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Korea - Republic of

Grain and Feed Annual

2016 Grain and Feed Annual

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Report Highlights:
MY 2016/17 corn imports are forecast to decrease 200,000 MT to 9.8 MMT due to competitively-priced wheat replacing corn for feed use. U.S. corn imports are expected to stay at 3.0 MMT accounting for 31 percent of total Korean imports, up from 25 percent in the current marketing year. Meanwhile, MY 2015/16 U.S. corn exports to Korea are revised down to 2.5 MMT, offset by cheaper origins from South America and Eastern Europe. MY2016/17 wheat imports are forecast at 4.56 MMT, while MY 2015/16 imports are projected to reach 4.35 MMT due to the availability of competitively-priced feed grade wheat. In an effort to reduce bloated ending stocks, Korea is allowing rice from the 2012 crop to be used in animal feed for the first time. The Korean government released 99,000 MT of brown rice from the 2012 crop for this purpose, with plans to continue under a rice reduction program.

Commodities:

Wheat

Production:

MY 2016/17 wheat production is forecast to increase to about 45,000 tons, up 29 percent from the current marketing year's estimate due to increased planting area in rice paddy area. The Korean government has made a double cropping direct payment of 500,000 Korean Won (USD442) per hectare to farmers who have grown winter crops in their paddy fields.

Table 1

Korea: Wheat Production			
Crop Year	Harvested Area(Hectare)	Yield(MT/HA)	Production(MT)
2006	1,738	3.34	5,810
2007	1,928	3.81	7,624
2008	2,549	4.06	10,359
2009	5,067	5.15	26,087
2010	12,548	3.12	39,116
2011	13,044	3.35	43,677
2012	9,467	3.91	37,014
2013	7,373	3.68	27,130
2014	7,180	3.26	23,409
2015[a/]	10,076	3.46	34,895
2016[b/]	13,000	3.52	45,000

Source: Ministry for Agriculture, Food, and Rural Affairs (MAFRA), Statistics Korea (KOSTAT)
a/ FAS/Seoul forecast based on five-year average yield with acreage surveyed by KOSTAT
b/ FAS/Seoul projection based on five-year average yield and acreage

Consumption:

MY 2016/17 wheat consumption is forecast at 4.40 million metric tons (MMT), an increase of nearly 220,000 metric tons (MT) from the current marketing year due to an anticipated increase in available supply of competitively-priced feed wheat, as milling wheat consumption remains stable. (Table 3)

MY 2016/17 milling wheat consumption, including flour and pasta trade on a wheat basis, is forecast at 2.40 MMT, a slight increase over the current marketing year.

In MY 2015/16, total wheat consumption is expected to stay around 4.18 MMT, up eight percent from the previous year due mainly to greater demand for imported feed-grade wheat which has been competitive with corn. Milling wheat consumption is expected to be 2.38 MMT, which includes imports of flour and pasta, almost the same as the previous year.

Table 2

Korea: Monthly Wheat Use (1,000 MT)						
Month	Feed Wheat			Milling Wheat a/		
	MY 2013/14	MY 2014/15	MY 2015/16	MY 2013/14	MY 2014/15	MY 2015/16
July	235	129	124	176	183	181
August	219	121	119	173	175	170
September	226	126	124	156	166	178

October	245	134	151	185	179	182
November	205	130	140	180	172	169
December	159	143	151	180	186	189
January	125	123	132	184	194	191
February	100	103	129	161	152	160
Subtotal	**1,514**	**1,009**	**1,070**	**1,395**	**1,407**	**1,420**
March	101	116	na	176	183	na
April	100	120	na	180	176	na
May	108	119	na	177	172	na
June	114	125	na	175	177	na
Total	**1,936**	**1,490**	na	**2,102**	**2,115**	na

Source: KFA and KOFMIA

a/ includes wheat flour exports, but excludes the portion used in soy-sauce production

Table 3

Korea: Post Estimates of Domestic Wheat Use (1,000 MT, July/June)				
Year	2013/14	2014/15[c/]	2015/16[c/]	2016/17[c/]
Imported Milling Wheat [1/]	2,132	2,165	2,150	2,150
Imported Milling Wheat [2/]	180	180	190	200
Flour Imports [a/]	30	44	60	60
Flour Exports [a/]	58	61	60	60
Pasta Imports [a/]	150	143	150	150
Pasta Exports [a/]	140	135	150	150
Local Wheat	27	23	35	45
FSI Consumption [b/]	**2,321**	**2,359**	**2,375**	**2,395**
Feed Wheat	1,936	1,490	1,800	2,000
Total Consumption [b/]	**4,257**	**3,849**	**4,175**	**4,395**

Source: Korea Feed Association (KFA), Korea Flour Millers Industry Association (KOFMIA) and Korea Customs Service (KCS)

a/ Wheat basis

b/ include local wheat, flour imports and pasta imports but exclude flour exports and pasta exports

c/ FAS/Seoul forecast

1/ KOFMIA members

2/ non- KOFMIA member

Table 4

Korea: Wheat Flour Utilization (1,000 MT)						
Calendar Year	2010	2011	2012	2013	2014	2015
Total Consumption [1/]	1,610	1,634	1,672	1,595	1,660	1,706
Per Capita (Kg/Year) [2/]	32.6	32.8	33.4	31.7	32.9	33.7

Source: Korea Flour Mills Industrial Association (KOFMIA)

1/ based on flour millers' sales including exports, imports and animal feed purposes, but wheat flour production basis excluding animal feed and exports since 2010.

2/ excludes animal feed and exports from total consumption, including imports of wheat flour.

Trade:

MY 2016/17 wheat imports are forecast at 4.56 MMT, of which 2.35 MMT is for milling (including flour and pasta imports on a wheat equivalent basis) and 2.0 MMT for feed. The import estimate hinges to a large extent on the continued availability of competitively-price feed wheat with milling wheat remaining steady.

MY 2015/16 wheat imports are expected to reach 4.35 MMT, given that imports for feed wheat were 30 percent higher than the previous year during the first eight months of the current marketing year and pending feed-grade wheat contracts for the remaining four months (table 8). In MY 2015/16, Ukraine is the major supplier of feed-grade wheat, followed by EU countries such as France, Bulgaria, and Denmark for the first eight months. Imports of U.S. wheat in MY 2015/16 are expected to reach around 1.3 MMT not including feed-grade wheat.

Table 5

Korea: Wheat Imports (1,000 MT, Customs Cleared Basis)					
Marketing Year (July/June)	Feed Wheat	Milling Wheat	Flour Imports 1/	Pasta Import 1/	Total
05/06	1,536	2,220	41	101	3,898
06/07	976	2,298	69	108	3,451
07/08	565	2,317	105	117	3,104
08/09	1,151	2,058	69	105	3,383
09/10	2,164	2,071	127	119	4,481
10/11	2,075	2,520	63	123	4,781
11/12	2,868	2,169	42	122	5,201
12/13	2,820	2,461	39	135	5,455
13/14	1,948	2,181	30	150	4,309
14/15	1,391	2,370	44	143	3,948
15/16 2/	1,800	2,340	60	150	4,350
16/17 3/	2,000	2,350	60	150	4,560

Source: Korea Customs Service
1/ Wheat basis
2/ FAS/Seoul forecast
3/ FAS/Seoul projection

Table 6

Korea: Monthly Wheat Imports (1,000 MT)						
Month	Feed Wheat			Milling Wheat		
	MY 2013/14	MY 2014/15	MY 2015/16	MY 2013/14	MY 2014/15	MY 2015/16
July	249	87	162	77	178	244
August	163	35	58	259	189	133
September	198	149	211	91	182	224
October	316	230	200	234	237	201
November	161	117	191	129	179	195
December	120	97	110	267	206	216
January	130	143	50	129	212	190
February	187	64	174	182	168	187
Sub Total	**1,524**	**922**	**1,156**	**1,368**	**1,551**	**1,590**
March	42	213	na	247	189	na
April	125	48	na	210	227	na
May	74	143	na	165	194	na
June	183	65	na	191	209	na
Total	**1,948**	**1,391**	na	**2,181**	**2,370**	na

Source: Korea Customs Service

Table 7

Korea: MY 2015/16 Monthly Wheat Imports by Origin (1,000 MT, based on Customs Clearance)						
Country	U. S.	Australia	Canada	India	Other	Total
Milling Wheat						
July 2015	116	114	13	0	1	244
August	37	96	0	0	0	133
September	96	94	33	0	1	224

October	122	78	0	0	1	201
November	104	77	14	0	0	195
December	69	115	32	0	0	216
January 2016	78	111	0	0	1	190
February	93	79	14	0	1	187
Total(Jul-Jan) 2015/16	**714**	**765**	**108**	**0**	**5**	**1,590**
Total(Jul-Jan) MY 2014/15	783	648	116	0	4	1,551
Feed Wheat						
2015 July	0	0	0	0	162	162
August	0	0	0	0	58	58
September	0	0	0	0	211	211
October	0	0	0	0	200	200
November	0	0	0	0	191	191
December	0	0	0	0	110	110
January 2016	0	0	0	0	50	50
February	0	0	0	0	174	174
Total(Jul-Jan) 2015/16	**0**	**0**	**0**	**0**	**1,157** [a/]	**1,157**
Total(Jul-Jan) MY 2014/15	78	0	102	10	732	922
Total Wheat						
2015 July	116	114	13	0	163	406
August	37	96	0	0	58	191
September	96	94	33	0	212	435
October	122	78	0	0	201	401
November	103	77	14	0	192	386
December	69	115	32	0	110	326
January 2016	78	111	0	0	50	240
February	93	79	14	0	175	361
Total(Jul-Jan) 2015/16	**714**	**765**	**108**	**0**	**1,161**	**2,748**
Total(Jul-Jan) MY 2014/15	862	648	216	10	734	2,473

Source: Korea Customs Service

a/ Ukraine (811,224 MT); France (169,086 MT); Bulgaria (74,355 MT); Denmark (42,039 MT); Russia (54,420MT) and Romania (5,653 MT)

Table 8

Korea: MY 2015/16 Feed Wheat Contracts by Estimated Time of Arrival (ETA)
(Unit: 1,000 MT, as of Mar. 17, 2016)

ETA	Quantity	Price (US$/MT)[1/]
July 2015	0	0
August	233	213.96
September	159	205.77
October	232	203.47
November	119	202.60
December	55	205.30
January 2016	123	201.77
February	85	200.73
March	120	198.47
April	160	195.92
May	318	181.50
June	207	181.78
Total	1,811	

Source: Local Grain Traders

1/ CNF on Weighted Average

Tariff

In late December 2015, the Ministry of Strategy and Finance (MOSF) released its adjusted tariffs and tariff rate quotas (TRQ) for CY 2016. However, the government excluded milling wheat from the list of autonomous TRQ in CY 2016. The out-of-quota duty remains fixed at 1.8 percent. Of note, the feed wheat TRQ and its corresponding duty were eliminated in 2007. The import duty on all U.S. wheat is zero under the KORUS FTA.

In CY 2016, the flour import tariff rate is applied at 4.2 percent of the local base rate. Under KORUS FTA, import tariffs for U.S. wheat flour (H.S. 1101.00.1000) are scheduled to phase out over a 5-year period, declining to zero percent in 2016 accordingly, while tariffs for meslin flour (H.S. 1101.00.2000) the mixture of rye and wheat flour, immediately fell to zero.

Table 9

Korea: Wheat Import Tariff Rates for CY 2016 (Percent)					
Commodity		Applied Tariff Rate		Bound Tariff Rate	
		2015	2016	2015	2016
Durum Wheat, Seed	1001.11.0000	3	3	9.0	9.0
Durum Wheat, Other	1001.19.0000	3	3	9.0	9.0
Seed, Meslins	1001.91.1000	3	3	9.0	9.0
Seed, Other	1001.91.9000	1.8	1.8	1.8	1.8
Feeding, Meslins	1001.99.1010	3	3	9.0	9.0
Feeding, Other	1001.99.1090	0	0	1.8	1.8
Milling, Meslins	1001.99.2010	3	3	9.0	9.0
Milling, Other[1/]	1001.99.2090	1.8	1.8	1.8	1.8
Others, Meslins	1001.99.9010	3	3	9.0	9.0
Others, Other[1/]	1001.99.9090	1.8	1.8	1.8	1.8

Source: Korea Customs Service (KCS)
1/ The number in parenthesis is the in-quota tariff rate.

Flour Trade:

MY 2015/16 flour imports are expected to increase to 60,000 MT (wheat equivalent) to meet demand from small-sized restaurants and noodle manufacturers as they are loyal users of cheaper priced flour. Pasta imports are expected to be around 150,000 MT (wheat equivalent) based on imports for the first seven months of the marketing year. Annual flour exports are approximately 60,000 MT (wheat equivalent), while pasta exports stay around 150,000 MT (wheat equivalent).

Table 10

Korea: Wheat Flour Imports (H.S.: 1101.00.1000) (Metric Ton, July/June)						
Country	MY2010	MY2011	MY2012	MY2013	MY2014	MY2015 [b/]
U.S.A.	531	1,025	1,318	716	793	650
Canada	13,540	1,381	1,037	973	829	576
Australia	528	223	395	658	2,041	1,202
China	583	0	121	60	0	0
Turkey	11,130	8,784	3,636	1,144	996	684
Indonesia	9,956	7,708	9,616	8,011	5,968	6,917
Russia	0	0	0	0	4,1890	18,177
Others	9,772	11,250	12,478	10,237	17,391	16,529
Total	**46,260**	**30,371**	**28,600**	**21,799**	**32,207**	**44,731**
Wheat Basis [a/]	**63,133**	**41,548**	**39,125**	**29,821**	**44,059**	**61,192**

Source: Korea Customs Service (KCS)
a/ applied converting factor: 1.368
b/ year round based on the first seven months (July 2015-January 2016)

Table 11

Korea: Pasta Imports (H.S.: 1902)						
(Metric Ton, July/June)						
Country	MY2010	MY2011	MY2012	MY2013	MY2014	MY2015 b/
U.S.A.	424	429	512	451	375	423
China	62,024	61,766	65,716	73,991	70,426	70,649
Italy	16,368	15,169	19,193	20,595	19,481	22,587
Thailand	3,142	3,851	4,359	4,894	4,529	4,923
Indonesia	2,530	1,593	2,007	1,994	2,596	2,791
Turkey	2,507	3,193	3,630	4,094	3,691	4,257
Others	2,960	3,090	3,466	3,717	3,721	3,871
Total	**89,955**	**89,091**	98,883	109,736	104,819	109,502
Wheat Basis a/	**123,058**	**121,876**	**135,272**	**150,118**	**143,392**	**149,798**
Source: Korea Customs Service (KCS)						

a/ applied converting factor: 1.368
b/ year round based on the first seven months (July 2015-January 2016)

Table 12

Korea: Wheat Flour Exports (H.S.: 1901.20.9000 & 1901.90.9099) (Metric Ton, July/June)						
Country	MY2010	MY2011	MY2012	MY2013	MY2014	MY2015 b/
Total	48,056	44,909	46,843	43,230	45,585	42,939
Wheat Basis a/	64,075	59,879	62,457	57,640	60,780	57,253

Source: Korea Customs Service (KCS)
a/ applied converting factor: 1.333
b/ year round based on the first seven months (July 2015-January 2016)

Table 13

Korea: Pasta Exports (H.S.: 1902) (Metric Ton, July/June)						
Country	MY2010	MY2011	MY2012	MY2013	MY2014	MY2015 b/
USA	19,189	20,365	23,694	23,979	22,675	23,722
Japan	13,811	12,773	10,989	9,833	8,175	7,661
China	4,595	5,517	5,597	7,918	8,926	13,407
Russia	2,450	3,417	3,465	3,108	2,099	1,524
Australia	5,304	4,875	4,956	5,439	4,955	4,946
Hong Kong	6,145	7,159	9,035	11,195	10,030	9,929
Others	29,435	33,521	36,954	41,090	41,,675	45,907
Total	**80,930**	**87,626**	**94,689**	**102,563**	**98,535**	**107,097**
Wheat Basis a/	**110,712**	**119,873**	**129,535**	**140,306**	**134,796**	**146,508**

Source: Korean Customs Service (KCS)
a/ applied converting factor: 1.368
b/ year round based on the first seven months (July 2015-January 2016)

Production, Supply and Demand Data Statistics:

Wheat PS&D

Wheat	2014/2015		2015/2016		2016/2017	
Market Begin Year	Jul 2014		Jul 2015		Jul 2016	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post

Area Harvested	7	7	10	10	0	13
Beginning Stocks	1437	1437	1411	1363	0	1363
Production	23	23	36	35	0	45
MY Imports	3942	3948	4500	4350	0	4560
TY Imports	3942	3948	4500	4350	0	4560
TY Imp. from U.S.	1160	1234	0	1300	0	1300
Total Supply	5402	5408	5947	5748	0	5968
MY Exports	153	196	150	210	0	210
TY Exports	153	196	150	210	0	210
Feed and Residual	1479	1490	1800	1800	0	2000
FSI Consumption	2359	2359	2351	2375	0	2395
Total Consumption	3838	3849	4151	4175	0	4395
Ending Stocks	1411	1363	1646	1363	0	1363
Total Distribution	5402	5408	5947	5748	0	5968
(1000 HA) ,(1000 MT)						

WHEAT -- STATISTICAL TABLES

Import Trade Matrix			
Country	Korea, Republic of		
Commodity	Wheat		
Time Period	July/June	Units:	1,000MT
Imports for:	2013		2014
U.S.	1218	U.S.	1232
Others		Others	
Australia	940	Australia	1006
EU	863	EU	560
Canada	444	Canada	306
Ukraine	151	Ukraine	525
India	371	India	10
Russia	72	Brazil	116
Turkey	48		
Serbia	19		
Total for Others	2908		2523
Others not Listed	2		6
Grand Total	4128		3761
Note: exclude the import of wheat flour and pasta			

Table 14

Korea: Milling Wheat Imports by Variety
(Arrival Basis, Calendar Year)

Origin	Variety	CY 2013		CY 2014		CY 2015	
		Quantity (MT)	%	Quantity (MT)	%	Quantity (MT)	%
United States	No. 1 WW/SW	447,729	21.9	424,386	20.0	450,780	20.6
	No. 1 WW/SW 9.5 max.	0	0	0	0	1,500	0.1
	No. 1 WW/SW 8.5 max.	56,679	2.8	62,507	3.0	40,784	1.9
	No. 1 HRW 11.5 min.	207,162	10.1	200,854	9.5	176,122	8.0
	No. 1 DNS 14.0 min.	275,836	13.5	303,211	14.3	336,723	15.4
	No. 2 SRW	6,504	0.3	7,042	0.3	5,089	0.2
	Sub Total	**993,910**	48.7	**998,000**	47.1	**1,010,998**	46.2

Australia	ASW [a/]	760,902	37.3	839,394	39.6	904,770	41.3
	AH [b/]	123,552	6.1	117,992	5.5	133,460	6.1
	APH [d/]	206	0.0	52,979	2.5	249	0.1
	APW [e/]	41,404	2.0	239	0.1	3,960	0.1
	ANW [c/]	0	0	0	0	2,200	0.1
	Sub Total	**926,064**	45.4	**1,010,604**	47.7	**1,044,639**	47.7
Canada	No. 2 CWRS 13.5 min.	**119,372**	5.8	**107,400**	5.0	**127,960**	5.8
	No. 2 CPSR 11.0 min.	0	0	0	0	**1,100**	0.1
	Sub Total	**119,372**	5.8	**107,400**	5.0	**129,060**	5.9
Others	Organic Wheat	**1,766**	0.1	**3,599**	0.2	**5,156**	0.2
	Grand Total	**2,041,112**	100.0	**2,119,603**	100	**2,189,853**	100

Source: Korea Flour Mills Industrial Association (KOFMIA)
a/ Australian Standard White Wheat
b/ Australian Hard Wheat
c/ Australian Noodle Wheat
d/ Australian Premium Hard
e/ Australian Premium Wheat

Commodities:

Corn

Production:

Corn production is negligible and accounts for less than one percent of total consumption. Planted area for MY 2016/17 is expected to remain steady at around 16,000 hectares, while production is forecast at 79,000 MT based on the preceding five-year average yield.

Statistics Korea (KOSTAT) recently released data on 2015 planting area at 15,356 hectares, down three percent over the previous year. Post estimates Korea's corn production at about 75,000 MT based on the preceding five-year average yield. The government will release the 2015 official production figures in April 2016.

Table 15

Korea: Corn Production			
Crop Year	Area (HA)	Yield (MT/HA)	Production (MT)
2006	13,661	4.73	64,623
2007	16,981	4.82	83,513
2008	18,366	5.05	92,830
2009	15,326	5.02	76,975
2010	15,528	4.79	74,339
2011	15,823	4.65	73,612
2012	17,001	4.89	83,210
2013	15,905	5.06	80,465
2014	15,839	5.18	82,008
2015[a/]	15,356	4.91	75,495
2016 [b/]	15,985	4.94	78,945

Source: Ministry for Agriculture, Food, and Rural Affairs (MAFRA), Statistics Korea (KOSTAT)
a/ FAS/Seoul forecast based on five-year average yield with acreage surveyed by KOSTAT
b/ FAS/Seoul projection based on five-year average yield and acreage

Consumption:

MY 2016/17 corn consumption is forecast to decline to 9.9 MMT, down about two percent from the estimated consumption in the current marketing year, which is composed of 7.6 MMT for feed purposes and 2.3 MMT for food, seed and industrial (FSI) purposes. Feed corn consumption is forecast to decrease to 7.6 MMT, down 250,000 MT from the estimated current marketing year level, in large part due to an anticipated increase in feed wheat demand for compound feed production. However, food, seed and industrial (FSI) corn consumption is expected to stay around 2.3 MMT to meet a greater demand for high fructose corn syrup (HFCS) and other corn products from Korean food industries.

MY 2015/16 corn consumption is forecast to decline to 10.1 MMT, down 1.5 percent from the previous year due to lower consumption for feed corn being replaced by feed-wheat, which is composed of 7.85 MMT for feed purposes and 2.25 MMT for food, seed and industrial (FSI) purposes. However, demand for feed corn will be affected by the availability of competitively-priced feed-grade wheat supply, with price disparity between feed corn and feed wheat narrowing in the global market.

Feed

Compound feed production is forecast to reach around 19 MMT for MY 2016/17, a record volume caused by strong growth in swine inventory, which offsets the reduction in cattle, while poultry numbers remain steady. Feed corn is expected to be the major ingredient used in compound feed, accounting for more than 40 percent of total ingredients in the marketing year.

Food

Corn processors continue using GM corn, non-biotech IP corn, and traditional corn to produce corn starch, HFCS and corn flour. GM corn imported from the United States, South American countries and Ukraine has been used for starch and HFCS. Non-biotech IP corn imported from the United States and Brazil and traditional corn imported from Russia, Hungary, Serbia, Romania and Australia have been used for corn starch and corn flour. The perceived public concern about biotech continues to exert pressure on imported processing corn, especially biotech corn that is used to manufacture cooking oil and HFCS. Many food processing companies have been reluctant to use ingredients sourced from biotech corn. Some food processing companies utilizing corn starch products have sourced ingredients imported from China since these items are reportedly derived from non-biotech corn.

Table 16

Korea: Monthly Corn Use
(1,000 MT)

Month	Feed Corn			Processing Corn		
	MY 2013/14	MY 2014/15	MY 2015/16	MY 2013/14	MY 2014/15	MY 2015/16
October	588	676	699	175	180	189
November	596	620	660	165	178	186
December	687	707	732	163	169	172
January	703	675	659	161	170	183
Sub Total	**2,574**	**2,678**	**2,750**	**664**	**697**	**730**
February	632	602	614	148	155	na
March	653	668	na	180	187	na
April	664	679	na	171	178	na
May	669	679	na	177	183	na
June	646	703	na	176	181	na
July	659	701	na	184	183	na
August	626	655	na	175	181	na
September	639	670	na	159	173	na
Total	**7,762**	**8,035**	**na**	**2,034**	**2,118**	**na**

Source: Korea Feed Association (KFA), Korea Corn Processing Industry Association (KOCPIA)

Table 17

Korea: Total Corn Utilization
(October/September, 1,000 MT)

Marketing Year	Feed	Processing a/	Food b/	Total
2008/09	6,368	1,418	108	7,894
2009/10	6,362	1,928	92	8,382
2010/11	6,074	2,051	89	8,214
2011/12	5,690	2,036	89	7,815
2012/13	6,483	1,900	98	8,481
2013/14	7,762	2,034	95	9,891
2014/15	8,035	2,118	97	10,250
2015/16 [c/]	7,850	2,150	95	10,095
2016/17 [c/]	7,600	2,200	100	9,900

Source: Korea Feed Association (KFA), Korea Corn Processing Industry Association (KOCPIA)

a/ Used for wet and dry milling process based on imported corn.

b/ For on-farm human consumption (on-the-cob) or snack food consumed on-the-cob, as puffed kernels or as corn tea. Imported white corn for popping has been included since MY 2004.

c/ FAS Seoul forecast

Table 18

Korea: Feed Ingredient Use for Compound Feed Production (October/September, 1,000 MT)				
Items	MY 2013/14	MY 2014/15	MY 2015/16[a/]	MY 2016/17[a/]
Sub. Total Grains and Grain Substitutes	12,080	12,046	12,150	12,200
- Wheat	1,633	1,480	1,800	2,000
- Corn	7,762	8,035	7,850	7,600
- Other Grains and Grain Substitute [b/]	2,685	2,531	2,500	2,600
Others [c/]	6,758	6,951	6,750	6,800
Grand Total	**18,838**	**18,997**	**18,900**	**19,000**

Source: Korea Feed Association (KFA)

a/ FAS Seoul forecast

b/ includes Tapioca, bran and gluten feed.

c/ includes vegetable protein meal, animal protein, minerals/additives, tallow, DDGs and molasses.

Table 19

Korea: Compound Feed Production by Species (October/September, 1,000 MT)				
Species	MY 2013/14	MY 2014/15	MY 2015/16[a/]	MY 2016/17[a/]
Poultry	5,107	5,551	5,500	5,500
Swine	6,015	6,049	6,200	6,350
Cattle	6,388	5,978	5,800	5,750
Others [b/]	1,314	1,388	1,400	1,400
Total	18,824	18,967	18,900	19,000

Source: Ministry for Agriculture, Food, and Rural Affairs (MAFRA)

a/ FAS/Seoul forecast

b/ include ducks, rabbit, horse, sheep, deer, quail etc

Table 20

Korea: Compound Feed Production Comparison by Species for the First Four Months (October/January, 1,000 MT)			
Species	MY 2014/15	MY 2015/16	Change
Poultry	1,760	1,891	+7.4
Swine	2,138	2,180	+2.0
Cattle	2,108	1,994	-5.4

Others	456	515	+12.9
Total	6,462	6,580	+1.8

Source: Ministry for Agriculture, Food, and Rural Affairs (MAFRA)

Trade:

With cattle inventories expected to fall while swine numbers are growing, MY 2016/17 total corn imports are forecast to decrease to 9.8 MMT due to decreasing feed corn imports offset by feed- grade wheat, down 200,000 MT from the estimated current marketing year, consisting of 7.6 MMT of feed corn to meet the demand for compound feed, and 2.2 MMT of processing corn to meet relatively greater demand for food processing.

MY 2016/17 U.S. corn imports are forecast to stay around 3.0 MMT or about 31 percent of total Korean corn imports, up from the estimated 25 percent of total Korean corn imports for the current marketing year.

Corn imports for MY 2015/16 are expected to decrease to 10.0 MMT, down 167,000 MT from the previous year due to lower feed corn imports partly offset by the increases in processing corn and feed-grade wheat imports. For the first five months in MY 2015/16, corn imports for feed were about three percent lower than the same period of the previous marketing year while processing corn imports were 12 percent higher during the same period.

In MY 2015/16, U.S. corn exports to Korea are revised to 2.5 MMT, down 0.5 MMT from post's previous forecast due to greater supply of competitively-priced South American corn and Eastern European/Black Sea corn for both feed and processing purposes. For the first five months of the marketing year, the U.S. corn market share was nine percent (table 22).

As of early March 2016, importers contracted 7.0 MMT of corn for deliveries through June 2016, continuing to make contracts for July 2016 arrival onward. Most corn contracts are optional origin at seller's option from South American countries, Eastern Europe/Black Sea, or the United States with a price range of USD 175-202 per metric ton CNF, while corn processors have contracted for No. 2 GM/non-GM yellow corn from South America or the United States, and conventional corn from Eastern Europe with a price range of USD 181-208 per metric ton, CNF. Most recent buying contracts stabilized in the range of USD 175-181 per ton for feed corn and USD 181-186 for processing corn, CNF. (Table 24)

Table 21

Korea: Corn Imports (October/September, 1,000 MT, Customs Cleared Basis)							
Marketing Year	From World			From the U. S.			U. S. Share
	Feed	Processing	Total	Feed	Processing	Total	%
07/08	7,680	1,629	9,309	7,259	1,077	8,336	90
08/09	5,781	1,431	7,212	4,883	921	5,804	80
09/10	6,457	2,003	8,460	6,097	1,407	7,504	89
10/11	6,060	2,047	8,107	5,183	1,133	6,316	78
11/12	5,600	2,035	7,635	3,450	307	3,757	49
12/13	6,230	1,944	8,174	341	115	456	6
13/14	8,319	2,086	10,405	3,769	842	4,611	44
14/15	8,055	2,112	10,167	3,495	527	4,022	40
15/16[a/]	7,850	2,150	10,000	2,000	500	2,500	25
16/17[b/]	7,600	2,200	9,800	2,500	500	3,000	31

Source: Korea Customs Service
a/ FAS/Seoul forecast
b/ FAS/Seoul Projection

Table 22

Korea: MY 2015/16 Monthly Corn Imports by Origin (1,000 MT, based on Customs Clearance)						
Country	U. S.	Argentina	Brazil	Serbia	Others1/	Total
Feed Corn						

2015 October	139	75	385	14	38	651
November	91	32	547	1	2	673
December	39	66	671	7	70	853
2016 January	0	17	480	2	64	563
February	0	53	383	0	92	528
2015/16 (Oct-Feb)	**269**	**243**	**2,467**	**24**	**262**	**3,268**
2014/15 (Oct-Feb)	757	294	1,317	0	994	3,362
Processing Corn						
2015 October	42	30	57	7	35	171
November	50	0	60	0	65	175
December	12	0	143	0	56	211
2016 January	2	0	105	0	138	245
February	1	0	67	0	44	112
2015/16 (Oct-Feb)	**107**	**30**	**432**	**7**	**338**	**914**
2014/15 (Oct-Feb)	193	0	290	114	210	807
Total						
2015 October	181	105	442	21	73	822
November	141	32	607	1	67	848
December	51	66	814	7	126	1,064
2016 January	2	17	585	2	202	808
February	1	53	450	0	136	640
2015/16 (Oct-Feb)	**376**	**273**	**2,898**	**31**	**604**	**4,182**
2014/15 (Oct-Feb)	950	294	1,608	114	1,203	4,169

Source: Korea Customs Service

1/ Russia (308,288 MT), Paraguay (200,946 MT), Romania (117,204 MT), South Africa (146,627 MT), Hungary (58,544MT), Serbia (30,905 MT), Australia (24,016 MT) and Ukraine (1,904 MT)

Table 23

Korea: Monthly Corn Import
(1,000 MT, Customs Cleared Basis)

Month	Feed Corn			Processing Corn		
	MY 2013/14	MY 2014/15	MY 2015/16	MY 2013/14	MY 2014/15	MY 2015/16
October	620	846	651	131	181	171
November	631	465	673	178	183	175
December	975	750	853	222	137	211
January	885	743	563	118	168	245
February	829	558	528	170	138	112
Sub Total	**3,940**	**3,362**	**3,268**	**819**	**807**	**914**
March	488	636	na	158	258	na
April	664	759	na	234	145	na
May	698	689	na	166	163	na
June	540	636	na	300	208	na
July	591	693	na	85	166	na
August	658	671	na	112	177	na
September	740	609	na	212	188	na
Total	8,319	8,055	na	2,086	2,112	na

Source: Korea Customs Service

Table 24

Korea: MY 2015/16 Corn Contracts [1/] by Estimated Time of Arrival (ETA)
(Unit: 1,000 MT, as of Mar. 2016)

ETA	U.S.	Europe [4/]	SOAM	Others [2/]	Total	Price[3/]

October 2015	55	0	0	888	943	195
November	0	108	0	678	786	195
December	0	100	0	610	710	189
January 2016	0	60	0	548	608	190
February	0	60	55	586	701	188
March	110	0	65	715	890	191
April	0	0	183	802	985	190
May	50	0	289	440	779	185
June	0	0	345	228	573	184
July	55	0	60	63	178	178
Total	**270**	**328**	**997**	**5,558**	**7,153**	

Source: Local Grain Traders
1/ reflecting 90-95 percent of actual contracts due to the omission of some data on contracts
2/ optional origins at seller's option out of USA, SOAM (South America) or Europe
3/ USD/MT, CNF on Weighted Average
4/ include Eastern Europe and Black Sea

Tariff

In late December 2015, the Ministry of Strategy and Finance (MOSF) released its adjusted tariffs and tariff rate quotas (TRQ) for CY 2016. The autonomous TRQs cover a variety of agricultural products, including feed corn. The TRQ for feed corn set at 10 MMT with zero percent duty for CY 2016. Please refer to KS1601 (2016 Korea's Adjustment and Quota Tariff Schedule) for more details. However, the government excluded processing corn from the list of TRQs in 2016. The out-of-quota duty for both feed and processing corn remained fixed at 328 percent.

Of the annual autonomous TRQs for feed corn, 10 MMT has been allocated to feed millers who are members of the Korea Feed Association (KFA) and Nonghyup Feed Inc. (NOFI). The Korea Corn Processing Industry Association (KOCPIA) manages about 2.0 MMT of processing corn at three percent of import tariff rate as base rate.

Under KORUS FTA, the duty on U.S. feed corn immediately fell to zero. If imports of U.S. corn claim the KORUS preferential duty, those imports would not count against the global TRQ. Conversely, the duty-free volumes for corn for food processing will grow each year with tariffs being completely phased out by 2019. For greater detail, please refer to Chapter 3, Annex 3-A of the trade agreement.

Table 25

Korea: Import Tariff Rate for CY 2016							
Commodity	In-Quota				Out-of-Quota Rate	Bound Tariff Rate	
	Current Market Access Quota		Temporary Quota			In-Quota	Out-of-Quota
	Volume	%	Volume	%	%	%	%
Feed Corn 1005.90.1000	6,102,100 MT	1.8	10,000,000 MT	0	328	1.8	328
Processing Corn 1005.90.9000		3	0	na	328	3	328

Source: Korea Customs Service (KCS)

Production, Supply and Demand Data Statistics:

Corn PS&D

Corn	2014/2015		2015/2016		2016/2017	
Market Begin Year	Oct 2014		Oct 2015		Oct 2016	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	16	16	16	15	0	16
Beginning Stocks	1860	1860	1860	1860	0	1835
Production	82	82	77	75	0	79

MY Imports	10168	10168	10000	10000	0	9800
TY Imports	10168	10168	10000	10000	0	9800
TY Imp. from U.S.	3656	4022	0	2500	0	3000
Total Supply	12110	12110	11937	11935	0	11714
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	8035	8035	8000	7850	0	7600
FSI Consumption	2215	2215	2100	2250	0	2300
Total Consumption	10250	10250	10100	10100	0	9900
Ending Stocks	1860	1860	1837	1835	0	1814
Total Distribution	12110	12110	11937	11935	0	11714
(1000 HA) ,(1000 MT)						

CORN -- STATISTICAL TABLES

Import Trade Matrix			
Country	Korea, Republic of		
Commodity	Corn		
Time Period	Oct/Sept	Units:	1,000MT
Imports for:	2013		2014
U.S.	4611	U.S.	4022
Others		Others	
Brazil	1980	Brazil	2079
Ukraine	1760	Ukraine	1750
Russia	804	Russia	623
Serbia	406	Serbia	492
Argentina	358	Argentina	435
South Africa	167	South Africa	147
Romania	110	Romania	198
Australia	59	Australia	47
Hungary	50	Hungary	312
France	49		
Total for Others	5743		6083
Others not Listed	52		63
Grand Total	10406		10168

Source: Korea Customs Service (KCS)

Author Defined:

Korea: Corn Imports
(October/September, 1,000 MT, Customs Cleared Basis)

Marketing Year	From World			From the U. S.			U. S. Share
	Feed	Food	Total	Feed	Food	Total	%
93/94	4,049	1,647	5,696	199	181	380	7
94/95	6,463	1,760	8,223	6,192	1,420	7,612	93
95/96	7,166	1,797	8,963	6,855	1,699	8,554	95
96/97	6,455	1,881	8,336	3,869	1,629	5,498	66
97/98	5,755	1,773	7,528	1,610	1,699	3,309	44
98/99	5,593	1,921	7,514	4,543	1,891	6,434	86
99/00	6,618	2,060	8,678	1,610	1,620	3,230	37
00/01	6,568	2,155	8,723	2,169	1,120	3,289	38
01/02	6,474	2,128	8,602	1,487	111	1,598	19

02/03	6,657	2,137	8,794	306	24	330	4
03/04	6,659	2,117	8,776	2,921	336	3,257	37
04/05	6,739	1,895	8,634	2,303	190	2,493	29
05/06	6,507	1,975	8,482	4,813	561	5,374	63
06/07	6,860	1,871	8,731	4,036	150	4,186	48
07/08	7,680	1,629	9,309	7,259	1,077	8,336	90
08/09	5,781	1,431	7,212	4,883	921	5,804	80
09/10	6,457	2,003	8,460	6,097	1,407	7,504	89
10/11	6,060	2,047	8,107	5,183	1,133	6,316	78
11/12	5,600	2,035	7,635	3,450	307	3,757	49
12/13	6,230	1,944	8,174	341	115	456	6
13/14	8,319	2,086	10,405	3,769	842	4,611	44
14/15	8,055	2,112	10,167	3,495	527	4,022	40

Source: FAS Seoul

Korea: Total Corn Utilization
(October/September, 1,000 MT)

Marketing Year	Feed	Processing a/	Food b/	Total
1998/99	5,560	1,886	80	7,526
1999/00	6,541	2,004	79	8,624
2000/01	6,460	2,092	64	8,616
2001/02	6,584	2,094	57	8,735
2002/03	6,569	2,145	68	8,782
2003/04	6,614	2,057	51	8,722
2004/05	6,619	1,966	81	8,666
2005/06	6,510	1,996	73	8,579
2006/07	6,897	1,856	63	8,833
2007/08	7,046	1,495	92	8,633
2008/09	6,368	1,418	108	7,894
2009/10	6,362	1,928	92	8,382
2010/11	6,074	2,051	89	8,214
2011/12	5,690	2,036	89	7,815
2012/13	6,483	1,900	98	8,481
2013/14	7,762	2,034	95	9,891
2014/15	8,035	2,118	97	10,250

Source: Korea Feed Association (KFA), Korea Corn Processing Industry Association (KOCPIA)
a/ Used for wet and dry milling process based on imported corn.
b/ For on-farm human consumption (on-the-cob) or snack food consumed on-the-cob, as puffed kernels or as corn tea. Imported white corn for popping has been included since MY 2004.

Korea: Processing Corn Consumption
(October/September, 1,000 MT)

Marketing Year	Wet Milling	Dry Milling	Total
1998/99	1,670	216	1,886
1999/00	1,783	221	2,004
2000/01	1,880	204	2,092
2001/02	1,911	181	2,092
2002/03	1,929	180	2,109
2003/04	1,892	165	2,057
2004/05	1,837	129	1,966
2005/06	1,896	100	1,996

2006/07	1,752	105	1,857
2007/08	1,405	90	1,495
2008/09	1,343	74	1,417
2009/10	1,864	76	1,940
2010/11	1,979	72	2,051
2011/12	1,969	67	2,036
2012/13	1,832	68	1,900
2013/14	1,963	71	2,034
2014/15	2,039	79	2,118

Source: Korea Corn Processing Industry Association (KOCPIA)

Korea: Animal Inventory
(1,000 Head, 1,000 Birds, as of March 2016)

Animal	Year	March	June	September	December
Beef Cattle	2012	2,940	3,109	3,143	3,059
	2013	2,966	3,064	3,043	2,918
	2014	2,811	2,879	2,820	2,759
	2015	2,659	2,748	2,753	2,676
	2016	2,610c/	2700c/	na	2,638d/
Dairy Cattle	2012	404	410	417	420
	2013	420	419	422	424
	2014	428	424	429	431
	2015	425	418	418	411
	2016	407c/	403c/	na	400d/
Swine	2012	8,852	9,432	9,937	9,916
	2013	10,107	10,181	10,188	9,912
	2014	9,698	9,680	9,966	10,090
	2015	9,971	10,018	10,332	10,187
	2016	10,300c/	10,300c/	na	10,500d/
Layer a/	2011	61,025	60,723	61,212	62,425
	2012	63,200	61,953	61,326	61,344
	2013	62,340	60,610	62,674	64,824
	2014	64,572	62,851	65,263	67,674
	2015	68,878	67,907	72,090	71,877
	2016	70,370c/	na	na	na
Broiler b/	2011	69,932	110,122	71,038	76,435
	2012	69,387	97,750	68,540	76,130
	2013	71,938	95,898	64,505	76,487
	2014	77,879	103,593	75,846	77,746
	2015	82,749	110,489	81,184	81,851
	2015	84,390	na	na	na

Source: Korea Statistics (KOSTAT) and Korea Rural Economic Institute (KREI)
a/ Excluding breeders.
b/ Excluding multi-use broilers
c/ KREI forecast
d/ FAS/Seoul forecast

Korea: Feed Ingredients Use for MY2013-MY2014
(October/September, 1,000 MT)

INGREDIENT	MY2013/2014			MY2014/2015		
	TOTAL	DOM [1/]	%	TOTAL	DOM [1/]	%

GRAINS:							
CORN	7,762	-	41.2	8,035	1	42.3	
SORGHUM	-	-	-	-	-	0.0	
WHEAT	1,633	-	8.7	1,480	1	7.8	
BARLEY	28	2	0.1	28	2	0.1	
RYE	0	0	-	0	0	0.0	
OATS	3	1	-	3	1	0.0	
GSP/BROKEN GRAIN	88	88	0.5	96	96	0.5	
TAPIOCA	284	-	1.5	257	0	1.4	
LUPIN SEED	131	6	0.7	134	14	0.7	
OTHERS	173	167	0.9	173	168	0.9	
SUB TOTAL	**10,102**	**264**	**53.6**	10,206	**283**	53.7	
GRAIN BY-PRODUCTS:							
WHEAT BRAN	599	393	3.2	562	391	3.0	
RICE BRAN	187	187	1.0	193	190	1.0	
BARLEY BRAN	-	-	-	-	-	0.0	
CORN BRAN	2	2	-	1	1	0.0	
GLUTEN FEED	848	374	4.5	766	366	4.0	
OTHERS	342	266	1.8	318	233	1.7	
SUB TOTAL	**1,978**	**1,222**	**10.5**	**1,840**	**1,181**	9.7	
ANIMAL PROTEIN:							
FISH MEAL	18	12	0.1	18	12	0.1	
MEAT & BONE MEAL	**22**	**21**	0.1	**24**	**23**	0.1	
OTHERS	146	143	0.8	147	145	0.8	
SUB TOTAL	**186**	**176**	**1.0**	**189**	**180**	1.0	
VEGETABLE PROTEIN:							
SOYBEAN MEAL	2,079	411	11.0	2,272	560	12.0	
RAPESEED MEAL	530	6	2.8	489	1	2.6	
SESAMESEED MEAL	23	23	0.1	33	33	0.2	
PERILLA SEED MEAL	3	3	-	1	1	0.0	
CORN GLUTEN MEAL	81	73	0.4	82	74	0.4	
DDGS	536	158	2.8	654	215	3.4	
COTTONSEED MEAL	1	0	-	1	0	0.0	
PARM KERNEL MEAL	760	8	4.0	686	9	3.6	
COPRA MEAL	399	2	2.1	403	0	2.1	
OTHERS	262	216	1.4	246	205	1.3	
SUB TOTAL	**4,674**	**900**	**24.8**	**4,867**	**1,098**	25.6	
ADDITIVES/MINERALS:							
CALCIUM PHOSPHATE	67	54	0.4	72	57	0.4	
LIMESTONE	480	480	2.5	503	503	2.6	
SALT	67	67	0.4	67	66	0.4	
OTHER	291	289	1.5	276	272	1.5	
SUB TOTAL	**905**	**890**	**4.8**	**918**	**898**	4.9	
OTHER INGREDIENTS:							
TALLOW	316	312	1.7	329	319	1.7	
MOLASSES	461	383	2.4	426	345	2.2	
UREA	2	2	-	2	2	0.0	
OTHER	214	192	1.1	220	190	1.2	
SUB TOTAL	**993**	**889**	**5.3**	**977**	**856**	5.1	
GRAND TOTAL	18,838	4,341	100.0	18,997	4,496	100.0	

Source: Korea Feed Association (KFA)

1/ Domestic Products

Commodities:
Rice, Milled

Production:
MY 2016/17 rice production is forecast to remain around 4 million metric tons (MMT) – down 8 percent from 4.33 MMT in 2015/16 – based on five year average yield. According to a Korea Rural Economic Institute (KREI) survey of rice farmers from December 28, 2015 - January 4, 2016, planted area is expected to decline to 781,716 HA, down about 2.2 percent from last year (table 26). However, high yield varieties will almost offset the lower acreage planted. Information about the 2015 rice crop is available in KS1541 (2015 Rice Production Update).

Yield
Rice farmers prefer planting high yield varieties to maximize returns. Consequently, increased yields are expected to offset the effects of declining paddy land in 2016 crop. The KREI forecasts rice average yields at 507Kg/10a based on previous five-year average yield.

KREI forecasts for the 2016 crop and Ministry of Agriculture, Food and Rural Affairs (MAFRA) historical data are shown in the following tables.

Table 26

Korea: 2015 Rice Production Forecast		
	2015 Rice Production	2016 Rice Production Forecast
Area (1,000 HA)	799	782
Yield (Kg/10a)	542	507
Production (1,000MT)	4,327	3,966

Source: Korea Rural Economic Institute (KREI)

Table 27

Korea: Rice Area, Yield and Production			
Crop Year	Area (1,00HA)	Yield (KG/HA)	Production (Milled, 1,000 MT)
2002 a/	1,053	4,679	4,927
2003 b/	1,016	4,381	4,451
2004	1,001	4,995	5,000
2005	980	4,865	4,768
2006	955	4,901	4,680
2007	950	4,640	4,408
2008	936	5,174	4,843
2009	924	5,318	4,916
2010	892	4,815	4,295
2011	854	4,946	4,224
2012	849	4,718	4,006
2013	833	5,081	4,230
2014	816	5,200	4,241
2015	799	5,416	4,327
2016p	782	5,072 [c/]	3,966

Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)
a/ Heavy rains during the summer and the effects of typhoon Rusa (Aug 31 – Sep 1)

b/ Cool and rainy days during the growing season and the effects of typhoon Maemi (Sep 9 - 12)
c/ previous five- year average yield

Production Policy:
Rice farmers receive two types of income support payments under the Rice Income Compensation Act (RICA), an area payment and a deficiency payment. In CY 2015, combined support payments of 1,562 billion Korean Won (USD 1.38 billion) were received from both direct payment systems. It was a record level of combined support payment which has been implemented since 2005 (table 28).

An explanation of how these payments are calculated follows.

Area Payment: This payment is made on a 'per hectare' basis and is calculated using the average area of rice production during the base period 1998-2000. The 2015 area payment was at 998,892 won (USD 884) on average per hectare. Paddy area covered under this support program increased to 843,752 hectare, up one percent from the previous year.

Deficiency Payment: The deficiency payment is 85 percent of the difference between the national-average market price during the 2015 harvest season (2015 Oct.-2016 Jan.) and the 2015 target price, less the area payment.

In CY 2015, the deficiency payment amounted to 719 billion Korean Won (USD 636 million) since the difference between the average harvest price of 1,883 on (USD 1.67) per kilogram (milled) and the target price of 2,350 Won (USD 2.08) per kilogram (milled) was enough to create a deficiency payment. The weighted averaged area payment of 998,892 Won per hectare is converted to a kilogram equivalent (198 Won/Kg) by dividing it by the 1999-2003 Olympic average yields*, which was increased to 5,040 Kg per hectare from the previous 4,880 Kg in CY 2012.

Due to lower farm gate prices during the harvest season, farmers received deficiency payments in CY 2015. The deficiency payment calculation is shown as below.

[(Target Price W/kg - Average Harvest Price W/kg) x .85] - Area Payment per HA /Avg. National Yield per HA

[W 2,350 – W 1,883] x .85] – W 800,919/5,040 MT = W 199 per kilogram

Note: *Olympic average yields: an average during a 5-year period, dropping the highest and lowest values.

Government Rice Purchase Program under the Public Food Grain Stockholding Program (PFSP):
The government purchases rice to ensure food security and price stability. Under the Public Food Grain Stockholding Program (PFSP), the Korean government procures domestic paddy rice during the harvest season (October-December) at the average market price and later sells it during the non-harvest periods at the prevailing domestic market price. For October - December 2015, the Korean government purchased 560,000 MT (milled basis) of paddy rice which included additional purchases of 200,000 MT to stabilize harvest pressure caused by another bumper crop, or 13 percent of the 2015 rice production under PFSP. In late February 2016, Korean government made the decision to purchase an additional 157,000 MT following its previous purchase of 560,000 tons to prop up farm gate prices, resulting in 717,000 MT of total government purchase, or 16.5 percent of total production (table 29).
Additionally, the government purchased 30,000 tons for the APTERR (ASEAN Plus Three Emergency Rice Reserve), which was established to provide member countries with rice in the event of natural disasters. The total amount of rice agreed upon in July 2013 by the 13 member countries, and stored in reserve, was 787,000 MT, including 150,000 MT promised by Korea.

Rice Millers Purchase:
Rice Processing Complexes (RPC), Korean rice millers, have purchased 2.2 MMT (milled basis) of paddy rice under the National Agricultural Cooperative Federation (NACF) loan program to rice millers at a free loan rate during the harvest season. NACF member RPCs purchased 1.8 MMT and independent RPCs bought 0.4 MMT, respectively. The Korean government also supports rice millers to purchase paddy rice under an incentive loan program at a loan rate ranging from zero to two percent according to an evaluation of RPCs based on government guidelines. Total amount of loan program was

at 2.9 trillion Korean won (USD 2.57 billion), consisting of 1.3 trillion from NACF and 1.6 trillion from government supports (table 30).

Table 28

Korea: Direct Payment Program for Rice Income Compensation							
Year	Area Payment (A)			Deficiency Payment (B)			Total (Billion Won) (A)+(B)
	Area (1,000 HA)1/	Payment (Won/HA)	Total (Billion Won)	Production (1,000 MT) 2/	Payment (Won/Kg)	Total (Billion Won)	
2005	1,007	600,000	603.8	4,587	196.4	900.7	1,504.5
2006	1,024	700,000	716.8	4,641	94.2	437.1	1,153.9
2007	1,018	700,000	712.0	4,548	61.3	279.1	991.1
2008	1,013	700,000	711.8	4,490	none	0	711.8
2009	893	703,684	632.8	3,948	150.4	594.5	1,227.3
2010	883	700,704	622.3	3,850	194.9	750.1	1,372.4
2011	875	700,169	617.4	na	none	0	617.4
2012	866	702,071	610.1	na	none	0	610.1
2013	855	800,926	686.6	na	none	0	686.6
2014	835	901,304	756.0	3,632	52.8	194.1	950.1
2015	844	998,892	843.1	3,624	198.6	718.7	1,561.8

Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)

1/ Those eligible for payment include farmers, farming union corporations, agricultural corporations, or anyone producing rice on a minimum of 0.1 HA of farmland between Jan 1, 1998 and Dec 31, 2000.

2/ based on the Olympic average rice yield is 4,880 Kg per hectare for 1999-2003 and actual cultivated area registered under the program. The applicable rice yield has been revised up to 5,040Kg per hectare since 2012.

Table 29

Korea: Government Rice Purchases under Public Food Grain Stockholding Program (PFSP)			
Crop Year	Production(1,000 MT)	Purchase(1,000 MT)	%
2005	4,768	719	15.1
2006	4,680	504	10.8
2007	4,408	417	9.5
2008	4,843	400	8.3
2009	4,916	370	7.5
2010	4,295	340	7.9
2011	4,224	261	6.2
2012	4,006	363	9.1
2013	4,230	367	8.7
2014	4,241	610[a/]	14.4
2015	4,327	717[b/]	16.5

Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)

a/ include 240,000 MT to stabilize rice market in addition to 370,000 MT under PFSP, but exclude 30,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve)

b/ include 357,000 MT to stabilize rice markets in addition to 360,000 MT under PFSP, but exclude 30,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve)

Table 30

Korea: NACF Rice Purchases [a/]			
Crop Year	Production(1,000 MT)	Purchase(1,000 MT)	%
2005	4,768	1,071	22
2006	4,680	1,306	28
2007	4,408	1,227	28

2008	4,843	1,617	33
2009	4,916	1,950	40
2010	4,295	1,380	32
2011	4,224	1,327	31
2012	4,006	1,331	33
2013	4,230	1,465	35
2014	4,241	1,649	39
2015	4,327	1,770	41

Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)
a/ exclude independent RPC purchases

Consumption:

MY 2016/17 consumption is forecast at 4.3 MMT, slightly down from the estimates of the current marketing year. Imported rice constitutes about nine percent of total consumption.

Korean consumers prefer short grain table rice and 76 percent of domestic production (all short grain) was consumed as table rice in MY 2014/15. Per capita table rice consumption continues to decline as eating habits change due to rising incomes and the growing popularity of Western foods. Annual per capita table rice consumption reached its peak at 136.4 Kg in 1970, and has gradually declined to 62.9 Kg in MY 2014/15 according to preliminary government statistics. FAS/Seoul forecasts per capita table rice consumption at 61.0 Kg in MY 2015/16, based on declining consumption trends for table rice, decreasing further to less than 60.0 Kg in MY 2016/17.

Although processing accounts for only about 13 percent of total rice domestic consumption in MY 2014/15, consumption of rice for food processing has maintained growth in the past few years. However, in MY 2015/16, Korea's food processing industry is expected to remain stagnant at 450,000 tons of rice (milled), while liquor processing is depending on the availability of rancid rice in old stocks at a cheaper price equivalent to imported tapioca pellet prices.

Feed:

Korean government released 99,000 MT of brown rice (2012 crop) in February 2016, which is equivalent to 89,100 MT in milled basis, for feed purposes for the first time to reduce higher ending stocks. Released price was at 200 Korean won per Kg (USD0.18/Kg), a tenth of purchasing price.

Table 31

Korea: Rice Utilization Pattern (1,000 MT, milled)				
Rice Year (November - October)	MY 2013/14[a/]	MY 2014/15[b/]	MY 2015/16[c/]	MY 2016/17[c/]
Table Rice	3,340	3,239	3,140	3,100
Processing	535	576	700	700
(for food)	(457)	(420)	(450)	(450)
(for liquor)	(78)	(156)	(150)	(150)
(for feed)	0	0	(100)	(100)
Seed	35	35	34	34
Other and Loss	512	500	500	500
Total Demand	4,422	4,350	4,374	4,334
Per Capita Table Rice Consumption (Kg)	65.1	62.9	61.0	59.0

Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)
a/ Revised b/ FAS/Seoul estimate c/ FAS/Seoul forecast

Table 32

Korea: Processing Rice Consumption Pattern (1,000 MT, milled)				
Purpose	MY 2011/12	MY 2012/13	MY 2013/14 [a/]	MY 2014/15 [b/]
KRFA	248	246	227	197

KALIA	148	56	78	156
Others c/	170	224	238	223
Total	566	526	535	576

Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)
a/ MAFRA Revised
b/ MAFRA Preliminary
c/ traditional foods or beverage made of local rice.
Note: Korea Rice Foodstuffs Association (KRFA), Korea Alcohol & Liquor Industry Association (KALIA)

Table 33

Korea: Rice Supply for Processing Purposes to KRFA Members
(Metric Ton, Milled)

Calendar Year	Local Rice	Imported Rice	Total
1996	130,632	3,000	133,632
1997	30,171	57,957	88,128
1998	933	77,259	78,192
1999	0	74,214	74,214
2000	0	67,112	67,112
2001	0	66,850	66,850
2002	79	73,884	73,963
2003	306	84,851	85,157
2004	249	91,624	91,873
2005	215	96,020	96,235
2006	67	97,250	97,317
2007	210	101,064	101,274
2008	572	109,552	110,124
2009	806	131,344	132,150
2010	24,887	154,821	179,708
2011	125,910	108,215	234,125
2012	147,462	100,249	247,711
2013	118,344	127,544	245,888
2014	63,654	162,893	226,547
2015	11,803	185,630	197,433

Source: Korea Rice Foodstuffs Association (KRFA)

Table 34

Korea: Rice Supply for Processing Purposes to KRFA Members
(Metric Ton, Milled)

	2013		2014		2015	
Item	Quantity	Ratio (%)	Quantity	Ratio (%)	Quantity	Ratio (%)
Cake/Noodle	94,008	38	89,538	40	86,946	44
Alcohol	46,797	19	43,596	19	39,795	20
Flour	68,776	28	68,870	30	50,968	26
Seasoning/Sweetness	14,970	6	4,515	2	3,213	2
Confectionary	11,435	5	11,066	5	9,051	4
Others	9,902	4	8,962	4	7,460	4
Total	245,888	100	226,547	100	197,433	100

Source: Korea Rice Foodstuffs Association (KRFA)

Trade:

The Korean government submitted a draft containing modifications and rectifications to “Schedule LX - Republic of Korea” to the WTO on September 30, 2014, which allowed Korea to implement ordinary customs duties on rice beginning January 1, 2015. However, five countries reserved their positions with respect to the proposed rectification and modification of the Republic of Korea’s tariff schedule concerning rice market access. Korea continues to engage in bilateral discussions with

the concerned countries for settlement of the issue. The United States is working closely with Korea to urge it to ensure that the new arrangement takes appropriate account of the U.S. strong trading relationship in this commodity.
As agreed in the special treatment, Korea continued to import the mandatory import volume of 408,700 metric tons from Most Favored Nation (MFN) countries at the current duty level of 5 percent under the tariff rate quota (TRQ) regime in 2015 and beyond. Korea deleted provisions about usage purpose, such as the ratio of table rice (30 percent) and guaranteed access to the domestic market.

Imports:
MY 2016/17 rice imports are forecast at about 410,000 MT (milled basis). Korea is expected to continue purchasing 408,700 tons (milled basis) of rice under CY 2017 TRQ.

I**n MY 2015/16, rice imports are expected to remain unchanged at 470,000 MT from the previous report,** while actual delivery of some portion of the TRQ will roll over into the following year. U.S. rice exports are expected to stay around 140,000 MT (milled basis).

In MY 2014/15, Korea's rice imports were 464,892 MT, consisting of 217,855 MT imported under the 2014 MMA quota and 247,037 MT imported under 2015 TRQ, respectively. In CY 2015, U.S. exports to Korea amounted to 142,806 MT, which is composed of 34,114MT imported under 2014 MMA quota and 108,682 MT imported under 2015 TRQ, respectively.

2016 TRQ Tendering Process:
Under the 2016 Tariff Rate Quota **(**TRQ) purchasing plan, Korea will purchase 408,700 MT of rice (milled basis) under rice tariffication in effect since 2015. Under the 2016 TRQ thus far, Korea has bought 69,444 MT of brown rice for processing purposes or 17 percent of the total 2016 TRQ, consisting of 42,222 MT of medium-grain brown rice (38,000 MT on milled basis) from the United States, 5,000 MT of broken milled rice from India and 22,222 MT of Chinese short grain brown rice (20,000 MT on milled basis), respectively.

Table 35

Korea: 2016 TRQ Rice Tender Results (as of March 30, 2016)									
Bid Date (mm-dd-yy)	**Rice Type**	**Volume (Contract Basis)**	**Volume (Milled Rice Basis)**	**Origin**	**Price (US$/MT)**	**Terms and Conditions**	**delivery Due**	**Agent**	**Supplier**
2/29/2016	MG #3 Brown	10,000	9,000	USA	734.42	CIP	20160531	Philasun	ADM
2/29/2016	MG #3 Brown	10,000	9,000	USA	698.61	CIP	20160630	Philasun	ADM
2/29/2016	#4 Brewer's Milled	5,000	5,000	India	383.46	CIP	20160531	Singsong	KRBL Limited
3/29/2016	SG #3 Brown	22,222	20,000	China	869.00	CIP	20160930	Daewoo	COFCO
3/29/2016	MG #3 Brown	16,667	15,000	USA	679.27	CIP	20160930	Philasun	ADM
3/29/2016	MG #3 Brown	5,555	5,000	USA	651.17	CIP	20160930	Philasun	ADM
	Total	69,444	63,000						

Source: Korea Agro-Fisheries and Food Trade Corporation (aT)

2015 MMA Tendering Results:
The Korea Agro-Fisheries and Food Trade Corporation (aT) completed the tendering process for the 2015 Tariff Rate Quota (TRQ) commitments for rice on December 30, 2015. Korea purchased a total of 408,700 metric tons (MT) of rice (milled basis) from the United States, China, Thailand, Australia, and Vietnam. The U.S. share was a record 38 percent, up about 2.6 times from the previous year due to more competitive pricing than other countries in tandem with greater demand for medium grain variety, with contracts totaling 157,117 MT (milled) worth USD 142.6 million. U.S. contracts of 130,130 MT were for brown rice (equivalent to 117,117 MT on milled basis) for food processing purpose, while the remaining 40,000 MT was milled rice for table purpose. The Korean government purchased 60,000 MT of milled rice for table purpose, half of the previous year, consisting of 40,000 MT of USDA No. 1 medium grain from the United States and 20,000 MT of USDA No. 1 short grain from China. Please refer to GAIN Report KS1602 (Grain and Feed Update) for more details.

Auctions:
Korea Agro-Fisheries & Food Trade Corporation (aT) sells table rice shipments through a public auction system, while the Ministry of Agriculture, Food and Rural Affairs (MAFRA) distributes processing rice to end-users such as food processors and alcoholic beverage producers at a set price throughout the year.

In response to more favorable consumer confidence in U.S. medium grain milled rice, greater demand for U.S. milled rice made auctions of USDA No. 1 higher than other origins. Ongoing auctions of U.S. medium grain milled rice (USDA No. 1) account for 63 percent while Chinese short grain milled rice are 43 percent. The overall progress of auctioning has been comparably slower than normal in order to prop up domestic rice prices caused by the record harvest of the new crop.

Table 36

Korea: Status of Rice Auction for Table Rice under 2014 CSQ
(Unit: metric tons, milled basis, as of March 23, 2016)

Commodity	USDA Grade	Total Table Rice CSQ	Auctioned Off	Balance	Auctioned Off (%)
U.S. Medium Grain	#1	40,056	25,235	14,821	63
	#3	4,451	4,450	1	100 (as of June 3, 2015)
Chinese Short Grain	#1	47,965	20,767	27,198	43
	#3	21,433	227	21,206	1
Australian Medium Grain	#1	2,697	0	2,697	0
	#3	2,698	0	2,698	0
Thai Long Grain	#1	3,220	1,921	1,299	60
Thai Jasmine Rice	#1	90	90	0	100 (as of Aug. 26, 2015)
Total		122,610	52,690	69,920	43

Source: Korea Agro-Fisheries and Food Trade Corporation (aT)

Table 37

Korea: Auctioned-Off Prices of Imported Table Rice
(Unit: Korean Won per Kg on Average)

Auctioning-off Period	U.S. Medium Grain		Chinese Short Grain (Medium Grain)		Thai Long Grain	Australian Medium Grain	
	#1	#3	#1	#3	#1	#1	#3
April-September 2006 (2005 MMA)	1,138	991	1,274	1,133	555	none	none
March-August 2007 (2006 MMA)	1,363	1,211	1,357	1,303	953	none	none
February-August 2008 (2007 MMA)	1,542	1,510	1,487	1,558	1,132	none	none
February2009 -May 2010	1,160	994	1,125	none	1,329		

(2008 MMA)			(1,100)			none	none
February 2010-March 2011 (2009 MMA)	970	881	914 (850)	893	672	none	none
April 2011-January 2012 (2010 MMA)	913	1,074[a/]	707	612	518	none	none
December 2011- October 8, 2013 (2011MMA)	1,258	1,452	1,297	1,501	(802[c/]) 944	none	none
August 2012-September 24, 2014 (2012 MMA)	1,677	1,634	1,378	1,374	903	1,299	1,128
July 2013- July 29, 2015 (2013 MMA)	1,594	1,573	1,284	1,318	844	none	none
December 2014- March 23, 2016 (2014 MMA)	1,414[b/]	1,472	1,288[b/]	1,238[b/]	908 [b/]	na	na

Source: Korea Agro-Fisheries and Food Trade Corporation (aT)
a/ Auctioned-off during October-December 2011
b/ ongoing
c/ #3

Exports:
Korea's rice exports were 1,987 MT in CY 2015, with U.S. imports of Korean rice higher than the previous year.
As Korea and China mutually agreed upon SPS requirements, Korea is expected to increase rice exports to 4,000 MT in MY 2015/16. Please refer to GAIN Report KS1602 (Grain and Feed Update) for more details.

Table 38

Korea: Rice Export (Milled)				
Calendar Year	To the World		To the United States	
	Quantity (MT)	Value (US$1,000)	Quantity (MT)	Value (US$1,000)
2005	18	89	5	5
2006	9	40	0.2	1
2007	507	1,322	333	876
2008	356	829	115	285
2009	4,183	7,300	443	777
2010	3,765	6,394	272	587
2011	3,782	6,277	161	244
2012	2,223	4,424	90	185
2013	1,517	3,363	86	180
2014	1,684	3,894	123	303
2015	1,987	4,472	365	1,148

Source: Korea Customs Service (KCS)

Stocks:

MY 2016/17 ending stocks (at the end of October 2015) are projected to increase to 1.74 MMT or 40 percent of total consumption due to overproduction caused by higher yield varieties recent years. MY 2015/16 stocks (at the end of October 2016) are forecast at 1.67 MMT or 38 percent of total domestic consumption. MY 2014/15 stocks (at the end of October 2015) are estimated at about 1.25million tons or 29 percent of total domestic consumption.

Table 39

Korea: Status of Rice Stocks (Milled rice, 1,000 MT, as of end October)						
Rice Year (Nov.-Oct.)	2011/12	2012/13	2013/14a/	2014/15b/	2015/16c/	2016/17c/
Total	730	755	899	1,253	1,672	1,744
Government Stock	730	755	899	1,253	1,672	1,744

-Domestic Rice	487	na	na	na	na	na
-Imported Rice	243	na	na	na	na	na
Civil Stock	0	0	0	0	0	0

Source: FAS/Seoul Estimate based on MAFRA data
a/ MAFRA Preliminary
b/ FAS/Seoul Preliminary
c/ FAS/Seoul forecast

Production, Supply and Demand Data Statistics:

Rice PS&D

Rice, Milled	2014/2015		2015/2016		2016/2017	
Market Begin Year	Nov 2014		Nov 2015		Nov 2016	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	816	816	799	799	0	782
Beginning Stocks	899	899	1188	1253	0	1672
Milled Production	4241	4241	4327	4327	0	4000
Rough Production	5638	5638	5771	5771	0	5333
Milling Rate (.9999)	7522	7522	7498	7498	0	7500
MY Imports	465	465	470	470	0	410
TY Imports	372	372	410	410	0	410
TY Imp. from U.S.	154	143	0	140	0	140
Total Supply	5605	5605	5985	6050	0	6082
MY Exports	2	2	4	4	0	4
TY Exports	2	2	4	4	0	4
Consumption and Residual	4415	4350	4390	4374	0	4334
Ending Stocks	1188	1253	1591	1672	0	1744
Total Distribution	5605	5605	5985	6050	0	6082
(1000 HA) ,(1000 MT)						

RICE -- STATISTICAL TABLES

Korea: Import Trade Matrix of Rice			
Country	Korea, Republic of		
Commodity	Rice, Milled		
Time Period	Jan/Dec	Units:	1,000MT
Imports for:	2014		2015
U.S.	38	U.S.	143
Others		Others	
China	193	China	168
Thailand	71	Thailand	9
Australia	25	Australia	14
Myanmar	43	Vietnam	38
Vietnam	9		

Total for Others	341		229
Others not Listed	0		0
Grand Total	379		372

Author Defined:
Appendix

Korea: Monthly Wholesale Price of Milled Rice (High Quality)						
Month\Year	CY 2014		CY 2015		CY 2016	
	Won/Kg	USD/Kg	Won/Kg	USD/Kg	Won/Kg	USD/Kg
January	2,180	2.05	2,070	1.90	1,810	1.51
February	2,180	2.03	2,069	1.88	1,810	1.49
March	2,180	2.04	2,046	1.84	1,810	1.51
April	2,169	2.08	2,040	1.88	na	na
May	2,137	2.09	2,019	1.85	na	na
June	2,130	2.09	1,990	1.79	na	na
July	2,130	2.09	1,990	1.74	na	na
August	2,130	2.08	1,990	1.69	na	na
September	2,215	2.06	2,004	1.70	na	na
October	2,076	1.96	2,951	1.70	na	na
November	2,088	1.91	1,852	1.61	na	na
December	2,073	1.88	1,826	1.56	na	na
Average	2,133	2.03	1,986	1.76	na	na

Source: Korea Agricultural Marketing Information Service (KAMIS)
Note: Monthly Average Exchange Rate is applied.

Korea: Monthly Retail Price of Milled Rice (High Quality)						
Month\Year	CY 2014		CY 2015		CY 2016	
	Won/Kg	USD/Kg	Won/Kg	USD/Kg	Won/Kg	USD/Kg
January	2,321	2.18	2,277	2.09	2,132	1.78
February	2,323	2.17	2,263	2.06	2,112	1.74
March	2,307	2.16	2,252	2.03	2,078	1.73
April	2,293	2.20	2,211	2.04	na	na
May	2,289	2.24	2,239	2.05	na	na
June	2,275	2.23	2,243	2.02	na	na
July	2,245	2.20	2,225	1.95	na	na
August	2,236	2.18	2,218	1.88	na	na
September	2,262	2.19	2,241	1.90	na	na
October	2,320	2.19	2,233	1.95	na	na
November	2,301	2.10	2,184	1.90	na	na
December	2,283	2.07	2,181	1.86	na	na
Average	2,288	2.17	2,230	1.97	na	na

Source: Korea Agricultural Marketing Information Service (KAMIS)
Note: Monthly Average Exchange Rate is applied.

Korea: Foreign Exchange Rate (Korean Won against USD)			
Month	CY 2014	CY 2015	CY 2016

January	1,065	1,087	1,196
February	1,072	1,099	1,216
March	1,070	1,112	1,200a/
April	1,044	1,086	na
May	1,024	1,091	na
June	1,019	1,112	na
July	1,020	1,143	na
August	1,025	1,177	na
September	1,034	1,182	na
October	1,059	1,146	na
November	1,095	1,151	na
December	1,102	1,172	na
Average	1,052	1,130	na

Source: Global Financial Service

a/ March 1-18, 2016