.6%	2.3%	12.5%	4.7%	20.3%	100%
Nov	979,792	44,623	37,274	17,697	72,381	88,515	12,653	47,947	258,191	97,393	419,024	2,075,490
	47.2%	2.1%	1.8%	0.9%	3.5%	4.3%	0.6%	2.3%	12.4%	4.7%	20.2%	100%
Dec	1,061,286	46,583	38,269	19,199	77,699	90,808	13342	52,145	277,490	107,005	456,060	2,239,886
	47.4%	2.1%	1.7%	0.9%	3.5%	4.1%	0.6%	2.3%	12.4%	4.8%	20.4%	100.0%
2018 Jan	926,621	40,442	32,898	15,879	65,331	78,561	10,771	46,298	238,898	91,465	386,909	1,934,073
	47.9%	2.1%	1.7%	0.8%	3.4%	4.1%	0.6%	2.4%	12.4%	4.7%	20.0%	100.0%
Feb	896,779	38,869	31,080	15,541	64,950	73,848	10,702	44,898	229,391	88,750	379,737	1,874,545
	47.8%	2.1%	1.7%	0.8%	3.5%	3.9%	0.6%	2.4%	12.2%	4.7%	20.3%	100.0%
Mar	1,004,866	44,288	35,715	17,509	72,279	79,567	11,868	49,727	257,483	98,931	428,404	2,100,637
	47.8%	2.1%	1.7%	0.8%	3.4%	3.8%	0.6%	2.4%	12.3%	4.7%	20.4%	100.0%
Apr	946,869	40,090	32,658	17,046	68,472	59,928	11,039	45,548	237,770	92,302	406,518	1,958,240
	48.4%	2.0%	1.7%	0.9%	3.5%	3.1%	0.6%	2.3%	12.1%	4.7%	20.8%	100.0%
May	989,391	43,221	33,788	17,626	70,768	58,796	11,149	46,636	246,145	93,752	420,046	2,031,318
	48.7%	2.1%	1.7%	0.9%	3.5%	2.9%	0.5%	2.3%	12.1%	4.6%	20.7%	100.0%
June	947,629	44,488	32,935	16,888	67,710	55,179	11,216	44,259	237,129	89,499	405,869	1,952,801
	48.5%	2.3%	1.7%	0.9%	3.5%	2.8%	0.6%	2.3%	12.1%	4.6%	20.8%	100.0%

Source: MAFF