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**Date:** 3/12/2014

**GAIN Report Number:** JA4007

# Japan

## **Grain and Feed Annual**

## **Grain and Feed Annual 2014**

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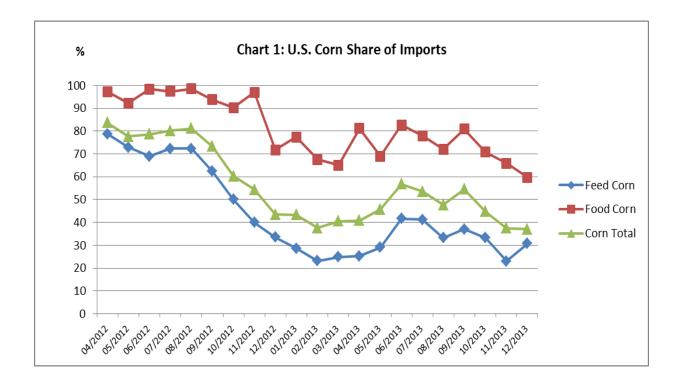
Hisao Fukuda

#### **Report Highlights:**

Japan's feed industry relies almost entirely on imported grains. Corn is predominant in feed by far, traditionally making up 50 percent of feed ingredients. The sharp rise in U.S. corn prices since last season has led Japan's feed industry to shift the supply source to South American and East European countries, while decreasing the ratio of corn used in feed. As the new 2014 crop starts to arrive in Japan at lower prices, the U.S. import market share is expected to recover significantly, but not to the pre-2012 level of 90 percent. Despite continued volatility in imported grain prices, Japan's feed production remains highly stable at around 24 million metric tons, with government subsidies having absorbed some of the cost increase.

#### **OVERALL MARKET SITUATION**

With very little commercial production of feed grains domestically, Japan's feed industry relies almost entirely on imported grains. Corn ordinarily makes up about half of all feed ingredients. For decades, the United States has provided over 90 percent of import supplies of corn to Japan. The sharp rise in U.S. corn prices since the summer of 2012 led Japan to shift the supply source to South American and East European countries. The import share of U.S. corn during the Marketing Year (MY) 2012/13 dropped to below 50 percent. (See Corn Section for details.)



The table below shows a detailed breakdown of the feed ingredient utilization ratio. The ratio of corn has now declined to the lower 40 percent range. Instead, utilization of sorghum has further advanced, while use of wheat continues to be significant.

Table 1: Feed Utilization by Ingredients (Unit: MT)

Unit:

	_							•			MT
			1	Whea						Non-	
Japan				t				Other		grain	
etl		Constant	) A (		D. d.			6		to an all a	
Fiscal Year	Corn	Sorghu m	Whea t	Flour	Barle	Rice	Rye	Grain s	DDGS	Ingredie nts	TOTAL
(April-	Com	'''		Tioui	У	Mice	itye	3	0003	1163	TOTAL
March)											
· · · · · · · · · · · · · · · · · · ·	12,037,	1,683,	113,8	121,4	725,9	69,18	337,9	117,2		9,240,2	24,446,
2002	262	412	21	37	78	5	44	54	NA	05	498
	49.2%	6.9%	0.5%	0.50/	3.0%	0.20/	1 40/	0.5%		27.00/	100.0%
	12,384,	1,499,	123,3	0.5% 127,5	744,5	0.3% 13,46	1.4% 359,7	120,3		37.8% 9,282,5	24,654,
2003	237	279	69	00	37	4	04	10	NA	79	979
2005											
	50.2%	6.1%	0.5%	0.5%	3.0%	0.1%	1.5%	0.5%		37.6%	100.0%
2004	11,853,	1,395,	90,30	127,3	770,9	285,9	259,4	123,3	NIA	9,062,8	23,969,
2004	348	749	6	82	21	32	42	99	NA	77	356
	49.5%	5.8%	0.4%	0.5%	3.2%	1.2%	1.1%	0.5%		37.8%	100.0%
	11,894,	1,335,	101,5	122,7	792,1	325,6	233,5	119,1		9,228,7	24,153,
2005	303	574	39	38	59	05	18	50	NA	22	308
	49.2%	5.5%	0.4%	0.5%	3.3%	1.3%	1.0%	0.5%		38.2%	100.0%
	12,017,	1,280,	103,6	129,2	826,6	425,9	219,2	126,8		9,291,2	24,420,
2006	330	438	40	12	82	42	54	10	NA	74	582
	49.2%	5.2%	0.4%	0.5%	3.4%	1.7%	0.9%	0.5%		38.0%	100.0%
	12,005,	1,137,	95,07	131,6	859,9	557,5	152,5	143,9		9,434,0	24,518,
2007	863	809	5	95	52	71	06	79	NA	64	514
	49.0%	4.6%	0.4%	0.5%	3.5%	2.3%	0.6%	0.6%		38.5%	100.0%
	12,059,	1,240,	111,5	145,3	859,0	468,0	60,73	153,1		9,449,4	24,547,
2008	732	344	97	87	24	00	9	38	NA	21	382
	40.10/	F 10/	0.50/	0.60/	2.50/	1.00/	0.20/			20.50/	
	49.1% 11,908,	5.1% 1,722,	0.5% 164,0	0.6% 136,5	3.5% 911,0	1.9% 256,0	0.2% 53,92	0.6%		38.5% 9,554,4	100.0% 24,853,
2009	859	923	104,0	67	19	230,0	33,92	145,6 14	NA	9,554,4	436
2003									107		
	47.9%	6.9%	0.7%	0.5%	3.7%	1.0%	0.2%	0.6%		38.4%	100.0%
2010	11,614,	1,464,	223,4	135,3	901,6	401,4	103,3	152,5	219,1	9,321,5	24,537,
2010	834	181	29	79	80	63	89	45	89	92	681
	47.3%	6.0%	0.9%	0.6%	3.7%	1.6%	0.4%	0.6%	0.9%	38.0%	100.0%
	10,935,	1,413,	402,6	151,5	878,0	652,5	74,02	149,3	362,9	9,218,9	24,239,
2011	808	787	09	37	47	73	8	93	70	96	748
	45.1%	5.8%	1.7%	0.6%	3.6%	2.7%	0.3%	0.6%	1.5%	38.0%	100.0%
	10,317,	1,653,	965,9	159,8	900,7	472,1	16,73	150,2	426,9	9,053,0	24,116,
2012	271	366	93	86	39	31	9	36	65	78	404
	42.8%	6.9%	4.0%	0.7%	3.7%	2.0%	0.1%	0.6%	1.8%	37.5%	100.0%
2013/Apr	121070	159,12	71,00	14,25	74,94	35,30	0.1270	12,60	36,73	37.370	2,001,5
il	841,577	3	1	8	5	5	1,177	1	1	754,851	69
	42.0%	7.00/		0.70/	2.70/	1 00/		0.69/	1 00/	37.7%	100.0%
	42.0%	7.9% 166,82	3.5% 73,00	0.7% 14,77	3.7% 78,58	1.8% 36,31	0.1%	0.6% 12,91	1.8% 37,82	37.7%	2,064,4
May	867,782	9	73,00	4	76,38	30,31	1,393	9	9	774,992	2,004,4
,	<b>'</b>										
	42.0%	8.1%	3.5%	0.7%	3.8%	1.8%	0.1%	0.6%	1.8%	37.5%	100.0%
June	791,774	151,50 8	69,54 5	13,10 5	71,11	33,03 9	782	12,47 9	34,40 8	707,911	1,885,6 64
Julie											
	42.0%	8.0%	3.7%	0.7%	3.8%	1.8%	0.0%	0.7%	1.8%	37.5%	100.0%
1.1.	000 044	151,63	74,28	12,42	75,22	33,56	1 455	12,76	35,63	724 555	1,930,5
July	809,011	1	5	5	0	2	1,455	4	7	724,555	45
	41.9%	7.9%	3.8%	0.6%	3.9%	1.7%	0.1%	0.7%	1.8%	37.5%	100.0%

		147,08	74,98	12,40	73,89	33,36		12,96	36,11		1,909,3
Aug	798,935	3	5	5	2	6	1,621	0	7	718,025	89
	41.8%	7.7%	3.9%	0.6%	3.9%	1.7%	0.1%	0.7%	1.9%	37.6%	100.0%
		135,29	75,12	11,98	72,87	34,36		12,40	35,34		1,899,1
Sept	807,833	9	6	0	3	3	1,551	1	7	712,409	82
	42.5%	7.1%	4.0%	0.6%	3.8%	1.8%	0.1%	0.7%	1.9%	37.5%	100.0%
	4,916,9	911,47	437,9	78,94	446,6	205,9		76,12	216,0	4,392,7	11,690,
April-Sept	12	3	43	7	30	53	7,979	4	69	43	773
	42.1%	7.8%	3.7%	0.7%	3.8%	1.8%	0.1%	0.7%	1.8%	37.6%	100.0%

Source: Feed Supply Stabilization Organization

Table 2: Feed Utilization by Ingredients and Use in Japan Fiscal Year 2012 (April 2012-March 2013, Unit: MT))

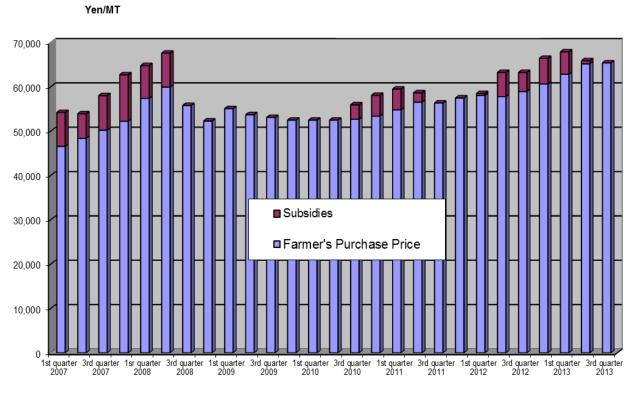
Unit:

											MT
	Sorghu	Whea	Whea t	Barle			Other Grain		Grain	Non- grain Ingredie	
Corn	m	t	Flour	у	Rice	Rye	S	DDGS	Total	nts	Total
Layer											
2,886,77	319,83	100,2			163,4			241,5	3,723,4	2,468,8	6,192,3
9	2	05	3,807	2,238	27	0	5,613	93	94	28	22
46.6%	5.2%	1.6%	0.1%	0.0%	2.6%	0.0%	0.1%	3.9%	60.1%	39.9%	100.0%
Broiler			•	•							
1,528,31	609,67	82,96	11,07	4.274	162,9	440	0.707	50,94	2,456,1	1,398,8	3,854,9
0	3	0	7	1,374	57	113	8,727	4	35	47	82
39.6%	15.8%	2.2%	0.3%	0.0%	4.2%	0.0%	0.2%	1.3%	63.7%	36.3%	100.0%
Poultry Total 4,415,08	929,50	183,1	14,88		326,3		14,34	292,5	6,179,6	3,867,6	10,047,
4,415,08	5	65	4	3,612	84	113	0	37	29	75	304
43.9%	9.3%	1.8%	0.1%	0.0%	3.2%	0.0%	0.1%	2.9%	61.5%	38.5%	100.0%
Dairy	1 2.2/2		1 21212	1 0.0,1	1 0.2,0	1 0.07.5	1 5.275			1 22.2,1	
Cattle	1	1	T	T	T	T _	T	1	T	T	T
1,308,26 8	19,824	84,27 3	31,55 1	66,81 8	27,59 8	9,31 7	17,77 4	54,10 0	1,619,5 23	1,491,1 91	3,110,7 14
42.1%	0.6%	2.7%	1.0%	2.1%	0.9%	0.3%	0.6%	1.7%	52.1%	47.9%	100.0%
Beef	0.0%	2.770	1.0%	2.170	0.970	0.5%	0.0%	1.770	32.170	47.970	100.0%
Cattle											
1,753,81		82,43	45,72	737,7	16,02	4,99	13,57	22,73	2,730,7	1,759,1	4,489,9
6	53,714	3	8	43	1	6	3	9	63	37	00
39.1%	1.2%	1.8%	1.0%	16.4%	0.4%	0.1%	0.3%	0.5%	60.8%	39.2%	100.0%
Cattle Total											
3,062,08		166,7	77,27	804,5	43,61	14,3	31,34	76,83	4,350,2	3,250,3	7,600,6
4	73,538	06	9	61	9	13	7	9	86	28	14
40.3%	1.0%	2.2%	1.0%	10.6%	0.6%	0.2%	0.4%	1.0%	57.2%	42.8%	100.0%
Swine		_	_	,	1			_	1	1	
2,604,33	645,95	610,8	64,58	77,40	100,0	1,98	89,28	52,66	4,247,0	1,770,0	6,017,0
5	7	24	5	8	09	1	6	1	46	08	54
43.3% Feed,	10.7%	10.2%	1.1%	1.3%	1.7%	0.0%	1.5%	0.9%	70.6%	29.4%	100.0%
other											
22,330	2,877	205	1,808	1,619	105	0	917	162	30,023	30,077	60,100
37.2%	4.8%	0.3%	3.0%	2.7%	0.2%	0.0%	1.5%	0.3%	50.0%	50.0%	100.0%
Compound F	eed Total			<b>U</b>	· L	- II	II		· I	- 11	
10,103,8	1,651,8	960,9	158,5	887,2	470,1	16,4	135,8	422,1	14,806,	8,918,0	23,725,
38	77	00	56	00	17	07	90	99	984	88	072
42.6%	7.0%	4.1%	0.7%	3.7%	2.0%	0.1%	0.6%	1.8%	62.4%	37.6%	100.0%
Mixed Feed											
ıccu			T	14,04			14,34				
214,116	2,011	8,406	1,330	0	2,014	332	6	4,766	261,361	137,382	398,743
53.7%	0.5%	2.1%	0.3%	3.5%	0.5%	0.1%	3.6%	1.2%	65.5%	34.5%	100.0%
Feed											
Total							-		1	1	
	1 652 0	060.3	150 9	QO1 2	/172 1	16.7	150 2	1260	15 069	0 0 5 5 7	2/1122
10,317,9 54	1,653,8 88	969,3 06	159,8 86	901,2 40	472,1 31	16,7 39	150,2 36	426,9 65	15,068, 345	9,055,4 70	24,123, 815

Source: Feed Supply Stabilization Organization

Japan has a feed price stabilization program, whereby the combination of a subsidy by the Ministry of Agriculture, Forestry and Fisheries (MAFF) and an industry fund help absorb sudden surges in the compound feed price. As the graph below shows, following the significant grain price hike in the 2<sup>nd</sup> quarter of 2012, the subsidy was re-activated and absorbed a large portion of the cost increase. For the current quarter (January-March 2014), the subsidy was discontinued due to a slight drop in the market price of compound feed. As a result, the farmer's purchase price increased to the highest level on record. However, Japan's feed production continues to be highly stable, with an annual output of approximately 24 million metric tons.

Chart 2: Compound Feed Price
Source: MAFF



#### **COMMODITY REPORT**

#### RICE

#### Production Up 1.0 Percent

The bullish 2012 wholesale price, as shown in the following price section, led to increased planting in 2013. Yield was also up 2 percent above average due to favorable weather conditions throughout the growing season in most areas of the nation. As a result, overall rice production in 2013 increased 1.0 percent over the previous year. With an abundant new harvest, the early wholesale price plummeted. Weakened price, if it continues, is expected to discourage planting in 2014. Given the average yield of the past five years, total production volume in 2014 is forecast downward at 8,420,000 metric tons (MT), which converts to 7,662,000 MT on a milled basis.

Table 3: Japan's Rice Production (Brown Basis)

	Planted A	rea (1,000 h	ectares)	F	Production (1,000	) metric tons	)	Yield/10 ares (kilograms)	
					Total,	Padd	Uplan		
	Total	Paddy	Upland	Total	Milled	у	d	Paddy	Upland
				8,47					
2009	1,624	1,621	3	4	7,711	8,466	8	522	276
				8,48					
2010	1,628	1,625	3	3	7,720	8,478	5	522	189
				8,40					
2011	1,576	1,574	2	2	7,646	8,397	5	533	220
				8,52					
2012	1,581	1,579	2	3	7,756	8,519	4	540	172
				8,60					
2013	1,599	1,597	2	7	7,832	8,603	4	539	249
				8,42					
*2014	1,590	1,588	2	0	7,662	8,416	4	530	220

Source: MAFF \*FAS/Tokyo

#### Overall Consumption Remains Sluggish and Chronic Surplus Continues

Per capita consumption of rice in Japan has been steadily declining since its peak in 1962, and finally went below the 60 KG mark in 2008. MAFF forecasts the aggregate table rice demand for 2013/14 to be 7.9 million metric tons (MMT). The 2013 harvest of 8.6 MMT is expected to add approximately 0.7 MMT to stocks. In order to reduce the surplus rice supply, MAFF has been pushing rice into the feed sector by selling imported rice out of Minimum Access rice stocks at a discount and by providing subsidies to feed rice producers. As a result, the utilization ratio of rice in compound and mixed feed increased from 0.1 percent (or 13,464 MT) in 2003 to 2.7 percent (or 652,573 MT) in 2011 (Table 1). In 2012, however, an increase in the price of table rice discouraged farmers from diverting sales to the feed sector. As the strong price of table rice continued, utilization of rice in feed has stayed around 1.8 percent, equivalent to 430,000 MT annually. For table rice, the four-decade downward trend in consumption is not expected to be reversed, given the demographic situation depicted in Chart 4, where Japan's population started declining in 2006, earlier than previously forecast. Japan's population is aging

rapidly, and it is forecast that one out of four Japanese will be older than 65 by 2015. In addition, bread consumption has taken a dietary share from rice as a main source of carbohydrates, due to ease of meal preparation using bread, supported by Japanese tastes increasingly shifting to more Western diets. (See Table 5.)

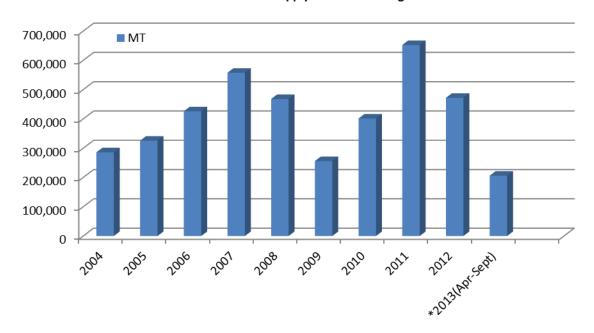
Table 4: Annual Per Capita Consumption of Rice in Japan (Kilograms)

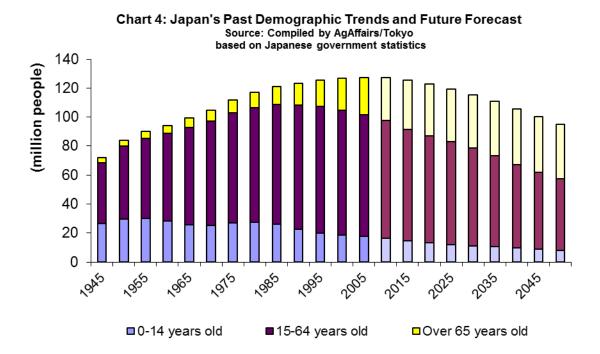
1962	1965	1975	1985	1995	2005	2010	2011	*2012	**2013
118.3	111.7	88.0	74.6	67.8	61.4	59.5	57.8	56.3	56.0

Source: MAFF \*Preliminary

\*\*FAS/Tokyo estimate

Chart 3: Use of Rice in Feed Source: Feed Supply Stabilization Organization





As a result of the reduction in rice consumption, as well as a decline in retail price over the years, household expenditures on rice have been cut by more than half during the last two decades.

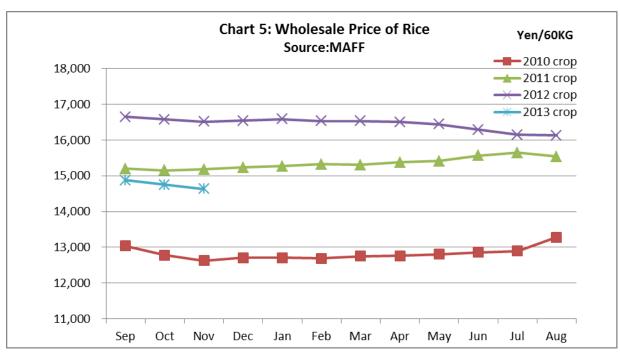
Table 5: Average Monthly Expenditures on Rice and Bread by Japanese Household (in Yen)

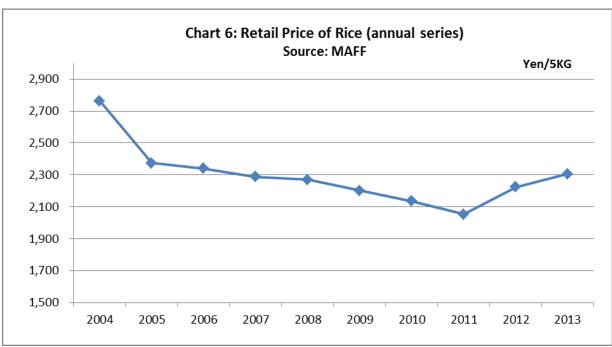
	2000	2007	2008	2009	2010	2011	2012	2013
Total Expenditure	317,32 8	297,78 2	296,93 2	291,73 7	290,24 4	282,96 6	286,16 9	290,45 4
Food Expenditure	73,954	68,536	69,001	68,322	67,563	66,904	67,275	68,604
% Food/Total	23.3%	23.0%	23.2%	23.4%	23.3%	23.6%	23.5%	23.6%
Expenditure on Rice	3,243	2,467	2,485	2,419	2,276	2,193	2,290	2,239
% Rice/Food	4.4%	3.6%	3.6%	3.5%	3.4%	3.3%	3.4%	3.3%
Expenditure on Bread	2,267	2,230	2,318	2,376	2,316	2,323	2,320	2,296
% Bread/Food	3.1%	3.3%	3.4%	3.5%	3.4%	3.5%	3.4%	3.3%

Source: Ministry of Management, Home Affairs, Post and Telecommunications

## Wholesale Price of 2013 Crop Starts 10 Percent below 2012 Level

The charts below show the wholesale and retail price trends. Despite the over-supply situation in 2013 with an above-average 2012 harvest, farmers' cooperatives exercised supply control until the spring of 2013. As soon as the restraint was lifted, the wholesale price started falling. With another abundant harvest in 2013 and continuing high stock levels, the starting price of the 2013 crop dropped more than 10 percent compared to the same period the previous year.





### Japan Expected to Meet Import Commitment in JFY2013

As a result of the Government of Japan's (GOJ) tariffication of rice in JFY2000, the Minimum Access commitment was reduced from the non-tariffied rate of 8.0 percent to 7.2 percent of total domestic consumption, from 758,000 MT to 682,000 MT (milled basis), as shown below.

Table 6: Japan's Market Access Obligations for Rice (Unit: MT)

	Withou	t Tariffication	With Tariffication		
	Volume Percent of		Volume	Percent of	
		Domestic Consumption		Domestic Consumption	
JFY 2000					
Onward	758,000	8.0 %	682,000	7.2 %	

Source: MAFF

As of February 27, 2012, five Simultaneous Buy and Sell (SBS) tenders and eleven Ordinary Minimum Access (OMA) tenders had been held for the current Japan Fiscal Year 2013 (April 2013-March 2014). Every year, Japan is expected to fulfill its WTO commitment of importing 682,000 MT (milled rice basis).

While SBS rice goes to retailers and foodservice users and is consumed as table rice, OMA rice does not enter the table rice market. Including the OMA rice taken out for the government reserve (refer to Table 8 below), Post estimates that, on an annual basis, between 200,000 and 300,000 metric tons are turned into rice flour and used by food processors, mainly in the confectionery sector; between 300,000 and 400,000 tons are consumed by feed millers; and between 100,000 and 200,000 tons are re-exported under food aid programs.

Table 7: Historic Results of Japan's Minimum Access Rice Tenders (JFY 2004-2013, Unit: MT)

		I	I	l	l	
	U.S.	Thailand	Australia	China	Others	Total
JFY2013 (As	of February	21, 2014)				
SBS	19,798	10,373	26,244	714	2,628	59,757
Share	33.1%	17.4%	43.9%	1.2%	4.4%	100.0%
OMA	275,000	222,180	12,000	0	6,000	515,180
Share	53.4%	43.1%	2.3%	0.0%	1.2%	100.0%
Total	294,798	232,553	38,244	714	8,628	574,937
Share	51.3%	40.4%	6.7%	0.1%	1.5%	100.0%
JFY2012						
SBS	40,974	4,870	23,873	28,164	2,119	100,000
Share	41.0%	4.9%	23.9%	28.2%	2.1%	100.0%
OMA	281,000	245,564	35,000	13,000	5,000	579,564
Share	48.5%	42.4%	6.0%	2.2%	0.9%	100.0%
Total	321,974	250,434	58,873	41,164	7,119	679,564
Share	47.4%	36.9%	8.7%	6.1%	1.0%	100.0%
JFY2011						
SBS	23,928	7,822	16,134	51,095	1,021	100,000
Share	23.9%	7.8%	16.1%	51.1%	1.0%	100.0%
OMA	295,000	206,761	49,000	0	30,000	580,761
Share	50.8%	35.6%	8.4%	0.0%	5.2%	100.0%
Total	318,928	214,583	65,134	51,095	31,021	680,761
Share	46.8%	31.5%	9.6%	7.5%	4.6%	100.0%
JFY2010						
SBS	22,210	11,010	0	3,468	538	37,226
Share	59.7%	29.6%	0.0%	9.3%	1.4%	100.0%

OMA	295,000	296,482	36,000	13,000	0	640,482
Share	46.1%	46.3%	5.6%	2.0%	0.0%	100.0%
Total	317,210	307,492	36,000	16,468	538	677,708
Share	46.8%	45.4%	5.3%	2.4%	0.1%	100.0%
JFY2009	•	•			•	
SBS	22,191	13,628	0	63,835	346	100,000
Share	22.2%	13.6%	0.0%	63.8%	0.3%	100.0%
OMA	296,500	283,710	0	0	0	580,210
Share	51.1%	48.9%	0.0%	0.0%	0.0%	100.0%
Total	318,691	297,338	0	63,835	346	680,210
Share	46.9%	43.7%	0.0%	9.4%	0.1%	100.0%
JFY2008						
SBS	18,652	15,548	0	65,254	546	100,000
Share	18.7%	15.5%	0.0%	65.3%	0.5%	100.0%
OMA	364,000	217,000	0	0	0	581,000
Share	62.7%	37.3%	0.0%	0.0%	0.0%	100.0%
Total	382,652	232,548	0	65,254	546	681,000
Share	56.2%	34.1%	0.0%	9.6%	0.1%	100.0%
JFY2007	T	T	T	1	1	1
SBS	24,629	1,506	0	73,456	409	100,000
Share	24.6%	1.5%	0.0%	73.5%	0.4%	100.0%
OMA	294,550	215,000	0	0	7,000	516,550
Share	57.0%	41.6%	0.0%	0.0%	1.4%	100.0%
Total	319,179	216,506	0	73,456	7,409	616,550
Share	51.8%	35.1%	0.0%	11.9%	1.2%	100.0%
JFY2006	T	T	T	T	1	T
SBS	22,566	1,048	7,535	68,013	838	100,000
Share	22.6%	1.0%	7.5%	68.0%	0.8%	100.0%
OMA	296,316	158,050	39,000	0	85,050	578,416
Share	51.2%	27.3%	6.7%	0.0%	14.7%	100.0%
Total	318,882	159,098	46,535	68,013	85,888	678,416
Share	47.0%	23.5%	6.9%	10.0%	12.7%	100.0%
JFY2005	I	I		I	ı	1
SBS	17,894	1,784	4,084	75,684	554	100,000
Share	18.2%	1.1%	1.6%	78.8%	0.3%	100.0%
OMA	304,000	163,500	13,000	0	98,078	578,578
Share	52.2%	23.6%	13.7%	3.4%	7.1%	100.0%
Total	321,894	165,284	17,084	75,684	98,632	678,578
Share	47.4%	24.4%	2.5%	11.2%	14.5%	100.0%
JFY 2004						
SBS	23,413	1,211	4,658	63,877	829	93,988
Share	24.9%	1.3%	5.0%	68.0%	0.9%	100.0%
OMA	298,500	163,300	13,000	24,000	85,944	584,744
Share	51.0%	27.9%	2.2%	4.1%	14.7%	100.0%
Total	321,913	164,511	17,658	87,877	86,773	678,732
Share	47.4%	24.2%	2.6%	12.9%	12.8%	100.0%

Source: MAFF

#### Stocks

MAFF holds emergency stocks of rice, the level of which is targeted at 1 million MT. However, this does not include stocks of the OMA rice. The 2011 Great East Japan Earthquake triggered an effort to renew government stocks of rice, leading to an increase in stock levels in 2012. MAFF has been selling OMA rice aggressively into the feed sector for the last several years, running down the stock level from its 2006 peak. Post estimates 300,000 to 400,000 metric tons of OMA rice are now going into the feed sector. In addition to the government stocks, Post estimates over 1 million metric tons of rice stocks are commercially held.

Table 8: Japan's Government Rice Reserve (Unit: MT)

	Domestic Rice	MA rice	Total
2005	840,000	1,700,000	2,540,000
2006	770,000	1,890,000	2,660,000
2007	770,000	1,520,000	2,290,000
2008	990,000	970,000	1,960,000
2009	860,000	950,000	1,810,000
2010	980,000	880,000	1,860,000
2011	880,000	960,000	1,840,000
2012	950,000	780,000	1,730,000
2013	910,000	800,000	1,710,000

Source: Food Department/MAFF

#### **WHEAT**

#### Production in 2013 Down 6 Percent

Despite a slight increase in the total planted area, wheat production in 2013 declined 6 percent over 2012. Although weather conditions were generally favorable in the major growing region of Hokkaido, which produces 66 percent of Japan's wheat supplies, yield declined from 2012's record level; on the other hand, yield in other areas increased by 4 percent. The nationwide yield in 2013 was still higher than average. Since wheat is an alternative crop to rice in some areas, Post forecasts planted areas for wheat will increase slightly in 2014 as planted areas for rice are expected to shrink. Despite this increase in area, given an average yield of the past five years (excluding the abnormally low yield in 2010), production volume is forecast to decline by 8 percent.

Table 9: Japan's Wheat Production

	Planted Area	Production	Yield
	(hectares)	(MT)	(MT/ha)
2009	208,300	674,200	3.24
2010	206,900	571,300	2.76
2011	211,500	746,300	3.53
2012	209,200	857,800	4.10
2013	210,200	805,800	3.83
*2014	212,000	780,200	3.68

Source: MAFF
\*FAS/Tokyo forecast

#### Food Wheat Consumption Stays Flat While Feed Use Expands

Consumption levels of food wheat have been flat in the last three decades at around 32 kilograms per capita. The Ministry of Agriculture, Forestry and Fisheries (MAFF) estimates the total food wheat demand to be 5.71 million metric tons for the 2013 Japan fiscal year (April 2013-March 2014). Combined with the wheat equivalent of wheat product imports of 200,000 to 300,000 metric tons (refer to Table 16-2 and 16-3 below), Japan's aggregate food wheat demand is estimated to be 5.9 to 6.0 million metric tons. As corn prices have soared (see Overall Market Situation), wheat utilization in feed has been expanding dramatically since 2012 and surpassed the 900,000 MT mark in MY2012/13. In MY2013/14 and MY 2014/15, as the demand for corn is expected to recover (see the following CORN section), wheat consumption in the feed sector is forecast to decline but still remain greater than the MY2011/12 level.

#### **GE** Wheat Incident

On May 29, 2013, the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture (USDA) announced that test results of plant samples from an Oregon farm indicated the presence of genetically engineered (GE) glyphosate-resistant wheat volunteers. Although GE wheat is not approved for sale or commercial production in the United States, this variety is considered as safe as non-GE wheat currently on the market as the Food and Drug Administration (FDA) completed a voluntary consultation on the safety of food and feed derived from this GE glyphosate-resistant wheat

variety in 2004 with no further questions concerning the safety of grain and forage derived from this wheat.

Although MAFF immediately suspended import tenders for Western White (WW) for food use and soft wheat from the Western region for feed use, as a result of close coordination between the Government of Japan, USDA and industry, a new testing protocol was established, and on August 1, 2013, MAFF resumed WW import tenders. MAFF also resumed import tenders for soft white wheat for feed use on August 7. Since the successful resumption of import tenders for WW wheat, import tenders have been held regularly without disruption. On December 4, MAFF announced that their regulatory testing of U.S. wheat, including 170,000 metric tons of stocks MAFF had stopped releasing after the outbreak of the incident, showed no positive detection of GE wheat MON71800.

For further details, see GAIN JA3030 and GAIN JA3032

#### Wheat Imports by MAFF as a State Trading Enterprise

MAFF operates as a State Trading Enterprise (STE) and conducts three types of imports: 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 different types of wheat, mainly from the United States, Canada and Australia, to best meet the needs of Japanese users.

Table 10: Major Types of Imported Wheat and Their Uses (Unit: MT)

Class	Use	JFY2012 Import Volume
U.S. Western White (WW)	Confectionery products	774,000
U.S. Hard Red Winter (HRW)	Bread and Chinese noodles	939,000
U.S. Dark Northern Spring (DNS)	Bread and Chinese noodles	1,220,000
Canada Western Red Spring #1 (1CW)	Bread	989,000
Canada Western Amber Durum (DRM)	Western noodles (pasta)	178,000
Australia Standard White (ASW)	Japanese noodles	823,000
Australia Prime Hard (PH)	Chinese noodles	102,000
Other		5,000
		5,030,000

Source: MAFF

MAFF controls both producer and resale prices of domestic wheat, and the resale price of imported wheat. MAFF buys imported wheat at international prices and sells it to domestic flour millers at a markup. As shown in Table 11 below, the markup ratio fluctuated between 1.3 and 1.7 over the last two years due to volatile international wheat prices. MAFF reportedly intends to maintain this rate around 2 to 1, which means MAFF sells imported wheat at twice the purchase price.

For further details of how this system works, please refer to the 2013 Grain and Feed Annual.

Table 11: MAFF Purchase and Resale Prices of Imported Wheat, JFY2011-2012 (Yen/MT)

	Average CIF	Resale	
Month-Year	Price* (a)	Price* (b)	(b)/(a)
Apr-12	31,542	48,780	1.5
May-12	29,533		1.7
Jun-12	28,703		1.7
Jul-12	33,116		1.5
Aug-12	35,444		1.4
Sep-12	34,664		1.4
Oct-12	34,533	50,130	1.5
Nov-12	35,831		1.4
Dec-12	36,716		1.4
Jan-13	37,848		1.3
Feb-13	39,425		1.3
Mar-13	39,452		1.3
Apr-13	39,597	54,990	1.4
May-13	39,699		1.4
Jun-13	37,925		1.4
Jul-13	38,552		1.4
Aug-13	36,849		1.5
Sep-13	37,727		1.5
Oct-13	37,762	57,260	1.5
Nov-13	37,288		1.5
Dec-13	38,965		1.5
Jan-14	NA		
Feb-14	NA		
Mar-14	NA		

Source: MAFF and Ministry of Finance

The price includes 5% consumption tax.

### 2) SBS Imports of Food Wheat

MAFF has conducted a Simultaneous-Buy-Sell (SBS) system for food quality wheat and barley since April 2007. The idea behind the SBS system is to allow for greater flexibility of imports and transparency in a portion of food quality wheat. However, MAFF still remains a "middle man" in the transaction.

MAFF holds SBS tenders under the following two categories.

Category I: Prime Hard and Durum

Category II: Any brand except:

U.S. Western White (WW)
U.S. Hard Red Winter (HRW)
U.S. Dark Northern Spring (DNS)

Australia Standard White (ASW)

<sup>\*</sup>Average of five brands: WW, HRW, DNS, 1CW and ASW

#### Canada Western Red Spring (CWRS)

During the most recent complete Japanese fiscal year (JFY2012), a total of nearly 300,000 MT of wheat (Category I and II combined) was imported as shown below, down 50,000 MT from the previous year. According to trade sources, the decline was primarily due to a smaller supply of Prime Hard from Australia. Because of relatively expensive freight rates for containers, wheat imported by containers (Category II) was small in volume. To date this fiscal year, MAFF has held eleven tenders, and approximately 200,000 MT has been imported. By the end of the fiscal year (March 2014), imports of 250,000 MT are expected. As Australian Prime Hard supplies continue to be unstable, users are more inclined to obtain U.S. semi-hard wheat through state trading than sourcing Australian Prime Hard through the SBS tenders. On the other hand, because Durum can only be imported through the SBS tenders, Canadian Durum imports have been stable.

Table 12: SBS Imports of Food Wheat – JFY2012 (April 2012-March 2013, Unit: MT)

Country	Brand	Category	Apr-Sept	Oct-Mar	Total
Australia	Prime Hard	Category I	41,050	55,700	96,750
		Category II	5,880	5,235	11,115
		Australia Total	46,930	60,935	107,865
Canada	Durum	Category I	86,600	94,000	180,600
		Canada Total	86,600	94,000	180,600
France	French	Category II	2,188	3,633	5,821
		France Total	2,188	3,633	5,821
Other	Other	Category II	740	2,660	3,400
Total			136,458	161,228	297,686

Source: MAFF

#### 3) SBS Imports of Feed Wheat

MAFF also imports wheat and barley for feed use under the SBS system. For JFY 2013, MAFF has allocated 1,060,000 MT for the SBS feed wheat, and so far conducted forty-two SBS tenders, through which 661,910 MT of imported wheat was contracted. As shown in Table 14 and Chart 7 below, imports of feed wheat have dramatically increased in the last several years as high corn prices led feed mills to seek substitutes.

Table 13: SBS Imports of Feed Wheat and Barley (Unit: MT)

	Wheat	Barley
1st tender	32,320	0
2nd	0	0
3rd	1,960	36,705
4th	69,840	19,860
5th	0	0
6th	1,000	0
7th	24,700	112,000
8th	0	0
9th	73,410	37,560
10th	0	0
11th	0	0
12th	42,910	32,250
13th	0	0
14th	13,050	0
15th	0	120,360
16th	1,000	0
17th	52,590	39,795
18th	38,860	0
19th	1,290	0
20th	59,350	3,000
21th	0	0
22nd	1,280	67,000
23rd	0	8,860
24th	55,640	36,320
25th	0	0
26th	0	0
27th	49,830	0
28th	58,020	36,140
29th	0	115,000
30th	0	10,390
31th	26,370	69,870
32nd	0	0
33rd	0	0
34th	0	1,000
35th	0	0
36th	600	14,200
37th	42,740	29,505
38th	15,150	86,850
39th	0	150
40th	0	0
41th	0	0
42nd	0	0
Total	661,910	876,815

Source: MAFF

As of February 21, 2014

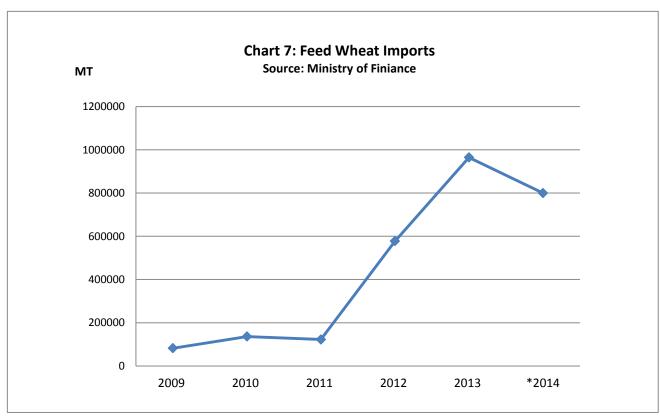
Table 14-1: Feed Wheat Imports (annual series)

	MY: July-June										
				Quantity							
		2008/ 2009/ 2010/ 2011/ 2012/									
Partner Country	Unit	09	10	11	12	13					
World	MT	81963	136149	122609	577336	964696					
Australia	MT	35982	55129	59277	231759	295763					
Russia	MT	1463	42059	0	19289	0					
Ukraine	MT	8356	29269	12951	0	0					
Canada	MT	0	8206	39494	77674	264815					
United States	MT	36162	1486	10887	248614	404118					

Table 14-2: Feed Wheat Imports (MY2013/14 to Date)

Monthly Series: 07/2013 - 12/2013											
			Quantity								
Partner Country	Unit	07/2013	08/2013	09/2013	10/2013	11/2013	12/2013	Total to Date			
World	MT	70556	41638	64679	93209	130009	49244	449335			
Ukraine	MT	0	0	29832	67566	124328	46014	267740			
United States	MT	70556	41638	1392	7125	0	2445	123156			
Russia	MT	0	0	0	0	0	785	785			
Serbia	MT	0	0	9393	1500	0	0	10893			
Australia	MT	0	0	0	0	0	0	0			
Canada	MT	0	0	0	0	0	0	0			
Romania	MT	0	0	24062	17018	5681	0	46761			

Source: Japan Customs



\*Forecast

MAFF allows flour millers to import wheat outside of MAFF's control as long as they export an equivalent amount of wheat flour. Flour millers that successfully find export markets can import this so-called "free wheat" at global market prices.

Table 15: Japan's Exports of Wheat Flour

			N	IY: July-June				
Partner	Unit		Quantity			% Change		
Country	Onit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012
World	MT	190390	194922	178087	100.00	100.00	100.00	- 8.64
Hong Kong	MT	112730	122587	111726	59.21	62.89	62.74	- 8.86
Singapore	MT	32324	32372	29087	16.98	16.61	16.33	- 10.15
Vietnam	MT	18630	18313	15159	9.79	9.40	8.51	- 17.22
Thailand	MT	9635	10035	9638	5.06	5.15	5.41	- 3.96
Taiwan	MT	9348	8870	9059	4.91	4.55	5.09	2.13
Malaysia	MT	1018	939	1516	0.53	0.48	0.85	61.45
United States	MT	797	623	752	0.42	0.32	0.42	20.71
Indonesia	MT	3148	540	658	1.65	0.28	0.37	21.85
Australia	MT	34	75	300	0.02	0.04	0.17	300.00
United Kingdom	MT	100	32	53	0.05	0.02	0.03	65.63
Philippines	MT	14	19	42	0.01	0.01	0.02	121.05
China	MT	2271	37	40	1.19	0.02	0.02	8.11
Other	MT	341	480	57	0.18	0.25	0.03	-88.00

#### Feed Wheat Imports Continue to Elevate Total Wheat Imports in 2013

Total imports of wheat, including wheat products, in MY2012/13 increased by 3.8 percent to 6.60 million MT (see Table 16-3). The increase is primarily owing to another sharp increase in feed wheat imports (see Table 14 and Chart 7). As corn prices soared (see Overall Market Situation), wheat utilization has dramatically increased since 2012. In MY2013/14, as corn imports start to normalize, feed wheat imports are expected to shrink. Imports of food wheat should increase slightly as domestic wheat production declines, but not enough to offset the expected drop in feed wheat imports. Given the flat aggregate demand for flour-based food products, total (feed and food) wheat imports in MY2013/14 are expected to decline slightly. If corn imports continue to stabilize, feed wheat imports are expected to continue to decrease in MY2014/15, which will bring the total wheat imports down further.

Table 16-1a: Japan's Wheat Imports (annual series)

	MY: July-June										
Partner Country	Unit	Quantity			% Share			% Change			
	Onit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012			
World	MT	5627720	6116209	6343374	100.00	100.00	100.00	3.71			
United States	MT	3292933	3545674	3429955	58.51	57.97	54.07	- 3.26			
Canada	MT	1170030	1350656	1666426	20.79	22.08	26.27	23.38			
Australia	MT	1146798	1197624	1241188	20.38	19.58	19.57	3.64			
Other	MT	17959	22255	5805	0.32	0.36	0.09	-73.92			

Table 16-1b: Japan's Wheat Imports (MY2013/14 imports to date)

	Monthly Series: 07/2013 - 12/2013											
			Quantity									
Partner Country	Unit	07/2013	08/2013	09/2013	10/2013	11/2013	12/2013	Total to Date				
World	MT	415783	469896	528589	598168	646155	257798	2916389				
United States	MT	182660	242693	215013	350894	292998	79193	1363451				
Canada	MT	139436	147842	146527	98989	162045	87966	782805				
Australia	MT	93463	77149	103743	62201	60816	43800	441172				
Ukraine	MT	0	0	29832	67566	124328	46014	267740				
Other	MT	224	2212	33474	18518	5968	825	61221				

Source: Japan Customs

Table 16-2a: Japan's Wheat Product Imports (annual series)

			N	1Y: July-June				
Partner Country	Unit		Quantity		% Share			% Change
	Onit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012
World	MT	176054	173896	185943	100.00	100.00	100.00	6.93
Italy	MT	89408	82955	92540	50.78	47.70	49.77	11.56
Turkey	MT	16775	19587	27305	9.53	11.26	14.68	39.40
United States	MT	21401	22504	21873	12.16	12.94	11.76	- 2.80
China	MT	17188	18943	18297	9.76	10.89	9.84	- 3.41
Korea South	MT	11198	10859	8687	6.36	6.24	4.67	- 20.01
Thailand	MT	7859	6986	6137	4.46	4.02	3.30	- 12.15
Greece	MT	2486	3082	3124	1.41	1.77	1.68	1.35
UAE	MT	2968	2622	1984	1.69	1.51	1.07	- 24.33
Vietnam	MT	1424	1469	1786	0.81	0.84	0.96	21.63
Tunisia	MT	2268	1725	976	1.29	0.99	0.53	- 43.41

Other	MT	3080	3163	3234	1.75	1.82	1.74	2.24

Table 16-2b: Japan's Wheat Product Imports (MY2013/14 imports to date)

			Monthly S	eries: 07/2013	3 - 12/2013					
			Quantity							
Partner Country	Unit	07/2013	08/2013	09/2013	10/2013	11/2013	12/2013	Total to Date		
World	MT	15859	14973	13984	14594	13436	15173	88019		
Italy	MT	7695	7359	6550	6669	6301	7856	42430		
Turkey	MT	2367	2289	1895	1982	2050	1568	12151		
United States	MT	1885	1466	2123	2285	1777	2106	11642		
China	MT	1596	1732	1279	1289	1426	1632	8954		
Korea South	MT	731	460	491	746	674	601	3703		
Thailand	MT	558	427	520	468	403	498	2874		
Greece	MT	332	585	309	336	192	115	1869		
UAE	MT	120	174	284	236	40	120	974		
Vietnam	MT	180	180	219	142	146	197	1064		
Tunisia	MT	165	47	31	165	66	164	638		
Other	MT	230	254	283	276	361	316	1720		

Table 16-3: Japan's Total Wheat Imports (Unit: MT)

			Wheat Equivalent	Wheat	TOTAL
		а	b = a x 1.368	С	b + c
World	MY2012/13	185,943	254,370	6,343,374	6,597,744
	*MY2013/14 to Date	88,019	120,410	2,916,389	3,036,799
United States	MY2012/13	21,873	29,922	3,429,955	3,459,877
	*MY2013/14 to Date	11,642	15,926	1,363,451	1,379,377

<sup>\*</sup>July-December 2013

#### Stocks

In the past, Japan held emergency stocks of wheat at a level equivalent to 2.6 months' worth of the amount of food wheat imported annually. However, due to the shortened time necessary to obtain alternative supplies in case of an emergency, the stocks have been reduced to 2.3 months' worth. For JFY2013 the government set the targeted amount of stocks at 940,000 metric tons.

#### **CORN**

#### Production

Corn production is negligible in Japan.

#### Japan's Livestock Population on Gradual Decline

Of the total demand for corn in Japan, roughly 70 percent comes from the feed sector, and 30 percent comes from the food sector, mainly from starch manufacturers. Despite the decline in utilization over recent years, corn continues to be the largest ingredient in compound and mixed feed. Of the total demand for feed corn, about 44 percent is for the poultry sector. As shown in the table below, the stagnant trend in the livestock population appears irreversible, and feed demand is expected to decline slowly but steadily in years to come.

Table 17: Japan's Livestock and Poultry Population (As of February each year, Unit: 1,000 heads)

	2000	2009	2010	2011	2012	2013	**2014	% change 2014/2000
Dairy cows	1,764	1,500	1.484	1.467	1,449	1,423	1,390	-21.2%
Beef	1,704	1,300	1,404	1,407	1,443	1,425	1,330	-21.270
cattle	2,824	2,923	2,892	2,763	2,723	2,642	2,580	-8.6%
Swine	9,806	9,899	9,750	9,768	9,735	9,685	9,600	-2.1%
	140,36	139,91	139,20	137,35	135,47	133,08	133,00	
Layers	5	0	0	2	7	5	0	-5.2%
	108,41	107,14				*131,62	132,00	
Broilers	0	1	NA	NA	NA	4	0	NA

Source: MAFF

#### Prolonged Price Volatility Leads to Further Lowering of Corn Utilization

The feed ingredient ratio is adjusted from year to year, depending on the price of various grains. As shown in Table 1, the corn utilization ratio of about 50 percent, pre-2008 price surge, was lowered to 48 percent in 2009, then to 47 percent in 2010, and with the recent price re-surge, the Japanese feed industry has once again adjusted the ratio down to the 42 percent range in 2013. Given the total feed production in Japan is approximately 24 million MT, a decline of 8 percent in utilization translates to a 1.92 million MT reduction in corn demand.

The driving force in the food corn demand comes from the beverage sector, particularly for high fructose corn syrup (HFCS) used in low alcoholic drinks like *happoshu* (light beer) and other alcoholic beverages, in addition to a continued strong demand for soft drinks. However, due to general public restraint on holding receptions and parties in the aftermath of the Great East Japan Earthquake, sources indicate that shipments of beer and related beverages declined 3.7 percent in 2011. Although stagnant consumption of alcohol and soft drinks continued in 2012, demand for food corn returned to previous levels in 2013 as beverage consumption recovered.

<sup>\*</sup>MAFF resumed its official survey in 2013. However, the results cannot be compared to the previous survey due to changes in survey method.

<sup>\*\*</sup>FAS/Tokyo forecast

As shown in the following section, as of March 2014, the price for the 2014 new crop of U.S. corn is beginning to decline. As a result, feed millers are expected to raise the utilization ratio of corn to 45 percent in MY2013/14, the level similar to that in 2011. This translates to approximately 11 million MT. If the price of corn continues to stabilize in MY2014/15, a further increase in feed demand is expected, but not to the pre-price surge level of 12 million MT, as importers are intending to maintain a diversification of supply sources to avoid overdependence on the United States.

Demand for food corn is forecast steady for MY2013/14 and MY2014/15 as beverage consumption is expected to be robust.

#### **Prices**

The CIF price of U.S. corn during MY2013 increased 7 percent over MY2012. The price for the 2014 new crop that is currently being marketed is beginning to decline, as shown in Table 19 below.

Table: 18: CIF Price of Feed Corn

	MY: October-September										
		Unit Value	(United State	s Dollars)	% Change						
Partner Country	Unit	2010/11	2011/12	2012/13	MY2013/ MY2012						
World	MT	316.09	337.31	341.93	1.37						
Brazil	MT	255.47	350.87	333.77	- 4.87						
United States	MT	318.19	340.42	365.81	7.46						
Argentina	MT	314.55	333.77	323.67	- 3.03						
South Africa	MT	325.3	369.41	324.71	- 12.10						
Ukraine	MT	0	309.42	312.06	0.85						
Thailand	MT	373.03	0	362.34	0.00						
France	MT	0	0	363.64	0.00						
Australia	MT	416.76	353.77	377.97	6.84						

Source: Japan Customs

Table 19: CIF Price of Feed Corn in Recent Months

	Monthly Series: 07/2013 - 12/2013											
			Unit Value (United States Dollars)									
Partner Country	Unit	07/2013	08/2013	09/2013	10/2013	11/2013	12/2013					
World	MT	334.1	326.46	321.64	300.78	271.03	251.2					
Argentina	MT	327.4	316.96	309.25	312.34	296.74	306.2					
United States	MT	344.03	344.87	339.46	312.99	291.96	276.44					
South Africa	MT	324.51	318.12	314.15	311.8	274.18	257.92					
Brazil	MT	336.54	339.63	312.56	284.33	262.64	249.76					
Paraguay	MT	0	0	0	0	0	239.11					
Ukraine	MT	332.9	0	0	0	228.28	227.89					
Romania	MT	0	0	0	0	228.01	225.59					

#### Trade

As shown in Table 20 below, the higher price of corn and the consequent reduction in corn utilization in feed led to a significant decline in feed corn imports in MY2012/13. Ordinarily, Japan imports over 90 percent of its corn supply from the United States. However, since September 2012, imports from Brazil have been rising sharply, surpassing imports from the United States in December of that year. Imports from Argentina, South Africa and the Ukraine have also notably increased.

As the price of imported corn is beginning to decline, the utilization of corn in feed is expected to recover as explained in the previous section. Therefore, imports of feed corn are forecast to increase by the expected amount of recovery in the feed utilization; i.e., by approximately 1 million MT in MY2013/14. In addition, MY2013/14 beverage demand is expected to remain robust, keeping the level of imports at around 4.5 million MT. The overall corn imports in MY2013/14 are forecast at 15.5 million MT, up 1 million MT from MY2012/13. Industry sources expect that, if U.S. corn prices continue to remain at lower levels, the U.S. market share will recover significantly as the new 2014 crop starts to arrive in Japan. However, U.S. import market share is not expected to recover to the pre-2012 level of 90 percent, even if the price stays attractive, as Japanese users feel it is important to maintain a diversification of suppliers now that they have learned how to source and use corn from various countries.

As for MY2014/15, if import corn prices stabilize, a further recovery in feed corn imports are expected, possibly to the 11.5 million MT level, leading to overall imports of 16 million MT, with food corn imports remaining steady at 4.5 million MT.

Table 20: Feed Corn Imports

	MY: October-September												
Partner	Unit		Quantity			% Change							
Country	Oint	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012					
World	MT	10720789	10677607	9713656	100.00	100.00	100.00	- 9.03					
Brazil	MT	353503	768443	4055158	3.30	7.20	41.75	427.71					
United States	MT	9767939	8035925	3305437	91.11	75.26	34.03	- 58.87					
Argentina	MT	466401	575346	1568578	4.35	5.39	16.15	172.63					
South Africa	MT	125048	10276	415047	1.17	0.10	4.27	3938.99					
Ukraine	MT	0	911658	349626	0.00	8.54	3.60	- 61.65					
Thailand	MT	4965	0	10107	0.05	0.00	0.10	0.00					
France	MT	0	0	8012	0.00	0.00	0.08	0.00					
Australia	MT	1444	7411	1523	0.01	0.07	0.02	- 79.45					
India	MT	1294	0	168	0.01	0.00	0.00	0.00					
Romania	MT	0	147837	0	0.00	1.38	0.00	- 100.00					
Serbia	MT	0	103579	0	0.00	0.97	0.00	- 100.00					
Slovakia	MT	0	8097	0	0.00	0.08	0.00	- 100.00					
Bulgaria	MT	0	38235	0	0.00	0.36	0.00	- 100.00					
Canada	MT	195	0	0	0.00	0.00	0.00	0.00					
Hungary	MT	0	70800	0	0.00	0.66	0.00	- 100.00					

Table 21: Food Corn Imports

	MY: October-September												
Partner Country	l locia		Quantity				% Change						
	Unit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012					
World	MT	4924922	4207862	4695943	100.00	100.00	100.00	11.60					
United States	MT	4755695	4043347	3626949	96.56	96.09	77.24	- 10.30					
Brazil	MT	49088	74915	565932	1.00	1.78	12.05	655.43					
South Africa	MT	11000	0	202519	0.22	0.00	4.31	0.00					
Argentina	MT	99125	10750	187906	2.01	0.26	4.00	1647.96					
France	MT	41	82	72612	0.00	0.00	1.55	∞					
Australia	MT	233	15790	29001	0.00	0.38	0.62	83.67					
India	MT	7225	4363	4315	0.15	0.10	0.09	- 1.10					
Indonesia	MT	1176	2692	3056	0.02	0.06	0.07	13.52					
Ukraine	MT	0	49095	1900	0.00	1.17	0.04	- 96.13					
Other	MT	1339	6828	1753	0.03	0.16	0.04	-74.33					

Table 22: Corn Imports Total

			MY: C	October-Septen	nber				
Partner	Unit		Quantity			% Share			
Country	Offic	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012	
World	MT	15645711	14885469	14409599	100.00	100.00	100.00	- 3.20	
United States	MT	14523634	12079272	6932386	92.83	81.15	48.11	- 42.61	
Brazil	MT	402591	843358	4621090	2.57	5.67	32.07	447.94	
Argentina	MT	565526	586096	1756484	3.61	3.94	12.19	199.69	
South Africa	MT	136048	10276	617566	0.87	0.07	4.29	5909.79	
Ukraine	MT	0	960753	351526	0.00	6.45	2.44	- 63.41	
France	MT	41	82	80624	0.00	0.00	0.56	∞	
Australia	MT	1677	23201	30524	0.01	0.16	0.21	31.56	
Thailand	MT	5371	308	10129	0.03	0.00	0.07	3188.64	
India	MT	8519	4363	4483	0.05	0.03	0.03	2.75	
Indonesia	MT	1176	2692	3056	0.01	0.02	0.02	13.52	
Peru	MT	417	925	1265	0.00	0.01	0.01	36.76	
Belgium	MT	409	362	277	0.00	0.00	0.00	- 23.48	
Taiwan	MT	62	142	163	0.00	0.00	0.00	14.79	
Bulgaria	MT	0	38247	20	0.00	0.26	0.00	- 99.95	
Hungary	MT	0	72300	0	0.00	0.49	0.00	- 100.00	
Romania	MT	0	147837	0	0.00	0.99	0.00	- 100.00	
Serbia	MT	0	107158	0	0.00	0.72	0.00	- 100.00	
Other	MT	240	8097	6	0.00	0.05	0.00	-100.00	

## Stocks

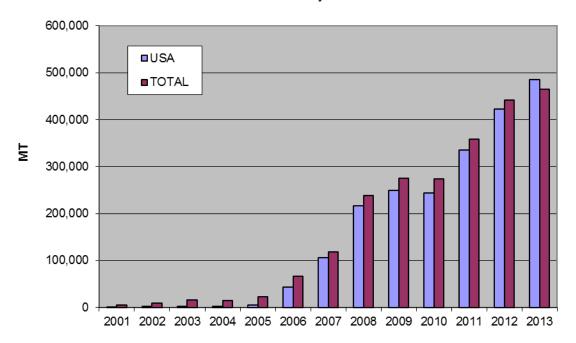
Japan holds emergency stocks of essential feed grains, i.e. corn, sorghum, and rice. The stock level, including commercially held stocks, is set at approximately 950,000 MT in total. The breakdown is 600,000 MT of corn and sorghum combined (roughly 90 percent corn) and 350,000 MT of rice (all out of OMA rice stocks).

#### DDGS Imports Leap to a Record High Level

One of the positive side-effects of the ethanol boom in the United States is the increasing availability of a high value byproduct, Distiller's Dried Grains with Solubles (DDGS). Japan's imports of DDGS from the United Sates have been increasing significantly and surged further in MY2011/12 and MY2012/13 as corn prices jumped. The majority of these DDGS are currently used in dairy cattle feed. Japan's feed industry has accepted DDGS as an indispensable ingredient. Although the amount of its utilization is still contingent upon prices of other feed grains, its demand continues to remain strong in MY2013/14, with

imports keeping up with the pace of the previous year.

Chart 7 DDGS Imports (2001-13) Source: Ministry of Finance



#### **SORGHUM**

#### Production

Like corn, production of sorghum is negligible in Japan.

#### **Consumption**

As sorghum is a substitute for corn, its utilization ratio in the production of compound and mixed feeds fluctuates. Depending on its relative price to corn and other ingredients, the ratio is typically between 4 and 7 percent, or between 1.1 and 1.7 MMT in volume as shown in Table 1. As described in the **WHEAT** section, use of wheat in feed expanded significantly in recent years, cutting into the share of corn and sorghum in feed to a notable extent. As the price competitiveness relative to corn improved, the utilization ratio of sorghum in feed increased to nearly 8 percent in MY2012/13. This translates to an increase in volume by roughly 350,000 MT. In MY2013/14, as corn prices drop, demand for sorghum is expected to decline by 300,000 MT. If corn prices continue to stabilize, a further decline is forecast for MY2014/15.

#### Prices

Just as with corn, CIF prices for sorghum have been steadily rising. The U.S. price, in particular, increased more significantly than other suppliers since 2011. The average import prices have come down to 272-280 U.S. dollars per MT in recent months, and the price competitiveness of U.S. sorghum has been improving.

Table 23: CIF Price of Feed Sorghum

MY: October-September										
		Unit Value	Unit Value(United States Dollars)							
Partner Country	Unit	2010/11	2011/12	2012/13	MY2013/ MY2012					
World	MT	288.56	300.37	304.02	1.22					
Argentina	MT	266.99	278.59	282.73	1.49					
Australia	MT	304.74	307.94	327.73	6.43					
United States	MT	304.48	340.43	355.22	4.34					

Source: Japan Customs

#### Trade

Since sorghum is mainly a substitute crop, potential growth in Japan's sorghum imports largely depends on its price relative to corn and other feed ingredients. Imports are classified as being either for feed or food. However, despite this technicality, practically all of the sorghum imported under the food HS code eventually ends up in the feed sector. Therefore, the increase in the total import volume shown in Table 26 is almost entirely attributed to the increase in the volume of sorghum used in feed in MY2012/13. As corn prices stabilize and the price competitiveness of corn against sorghum is expected to improve,

sorghum imports in MY2013/14 are expected to decline. If corn prices stabilize and remain more attractive in MY2014/15, sorghum imports are forecast to decline further.

Table 24: Feed Sorghum Imports

MY: October-September											
Partner	11	Quantity					% Change				
Country		2010/11	2011/12		2010/11 2011/12		2012/13	MY2013/ MY2012			
World	MT	1261646	1337204	1588719	100.00	100.00	100.00	18.81			
Argentina	MT	538988	465299	920779	42.72	34.80	57.96	97.89			
Australia	MT	468463	762987	530795	37.13	57.06	33.41	- 30.43			
United States	MT	254195	108918	137145	20.15	8.15	8.63	25.92			

Source: Japan Customs

Table 25: Food Sorghum Imports

	MY: October-September												
Partner Country	Unit		Quantity			% Share							
	Oilit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012					
World	MT	156292	142257	307585	100.00	100.00	100.00	116.22					
Argentina	MT	71654	41037	163040	45.85	28.85	53.01	297.30					
Australia	MT	22749	91725	102345	14.56	64.48	33.27	11.58					
United States	MT	61234	9127	40799	39.18	6.42	13.26	347.01					
India	MT	173	226	1025	0.11	0.16	0.33	353.54					
Thailand	MT	264	0	286	0.17	0.00	0.09	0.00					
China	MT	211	136	88	0.14	0.10	0.03	- 35.29					
Belgium	MT	7	6	2	0.00	0.00	0.00	- 66.67					

Source: Japan Customs

Table 26: Sorghum Imports Total

MY: October-September												
Partner Country	l lait	Quantity				% Share						
	Unit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012				
World	MT	1417938	1479461	1896304	100.00	100.00	100.00	28.18				
Argentina	MT	610642	506336	1083819	43.07	34.22	57.15	114.05				
Australia	MT	491212	854712	633140	34.64	57.77	33.39	- 25.92				
United States	MT	315429	118045	177944	22.25	7.98	9.38	50.74				
India	MT	173	226	1025	0.01	0.02	0.05	353.54				
Thailand	MT	264	0	286	0.02	0.00	0.02	0.00				
China	MT	211	136	88	0.01	0.01	0.00	- 35.29				

Belgium   MT   7   6   2   0.00   0.00   0.00	2 0.00 0.00 0.00 - 66.67		6	7		Belgium
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## Stocks

Following the GOJ's 2003 policy of reducing overall feed grain stocks, sorghum stocks have shrunk significantly. Post estimates the current government and commercial stocks will remain constant at less than  $80,000\,\mathrm{MT}$ .

#### **BARLEY**

#### **Production**

Aggregate barley production in Japan in 2013 reached 179,600 MT, up 4.2 percent from 2012. For two-row barley, the planted area shrank slightly but the production volume stayed at the previous year's level due to improved yield, although yield was still below average due to rain during planting in some of the major growing areas. Six-row barley also saw a slight decline in planted area. However, due to an above-average yield, supported by favorable weather conditions, production volume increased 8.6 percent. Naked barley production increased nearly 20 percent over the previous year as a result of a slight increase in planted area coupled with a yield that was slightly higher than average due to favorable weather conditions. For 2014, Post forecasts that crop areas will remain at the 2013 level. With the average yield of the past five years, production volume is expected to decrease by 4 percent over 2013.

Table 27: Japan's Barley Production

Type of Barley	Production	2009	2010	2011	2012	*2013	**2014
	Crop Area (hectares)	36,000	36,600	37,600	38,300	37,500	37,200
Two-Row Barley	Production Volume (MT)	115,800	104,300	119,100	112,400	113,100	113,000
	Yield (MT/hectare)	3.22	2.85	3.17	2.93	3.02	3.04
	Crop Area (hectares)	17,600	17,400	17,400	17,100	16,900	16,700
Six-Row Barley	Production Volume (MT)	52,200	44,800	38,700	47,800	51,900	45,600
	Yield (MT/hectare)	2.97	2.57	2.22	2.80	3.07	2.73
	Crop Area (hectares)	4,350	4,720	5,130	4,970	5,010	5,000
Naked Barley	Production Volume (MT)	11,200	11,800	13,700	12,200	14,600	13,100
	Yield (MT/hectare)	2.57	2.50	2.67	2.45	2.91	2.62
Barley Total	Crop Area (hectares)	57,950	58,720	60,130	60,370	59,410	58,900
Daney Total	Production Volume (MT)	179,200	160,900	171,500	172,400	179,600	171,700

\*Preliminary
\*\*FAS/Tokyo
forecast

#### **Consumption**

Aggregate consumption of barley (feed and food) is estimated to be 1.5 million MT. Roughly 80 percent of barley is consumed in the feed sector, especially compound and mixed feed for the cattle industry (beef and dairy). It is particularly important in feeding beef cattle, because it contributes to the production of high quality beef with the white marbling that Japanese consumers favor. The largest non-feed uses are for the production of *shochu*, a traditional distilled liquor, and beer. Other uses include *miso* (soybean paste) and barley tea. There is little indication that either feed or food demand will increase in the near

future. In the long term, some decline in feed demand is expected as Japan's cattle population, dairy in particular, shrinks.

#### **Prices**

The Australian barley price jumped in 2013 due primarily to a tighter supply situation triggered by shrinking stocks, as production fell while demand stayed strong. The Canadian price also rose as a bullish demand from both overseas and domestic markets outweighed increased production. An improved supply situation in the United States led to a slight drop in the price of U.S. barley in 2013; however, it still remains higher than competitors'.

Table 28: CIF Price of Barley for Feed

MY: October-September					
Partner Country	Unit	Unit Value(United States Dollars)			% Change
		2010/11	2011/12	2012/13	MY2013/ MY2012
World	MT	302.26	300.95	326.12	8.36
Australia	MT	310.27	298.39	325.7	9.15
Canada	MT	299.47	308.45	326.09	5.72
United States	MT	271.12	342.48	338.74	- 1.09
Ukraine	MT	196.2	0	299.8	0.00
Russia	MT	0	310.84	0	0.00

Source: Japan Customs

#### **Trade**

Along with rice and wheat, barley imports are controlled by MAFF as a "Staple Food". MAFF has been hesitant to remove barley from the state trading system entirely, because it is a strategic alternative crop under the rice crop diversion program. Total imports from the United States peaked in 2008 at nearly 500,000 MT but plummeted with the resurgence of Australia as the leading supplier due to its price competitiveness and proximity to Japan's major barley importing port in Kyushu. However, in MY2012/13, as the price competitiveness of U.S. barley improved, imports from the United States recovered significantly, although not nearly to the level of the early to mid-2000's of 200,000 to 400,000 MT. Given that overall barley consumption, as well as Japan's domestic barley production, is expected to stay flat, imports in MY2013/14 and MY2014/15 are forecast to remain at the MY2012/13 level.

Table 29: Feed Barley Imports

				MY: October-	September			
Partner	Uni		Quantity			% Share	% Change	
Country	t	2010/11	2011/12	2011/12 2012/13		2011/1	2012/1 3	MY2013/MY201 2
		113669	104507	112201				
World	MT	8	1	9	100.00	100.00	100.00	7.36
Australi								
a	MT	650136	795689	599259	57.20	76.14	53.41	- 24.69
Canada	MT	442785	224433	439971	38.95	21.48	39.21	96.04
United								
States	MT	9021	3215	62584	0.79	0.31	5.58	1846.63
Ukraine	MT	34756	0	20205	3.06	0.00	1.80	0.00
Russia	MT	0	21734	0	0.00	2.08	0.00	- 100.00

Source: Japan Customs

Table 30: Food Barley Imports

			MY: Oc	tober-Septem	ber			
Partner	I I mile		Quantity				% Change	
Country	Unit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012
World	MT	222581	211768	232317	100.00	100.00	100.00	9.70
Australia	MT	162552	163724	173668	73.03	77.31	74.75	6.07
Canada	MT	52993	46270	56513	23.81	21.85	24.33	22.14
United States	MT	316	1774	2133	0.14	0.84	0.92	20.24
United Kingdom	MT	0	0	3	0.00	0.00	0.00	0.00
China	MT	0	0	0	0.00	0.00	0.00	0.00
Czech Republic	MT	0	0	0	0.00	0.00	0.00	0.00
France	MT	2786	0	0	1.25	0.00	0.00	0.00
Germany	MT	3934	0	0	1.77	0.00	0.00	0.00

Source: Japan Customs

Table 31: Barley Imports Total

			MY: Oc	tober-Septen	nber			
Partner	l locit		Quantity				% Change	
Country	Unit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012
World	MT	1359481	1257042	1354336	100.00	100.00	100.00	7.74
Australia	MT	812757	959413	772927	59.78	76.32	57.07	- 19.44
Canada	MT	495782	270763	496484	36.47	21.54	36.66	83.36
United States	MT	9389	5026	64717	0.69	0.40	4.78	1187.64
Ukraine	MT	34756	0	20205	2.56	0.00	1.49	0.00
United Kingdom	MT	0	0	3	0.00	0.00	0.00	0.00
China	MT	0	0	0	0.00	0.00	0.00	0.00
Czech Republic	MT	0	1	0	0.00	0.00	0.00	- 100.00
France	MT	2786	0	0	0.20	0.00	0.00	0.00
Germany	MT	4011	105	0	0.30	0.01	0.00	- 100.00
Russia	MT	0	21734	0	0.00	1.73	0.00	- 100.00

Source: Japan Customs

## Barley Imports by MAFF as a State Trading Enterprise

MAFF operates as a State Trading Enterprise (STE) and conducts two types of barley imports: 1) SBS imports of feed barley; and 2) SBS imports of food barley.

## 1) SBS Imports of Feed Barley

MAFF introduced the SBS system for barley for feed in JFY 1999, with approximately 360,000 MT contracted under three tenders. The allocation amount has been greatly raised since then, and was set at 1.28 million MT for the Japanese fiscal year 2013, which ends in March 2014. Bidding is held almost weekly, to allow for more commercially viable trade. So far this Japanese fiscal year, which ends in March 2014, forty-two tenders have been held, as summarized below.

Table 32: SBS Imports of Feed Barley (Unit: MT)

	Wheat	Barley
1st tender	32,320	0
2nd	0	0
3rd	1,960	36,705
4th	69,840	19,860
5th	0	0
6th	1,000	0
7th	24,700	112,000
8th	0	0
9th	73,410	37,560
10th	0	0
11th	0	0
12th	42,910	32,250
13th	0	0
14th	13,050	0
15th	0	120,360
16th	1,000	0
17th	52,590	39,795
18th	38,860	0
19th	1,290	0
20th	59,350	3,000
21th	0	0
22nd	1,280	67,000
23rd	0	8,860
24th	55,640	36,320
25th	0	0
26th	0	0
27th	49,830	0
28th	58,020	36,140
29th	0	115,000
30th	0	10,390
31th	26,370	69,870
32nd	0	0
33rd	0	0
34th	0	1,000
35th	0	0
36th	600	14,200
37th	42,740	29,505
38th	15,150	86,850
39th	0	150
40th	0	0
41th	0	0
42nd	0	0
Total	661,910	876,815

Source: MAFF

As of February 14, 2014

## 2) SBS Imports of Food Barley

As noted in the **WHEAT** section, MAFF conducts an SBS system for food quality wheat and barley.

Nearly 250,000 MT of food barley was imported in JFY 2012: roughly 80 percent from Australia for *shochu* and beer; and 20 percent from Canada for beer and barley tea. Imports from the United States are used for beer. To date this fiscal year, MAFF has held eleven tenders, and approximately 142,000 MT have been imported.

As with wheat, there are two categories for barley. Category I is for vessel trade. Although most barley is imported by vessel, there is also Category II for container units. Category II provides a means for new varieties to enter the market.

Table 33: SBS Imports of Food Barley - JFY2012 (April 2012-March 2013, Unit: MT)

Country	Category	Apr-Sept	Oct-Mar	Total
Australia	Category I	96,200	92,026	188,226
	Category II	9,650	2,000	11,650
	Australia Total	105,850	94,026	199,876
Canada	Category I	17,800	29,350	47,150
	Category II	21	350	371
	Canada Total	17,821	29,700	47,521
USA	Category I	0	0	0
	Category II	350	1,212	1,562
	USA Total	350	1,212	1,562
Other	Category I	0	0	0
	Category II	0	0	0
Total		124,021	124,938	248,959

Source: MAFF

### Stocks

Japan used to hold 350,000 MT of emergency barley stocks, but since 2006 they have been replaced by rice stocks. Since practically all the feed barley Japan needs can be imported through the SBS tenders with an ample allocation (1.28 million MT), MAFF explains that government-held emergency stocks are no longer necessary.

#### RYE

#### Production

Production of rye is minimal in Japan.

## **Consumption**

Rye is almost exclusively used for feed in Japan. The main uses of rye are for cattle feed and swine feed. Like sorghum, most rye users consider it mainly as a substitute for corn. Since there is practically no domestic production, annual rye consumption and imports are directly linked with domestic cattle and swine production, as well as the relative prices of corn and other feed grains, particularly sorghum and wheat. As described in the following section, as the price competiveness of rye has worsened over the last few years, the utilization of rye in feed declined from about 74,000 MT in 2011 to 16,000 MT in 2012, and preliminary data indicates that it was at a similar level in 2013. Feed millers chose sorghum and wheat over rye as alternatives to high-priced corn, and as Table 1 shows, the current utilization ratio of rye in feed is merely 0.1 percent. As rye is typically considered a marginal ingredient in feed, demand is highly susceptive to the supply situation and prices of sorghum and competing grains. For MY2014/15, Post forecasts consumption will remain steady; although, if the price situation shifts dramatically, demand for rye could easily fluctuate between 20,000MT and 100,000MT.

#### Prices

As shown below, U.S. rye is significantly less price competitive than that of Germany or Canada, the two major suppliers for Japan. The price of German rye has been soaring since 2011/12 due to reduced crop size in the EU, especially Poland. The price of Canadian rye also rose significantly in 2012/13 as the tight supply situation there continues.

Table 34: CIF Price of Rye

	N	/IY: October-S	September			
		Unit Value	% Change			
Partner Country	Unit	2010/11 2011/12		2012/13	MY2013/ MY2012	
World	MT	291.23	368.77	431.29	16.95	
Germany	MT	268.48	347.61	407.15	17.13	
Canada	MT	323.5	365.53	423.65	15.90	
United States	MT	728.62	803.88	830.72	3.34	
Finland	MT	0	0	549.29	0.00	
New Zealand	MT	0	992.77	948.34	- 4.48	
Denmark	MT	641.49	897.92	824.76	- 8.15	
Poland	MT	224.78	0	0	0.00	

Source of Data: Japan Customs

## Trade

In the peak of MY2002/03, total imports of rye hit 415,000 MT, out of which 414,000 MT came from Germany. Due to dramatically weakened price competitiveness, rye imports shrank to 57,000 MT in MY2009/10. In MY2010/11, as the rye/sorghum price ratio moved in favor of rye, imports of rye recovered to the 100,000 MT mark, but halved in MY2011/12 as the price spiked again. In MY2012/13, imports declined further as the price situation worsened, and are expected to continue to struggle in MY2013/14 as prices of other grains are normalizing. For MY2014/15, imports of rye are expected to remain steady. However, if the price situation shifts dramatically, they could easily fluctuate between 20,000MT and 100,000MT.

Table 35: Rye Imports

			MY: Oc	tober-Septem	nber			
Partner	Unit	Quantity				% Change		
Country	Omit	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	MY2013/ MY2012
World	MT	100294	45886	27216	100.00	100.00	100.00	- 40.69
Germany	MT	12910	18643	17836	12.87	40.63	65.53	- 4.33
Canada	MT	56540	26168	8098	56.37	57.03	29.75	- 69.05
United States	MT	1015	1003	1106	1.01	2.19	4.06	10.27
Finland	MT	0	0	89	0.00	0.00	0.33	0.00
New Zealand	MT	0	51	47	0.00	0.11	0.17	- 7.84
Denmark	MT	18	21	40	0.02	0.05	0.15	90.48
Poland	MT	29811	0	0	29.72	0.00	0.00	0.00

Source: Japan Customs

#### Stocks

Unlike corn, sorghum and barley, Japan does not hold strategic emergency stocks of rye. Commercial stocks are estimated to be minimal.

### OTHER ISSUES OF INTEREST

## Acceptance of Biotechnology

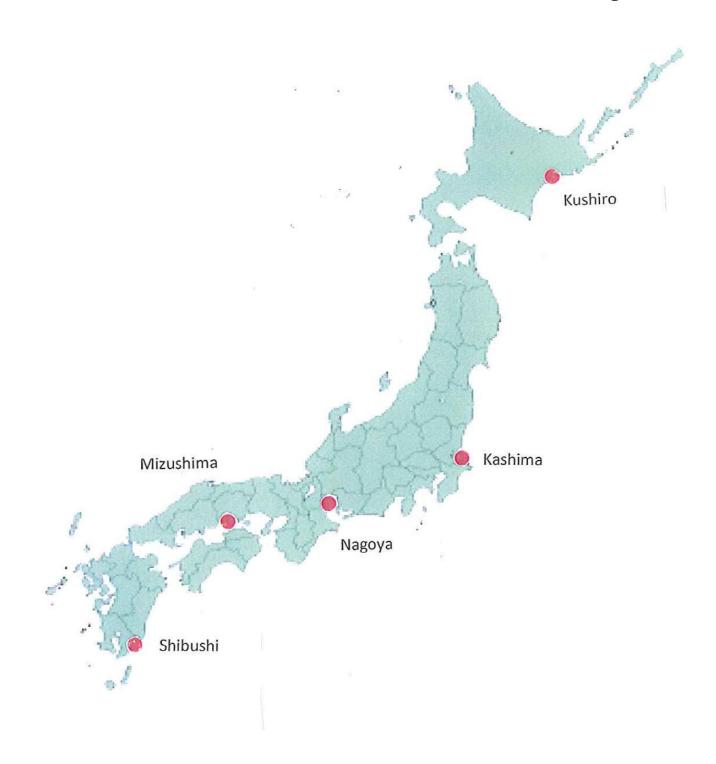
Although there are no official statistics, virtually all of the feed corn and a majority of the food corn Japan imports from the United States and South America are produced through biotechnology. Japan also imports roughly three million metric tons of soybeans, two-thirds of which are derived using biotechnology. Japan remains the world's largest per capita importer of biotech food and feed. Japan has approved over 160 events for food use. New events are generally reviewed and approved within a predictable time frame through a science-based and transparent review process. However, as an increasing number of new events are expected to be introduced to the market, the pace of review and approval could become a major concern.

Overall, as a country that thrives on new technology, Japanese academia, experts and trade people at large accept new agriculture-related innovations including biotechnology. Consumers in general, however, remain averse to the term, which in Japanese has a connotation of "genetically manipulated." When asked, a majority of consumers state that they would rather not purchase biotech-derived food. However, at the point of purchase, their behavior tends to differ from what they say when prompted. The sheer volume of biotech corn Japan imports for food use is one of the objective indicators that show the level of acceptance of the technology. (Please refer to <u>Japan Agricultural Biotechnology Annual</u>: JA3027, dated 7/2/13, for details.)

## Japan's Ports Prepare for Larger Size Vessels Post Panamax

Currently, even major ports in Japan are not deep enough to accept fully-loaded Panamax vessels. These bulk carriers are now loaded with between 58,000 and 60,000 MT of grains so that the bottoms of the vessels do not touch the bottom of the port. In the late 2000's, Japan's livestock and feed industry, led by Japan Agricultural Cooperatives (JA), petitioned the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), which has authority over port infrastructure management and budget, to address the issue and take expeditious action. Consequently, in May 2011, MLIT designated five major grain ports as "International Bulk Vessel Strategic Ports." They are: Kashima, Shibushi, Nagoya, Mizushima, and Kushiro. (See Chart 8.) In March 2012, MLIT established plans to deepen these ports to be able to accommodate fully-loaded Panamax by 2015 and Post-Panamax vessels by 2020. However, due to MLITs priority to reconstruct northern ports damaged by the 2011 Great East Japan Earthquake, the work has been delayed. No specific commencement date has been announced.

**Chart 8: The Location of the Five International Bulk Vessel Strategic Ports** 



# Appendix:

# 1. Japan's Agriculture at Glance

Items	Data	Year	Note
Basic Indicators			
GDP	473,777 billion yen	2012	
Gross Agricultural Product	4,835 billion yen	2012	Peaked at 7,938 billion in 1990
Gross Forestry Product	143 billion yen	2012	
Gross Fisheries Product	752 billion yen	2012	
Self-sufficiency			
Calorie Basis	39%	2012*	Goal: 50% by 2020
Production Value Basis	68%	2012*	Goal: 70% by 2020
Food Industry			
Food Industry's Domestic Output	78,268 billion yen	2011	
% in all economic activities	9%	2011	
# of workers in food industry	8.04 million	2012	
% in all workers	13%	2012	
Consumption			
Final value of food and beverages consumed	73,584 billion yen	2005	
Trade			
Total Imports of Ag, Forestry and Fisheries Products	7,918 billion yen	2012	
Agricultural Products	5,442 billion yen	2012	
Forestry Products	971 billion yen	2012	
Fisheries Products	1,505 billion yen	2012	
Total Exports of Ag, Forestry and Fisheries Products	450 billion yen	2012	Goal: 1 trillion yen by 2017
Agricultural Products	268 billion yen	2012	
Forestry Products	12 billion yen	2012	
Fisheries Products	170 billion yen	2012	
Production			
Total Agricultural Output	8,525 billion yen	2012	Peaked at 11,717 billion in 1984
Rice	2,029 billion yen	2012	Peaked at 3,930 billion in 1984
Vegetables	2,190 billion yen	2012	Peaked at 2,801 billion in 1991
Fruit	747 billion yen	2012	Peaked at 1,103 billion in 1991
Livestock	2,588 billion yen	2012	Peaked at 3,290 billion in 1984
Farm		1	
Total # of People Living in Farming Households	6.16 million	2011	
# of Farming Households	2.53 million	2010	Peaked at 6.18 billion in 1950
# of Commercial Farmers	1.46 million	2013*	
# of Noncommercial Farmers	0.90 million	2010	
Full-time Farmers	0.32 million	2013*	
# of People Involved in Farming	2.39 million	2013*	Peaked at 14.54 million in 1960

65 Years Old and Older	62%	2013*	
Average Age	65.8	2012	
# of New Comers	56,000	2012	
Younger than 40 Years Old	15,000	2012	
Arable Farmland	4.54 million hectares	2013	Peaked at 6.09 million in 1961
Rice Paddy	2.47 million hectares	2013	Peaked at 3.44 million in 1969
Farmland for Field Crops	2.07 million hectares	2013	Peaked at 2.72 million in 1958
Fallow Paddy/Land	0.40 million hectares	2010	0.24 million in 1995
Commercial Farmer's Average Size of Farmland	23.18 hectares in Hokkaido	2013	17.46 in 2004
	1.52 hectares elsewhere	2013	1.26 in 2004
Average Income of Farming Households	4.76 million yen	2012	
Income from Farming	1.35 million yen	2012	
Average Income of Full-time Farmers	6.31 million yen	2012	
Income from Farming	5.02 million yen	2012	
Agricultural Co-ops (JA)			
# of Local JA's	738	2013	
# of Members	9.83 million	2011	
# of Regular Members	4.67 million	2011	
of Non-regular Members	5.17 million	2011	
Total Savings at JA Banks	91,149 billion yen	2013	
Forestry			
% of Woods/Forests in Japan's Land Mass	67%	2012	
Total Forestry Output	417 billion yen	2011	Peaked at 1,158 billion in 1970
# of Households Involved in Forestry	0.91 million	2010	
# of People Involved in Forestry	51,000	2010	
Average Income	103,000 yen	2008	Peaked at 1.27 million in 1979
# of Forestry Co-ops	672	2011	
# of Members	1.56 million	2011	
Fisheries			
Exclusive Economic Zone	4,470,000 km2		6th in the world
Total Fisheries Output	1,419 billion yen	2011	Peaked at 2,977 billion in 1982
Total Catch	4.86 million metric tons	2012	Peaked at 12.82 million in 1984
# of People Involved in Fisheries	174,000	2012	Excludes three Tohoku prefectures
# of Boats	185,465	2008	
Average Income	2.38 million yen	2012	
# of Fisheries Co-ops	979	2012	
# of Members	0.34 million	2011	

\*Preliminary

Source: Compiled by Ag Office based on GOJ data

# 2. Japan's Food and Feed Self-Sufficiency

	19 60	19 75	19 85	19 90	19 95	20 00	20 05	20 06	20 07	20 08	20 09	20 10	20 11	20 12*
		11	10	10	10									
Rice	96	0	7	0	4	95	95	94	94	95	95	97	96	96
Wheat	28	4	14	15	7	11	14	13	14	14	11	9	11	12
Beans	25	9	8	8	5	7	7	7	7	9	8	8	9	10
Soybeans	11	4	5	5	2	5	5	5	5	6	6	6	7	8
	10													
Vegetables	0	99	95	91	85	82	79	79	81	82	83	81	79	78
Fruit	90	84	77	63	49	44	41	38	40	41	42	38	38	38
Meats	90	77	81	70	57	52	54	56	56	56	57	56	54	55
Beef	95	81	72	51	39	34	43	43	43	44	43	42	40	42
Eggs	10 0	97	98	98	96	95	94	95	96	96	96	96	95	95
Milk/Dairy Products	86	81	85	78	72	68	68	67	66	70	71	67	65	65
Seafood (for humans)	11 0	10 0	86	72	57	53	57	60	62	62	62	62	58	58
Sugar	31	15	33	32	31	29	34	32	33	38	33	26	26	28
Self- sufficiency (Calorie Basis)	73	54	53	48	43	40	40	39	40	41	40	39	39	39
Self- sufficiency (Major Food Grains)	80	69	69	67	65	60	61	60	60	61	58	59	59	59
Self- sufficiency														
(Feed)	55	34	27	26	26	26	25	25	25	26	25	25	26	26
Self- sufficiency (Food + Feed Grains)	62	40	31	30	30	28	28	27	28	28	26	27	28	27

Source: MAFF

<sup>\*</sup> Preliminary

# **Production, Supply and Demand Statistics**

Rice, Milled Japan	2012/20	13	2013/20	014	2014/20	015
	Market Year Begir	n: Nov 2012	Market Year Begi	in: Nov 2013	Market Year Beg	in: Nov 2014
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1,581	1,581	1,599	1,599		1,590
Beginning Stocks	2,747	2,747	2,742	2,744		2,826
Milled Production	7,756	7,756	7,832	7,832		7,662
Rough Production	10,654	10,654	10,758	10,758		10,525
Milling Rate (.9999)	7,280	7,280	7,280	7,280		7,280
MY Imports	689	691	700	700		700
TY Imports	690	691	700	700		700
TY Imp. from U.S.	0	322	0	350		350
Total Supply	11,192	11,194	11,274	11,276		11,188
MY Exports	200	200	200	200		200
TY Exports	200	200	200	200		200
Consumption and Residual	8,250	8,250	8,250	8,250		8,200
Ending Stocks	2,742	2,744	2,824	2,826		2,788
Total Distribution	11,192	11,194	11,274	11,276		11,188
				İ		Ì
1000 HA, 1000 MT, MT/HA	1	-	-		•	

Wheat Japan	2012/20	013	2013/20	014	2014/2	2014/2015		
-	Market Year Beg	in: Jul 2012	Market Year Beg	in: Jul 2013	Market Year Beg	jin: Jul 2014		
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post		
Area Harvested	209	209	208	210		212		
Beginning Stocks	1,456	1,456	1,734	1,737		1,743		
Production	855	858	743	806		780		
MY Imports	6,598	6,598	6,200	6,200		6,000		
TY Imports	6,598	6,598	6,200	6,200		6,000		
TY Imp. from U.S.	3,547	3,460	0	3,400		3,300		
Total Supply	8,909	8,912	8,677	8,743		8,523		
MY Exports	275	275	300	300		300		
TY Exports	275	275	300	300		300		
Feed and Residual	1,000	1,000	800	800		600		
FSI Consumption	5,900	5,900	6,000	5,900		5,900		
Total Consumption	6,900	6,900	6,800	6,700		6,500		
Ending Stocks	1,734	1,737	1,577	1,743		1,723		
Total Distribution	8,909	8,912	8,677	8,743		8,523		
1000 HA, 1000 MT, M	T/HA				·			

Corn Japan	2012/20	2012/2013		2013/2014		015
	Market Year Begin: Oct 2012		Market Year Begin: Oct 2013		Market Year Begin: Oct 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1	1	1	1		1
Beginning Stocks	610	610	523	521		522
Production	1	1	1	1		1
MY Imports	14,412	14,410	15,500	15,500		16,000
TY Imports	14,412	14,410	15,500	15,500		16,000
TY Imp. from U.S.	6,512	6,932	0	11,500		12,500
Total Supply	15,023	15,021	16,024	16,022		16,523
MY Exports	0	0	0	0		0
TY Exports	0	0	0	0		0
Feed and Residual	10,000	10,000	11,000	11,000		11,500
FSI Consumption	4,500	4,500	4,500	4,500		4,500
Total Consumption	14,500	14,500	15,500	15,500		16,000
Ending Stocks	523	521	524	522		523
Total Distribution	15,023	15,021	16,024	16,022		16,523
1000 HA, 1000 MT, M	T/HA	-		-	-	

Sorghum Japan	2012/20	2012/2013 Market Year Begin: Oct 2012		2013/2014 Market Year Begin: Oct 2013		2014/2015 Market Year Begin: Oct 2014	
	Market Year Begi						
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested	0	0	0	0		C	
Beginning Stocks	81	81	78	77		77	
Production	0	0	0	0		C	
MY Imports	1,897	1,896	1,600	1,600		1,500	
ΓY Imports	1,897	1,896	1,600	1,600		1,500	
ΓΥ Imp. from U.S.	221	178	0	250		300	
Total Supply	1,978	1,977	1,678	1,677		1,577	
MY Exports	0	0	0	0		0	
ΓY Exports	0	0	0	0		C	
Feed and Residual	1,900	1,900	1,600	1,600		1,500	
FSI Consumption	0		0	0		C	
<b>Fotal Consumption</b>	1,900	1,900	1,600	1,600		1,500	
Ending Stocks	78	77	78	77		77	
Total Distribution	1,978	1,977	1,678	1,677		1,577	
1000 HA, 1000 MT, M	IT/HA		-		-		

Barley Japan	2012/20	2012/2013		014	2014/2015	
	Market Year Begin: Oct 2012		Market Year Begin: Oct 2013		Market Year Begin: Oct 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	60	60	59	59		59
Beginning Stocks	389	389	367	365		345
Production	172	172	180	180		172
MY Imports	1,356	1,354	1,300	1,300		1,300
TY Imports	1,356	1,354	1,300	1,300		1,300
TY Imp. from U.S.	58	65	0	80		80
Total Supply	1,917	1,915	1,847	1,845		1,817
MY Exports	0	0	0	0		0
TY Exports	0	0	0	0		0
Feed and Residual	1,250	1,250	1,200	1,200		1,180
FSI Consumption	300	300	300	300		300
Total Consumption	1,550	1,550	1,500	1,500		1,480
Ending Stocks	367	365	347	345		337
Total Distribution	1,917	1,915	1,847	1,845		1,817
1000 HA, 1000 MT, M	T/HA					

Rye Japan	2012/2013 Market Year Begin: Oct 2012		2013/2014 Market Year Begin: Oct 2013		2014/2015 Market Year Begin: Oct 2014		
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested	0	0	0	0		0	
Beginning Stocks	5	5	7	7		7	
Production	0	0	0	0		0	
MY Imports	27	27	75	50		50	
TY Imports	27	27	75	50		50	
TY Imp. from U.S.	0	1	0	1		1	
Total Supply	32	32	82	57		57	
MY Exports	0	0	0	0		0	
TY Exports	0	0	0	0		0	
Feed and Residual	20	20	65	45		45	
FSI Consumption	5	5	10	5		5	
<b>Total Consumption</b>	25	25	75	50		50	
Ending Stocks	7	7	7	7		7	
Total Distribution	32	32	82	57		57	
1000 HA, 1000 MT, MT/HA							