Voluntary Report – Voluntary - Public Distribution **Date:** October 16,2020

Report Number: KS2020-0045

Report Name: 2020 Apple Update

Country: Korea - Republic of

Post: Seoul

Report Category: Fresh Deciduous Fruit

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Report Highlights:

In Marketing Year (MY) 2020/21, Korea's fresh apple production is projected to decrease by 15 percent to 455,000 MT due to reduced planted area and weather-related damage. Reduced production will drive prices higher (despite a temporary drop in the first half of 2020) and Korea's fresh apple exports are projected to decrease by 400 MT to around 2,000 MT. Korea does not allow fresh apple imports.

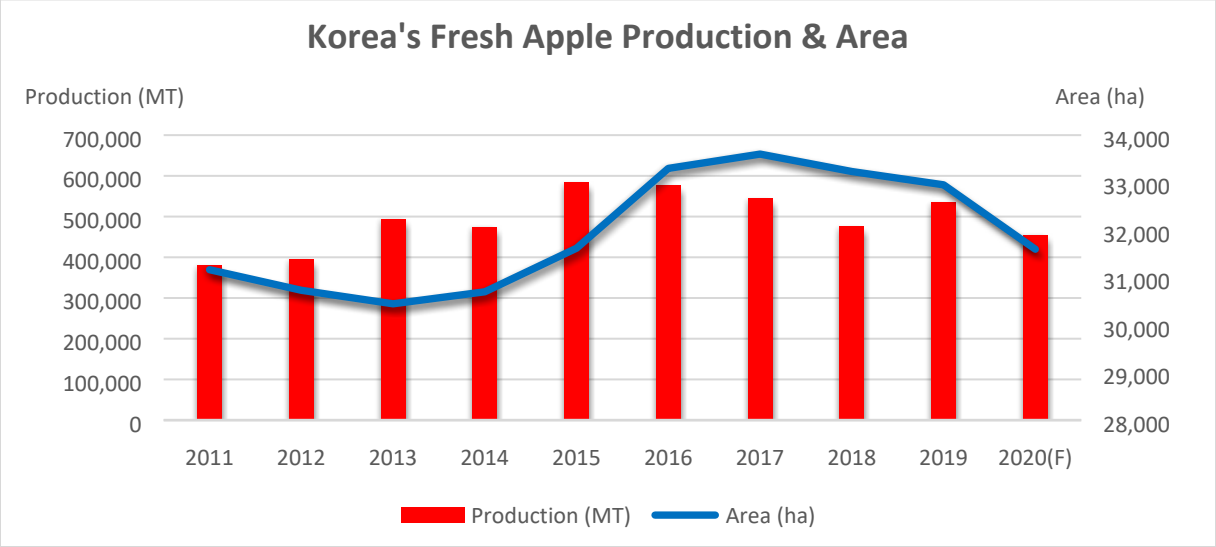
Production

Korea's fresh apple production is projected to decrease by 15 percent to 455,000 MT in MY 2020/21 (July – June) due to reduced planted area, cold damage during the flowering season in April, typhoon damage in early September, and increased pest and disease incidence caused by unfavorable climate (high temperature and elevated humidity after a longer rainy season) during the fruit growing season in July and August.

<Main Causes for Reduced Apple Production in 2020/21>

- Reduced fruit setting per tree due to cold damage during the flowering season in April
- Reduced planted area (4.1 percent), caused by increased farm closures by elderly growers due to reduced farm income, and farming shift to other crops for a better farm income
- Decrease in fruit quality caused by disease (bitter rot) due to high temperatures and humidity after the aforementioned unusually long rainy season (about 40 days)
- Fallen apple damage in the main apple production regions (north and south Gyeongsang provinces) due to two typhoons in early September
- Increased number of apple and pear farms infected by fruit Fire Blight, up to 330 hectares (ha) as of September 18, 2020

As a result of reduced apple planted area and unfavorable weather, 2020/21 apple production per unit area (kilograms per 0.1ha) is also forecast to decrease by ten percent to 1,466 kilograms (kg) per 0.1 ha from 1,624kg in 2019/20.



Source: Ministry of Food, Agriculture and Rural Affairs (MAFRA) & Korea Rural Economic Institute (KREI)

In 2019/20, Korea's fresh apple production increased by 13 percent to 535,324 MT due to an increased number of apples per tree and better weather conditions during the fruit growing season. However, the overall quality of 2019/20 apples declined because of wind damage, poor coloring, pest damage and disease outbreaks.

Apple Planted Area

In 2020/21, Korea's apple planted area is expected to decrease by 4.1 percent to 31,598 ha from the previous year. The continued drop in planted area is being driven by elderly apple growers closing apple farms with aged trees as farm income drops, and a rapid increase of fruit fire blight outbreaks on apple and pear farms. The main production areas (Gyeongsangbuk, Choongchoengbuk and Jeonllabuk provinces) accounted for 79.1 percent (26,809 ha) of total apple production area in 2019/20 but declined 7.5 percent (about 2,010 ha) to 24,799 ha this year. In contrast, Gangwon province (in the northern part of Korea) increased its apple planted area by 2.9 percent to 1,124 ha due to climatic warming that is pushing apple production area into what had been colder regions. Apple planted area in Gangwon province is expected to continue increasing in the coming years.

Korea's Apple Planted Area by Province (Unit: Hectare)				
Province	MY 2018/19	MY 2019/20	MY 2020/21	
	Cultivated Area (ha)	Cultivated Area (ha)	Cultivated Area (ha)	Change (%)
Gangwon	947	1,092	1,124	2.9
Chungcheongbuk	4,056	3,929	3,645	-7.2
Chungcheongnam	1,437	1,436	1,297	-9.7
Gyeongsangbuk	19,780	19,462	18,705	-3.9
Gyeongsangnam	3,374	3,313	3,340	0.8
Jeollabuk	2,643	2,698	2,449	-9.2
Other Provinces	997	1,024	1,038	1.4
Total	**33,234**	**32,954**	**31,598**	**-4.1**

Source: Korea Statistics

According to Statistics Korea, Korea's apple planted area declined by six percent (to 31,598 ha) from 2017/18 to 2020/21due to reduced farm income relative to other crops as increased apple production and increased fruit imports in recent years have driven down prices. Low apple prices have caused some growers to shift to other fruits such as high-quality "Shine Muscat" green grapes, peaches, or plums. Furthermore, as mentioned, fire blight destroyed some apple planted areas in Chooncheong province, having moved rapidly since the first detection in 2015.

In2020/21, Gyeonsang (north and south) provinces are the largest apple production areas with 70 percent of production, followed by Chooncheong (north and south) with 16 percent, Jeonlla with 10 percent, and four percent in Gangwon. Despite the small share of production in Gangwon province, production is rapidly increasing in the area, rising by 134 percent to 10,486 MT over the past five years (2015/16 – 2019/20) due mainly to a climate change and the provincial government's strong farm support program.

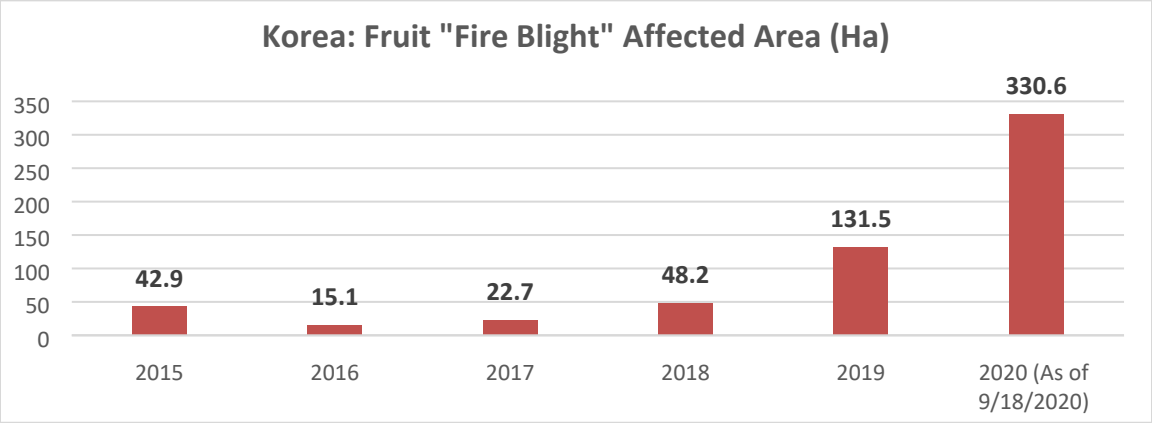
Annual Apple Production in Gangwon Province					
	2015/16	2016/17	2017/18	2018/19	2019/20
Area (ha)	721	831	930	947	1,092
Production (MT)	4,472	5,778	5,550	5,506	10,486

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

Korean apple growers prefer to grow primarily "Fuji" apple cultivars covering 68 percent of total apple production area due to strong consumer preference, followed by "Hongro" (17%) and "Tsugaru" (4%). However, new apple varieties are also being introduced to the market as young consumers are demanding more varied apple characteristics (flavor, color and size) in recent years.

Fruit "Fire Blight" Disease

Fire blight was first detected in Korea on a pear farm in Anseong, Gyeonggi in 2015. Since then, fire blight has been detected on apple farms in several areas, including Gyeonggi, Choongcheong and Gangwon provinces. Fire blight is a bacterial disease found in a type of rose plant that also severely affects apple and pear trees, causing them to dry up and die. As many pear and apple farms have been infected by fire blight since 2015, the infected farm area also increased rapidly from 2019 (131.5 ha) to 330.6 ha as of September 18, 2020. As a result, the reduction of apple planted area is also expected to increase in coming years.



Source: Korea Rural Development Administration (KRDA)

Consumption

Korea's per capita consumption for six major domestic fruits (apple, tangerine, pear, persimmon, grape and peach) decreased by an average of 3.6 percent since 2009, falling to 34.9 kg in 2018 from 48.6 kg in 2009. Imported fruit per capita consumption has increased an average of 6.3 percent annually during the same period, to 15.1 kg in 2018. Korea's fruit imports increased steadily for the past several years as consumer's fruit demand shifted toward a preference for new and healthy functional fruits. As fruit imports increased with more diversified fruits, domestic fruit production has gradually decreased in recent years.

Korea: Per Capita Fruit Consumption (Unit: Kg)								
Year	Total Fruits	Apple	Pear	Peach	Grape	Persimmon	Citrus	Others
2015	59.8	11.4	4.7	3.0	5.7	2.9	12.5	19.6
2016	60.6	11.2	4.1	4.0	5.4	2.3	11.9	21.7
2017	61.2	10.5	4.6	4.3	4.7	2.1	11.6	23.4
2018	57.5	9.2	3.3	4.0	4.5	1.9	12.0	22.6
2019	56.6	10.3	3.3	4.1	4.5	1.8	12.1	20.6

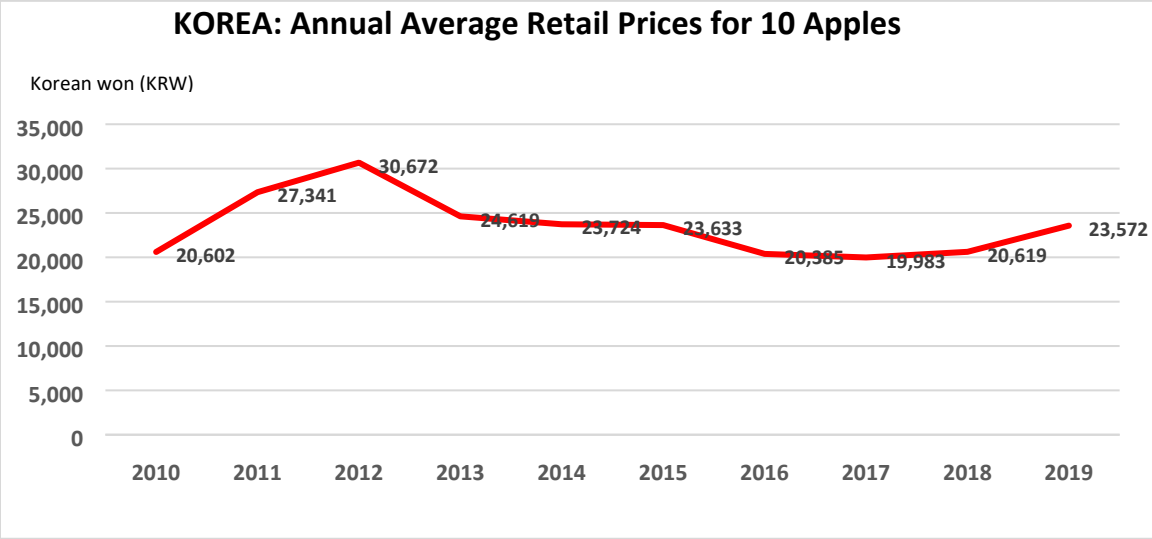
Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)

In 2019, Korea's per capita apple consumption increased by 12 percent to 10.3 kg due to increased domestic supply and consumer's strong preference for apples over other domestic fruits. In recent years demand for packaged apples (including single packs of washed apples) has increased rapidly, driven by the increased ratio of single and two family member households. As result, Korea's apple consumption pattern is expected to change gradually towards more of a daily fruit rather than a primarily holiday (Lunar New Year's Day and Korean Thanksgiving Day) gift fruit as in the past.

Price

In MY 2020/21, the average apple retail price is expected to rise again due to reduced production and declined quality fruit production. Monthly retail prices during the first six months of 2020 were about 16 percent lower than the last year due to increased production in the previous marketing year, but the price is expected to increase during the second half of 2020 due to the expected drop in production this year.

As a result of abundant apple production of more than 550,000 MT from 2015 to 2017, the retail price during the 2016-2018 period dropped by 15.3 percent to KRW 20,329 per 10 fresh apples from the previous three-year average (KRW 23,992).



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

Apples for processing

Korea's volume of fresh apples for processing depends on annual production and damaged fruit levels. Around 35,000 MT of fresh apples have been used for processing annually since 2010, but the volume has increased above 50,000 MT since 2017 due to increased volumes of non-marketable fruits caused by natural disasters such as cold, typhoons, and heat damage during the flowering and fruit growing seasons.

Korea's Apple Volume for Processing (MT, %)						
Year	2013	2014	2015	2016	2017	2018
Volume (MT)	35,559	40,151	57,439	23,200	50,800	50,999
Production to Processing Ratio (%)	7.2	8.5	9.9	4.0	9.3	10.7

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

In 2020, fresh apples for processing volume is projected to be around 50,000 MT, as apple growers have reported high ratios of inferior fruit numbers per tree due to unfavorable weather as previously cited. In 2019, processing volume for fresh apples is estimated at around 60,000 MT due to similarly high damage levels in the main apple production areas. Non-marketable apples (including inferior quality apples) are mostly used for juice and drink production, while smaller quantities are also used for other processed products such as jams and cosmetic products.

Trade - Exports

As a result of reduced domestic apple production and the increased number of inferior quality apples, Korea's fresh apple exports are projected to decrease by 400 MT to around 2,000 MT in MY 2020/21.

Furthermore, more apple growers are expected to focus on supplying the domestic market this year due to a higher projected market price than last year.

Korea exports less than one percent of total apple production because the domestic market is much more profitable due to high domestic prices and stricter quarantine requirements for the export market. In MY 2019/20, Korea's fresh apple exports declined by 6.4 percent to 2,425 MT due to reduced exports to Taiwan (the main buyer for Korean fresh apples), caused by increased market competition from Japan and the United States. Meanwhile, fresh apple exports to Vietnam increased by 307 MT (to 650 MT) due to the continued rise of popular Korean culture in recent years.

Imports

Currently Korean phytosanitary regulations do not allow fresh apple imports.

Production

Korea: Apple Production Situation 1/

Year	Area (HA)	Production (MT)	Yield for Bearing Tree (Kg/10 are)
2000	29,063	488,960	1,682
2005	26,907	367,517	1,366
2012	30,734	394,596	1,284
2013	30,449	493,701	1,621
2014	30,702	474,712	1,546
2015	31,620	582,846	1,843
2016	33,300	576,369	1,731
2017	33,601	545,349	1,623
2018	33,234	475,303	1,430
2019	32,954	535,324	1,624
2020 2/	31,598	455,000	1,466

1/ Calendar year basis
2/ Preliminary forecast in August 2020 by Korea Rural Economic Institute (KREI)
Source: Korea Statistical Information Service (KOSIS)

Korea: Apple Utilization (Unit: MT) 1/

Year	Total	Fresh	Export	Processing
2012	394,596	354,336	1,694	38,566
2013	493,701	455,354	2,788	35,559
2014	474,712	432,344	2,217	40,151
2015	582,846	521,905	3,502	57,439
2016	521,622	494,450	3,947	23,225
2017	545,349	491,704	2,843	50,802
2018	475,303	421,665	2,639	50,999
2019	535,424	N/A	2,644	N/A

1/ Calendar year basis
Source: Ministry of Agriculture, Food and Rural Affairs (MAFRA)

Korea: Apple Production as Ratio to Total Fruit Production (Unit: 1,000 MT, Ratio: Percent)

Year	Total Fruits (1,000 MT)	Apple (1,000 MT)	Ratio (%)
2000	2,429	489	20.1
2005	2,611	368	14.1
2012	2,027	395	19.5
2013	2,207	494	22.4
2014	2,347	475	20.2
2015	2,364	583	24.7
2016	2,387	576	24.1
2017	2,358	545	23.1
2018	2,160	475	22.0
2019	2,204	535	24.2

Source: Korea Statistical Information Service (KOSIS)

Korea: Per Capita Fruits Consumption (Unit: Kg)

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

Korea: Monthly Korean Fresh Apple Exports (Unit: MT)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
'20									-	-	-	-
'19	451	194	107	53	53	9	4	13				
'18	481	157	133	71	42	31	7	15	46	177	686	811
'17	311	215	136	78	95	23	14	20	154	140	848	808
'16	365	314	502	261	185	80	29	10	59	238	1,067	837
'15	181	52	82	23	50	27	1	2	117	285	1,371	1,313
'14	252	319	222	113	75	31	3	14	192	324	317	354

Source: Korea Customs Service & Korea International Trade Association

Korea: Monthly Average Foreign Exchange Rate
(Unit: Korean Won / 1U$)

Month	2018	2019	2020
Jan.	1066.70	1122.00	1164.28
Feb.	1079.58	1122.45	1193.79
Mar.	1071.89	1130.72	1220.09
Apr.	1067.76	1140.95	1225.23
May	1076.39	1183.29	1228.67
Jun.	1092.80	1175.62	1210.01
Jul.	1122.80	1175.31	1198.90
Aug.	1121.15	1208.98	1186.85
Sep.	1120.60	1197.55	-
Oct.	1130.81	1184.13	-
Nov.	1128.58	1167.45	-
Dec.	1122.90	1175.84	-

Source: Industrial Bank of Korea

Trade Matrix

Export Matrix for Korean Apple

Export Trade Matrix						
Country: Korea						
Commodity: Commodity: Fresh Apple (HS 0808.10) Unit: MT & US$1,000						
Exports to	MY 2017/18 (July 17 – June 18)		MY 2018/19 (July 18 – June 19)		MY 2019/20 (July 19 – June 20)	
Country	Volume	Value	Volume	Value	Volume	Value
U.S.	36	139	30	129	34	143
Taiwan	1,639	3,793	1,361	3,127	827	2,010
Hong Kong	242	792	305	853	234	700
Singapore	279	665	348	847	291	611
Vietnam	418	1,221	343	1,116	650	1,535
All Others	287	855	203	628	389	740
Grand Total	**2,901**	**7,465**	**2,590**	**6,700**	**2,425**	**5,739**

Source: Korea Customs Service & Korea International Trade Association

Price

Korea: Average Retail Prices for Korean Fresh Apple (Fuji), Nationwide
(Unit: Korean Won per 10 Fruits)

Month	High Quality		Medium Quality	
	CY 2019	**CY 2020**	**CY 2019**	**CY 2020**
Jan.	23,897	19,173	16,172	13,660
Feb.	24,799	20,177	17,185	14,345
Mar.	24,486	19,818	16,189	14,393
Apr.	24,700	20,403	16,709	14,968
May	24,723	21,497	16,688	17,055
Jun.	25,197	22,988	16,928	18,066
Jul.	25,461	26,010	17,362	19,536
Aug.	26,008	27,374	18,158	21,944
Sep.	25,700	-	19,625	-
Oct.	18,986	-	14,099	-
Nov.	18,576	-	13,631	-
Dec.	17,841	-	13,173	-

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

Korea: Average Wholesale Prices for Korean Fresh Apple (Fuji), Nationwide
(Unit: Korean Won per 10 Kg)

Month	High Quality		Medium Quality	
	CY 2019	**CY 2020**	**CY 2019**	**CY 2020**
Jan.	44,400	38,815	39,900	32,778
Feb.	38,741	36,335	34,176	30,483
Mar.	38,940	37,820	33,550	30,889

Apr.	38,400	40,420	33,200	32,690
May	40,733	55,979	35,362	46,937
Jun.	42,147	61,462	37,326	51,655
Jul.	40,991	68,068	36,191	56,408
Aug.	34,762	71,972	28,857	63,592
Sep.	34,246	-	28,123	-
Oct.	33,500	-	28,850	-
Nov.	34,257	-	28,905	-
Dec.	37,530	-	31,530	-

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

Attachments:

No Attachments.