

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Japan

### Grain and Feed Annual

#### 2017 Grain and Feed Annual

**Approved By:**

Christopher Riker

**Prepared By:**

Keiko Fujibayashi

**Report Highlights:**

Given the competitiveness of U.S. corn, wheat, and rice prices, Japanese demand for these grains has remained strong. However, exports from Pacific Northwest ports in the United States were slowed during the winter of 2016-2017 due to severe weather which led to corn and wheat supply shortages in Japan in early 2017. To meet the shortage, Japan used some emergency reserves of corn and wheat, and reportedly imported limited volumes of corn from China. Despite the temporary supply chain disruption, Japanese feed production is expected to remain stable. Additionally, as a result of favorable weather conditions, Japanese rice production increased to 7.8 million MT in MY2016/17.

**Commodities:**

Barley

Corn

Rice, Milled

Sorghum

Wheat

**Feed Production**

As a result of declining livestock inventories, Japanese compound feed production has remained below the 24 million MT mark since MY2013/14. As the number of aging farmers exiting from the livestock industry exceeds the number of new entrants, livestock inventories across Japan are gradually trending down. For MY2016/17, the decline in the total livestock inventory is expected to be minimal, and thus feed production is expected to remain relatively flat. Nevertheless, livestock inventories and feed production are forecast to resume their gradual decline in MY2017/18.

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

	2010	2011	2012	2013	2014	2015	2016	**2017	2017/16
Dairy cows and heifers	1,484	1,467	1,449	1,423	1,395	1,371	1,345	1,330	-1.1%
*Beef cattle	2,892	2,763	2,723	2,642	2,567	2,489	2,479	2,490	0.4%
Swine	9,750	9,768	9,735	9,685	9,537	NA	9,313	9,100	-2.3%
Chicks and Layers	NA	178,546	177,607	174,784	174,806	NA	175,733	175,800	0.0%
Broilers	NA	NA	NA	131,600	135,747	NA	134,395	134,400	0.0%

Source: MAFF (as of February each year)

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

\*\*FAS Tokyo estimate

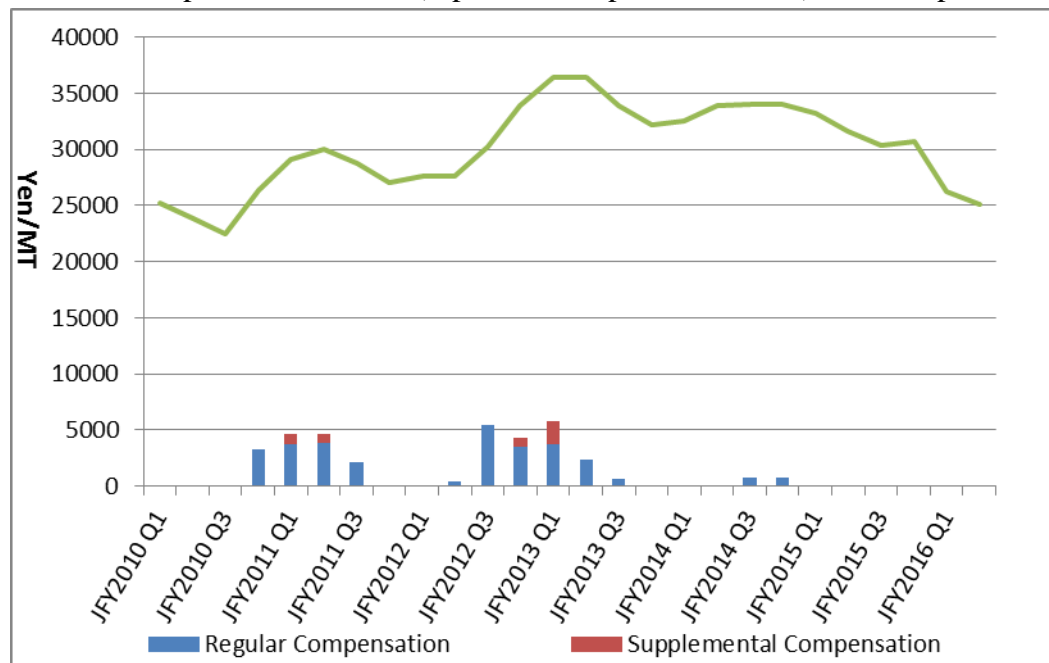
Table 2. Japanese Compound Feed Production (MT)

MY	Corn	Sorghum	Wheat	Wheat Flour	Barley	Rice	Rye	Other Grains	DDGS	Non-grain Ingredients	TOTAL
2005/06	11,937,533	1,351,794	109,511	125,953	807,797	335,379	224,625	122,798	-	9,254,689	24,270,079
	49.2%	5.6%	0.5%	0.5%	3.3%	1.4%	0.9%	0.5%	0.0%	38.1%	100%
2006/07	11,968,822	1,207,666	95,022	128,407	841,067	501,410	203,966	135,042	-	9,368,267	24,449,669
	49.0%	4.9%	0.4%	0.5%	3.4%	2.1%	0.8%	0.6%	0.0%	38.3%	100%
2007/08	12,151,595	1,061,836	99,070	140,704	864,290	604,450	97,379	150,312	-	9,504,883	24,674,519
	49.2%	4.3%	0.4%	0.6%	3.5%	2.4%	0.4%	0.6%	0.0%	38.5%	100%
2008/09	12,032,218	1,599,366	131,179	142,216	886,989	240,408	47,756	148,571	-	9,474,483	24,703,186
	48.7%	6.5%	0.5%	0.6%	3.6%	1.0%	0.2%	0.6%	0.0%	38.4%	100%
2009/10	11,663,020	1,605,491	203,985	133,065	904,803	396,061	79,004	151,734	96,210	9,438,395	24,671,768
	47.3%	6.5%	0.8%	0.5%	3.7%	1.6%	0.3%	0.6%	0.4%	38.3%	100%
2010/11	11,287,696	1,380,159	245,857	145,289	889,928	537,274	96,697	148,573	284,154	9,239,452	24,255,079
	46.5%	5.7%	1.0%	0.6%	3.7%	2.2%	0.4%	0.6%	1.2%	38.1%	100%
2011/12	10,688,501	1,461,639	732,039	152,292	882,497	589,640	43,043	148,359	400,836	9,172,479	24,271,325
	44.0%	6.0%	3.0%	0.6%	3.6%	2.4%	0.2%	0.6%	1.7%	37.8%	100%
2012/13	10,154,181	1,856,711	942,885	176,433	910,896	397,406	15,237	154,324	443,993	8,990,056	24,042,122
	42.2%	7.7%	3.9%	0.7%	3.8%	1.7%	0.1%	0.6%	1.8%	37.4%	100%
2013/14	10,794,681	1,006,553	649,448	160,815	870,127	732,983	16,562	135,126	512,652	8,831,356	23,710,303
	45.5%	4.2%	2.7%	0.7%	3.7%	3.1%	0.1%	0.6%	2.2%	37.2%	100%
2014/15	10,530,414	901,173	366,510	161,019	805,315	1,172,993	13,000	135,034	476,786	8,818,977	23,380,591
	45.0%	3.9%	1.6%	0.7%	3.4%	5.0%	0.1%	0.6%	2.0%	37.7%	100.0%
2015 Oct	947,204	64,759	34,870	14,242	69,639	107,671	1,013	11,509	30,129	783,523	2,064,559
	45.9%	3.1%	1.7%	0.7%	3.4%	5.2%	0.0%	0.6%	1.5%	38.0%	100%
Nov	893,467	61,549	32,135	13,330	64,770	107,789	931	10,978	29,325	737,207	1,951,481
	45.8%	3.2%	1.6%	0.7%	3.3%	5.5%	0.0%	0.6%	1.5%	37.8%	100%
Dec	973,161	62,955	33,925	15,456	69,599	117,160	1,011	12,727	33,385	822,101	2,141,480
	45.4%	2.9%	1.6%	0.7%	3.3%	5.5%	0.0%	0.6%	1.6%	38.4%	100%
2016 Jan	861,456	56,066	29,782	13,143	61,932	96,193	830	10,227	33,244	699,678	1,862,551
	46.3%	3.0%	1.6%	0.7%	3.3%	5.2%	0.0%	0.5%	1.8%	37.6%	100%
Feb	888,015	56,421	30,868	13,745	64,597	99,661	804	10,404	36,593	718,977	1,920,085
	46.2%	2.9%	1.6%	0.7%	3.4%	5.2%	0.0%	0.5%	1.9%	37.4%	100%
Mar	950,850	58,024	33,407	15,740	70,027	104,676	974	10,997	38,985	773,516	2,057,196
	46.2%	2.8%	1.6%	0.8%	3.4%	5.1%	0.0%	0.5%	1.9%	37.6%	100%
Apr	946,626	52,005	33,191	15,935	69,738	101,011	984	10,858	35,270	771,998	2,037,616
	46.5%	2.6%	1.6%	0.8%	3.4%	5.0%	0.0%	0.5%	1.7%	37.9%	100%
May	897,918	48,568	32,322	14,694	64,828	97,343	831	9,619	32,726	728,094	1,926,943
	46.6%	2.5%	1.7%	0.8%	3.4%	5.1%	0.0%	0.5%	1.7%	37.8%	100%
June	899,999	48,806	34,083	15,161	66,334	94,935	872	9,538	31,892	731,214	1,932,834
	46.6%	2.5%	1.8%	0.8%	3.4%	4.9%	0.0%	0.5%	1.7%	37.8%	100%
July	853,846	47,095	34,004	14,726	64,264	90,206	848	9,342	33,019	700,548	1,847,898
	46.2%	2.5%	1.8%	0.8%	3.5%	4.9%	0.0%	0.5%	1.8%	37.9%	100%
Aug	887,484	47,470	34,265	15,859	68,139	94,852	978	9,873	35,502	732,010	1,926,432
	46.1%	2.5%	1.8%	0.8%	3.5%	4.9%	0.1%	0.5%	1.8%	38.0%	100%
Sept	868,240	46,680	35,871	15,849	64,795	95,348	896	9,598	35,238	719,077	1,891,592
	45.9%	2.5%	1.9%	0.8%	3.4%	5.0%	0.0%	0.5%	1.9%	38.0%	100%
2015/16	10,868,266	650,398	398,723	177,880	798,662	1,206,845	10,972	125,670	405,308	8,917,943	23,560,667
	46.1%	2.8%	1.7%	0.8%	3.4%	5.1%	0.0%	0.5%	1.7%	37.9%	100%
2016 Oct	911,098	49,052	38,259	16,037	67,405	102,301	848	10,073	38,006	746,501	1,979,580
	46.0%	2.5%	1.9%	0.8%	3.4%	5.2%	0.0%	0.5%	1.9%	37.7%	100%
Nov	941,827	50,530	39,007	16,200	69,918	106,641	882	11,366	39,746	780,102	2,056,219
	45.8%	2.5%	1.9%	0.8%	3.4%	5.2%	0.0%	0.6%	1.9%	37.9%	100%
Dec	1,025,589	53,806	41,842	17,588	75,929	109,553	215	11,821	44,144	842,326	2,222,813
	46.1%	2.4%	1.9%	0.8%	3.4%	4.9%	0.0%	0.5%	2.0%	37.9%	100%

Source: MAFF

Japan maintains a feed price stabilization program that consists of a combination of: 1) a Ministry of Agriculture, Forestry and Fisheries (MAFF) subsidy and 2) an industry fund to help absorb surges in compound feed prices. The program is activated when the import cost of ingredients in a particular quarter exceeds the average import cost of ingredients in the previous year. As was reported in our last report (see [JA6040](#)), no compensation payments have been made since the first quarter of Japanese fiscal year (JFY) 2015 (April – March). However, as a result of increased freight costs and depreciation of the Japanese yen between October- December 2016, feed millers increased compound feed prices between January – March 2017 by approximately three percent. Further price increases could lead to compensation payments for the first time in years.

Chart 1. Compound Feed Price (Japanese Yen per Metric Ton) and Compensation



Source: MAFF, Compound Feed Supply Stabilization Organization

## Corn

Table 3. Corn Production, Supply and Distribution

Corn 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	1	1	1	1	0	1
Beginning Stocks	1348	1348	1343	1351	0	1252
Production	1	1	1	1	0	1
MY Imports	15194	15202	15000	15100	0	15000
TY Imports	15194	15202	15000	15100	0	15000
TY Imp. from U.S.	11227	10586	0	0	0	0
Total Supply	16543	16551	16344	16452	0	16253
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	11600	11600	11500	11600	0	11500
FSI Consumption	3600	3600	3600	3600	0	3600
Total Consumption	15200	15200	15100	15200	0	15100
Ending Stocks	1343	1351	1244	1252	0	1153
Total Distribution	16543	16551	16344	16452	0	16253

(1000 HA) ,(1000 MT)

### Production

Japanese corn production is negligible. There has been some effort made to pursue corn production in Hokkaido, but this production remains incredibly limited.

### Trade

Competitive corn prices encouraged feed millers to increase corn utilization in feed production, which resulted in a four percent increase in the total corn import volume in MY2015/16. Japanese feed millers also diversified their import sources, and, due to the competitive price of Brazilian feed corn when compared to U.S. corn, Brazil increased its share of imports to nearly 30 percent in MY2015/16.

In the winter of 2016/17, severe weather (snow and floods) hampered inland transportation of grains to export ports in the U.S. Pacific Northwest (PNW), particularly grains transiting via rail. This led to delays in corn exports from PNW ports to Japan. After the loading of Brazilian corn in December, Japan normally switches imports from the Southern Hemisphere to the United States until the next Brazilian crop enters the market. Due to export delays from the PNW ports, however, Japan was not able to import the volume of corn feed millers needed (NOTE: the Japanese corn shortage is expected to be at its peak in March). Industry sources have reported that many Japanese trading firms earlier opted to export corn from the PNW rather than the Gulf this past winter (given price advantages), which exacerbated the situation in Japan. In response, MAFF approved the use of 340,000 MT of feed corn from the emergency reserve. Trading firms have also been seeking other import sources to supply corn to Japan in March. However, there are few countries from where corn can be transported quickly to Japan apart from China (where shipments arrive in Japan within three to four days). With industry

expectations that PNW trade will normalize in the near term, Japanese trading firms reportedly purchased a small volume of Chinese corn to temporarily buttress against the shortage.

Industry sources have noted that MY2016/17 feed corn imports are expected to be at similar levels to MY2015/16 based on import purchase contracts that have already been signed. With a stable supply of food corn imports, total corn imports are expected at 15.1 million MT in MY2016/17. Due to the projected decline in feed consumption, however, total corn import volumes are forecast to decline slightly to 15 million MT in MY2017/18.

## **Consumption**

As a result of the abundant world corn supply, the price of imported corn in Japan fell roughly 10 percent in MY2015/16 from the previous year. Japanese feed millers took advantage of the price to increase corn utilization in compound feed by one percent (up 340,000 MT to 10.9 million MT), which cut into sorghum's share of the feed recipe. Together with nearly 300,000 MT of on-farm feed corn, the total feed and residual consumption is estimated at 11.6 million MT in MY2015/16. For MY2016/17, with an expectation of continued competitive prices, feed demand for corn is forecast to remain strong, and industry sources report MY2016/17 corn for feed consumption is expected to be at similar levels to MY2015/16. To address the corn supply shortage resulting from problematic weather in the U.S. PNW in early 2017, feed millers changed their compound feed formula slightly (but not to a level that would require changes to the labeling of ingredients). However, as the backlog of corn is expected to be resolved, no significant long-term change to the composition of compound feed is expected. Accordingly, MY2016/17 feed consumption is forecast to remain unchanged at 11.6 million MT. However, with a slow decline in feed production anticipated, corn consumption for feed is projected to decrease slightly in MY2017/18 (to 11.5 million MT).

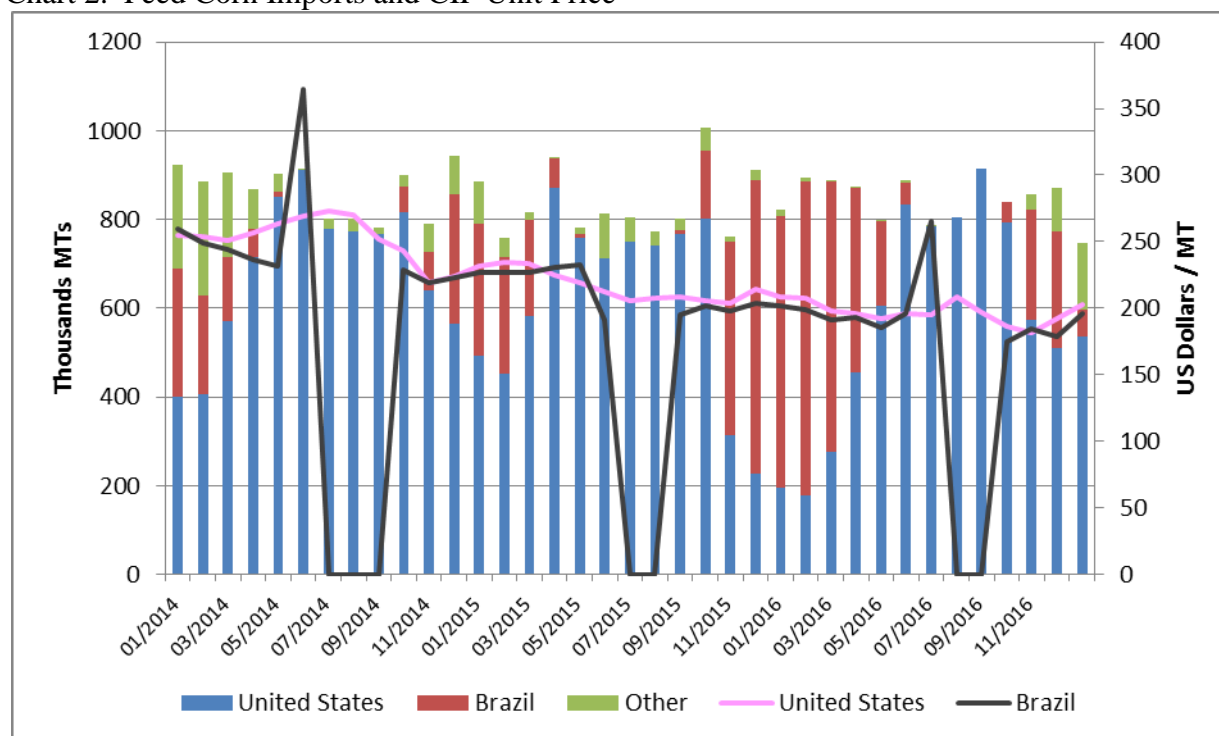
The driving force for food corn demand comes from the beverage sector, particularly for high fructose corn syrup (HFCS). MAFF estimates that the demand for corn starch will remain unchanged for MY2016/17. Accordingly, the Food, Seeds and Industrial (FSI) consumption for corn is expected to remain flat at 3.6 million MT in MY2016/17. FSI consumption is also forecast to remain unchanged in MY2017/18.

## **Stocks**

As Japan heavily relies on imports of feed ingredients, the GOJ operates a contingency program to maintain 1.2 million MT of feed ingredient reserves -- 850,000 MT for corn, sorghum, wheat, barley, bran and soybean meal, and 350,000 MT for rice. The GOJ subsidizes the storage costs for the reserve that the private sector holds for this purpose. Corn is believed to account for the majority of the 850,000 MT reserve, and, together with the regular stocks at feed mills, roughly 1.2 million MT of corn is estimated to be held in stocks at the end of MY2016/17. The level of corn reserve is estimated to fall to approximately 500,000 MT (by the end of February 2017) as roughly 340,000 MT was released to feed millers after delays in shipments resulting from winter weather in the U.S. PNW. Japanese media

reports that this is the largest amount of reserves released since the Great Eastern Earthquake of 2011 (when 750,000 MT was released). However, industry sources continue to believe that stocks will return to 1.2 million MT by the end of MY2016/17 (NOTE: the rice reserve of 350,000 MT remains untapped). With the continuation of the GOJ's reserve program for JFY2017, similar stocks are anticipated for MY2017/18.

Chart 2. Feed Corn Imports and CIF Unit Price



Source: Global Trade Atlas

Table 4. CIF Unit Price of Japanese Feed Corn Imports

Year Ending September			
Partner Country	Unit Value (United States Dollars)		
	2014	2015	2016
World	284.93	233.26	212.07
United States	286.4	233.09	213.62
Brazil	249.73	222.78	197.01
Argentina	304.09	213.19	212.25
Ukraine	232.23	216.38	229.68

Source: Global Trade Atlas

Table 5. Japanese Total Corn Imports

Year Ending: September
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Partner Country	Unit	Quantity			% Share			% Change
		2014	2015	2016	2014	2015	2016	2016/2015
World	T	15118226	14654913	15202397	100.00	100.00	100.00	3.74
United States	T	11015899	12638597	10585577	72.87	86.24	69.63	- 16.24
Brazil	T	2195239	1338540	4483505	14.52	9.13	29.49	234.95
Argentina	T	301150	118247	75633	1.99	0.81	0.50	- 36.04
Ukraine	T	1219746	390945	35142	8.07	2.67	0.23	- 91.01
Russia	T	49755	0	13142	0.33	0.00	0.09	0.00
Other	T	336437	168584	9398	2.225	1.150	0.062	-94.43

Source: Global Trade Atlas

## Sorghum

Table 6. 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	24	52	23	52	0	52
Production	0	0	0	0	0	0
MY Imports	650	650	700	600	0	570
TY Imports	649	650	700	600	0	570
TY Imp. from U.S.	82	73	0	0	0	0
Total Supply	674	702	723	652	0	622
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	651	650	700	600	0	580
FSI Consumption	0	0	0	0	0	0
Total Consumption	651	650	700	600	0	580
Ending Stocks	23	52	23	52	0	42
Total Distribution	674	702	723	652	0	622
(1000 HA) ,(1000 MT)						

NOTE: FAS/Tokyo has lowered feed and residual consumption of sorghum by 30,000 MT for MY2014/15 to correlate with official statistics published by MAFF. This change resulted in an increase in MY2014/15 ending and 2015/16 beginning stocks (now 52,000 MT).

## Production

Production of sorghum is negligible in Japan.



## Consumption

Nearly all imported sorghum is consumed as feed in Japan, and it is mainly utilized as a substitute for corn in compound feed. The utilization of sorghum depends on its price relative to corn and rice as feed millers reportedly prefer corn when prices are equivalent. In MY2015/16, sorghum used in compound feed decreased 250,000 MT to 650,000 MT and its utilization ratio continued to decline to a record low of 2.9 percent (as the price of feed corn and sorghum were nearly equivalent). Sorghum use for compound feed is expected to continue trending down provided the price of feed corn and sorghum remains at current levels and rice used for feed slightly increases. Accordingly, feed and residual consumption of sorghum is forecast to decrease to 600,000 MT in MY2015/16 and 580,000 MT in MY2017/18.

## Trade

As almost all imported sorghum is consumed as feed, the 250,000 MT decrease in imports in MY2015/16 is attributable to the decline in feed consumption. Imports are forecast to further decrease in MY2016/17 (600,000 MT) and MY2017/18 (570,000 MT) in accordance with the expected reduction for feed consumption.

## Stocks

Sorghum is part of the GOJ's regular contingency reserve program. However, as corn is believed to account for the lion's share of the reserve, sorghum stocks for this program are considered to be negligible.

Table 7: Japanese Sorghum Imports

Year Ending: September								
Partner Country	Unit	Quantity			% Share			% Change
		2014	2015	2016	2014	2015	2016	2016/2015
World	T	1003114	902138	649519	100.00	100.00	100.00	- 28.00
Argentina	T	643859	777424	573751	64.19	86.18	88.33	- 26.20
United States	T	330362	112590	73330	32.93	12.48	11.29	- 34.87
India	T	1147	1191	1276	0.11	0.13	0.20	7.14
Australia	T	26876	593	741	2.68	0.07	0.11	24.96
Other	T	870	10340	421	0.09	1.15	0.06	-95.93

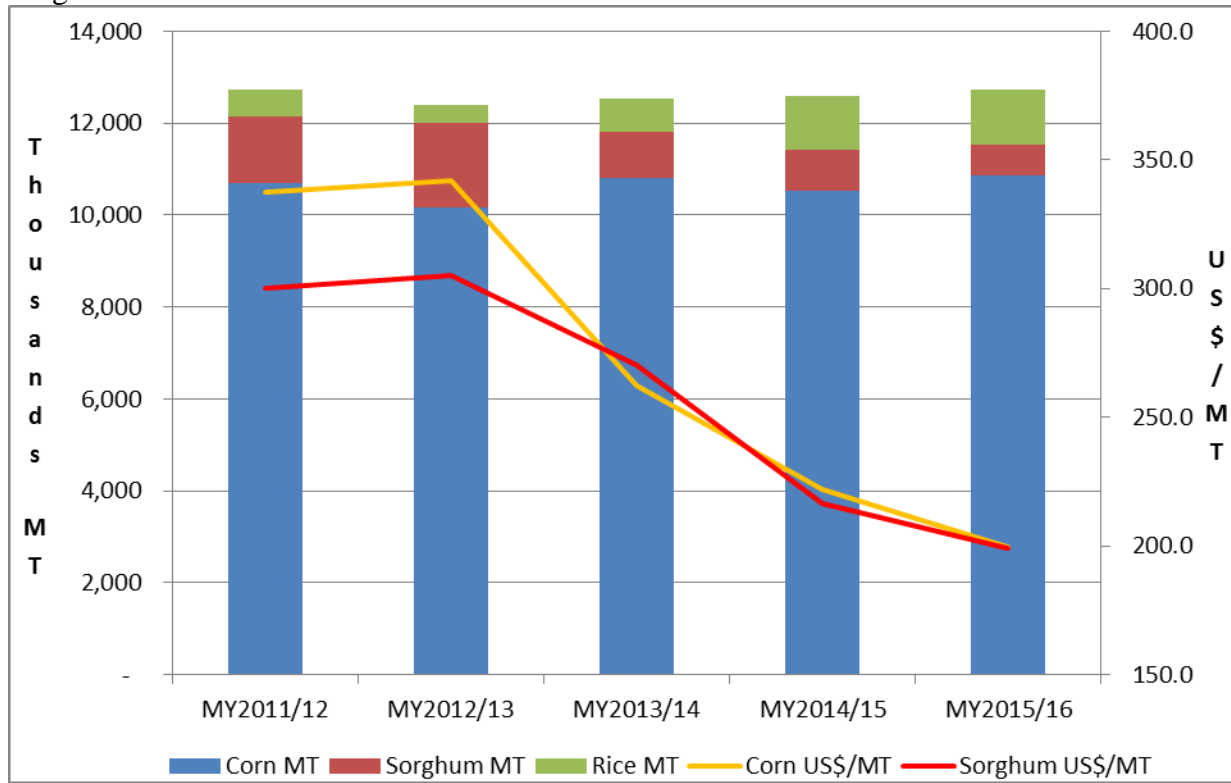
Source: Global Trade Atlas

Table 8. Japanese Sorghum Imports: CIF Unit Price

Year Ending: September				
Partner Country	Unit Value(United States Dollars)			% Change
	2014	2015	2016	2016/2015
World	270.4	216.41	199.21	- 7.95
Argentina	261.54	207.67	195.25	- 5.98
United States	281.77	272.53	226.61	- 16.85

Source: Global Trade Atlas

Chart 3. Corn, Sorghum and Rice used in Compound Feed and CIF Unit Price of Feed Corn and Sorghum



Source: MAFF, Global Trade Atlas

## Barley

Table 9. 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	0	61
Beginning Stocks	360	360	351	332	0	294
Production	177	177	166	172	0	172
MY Imports	1154	1155	1100	1150	0	1100
TY Imports	1154	1155	1100	1150	0	1100
TY Imp. from U.S.	7	6	0	0	0	0
Total Supply	1691	1692	1617	1654	0	1566
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	980	980	930	980	0	950
FSI Consumption	360	380	380	380	0	380
Total Consumption	1340	1360	1310	1360	0	1330
Ending Stocks	351	332	307	294	0	236
Total Distribution	1691	1692	1617	1654	0	1566

(1000 HA) ,(1000 MT)

## Production

To reduce table rice production, the GOJ has been subsidizing wheat, barley, soybeans, feed crops, rice for whole crop silage, and feed and flour produced in rice paddies. A subsidy of 35,000 yen (roughly US\$307) per 10 Are<sup>1</sup> is provided to support barley production in rice paddies. In addition, the GOJ provides income stabilization subsidy payments<sup>2</sup> to barley produced in both rice paddies and dry fields to compensate for the difference between production cost and sales price. The unit subsidy payment is revised every three years, and the average unit subsidy payment for two-row barley, six-row barley, and naked barley for JFY2017-JFY2019 (Table 12) will increase from the most recent three year period (Table 11) predominantly due to decreases in sales prices and yields. Having been supported by these subsidy payments, over 90 percent of barley is planted on rice paddies, with the remaining 10 percent grown on dry fields. The total planting area for barley has remained stable over the last decade.

For the MY2016/17 crop, total barley production decreased three percent to 171,700 MT while the planted area remained unchanged from MY2015/16 levels. The decrease in production is mainly attributable to an eight percent decrease in the yield of two-row barley due to unfavorable weather conditions. Planted area and production are forecast to remain unchanged in MY2017/18.

## Consumption

<sup>1</sup> 1 Are = 1/100 of a hectare.

<sup>2</sup> The average subsidy unit payment is calculated as the average production costs per 10 Are over the last three years divided by the average yield of the last seven years (excluding the highest and the lowest years, thus looking at a recent five year period), minus the average sales price over the last five years (excluding the highest and the lowest years, thus looking at a recent three year period).

The utilization of barley in compound feed remained unchanged in MY2015/16 from the previous year (at 800,000 MT), with over 90 percent of barley being consumed by cattle (80 percent by beef cattle). Together with roughly 100,000 MT of on-farm feed barley, the total feed and residual consumption is estimated at 980,000 MT in MY2015/16. Feed and residual consumption is expected to remain unchanged in MY2016/17 as beef cattle inventories are expected to remain flat. However, with a gradual decline in total livestock inventories expected, feed and residual consumption is forecast to decrease slightly to 950,000 MT in MY2017/18.

Food, seed and industrial (FSI) consumption is estimated at 380,000 MT in MY2015/16. Approximately 230,000 MT of imported barley and 150,000 MT of domestically produced barley are used to produce beer and *Shoshu* (Japanese spirits) from domestic, Australian, and Canadian two-row barley, and barley tea and rolled barley from domestic, Canadian and U.S. six-row barley. Domestic naked barley is used to make *miso* bean paste. As there is little indication of any changes anticipated in the production of these goods, FSI consumption is anticipated to remain unchanged in MY2016/17 and MY 2017/18.

## **Trade**

Barley is imported under the Simultaneous-Buy-Sell (SBS) tender system operated by MAFF. SBS tenders are operated for food barley and beer barley in bulk shipments (a Category I Import) and container shipments (a Category II Import), and for feed barley in bulk shipments. As a result of the 2015 Japan-Australia Economic Partnership Agreement, imports of Australian feed barley have been liberalized meaning Australian feed barley is imported outside of the SBS system. The price of feed barley dropped 20 percent in MY2015/16 from the previous year and, due to its price competitiveness, Australia's feed barley increased its import market share to 61 percent. Australia continued to be the main supplier of feed barley to Japan in MY2016/17. Therefore, the amount contracted under the SBS feed barley tender system has decreased significantly in JFY2016. Total barley imports are expected to remain unchanged at 1.15 million MT in MY16/17, based on the expectation that barley consumption remains stable for both feed and food. Given a slight decrease in feed consumption, however, total barley imports are forecast to decline to 1.1 million MT in MY2017/18.

## **Stocks**

The GOJ does not hold barley for contingency reserves.

Table 10. Japanese Barley Production

		2010	2011	2012	2013	2014	2015	2016
Two-Row Barley	Crop Area (hectares)	36,600	37,600	38,300	37,500	37,600	37,900	38,200
	Production Volume (MT)	104,300	119,100	112,400	116,600	108,200	113,300	105,400
	Yield (MT/hectare)	2.85	3.17	2.93	3.11	2.88	2.99	2.76
Six-Row Barley	Crop Area (hectares)	17,400	17,400	17,100	16,900	17,300	18,200	18,200
	Production Volume (MT)	44,800	38,700	47,800	51,500	47,000	52,300	53,300
	Yield (MT/hectare)	2.57	2.22	2.80	3.05	2.72	2.87	2.93
Naked Barley	Crop Area (hectares)	4,720	5,130	4,970	5,010	5,250	5,200	4,990
	Production Volume (MT)	11,800	13,700	12,200	14,700	14,500	11,300	9,920
	Yield (MT/hectare)	2.50	2.67	2.45	2.93	2.76	2.17	1.99
Barley Total	Crop Area (hectares)	58,720	60,130	60,370	59,410	60,150	61,300	61,390
	Production Volume (MT)	160,900	171,500	172,400	182,800	169,700	176,900	171,700

Source: MAFF

Table 11. The GOJ Subsidy Payment to Barley Production  
JFY2014-2016

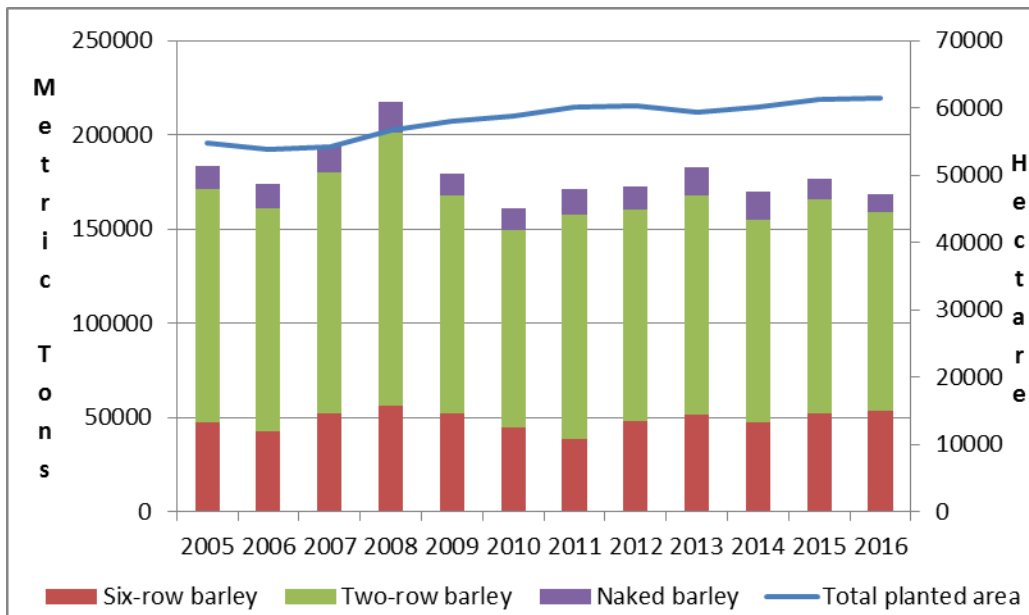
Grade	First Grade			
Rank	A	B	C	D
Two-row barley (yen/50kg)	5,190	4,770	4,650	4,600
Six-row barley (Yen/50kg)	5,860	5,440	5,310	5,260
Naked barley (Yen/60kg)	7,650	7,150	7,000	6,910
Grade	Second Grade			
Rank	A	B	C	D
Two-row barley (yen/50kg)	4,330	3,910	3,780	3,730
Six-row barley (Yen/50kg)	4,830	4,410	4,290	4,240
Naked barley (Yen/60kg)	6,080	5,580	5,430	5,350
Two-row barley (yen/50kg)	Average: 5,130			
Six-row barley (Yen/50kg)	Average: 5,490			
Naked barley (Yen/60kg)	Average: 7,380			

Table 12. JFY2017-2019

Grade	First Grade			
Rank	A	B	C	D
Two-row barley (yen/50kg)	5,520	5,100	4,980	4,930
Six-row barley (Yen/50kg)	6,000	5,580	5,450	5,400
Naked barley (Yen/60kg)	8,610	8,110	7,960	7,870
Grade	Second Grade			
Rank	A	B	C	D
Two-row barley (yen/50kg)	4,660	4,240	4,110	4,060
Six-row barley (Yen/50kg)	4,970	4,550	4,430	4,380
Naked barley (Yen/60kg)	7,040	6,540	6,390	6,310
Two-row barley (yen/50kg)	Average: 5,460			
Six-row barley (Yen/50kg)	Average: 5,690			
Naked barley (Yen/60kg)	Average: 8,190			

Source: MAFF

Chart 4. Barley Production and Planted Areas



Source: MAFF

Table 13. SBS Food Barley Imports (MT)

Country	Category	Apr-Sept 2015	Oct 2015 ~March 2016	Apr-Sept 2016
Australia	Category I	60,000	95,000	60,000
	Category II	2,000		
	Australia Total	62,000	95,000	60,000
Canada	Category I	16,891	22,130	14,954
	Category II		1,430	2,998
	Canada Total	16,891	23,560	17,952
USA	Category II	1,925	2,280	5,007
Other	Category II	0	20	60
Total		80,816	120,860	83,019

Category I: bulk shipment

Category II: container shipment

Source: MAFF

Table 14. SBS Beer Barley Imports (MT)

Country	Category	Apr-Sept 2015	Oct 2015 ~March 2016	Apr-Sept 2016
Australia	Category I	5,000	8,000	
	Category II	2,000	2,500	8,000
	Australia Total	7,000	10,500	8,000
Canada	Category I	0	4,000	6,000
	Category II		2,000	4,000
	Canada Total	0	6,000	10,000
Total		7,000	16,500	18,000

Category I: bulk shipment

Category II: container shipment

Source: MAFF

Table 15. SBS Imports of Feed Barley (MT)

	JFY2012	JFY2013	JFY2014	JFY2015	*JFY2016
SBS imports	1,051,630	995,805	1,018,047	546,127	81,440

\*As of March 8, 2017

Source: MAFF

Table 16. Japanese Feed Barley Imports

Year Ending: September								
Partner Country	Unit	Quantity			% Share			% Change 2016/2015
		2014	2015	2016	2014	2015	2016	
World	T	1052245	895391	923980	100.00	100.00	100.00	3.19
Australia	T	537944	148449	566195	51.12	16.58	61.28	281.41
Ukraine	T	29273	33316	186049	2.78	3.72	20.14	458.44
Russia	T	32300	40548	40820	3.07	4.53	4.42	0.67
United Kingdom	T	0	129566	37886	0.00	14.47	4.10	- 70.76
Romania	T	0	98927	37753	0.00	11.05	4.09	- 61.84
Hungary	T	0	32640	30026	0.00	3.65	3.25	- 8.01
Canada	T	275057	143031	23531	26.14	15.97	2.55	- 83.55
Bulgaria	T	0	997	1720	0.00	0.11	0.19	72.52
Germany	T	0	183164	0	0.00	20.46	0.00	- 100.00
Slovakia	T	0	1520	0	0.00	0.17	0.00	- 100.00
United States	T	177671	83233	0	16.88	9.30	0.00	- 100.00

Source: Global Trade Atlas

Table 17. Japanese Food Barley Imports

Year Ending: September								
Partner Country	Unit	Quantity			% Share			% Change 2016/2015
		2014	2015	2016	2014	2015	2016	
World	T	242085	201591	230961	100.00	100.00	100.00	14.57
Australia	T	167992	139675	174900	69.39	69.29	75.73	25.22
Canada	T	68595	55014	47656	28.34	27.29	20.63	- 13.37
United States	T	5491	3903	6378	2.27	1.94	2.76	63.41
France	T	0	1991	2009	0.00	0.99	0.87	0.90
United Kingdom	T	5	1008	18	0.00	0.50	0.01	- 98.21
China	T	2	0	0	0.00	0.00	0.00	0.00

Source: Global Trade Atlas

Table 18. Japan's Total Barley Imports



Year Ending: September								
Partner Country	Unit	Quantity			% Share			% Change 2016/2015
		2014	2015	2016	2014	2015	2016	
World	T	1294330	1096982	1154941	100.00	100.00	100.00	5.28
Australia	T	705936	288124	741095	54.54	26.27	64.17	157.21
Ukraine	T	29273	33316	186049	2.26	3.04	16.11	458.44
Canada	T	343652	198045	71187	26.55	18.05	6.16	- 64.06
Russia	T	32300	40548	40820	2.50	3.70	3.53	0.67
United Kingdom	T	5	130574	37904	0.00	11.90	3.28	- 70.97
Romania	T	0	98927	37753	0.00	9.02	3.27	- 61.84
Hungary	T	0	32640	30026	0.00	2.98	2.60	- 8.01
United States	T	183162	87136	6378	14.15	7.94	0.55	- 92.68
France	T	0	1991	2009	0.00	0.18	0.17	0.90
Bulgaria	T	0	997	1720	0.00	0.09	0.15	72.52
Germany	T	0	183164	0	0.00	16.70	0.00	- 100.00
China	T	2	0	0	0.00	0.00	0.00	0.00
Slovakia	T	0	1520	0	0.00	0.14	0.00	- 100.00

Source: Global Trade Atlas

## Rice

Table 19. Rice Production, Supply and Distribution

Rice, Milled Market Begin Year	2015/2016		2016/2017		2017/2018	
	Nov 2015		Nov 2016		Nov 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Japan						
Area Harvested	1586	1586	1570	1570	0	1560
Beginning Stocks	2821	2821	2622	2532	0	2387
Milled Production	7670	7670	7790	7780	0	7600
Rough Production	10536	10536	10701	10687	0	10440
Milling Rate (.9999)	7280	7280	7280	7280	0	7280
MY Imports	711	711	685	700	0	700
TY Imports	685	686	685	700	0	700
TY Imp. from U.S.	343	343	0	0	0	0
Total Supply	11202	11202	11097	11012	0	10687
MY Exports	80	70	85	75	0	80
TY Exports	75	70	80	75	0	80
Consumption and Residual	8500	8600	8500	8550	0	8500
Ending Stocks	2622	2532	2512	2387	0	2107
Total Distribution	11202	11202	11097	11012	0	10687

(1000 HA), (1000 MT)

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

## Overall market situation

In Japan, farmers make their rice planting decisions for the coming season based on the amount of stocks held privately as of June of each year (the future crop's price is anticipated to increase if June stocks fall below 1.82 million MT). Because of sluggish consumption in Japan, rice stocks exceeded two million MT in June 2013, 2014 and 2015. In 2015, in an effort to reduce excessive stocks, MAFF encouraged rice farmers to convert from table rice to feed rice, by providing subsidies for feed rice production (ensuring income is equal to or higher than income from producing table rice {see table 23 below}). As a result, feed rice production more than doubled in 2015 while table rice production decreased by 400,000 MT. Additionally, as a result of anticipated stock reductions, the price of the MY2015/16 rice crop rose 10 percent over MY2014/15 levels. The promotion of feed rice production also led to a lowering of stocks in June 2016 (to 1.86 million MT from 2.06 million MT in June 2015).

In MY2016/17, production further shifted from table rice to feed rice production. As a result, MY2016/17 table rice stocks were expected to decrease while prices increased. Government support for shifting production from table rice to feed rice is expected to continue in an effort to reduce table rice stocks to an "appropriate" (according to MAFF) level of 1.64 million MT in June 2018 (prior to the abolishment of the rice acreage reduction program in 2018 for table rice production).

## **Production**

As previously noted, MAFF continued to incentivize feed rice production in MY2016/17. As a result, the planted area for feed rice increased by 11,000 ha while the planted area for rice other than feed rice (table rice, rice for processing, etc) fell 27,000 ha. As a result, the total planted area for rice in Japan decreased 16,000 ha. Despite the decline in the planted area, given favorable weather conditions throughout the production season, Japanese rice yields increased 0.1 MT/ha to 4.9 MT/ha (0.1 MT/ha higher than the average yield of recent years).

In MY2016/17, production of rice other than feed rice increased 55,000 MT to 7.32 million MT (of which 6.8 million MT was table rice production, a 53,000 MT increase from the previous year). While MAFF has yet to finalize MY2016/17 production data for feed rice, production is estimated at 460,000 MT (assuming a higher yield than table rice yields given the planting of high yield varieties for more than half of the feed rice produced). Accordingly, total rice production is estimated to increase 1.1 percent to 7.78 million MT in MY2016/17.

For MY2017/18, because the GOJ continues to subsidize feed rice production, the planted area and production volume for feed rice is expected to increase, but not to a level high enough to offset the anticipated reduction in table rice production. Accordingly, the total rice planted area is forecast to decline to 1.56 million ha and production is forecast to decrease to 7.6 million MT (assuming average yields of recent years of 4.8 MT/ha).

As feed rice is sold at a price equivalent to feed corn, the sales revenue for feed rice is less than 10 percent of the sales revenue for table rice. Nevertheless, the subsidy for feed rice is set to ensure income levels for feed rice are at least equivalent to income levels for producing table rice. In fact, the subsidy reportedly accounts for more than 90 percent of the income of feed rice. MAFF has set a goal to increase feed rice production to one million MT by 2025 under the 2015 Basic Plan for Food, Agriculture and Agricultural Villages (see [JA5013](#)). The JFY 2016 budget earmarked 67.6 billion yen (US\$588 million) for feed rice subsidies, and the Ministry of Finance estimates the budget for feed rice subsidies will have to increase to 116 billion yen (slightly more than US\$1 billion) if feed rice production were to increase to one million MT (brown). As the feed rice subsidy is a non-permanent budgetary measure, it is not certain if Japan will provide enough subsidies to increase feed rice production to the stated goal.

## **Consumption**

Table rice consumption has been trending downward at a rate of approximately 72,800 MT per year (see Chart 5) due to the decline in population and per-capita consumption. Per-capita consumption of table rice fell one kilogram to 54.6 kilogram (brown) in JFY2015 from the previous year (see Table 24). Following a 10 percent price increase in MY2015/16, the price of the MY2016/17 crop further rose 8.4 percent (as of January 2017) as a result of decreasing production and an anticipated reduction in stocks the following June (Chart 7). MAFF estimates table rice demand for 2015/16 (July 2015 – June 2016) to be 6.97 million MT, and forecasts that table rice demand will decline to 6.86 million MT for 2016/17 (July 2016 – June 2017) due to an increase in price resulting from an anticipated reduction in stocks. Moreover, table rice consumption is forecast to decline further in MY2017/18.

More people are eating out in Japan and purchasing ready-to-eat foods given the convenience. As a result, rice consumption by the food service industry (restaurants and home-meal replacement manufacturers) has been increasing while consumption of rice cooked at home is on the decline. In MY2015/16 (July 2015 – June 2016), MAFF estimates 63 percent of table rice was consumed at home, and that the food service industry accounted for the remaining 37 percent. It is anticipated that the proportion attributable to the food service industry will increase further in MY2016/17 and beyond.

Demand for rice for processing (rice snacks, sake, *miso* and other) has been stable which is estimated at around 640,000 MT for MY2015/16, and the demand is forecast to remain unchanged for MY2016/17 and MY2017/18.

Rice used in compound feed increased by only 13,000 MT to 1.09 million MT in MY2015/16. With approximately 130,000 MT of on-farm rice used as feed, the total rice used for feed is estimated at 1.23 million MT in MY2015/16. A further significant growth of rice for feed consumption is unlikely as an increase in feed rice production is expected to be limited due to budgetary limitations for subsidies.

Accordingly, rice consumption for feed is forecast to increase marginally in MY2016/17 and MY2017/18.

The aggregate rice consumption for Japan is estimated at 8.6 million MT in MY2015/16, and is forecast to decline to 8.5 million MT in MY2017/18 (as a marginal increase in rice for feed consumption is not anticipated to offset the decline in table rice consumption).

## **Trade**

As of March 15, 2017, twelve Ordinary Minimum Access (OMA) tenders were held in JFY2016 where 552,679 MT of rice (actual tonnage) was successfully bid. With the completion of the SBS tenders for JFY2016, a total of 73,314 MT (actual tonnage) was successfully bid. In fact, given competitive international prices for rice coupled with the price increases seen for domestic table rice, demand for SBS rice was robust. Given the difficulty in purchasing less expensive domestic rice, the Japanese food service industry sought to procure competitively priced imported rice.

SBS tenders were suspended in October and November 2016 following media allegations that importers and wholesalers were exchanging “adjustment money” to encourage SBS imports which, in turn, allegedly placed downward pressure on Japanese domestic rice prices. After a MAFF-led investigation was held and found that imports were not suppressing domestic rice prices, the SBS tender system was resumed on December 16, 2016. As a condition for the resumption of trade, MAFF expressly prohibited the exchange of “adjustment monies” moving forward.

In an effort to refocus Japanese agricultural production, the GOJ has been promoting agricultural exports, including rice. While it is still small in volume, rice exports have gradually increased in recent years and are expected to continue their gradual (albeit limited) growth in the coming years. In addition to commercial exports, Japan exports rice for food aid using minimum access (MA) rice (i.e., both OMA and SBS rice) as shown in table 24. FAS/Tokyo believes that Japan’s total rice exports were larger than reported by trade statistics (given that food aid is not always reported in the data).

## **Stocks**

The GOJ held 828,100 MT of rice in reserve and 690,000MT (actual tonnage) of MA rice stocks (actual tonnage) at the end of October 2016, of which 350,000 MT (actual tonnage) of MA rice was set aside as for the emergency feed grain reserve.

As a result of decreasing production, MAFF estimates private sector stocks fell by 220,000 MT in June 2016, and that they will fall another 40,000 MT in June 2017. If the volume of table rice production continues to fall in 2017 (to 6.7 million MT), MAFF forecasts that stocks will decline another 200,000 MT to 1.64 million MT in June 2018 (a level MAFF considers appropriate). Accordingly, aggregated ending stocks are estimated at 2.5 million MT in MY2015/16, with a gradual decline to 2.1 million MT by MY2017/18.

Table 20. Rice Production (excluding feed rice)

	Planted Area (ha)			Production (MT)				Yield (MT/ha)	
	Total	Paddy	Upland	Total		Paddy	Upland	Brown	Milled
				Brown	Milled	Brown	Brown		
2010	1,627,890	1,625,000	2,890	8,483,000	7,719,530	8,478,000	5,460	5.2	4.7
2011	1,576,370	1,574,000	2,370	8,402,000	7,645,820	8,397,000	5,220	5.3	4.9
2012	1,581,110	1,579,000	2,110	8,523,000	7,755,930	8,519,000	3,630	5.4	4.9
2013	1,598,720	1,597,000	1,720	8,607,000	7,832,370	8,603,000	4,290	5.4	4.9
2014	1,574,410	1,573,000	1,410	8,439,000	7,679,490	8,435,000	3,630	5.4	4.9
2015	1,506,000	1,505,000	1,160	7,989,000	7,269,990	7,986,000	2,700	5.3	4.8
2016	1,479,000	1,478,000	944	8,044,000	7,320,040	8,042,000	2,060	5.4	4.9

Source: MAFF

Table 21. Feed Rice Production

	Planted Area (ha)	Production (MT)		Yield (MT/ha)	
		Brown	Milled	Brown	Milled
2010	14,883	68,011	61,890	4.6	4.2
2011	33,955	160,900	146,419	4.7	4.3
2012	34,525	166,537	151,549	4.8	4.4
2013	21,802	108,576	98,804	5.0	4.5
2014	33,881	186,564	169,773	5.5	5.0
2015	79,766	440,099	400,490	5.5	5.0
*2016	91,169	510,000	464,100	5.6	5.1

Source: MAFF

\*Preliminary

Table 22. Total Rice Production

	Planted Area (ha)	Production (MT)		Yield (MT/ha)	
		Brown	Milled	Brown	Milled
2010	1,642,773	8,551,011	7,781,420	5.2	4.7
2011	1,610,325	8,562,900	7,792,239	5.3	4.8
2012	1,615,635	8,689,537	7,907,479	5.4	4.9

2013	1,620,522	8,715,576	7,931,174	5.4	4.9
2014	1,608,291	8,625,564	7,849,263	5.4	4.9
2015	1,585,766	8,429,099	7,670,480	5.3	4.8
*2016	1,570,169	8,554,000	7,784,140	5.4	5.0

Source: MAFF

\*Preliminary

Table 23. MAFF Subsidies for Rice Production

Table rice	7,500 yen/10 are
Rice for feed	<ul style="list-style-type: none"> <li>• 55,000 yen/ 10 Are for yield up to 380 kg/10 are</li> </ul>
And	
Rice for rice flour (subsidy is provided according to the yield)	<ul style="list-style-type: none"> <li>• 55,000 yen plus 167 yen/ kg for yield between 381 kg/10 Are and 689 kg/10 Are (e.g., for the average yield of 530 kg/ 10 Are, 80,000 yen/10 Are)</li> <li>• 105,000 yen/10 Are for yield of 680 kg/ 10 Are or over</li> </ul>
Planting high yield varieties of rice for feed and rice flour	12,000 yen/10 Are
Rice for processing	20,000 yen/10 Are, and an additional 12,000 yen /10 Are is paid when three year sales contract is made
Rice for Whole Crop Silage	80,000 yen/10 Are
Rice for GOJ reserve	7,500 yen/10 Are

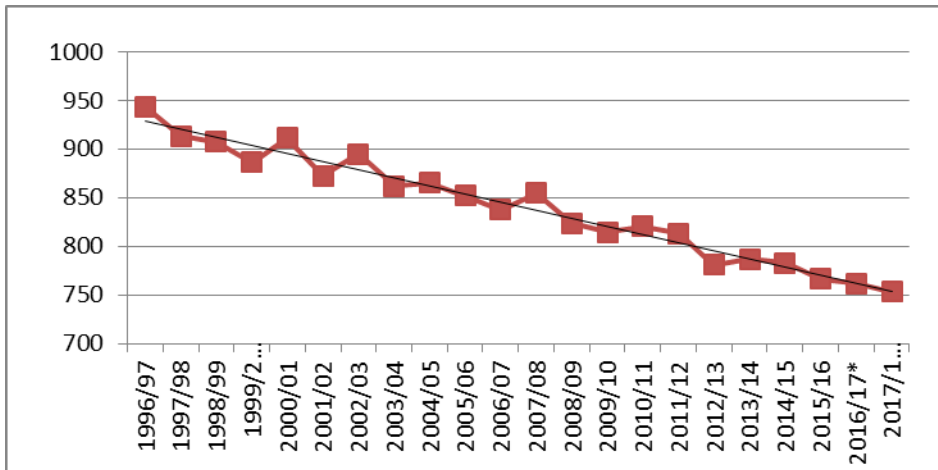
Source: MAFF

Table 24. Per Capita Consumption of Rice and Wheat (KG)

JFY	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015/2005
Wheat	31.7	31.8	32.3	31.1	31.8	32.7	32.8	32.9	32.7	32.9	33.0	4.1%
Rice	61.4	61.0	61.2	58.8	58.3	59.5	57.8	56.3	56.9	55.6	54.6	-11.1%

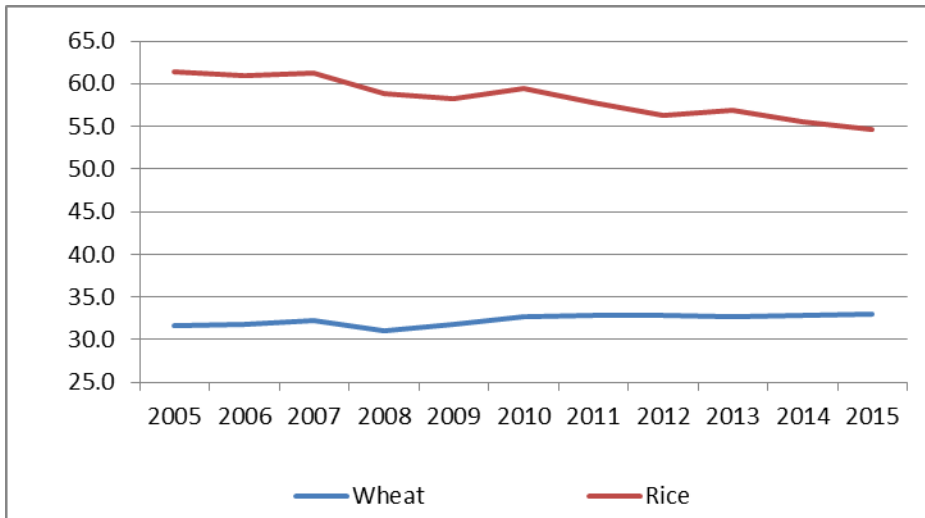
Source: MAFF

Chart 5. Table Rice Demand Forecast (brown, 1000MT)



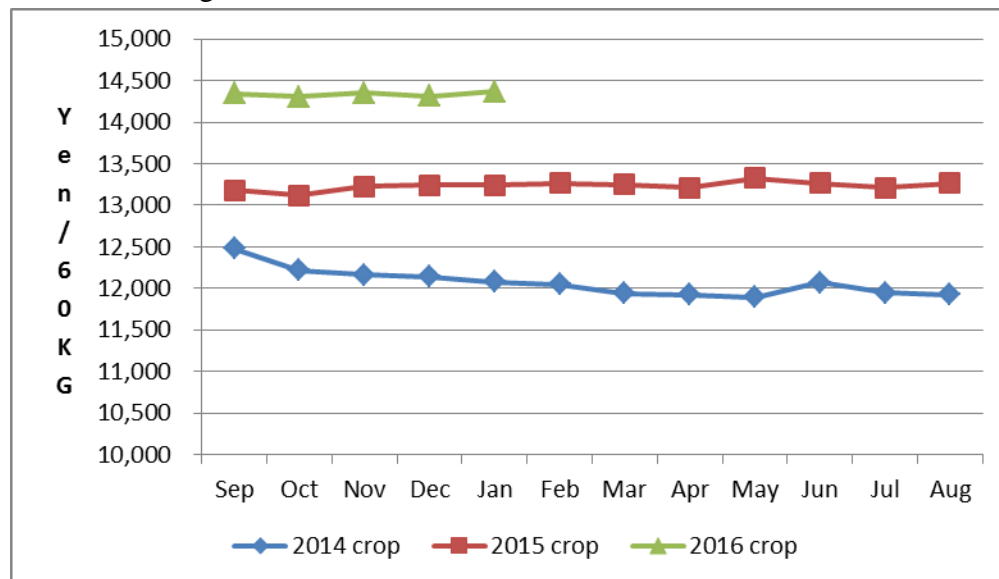
Source: MAFF

Chart 6. Per-Capita Consumption of Rice & Wheat (kg)



Source: MAFF

Chart 7. Average Wholesale Price of Table Rice



Source: MAFF

Table 25. Japanese Rice Imports

Japan Import Statistics								
Commodity: Rice, Group 58 (2012)								
Year Ending: October								
Partner Country	Unit	Quantity			% Share			% Change 2016/2015
		2014	2015	2016	2014	2015	2016	
World	T	655813	634596	711248	100.00	100.00	100.00	12.08
United States	T	319913	259052	365134	48.78	40.82	51.34	40.95
Thailand	T	288130	313010	293722	43.93	49.32	41.30	- 6.16
China	T	717	48834	49827	0.11	7.70	7.01	2.03
Australia	T	38401	12590	1290	5.86	1.98	0.18	- 89.75
Pakistan	T	359	514	598	0.05	0.08	0.08	16.34
India	T	267	238	284	0.04	0.04	0.04	19.33
Myanmar	T	6302	100	150	0.96	0.02	0.02	50.00
Vietnam	T	1587	183	143	0.24	0.03	0.02	- 21.86
Italy	T	123	62	84	0.02	0.01	0.01	35.48
Spain	T	8	9	10	0.00	0.00	0.00	11.11
Other	T	7	4	6	0.00	0.00	0.00	50.00

Source: Global Trade Atlas



Table 26. OMA and SBS tender results (MT)

		JFY2010	JFY2011	JFY2012	JFY2013	JFY2014	JFY2015	*JFY2016
USA	SBS	22,210	23,928	40,974	20,046	3,804	19,909	56,438
	OMA	295,000	295,000	281,000	300,000	316,000	300,000	266,000
	Total	317,210	318,928	321,974	320,046	319,804	319,909	322,438
	Share	46.8%	46.8%	47.4%	47.1%	47.2%	47.2%	51.5%
Thailand	SBS	11,010	7,822	4,870	11,173	5,596	6,276	6,283
	OMA	296,482	206,761	245,564	300,933	290,174	299,458	286,679
	Total	307,492	214,583	250,434	312,106	295,770	305,734	292,962
	Share	45.4%	31.5%	36.9%	45.9%	43.6%	45.1%	46.8%
Australia	SBS	-	16,134	23,873	26,244	559	1,285	6,861
	OMA	36,000	49,000	35,000	12,000	12,000	-	-
	Total	36,000	65,134	58,873	38,244	12,559	1,285	6,861
	Share	5.3%	9.6%	8.7%	5.6%	1.9%	0.2%	1.1%
China	SBS	3,468	51,095	28,164	714	780	736	2,396
	OMA	13,000	-	13,000	-	48,000	49,000	-
	Total	16,468	51,095	41,164	714	48,780	49,736	2,396
	Share	2.4%	7.5%	6.1%	0.1%	7.2%	7.3%	0.4%
Other	SBS	538	1,021	2,119	2,662	867	1,109	1,336
	OMA	-	30,000	5,000	6,000	-	-	-
	Total	538	31,021	7,119	8,662	867	1,109	1,336
	Share	0.1%	4.6%	1.0%	1.3%	0.1%	0.2%	0.2%
Total	SBS	37,226	100,000	100,000	60,839	11,606	29,315	73,314
	OMA	640,482	580,761	579,564	618,933	666,174	648,458	552,679
	Total	677,708	680,761	679,564	679,772	677,780	677,773	625,993

Source: MAFF

\*JFY2016 as of March 15, 2017

Table 27. MA Rice Sales (MT)

	For table rice	For processing	For feed	For food aid	Ending stock
MY1995/96	0	120,000	0	0	310,000
MY1996/97	30,000	280,000	0	120,000	390,000
MY1997/98	40,000	190,000	0	340,000	420,000
MY1998/99	100,000	280,000	0	230,000	440,000
MY1999/2000	100,000	240,000	0	260,000	560,000
MY2000/01	90,000	270,000	0	210,000	750,000
MY2001/02	100,000	240,000	0	230,000	950,000
MY2002/03	40,000	210,000	0	200,000	1,270,000
MY2003/04	60,000	310,000	0	220,000	1,480,000
MY2004/05	80,000	250,000	0	170,000	1,750,000
MY2005/06	100,000	250,000	150,000	130,000	1,890,000
MY2006/07	110,000	360,000	580,000	80,000	1,520,000
MY2007/08	100,000	370,000	660,000	120,000	970,000
MY2008/09	80,000	210,000	250,000	200,000	950,000
MY2009/10	80,000	210,000	420,000	140,000	880,000
MY2010/11	10,000	150,000	380,000	90,000	960,000
MY2011/12	80,000	150,000	450,000	190,000	780,000
MY2012/13	100,000	190,000	330,000	100,000	800,000
MY2013/14	40,000	150,000	440,000	40,000	840,000
MY2014/15	10,000	110,000	650,000	60,000	730,000
MY2015/16	20,000	120,000	700,000	60,000	690,000

Source: MAFF

Table 28. Japanese Rice Exports

Year Ending: October								
Partner Country	Unit	Quantity			% Share			% Change 2016/2015
		2014	2015	2016	2014	2015	2016	
World	T	21941	57642	15506	100.00	100.00	100.00	- 73.10
Hong Kong	T	1615	2434	3131	7.36	4.22	20.19	28.64
Burkina Faso	T	0	10547	2880	0.00	18.30	18.57	- 72.69
Singapore	T	1289	1726	2321	5.87	2.99	14.97	34.47
Niger	T	0	1296	1353	0.00	2.25	8.73	4.40
Sao Tome & Principe	T	2248	2658	1027	10.25	4.61	6.62	- 61.36
Taiwan	T	338	673	900	1.54	1.17	5.80	33.73
Benin	T	0	0	718	0.00	0.00	4.63	0.00
United States	T	77	269	669	0.35	0.47	4.31	148.70
China	T	88	309	454	0.40	0.54	2.93	46.93
Thailand	T	38	154	402	0.17	0.27	2.59	161.04
Australia	T	206	284	309	0.94	0.49	1.99	8.80
United Kingdom	T	112	168	274	0.51	0.29	1.77	63.10
Mongolia	T	51	134	198	0.23	0.23	1.28	47.76
Other	T	15879	36990	870	72.37	64.17	5.61	-97.65

Source: Global Trade Atlas

GTA data does not necessarily tie to FAS/Tokyo PS &D forecasts because Japan's export statistics do not always include food aid exports.

Table 29. Japanese Rice Exports

	MY2010/11	MY2011/12	MY2012/13	MY2013/14	MY2014/15	MY2015/16
Total exports (GTA)	9,055	50,144	34,815	21,941	57,642	15,506
Commercial exports	2,110	2,224	2,834	4,182	6,921	9,528

Source: Global Trade Atlas, MAFF

Table 30. Japan's Rice Stocks (MT)

	GOJ reserve	MA rice	Total	
October		Brown		Milled
2010	980,000	880,000	1,860,000	1,692,600
2011	880,000	960,000	1,840,000	1,674,400
2012	950,000	780,000	1,730,000	1,574,300
2013	910,000	800,000	1,710,000	1,556,100
2014	910,000	840,000	1,750,000	1,592,500
2015	910,000	730,000	1,640,000	1,492,400
2016	910,000	690,000	1,600,000	1,456,000

Source: MAFF

## Wheat

Table 31. 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	0	214
Beginning Stocks	1227	1227	1288	1288	0	1196
Production	1004	1004	760	778	0	820
MY Imports	5715	5715	5800	5900	0	5850
TY Imports	5715	5715	5800	5900	0	5850
TY Imp. from U.S.	2592	2531	0	0	0	0
Total Supply	7946	7946	7848	7966	0	7866
MY Exports	258	258	270	270	0	260
TY Exports	258	258	270	270	0	260
Feed and Residual	500	600	550	700	0	600
FSI Consumption	5900	5800	5900	5800	0	5800
Total Consumption	6400	6400	6450	6500	0	6400
Ending Stocks	1288	1288	1128	1196	0	1206
Total Distribution	7946	7946	7848	7966	0	7866

(1000 HA) ,(1000 MT)

NOTE: Beginning in MY2015/16, the wheat equivalent of wheat flour used in compound feed is included in feed and residual consumption on a wheat-equivalent basis using a conversion ratio of 1.368).

### Production

Despite a 1,300 ha increase in Japan's planted area, total wheat production decreased 23 percent to 777,900 MT in MY2016/17 due to unfavorable weather conditions, particularly in Hokkaido where 65 percent of Japan's wheat is produced. Unstable weather inhibited grain filling and heavy rain delayed the harvest which negatively impacted the quality of the grain. As a result, the yield in Hokkaido declined from record levels in MY2015/16 (6.0 MT/ha) to 4.2 MT/ha. As a result, production decreased by 217,200 MT to 513,700 MT. Production in the remaining prefectures declined three percent as high temperatures cut short the grain filling period.

Over the last decade, the wheat planted area has shown negligible growth, and the GOJ's subsidy payments have prevented a decline in the planting area. In an effort to shift production from table rice to other crops, the GOJ is providing 35,000 yen per 10 are of wheat produced on rice paddies. In MY2016/17, the wheat planted area on rice paddies increased 1,900 ha to 117,000 ha, offsetting a 600 ha decline in wheat planted area on dry field. Consequently, the total planted area increased 1,300 ha to 214,400 ha. In addition, the GOJ provided income stabilization subsidy payments<sup>3</sup> to wheat produced in both rice paddies and dry fields to compensate for the difference between production costs and sales

<sup>3</sup> The average subsidy unit payment is calculated as the average production costs per 10 Are over the last three years divided by the average yield of the last seven years (excluding the highest and the lowest years, thus looking at a recent five year period), minus the average sales price over the last five years (excluding the highest and the lowest years, thus looking at a recent three year period).

prices. The unit subsidy payment is revised every three years, and the average unit subsidy payment for JFY2017-JFY2019 (Table 34) will be higher than the previous three years (Table 33) mainly due to a decrease in sales prices and yields.

As previously noted, weather negatively impacted the MY2016/17 crop when a series of typhoons hit Japan in early September 2016 and severely damaged the fields in Hokkaido. However, restoration of damaged fields has been progressing and the planting areas for the MY2017/18 crop in Hokkaido is expected to remain unchanged from MY2016/17. However, due to another long spell of rainy weather, sowing of wheat was delayed from mid-September to early October in some areas, resulting in a commensurate delay in growth (the impact of which remains unclear at present). With the continuation of the subsidy program, and barring any unforeseen developments, the total planting area is forecast to remain unchanged at 214,000 ha in MY2017/18 while production is anticipated at 820,000 MT (assuming an average yield of recent years).

## **Consumption**

Contrary to table rice consumption, per-capita wheat consumption increased four percent over the last decade to 33 kilogram in JFY2015. Food wheat consumption is expected to remain strong at 5.8 million MT for MY2016/17, and is forecast to remain unchanged in MY2017/18.

Wheat and wheat flour are minor ingredients in compound feed and their composition ratios were approximately 1.6 percent and 0.8 percent, respectively, in MY2015/16. The total quantity of wheat for feed (which includes wheat and wheat-equivalent wheat flour used in compound feed and on-farm feed) is estimated at 600,000 MY in MY2015/16. With the availability of competitively priced wheat from Black Sea countries, the price of feed wheat has become competitive with feed corn and feed sorghum (see Chart 8), and demand for feed wheat has been strong. Between July and December 2016, the composition ratio of wheat in compound feed increased 0.3 percent to 1.9 percent which translates to an increase of approximately 70,000 MT.

Also, as mentioned above, the quality of the MY2016/17 domestic crop was impacted by weather which resulted in a higher proportion of off-grade wheat, some of which is expected to be used for feed (both wheat and wheat flour). Consequently, total wheat for feed consumption is expected to increase to 700,000 MT in MY2016/17. However, wheat for feed consumption is forecast to decline to 600,000 MT in MY2017/18 in accordance with an expectation of average quality of domestic wheat (leading to significantly less wheat for feed than was available from the MY2016/17 crop) and, a projected decrease in compound feed production.

## **Trade**

As a State Trading Enterprise, MAFF controls wheat imports under three different systems: 1) Direct Purchase of Food Wheat, 2) SBS Imports of Food Wheat, and 3) SBS Imports of Feed Wheat.

### **1) Direct Purchase of Food Wheat**

MAFF purchases the 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}) and sells them to domestic flour millers with a mark-up. The tender results for these

purchases to date are shown in Table 41. To ensure prices reflect international prices, MAFF revises the re-sale price of imported wheat twice a year (April – September and October – March). MAFF announced its intention to raise its re-sale price of five major wheat classes for April – September 2017 by an average of 4.6 percent to 50,690 yen/MT to account for an increase in the cost of freight, a weaker Japanese yen, and higher prices for hard wheat. The average re-sale price of soft wheat (ASW and WW) will be decreased by 5.2 percent to 46,390 yen/MT. However, the average re-sale price of semi-hard and hard wheat (1CW, DNS and HRW) will be increased by 9.2 percent to 52,710 yen/MT to reflect the increased price for 1CW, as shown in Chart 9. Weather negatively impacted the 2016 Canadian Western Red Spring crop which has led to an increase in the price for 1CW, and, consequently for DNS.

## 2) SBS Imports of Food Wheat

MAFF operates SBS tenders to allow imports of Durum of any origin, Australian Prime Hard, Australian Premium White, and Australian Hard in bulk shipments (a Category I Import) and wheat other than the five major wheat classes (WW, DNS, HRW, 1CW and ASW) in container shipments (a Category II Import). MAFF temporarily suspended SBS tenders for food wheat and feed wheat in October and November 2016, respectively, due to an investigation into the SBS tendering system for rice (for additional information, see [JA7005](#)). During this period, however, food wheat was temporarily imported under the “Direct Purchases of Food Wheat” system. Tender results to date are shown in Table 42.

## 3) SBS Imports of Feed Wheat.

Feed wheat is imported in bulk shipment under the SBS import system. As a result of the Japan-Australia Economic Partnership Agreement of January 15, 2015, imports of Australian feed wheat have been liberalized so that Australian feed wheat is imported outside of the SBS system. For each fiscal year, MAFF sets import quotas for feed wheat based on demand estimates (which do not include Australian feed wheat). For JFY2016, the import quota for feed wheat is set at 600,000 MT, and 347,686 MT has been successfully bid as of March 8, 2017 (Table 43). There has been no feed wheat imported from Australia since MY2013/14.

Japan imports 90 percent of the food wheat that it consumes, of which imports from the United States accounts for roughly 50 percent. As mentioned above, a slow-down of wheat exports from the United States is expected to continue until mid-April as a result of winter weather in the U.S. PNW, however as the volumes of MAFF’s direct purchase has been stable for JFY2016, food wheat imports for MY2016/17 are not expected to be negatively impacted in the long-term by this export slow-down.

While Japan’s feed wheat imports based on the demand and availability of other feed ingredients, imports of food wheat and wheat products have been stable at around 5.5 million MT per year. For MY2015/16, however, food wheat imports decreased by 200,000 MT as domestic wheat production increased to record high levels while imports of feed wheat and wheat products remained flat. Consequently, total wheat imports decreased to 5.7 million MT. For MY2016/17, given the anticipated decrease in domestic wheat production, imports of food wheat and wheat products are forecast to rebound to 5.5 million MT, and imports of feed wheat are expected to increase to 400,000 MT. Accordingly, total wheat imports are expected at 5.9 million MT. With the projected decline in feed consumption, the total wheat imports are forecast to decrease to 5.8 million MT in MY2017/18.

## Stocks

As a contingency plan, the private sector holds a total of 940,000 MT of imported wheat, equivalent to 2.3 months of demand in reserve, for which the GOJ subsidizes the storage costs for the amount equivalent to 1.8 months demand. In response to the delay in imports from the U.S. PNW, flour millers have used some of those reserves which has led to a decline in reserves (below 900,000 MT at the end of January 2017). Once trade is normalized, reserve levels are expected to return to normal levels (1.2 million MT).

Table 32. Japanese Wheat Production

	Planted Area (hectares)	Production (MT)	Yield (MT/ha)
2010	206,900	571,300	2.76
2011	211,500	746,300	3.53
2012	209,200	857,800	4.10
2013	210,200	811,700	3.86
2014	212,600	852,400	4.01
2015	213,100	1,004,000	4.71
2016	214,400	777,900	3.63

Source: MAFF

Table 33. Direct Payment for Income Stabilization planted in rice paddies and dry fields (Yen/60kg)

JFY2014 - 2016

Grade	First Grade			
Rank	A	B	C	D
Wheat varieties suitable for bread and Chinese noodles production	8,960	8,460	8,310	8,250
Varieties other than above	6,410	5,910	5,760	5,700
Grade	Second Grade			
Rank	A	B	C	D
Wheat varieties suitable for bread and Chinese noodles production	7,800	7,300	7,150	7,090
Varieties other than above	5,250	4,750	4,600	4,540
Average payment 6,3200 yen/60kg				
Including a subsidy of 20,000 yen/10 are				

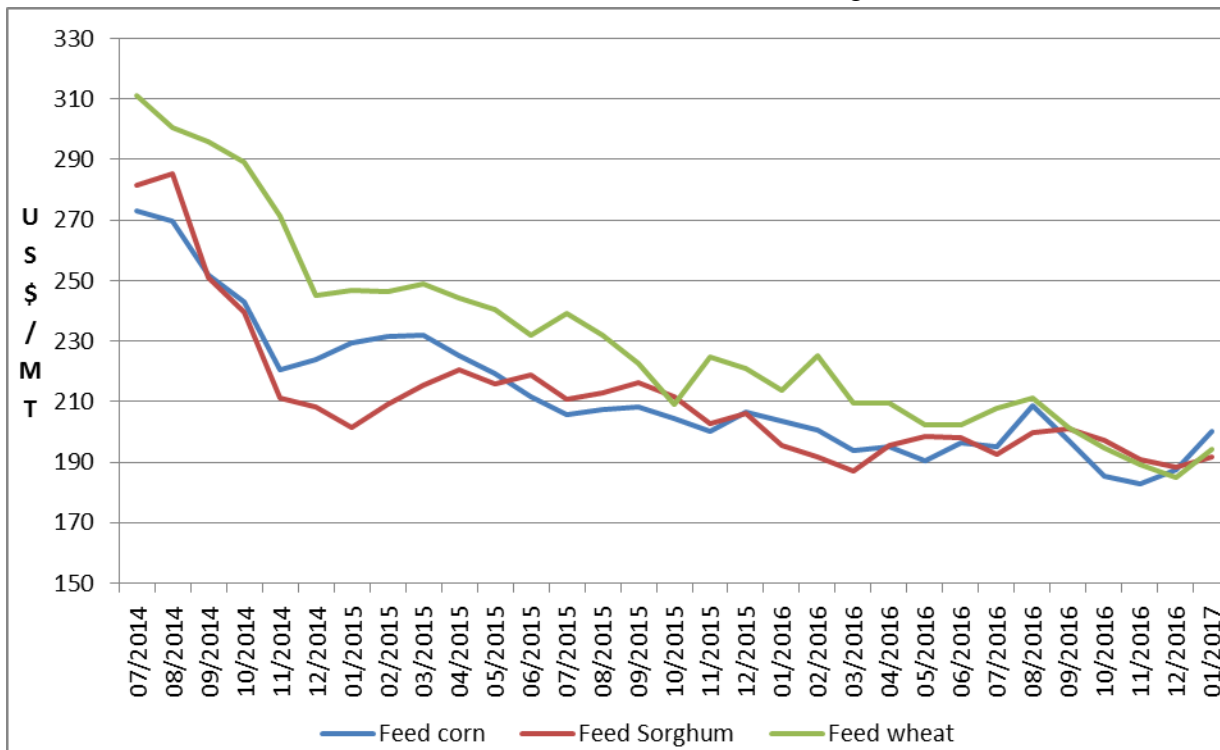
Source: MAFF

Table 34. Direct Payment for Income Stabilization for JFY2017-2019

Grade	First Grade			
Rank	A	B	C	D
Wheat varieties suitable for bread and Chinese noodles production	8,990	8,490	8,340	8,280
Varieties other than above	6,690	6,190	6,040	5,980
Grade	Second Grade			
Rank	A	B	C	D
Wheat varieties suitable for bread and Chinese noodles production	7,830	7,330	7,180	7,120
Varieties other than above	5,530	5,030	4,880	4,820
Average payment 6,890 yen/60kg				
Including a subsidy of 20,000 yen/10 are				

Source: MAFF

Chart 8. CIF Unit Prices of Feed Wheat, Feed Corn and Feed Sorghum



Source: Global Trade Atlas



Table 35. Japanese Wheat Imports

Year Ending: June								
Partner Country	Quantity (MT)			% Share			% Change	July 2016- Jan 2017
	2014	2015	2016	2014	2015	2016	2016/2015	
World	5880596	5647685	5475059	100.00	100.00	100.00	- 3.06	3210524
United States	2935006	2990593	2504158	49.91	52.95	45.74	- 16.27	1554688
Canada	1692096	1660459	1812742	28.77	29.40	33.11	9.17	951701
Australia	918917	909316	876109	15.63	16.10	16.00	- 3.65	509629
Ukraine	267740	0	156177	4.55	0.00	2.85	0.00	54101
United Kingdom	0	34320	84501	0.00	0.61	1.54	146.22	30834
Germany	80	49	16869	0.00	0.00	0.31	∞	81
Russia	2608	1307	9662	0.04	0.02	0.18	639.25	47965
Romania	46761	28520	8093	0.80	0.50	0.15	- 71.62	56938
France	6454	5975	6738	0.11	0.11	0.12	12.77	4561
Other	10934	17146	10	0.19	0.30	0.00	-99.94	26

Source: Global Trade Atlas

Table 36. Japanese Wheat Product Imports

Year Ending: June								
Partner Country	Quantity (MT)			% Share			% Change	July 2016- Jan 2017
	2014	2015	2016	2014	2015	2016	2016/2015	
World	176920	168160	175353	100.00	100.00	100.00	4.28	125353
Italy	82461	74667	69628	46.61	44.40	39.71	- 6.75	49891
Turkey	27888	30510	43590	15.76	18.14	24.86	42.87	33081
United States	23550	21516	19816	13.31	12.79	11.30	- 7.90	14208
China	17591	17262	15884	9.94	10.27	9.06	- 7.98	10992
Thailand	5855	6324	6681	3.31	3.76	3.81	5.63	4012
Korea South	7028	5666	5813	3.97	3.37	3.31	2.59	4256
Greece	3481	2686	3450	1.97	1.60	1.97	28.44	2139
Vietnam	1939	2368	2731	1.10	1.41	1.56	15.34	2222
Other	7126	7158	7758	4.03	4.26	4.42	8.38	4552

Source: Global Trade Atlas

Table 37. Japanese Food Wheat Imports

Year Ending: June								
Partner Country	Quantity (MT)			% Share			% Change	Jul 2016 - Jan 2017
	2014	2015	2016	2014	2015	2016	2016/2015	
World	5230441	5322700	5116873	100.00	100.00	100.00	- 3.87	2990791
United States	2672642	2820041	2490573	51.10	52.98	48.67	- 11.68	1533913
Canada	1632307	1587176	1743326	31.21	29.82	34.07	9.84	942561
Australia	918917	909316	876088	17.57	17.08	17.12	- 3.65	509629
France	6454	5975	6738	0.12	0.11	0.13	12.77	4561
Romania	0	60	99	0.00	0.00	0.00	65.00	20
Germany	80	49	39	0.00	0.00	0.00	- 20.41	81
India	0	0	4	0.00	0.00	0.00	0.00	4
Italy	1	1	4	0.00	0.00	0.00	300.00	0
Peru	0	2	2	0.00	0.00	0.00	0.00	2
Turkey	40	80	0	0.00	0.00	0.00	- 100.00	20

Source: Global Trade Atlas

Table 38. Japanese Feed Wheat Imports

Year Ending: June								
Partner Country	Quantity (MT)			% Share			% Change	Jul 2016 - Jan 2017
	2014	2015	2016	2014	2015	2016	2016/2015	
World	650155	324985	358165	100.00	100.00	100.00	10.21	219733
Ukraine	267740	0	156177	41.18	0.00	43.60	0.00	54101
United Kingdom	0	34320	84501	0.00	10.56	23.59	146.22	30834
Canada	59789	73283	69416	9.20	22.55	19.38	- 5.28	9140
Germany	0	0	16830	0.00	0.00	4.70	0.00	
United States	262364	170552	13585	40.35	52.48	3.79	- 92.03	20775
Russia	2608	1307	9662	0.40	0.40	2.70	639.25	47965
Romania	46761	28460	7994	7.19	8.76	2.23	- 71.91	56918
Serbia	10893	0	0	1.68	0.00	0.00	0.00	
Latvia	0	9941	0	0.00	3.06	0.00	- 100.00	
Moldova	0	7122	0	0.00	2.19	0.00	- 100.00	

Source: Global Trade Atlas

Table 39. Japan's Total Wheat and Wheat Products Imports

	Quantity (MT)		
	MY2013/14	MY2014/15	MY2015/16
1. Wheat	5,880,596	5,647,685	5,475,059
2. Wheat products	176,920	168,160	175,353
3. Wheat equivalent of wheat products b. x 1.368	242,027	230,043	239,883
Total 1. + 3.	6,122,623	5,877,728	5,714,942
Imports from USA	2,967,222	3,020,027	2,531,266

Source: Global Trade Atlas

Table 40. Japan's Wheat Product Exports

	Quantity (MT)		
	MY2013/14	MY2014/15	MY2015/16
Wheat products	196,276	191,712	188,712
Wheat equivalent of wheat products	268,506	262,262	258,158

Source: Global Trade Atlas

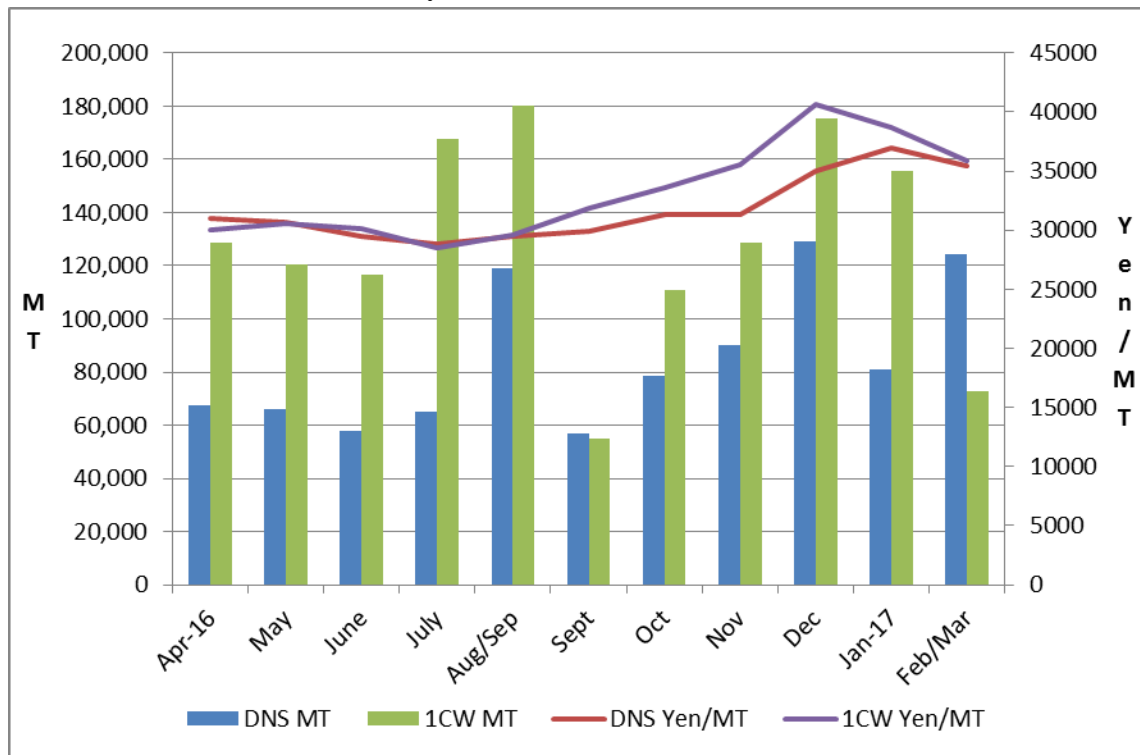
Table 41. Tender Results for Five Major Wheat Classes (MT)

Class	JFY2013	JFY2014	JFY2015	2015/2014	*JFY2016
U.S. Western White (WW)	640,307	718,922	689,057	-4.15	646,753
U.S. Hard Red Winter (HRW)	836,456	739,979	790,309	6.8	794,566
U.S. Dark Northern Spring (DNS)	1,001,600	1,029,194	841,648	-18.22	935,956
Canada Western Red Spring #1 (1CW)	1,401,434	1,118,383	1,470,557	31.49	1,412,057
Australia Standard White (ASW)	790,933	752,241	860,705	14.42	570,160
Total	4,670,730	4,358,719	4,652,276	6.73	4,359,492

Source: MAFF

\*As of March 7, 2017

Chart 9. Tender Results (Quantity and Price) for DNS and 1CW



Source: MAFF

Table 42. SBS Tender Results for Wheat (MT)

Country	Category	JFY2013 Total	JFY2014 Total	JFY2015 Total	Apr-Sept 2016
Australia	Category I	78,520	59,650	90,200	29,810
	Category II	7,394	9,598	7,017	3,358
	Australia Total	85,914	69,248	97,217	33,168
Canada	Category I	223,611	195,998	202,440	102,100
	Category II		0	0	
	Canada Total	223,611	195,998	202,440	102,100
France	Category II	5,959	6,300	6,739	4,548
Other	Category II	6,681	8,924	5,350	1,750
Total		322,165	280,470	311,746	141,566

Source: MAFF

Table 43. SBS Tender Results for Feed Wheat (MT)

JFY2014	JFY2015	*JFY2016
380,180	303,588	347,686

Source: MAFF

\*As of March 8, 2017