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Japan

Grain and Feed Update

2017 Grain and Feed Semi-Annual

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Report Highlights:

Given competitive prices for imported feed grains (particularly for corn) and DDGS, Japanese demand is expected to remain strong in 2017/18, with corn imports again forecast to total 15.2 million MT. Favorable weather, resulting in improved Japanese wheat production, is expected to lead to a small reduction in imports (100,000 MT). Japanese rice production is estimated to decrease 2.3 percent in 2017/18 as a result of reduced planting area and poor weather in certain parts of the country. With an anticipated increase in the price for domestically produced rice, demand for imported rice is expected to be strong in 2017/2018. Japanese demand for beta-glucan “waxy barley” continues to grow.

Post:
Tokyo

Commodities:
Barley

Corn

Rice, Milled

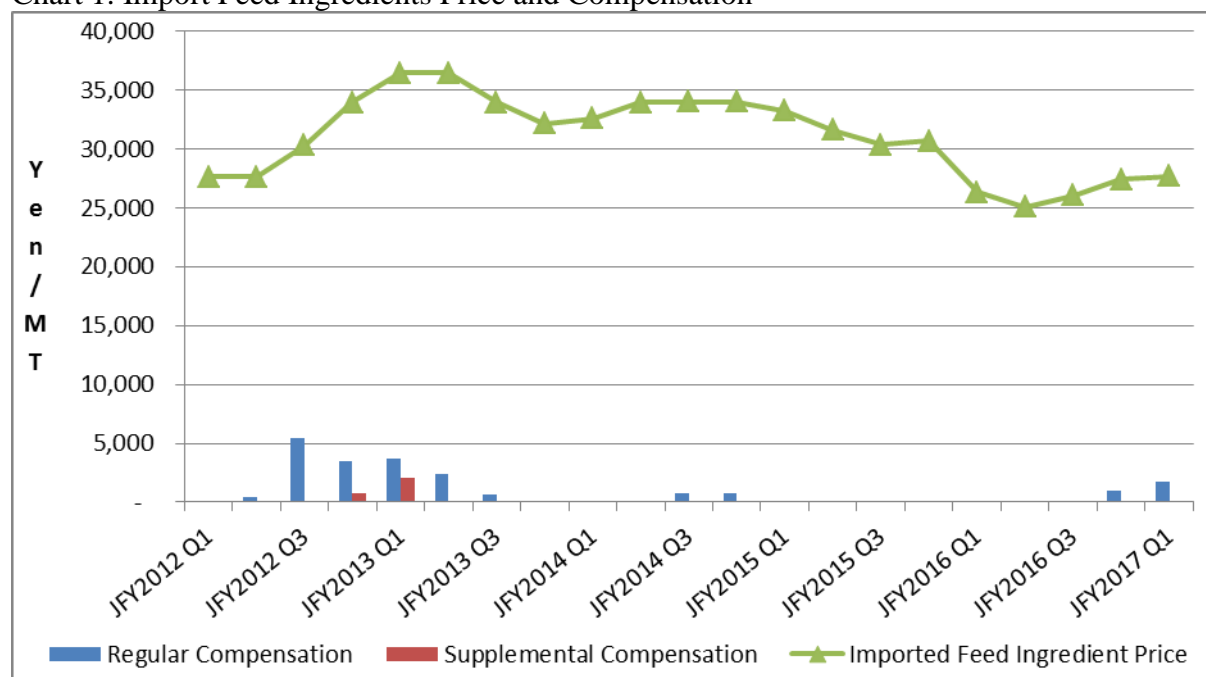
Sorghum

Wheat

Feed Production and Feed Price Stabilization Program

Japan maintains a feed price stabilization program that consists of a combination of a Ministry of Agriculture, Forestry and Fisheries (MAFF) subsidy and an industry fund to help absorb surges in compound feed prices. The program is activated when the average import price of feed ingredients (corn, sorghum, soybean meal, barley and wheat) in a particular quarter exceeds the average import cost of these feed ingredients in the previous year (see Chart 1).

Chart 1. Import Feed Ingredients Price and Compensation



Source: MAFF

As the import price of feed ingredients had fallen, no compensation payments were made for seven consecutive quarters from the first quarter of Japanese Fiscal Year (JFY: April - March) 2015 until the 3rd quarter of JFY2016. However, due to an increase in ocean freight costs and a weaker Yen, the import price of feed ingredients in the fourth quarter of JFY2016 and the first quarter of JFY2017 rose to levels that exceeded the average import price of the previous year. As a result, compensation

payments of 950 yen/MT (JFY 2016 4th Qtr) and 1,700 Yen/MY (JFY2017 1st Qtr) were made. While MAFF has not yet reported data for the second and third quarters in JFY2017, industry sources have indicated feed millers have decreased compound feed prices by 1.8 percent (JFY2017 2nd Qtr) and 0.6 percent (JFY2017 3rd Qtr) given the appreciation of the Yen and lower prices for soybean meal. Accordingly, FAS Tokyo does not believe payments have continued beyond the first quarter of JFY2017.

As a result of declining livestock inventories, Japanese compound feed production has remained below 24 million MT since Marketing Year (MY) 2013/14 (October 2013 – September 2014). However, reflecting strong demand, per-farm poultry inventories expanded, supported by lower input costs and higher farm prices (see Table 1). Despite this year’s growth, inventories are expected to remain flat in 2018 (for additional information, see [JA7113](#)). As a result of high market prices for beef and pork, reflecting solid demand, beef cattle and swine inventories were up slightly in February 2017. Like poultry, however, inventories are forecast to remain the same in 2018 (for additional information, see [JA7110](#)). While dairy cattle inventories have been trending down, and this trend is projected to continue in 2018, compound feed production for all livestock in Japan in MY2017/18 is forecast to remain largely unchanged (see Compound feed production by ingredients – Table 2).

Wheat

Wheat Production, Supply and Distribution

Wheat Market Begin Year	2015/2016		2016/2017		2017/2018	
	Jul 2015		Jul 2016		Jul 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	213	213	214	214	214	212
Beginning Stocks	1227	1227	1288	1288	1200	1210
Production	1004	1004	778	778	820	930
MY Imports	5715	5715	5911	5911	5800	5800
TY Imports	5715	5715	5911	5911	5800	5800
TY Imp. from U.S.	2592	2531	2858	2859	0	0
Total Supply	7946	7946	7977	7977	7820	7940
MY Exports	258	258	277	277	270	270
TY Exports	258	258	277	277	270	270
Feed and Residual	500	600	700	690	600	600
FSI Consumption	5900	5800	5800	5800	5800	5800
Total Consumption	6400	6400	6500	6490	6400	6400
Ending Stocks	1288	1288	1200	1210	1150	1270
Total Distribution	7946	7946	7977	7977	7820	7940
Yield	4.7136	4.7136	3.6355	3.6355	3.8318	4.3868

(1000 HA) ,(1000 MT) ,(MT/HA)

Production

According to MAFF's wheat planted area and production data for MY2017/18,¹ Japan's total planted area decreased one percent to 212,300 hectares (ha) (see Table 4). The planted area in Hokkaido and all other Prefectures decreased one percent to 121,600 ha and 90,700 ha, respectively, due to a shift in production to other crops. Despite the decrease in the planted area, production in Prefectures other than Hokkaido increased 30,400 MT (11 percent to 296,900 MT) as favorable growing conditions led to increased yields (12 percent to 3.3 MT/ha). Although MAFF has yet to publish Hokkaido data, production in the Prefecture is estimated to have increased roughly 20 percent to over 600,000 MT as a good harvest was reported in the major wheat production regions of Tokachi and Okhotsk. Accordingly, FAS Tokyo estimates total Japanese wheat production to be 930,000 MT in MY2017/18.

Consumption

Food wheat and wheat product consumption remained strong at 5.8 million MT in MY 2016/17. With no indication of any abatement, consumption is forecast to remain unchanged at 5.8 million MT in MY2017/18.

With regard to feed consumption, although wheat and wheat flour are minor ingredients in compound feed, their composition ratios increased to 1.9 percent and to 0.8 percent, respectively, in MY2016/17. This increase translated to an increase of approximately 92,000 MT (wheat-equivalent). As a result, the total quantity of wheat for feed (i.e., wheat, wheat-equivalent wheat flour in compound feed, and on-farm feed) is estimated at 690,000 MT (up 90,000 MT from MY2015/16). With the availability of competitively priced wheat from Black Sea countries and the United States (see Table 5), as well as domestic wheat (given that unfavorable weather led to higher than average off-grade wheat production), feed millers increased their use of wheat in compound feed.

However, wheat for feed use is forecast to return to 600,000 MT in MY2017/18 due to competition with other competitively priced feed ingredients such as corn and sorghum (see Chart 2) and an expectation of reduced availability of domestically produced feed-grade wheat. Accordingly, total wheat consumption is forecast to return to 6.4 million MT in MY2017/18.

Trade

Japan imports roughly 90 percent of the food wheat it consumes, of which imports from the United States account for nearly 50 percent. Following a decrease in food wheat imports in MY2015/16 due to a record harvest in Japan, food wheat imports rebounded to 5.3 million MT in MY2016/17, up 3.6 percent. Imports from the United States increased 10 percent while imports from Canada decreased 5.6 percent (mainly due to the price competitiveness of U.S. Dark Northern Spring compared to Canadian Western Red Spring #1 – see Chart 3). However, food wheat imports are forecast to decrease 100,000

¹ The marketing year for wheat is July – June.

MT (to 5.2 million MT) in MY2017/18 due to an anticipated increase in domestic production.

Pasta accounts for the majority of Japanese wheat product imports, and imports of pasta have been trending upwards over the last decade (see Chart 4). Pasta imports from Turkey have grown significantly due to Turkey's price competitiveness (coupled with the establishment of a Japanese pasta factory in Turkey in 2015 which shifted pasta production from Japan to Turkey). Pasta imports are forecast to increase in the future when the Japan-EU Economic Partnership Agreement comes into effect (which will reduce the tariff on pasta from EU countries, including Italy, which supplies over 40 percent of Japan's pasta imports).

Reflecting strong feed demand supported by lower prices, feed wheat imports increased 3.7 percent to 371,573MT in MY2016/17. Due to the expected reduction of wheat in feed use, however, feed wheat imports are forecast to decrease to 320,000 MT in MY2017/18. The decrease in feed wheat imports is forecasted to be partially offset by an increase in pasta imports in MY2017/18. Accordingly, total wheat imports are forecast to decrease 100,000 MT to 5.8 million MT in MY2017/18.

As wheat is a state traded item, MAFF imports wheat under three different systems: 1) general imports of five major classes of food wheat: Western White (WW), Hard Red Winter (HRW), Dark Northern Spring (DNS), Canada Western Red Spring #1 (1CW) and Australia Standard White (ASW), 2) Simultaneous Buy and Sell (SBS) imports of specific classes of food wheat (Category I for bulk shipment and Category II for container shipment), and 3) SBS imports of feed wheat (for additional information, see [JA7027](#)). Tender results for numbers 1), 2) and 3) are included in Table 6, 7, 8 and 9.

Increase in MAFF's sales price for five major classes of food wheat

To ensure domestic prices are reflective of international prices, MAFF revises the sales prices for the five major classes of food wheat twice a year (April-September and October-March). Following an average 4.6 percent increase for April-September 2017, MAFF raised its sales price for the five major classes for October 2016 – March 2017 by an average of 3.6 percent to 52,519 yen/MT (roughly \$468) to account for an increase in freight costs, a weaker Japanese Yen and concerns over production decreases in the United States and Australia. The average resale price of soft wheat (ASW and WW) and semi-hard and hard wheat (1CW, DNS and HRW) increased 8.2 percent to 50,200 yen/MT (roughly \$447) and 1.7 percent to 53,600 yen/MT (roughly \$478), respectively.

Establishment of new SBS Category III

In addition to the Category I and Category II SBS imports, MAFF established a new SBS import category, Category III, allowing up to 200,000 MT of any wheat class, in either bulk or containerized shipments, to be imported. MAFF indicated the purpose was to expand flexibilities for Japanese flour millers to allow for the purchase of diversified classes and specifications of wheat at competitive prices (for additional information, see [JA7081](#)). The first SBS tender for Category III is scheduled to be held

on October 17, 2017 for 100,000 MT of food wheat.

Stocks

As a contingency plan, the private sector holds a total of 930,000 MT of imported wheat, equivalent to 2.3 months of demand, in reserve, for which the Government of Japan (GOJ) subsidizes the storage costs for the amount equivalent to demand for 1.8 months. Together with operating stocks held by flour mills and feed mills, approximately 1.2 million MT of wheat is believed to be held in stocks in Japan.

Rice

Rice Production, Supply and Distribution

Rice, Milled Market Begin Year Japan	2015/2016		2016/2017		2017/2018	
	Nov 2015		Nov 2016		Nov 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1586	1584	1570	1569	1560	1560
Beginning Stocks	2821	2821	2532	2550	2372	2474
Milled Production	7670	7668	7780	7779	7600	7600
Rough Production	10536	10533	10687	10685	10440	10440
Milling Rate (.9999)	7280	7280	7280	7280	7280	7280
MY Imports	711	711	685	700	685	700
TY Imports	685	685	685	700	685	700
TY Imp. from U.S.	343	365	0	0	0	0
Total Supply	11202	11200	10997	11029	10657	10774
MY Exports	70	50	75	55	80	60
TY Exports	70	50	75	55	80	60
Consumption and Residual	8600	8600	8550	8500	8500	8450
Ending Stocks	2532	2550	2372	2474	2077	2264
Total Distribution	11202	11200	10997	11029	10657	10774
Yield (Rough)	6.6431	6.6496	6.807	6.8101	6.6923	6.6923

(1000 HA) ,(1000 MT) ,(MT/HA)

Note: the quantities of rice in this section are reported on a milled basis, unless otherwise noted.

Production

According to MAFF's rice planted area and production data, the planted area for table rice decreased 11,000 ha to 1.37 million ha in MY2017/18.² The number of grains is said to be similar to a normal year, but a lack of sunshine from late July into August negatively impacted grain ripening in the Kanto region and the Pacific side of the Tohoku region. Accordingly, the average yield for Japan is expected to fall 0.1 MT/ha (brown) from MY2016/17 to 5.34 MT/ha (brown). Based on the expected yield, MAFF estimates table rice production to be 6.65 million MT in MY2017/18, down 166,530 MT from MY2016/17. MAFF reports the planted area of feed rice to be 91,510 ha in MY2017/18, up 341 ha from MY2016/17. While MAFF has yet to publish the total rice planted area and production data for

² The marketing year for rice is November – October.

MY2017/18, FAS Tokyo estimates total rice planted area and the production to be 1.56 million ha and 7.6 million MT, respectively (see Table 13).

Under the rice acreage reduction program, MAFF set the table rice production target and allocated planting area to each Prefecture, providing a subsidy of 75,000 yen/ha (approximately \$670/ha) to those who comply with the planting area allocation. Beginning in April 2018, however, MAFF will discontinue the issuance of a planting area allocation and the subsidy for table rice. While high wholesale prices may encourage producers to produce more table rice, municipal governments and agricultural cooperatives are expected to continue setting production targets and guide producers to produce: 1) rice for use other than table rice and 2) other rotational crops supported by the continuation of conversion subsidies. Accordingly, a significant increase in table rice production is not expected in 2018 or beyond.

Consumption

Table rice consumption continues to decline in Japan, and table rice consumption is estimated to have decreased 100,100 MT to 6.87 million MT in 2016/17 (July 2016 – June 2017). A further decline to 6.84 million MT in 2017/18 (July 2017 – June 2018) is also expected. In accordance with declining table rice consumption, MAFF has incentivized production of feed rice, rice for processing and other crops to suppress table rice production and reduce private stocks. As a result, wholesale prices increased by 10 percent in 2015/16 (September – August) and 8.6 percent in 2016/17 (September – August) (see Chart 5). With a further reduction in table rice production in 2017/18, a further increase in the wholesale price is expected in 2017/18 (September – August).

The price increase in table rice and the production shift towards feed rice have greatly impacted the foodservice and home meal replacement sectors as reasonably priced rice has fallen into short supply. This, in turn, has increased market opportunities for imported rice. Nevertheless, there are growing concerns among industry sources that further price increases could negatively impact table rice consumption -- which is already trending down with Japan's population decline.

Rice continues to be used for feed in Japan (accounting for 5.1 percent of the compound feed composition), and a total of 1.42 million MT of rice (510,000 MT of domestic rice (brown), 700,000 MT (actual tonnage) of Ordinary Minimum Access (OMA) rice and 210,000 MT of GOJ reserve rice (brown)) is estimated to have been used for feed in JFY2016. Approximately 1.1 million MT of this rice was used for compound feed, while the remainder was used on-farm. Despite continued use for feed, the quantity of rice in the compound feed recipe has been declining since April 2017, with the composition ratio falling to 4.2 percent in July 2017 (attributable to reduced supplies of OMA rice and GOJ reserve rice for feed due to increased demand for processing). Competitive import prices for Distiller's Dried Grains with Solubles (DDGS) and corn are also believed to have contributed to the reduction of rice used in compound feed. Accordingly, rice for feed use is expected to fall slightly in MY2016/17.

In MY2017/18, however, an anticipated increase in the number of undersized grains is expected to reduce demand for OMA rice and GOJ reserve rice for processing allowing for a larger volume to be sold for feed. With the expected decrease in table rice consumption, overall rice consumption in Japan is still expected to decrease 100,000 MT to 8.5 million MT in MY2016/17 and is forecast to further decline to 8.45 million MT in MY2017/18.

Trade

As of October 6, 2017, three OMA tenders and one Simultaneous Buy and Sell (SBS) tender were held in JFY2017 (where 141,856 MT and 24,998 MT of rice (actual tonnage), respectively, were successfully bid (see Table 14). With strong demand for SBS rice as a result of high domestic table rice prices, Japan's 100,000 MT SBS quota is expected to be fully utilized this fiscal year, while increased demand may lead to increased competition among importers and, potentially, higher prices.

Following the prohibition of the exchange of "adjustment money" in December 2016 (for additional information, see [JA7005](#)), MAFF has again revised the administrative rules for the Simultaneous Buy and Sell (SBS) tendering system – this time to prohibit the sale, transfer, or hand-over of SBS imported rice between importers and buyers (for additional information, see [JA7120](#)). The revision is believed to have been made to prevent SBS rice from being distributed at prices lower than the government's intended prices.

With regard to exports, Japan shipped 40,000 MT (actual tonnage) of MA rice as food aid (see Table 15) and sold 9,528 MT (actual tonnage) of commercial rice in MY2015/16. In an effort to support Japanese agricultural production, MAFF has been promoting agricultural exports, including rice. While high prices may inhibit rapid export growth, commercial rice exports are expected to increase gradually in the coming years and food aid exports are expected to continue at similar levels to MY2015/16 in both MY2016/17 and MY2017/18.

Stocks

MAFF regularly maintains 828,100 MT of rice in reserve. An additional 640,000 MT (actual tonnage) of MA rice stocks were held (as of October 2016), of which 350,000 MT (actual tonnage) is set aside for the GOJ contingency feed grain reserve. As a result of the decline in table rice production, private stocks have decreased in 2016 and 2017. Accordingly, aggregated ending stocks are expected to total 2.4 million MT in MY2016/17, and are forecast to further decline to 2.2 million MT in MY2017/18 (given an anticipated decrease in production).

Corn

Corn Production, Supply and Distribution

Corn Market Begin Year Japan	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1	1	1	1	1	1
Beginning Stocks	1348	1348	1350	1351	1251	1302
Production	1	1	1	1	1	1
MY Imports	15201	15202	15000	15200	15000	15200
TY Imports	15201	15202	15000	15200	15000	15200
TY Imp. from U.S.	11227	10586	0	0	0	0
Total Supply	16550	16551	16351	16552	16252	16503
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	11600	11600	11500	11650	11500	11650
FSI Consumption	3600	3600	3600	3600	3600	3600
Total Consumption	15200	15200	15100	15250	15100	15250
Ending Stocks	1350	1351	1251	1302	1152	1253
Total Distribution	16550	16551	16351	16552	16252	16503
Yield	1	1	1	1	1	1

(1000 HA) ,(1000 MT) ,(MT/HA)

Production

Japanese corn production remains negligible, with a very small amount of corn produced in Hokkaido.

Consumption

Feed consumption is estimated to increase 50,000 MT to 11.65 million MT in MY2016/17³ as competitive corn prices continued to encourage feed millers to use higher volumes of corn in their feed production (in lieu of sorghum and rice). MY2017/18 feed consumption is forecast to remain 11.65 million MT, assuming prices remain unchanged. Food, Seed and Industrial (FSI) consumption is also expected to remain flat at 3.6 million MT in MY2016/17, and is forecast to remain unchanged in MY2017/18.

Trade

Reflecting strong demand for feed, MY2016/17 corn imports are expected to remain at 15.2 million MT. Despite a temporary slowdown of grain exports from Pacific North West ports in early 2017 due to severe winter weather, imports from the United States significantly increased in MY2016/17 (offsetting a reduction in imports from Brazil and Argentina) (see Table 16). A good U.S. corn crop over the last four consecutive years has led to competitive prices while exportable supplies from Brazil and Argentina decreased due to unfavorable weather. However, in an effort to diversify import sources, Japanese traders also imported corn from suppliers whose prices were lower than the price for U.S. corn (e.g., Russia and Ukraine) (see Chart 6). Reflecting solid feed demand and stable starch demand, MY2017/18 imports are forecast to remain 15.2 million MT, but import diversification is expected to be greater (particularly given favorable weather in Brazil and Argentina).

³ The marketing year for corn is October - September.

Stocks

The GOJ operates a feed grain reserve program to encourage the private sector to maintain 850,000 MT of corn, sorghum, wheat, barley, bran and soybean meal (corn is believed to account for the majority of the reserve). Together with operating stocks held by feed mills and starch manufacturers, approximately 1.25 million MT of corn is believed to be held in stocks in Japan.

DDGS

Japan's imports of DDGS, a high value byproduct of ethanol production, increased 17 percent to 460,000 MT for the first 11 months of MY2016/17 due to its competitive price (see Table 17). The import price for DDGS fell from US\$237.8/MT in MY2015/16 to US\$198.4/MT in August 2017, lower than the price for feed corn (see Chart 2). Increased utilization of DDGS in compound feed is expected to lower the utilization of both soybean meal and rice. The majority (approximately 66 percent) of Japan's imports of DDGS is used in compound feed for layers and chicks.

Barley

Barley Production, Supply and Distribution

Barley Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Japan						
Area Harvested	61	61	61	61	61	61
Beginning Stocks	360	360	352	332	314	292
Production	177	177	172	170	172	183
MY Imports	1155	1155	1200	1190	1100	1150
TY Imports	1154	1155	1200	1190	1100	1150
TY Imp. from U.S.	7	6	0	0	0	0
Total Supply	1692	1692	1724	1692	1586	1625
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	980	980	1030	1000	950	960
FSI Consumption	360	380	380	400	380	410
Total Consumption	1340	1360	1410	1400	1330	1370
Ending Stocks	352	332	314	292	256	255
Total Distribution	1692	1692	1724	1692	1586	1625
Yield	2.9016	2.9016	2.8197	2.7869	2.8197	3

(1000 HA) ,(1000 MT) ,(MT/HA)

Production

According to MAFF's barley planted area and production data for the 2017 crop (excluding production in Hokkaido), Japan's total planted area decreased marginally to 61,370 ha in MY2017/18.⁴ An

⁴ The marketing year for barley is October – September.

increase of 100 ha in the planted area of two-row barley was offset by decreases of 100 ha of six row barley and 20 ha of naked barley. MAFF has yet to publish the production data for Hokkaido, whose production accounts for three percent of Japan's total barley production.

The production of two-row barley (see Table 18) in Prefectures other than Hokkaido increased 12 percent to 112,000MT as a result of a 12 percent yield increase stemming from favorable weather and growing conditions. The national production of six row barley (see Table 19) decreased four percent to 51,200 MT as the number of ears were smaller due to poor germination caused by rains during sowing in the main production region of Hokuriku (i.e., Northwest Honshu). Additionally, although the planting area was down, production of naked barley (see Table 20) in Prefectures other than Hokkaido increased 27 percent to 12,600 MT as a result of favorable weather which increased yields by 28 percent. Accordingly, total barley production (see Table 21) is estimated at approximately 183,000 MT in MY2017/18, up 13,000 MT from MY2016/17.

Consumption

MY2016/17 feed consumption is expected to increase slightly to one million MT as barley utilization in compound feed, supported by low import prices, showed a marginal increase in the first 10 months of MY2016/17. However, as explained in the trade section below, an anticipated increase in feed barley prices is expected to lead to a decrease in feed consumption (lowering consumption to 960,000 MT) in MY2017/18.

Beta-glucan rich glutinous food barley has become popular because of its reported health benefit of lowering cholesterol. Demand for glutinous barley is estimated to have rapidly increased in MY2016/17 (to 15,000 MT), and is expected to increase by another 11,000 MT to 26,000 MY in MY2017/18. The increase in demand provides opportunities to foreign barley suppliers as only 1,000 MT is expected to be produced domestically (the remaining 25,000 MT is expected to be imported). Other food, seed and industrial barley consumption is expected to remain unchanged.

Trade

Similar to wheat, as a state traded item, MAFF controls barley imports. All food and feed barley are imported under Japan's SBS import system except feed barley from Australia (which is imported by the private sector as a result of provisions established in the Japan-Australia Economic Partnership Agreement). Year-to-date SBS tender results for barley are shown in Table 22, 23 and 24.

There was a six percent drop in the average price of imported feed barley in the first 11 months of MY2016/17, when compared to the same period during the previous year (see Table 25), as Australia's crop was strong. However, despite the price decrease, feed barley imports in MY2016/17 are estimated to marginally increase to 940,000MT as cattle inventories remain relatively unchanged. While feed demand is forecast to remain stable in MY2017/18, feed barley imports are projected to decrease because of an expected price increase for Australian barley due to dry and hot conditions adversely affecting exportable supplies.

Reflecting strong demand for glutinous food barley, food barley imports have grown seven percent in the first 11 months of MY2016/17 (when compared to the same period last year) (see Table 27). While imports from Australia account for the majority of food barley imports, supplies from Canada and the United States have recently increased. U.S. imports have grown significantly given increased demand for beta-glucan “waxy barley” (see Tables 22, 27). Consequently, MY2016/17 food barley imports are expected to increase to 250,000 MT. Accordingly, total barley imports are expected to increase to 1.19 million MT in MY2016/17. While food barley demand is forecast to remain strong in MY2017/18, total barley imports are forecast to decline to 1.15 million MT as demand for barley for feed is expected to decline on higher prices.

Stocks

Barley is part of Japan’s contingency feed grain reserve program. However, as corn is believed to account for the majority of the reserve, barley stocks in this program are believed to be negligible. Nevertheless, feed mills and food barley manufacturers are believed to maintain some operating stocks in their inventories.

Sorghum

Sorghum Production, Supply and Distribution

Sorghum Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	53	53	52	53	52	53
Production	0	0	0	0	0	0
MY Imports	649	650	600	560	550	460
TY Imports	649	650	600	560	550	460
TY Imp. from U.S.	82	72	0	0	0	0
Total Supply	702	703	652	613	602	513
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	650	650	600	560	550	470
FSI Consumption	0	0	0	0	0	1
Total Consumption	650	650	600	560	550	471
Ending Stocks	52	53	52	53	52	42
Total Distribution	702	703	652	613	602	513
Yield	0	0	0	0	0	0
(1000 HA) ,(1000 MT) ,(MT/HA)						

Production

Production of sorghum remains negligible in Japan.

Consumption

Nearly all imported sorghum is consumed as feed in Japan, as it is mainly used as a substitute for corn in compound feed. The utilization of sorghum in compound feed decreased approximately 100,000 MT in the first 10 months of MY2016/17⁵ from the same period during the previous year due to corn's price competitiveness. Accordingly, MY2016/17 consumption is forecasted to decline to 560,000 MT. MY2017/18 consumption is forecast to further decrease to roughly 470,000 MT assuming a continuation of competitively priced corn.

While it is still small, food sorghum has found a market niche in Japan in recent years with the increasing popularity of gluten free foods, "super foods" and multigrain foods (*Zakkoku*). Industry sources believe that approximately 500 MT of food sorghum was consumed in MY2016/17, and that consumption is expected to increase in MY2017/18.

Trade

MY2016/17 sorghum imports are expected to decrease to 560,000 MT due to corn's price competitiveness. Since MY2013/14, supplies from Argentina and the United States have accounted for nearly all of Japan's sorghum imports. The U.S. market share increased at Argentina's expense in MY2016/17 due to increased availability and price competitiveness (see Chart 7). Nevertheless, with a decline in demand for sorghum for feed, in favor of corn, MY2017/18 imports are forecast to further decrease to 460,000MT.

Stocks

Sorghum is included in Japan's contingency feed grain reserve program. However, as corn is believed to account for the lion's share of the reserve, sorghum stocks for this program are believed to be negligible. Operating stocks at feed mills are estimated at approximately 50,000 MT in MY2016/17, but are expected to decrease to 42,000 MT in accordance with a decline in monthly use.

⁵ The marketing year for sorghum is October – September.

Table 1. Japanese Livestock Inventories (1,000 heads)

	2013	2014	2015	2016	2017	2017/16
Dairy cows and heifers	1,423	1,395	1,371	1,345	1,323	-1.6%
*Beef cattle	2,642	2,567	2,489	2,479	2,499	0.8%
Swine	9,685	9,537	NA	9,313	9,346	0.4%
Chicks and Layers	174,784	174,806	NA	173,349	176,366	1.7%
Broilers	131,600	135,747	NA	134,395	134,923	0.4%

Source: MAFF (as of February each year)

*Beef cattle include beef breeds, dairy steer, F1 steer and F1 heifer

Table 2. Japanese Compound Feed Production (MT)

MY	Corn	Sorghum	Wheat	Wheat Flour	Barley	Rice	Other Grains	DDGS	Soybean Meal	Rapeseed Meal	Other Ingredients	TOTAL
2006/07	11,968,822 49.0%	1,207,666 4.9%	95,022 0.4%	128,407 0.5%	841,067 3.4%	501,410 2.1%	339,008 1.4%	- 0.0%	3,403,270 13.9%	905,696 3.7%	5,059,301 20.7%	24,449,669 100%
2007/08	12,151,595 49.2%	1,061,836 4.3%	99,070 0.4%	140,704 0.6%	864,290 3.5%	604,450 2.4%	247,691 1.0%	- 0.0%	3,363,196 13.6%	954,442 3.9%	5,187,245 21.0%	24,674,519 100%
2008/09	12,032,218 48.7%	1,599,366 6.5%	131,179 0.5%	142,216 0.6%	886,989 3.6%	240,408 1.0%	196,327 0.8%	- 0.0%	3,292,571 13.3%	1,024,726 4.1%	5,157,186 20.9%	24,703,186 100%
2009/10	11,663,020 47.3%	1,605,491 6.5%	203,985 0.8%	133,065 0.5%	904,803 3.7%	396,061 1.6%	230,738 0.9%	96,210 0.4%	3,428,260 13.9%	1,032,870 4.2%	4,977,265 20.2%	24,671,768 100%
2010/11	11,287,696 46.5%	1,380,159 5.7%	245,857 1.0%	145,289 0.6%	889,928 3.7%	537,274 2.2%	245,270 1.0%	284,154 1.2%	3,326,471 13.7%	1,020,434 4.2%	4,892,547 20.2%	24,255,079 100%
2011/12	10,688,501 44.0%	1,461,639 6.0%	732,039 3.0%	152,292 0.6%	882,497 3.6%	589,640 2.4%	191,402 0.8%	400,836 1.7%	3,178,883 13.1%	1,095,688 4.5%	4,897,908 20.2%	24,271,325 100%
2012/13	10,154,181 42.2%	1,856,711 7.1%	942,885 3.9%	176,433 0.7%	910,896 3.8%	397,406 1.7%	169,561 0.7%	443,993 1.8%	2,862,672 11.9%	1,183,477 4.9%	4,943,907 20.6%	24,042,122 100%
2013/14	10,794,681 45.5%	1,006,553 4.2%	649,448 2.7%	160,815 0.7%	870,127 3.7%	732,983 3.1%	151,688 0.6%	512,652 2.2%	2,827,948 11.9%	1,143,199 4.8%	4,860,209 20.5%	23,710,303 100%
2014/15	10,530,414 45.0%	901,173 3.9%	366,510 1.6%	161,019 0.7%	805,315 3.4%	1,172,993 5.0%	148,034 0.6%	476,786 2.0%	2,848,515 12.2%	1,196,650 5.1%	4,773,182 20.4%	23,380,591 100.0%
2015/16	10,868,266 46.1%	650,398 2.8%	398,723 1.7%	177,880 0.8%	798,662 3.4%	1,206,845 5.1%	136,642 0.6%	405,308 1.7%	3,018,163 12.8%	1,115,233 4.7%	4,784,547 20.3%	23,560,667 100%
2016 Oct	911,098 46.0%	49,052 2.5%	38,259 1.9%	16,037 0.8%	67,405 3.4%	102,301 5.2%	10,921 0.6%	38,006 1.9%	248,878 12.6%	99,961 5.0%	397,662 20.1%	1,979,580 100%
Nov	941,827 45.8%	50,530 2.5%	39,007 1.9%	16,200 0.8%	69,918 3.4%	106,641 5.2%	12,248 0.6%	39,746 1.9%	265,849 12.9%	105,197 5.1%	409,056 19.9%	2,056,219 100%
Dec	1,025,589 46.1%	53,806 2.4%	41,842 1.9%	17,588 0.8%	75,929 3.4%	109,553 4.9%	12,036 0.5%	44,144 2.0%	274,121 12.3%	114,811 5.2%	453,394 20.4%	2,222,813 100%
2017 Jan	870,483 46.1%	44,985 2.4%	36,693 1.9%	14,424 0.8%	63,717 3.4%	97,807 5.2%	10,844 0.6%	39,500 2.1%	232,768 12.3%	97,721 5.2%	378,498 20.1%	1,887,440 100%
Feb	845,052 45.9%	41,787 2.3%	35,379 1.9%	14,474 0.8%	63,368 3.4%	97,869 5.3%	10,866 0.6%	39,125 2.1%	225,244 12.2%	95,785 5.2%	373,852 20.3%	1,842,801 100%
Mar	952,403 45.7%	47,606 2.3%	38,893 1.9%	16,928 0.8%	71,813 3.4%	112,195 5.4%	12,813 0.6%	43,453 2.1%	252,012 12.1%	108,937 5.2%	428,887 20.6%	2,085,940 100%
Apr	894,195 46.4%	42,560 2.2%	35,711 1.9%	16,646 0.9%	67,403 3.5%	85,254 4.4%	11,313 0.6%	41,364 2.1%	234,934 12.2%	97,649 5.1%	400,630 20.8%	1,927,659 100%
May	944,436 46.9%	43,839 2.2%	38,683 1.9%	17,295 0.9%	69,833 3.5%	83,629 4.2%	11,448 0.6%	44,123 2.2%	247,008 12.3%	100,307 5.0%	413,024 20.5%	2,013,625 100%
June	906,491 46.8%	42,196 2.2%	37,466 1.9%	16,790 0.9%	68,076 3.5%	77,263 4.0%	11,624 0.6%	42,429 2.2%	236,496 12.2%	95,962 5.0%	402,508 20.8%	1,937,301 100%
July	864,682 46.6%	39,619 2.1%	36,081 1.9%	16,596 0.9%	65,930 3.6%	78,094 4.2%	10,694 0.6%	41,789 2.3%	229,146 12.3%	88,702 4.8%	384,235 20.7%	1,855,568 100%
Oct-July	9,156,260 46.2%	455,980 2.3%	378,014 1.9%	162,978 0.8%	683,392 3.4%	950,606 4.8%	114,807 0.6%	413,679 2.1%	2,446,457 12.4%	1,005,032 5.1%	4,041,748 20.4%	19,808,955 100%

Source: MAFF

MY: October - September

Table 4. Japanese Wheat Production

	Total			Hokkaido			Prefectures		
	Planted Area	Production	Yield	Planted Area	Production	Yield	Planted Area	Production	Yield
	(ha)	(MT)	(MT/ha)	(hectares)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)
2010	206,900	571,300	2.8	116,300	349,400	3.0	90,600	221,900	2.4
2011	211,500	746,300	3.5	119,200	499,900	4.2	92,300	246,400	2.7
2012	209,200	857,800	4.1	119,200	586,100	4.9	90,100	271,700	3.0
2013	210,200	811,700	3.9	122,000	531,900	4.4	88,100	279,800	3.2
2014	212,600	852,400	4.0	123,400	551,400	4.5	89,200	301,000	3.4
2015	213,100	1,004,000	4.7	122,600	731,000	6.0	90,500	273,200	3.0
2016	214,400	777,900	3.6	122,900	524,300	4.3	91,500	266,500	2.9
2017	212,300	*930,000	*4.4	121,600	*633,100	*5.2	90,700	296,900	3.3

Source: MAFF

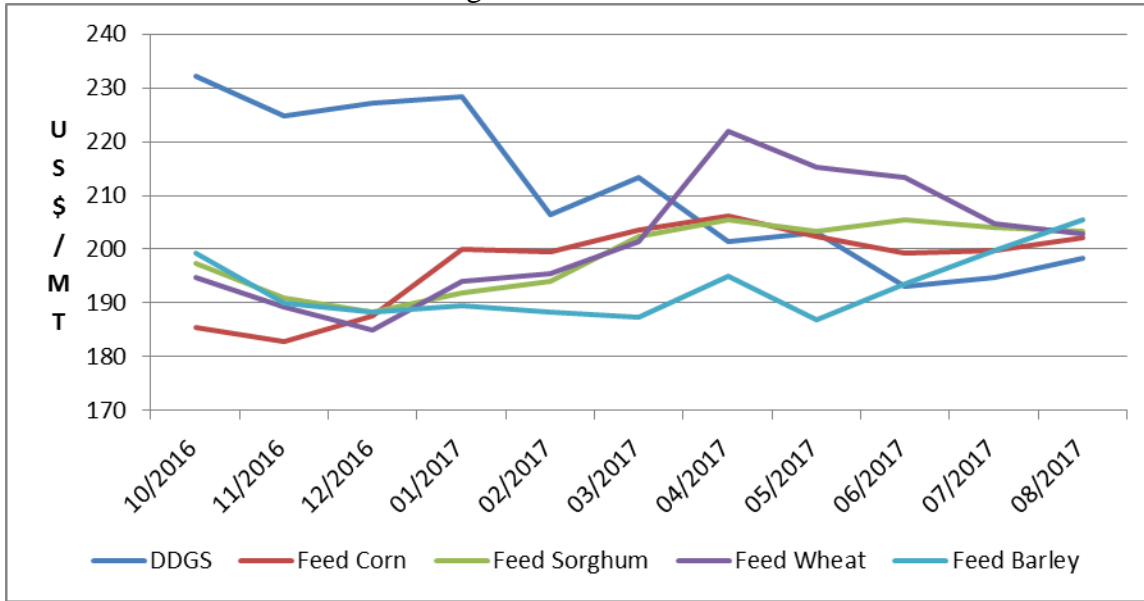
*FAS Tokyo estimates

Table 5. CIF Price of Feed Wheat

Year Ending: June				
Partner Country	Unit Value(United States Dollars)			% Change
	2015	2016	2017	2017/2016
World	271.03	216.94	202.4	- 6.70
United States	282.89	228.41	216.2	- 5.34
Romania	271.01	222.55	200.87	- 9.74
Ukraine	0	217.68	192.08	- 11.76
Russia	246.61	219.26	188.14	- 14.19
United Kingdom	235.41	216.58	217.96	0.64
Canada	263.25	208.32	192.68	- 7.51
Germany	0	234.17	0	0.00
Latvia	270.76	0	0	0.00
Moldova	243.64	0	0	0.00

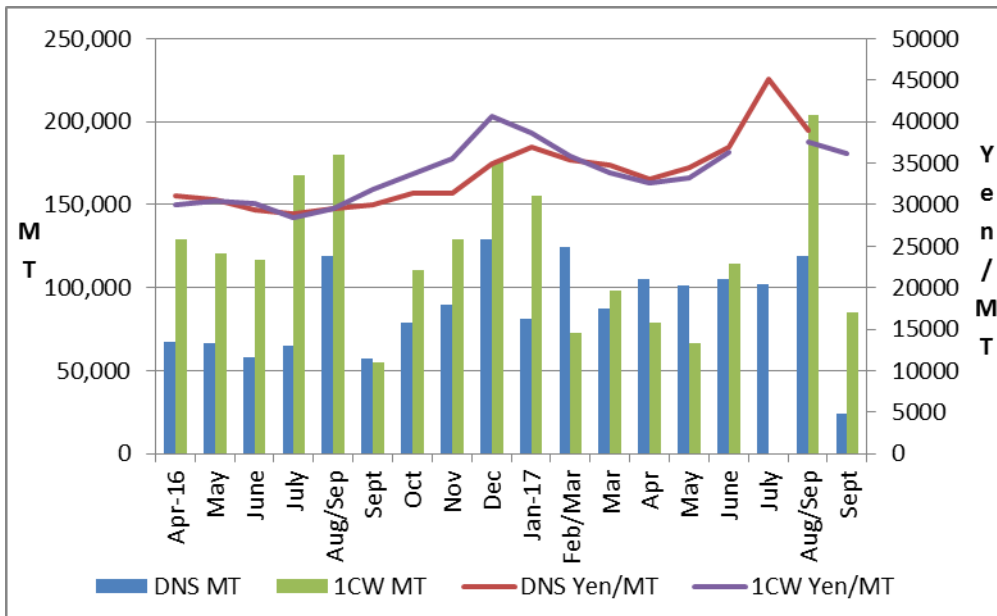
Source: Global Trade Atlas

Chart 2. CIF Unit Prices for Feed Ingredients



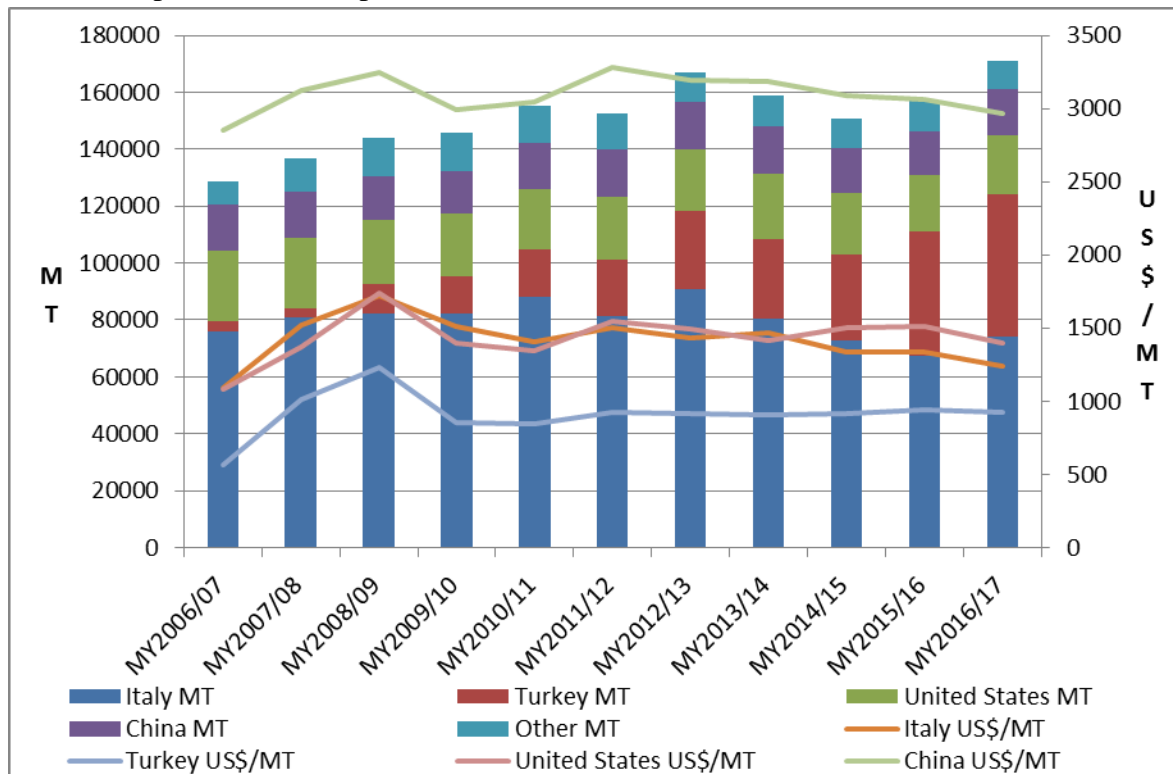
Source: Global Trade Atlas

Chart 3. Tender Results for DNS and 1CW



Source: MAFF

Chart 4. Japanese Pasta Imports and CIF Unit Price



Source: Global Trade Atlas

Table 6. Tender Results for General Imports of Food Wheat

Class	JFY2013	JFY2014	JFY2015	JFY2016	*JFY2017
U.S. Western White (WW)	640,307	718,922	689,057	654,923	342,200
U.S. Hard Red Winter (HRW)	836,456	739,979	790,309	839,616	393,555
U.S. Dark Northern Spring (DNS)	1,001,600	1,029,194	841,648	1,023,734	556,544
Canada Western Red Spring #1 (1CW)	1,401,434	1,118,383	1,470,557	1,510,343	549,441
Australia Standard White (ASW)	790,933	752,241	860,705	595,020	411,335
Total	4,670,730	4,358,719	4,652,276	4,623,636	2,253,075

Source: MAFF

*April – September 2017

Table 7. SBS Tender Results for Food Wheat

Country	Category	JFY2013	JFY2014	JFY2015	JFY2016	JFY2017 Apr-Sep
Australia	Category I	78,520	59,650	90,200	80,800	33,480
	Category II	7,394	9,598	7,017	3,358	1,800
	Australia Total	85,914	69,248	97,217	84,158	35,280
Canada	Category I	223,611	195,998	202,440	198,900	85,970
	Category II		0	0	750	810
	Canada Total	223,611	195,998	202,440	199,650	86,780
USA	Category I				10,100	5,000
	Category II					3,043
	USA Total					8,043
France	Category II	5,869	6,300	6,739	7,071	4,244
Total		315,394	271,546	306,396	290,879	134,347

Source: MAFF

Table 8. Food Wheat Imports by Class (1,000MT)

		JFY2011	JFY2012	JFY2013	JFY2014	JFY2015
USA	Western White	867	820	610	775	683
	Hard Red Winter	880	980	727	855	790
	Dark Northern Spring	1,507	1,246	877	1,245	850
	Durum	3		1	1	3
	White Club			25		
	Soft Red Winter			2		
Canada	Western Red Spring	1,049	1,037	1,228	1,258	1,527
	Durum	272	170	210	222	219
	Hard White	1	1	3	3	1
Australia	Standard White	911	870	759	794	737
	Prime Hard	122	101	83	83	84
	Australian Premium White			2		28
Other		4	4	6	7	7
Total		5,616	5,229	4,533	5,243	4,929

Source: MAFF

JFY2015 is the latest available data.

Table 9. Tender Results for Feed Wheat

JFY2014	JFY2015	JFY2016	*JFY2017
380,180	303,588	348,263	146,479

Source: MAFF

*April – September 2017

Table 10. Japanese Total Wheat Imports

Year Ending: June								
Partner Country	Unit	Quantity			% Share			% Change 2017/2016
		2015	2016	2017	2015	2016	2017	
World	T	5647685	5475059	5650130	100.00	100.00	100.00	3.20
United States	T	2990593	2504158	2829184	52.95	45.74	50.07	12.98
Canada	T	1660459	1812742	1678232	29.40	33.11	29.70	- 7.42
Australia	T	909316	876109	945460	16.10	16.00	16.73	7.92
Romania	T	28520	8093	56938	0.50	0.15	1.01	603.55
Ukraine	T	0	156177	54101	0.00	2.85	0.96	- 65.36
Russia	T	1307	9662	47993	0.02	0.18	0.85	396.72
United Kingdom	T	34320	84501	30834	0.61	1.54	0.55	- 63.51
France	T	5975	6738	7253	0.11	0.12	0.13	7.64
Other	T	17195	16879	135	0.0	0.0	0.0	0

Source: Global Trade Atlas

Table 11. Japanese Wheat Products Imports

Year Ending: June								
Partner Country	Unit	Quantity			% Share			% Change 2017/2016
		2015	2016	2017	2015	2016	2017	
World	T	168160	175353	190718	100.00	100.00	100.00	8.76
Italy	T	74667	69628	76779	44.40	39.71	40.26	10.27
Turkey	T	30510	43590	50199	18.14	24.86	26.32	15.16
United States	T	21516	19816	20968	12.79	11.30	10.99	5.81
China	T	17262	15884	16457	10.27	9.06	8.63	3.61
Korea South	T	5666	5813	6778	3.37	3.31	3.55	16.61
Thailand	T	6324	6681	5973	3.76	3.81	3.13	- 10.59
Greece	T	2686	3450	3597	1.60	1.97	1.89	4.26
Vietnam	T	2368	2731	3296	1.41	1.56	1.73	20.68
Other	T	7158	7758	6673	0.0	0.0	0.0	0

Source: Global Trade Atlas

Table 12. Japanese Total Wheat and Wheat Products Imports

	MY2014/15	MY2015/16	MY2016/17
1. Wheat	5,647,685	5,475,059	5,650,130
2. Wheat products	168,160	175,353	190,718
3. Wheat equivalent of wheat products	230,043	239,883	260,902
Total 1. + 3.	5,877,728	5,714,942	5,911,032

Source: FAS Tokyo

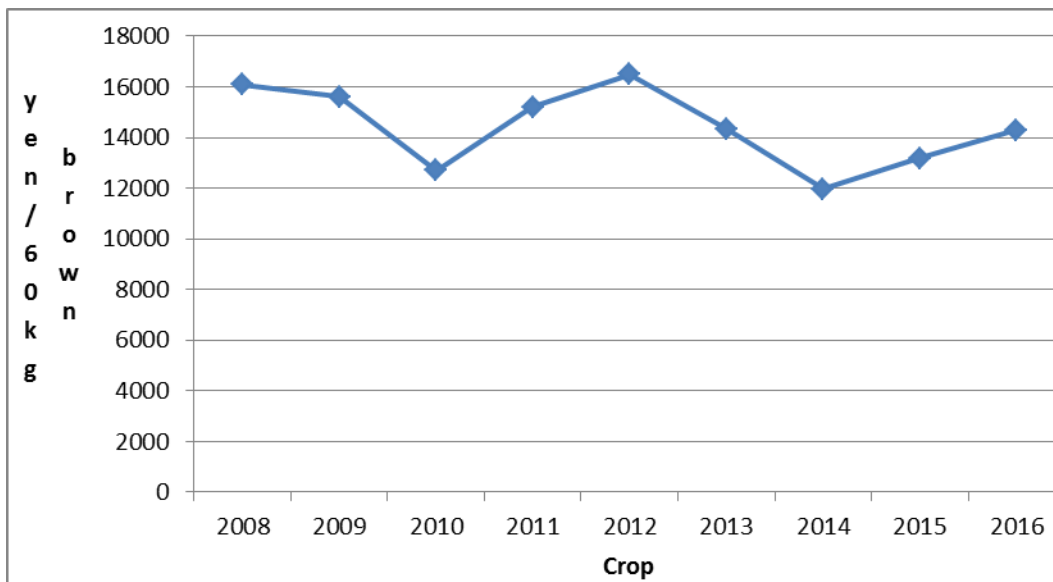
Table 13. Japanese Rice Production

	Planted Area (ha)	Production		Yield (MT/ha)	
		Brown	Milled	Brown	Milled
2010	1,639,883	8,546,011	7,776,870	5.21	4.74
2011	1,607,955	8,557,900	7,787,689	5.32	4.84
2012	1,613,525	8,685,537	7,903,839	5.38	4.90
2013	1,618,802	8,711,576	7,927,534	5.38	4.90
2014	1,606,881	8,621,564	7,845,623	5.37	4.88
2015	1,584,766	8,426,099	7,667,750	5.32	4.84
2016	1,569,169	8,547,998	7,778,678	5.45	4.96
*2017	1,560,000	8,330,400	7,580,664	5.34	4.86

Source: MAFF

*FAS Tokyo estimate

Chart 5. Wholesale Price of Table Rice



Source: MAFF

Table 14. OMA and SBS tender results (MT)

		JFY2012	JFY2013	JFY2014	JFY2015	JFY2016	*JFY2017
USA	SBS	40,974	20,046	3,804	19,909	56,438	17,744
	OMA	281,000	300,000	316,000	300,000	266,000	64,000
	Total	321,974	320,046	319,804	319,909	322,438	81,744
	Share	47.4%	47.1%	47.2%	47.2%	51.5%	49.0%
Thailand	SBS	4,870	11,173	5,596	6,276	6,283	440
	OMA	245,564	300,933	290,174	299,458	286,679	65,856
	Total	250,434	312,106	295,770	305,734	292,962	66,296
	Share	36.9%	45.9%	43.6%	45.1%	46.8%	39.7%
Australia	SBS	23,873	26,244	559	1,285	6,861	5,814
	OMA	35,000	12,000	12,000	-	-	12,000
	Total	58,873	38,244	12,559	1,285	6,861	17,814
	Share	8.7%	5.6%	1.9%	0.2%	1.1%	10.7%
China	SBS	28,164	714	780	736	2,396	1,000
	OMA	13,000	-	48,000	49,000	-	-
	Total	41,164	714	48,780	49,736	2,396	1,000
	Share	6.1%	0.1%	7.2%	7.3%	0.4%	0.6%
Other	SBS	2,119	2,662	867	1,109	1,336	-
	OMA	5,000	6,000	-	-	-	-
	Total	7,119	8,662	867	1,109	1,336	-
	Share	1.0%	1.3%	0.1%	0.2%	0.2%	0.0%
Total	SBS	100,000	60,839	11,606	29,315	73,314	24,998
	OMA	579,564	618,933	666,174	648,458	552,679	141,856
	Total	679,564	679,772	677,780	677,773	625,993	166,854

Source: MAFF

*JFY2017 as of October 6, 2017

Table 15. OMA Rice Sales

	MY2011/12	MY2012/13	MY2013/14	MY2014/15	MY2015/16
For table rice	80,000	100,000	40,000	10,000	10,000
For processing	150,000	190,000	150,000	100,000	130,000
For feed	450,000	330,000	440,000	650,000	700,000
For food aid	190,000	100,000	40,000	60,000	40,000
Ending stock	780,000	800,000	830,000	710,000	640,000

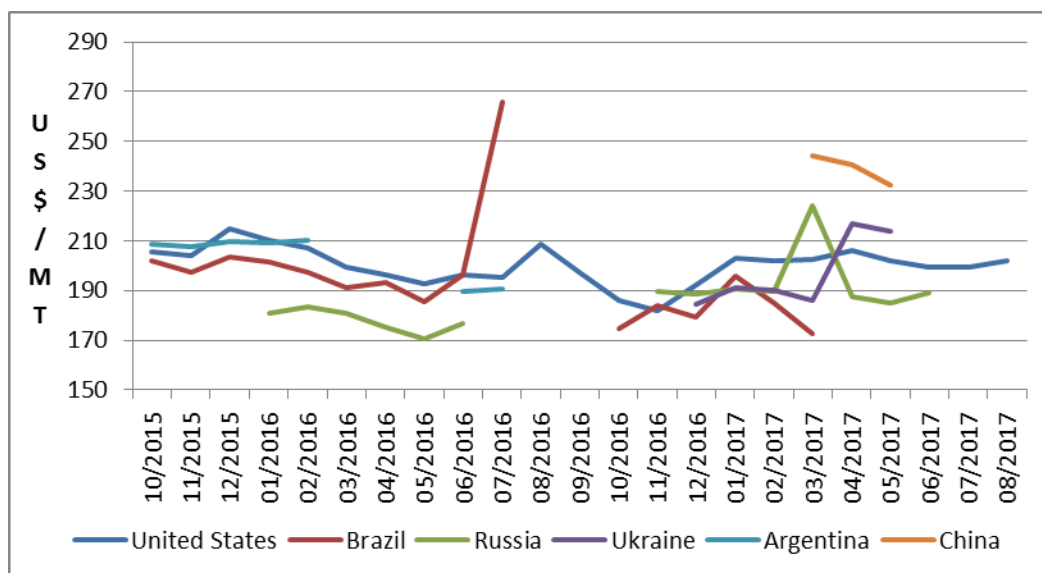
Source: MAFF

Table 16. Japanese Total Corn Imports

	Quantity (MT)				Share (%)				Change Oct-Aug
	MY2014/15	MY2015/16	Oct 2015-Aug 2016	Oct 2016-Aug 2017	MY2014/15	MY2015/16	Oct 2015-Aug 2016	Oct 2016-Aug 2017	
World	14654913	15202376	13875791	13863700	100.00	100.00	100.00	100.00	-0.09
United States	12638597	10585567	9259635	12429082	86.24	69.63	66.73	89.65	34.23
Brazil	1338540	4483494	4483494	841643	9.13	29.49	32.31	6.07	-81.23
Argentina	118247	75633	75633	10999	0.81	0.50	0.55	0.08	-85.46
Ukraine	390945	35142	35142	215163	2.67	0.23	0.25	1.55	512.27
Russia	0	13142	13142	309911	0.00	0.09	0.09	2.24	2258.17
Other	168584	9398	8745	56902	1.15	0.06	0.06	0.41	550.68

Source: Global Trade Atlas

Chart 6. CIF Unit Price of Feed Corn



Source: Global Trade Atlas

Table 17. Japanese DDGS Imports

	MY2014/15	MY2015/16	Oct 2015-Aug 2016	Oct 2016-Aug 2017	Change Oct - Aug
World	463407	442381	395294	463245	17.19
United States	440542	425865	380071	448453	17.99
China	12434	7769	7197	7185	-0.17
Canada	7477	6720	6091	5256	-13.71
Vietnam	1597	1238	1166	1222	4.80
Australia	649	631	631	545	-13.63
Cambodia	0	142	122	584	378.69
Other	708	16	16	0	-100.00

Source: Global Trade Atlas

Table 18. Japanese Two Row Barley Production

	Total			Hokkaido			Prefectures		
	Planted Area	Production	Yield	Planted Area	Production	Yield	Planted Area	Production	Yield
	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)
2010	36,600	104,300	2.8	2,110	5,560	2.6	34,500	98,700	2.9
2011	37,600	119,100	3.2	2,030	5,890	2.9	35,600	113,200	3.2
2012	38,300	112,400	2.9	1,990	6,710	3.4	36,300	105,600	2.9
2013	37,500	116,600	3.1	1,740	5,080	2.9	35,700	111,500	3.1
2014	37,600	108,200	2.9	1,740	5,880	3.4	35,800	102,400	2.9
2015	37,900	113,300	3.0	1,640	6,510	4.0	36,300	106,800	2.9
2016	38,200	106,800	2.8	1,690	6,720	4.0	36,500	100,100	2.7
2017	38,300	*119000	3.1	1,720	*6800	4.0	36,600	112,200	3.1

Source: MAFF

*FAS Tokyo estimates

Table 19. Japanese Six Row Barley Production

	Total			Hokkaido			Prefectures		
	Planted Area	Production	Yield	Planted Area	Production	Yield	Planted Area	Production	Yield
	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)
2010	17,400	44,800	2.6	0	0		17,400	44,800	2.6
2011	17,100	38,700	2.3	0	0		17,100	38,700	2.3
2012	16,900	47,800	2.8	0	0		16,900	47,800	2.8
2013	17,300	51,500	3.0	0	0		17,300	51,500	3.0
2014	18,200	47,000	2.6	0	0		18,200	47,000	2.6
2015	18,200	52,300	2.9	0	0		18,200	52,300	2.9
2016	18,200	53,600	2.9	0	0		18,200	53,600	2.9
2017	18,100	51,200	2.8	0	0		18,100	51,200	2.8

Source: MAFF

*FAS Tokyo estimates

Table 20. Japanese Naked Barley Production

	Total			Hokkaido			Prefectures		
	Planted Area	Production	Yield	Planted Area	Production	Yield	Planted Area	Production	Yield
	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)
2010	4,720	11,800	2.5	0	0		4,720	11,800	2.5
2011	5,130	13,700	2.7	0	0		5,130	13,700	2.7
2012	4,970	12,200	2.5	0	0		4,970	12,200	2.5
2013	5,010	14,700	2.9	4	0		5,010	14,700	2.9
2014	5,250	14,500	2.8	8	25	3.1	5,240	14,500	2.8
2015	5,200	11,300	2.2	12	44	3.7	5,180	11,300	2.2
2016	4,990	10,000	2.0	19	66	3.5	4,970	9,940	2.0
2017	4,970	*12,716	*2.6	34	*116	*3.4	4,940	12,600	2.6

Source: MAFF

*FAS Tokyo estimates

Table 21. Japanese Total Barley Production

	Total			Hokkaido			Prefectures		
	Planted Area	Production	Yield	Planted Area	Production	Yield	Planted Area	Production	Yield
	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)	(ha)	(MT)	(MT/ha)
2010	58,720	160,900	2.7	2,110	5,560	2.6	56,620	155,300	2.7
2011	59,830	171,500	2.9	2,030	5,890	2.9	57,830	165,600	2.9
2012	60,170	172,400	2.9	1,990	6,710	3.4	58,170	165,600	2.8
2013	59,810	182,800	3.1	1,744	5,080	2.9	58,010	177,700	3.1
2014	61,050	169,700	2.8	1,748	5,905	3.4	59,240	163,900	2.8
2015	61,300	176,900	2.9	1,652	6,554	4.0	59,680	170,400	2.9
2016	61,390	170,400	2.8	1,709	6,786	4.0	59,670	163,640	2.7
2017	61,370	*182,900	*3.0	1,754	*6,900	*3.9	59,640	176,000	3.0

Source: MAFF

*FAS Tokyo estimates

Table 22. SBS Tender Results for Food Barley

Food Barley		JFY2015		JFY2016		JFY2016
		Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep
USA	Category I					0
	Category II	1925	2280	5007	9036	13460
	USA Total	1925	2280	5007	9036	13460
Canada	Category I	16891	22130	14954	22600	17310
	Category II		1430	2998	2802	1851
	Canada Total	16891	23560	17952	25402	19161
Australia	Category I	60000	95000	60000	82800	56000
	Category II	2000			300	324
	Australia Total	62000	95000	60000	83100	56324
New Zealand	Category II					34
Other	Category II	642	20	60		0
Total		81458	120860	83019	117538	88979

Source: MAFF

Table 23. SBS Tender Results for Beer Barley

Beer barley		JFY2015		JFY2016		JFY2016
		Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep
Australia	Category I	5000	8000	0		0
	Category II		2500	8000		5000
Canada	Category I		4000	6000		0
	Category II			4000		3000
	Canada Total					0
France	Category II		2000			0
Not publicized	Category II					2000
Total		5000	16500	18000	0	10000

Source: MAFF

Table 24. SBS Tender Results for Feed Barley

JFY2014	JFY2015	JFY2016	*JFY2017
1,018,047	546,127	82,040	64,310

Source: MAFF

*As of September 27, 2017

Table 25. CIF Unit Price for Feed Barley Imports (US\$/MT)

MY2014/15	MY2015/16	Oct 2015- Aug 2016	Oct 2016- Aug 2017	Change Oct-Aug
255.4	204.77	205.3	192.5	-6.23

Source: Global Trade Atlas

Table 26. Japanese Feed Barley Imports (MT)

	MY2014/15	MY2015/16	Oct 2015- Aug 2016	Oct 2016- Aug 2017	Change Oct-Aug
World	895391	923980	836078	852023	1.91
Australia	148449	566195	483534	825232	70.67
Ukraine	33316	186049	186049	10233	-94.50
Russia	40548	40820	40820	16558	-59.44
United Kingdom	129566	37886	37886	0	-100.00
Romania	98927	37753	32512	0	-100.00
Hungary	32640	30026	30026	0	-100.00
Canada	143031	23531	23531	0	-100.00
Bulgaria	997	1720	1720	0	-100.00
Germany	183164	0			
Slovakia	1520	0			
United States	83233	0			

Source: Global Trade Atlas

Table 27. Japanese Food Barley Imports (MT)

	MY2014/15	MY2015/16	Oct 2015- Aug 2016	Oct 2016- Aug 2017	Change Oct - Aug
World	201591	230961	225661	242133	7.30
Australia	139675	174900	172858	159457	-7.75
Canada	55014	47656	44964	58356	29.78
United States	3903	6378	5812	22217	282.26
France	1991	2009	2009	1995	-0.70
United Kingdom	1008	18	18	101	461.11
Korea South	0	0	0	7	

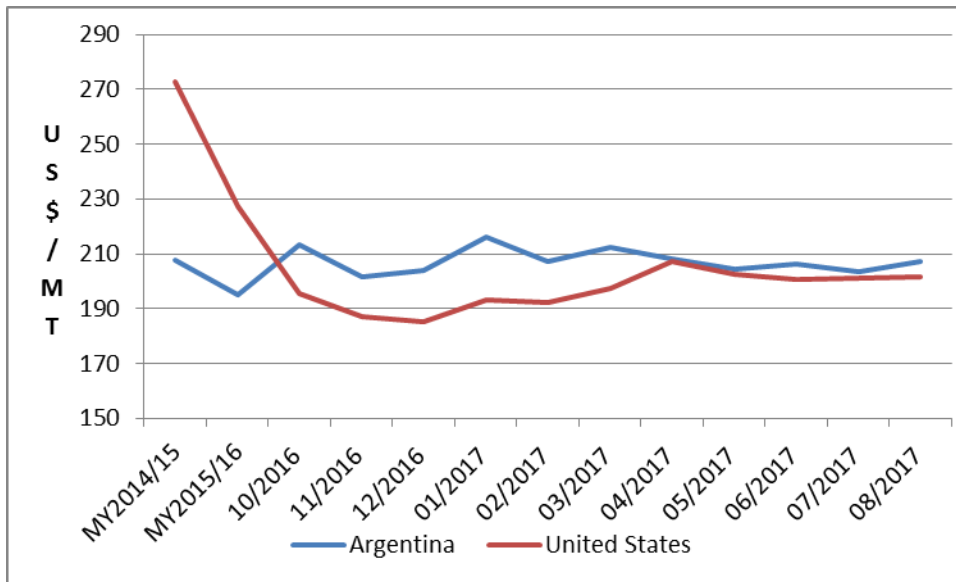
Source: Global Trade Atlas

Table 28. Japanese Total Sorghum Imports (MT)

	MY2014/15	MY2015/16	Oct 2015- Aug 2016	Oct 2016- Aug 2017	Change Oct-Aug
World	902138	649518	601606	522821	-13.10
Argentina	777424	575287	531627	309282	-41.82
United States	112590	71793	67649	205308	203.49
India	1191	1276	1189	809	-31.96
Australia	593	741	720	6952	865.56
Ukraine	264	350	350	174	-50.29
China	86	62	62	85	37.10
Belgium	0	9	9	3	-66.67
Brazil	9472	0	0	0	
Mexico	276	0	0	0	
Thailand	242	0	0	192	
France	0	0	0	16	

Source: Global Trade Atlas

Chart 7. CIF Unit Price for Sorghum Imports from Argentina and the United States



Source: Global Trade Atlas