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Report Highlights:

FAS/Seoul projects Korea's corn imports and consumption to increase in 2021/22, recovering from a projected 3 percent decline in imports during the current marketing year. 2021/22 domestic rice production is expected to jump 8 percent, driven by rising prices following low production in the prior year. Korea's rice imports are consistently close to the 408,700 metric ton (MT) tariff rate quota (TRQ), due to exorbitantly high out of quota tariffs. Korean wheat consumption in 2021/22 should remain unchanged from the current year.

Executive Summary

- Marketing Year (MY) 2021/22 wheat consumption is forecast at 3.5 million metric tons (MMT), unchanged from estimated consumption in the current marketing year.
- MY 2021/22 corn consumption is forecast to increase 3.5 percent to 11.8 MMT.
- MY 2021/22 total corn imports are forecast to increase by 200,000 MT to 11.7 MMT. Total corn imports for the current marketing year are expected to decline three percent to 11.5 MMT.
- MY 2021/22 rice production is forecast at 3.8 million metric tons (MMT), up eight percent.
- MY 2021/22 rice imports are forecast at 410,000 MT (milled basis).

Commodities

Wheat

Wheat Production

MY 2021/22 wheat production is forecast at 25,000 metric tons (MT) due to government incentives included in the Presidential and Ministerial Decree ‘Fostering Act for Korean Wheat Industry’, effective February 28, 2020. The Act allows the Korean government to provide packaged support to the domestic wheat industries, including R&D, government purchasing programs, breeding, marketing, etc. Korea plans to achieve 5 percent self-sufficiency in milling wheat consumption (equivalent to 120,000 MT) by 2025 under the program, rising to a 10 percent target (equivalent to 240,000 MT) by 2030. FAS/Seoul forecasts 7,000 hectares (ha) of planting area, less than the government 10,000 ha target, reflecting farmers’ slow response in the initial stage of the program.

MY 2020/21 wheat production is estimated at 16,800 MT, up 12 percent from the previous year with increased wheat planting partly offset by poor yields caused by cold damage in the spring of 2020. The Korean government is not expected to release official production numbers until the end of June 2021.

MY 2019/20 wheat production was 15,024 MT, with the lowest planted area since 2009.

Table 1

Korea: Wheat Production			
Crop Year	Harvested Area (Hectare)	Yield (MT/ha)	Production (MT)
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	10,076	2.62	26,433
2016	10,440	3.71	38,705
2017	9,283	4.03	37,425
2018	6,600	3.91	25,788
2019	3,736	4.02	15,024

2020a/	5,224	3.22	16,800
2021b/	7,000	3.60	25,000

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

a/ FAS Seoul production forecast based on 12 percent lower than five-year average yield impacted by cold damage in the spring and official acreage released by KOSTAT

b/ FAS Seoul forecast while Korean government targets to produce 40,000 MT with 10,000 ha planted under the support program

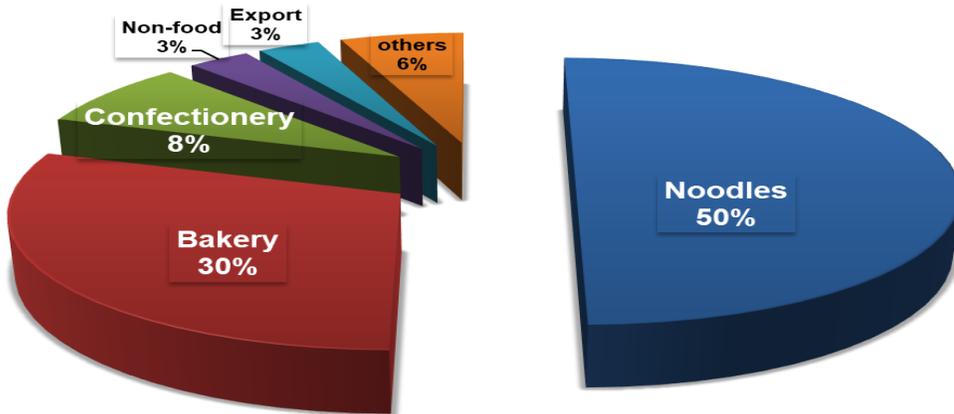
Wheat Consumption

MY 2021/22 wheat consumption is forecast at 3.5 million metric tons (MMT), unchanged from estimated consumption in the current marketing year. Wheat flour and feed wheat consumption is projected to remain stagnant due to saturated market demand (Table 2).

In MY 2020/21, wheat consumption is expected to decline to 3.51 MMT, down 1.2 percent due mainly to lower demand for imported milling wheat amidst a slow economy (COVID-19). Feed grade wheat will remain at 1.2 MMT as feed wheat prices will remain higher than corn during the marketing year based on a price comparison for the estimated time of arrival (Table 8 & 25).

MY 2019/20 wheat consumption remained almost unchanged at 3.55 MMT, down less than one percent from the previous year. Milling wheat consumption increased by 3.7 percent, but most consumption was offset by increased pasta exports.

Figure 1- Wheat Flour Consumption in 2020



Source: Korean Flour Industry

Non-Food: Industrial Use, Pet

Other Foods: Starch & Cereal, Brewery, Fermented Soy Product, Dumpling, Fish Meat, Traditional Extruded Chewy Cake

Table 2

Korea: Post Estimates of Wheat Use (1,000 MT, July/June)				
Marketing Year	2018/19	2019/20	2020/21 ^{c/}	2021/22 ^{c/}
Imported Milling Wheat ^{1/}	2,232	2,314	2,280	2,300
Imported Milling Wheat ^{2/}	200	200	200	200
Flour Imports ^{a/}	25	18	16	15
Flour Exports ^{a/}	57	62	60	60
Pasta Imports ^{a/}	160	160	173	180
Pasta Exports ^{a/}	235	302	320	330
Local Wheat	26	15	17	25
FSI Consumption ^{b/}	2,351	2,343	2,306	2,330
Feed Wheat	1,226	1,205	1,200	1,200
Total Consumption ^{b/}	3,577	3,548	3,506	3,530

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

1/ KOFMIA members

2/ Non- KOFMIA member

a/ Wheat basis

b/ Includes local wheat and flour and pasta imports, but subtracts flour and pasta exports

c/ FAS Seoul forecast

Table 3

Korea: Monthly Wheat Use (1,000 MT)						
Month	Feed Wheat			Milling Wheat ^{a/}		
	MY 2018/19	MY 2019/20	MY 2020/21	MY 2018/19	MY 2019/20	MY 2020/21
July	122	99	108	181	192	187
August	119	97	90	179	187	175
September	106	95	95	158	166	187
October	120	113	90	189	185	170
November	118	111	93	183	182	173
December	108	107	100	174	188	182
January	103	105	94	203	185	190
Sub Total	796	727	670	1,267	1,285	1,264
February	82	91	na	152	180	na
March	80	94	na	176	183	na
April	84	98	na	176	180	na
May	92	98	na	183	177	na
June	92	98	na	178	178	na
Total	1,226	1,205	na	2,132	2,184	na

Source: KFA and KOFMIA

a/ Includes wheat flour exports, but excludes the portion used in soy-sauce production (about 100,000 MT or so)

Table 4

Korea: Wheat Flour Utilization (1,000 MT)						
Calendar Year	2015	2016	2017	2018	2019	2020
Total Consumption ^{1/}	1,706	1,701	1,739	1,745	1,770	1,783
Per Capita (kg/Year) ^{2/}	33.7	33.2	33.8	33.8	34.2	34.3

Source: Korea Flour Mills Industrial Association (KOFMIA)

1/ Based on flour millers' sales including exports, imports and animal feed use, on a wheat flour production basis and excluding animal feed and exports.

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

Wheat Trade

MY 2021/22 wheat imports are forecast at 3.9 MMT, of which 2.7 MMT is expected to be used for milling (including flour and pasta imports on a wheat equivalent basis) and 1.2 MMT for animal feed (Table 9). This import estimate depends to a large extent on the continued availability of competitively priced feed wheat, with demand for milling wheat remaining steady.

MY 2020/21 wheat imports are expected to stay around 3.9 MMT (including flour and pasta imports on a wheat equivalent basis), almost unchanged from the previous year. During the first seven months of the current year, imports for feed wheat were 12 percent lower than the previous year (Table 6) and pending feed-grade wheat contracts for the remaining five months are 0.5 MMT (Table 8). In the first seven months of MY 2020/21, Ukraine has been the largest supplier of feed-grade wheat, followed by Canada, the EU, and the United States. Meanwhile, milling wheat imports (and consumer demand) are expected to be at the same level as the previous year.

MY 2019/20 wheat imports were 3.94 MMT, including flour and pasta imports on a wheat equivalent basis. Imports of U.S. wheat in MY 2019/20 were up 42 percent to 1.35 MMT due to greater imports of milling wheat for other purposes (such as sauce ingredients, 78,707 MT).

Korea imported 1.2 MMT of feed-grade wheat in MY 2019/20. Ukraine was the largest supplier at 414,627 MT, followed by Romania (321,169 MT), Bulgaria (288,958 MT), Canada (115,976 MT) and the United States (63,696 MT).

Table 5

Korea: Wheat Imports (1,000 MT, Customs Cleared Basis)					
Marketing Year (July/June)	Feed Wheat	Milling Wheat	Flour Imports ^{1/}	Pasta Imports ^{1/}	Total
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	1,812	2,416	50	142	4,420
16/17	2,174	2,313	33	147	4,667
17/18	1,557	2,526	29	155	4,267
18/19	1,225	2,500	25	160	3,910
19/20	1,206	2,556	18	160	3,940
20/21 ^{2/}	1,200	2,500	16	174	3,890

Source: Korea Customs Service

1/ Wheat basis

2/ FAS Seoul forecast

Table 6

Korea: Monthly Wheat Imports (1,000 MT)						
Month	Feed Wheat			Milling Wheat		
	MY 2018/19	MY 2019/20	MY 2020/21	MY 2018/19	MY 2019/20	MY 2020/21
July	110	94	110	254	213	231
August	95	61	69	106	160	184
September	79	79	142	215	233	212
October	185	217	58	260	144	264
November	156	115	116	159	206	88
December	102	128	102	148	239	258
January	106	88	90	294	209	207
Sub Total	833	782	687	1,436	1,404	1,444
February	34	106	na	144	258	na
March	65	70	na	228	219	na
April	146	63	na	276	205	na
May	56	141	na	187	179	na
June	91	43	na	229	291	na
Total	1,225	1,206	na	2,500	2,557	na

Source: Korea Customs Service

Note: exclude wheat flour and products

Table 7

Korea: MY 2020/21 Monthly Wheat Imports by Origin (1,000 MT, based on Customs Clearance)						
Country	U. S.	Australia	Canada	Ukraine	Other	Total
Milling Wheat						
July 2020	109	121	1	0	0	231
August	66	111	7	0	0	184
September	145	28	39	0	0	212
October	124	140	0	0	0	264
November	27	52	8	0	1	88
December	174	48	36	0	1	258
January 2021	102	93	12	0	1	207
Total(Jul-Jan) 2020/21	747	593	102	0	3	1,445
Total(Jul-Jan) 2019/20	688	601	114	0	1	1,404
Feed Wheat						
July 2020	3	0	79	17	11	110
August	1	0	11	3	54	69
September	1	0	3	134	4	142
October	1	0	0	54	3	58
November	1	0	0	94	21	116
December	0	0	0	35	67	102
January 2021	50	0	0	4	36	90
Total(Jul-Jan) 2020/21	57	0	94	340	197^{a/}	688
Total(Jul-Jan) 2019/20	2	0	69	305	406^{b/}	782
Total Wheat						
July 2020	112	121	80	17	11	341
August	69	111	18	3	52	253
September	146	28	41	134	5	354
October	125	140	0	54	4	323
November	28	52	8	94	21	203
December	174	48	36	35	67	360
January 2021	153	93	12	4	36	298
Total(Jul-Jan) 2020/21	805	593	195	340	200	2,133
Total(Jul-Jan) 2019/20	690	601	184	305	407	2,187

Source: Korea Customs Service

a/ Bulgaria (9,848MT), Romania (63,000MT), Russia (64,142MT) and Estonia (60,294MT)

b/ Bulgaria (226,732MT) and Romania (179,173MT)

Table 8

Korea: MY 2020/21 Feed Wheat Contracts by Estimated Time of Arrival (ETA) (Unit: 1,000 MT, as of February 2021)		
ETA	Quantity	Price (US\$/MT) ^{1/}
Jul. 2020	127	243.60
Aug.	0	0
Sep.	263	208.10
Oct.	67	208.90
Nov.	125	225.37
Dec.	65	245.95
Jan. 2021	0	0
Feb.	65	254.98
Mar.	125	267.62
Apr.	65	266.84
May	130	267.69
Jun	65	266.60
Total	1,097	

Source: Local Grain Traders

1/ CNF on Weighted Average

Table 9

Korea: MY 2021/22 Feed Wheat Contracts by Estimated Time of Arrival (ETA) (Unit: 1,000 MT, as of February 2021)		
ETA	Quantity	Price (US\$/MT) ^{1/}
Jul. 2021	120	309.19
Aug.	65	282.86
Sep.	130	278.57
Oct.	na	na
Nov.	na	na
Dec.	na	na
Jan. 2022	na	na
Feb.	na	na
Mar.	na	na
Apr.	na	na
May	na	na
Jun	na	na
Total	315	

Source: Local Grain Traders

1/ CNF on Weighted Average

Tariffs

In late December 2020, the Ministry of Strategy and Finance (MOSF) released the adjusted tariffs and tariff rate quotas (TRQs) for 2021. MOSF continued to exclude milling wheat from the 2020 list of autonomous TRQs, leaving all milling wheat to be charged the out-of-quota duty rate that remains fixed at 1.8 percent. By comparison, the feed wheat TRQ and its corresponding duty were eliminated in 2007. However, under the KORUS FTA the import duty on all U.S. wheat, both milling and feed wheat, is zero.

In 2021, the general tariff rate on flour is 4.2 percent. However, under the KORUS FTA, import tariffs for U.S. wheat flour (H.S. 1101.00.1000) were phased out over a five-year period, reaching zero in 2016. Tariffs for meslin flour (H.S. 1101.00.2000), a mixture of rye and wheat flour, immediately fell to zero in 2012.

Table 10

Korea: Wheat Import Tariff Rates for CY 2021					
(Percent)					
Commodity		Applied Tariff Rate		Bound Tariff Rate	
		2020	2021	2020	2021
Durum Wheat, Seed	1001.11.0000	3		9.0	
Durum Wheat, Other	1001.19.0000	3		9.0	
Seed, Meslins	1001.91.1000	3		9.0	
Seed, Other	1001.91.9000	1.8		1.8	
Feeding, Meslins	1001.99.1010	3		9.0	
Feeding, Other	1001.99.1090	0		1.8	
Milling, Meslins	1001.99.2010	3		9.0	
Milling, Other	1001.99.2090	1.8		1.8	
Others, Meslins	1001.99.9010	3		9.0	
Others, Other	1001.99.9090	1.8		1.8	

Source: Korea Customs Service (KCS)

Flour Trade:

Based on import statistics of the first seven months of the year, MY 2020/21 flour imports are expected to decrease to 16,000 MT (wheat equivalent) from the previous year, matching declining demand from small-sized restaurants and noodle manufacturers (traditionally the most loyal users of cheaply priced flour). Pasta imports are expected to exceed 174,000 MT (wheat equivalent) based on strong imports for the first seven months of the marketing year. Annual flour exports are expected to be approximately 60,000 MT (wheat equivalent), while pasta exports could sharply increase to about 320,000 MT (wheat equivalent) for the year, based on flour trade for the first seven months. Korea exports pasta mostly to China, the United States, and Japan. The situation is unlikely to change in MY 2021/22.

Table 11

Korea: Wheat Flour Imports (H.S.: 1101) (Metric Tons, July/June)						
Country	MY2015	MY2016	MY2017	MY2018	MY2019	MY2020b/
U.S.A.	567	352	382	362	469	816
Total	36,816	24,395	20,735	18,042	13,498	11,975
Wheat basis^{a/}	50,364	33,372	28,365	24,681	18,465	16,341

Source: Korea Customs Service (KCS)

a/ applied converting factor: 1.368

b/ Year-round based on the first seven months (July 2020-January 2021)

Table 12

Korea: Pasta Imports (H.S.: 190219, 190230, 190240) (Metric Tons, July/June)				
Country	MY2017	MY2018	MY2019	MY2020b/
USA	449	492	480	605
Total	113,631	116,638	116,827	127,077
Wheat Basis^{a/}	155,447	159,561	159,819	173,840

Source: Korea Customs Service (KCS)

a/ applied converting factor: 1.368

b/ Year-round based on the first seven months (July 2020-January 2021)

Table 13

Korea: Wheat Flour Exports (H.S.: 1101) (Metric Tons, July/June)						
Country	MY2015	MY2016	MY2017	MY2018	MY2019	MY2020b/
USA	5,328	5,494	5,806	6,416	8,585	7,049
Total	21,699	26,958	40,366	42,015	45,460	43,392
Wheat Basis^{a/}	29,684	36,879	55,221	57,477	62,189	59,360

Source: Korea Customs Service (KCS)

a/ applied converting factor: 1.368

b/ Year-round based on the first seven months (July 2020-January 2021)

Table 14

Korea: Pasta Exports (H.S.: 190219, 190230, 190240) (Metric Tons, July/June)				
Country	MY2017	MY2018	MY2019	MY2020b/
USA	28,687	30,555	38,609	56,801
Total	173,310	171,719	220,732	232,877
Wheat Basis^{a/}	237,088	234,912	301,961	318,576

Source: Korea Customs Service (KCS)

a/ applied converting factor: 1.368 b/ Year-round based on the first seven months (July 2020-January 2021)

Production, Supply, and Distribution Data Statistics:

Wheat PS&D

Wheat Market Year Begins Korea, Republic of	2019/2020		2020/2021		2021/2022	
	Jul 2019		Jul 2020		Jul 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	4	4	5	5	0	7
Beginning Stocks (1000 MT)	1532	1532	1574	1575	0	1612
Production (1000 MT)	15	15	17	17	0	25
MY Imports (1000 MT)	3941	3940	3900	3900	0	3900
TY Imports (1000 MT)	3941	3940	3900	3900	0	3900
TY Imp. from U.S. (1000 MT)	1295	1347	0	1300	0	1300
Total Supply (1000 MT)	5488	5487	5491	5492	0	5537
MY Exports (1000 MT)	364	364	350	380	0	390
TY Exports (1000 MT)	364	364	350	380	0	390
Feed and Residual (1000 MT)	1200	1205	1200	1200	0	1200
FSI Consumption (1000 MT)	2350	2343	2350	2300	0	2300
Total Consumption (1000 MT)	3550	3548	3550	3500	0	3500
Ending Stocks (1000 MT)	1574	1575	1591	1612	0	1647
Total Distribution (1000 MT)	5488	5487	5491	5492	0	5537
Yield (MT/HA)	3.75	3.75	3.4	3.4	0	3.5714
(1000 HA) ,(1000 MT) ,(MT/HA)						
MY = Marketing Year, begins with the month listed at the top of each column						
TY = Trade Year, which for Wheat begins in July for all countries. TY 2021/2022 = July 2021 - June 2022						

Country Korea, Republic of
Commodity Wheat

Time Period	July/June	Units:	1,000MT
Imports for:	2018		2019
U.S.	1316	U.S.	1345
Others		Others	
Australia	1062	Australia	1072
Canada	348	Canada	317
Ukraine	741	Ukraine	415
Russia	251	Bulgaria	289
		Romania	321
Total for Others	2402		2414
Others not Listed	7		3
Grand Total	3725		3762

Note: excludes the import of wheat flour and pasta

Table 15

Korea: Milling Wheat Imports by Variety (Arrival Basis, Calendar Year)							
Origin	Variety	CY 2018		CY 2019		CY 2020	
		Quantity (MT)	%	Quantity (MT)	%	Quantity (MT)	%
United States	No. 1 WW/SW	430,790	20.1	439,987	19.2	448,363	20.5
	No. 1 WW/SW 9.5 max.	0	0	0	0	0	0
	No. 1 WW/SW 8.5 max.	37,089	1.7	39,231	1.7	40,709	1.9
	No. 1 HRW 11.5 min.	205,040	9.6	247,534	10.8	267,815	12.3
	No. 1 DNS 14.0 min.	334,913	15.6	349,112	15.2	358,362	16.4
	No. 2 SRW	4,870	0.2	1,913	0.1	0	0
	Sub Total	1,012,711	47.2	1,077,777	47.0	1,115,249	51.1
Australia	ASW ^{a/}	740,373	34.5	946,503	41.2	791,757	36.3
	AH ^{b/}	124,602	5.8	115,944	5.1	97,222	4.4
	APH ^{c/}	0	0	0	0	0	0
	APW ^{d/}	140,760	6.6	3,362	0.1	60,334	2.8
	ANW ^{e/}	0	0	10,588	0.5	0	0
	Sub Total	1,005,735	46.9	1,076,397	46.9	949,313	43.5
Canada	No. 2 CWRS 13.5 min.	121,125	5.7	135,465	5.9	116,710	5.3
	No. 2 CPSR 11.0 min.	0	0	0	0	0	0
	Sub Total	121,125	5.7	135,465	5.9	116,710	5.3
Others	Organic Wheat	4,751	0.2	5,295	0.2	463	0.1
	Grand Total	2,144,322	100	2,294,934	100	2,181,735	100

Source: Korea Flour Mills Industrial Association (KOFMIA)

a/ Australian Standard White Wheat

b/ Australian Hard Wheat

c/ Australian Premium Hard

d/ Australian Premium Wheat

e/ Australian Noodle Wheat

Commodities

Corn

Corn Production

Corn production is minimal in Korea and accounts for less than one percent of total consumption. Planted area for MY 2021/22 is expected to remain steady at around 15,000 hectares, while production is forecast at 75,000 MT based on the preceding five-year average yield.

Statistics Korea (KOSTAT) recently released 2020 data listing corn planted area at 15,633 hectares, up 5.3 percent from 2019. FAS Seoul estimates Korea's corn production at about 78,000 MT based on the preceding five-year average yield. The government will release the 2020 official production figures in April 2021.

MY 2019 corn production was 76,336 MT, down 2.1 percent from a year earlier, reflecting reduced acreage.

Table 16

Korea: Corn Production			
Crop Year	Area (ha)	Yield (MT/ha)	Production (MT)
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	15,356	5.10	78,243
2016	15,183	4.85	73,681
2017	15,074	4.82	72,587
2018	15,472	5.04	78,012
2019	14,840	5.14	76,336
2020a/	15,633	5.00	78,000
2021b/	15,000	5.00	75,000

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

a/ FAS Seoul production forecast based on five-year average yield and official acreage as released by KOSTAT

b/ FAS Seoul forecast based on five-year average yield and acreage

Corn Consumption

MY 2021/22 corn consumption is forecast to increase to 11.8 MMT, up 3.5 percent from the current marketing year (MY 2020/21). This number is composed of 9.5 MMT for feed purposes and 2.3 MMT for food, seed, and industrial (FSI) purposes. Feed corn consumption is forecast to increase by 400,000 MT, in large part due to an anticipated rebound in demand in swine and poultry compound feed production. However, food, seed, and industrial (FSI) corn consumption is expected to stay at 2.3 MMT to meet stable demand for high fructose corn syrup (HFCS) and other corn products from Korean food industries.

MY 2020/21 corn consumption is expected to reach around 11.4 MMT, down three percent from the previous year due to a reduced demand for feed corn following decreased swine and poultry inventory numbers. Swine growers have voluntarily reduced sow numbers to control overpopulated swine since the second half of 2020. Ongoing outbreaks of highly pathogenic avian influenza (HPAI) since November 2020 have continued driving layer and broiler depopulation as well. Accordingly, total corn consumption is expected to consist of 9.1 MMT for feed and 2.3 MMT for food, seed, and industrial (FSI) purposes.

MY 2019/20 corn consumption was 11.8 MMT, consisting of 9.5 MMT for feed and 2.3 MMT for food, seed, and industrial (FSI) purposes (Table 18). Feed corn consumption has been increasing to replace the lack of supply of feed grade wheat and domestic rice for feed. Consumption for processing corn has dropped as the sluggish economy (COVID-19 related social distancing) led to reduced demand for HFCS in soft drinks and for corn starch used in paper sizing and beer brewing.

Feed

Compound feed production is forecast to rebound to a near record volume of 20.9 MMT in MY 2021/22, as swine and poultry numbers recover following inventory reductions. Corn will continue to be the major ingredient used in compound feed with a 45 percent inclusion rate (9.5 MMT), followed by feed wheat with 1.2 MMT.

The 2020/21 compound feed production forecast is 20.4 MMT, down about three percent from the record volume of the previous year due to the reduction of swine and poultry inventories.

MY 2019/20 compound feed production was at 21 MMT, a record volume in the history of the feed industry, up 2.6 percent over the previous year. This increase reflected simultaneous growth of inventories across all animal sectors from the previous year, as poultry numbers grew 1.5 percent, cattle numbers rose 2.8 percent, and swine numbers were up 2.3 percent.

Refer to the [Livestock and Products Update](#) and [Poultry and Products Annual](#) for more details.

Food

Corn processors use Genetically Engineered (GE) corn, non-biotech Identity Preserved (IP) corn, and conventional corn to produce corn starch, HFCS, and corn flour. GE corn imported from the United States and South American countries is used for starch production for industrial purposes such as paper sizing and glue. Non-biotech IP corn imported from the United States and Brazil, and traditional corn imported from Russia, South Africa, Serbia, Bulgaria, and Australia are used for corn starch and corn flour. The perceived public concern about biotech continues to influence imported processing corn decisions, especially corn that is used in production intended for human consumption (such as cooking oil and HFCS). Many food processing companies have been reluctant to use ingredients derived from biotech corn out of concern over public backlash. Some food processing companies utilizing corn starch products are sourcing ingredients imported from China, since these items are reportedly derived from non-biotech corn. (Refer to [Agricultural Biotechnology Annual](#) for more details)

Table 17

Korea: Monthly Corn Use (1,000 MT)						
Month	Feed Corn			Processing Corn		
	MY 2018/19	MY 2019/20	MY 2020/21	MY 2018/19	MY 2019/20	MY 2020/21
October	704	785	822	204	190	185
November	687	745	813	192	190	190
December	699	790	894	197	194	188
January	752	798	809	198	180	183
Sub Total	2,842	3,118	3,338	791	754	746
February	627	746	na	172	182	na
March	698	814	na	197	185	na
April	745	819	na	191	168	na
May	772	814	na	197	188	na
June	709	793	na	195	186	na
July	745	837	na	188	192	na
August	707	730	na	187	164	na
September	711	832	na	178	183	na
Total	8,556	9,502	na	2,298	2,204	na

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

a/ FAS/Seoul estimate on the actual imports for the first eleven months

Table 18

Korea: Total Corn Utilization (October/September, 1,000 MT)				
Marketing Year	Feed	Processing a/	Food b/	Total
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	7,841	2,220	93	10,154
2016/17	7,031	2,315	89	9,435
2017/18	7,564	2,292	88	9,944
2018/19	8,556	2,298	93	10,947
2019/20	9,502	2,204	89	11,795
2020/21 c/	9,100	2,200	93	11,393
2021/22 c/	9,500	2,200	90	11,790

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 19

Korea: Monthly Processing Corn Use (MT)						
Month	MY 2019/20			MY 2020/21		
	Wet Milling	Dry Milling	Total	Wet Milling	Dry Milling	Total
October	183,973	5,905	189,878	179,931	5,333	185,264
November	184,181	5,804	189,985	183,335	6,399	189,734
December	187,664	6,131	193,795	182,493	5,849	188,342
January	174,400	5,833	180,233	176,980	6,088	183,068
February	176,207	5,711	181,918	na	na	na
March	179,613	5,784	185,397	na	na	na
April	162,282	5,864	168,146	na	na	na
May	182,286	6,056	188,342	na	na	na
June	180,468	5,609	186,077	na	na	na
July	186,713	5,453	192,166	na	na	na
August	159,599	4,722	164,321	na	na	na
September	177,528	5,795	183,323	na	na	na
Total	2,134,914	68,668	2,203,582	na	na	na

Source: Korea Corn Processing Industry Association (KOCPIA)

Table 20

Korea: Feed Ingredients Use for Compound Feed Production				
(October/September, 1,000 MT)				
Items	MY 2018/19	MY 2019/20	MY 2020/21 ^{a/}	MY 2021/22 ^{a/}
Sub-Total Grains and Grain Substitutes	12,976	13,481	12,900	13,400
- Wheat	1,168	1,209	1,200	1,200
- Corn	8,557	9,502	9,100	9,500
- Rice (brown)	568	113	0	0
- Other Grains and Grain Substitute ^{b/}	2,683	2,657	2,600	2,700
Others ^{c/}	7,496	7,523	7,500	7,500
Grand Total	20,472	21,004	20,400	20,900

Source: Korea Feed Association (KFA)

a/ FAS Seoul forecast

b/ includes Tapioca, brans and gluten feed.

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

Table 21

Korea: Compound Feed Production by Species Use				
(October/September, 1,000 MT)				
Species	MY 2018/19	MY 2019/20	MY 2020/21 ^{a/}	MY 2021/22 ^{a/}
Poultry	6,159	6,281	6,000	6,200
Swine	6,784	6,947	6,700	6,800
Cattle	5,961	6,186	6,300	6,400
Others ^{b/}	1,511	1,538	1,400	1,500
Sub Total	20,415	20,952	20,400	20,900
Aquaculture	161	165	150	150
Milk Substitute	49	49	50	50
Grand Total	20,625	21,166	20,600	21,100

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

a/ FAS/Seoul forecast

b/ Includes duck, rabbit, horse, sheep, deer, quail, etc.

Table 22

Korea: Compound Feed Production Comparison by Species			
for the First Four Months			
(October/January, 1,000 MT)			
Species	MY 2019/20	MY 2020/21	Change (percent)
Poultry	2,062	2,012	-2.4
Swine	2,474	2,419	-2.2
Cattle	2,100	2,180	3.8
Others	518	487	-6.0
Total	7,154	7,099	-0.8

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

Corn Trade

With the expected increases in swine and poultry inventories, MY 2021/22 total corn imports are forecast to increase to 11.7 MMT, up 200,000 MT from the current marketing year estimate, consisting of 9.5 MMT of feed corn for compound feed and 2.2 MMT of processing corn for food processing.

Based on the average U.S. market share for corn in Korea over the previous five years, MY 2021/22 imports of U.S. corn are forecast to stay around 4 MMT, about 34 percent of total Korean corn imports.

Total corn imports for MY 2020/21 are expected to decline to 11.5 MMT, down three percent from the previous year due to lower demand for feed corn. U.S. market share this year will increase to about 35 percent of total corn imports, despite an eleven percent U.S. market share in the first four months of the marketing year, due to competition from lower priced South American corn. Local traders expect the U.S. corn market share to be between 30 and 40 percent of total corn supply due to lower price competitiveness to date (Table 24) as well as considering the current status of corn contracts at seller's option for actual delivery (Table 26).

As of February 2021, importers had contracted more than 8.5 MMT of corn for October 2020 through July 2021 (arrival basis). Importers are continuing to make contracts for arrival in July through September 2021. Most corn contracts are optional origin at seller's discretion from South American countries, Eastern Europe/Black Sea, or the United States with a price range of \$178-297 per metric ton cost net freight (CNF). Conventional corn for processing is contracted from Eastern Europe with a price range of \$198-307 per metric ton, CNF. Most recent buying contracts were priced in the range of \$289-295 per ton for feed corn with delivery for June and July and \$301-309 for processing corn with delivery in April and May 2021, CNF (Table 26).

Market Constraints and Opportunities:

As the higher broken corn and foreign material (BCFM) content of U.S. corn has been a chronic issue for Korean buyers, importers have preferred purchasing other origin such as South American corn to U.S. corn loaded in the U.S. Pacific Northwest (PNW). Some Korean buyers entirely excluded suppliers who were bidding for PNW loading, preferring even to pay a premium for South American origins.

Korea has introduced a positive list system (PLS) as the new maximum residue limit (MRL) regulation in 2019, requiring agricultural chemicals to have registered import tolerances. Concerns over PLS complications have reportedly driven some major U.S. suppliers to not participate in the bidding processes due to concern about the higher-potential risks of corn contracts.

Table 23

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	
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	7,833	2,289	10,122	2,387	522	2,909	29

16/17	6,912	2,308	9,220	4,988	973	5,961	65
17/18	7,680	2,326	10,006	4,453	717	5,170	52
18/19	8,519	2,326	10,845	3,519	895	4,414	41
19/20	9,695	2,187	11,882	2,243	361	2,603	22
20/21 ^{a/}	9,300	2,200	11,500	3,500	500	4,000	35
21/22 ^{a/}	9,500	2,200	11,700	3,500	500	4,000	34

Source: Korea Customs Service, Trade Data Monitor LLC

a/ FAS/Seoul forecast

Table 24

Korea: MY 2020/21 Monthly Corn Imports by Origin (1,000 MT, based on Customs Clearance)						
Country	U. S.	Argentina	Brazil	Russia	Others	Total
Feed Corn						
October 2020	176	367	400	1	17	961
November	90	476	220	1	34	821
December	80	368	119	4	57	628
January 2021	18	363	549	7	47	984
2020/21 (Oct-Jan)	363	1574	1287	12	158	3,394
2019/20 (Oct-Jan)	6	1,204	1,619	13	490	3,332
Processing Corn						
October 2020	31	0	122	0	31	184
November	39	0	71	0	66	176
December	32	0	5	38	69	144
January 2021	3	0	121	80	85	289
2020/21 (Oct-Jan)	105	0	319	119	250	793
2019/20 (Oct-Jan)	10	0	322	98	420	849
Total						
October 2020	207	367	522	1	48	1,145
November	129	476	291	1	100	997
December	112	368	124	42	126	772
January 2021	21	363	670	87	132	1,273
2020/21 (Oct-Jan)	468	1,574	1,606	131	408^{a/}	4,187
2019/20 (Oct-Jan)	16	1,203	1,939	111	912 ^{b/}	4,181

Source: Korea Customs Service, Trade Data Monitor LLC

a/ Russia (130,292MT), South Africa (118,395MT), Serbia (98,929), Paraguay (84,290MT) and Australia (37,726MT)

b/ Paraguay (379,911MT), Ukraine (189,973MT), Serbia (178,516MT), Bulgaria (118,167MT), Australia (35,527MT) and others (9,210MT) for MY2019/20 (Oct/Jan)

Table 25

Korea: Monthly Corn Imports (1,000 MT, Customs Cleared Basis)						
Month	Feed Corn			Processing Corn		
	MY 2018/19	MY 2019/20	MY 2020/21	MY 2018/19	MY 2019/20	MY 2020/21
October	728	871	961	184	175	184
November	667	768	821	138	127	176
December	724	934	628	190	265	144
January	825	759	984	274	282	289
Sub. Total	2,944	3,332	3,394	786	849	793
February	601	847	na	176	149	na
March	635	744	na	218	111	na
April	736	783	na	226	149	na
May	832	810	na	155	224	na
June	585	754	na	209	197	na
July	699	863	na	210	188	na
August	758	733	na	205	139	na
September	730	826	na	141	180	na
Total	8,519	9,695	na	2,326	2,187	na

Source: Korea Customs Service, Trade Data Monitor LLC

Table 26

Korea: MY 2020/21 Corn Contracts ^{1/} By Estimated Time of Arrival (ETA) (Unit: 1,000 MT, as of February 25, 2021)				
ETA	Quantity		Price (USD/MT) ^{2/}	
	Feed	Processing	Feed	Processing
Oct. 2020	1,311	280	177.81	197.68
Nov.	666	118	185.22	198.91
Dec.	534	175	211.71	229.18
Jan 2021	391	60	235.34	251.82
Feb.	593	180	246.93	260.50
Mar.	798	120	252.91	262.49
Apr.	855	240	245.66	278.02
May	868	120	248.62	307.00
Jun.	1,073	na	270.46	na
Jul.	69	na	296.99	na
Aug.	na	na	na	na
Sep.	na	na	na	na
Sub Total	7,158	1,293		
Grand Total	8,451			

Source: Local Grain Traders

^{1/} reflecting 90-95 percent of actual contracts due to the omission of some data on contracts^{2/} USD/MT, CNF on Weighted Average

Tariffs

In late December 2020, the Ministry of Strategy and Finance (MOSF) released the adjusted tariffs and tariff rate quotas (TRQs) for 2021. The autonomous TRQs cover a variety of agricultural products, including feed corn. The TRQ for feed corn was set at 10 MMT with zero duty for 2021. However, the government excluded processing corn from the list of TRQs in 2020 and 2021. Therefore, the processing corn duty will remain at three percent. The out-of-quota duty for both feed and processing corn remained fixed at 328 percent. Please refer to GAIN report [2021 Korea's Adjustment and Quota Tariffs Schedule](#) for more details.

10 MMT of the annual autonomous TRQs for feed corn has been allocated to feed millers who are members of the Korea Feed Association (KFA) and the national farmer's cooperative, Nonghyup Feed Inc. (NOFI). Meanwhile, the Korea Corn Processing Industry Association (KOCPIA) manages about 2.0 MMT of processing corn, which is being imported at a three percent duty under the current market access quota (CMA).

Under the 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 do not count against the global autonomous TRQ of 10 MMT. Since 2019, tariffs were completely phased out on U.S. corn for food processing, and the duty fell to zero. For greater detail, please refer to [Chapter 3, Annex 3-A](#) of the KORUS trade agreement.

Table 27

Korea: Import Tariff Rate for CY 2021							
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 Distribution Data Statistics

Corn PS&D

Corn Market Year Begins Korea, Republic of	2019/2020		2020/2021		2021/2022	
	Oct 2019		Oct 2020		Oct 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	15	15	15	15	0	15
Beginning Stocks (1000 MT)	1835	1835	2001	1998	0	2176
Production (1000 MT)	76	76	75	78	0	75
MY Imports (1000 MT)	11892	11882	11500	11500	0	11700
TY Imports (1000 MT)	11892	11882	11500	11500	0	11700
TY Imp. from U.S. (1000 MT)	2901	2604	0	4000	0	4000
Total Supply (1000 MT)	13803	13793	13576	13576	0	13951
MY Exports (1000 MT)	0	0	0	0	0	0
TY Exports (1000 MT)	0	0	0	0	0	0

Feed and Residual (1000 MT)	9502	9502	9300	9100	0	9500
FSI Consumption (1000 MT)	2300	2293	2300	2300	0	2300
Total Consumption (1000 MT)	11802	11795	11600	11400	0	11800
Ending Stocks (1000 MT)	2001	1998	1976	2176	0	2151
Total Distribution (1000 MT)	13803	13793	13576	13576	0	13951
Yield (MT/HA)	5.0667	5.0667	5	5.2	0	5

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

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Corn begins in October for all countries.TY 2021/2022 = October 2021 - September 2022

Corn Import Trade Matrix

Import Trade Matrix			
Country	Korea, Republic of		
Commodity	Corn		
Time Period	Oct/Sept	Units:	1,000MT
Imports for:	2018		2019
U.S.	4414	U.S.	2603
Others		Others	
Brazil	2267	Brazil	2534
Argentina	2411	Argentina	2482
Ukraine	340	Ukraine	1962
Bulgaria	331	Bulgaria	234
Paraguay	165	Paraguay	567
Serbia	662	Serbia	670
South Africa	64	South Africa	247
Russia	43	Russia	223
Romania	2	Romania	230
Australia	47	Australia	43
Total for Others	6332		9192
Others not Listed	99		87
Grand Total	10845		11882

Source: Korea Customs Service (KCS), Trade Data Monitor LLC

Note: exclude popcorn (HS: 1005.90.2000)

Table 28

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	%
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	7,833	2,289	10,122	2,387	522	2,909	29
16/17	6,912	2,308	9,220	4,988	973	5,961	65
17/18	7,680	2,326	10,006	4,453	717	5,170	52

Source: Korea Customs Service, Trade Data Monitor LLC

Table 29

Korea: Total Corn Utilization (October/September, 1,000 MT)				
Marketing Year	Feed	Processing a/	Food b/	Total
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	7,841	2,220	93	10,154
2016/17	7,031	2,315	89	9,435
2017/18	7,564	2,292	88	9,944

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.

Table 30

Korea: Processing Corn Consumption (October/September, 1,000 MT)			
Marketing Year	Wet Milling	Dry Milling	Total
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
2015/16	2,147	73	2,220
2016/17	2,239	76	2,315
2017/18	2,221	72	2,293

Source: Korea Corn Processing Industry Association (KOCPIA)

Table 31

Korea: Animal Inventory (1,000 Head, 1,000 Birds, as of March 1, 2021)					
Animal	Year	March	June	September	December
Beef Cattle	2016	2,821	2,996	3,016	2,963
	2017	2,885	3,034	3,120	3,020
	2018	2,947	3,117	3,168	3,113
	2019	3,059	3,242	3,269	3,237
	2020	3,197	3,383	3,435	3,364
	2021	3,350c/	3,523c/	3,536c/	3,487d/
Dairy Cattle	2015	425	420	421	418
	2016	416	414	411	409
	2017	408	405	407	408
	2018	407	401	404	408
	2019	409	406	408	410
	2021	403-405c/	407-408c/	na	410d/
Swine	2016	10,315	10,355	10,699	10,367
	2017	11,005	11,187	11,493	11,273
	2018	11,156	11,304	11,641	11,333
	2019	11,200	11,317	11,713	11,280
	2020	11,208	11,088	11,365	11,078
	2021	10,939c/	na	na	11,442d/
Layer a/	2016	70,177	68,281	69,853	71,043
	2017	51,608	57,383	67,833	72,710
	2018	71,324	67,043	71,227	74,741
	2019	70,103	71,405	70,895	72,701
	2020	72,811	74,921	73,853	72,580
	2021	63,340c/	70,230c/	72,360c/	na
Broiler b/	2016	86,541	101,014	76,420	87,830
	2017	79,332	104,205	80,546	85,436
	2018	91,053	112,681	83,278	85,915
	2019	93,599	121,588	88,530	88,738
	2020	96,350	110,842	88,203	94,835
	2021	91,660c/	na	na	na

Source: Korea Statistics (KOSTAT)

a/ Excluding breeders

b/ Excluding multi-use broilers

c/ FAS Seoul forecast based on KREI's outlook analysis report

d/ FAS Seoul forecast

Note: The Korean government changed the basis for estimating cattle inventory as of September 2017. The Korea Statistics Service switched from a sample survey-based cattle inventory estimate to the actual number of cattle registered under the traceability system. As it is mandatory to register cattle under the traceability system, this change will allow for more accurate inventory numbers. However, this change increased cattle inventory statistics by an average of 240,000 heads ([KS1810](#)). Swine inventory numbers also followed the registration of the traceability system since 2017.

Table 32

Korea: Feed Ingredients Use for MY2018-MY2019						
(1,000 MT, October/September)						
INGREDIENT	MY2018/19			MY2019/20		
	TOTAL	DOM ^{1/}	%	TOTAL	DOM ^{1/}	%
GRAINS:						
CORN	8,557	-	41.8	9,502	-	45.2
SORGHUM	22	-	0.1	-	1	-
WHEAT	1,168	-	5.7	1,209	-	5.8
BARLEY	18	1	0.1	21	2	0.1
RYE	-	-	-	-	-	-
OATS	4	3	0.0	4	4	0.0
GSP/BROKEN GRAIN	99	99	0.5	107	107	0.5
TAPIOCA	101	-	0.5	99	-	0.5
LUPIN SEED	130	18	0.6	86	14	0.4
RICE	568	552	2.8	113	106	0.5
OTHERS	218	199	1.1	225	213	1.1
SUB TOTAL	10,885	872	53.2	11,366	447	54.1
GRAIN BY-PRODUCTS:						
WHEAT BRAN	494	421	2.4	513	442	2.4
RICE BRAN	215	215	1.1	199	198	0.9
BARLEY BRAN	1	1	0.0	-	-	-
CORN BRAN	5	2	0.0	13	11	0.1
GLUTEN FEED	1,141	457	5.6	1,136	422	5.4
OTHERS	235	190	1.1	254	218	1.2
SUB TOTAL	2,091	1,286	10.2	2,115	1,291	10.1
ANIMAL PROTEIN:						
FISH MEAL	11	7	0.1	10	5	0.0
MEAT & BONE MEAL	24	23	0.1	27	25	0.1
OTHERS	171	169	0.8	184	181	0.9
SUB TOTAL	206	199	1.0	221	211	1.1
VEGETABLE PROTEIN:						
SOYBEAN MEAL	2,316	618	11.3	2,465	657	11.7
RAPESEED MEAL	393	4	1.9	338	2	1.6
SESAMESEED MEAL	38	38	0.2	41	39	0.2
PERILLA SEED MEAL	2	2	0.0	1	1	0.0
CORN GLUTEN MEAL	76	74	0.4	68	67	0.3

DDGS 2/	1,086	414	5.3	1,085	455	5.2
COTTONSEED MEAL	-	-	-	-	-	-
PALM KERNEL MEAL	815	74	4.0	876	46	4.2
COPRA MEAL	258	1	1.3	135	-	.6
OTHERS	278	228	1.4	263	229	1.3
SUB TOTAL	5,262	1,453	25.7	5,272	1,496	25.1
ADDITIVES/MINERALS:						
CALCIUM PHOSPHATE	66	56	0.3	70	62	0.3
LIMESTONE	576	576	2.8	599	599	2.9
SALT	71	67	0.3	72	69	0.3
OTHER	323	321	1.6	330	325	1.6
SUB TOTAL	1,036	1,020	5.1	1,071	1,055	5.1
OTHER INGREDIENTS:						
TALLOW	346	343	1.7	337	337	1.6
MOLASSES	368	307	1.8	332	282	1.6
UREA	3	3	0.0	2	2	0.0
OTHER	275	250	1.3	288	265	1.4
SUB TOTAL	992	903	4.8	959	886	4.6
GRAND TOTAL	20,472	5,733	100.0	21,004	5,386	100.0

Source: Korea Feed Association (KFA)

1/ Domestic Products

2/ refer to [KS1748](#) for more details

Commodities

Rice, Milled

Rice Production

MY 2021/22 rice production is forecast at 3.8 million metric tons (MMT), up eight percent from the previous year. Yields are expected to be eight percent higher than the previous year when the past five-year average is applied along with rice farmers' planting intentions surveyed by KREI for March 10-17, 2021. Farmers' planting intentions totaled 728,700 ha, up 0.3 percent from the previous year as the government has eased off on the rice reduction program from the 2021 crop on.

Information about the 2020 rice crop is available in FAS Seoul's [2020 Rice Production Update](#).

Area

Rice area has continued to decrease annually since 2001, with yearly decreases ranging from 5,000 ha to 38,000 ha. In 2020, rice planting/harvesting area decreased by 3,382 ha, a drop of 0.5 percent, in response to constant demand for land for residential and commercial construction and the conversion of rice paddy land to other crops under the government rice reduction program.

In MY 2021/22, Korea will discontinue the ‘rice reduction program’ (in effect since 2018) designed to provide subsidies for rice farmers who cultivate other crops on paddy land previously planted with rice. Accordingly, rice farmers have increased their rice planting intentions as noted above, further supported by high domestic rice prices (Table 53 & 54). The prevalence of specialized equipment for rice cultivation in Korea is another reason many farmers can easily return to rice production when market conditions dictate.

Yield

Rice farmers have preferred planting high-yield varieties to maximize returns under the rice deficiency payment program (2005-2019). The cultivation of high yield varieties is expected to continue under the current uptrend of the domestic rice market. FAS/Seoul forecasts rice average yields at 5,210 kg/ha as an average yield for the previous five-years (2016-2020).

Table 33

Korea: 2021 Rice Production Forecast		
	2020 Rice Production	2021 Rice Production Forecast ^{1/}
Area (1,000 ha)	726	729 ^{a/}
Yield (kg/ha)	4,827	5,210 ^{b/}
Production (1,000MT)	3,507	3,793

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

a/ KREI Survey for March 10-17, 2021

b/ applied the average yield for past five years

Table 34

Korea: Rice Area, Yield and Production			
Crop Year	Area (1,000ha)	Yield (KG/ha)	Production (Milled, 1,000 MT)
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
2016	779	5,389	4,197
2017	755	5,264	3,972
2018	738	5,244	3,868
2019	730	5,131	3,744
2020	726	4,827	3,507
2021	729 ^{a/}	5,210 ^{b/}	3,797

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

a/ KREI Survey for March 10-17, 2021

b/ applied slightly lower yield than the average yield for past five years due to newly revised direct payment program is no longer related with the level of yield

Production Policy

On February 21, 2020, Korea revised the Presidential and Ministerial Decree of RICA (Rice Income Compensation Act), which defines ‘Public Welfare Direct Payment for Agriculture and Rural Community’ to create a new subsidy program to replace the established Direct Payments, effective May 1st 2020. A GAIN report with additional details is available in the [New Direct Payment Program for Korean Rice Producers](#). Details on the previous rice policy is available in an ERS report on [The Rice Market in South Korea \(2016\)](#).

Summary of the revised regulations:

The proposed Enforcement Decree is delegated from the Act on the Operation of Direct Payment System for Promoting the Public Welfare of Agriculture and Rural Communities, implementing the Public Welfare Direct Payment System (PWDP). The PWDP is intended to subsidize farmers so that they can contribute to public welfare through their agricultural activities in the areas of food safety, environmental conservation, and promoting sustainable rural communities.

The PWDP is composed of both Basic Public Welfare Direct Payments and Selective Public Welfare Direct Payments. The Basic PWDP includes small farming household payments and area payments. The Selective PWDP includes an environmentally friendly agriculture direct payment system, an environmentally friendly safe livestock product direct payment system, a landscape preservation direct payment system, and a rice paddy utilization direct payment system.

Annually, the PWDP will distribute 1.2 million won (\$982) in direct payments to small farming households (0.5ha or smaller). The reference segments for area direct payments are divided into Segment 1 (2ha or less), Segment 2 (2ha ~ 6ha), and Segment 3 (Over 6ha) respectively for rice paddy/dry fields within agriculture promotion areas, rice paddy outside of agriculture promotion areas, and dry field outside of agriculture promotion areas, with a payment ceiling set to be 30ha (50ha for incorporated agricultural bodies). In Korea, agriculture promotion areas are land designated for agricultural production use only and are protected by the Farmland Act.

Through the PWDP, Korea paid 2,356.4 billion Korean Won (\$2 billion) during November 5- December 30, 2020, consisting of Basic PWDP (2,276.9 billion Won) to 1,121 thousand farm households and Selective PWDP (79.5 billion Won) to 98 thousand farm households, respectively.

Government Rice Purchase Program under the Public Food Grain Stockholding Program (PFSP)

The Korean government purchases rice to ensure food security and price stability. Under the Public Food Grain Stockholding Program (PFSP), Korea 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 2020, the Korean government purchased 332,000 MT (milled basis) of paddy rice consisting of 322,000 MT under PFSP, and 10,000 MT for the ASEAN Plus Three Emergency Rice Reserve (APTERR) (Table 36).

Government and National Agricultural Cooperative Federation’s (NACF) Loan Programs to Rice Millers

In 2020, the Korean government provided loans for local rice millers, including NACF members and independent rice millers, worth more than 1.28 trillion Korean Won (\$1.08 billion) with a special loan rate between zero and two percent per annum. NACF also provides about 2.1 trillion Korean Won (\$1.78

billion) worth of loans annually to rice farmers/millers at zero interest rate. The main goal of these loan programs is to encourage rice millers to purchase more rice from farmers, minimizing the downward pressure of harvest on prices in the rice market.

Most rice purchases under the loan programs provided by the Korean government and NACF will be distributed to the rice retail market through NACF's own Rice Processing Complexes (RPCs) and independent RPCs throughout the 2020/21 (Nov/Oct) rice marketing year.

In 2019, rice farmers sold approximately 1.96 MMT (or 56 percent) of total production during the harvest season, including 0.32 MMT through government direct purchases under the PFSP (Public Food Grain Stockholding Program) and APTERR (ASEAN Plus Three Emergency Rice Reserve), with 1.42 MMT purchased by NACF member rice millers and 0.22 MMT purchased by independent rice millers under the loan programs. (Table 35 & 36).

Rice Millers Purchase

Korean rice millers, known as RPCs, purchased 1.64 MMT (milled basis) of paddy rice at a zero interest loan rate under the NACF and government loan programs during the 2020 harvest season. NACF member RPCs purchased 1.42 MMT, and independent RPCs bought 0.22 MMT. The Korean government also supported rice millers through the purchase of paddy rice under an incentive loan program at a loan rate ranging from zero to two percent based on an evaluation of RPCs. The total value of loan programs was 3.38 trillion Korean won (\$2.86 billion), consisting of 2.1 trillion Korean Won from NACF and 1.28 trillion Korean Won from government support (Table 36).

Table 35

Korea: Government Rice Purchases			
Under Public Food Grain Stockholding Program (PFSP)			
Crop Year	Production (1,000 MT)	Purchase (1,000 MT)	%
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
2016	4,197	678 ^{c/}	16.1
2017	3,972	711 ^{d/}	17.9
2018	3,875	350 ^{e/}	9.0
2019	3,744	346 ^{f/}	9.3
2020	3,507	332 ^{g/}	10.0

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

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

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

c/ Includes 299,000 MT to stabilize rice markets in addition to 349,000 MT under PFSP, but exclude 30,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve)

d/ Includes 370,000 MT to stabilize rice markets in addition to 331,000 MT under PFSP and 10,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve)

e/ Includes 340,000 MT under PFSP and 10,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve)

f/ Includes 336,000 MT under PFSP and 10,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve)

g/ Includes 331,000 MT under PFSP and 10,000 MT for APTERR (ASEAN Plus Three Emergency Rice Reserve) along with 1,000 MT of damaged rice

Table 36

Korea: NACF Rice Purchases^{a/}			
Crop Year	Production (1,000 MT)	Purchase (1,000 MT)	%
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	1,741	40
2016	4,197	1,799	43
2017	3,972	1,590	40
2018	3,868	1,686	44
2019	3,744	1,633	44
2020	3,507	1,422	41

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

a/ Excludes independent RPC purchases

Rice Consumption

Korean consumers prefer short-grain rice for table use. 80 percent of domestic production (all short grain) was consumed as table rice in MY 2019/20. Per capita table rice consumption continues to decline, as eating habits change due to rising incomes and the growing popularity of more diverse international foods. Annual per capita table rice consumption reached its peak at 136.4 kg in 1970 but declined to 59.2 kg in MY 2018/19. FAS/Seoul forecast per capita table rice consumption at 57.7 kg in the past marketing year (MY 2019/20) based on declining consumption trends, decreasing further to 56.5 kg in MY 2020/21 (Table 37).

MY 2021/22 rice consumption is forecast at 3.84 MMT, down 1.7 percent due to continuously decreasing table rice consumption partially offset by processing consumption. Imported rice constitutes about eleven percent of total consumption.

In MY 2020/21, rice consumption is expected to decline to 3.89 MMT, down three percent from the previous year due to decreases in both table and feed rice. Consumption for food processing is expected to continue increasing to meet a greater demand for home meal replacements (HMR) under COVID-19. Ending stocks in MY 2018/19 declined to the level of one million metric tons, leading Korea to halt distribution of older rice stocks for animal feed since early 2020. Therefore, consumption for animal feed is expected to drop to zero.

In MY 2019/20, rice consumption is estimated at 4.0 MMT, down 14 percent from the previous year due to sharply declining rice distribution for animal feed.

Feed

To mitigate the burden of high ending stocks of old rice, the Korean Ministry of Agriculture, Food and Rural Affairs (MAFRA) had released rice to be used as animal feed since MY 2015/16. The released price was a tenth of the purchasing price in the harvest season under the government purchasing program, which was annually set at 92-93 percent of the value of feed corn imported in the previous marketing year. The Korean government completed the release of old rice for animal feed in MY 2019 (in the beginning of 2020). For the past five years (MY2015-MY2019), cumulative brown rice consumption for animal feed reached 1.82 MMT (equivalent to 1.64 MMT on milled basis), consisting of 1.79 MMT of domestic brown rice and 30,662 MT of imported brown rice (Table 41). The Korean feed industry benefits from rice milled into compound feed for piglets because of both low price and the intrinsic nutritional characteristics of rice.

Table 37

Korea: Rice Utilization Pattern (1,000 MT, milled)				
Rice Year (November – October)	MY 2017/18 ^a	MY 2018/19 ^b	MY 2019/20 ^c	MY 2020/21 ^c
Table Rice	3,161	3,070	2,990	2,926
Processing	1,427	1,197	840	780
(for food)	(568)	(553)	(570)	(580)
(for liquor)	(188)	(191)	(200)	(200)
(for feed)	(671)	(453)	(70)	(0)
Seed	32	32	32	32
Other and Loss	132	351	150	150
Total Demand	4,752	4,650	4,012	3,888
Per Capita Table Rice Consumption (kg)	61.0	59.2	57.7	56.5

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

a/ MAFRA Revised

b/ MAFRA Preliminary

c/ FAS/Seoul forecast

Table 38

Korea: Rice Consumption Pattern for Processing Purpose (1,000 MT, milled)				
Purpose	MY 2016/17	MY 2017/18 ^a	MY 2018/19 ^b	MY 2019/20 ^c
KRFA	220	260	299	305
KALIA	216	188	191	200
Others ^{d/}	272	308	254	265
Feed	378	671	453	70
Total	1,086	1,427	1,197	840

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

a/ Revised

b/ Preliminary

c/ FAS/Seoul forecast

d/ Traditional foods or beverage made of local rice.

Note: Korea Rice Foodstuffs Association (KRFA), Korea Alcohol & Liquor Industry Association (KALIA)

Table 39

Korea: Rice Supply for Processing Purposes to KRFA Members (Metric Ton, Milled)			
Marketing Year (Nov/Oct)	Local Rice	Imported Rice	Total
2008/09	806	131,344	132,150
2009/10	24,887	154,821	179,708
2010/11	125,910	108,215	234,125
2011/12	147,462	100,249	247,711
2012/13	118,344	127,544	245,888
2013/14	63,654	162,893	226,547
2014/15	11,803	185,630	197,433
2015/16	35,907	185,853	221,760
2016/17	41,404	178,794	220,198
2017/18	69,364	190,767	260,131
2018/19	105,185	194,252	299,437
2019/20	98,822	206,513	305,335

Source: Korea Rice Foodstuffs Association (KRFA)

Table 40

Korea: Rice Supply for Processing Purposes to KRFA Members (Metric Ton, Milled, Marketing Year (Nov/Oct))						
	MY 2017/18		MY 2018/19		MY 2019/20	
Item	Quantity	Ratio (%)	Quantity	Ratio (%)	Quantity	Ratio (%)
Cake/Noodle	100,508	39	118,169	39	116,048	38
Alcohol	44,127	17	42,669	14	37,196	12
Flour	73,205	28	77,846	26	86,410	28
Seasoning/Sweetness	5,073	2	5,756	2	4,883	2
Confectionary	17,796	7	23,688	8	24,587	8
Others	19,422	7	31,309	10	36,211	12
Total	260,131	100	299,437	100	305,335	100

Source: Korea Rice Foodstuffs Association (KRFA)

Table 41

Korea: Rice Consumption for Animal Feed (Marketing Year, Brown rice basis, MT)									
Month	MY 2018/19			MY 2019/20			MY 2020/21		
	Domestic Rice	Imported Rice	Total	Domestic Rice	Imported Rice	Total	Domestic Rice	Imported Rice	Total
November	66,286	1,009	67,295	29,500	2,518	32,018	140	0	140
December	53,349	2,021	55,370	25,168	1,338	26,506	200	0	200
January	42,868	116	42,984	9,927	63	9,990	119	0	119
February	43,781	8	43,789	3,822	0	3,822	na	na	na

March	51,147	26	51,173	1,897	0	1,897	na	na	na
April	42,124	6	42,130	1,042	0	1,042	na	na	na
May	35,510	1,112	36,622	672	0	672	na	na	na
June	37,845	17	37,862	284	0	284	na	na	na
July	42,311	1,808	44,119	318	0	318	na	na	na
August	33,284	3,606	36,890	227	0	227	na	na	na
September	31,142	5,210	36,352	152	0	152	na	na	na
October	33,156	3,535	36,691	119	0	119	na	na	na
Total	512,804	18,474	531,278	73,128	3,919	77,047	na	na	na
Total (milled)	461,523	16,627	478,150	65,815	3,527	69,342	na	na	na

Source: Korea Feed Association (KFA)

Note: actual rice consumption for feed is slightly different from government's estimate of feed use

Rice Trade

Korea continues to import the mandatory volume of 408,700 metric tons from Most Favored Nation (MFN) countries at the current duty level of five percent under the Tariff Rate Quota (TRQ) regime implemented in 2015. In late 2014, as Korea prepared to implement rice tariffication through the WTO, Korea planned to delete provisions setting the ratio of table rice (30 percent) and guaranteeing access to the domestic rice market for imports. Accordingly, aT (Korea Agro-Fisheries and Food Trade Corporation), the government's state trading arm, manages the purchase of all imported rice through a tendering process, and subsequently auctions off imported table rice.

By the end of 2019, Korea agreed to a compromise with the five countries who had raised concerns with the rice tariff schedule and market access. As part of this compromise, Korea agreed to allocate 408,700 MT of the rice WTO TRQ among the five countries as below.

Within the rice TRQ, Korea established a country-specific quota (CSQ) for each of the five parties and allocated the following volumes on a milled rice basis:

United States: 132,304 MT

China: 157,195 MT

Vietnam: 55,112 MT

Thailand: 28,494 MT

Australia: 15,595

Through the plurilateral agreement which took effect in January 2020, Korea has made 20,000 MT (milled) of the rice TRQ available on a Most-Favored Nation (MFN) basis to all WTO members including the parties.

In accordance with the WTO special treatment clause, Korea continues to import the mandatory volume of 408,700 MT annually (at the current duty level of five percent) with CSQ countries accounting for

388,700 MT and Most Favored Nation (MFN) countries with the remaining 20,000 MT. Tariffs outside the quota remain prohibitively high at 513 percent.

Imports

MY 2021/22 rice imports are forecast at 410,000 MT (milled basis). Korea is expected to continue purchasing 408,700 tons (milled basis) of rice under the 2021 TRQ.

In MY 2020/21, rice imports are expected to increase to 500,000 MT (milled basis) due to actual delivery of a major portion of the 2020 TRQ rolling over into the following year. Annual U.S. rice exports in 2021 are expected to increase to 160,000 MT (milled basis) because all contracts made under the 2020 TRQ are scheduled for delivery in 2021.

In MY 2019/20, Korea's rice imports were 465,609 MT (milled), consisting of 390,700 MT imported under the 2019 TRQ, and 74,909 MT imported under the 2020 TRQ. In 2020, the U.S. exports 153,231 MT to Korea, consisting of 121,233 MT under the 2019 TRQ and 31,988 MT under the 2020 TRQ.

2021 TRQ Tendering Process:

Under the 2021 Tariff Rate Quota (TRQ) purchasing plan, Korea will purchase 408,700 MT of rice (milled basis) under the newly agreed rice tariffication system in effect since January 2020. In the first batch of 2021 TRQ bidding, Korea announced tender invitations in January 2021 and purchased 78,000 MT (milled basis), composed of 41,500 MT of U.S. medium grain, 35,000 MT of Chinese short grain, and 1,500 MT of Thai long grain rice.

Table 42

Korea: Updated Rice Contracts Status by Country under 2021 CSQ/MFN TRQ (Metric Ton, milled, as of February 24, 2021)				
Country	Allocated TRQ	Contracts	Open	Contractual Rate
USA	132,304	41,500	90,804	31
China	157,195	35,000	122,195	22
Vietnam	55,112	0	55,112	0
Thailand	28,494	1,500	26,994	5
Australia	15,595	0	15,595	0
MFN	20,000	0	20,000	0
Total	408,700	78,000	330,700	19

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

2020 TRQ Tendering Results

The Korea Agro-Fisheries and Food Trade Corporation (aT) completed the tendering process for 2020 rice TRQ commitments on December 17, 2020. Korea purchased a total of 408,700 MT of rice (milled basis) from five countries: United States, China, Vietnam, Thailand, and India. The U.S. share was 32.4 percent, down 0.4 percentage points from the previous year under CSQ fulfilment (Table 44). Contracts for U.S. rice totaled 132,304 MT (milled), worth \$130.4 million. Of this total, 104,227 MT was brown rice (equivalent to 93,804 MT on a milled basis) used for food processing purposes, and the remaining 38,500 MT was milled rice for table use

Please refer to GAIN Report [KS2021-0002](#) for more details.

Table 43

Korea: Rice Allocation per Country Based on Tenders under TRQ (Milled Basis, MT)							
Calendar Year	TRQ	U.S.A.	China	Thailand	Vietnam	Australia	Others
2015	408,700	157,117	198,506	6,077	38,000	9,000	0
%	100	38.4	48.6	1.2	9.3	2.2	0
2016	408,700	165,865	187,335	14,000	22,000	14,500	5,000a/
%	100	40.6	45.8	3.4	5.4	3.5	1.2
2017	408,700	138,610	162,590	27,000	62,500	18,000	0
%	100	33.9	39.8	6.6	15.3	4.4	0
2018	408,700	158,163	119,232	18,000	113,305	0	0
%	100	38.7	29.2	4.4	27.7	0	0
2019	408,700	134,188	176,400	0	98,112	0	0
%	100	32.8	43.2	0	24.0	0	0
2020	408,700	132,304	172,790	28,494	55,112	0	20,000a/
%	100	32.4	42.3	7.0	13.5	0	4.9

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

a/ India

Table 44

Korea: Rice Contracts by Country under 2020 TRQ (Unit: MT, Milled Basis, as of December 17, 2020)			
Country	CSQ/MFN TRQ		Total (%)
	Processing Use	Table Use	
USA	93,804	38,500	132,304(32.4)
China	172,790a/	0	172,790(42.3)
Thailand	26,994	1,500	28,494(7.0)
Vietnam	55,112	0	55,112(13.5)
India	20,000b/	0	20,000(4.9)
S. Total	368,700	40,000	408,700 (100)

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

a/ include 15,595 MT of Australian CSQ which was converted to MFN quota due to a lack of supply caused by drought

b/ under MFN quota

Table 45

Korea: Rice Varieties of Contracts by Country under 2020 MFN TRQ (Metric Ton, milled, as of December 17, 2020)				
Rice Variety	Medium Grain	Short Grain	Long Grain	Total
USA	132,304	0	0	132,304
China	15,595	157,195	0	172,790

Thailand	0	0	28,494	28,494
Vietnam	0	9,111	46,001	55,112
India	0	0	20,000	20,000
Total	147,899	166,306	94,495	408,700
Ratio (%)	36.19	40.69	23.12	100

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

Auctions for Imported Table Rice

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

Due to heavy stocks of domestic rice caused by overproduction since 2013, the pace of auctions for imported rice for table use has been very slow, effectively reducing the annual volume of auctioned rice. As large rice stocks have dampened domestic prices, farmers' groups have regularly petitioned the government to slow auctions for imported table rice. During the harvest season farmers' groups have further requested a complete stop to auctions for imported medium and short grains, which compete with domestic short grain rice.

Accordingly, the Korean government slowed the pace of auctions for imported rice in recent years. The unsold portion of imported table rice is converted to alcohol processing, with 52,959 MT (including 34,035 MT of U.S. medium grain) under the 2015 TRQ and 23,690 MT (including 23,084 MT of U.S. medium grain) under the 2016 TRQ meeting this fate due to deteriorated quality caused by lengthy storage in warehouses prior to sale. As of January 6, 2020, aT stopped auctioning U.S. medium grain rice imported in the first half of 2018 under the 2017 TRQ. The unsold portion of 13,546 MT will be converted to alcohol processing (Table 47).

As of January 13, 2020, aT started auctioning 37,000 MT of U.S. medium grain rice imported under the 2018 TRQ, selling off 24,899 MT (67 percent) before halting auctioning on December 30, 2020. The remaining 12,101 MT will be converted to alcohol or food processing (Table 48).

On January 4, 2021, aT started auctioning 37,000 MT of U.S. medium grain rice imported under the 2019 TRQ, which was imported in the first half of 2020, selling off 9,883 MT (27 percent) as of March 22, 2021. So far in 2021, auctions for U.S. table rice are proceeding at a faster pace than in recent years, which if sustained will allow a larger portion of table rice to reach consumers instead of deteriorating in storage. Vietnamese long grain rice was auctioned starting in June 2020, with 97 percent of total imports sold as of March 22, 2021 (Table 49).

Table 46

Korea: Status of Table Rice Imports and Distribution (MT, Milled rice)					
TRQ (Calendar Year)	Total Rice Imports	Table Purpose	Rate of Table Rice of Total Imports (%)	Distribution to Consumers Market	Conversion to Processing
MMA Quota Regime (2005-2014)					
2005	225,575	22,557	10	22,557	0
2006	245,922	34,429	14	34,429	0
2007	266,270	47,928	18	47,928	0
2008	286,617	63,055 ^{a/}	22	38,121	24,934
2009	306,964	79,810 ^{b/}	26	45,007	34,803
2010	327,311	98,193 ^{c/}	30	92,576	5,617
2011	347,658	104,297	30	104,297	0
2012	368,006	110,401	30	110,401	0
2013	388,353	116,505	30	116,505	0
2014	408,700	122,610 ^{d/}	30	65,072	57,538
Total	3,171,376	799,785	25	676,893	122,892
TRQ Regime (Since 2015)					
2015	408,700	60,000 ^{e/}	15	7,041	52,959
2016	408,700	50,000 ^{f/}	12	26,310	23,690
2017	408,700	40,000 ^{g/}	10	25,914	14,086
2018	408,700	39,800 ^{h/}	9.7	27,689	12,111
2019	408,700	40,000 ^{i/}	10	12,789	na
2020	408,700	40,000 ^{j/}	10	na	na

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

a/ of which, 24,934MT of Chinese rice was diverted to alcohol processing purpose in CY 2010

b/ of which, 33,303 MT of Chinese rice and 1,500 MT of Thai rice were diverted to alcohol processing purpose in CY 2011

c/ of which, 5,671MT of Chinese rice were diverted to alcohol processing purpose in CY 2012.

d/ of which, 8,754 MT of U.S. rice, 43,386 of Chinese rice and 5,395 MT of Australian rice were converted to alcohol processing purpose in CY 2016

e/ of which, 34,035 MT of U.S. rice and 18,924 MT of Chinese rice have been converted to alcohol processing purpose in CY 2018

f/ suspended auctions for 23,084 MT of U.S. medium grain and 546 MT of Vietnamese short grain as of September 24, 2018 but completed auctioning-off for 7,000 MT of Thai long grain as of January 2, 2019. 546 MT of Vietnamese short grain has already converted to alcohol processing immediately. The unsold U.S. medium grain has been converted to alcohol processing since January 2019.

g/ consisting of 37,000MT of U.S. medium grain and 3,000MT of Vietnamese long grain, of which, 13,546 MT of U.S. rice will be converted to alcohol processing after suspending selling auction on Jan. 6, 2020 and 540 MT of Vietnamese long grain was converted to animal feed due to a damage over transportation.

h/ consisting of 2,800 MT of Vietnamese long grain delivered in December 2018 and 37,000 MT of U.S. medium grain delivered during April - May 2019 based on contracts. of which, 12,010 MT of U.S. rice will be converted to alcohol or food processing after suspending selling auction on Dec. 30, 2020 with Vietnamese long grain auctions completed on June 1, 2020

i/ consisting of 3,000 MT of Vietnamese long grain delivered in April 2020 and 37,000 MT of U.S. medium grain delivered during February - June 2020 based on contracts. Ongoing selling auctions for Vietnamese long grain since June 10, 2020 with U.S. medium grain auctioning off from Jan. 4, 2021.

j/ consisting of 1,500 MT of Thai long grain delivered in October 2020 and 38,500 MT of U.S. medium grain delivered during January - June 2021 based on contracts.

Table 47

Korea: Status of Rice Auction for Table Rice under 2017 TRQ (Unit: metric tons, milled basis, as of Jan. 6, 2020)						
Commodity (Period of Auctions)	USDA Grade	Total Table Rice TRQ	Auctioned Off	Balance	Auctioned Off (%)	Auctioned Price 1/
U.S. Medium Grain 2/ (Jan. 23, 2019~Jan 6, 2020)	#1	37,000	23,454	13,546	63	1,828
Vietnamese Long Grain 3/ (Jan. 9 – Oct 19, 2019)	#1	3,000	2,460	540	82	960
Total		40,000	25,914	14,086	65	

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

1/ Weighted average in Korean Won per Kg

2/ imported in the first half of 2018 with 2017 crop. Suspended auctions for U.S. medium grain since January 6, 2020 due to deteriorated quality, the remainder will be converted to alcohol processing purpose.

3/ completed selling auction on October 19, 2019, the remainder was converted to animal feed due to a damage over transportation.

Table 48

Korea: Status of Rice Auction for Table Rice under 2018 TRQ (Unit: metric tons, milled basis, as of December 30, 2020)						
Commodity (Period of Auctions)	USDA Grade	Total Table Rice TRQ	Auctioned Off	Balance	Auctioned Off (%)	Auctioned Price 1/
U.S. Medium Grain 2/ (Jan 13 – Dec 30, 2020)	#1	37,000	24,899	12,101	67	1,782
Vietnamese Long Grain3/ (Aug 26, 2019~June 1, 2020)	#1	2,800	2,790	10	100	1,308
Total		39,800	27,689	12,111	70	

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

1/ Weighted average in Korean Won per Kg

2/ imported in the first half of 2019 with 2018 crop, stopped selling auctions as of December 30, 2020 due to deteriorated quality, the unsold will be converted to alcohol or food processing purpose.

3/ imported in December 2018, completed selling auctions as of June 1, 2020

Table 49

Korea: Status of Rice Auction for Table Rice under 2019 TRQ (Unit: metric tons, milled basis, as of March 22, 2021)						
Commodity (Period of Auctions)	USDA Grade	Total Table Rice TRQ	Auctioned Off	Balance	Auctioned Off (%)	Auctioned Price 1/
U.S. Medium Grain 2/ (Jan 4, 2021~)	#1	37,000	9,883	27,117	27	1,863
Vietnamese Long Grain3/	#1	3,000	2,906	94	97	1,167

(June 10, 2020~)						
Total		40,000	12,789	27,211	32	

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

1/ Weighted average in Korean Won per Kg

2/ delivered in the first half of 2020, ongoing selling auctions since January 4, 2021.

3/ delivered in April 2020. Ongoing selling auctions since June 10, 2020

Table 50

Korea: Status of Rice Auction for Table Rice under 2020 TRQ						
(Unit: metric tons, milled basis, as of January 11, 2021)						
Commodity (Period of Auctions)	USDA Grade	Total Table Rice TRQ	Auctioned Off	Balance	Auctioned Off (%)	Auctioned Price 1/
U.S. Medium Grain 2/	#1	38,500	none	na	na	na
Vietnamese Long Grain3/	#1	1,500	none	na	na	na
Total		40,000	none	na	na	na

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

1/ Weighted average in Korean Won per Kg

2/ to be delivered in the first half of 2021

3/ delivered in October 2020. sitting in the storage for next selling auction soon after completing ongoing selling auctions under 2019 TRQ

Exports

Korea is expected to export 55,000 MT of domestic rice in MY 2020/21 and MY 2021/22, including both food aid and commercial exports. In 2021, Korea plans to donate 50,000 MT of domestic rice to six countries: Yemen, Ethiopia, Kenya, Uganda, Laos, and Syria.

Korea's MY 2019/20 domestically produced rice exports were 55,083 MT.

In 2020, Korea's rice exports were 55,196 MT, which included 52,954 MT of donations to the following countries, with the remaining 2,242 MT exported to more than 20 countries through commercial channels:

Under the Food Assistance Convention (FAC), Korea shipped 50,000 MT of 2018 crop domestic rice (milled) to four countries in Africa and the Middle East in May 2020 as follows: 19,000 MT to Yemen, 16,000 MT to Ethiopia, 10,000 MT to Kenya, and 5,000 MT to Uganda.

Under the ASEAN Plus Three Emergency Rice Reserve (APTERR), Korea shipped 2,954 MT of rice (milled) to the Philippines (2,354MT) and Myanmar (600MT) after natural disasters struck both countries.

Table 51

Korea: Rice Exports (Milled)				
Calendar Year	To the World		To the United States	
	Quantity (MT)	Value (USD1,000)	Quantity (MT)	Value (USD1,000)
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
2016	2,313	4,847	477	1,175
2017	2,767	5,641	540	1,390
2018	64,164a/	43,823	425	1,171
2019	52,663b/	26,234	425	1,156
2020	55,196c/	27,377	654	1,766

Source: Korea Customs Service (KCS) and Trade Data Monitor LLC

a/ includes 60,000 MT of food assistance in 2018

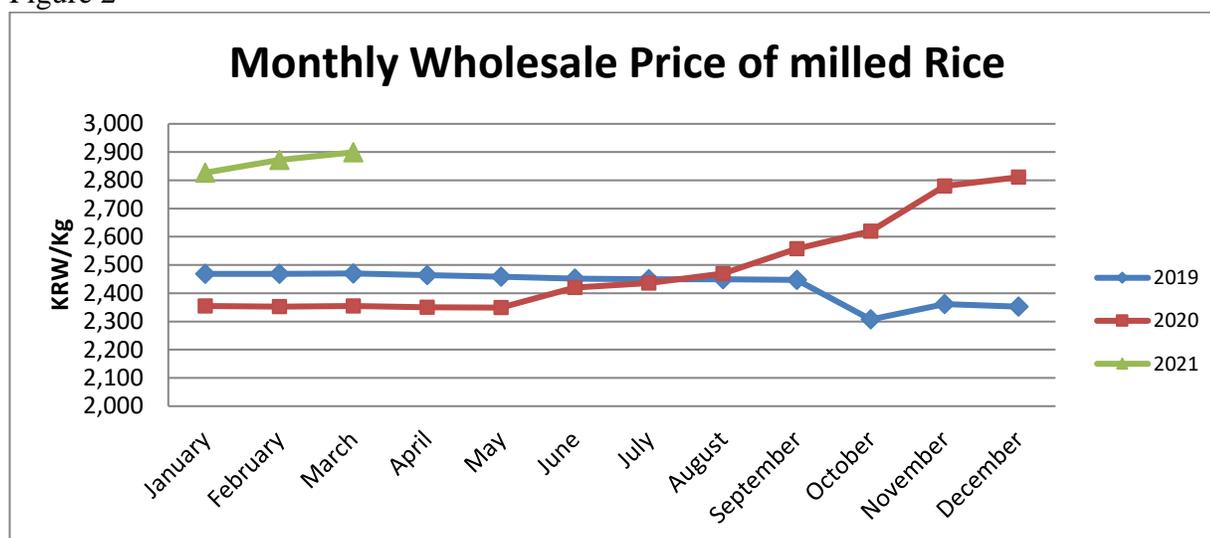
b/ includes 51,000 MT of food assistance in 2019

c/ includes 52,954 MT of food assistance in 2020

Marketing

Lower rice production in 2020 triggered rice wholesale market prices to increase by 14-20 percent from October through December over the same period of the previous year. In response, Korea announced a rice releasing plan for 370,000 MT of government held rice stocks with 176,000 MT as the first batch: 76,000 MT of 2020 crop for table rice from January on, 40,000 MT of 2018 crop for processing in January and 60,000 MT of 2019 crop for processing in February. As of March 18, 2021, Korea announced plans to release an additional 100,000 MT of 2019 crop as the second batch, which will be delivered to local rice distributors from April 12, 2021 following bidding held on April 6, 2021. The remaining 100,000 MT will be released from May through June 2021 dependent on the rice market situation.

Figure 2



Source: Korea Agricultural Marketing Information Service (KAMIS)

Note: foreign exchange rate applicable at Table 55

Stocks

Korea worked to reduce the amount of rice stocks in storage, with MY 2018/19 stocks (at the end of October 2019) declining to 1.02 MMT (21.8 percent of total domestic consumption) by allowing rice use for animal feed from 2016-2019. The rice animal feed policy resulted in the use of 1.6 MMT (milled) of rice for feed purposes for the past four years. However, in 2020, the Korean government eliminated the policy to secure sufficient rice stocks for possible food aid, including a planned donation to the DPRK.

Accordingly, MY 2019/20 ending stock rebounded to 1.24 MMT (30.8 percent of total consumption at the end of October 2020), up nine percentage point from the previous year. MY 2020/21 ending stocks (at the end of October 2021) are expected to increase to 1.3 MMT, or 33.4 percent of total consumption.

MY 2021/22 ending stocks (at the end of October 2022) are forecast at 1.6 MMT (42.1 percent of total forecast consumption) due to increased production and imports coupled with reduced demand.

Table 52

Korea: Status of Rice Stocks (Milled rice, 1,000 MT, as of end October)						
Rice Year (Nov.-Oct.)	2016/17	2017/18a/	2018/19b/	2019/20c/	2020/21c/	2021/22c/
Total Stock	2,000	1,560	1,015	1,236	1,300	1,616
Government Stock	2,000	1,560	1,015	1,236	1,300	1,616
Total Domestic Consumption	4,435	4,746	4,650	4,012	3,888	3,839
Stock to Use Ratio (%)	45.1	32.9	21.8	30.8	33.4	42.1

Source: FAS/Seoul Estimate based on MAFRA data

a/ MAFRA Revised

b/ MAFRA Preliminary

c/ FAS/Seoul forecast

Production, Supply, and Distribution Data Statistics

Rice PS&D

Rice, Milled Market Year Begins Korea, Republic of	2019/2020		2020/2021		2021/2022	
	Nov 2019		Nov 2020		Nov 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	730	730	726	726	0	729
Beginning Stocks (1000 MT)	1093	1093	1136	1236	0	1300
Milled Production (1000 MT)	3744	3744	3507	3507	0	3800
Rough Production (1000 MT)	5016	5016	4713	4713	0	5110
Milling Rate (.9999) (1000 MT)	7464	7464	7441	7441	0	7437
MY Imports (1000 MT)	454	466	450	500	0	410
TY Imports (1000 MT)	465	477	450	500	0	410
TY Imp. from U.S. (1000 MT)	150	153	0	160	0	132
Total Supply (1000 MT)	5291	5303	5093	5243	0	5510
MY Exports (1000 MT)	55	55	55	55	0	55
TY Exports (1000 MT)	55	55	55	55	0	55
Consumption and Residual (1000 MT)	4100	4012	4000	3888	0	3839
Ending Stocks (1000 MT)	1136	1236	1038	1300	0	1616
Total Distribution (1000 MT)	5291	5303	5093	5243	0	5510
Yield (Rough) (MT/HA)	6.8712	6.8712	6.4917	6.4917	0	7.0386
(1000 HA) ,(1000 MT) ,(MT/HA)						
MY = Marketing Year, begins with the month listed at the top of each column						
TY = Trade Year, which for Rice, Milled begins in January for all countries.TY 2021/2022 = January 2022 - December 2022						

Korea: Import Trade Matrix of Rice			
Country	Korea, Republic of		
Commodity	Rice, Milled		
Time Period	Jan/Dec	Units:	1,000MT
Imports for:	2019		2020
U.S.	151	U.S.	153
Others		Others	
China	139	China	185
Thailand	0	Thailand	28
Australia	0	Australia	0
Vietnam	7	Vietnam	111
India		India	
Total for Others	146		324
Others not Listed	0		0
Grand Total	297		477

Appendix

Table 53

Korea: Monthly Wholesale Price of Milled Rice (High Quality)						
Month\Year	CY 2019		CY 2020		CY 2021	
	Won/kg	USD/kg	Won/kg	USD/kg	Won/kg	USD/kg
January	2,469	2.20	2,355	2.02	2,827	2.58
February	2,469	2.20	2,353	1.97	2,872	2.59
March	2,470	2.18	2,355	1.93	2,899	2.57
April	2,464	2.16	2,350	1.92	na	na
May	2,459	2.08	2,349	1.92	na	na
June	2,452	2.09	2,420	2.00	na	na
July	2,449	2.08	2,436	2.03	na	na
August	2,450	2.03	2,470	2.08	na	na
September	2,447	2.06	2,536	2.15	na	na
October	2,307	1.95	2,620	2.29	na	na
November	2,362	2.03	2,780	2.49	na	na
December	2,352	2.00	2,811	2.57	na	na
Average	2,429	2.09	2,487	2.11	na	na

Source: Korea Agricultural Marketing Information Service (KAMIS)

Note: Monthly Average Exchange Rate is applied

Table 54

Korea: Monthly Retail Price of Milled Rice (High Quality)						
Month\Year	CY 2019		CY 2020		CY 2021	
	Won/kg	USD/kg	Won/kg	USD/kg	Won/kg	USD/kg
January	2,665	2.38	2,586	2.22	2,999	2.73
February	2,662	2.37	2,586	2.17	3,019	2.72
March	2,658	2.35	2,578	2.12	2,995	2.65
April	2,653	2.33	2,575	2.11	na	na
May	2,645	2.24	2,581	2.11	na	na
June	2,634	2.24	2,585	2.14	na	na
July	2,607	2.22	2,588	2.16	na	na
August	2,598	2.15	2,618	2.21	na	na
September	2,580	2.17	2,637	2.24	na	na
October	2,554	2.16	2,816	2.47	na	na
November	2,585	2.22	2,945	2.64	na	na
December	2,618	2.23	3,023	2.76	na	na
Average	2,622	2.25	2,676	2.27	na	na

Source: Korea Agricultural Marketing Information Service (KAMIS)

Note: Monthly Average Exchange Rate is applied.

Table 55

Korea: Foreign Exchange Rate (Korean Won against USD)			
Month	CY 2019	CY 2020	CY 2021
January	1,121	1,165	1,097
February	1,121	1,194	1,111
March	1,131	1,218	1,130 ^{a/}
April	1,140	1,223	na
May	1,182	1,226	na
June	1,174	1,208	na
July	1,175	1,199	na
August	1,208	1,186	na
September	1,190	1,177	na
October	1,183	1,142	na
November	1,166	1,115	na
December	1,175	1,095	na
Average	1,164	1,180	na

Source: Global Financial Service

a/ March 1-21, 2021

Attachments:

No Attachments