

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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**Date:** 12/21/2018

**GAIN Report Number:** KS1849

## **Korea - Republic of**

### **Citrus Annual**

## **Good Weather for Tangerines Sparks an Increase in Production**

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**Report Highlights:**

After a year of favorable growing conditions for tangerines, Korea's tangerine production for Marketing Year (MY) 2018/19 is projected to increase 5.7 percent to 610,000 metric tons (MT). In line with increased production, tangerine consumption is forecast to increase nine percent to 548,000 MT. Tangerine exports are forecast down slightly to 1,700 MT as a result of strong domestic prices. Meanwhile, Korea's fresh orange imports are projected to increase 6.6 percent to 150,000 MT because of an increase in California production resulting in competitively priced fruit.

## Tangerines/Mandarins

PS&D Table

Tangerines/Mandarins, Fresh Market Begin Year Korea, Republic of	2016/2017		2017/2018		2018/2019	
	Oct 2016		Oct 2017		Oct 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	20491	20491	20333	20140	0	20100
Area Harvested	19262	19262	19113	18932	0	18894
Bearing Trees	24077	24077	23891	23665	0	23618
Non-Bearing Trees	6660	6660	6609	6545	0	6532
Total No. Of Trees	30737	30737	30500	30210	0	30150
Production	600	600	560	577	0	610
Imports	0	0	0	0	0	0
Total Supply	600	600	560	577	0	610
Exports	2	2	2	2	0	2
Fresh Dom. Consumption	542	542	508	503	0	548
For Processing	56	56	50	72	0	60
Total Distribution	600	600	560	577	0	610

(HECTARES) ,(1000 TREES) ,(1000 MT)

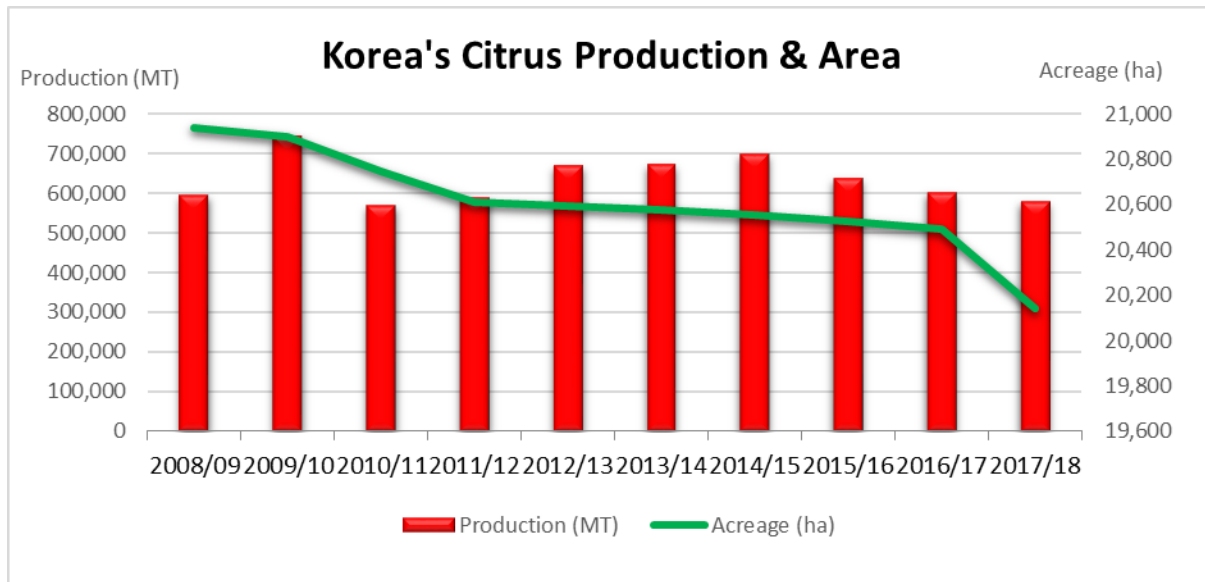
### Production

Korea's tangerine production for Marketing Year (MY) 2018/19 (October – September) is projected up 5.7 percent to 610,000 metric tons (MT) from 576,722 MT in MY 2017/18 mainly due to increased yields for open field production as a result of an increased number of fruits per tree and no serious weather damage. Due to its subtropical climate characteristics, 99.9 percent of Korean citrus production is on Jeju Island. The Jeju tangerine industry produces mainly fresh tangerines (86.3 percent in 2017) also known as “Unshu orange” and several kinds of late-maturing tangerine varieties (13.7 percent in 2017) called “Hallabong”, “Cheonhyehyang”, “Hwanggeumhyang” and “Redhyang”.

In MY 2018/19, Unshu orange open field production is forecast at 470,000 MT, up 6.8 percent from 440,000 MT in the previous marketing year, due to increased yields caused by an alternate bearing in citrus trees in the northern part of Jeju Island. (This year's higher yielding crop follows after the light crop in MY 2017/18.) According to a recent field observation survey for fruit numbers per tree done by the Jeju Agricultural Technology Institute, total tangerine numbers per tree were about 6.4 percent higher in MY 2018/19 than the average over the past five years. However, the industry forecasts that the percentage of scratched fruit will be slightly higher than the average year due to heavy winds during the fruit setting period in late April. Meanwhile the production of large size tangerines, which are not the preferred size for the majority of Korean consumers, will also be higher than the average year due to frequent rainfalls and higher temperatures during the fruit growing period in May and June 2018.

On the other hand, tangerine acreage in MY 2017/18 decreased 1.7 percent to 20,140 ha from 20,491 ha in MY 2016/17 mainly due to the increased closure of tangerine farms by elderly farmers and property development in tangerine farm areas. The reduction of tangerine acreage, however, will take place at a slower pace in the near future due to the projected

increased gross income for tangerine farmers and a steady consumer demand for high quality fresh tangerines.



Source: Jeju Provincial Government

The Jeju tangerine industry has forecast that tangerine quality will be slightly higher (i.e. tangerines will contain a higher Brix level, or sugar content) than the previous year due to adequate sunlight and not too much rainfall from the summer season through the fruit ripening period in October.

#### Open field Tangerine (Unshu Orange)

In MY 2018/19, Unshu orange (tangerine) production in open fields is projected up 6.8 percent to 470,000 MT from 440,000 MT in the previous marketing year, due to increased yields in the northern part of Jeju Island and no serious weather damage affecting tangerine production. However, the industry estimates the forecast production is still lower than the optimal production (500,000 MT). The combined effect of this lower-than-optimal production, and reduced production of other major fruits (apples, pears and sweet persimmons), means that tangerine market prices are expected to be higher than they were in the previous season. In MY 2018/19, production of major fruits other than tangerines declined by 10 to 15 percent from the previous year due to unfavorable weather conditions, such as cold damage in early spring and heat damage during the summer season.

For the past three marketing years (MY 2015/16 – MY 2017/18), average open field tangerine production has declined about 15.5 percent to 475,000 MT from an average of 562,000 MT during the MY 2012/13 -2014/15 period for the following reasons:

- 1) Only minor yield improvements despite an increase in tangerine varieties (increased late-maturing varieties);

- 2) Expanded use of protected facilities and greenhouses;
- 3) A reduction of tangerine acreage caused by farm closures associated with aging farmers;
- 4) Property development including construction of new buildings and roads on what had been farmland, and
- 5) Cold damage as temperatures dipped to - 6 degrees Celsius in February 2015, and the effects on tangerine productivity have played out in the years since.

Because of the aging population in tangerine farming and farming in general and increased property development on Jeju Island over the past decade (caused by increased tourism and more people moving to Jeju), tangerine acreage has decreased by about 1,240 hectares since 2006. Land that was formerly used for tangerine farms has been used for new commercial buildings or for road construction in recent years. Following this trend, in MY 2018/19, tangerine acreage will decrease slightly to 20,100 ha from 20,140 ha in MY 2017/18. Interestingly, the Jeju tangerine industry also reports that there are a small number of new and younger tangerine growers who have begun farming in recent years. As they look to increase their incomes via high-quality (high Brix level) tangerine production using new and varied agricultural techniques, there is some expectation for a bump in high-quality tangerine production in the coming years.

As consumer demand for fruit with a high sugar content has increased in recent years, demand for sweeter tangerines (higher Brix level) has also increased. Many tangerine growers are using “Tyvek” fabrics (made by the DuPont Company) on the production surfaces to help produce high quality tangerines. These Tyvek materials increase the sugar content of tangerines by controlling soil moisture, i.e., preventing rainwater from penetrating the soil, and fostering proper fruit coloring by reflecting sunlight on the fruits from below. This innovation helps raise farmers’ incomes and enables tangerines to be more competitive with other fruit.

In MY 2017/18, 78 percent of tangerines were produced in open fields (down from 88 percent in MY 2008/9), and 22 percent of tangerines were produced in protected facilities such as greenhouses. As a result of a Free Trade Agreement (FTA) support program subsidizing protected facility infrastructure, many open field tangerine farmers capitalized on this program in order to produce more high valued tangerines. Tangerines produced from protected facility farming are mostly late-maturing hybrid tangerine varieties and are higher quality, sweeter fruits than normal tangerines (those produced in an open field).

#### Late Maturing Varieties & Protected Facility Farming

The production acreage for late-maturing varieties reached almost 20 percent (3,932 ha) of total citrus area (20,140 ha) in MY 2017/18 from 7.3 percent (1,532 ha) in MY 2008/09, contributing to a reduction in market prices due to the increased competition this output represents.

## Greenhouse Tangerines

Korea also produces about 20,000 – 22,000 MT of fresh tangerines in heated greenhouses every year during the tangerine off-peak season (between May and October). As a result of stable heating costs for the past three to four years and the FTA support program, the acreage for heated tangerine greenhouses increased to 301 ha in MY 2017/18 from 250 ha in MY 2015/16. In MY 2018/19, heated greenhouse tangerine production is forecast at about 23,000 MT, a slight increase from the previous season due to increased acreage, gross income and stable heating cost (oil price).

### Korea: Citrus Summer Greenhouse Production Situation

Year	Area (HA)	Production (MT)	Gross Income (Mil. Won)	Household	Price (Won/Kg)
2009	304	22,636	72,445	912	3,200
2010	312	21,602	74,507	929	3,449
2011	295	21,807	70,818	867	3,247
2012	285	19,963	65,719	843	3,292
2013	262	19,555	77,859	732	3,982
2014	255	21,571	60,695	713	2,814
2015	250	20,401	63,021	659	3,089
2016	284	21,660	76,087	697	3,513
2017	301	22,637	80,771	737	3,568
2018 1/	305	23,000	N/A	N/A	N/A

1/ Preliminary forecast by FAS Seoul

Source: Jeju Provincial Government & Korea Rural Economic Institute

## Price

### Wholesale Prices for Greenhouse Tangerines, Nationwide (Unit: Korean Won per 3 Kilogram)

Month	2017	2018
May	25,080	23,865
Jun.	18,824	18,310
Jul.	13,086	14,390
Aug.	16,451	16,958
Sep.	14,589	13,464
Oct.	8,404	8,545
Nov.	5,465	-

Source: Jeju Special Self-Governing Province Citrus Marketing & Shipping Association

## Tangerines for Processing

The Jeju citrus industry produces 6,000 MT to 9,000 MT of Unshu-based orange juice (concentrate) every year, utilizing from 70,000 to 100,000 MT of fresh tangerines, comprised largely of non-marketable fruit such as those that are low quality and/or weather damaged. In MY 2014/15, fresh tangerines for processing spiked to 158,371 MT due to the aforementioned sudden temperature drop in February 2015.

In MY 2018/19, output of fresh tangerines for processing is forecast down 17 percent to 60,000 MT from 72,460 MT in the previous marketing year. This is attributed to increased market demand for fresh tangerines because of improved quality and the fall in production of other major domestic fruit such as apples, pears and sweet persimmons due to unfavorable weather during the flowering and fruit growing periods for those fruits.

## Prices

Korea: Average Retail Prices for Regular Unshu (tangerines, high quality grade), Nationwide (Unit: Korean Won per 10 Fruits)

Year Month	2016	2017	2018	% Change from the previous year
Jan	2,212	3,043	3,325	9.3
Feb	2,913	4,357	5,118	17.5
Mar	3,256	6,108	6,075	-0.5
Oct	3,668	4,015	4,245	5.7
Nov	2,751	3,053	3,149	3.1
Dec	2,689	2,852	-	6.1

Source: Agricultural & Fishery Marketing Corporation

## Consumption

In MY 2018/19, Korea's tangerine consumption is forecast to increase nine percent to 548,000 MT from 503,000 MT in MY 2017/18 due to increased tangerine production and increased demand caused by a 10-15 percent decline in production of other domestic fruit (apples, pears and sweet persimmons).

Per capita tangerine consumption in MY 2018/19 is also expected to increase slightly to 11.8 kilograms from 11.6 kilograms in MY 2017/18 due to increased domestic supply. As tangerines are a more affordable fruit, Korean consumers will increasingly choose tangerines over apples, pears, and sweet persimmons, which have higher market prices.

KOREA: Average Retail Price in November for Major Domestic Fruits			
10 Fruits (High quality base)	November 2017 Price (Korean Won)	November 2018 Price (Korean Won)	Change (percent)

Apple (Fuji cultivar)	20,186	22,582	11.9%
Pear (Singo cultivar)	26,518	33,789	27.4%
Sweet Persimmon	9,279	9,891	6.6%
Tangerine	3,053	3,150	3.2%

Source: Agricultural & Fishery Marketing Corporation

## Trade

In MY 2018/19, Korea's Unshu orange exports are forecast down slightly to 1,700 MT from 1,900 MT in the previous marketing year due to increased domestic demand. Not many growers have been interested in exporting in recent years due to favorable domestic prices, and exporting tangerines requires meeting stricter regulations (such as lower Maximum Residue Levels for pesticides). As a result, Korea's tangerine exports decreased by 50 percent for the past five years to 1,870 MT in MY 2017/18 from 3,703 MT in MY 2013/14.

### Export Matrix for Korean Tangerines

Export Trade Matrix				
Country: Korea				
Commodity: Tangerine (HS 0805.21/22/29) Unit: MT & US\$1,000				
Exports to	MY 2016/17 (Oct. 16 – Sep. 17)		MY 2017/18 (Oct. 17 – Sep. 18)	
Country	Volume	Value	Volume	Value
U.S.	412	582	415	651
Others				
Russia	481	333	493	344
Canada	740	645	303	306
Japan	0	0	10	15
Hong Kong	149	228	135	279
Guam	62	96	73	155
Indonesia	0	2	1	2
Malaysia	60	61	56	115
United Kingdom	0	0	0	0
Mongolia	71	78	76	106
Singapore	186	259	225	398
Others	77	85	83	204
Total for Others	1,826	1,787	1,455	1,924
Grand Total	2,238	2,369	1,870	2,575

Source: Global Trade Atlas

## Oranges

PS&D Table

Oranges, Fresh Market Begin Year Korea, Republic of	2016/2017		2017/2018		2018/2019	
	Oct 2016		Oct 2017		Oct 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	0	0	0	0	0	0
Bearing Trees	0	0	0	0	0	0
Non-Bearing Trees	0	0	0	0	0	0
Total No. Of Trees	0	0	0	0	0	0
Production	0	0	0	0	0	0
Imports	143	143	140	141	0	150
Total Supply	143	143	140	141	0	150
Exports	0	0	0	0	0	0
Fresh Dom. Consumption	143	143	140	141	0	150
For Processing	0	0	0	0	0	0
Total Distribution	143	143	140	141	0	150
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Production – There is no domestic production of Navel or Valencia oranges in Korea.

### Consumption

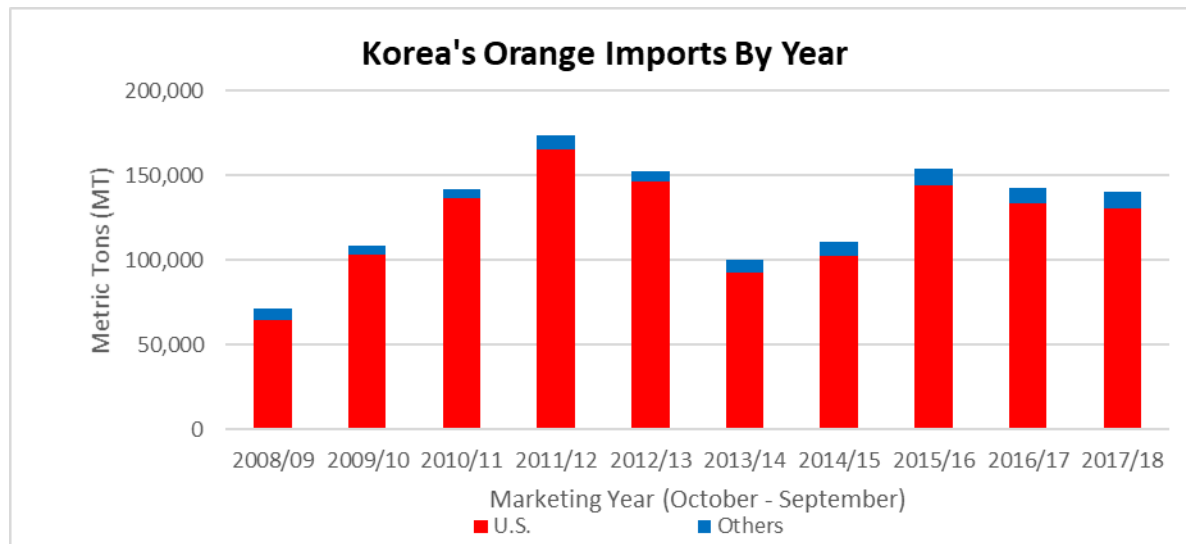
As demand for dessert fruit with a high sugar content has increased, demand for premium oranges also known as “Black label” oranges (about 13 – 14 Brix level) is expected to increase steadily in the Korean market in coming years. The local fruit industry estimates the premium orange (high sugar content) accounts for 60 to 70 percent of the total orange market, which had been only a 10 to 20 percent share in the past. Nevertheless, Korea’s orange consumption which totaled 173,455 MT in MY 2011/12 and 152,415 MT in MY 2012/13 has averaged only 130,000 MT over the past five years (2013/14 -2017/18). This is a result of increased competition from other high sugar content fruits such as late-maturing hybrid and locally produced tangerines and strawberries, and other imported fruits including mangoes, pineapples and table grapes.

### Trade

In MY 2018/19, Korea’s fresh orange imports are projected to increase 6.6 percent to 150,000 MT from 140,667 MT in the previous marketing year due to a production increase in California (United States), the main production area for navel oranges. The United States is the dominant navel orange supplier, with a 93 percent market share (130,673 MT) of total orange imports (140,667 MT) in the Korean market in MY 2017/18. The United States is followed by South Africa with a 2.3 percent market share (3,190 MT), and Australia, which also has a 2.3 percent market share (3,183 MT). As production of Korea’s major domestic fruits (apples, pears and



sweet persimmons) is expected to decline by 10 to 15 percent in MY 2018/19, demand for oranges (along with tangerines, strawberries, and imported table grapes) is forecast to increase.



Source: Global Trade Atlas

Of the total fresh orange imports during the marketing year, the majority (79 percent of total imports) is imported during three months (March - May period) since the FTA seasonal duty starts from March. (Since 2018, a zero duty applies for U.S. oranges between March 1<sup>st</sup> and August 31<sup>st</sup> under the KORUS FTA).

Korea: Monthly Orange Imports (Unit: MT)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
'18	9,251	7,294	61,291	39,691	10,335	2,885	1,339	1,605	2,916	3,804	-	-
'17	5,918	11,421	60,543	40,549	8,925	3,471	1,946	2,067	2,669	1,357	1,012	1,694
'16	5,210	10,830	68,324	46,908	9,719	1,780	2,340	2,275	2,166	1,473	838	3079
'15	2,926	5,759	40,090	38,067	13,132	1,815	1,346	1,500	2,608	2,207	590	1,704
'14	4,124	12,289	36,914	29,366	3,584	2,857	1,554	1,461	2,408	1,796	362	1,656
'13	8,205	13,059	53,124	51,630	13,265	1,680	1,450	1,589	2,816	2,627	643	2,628
'12	6,876	27,475	55,741	50,731	16,350	3,582	2,801	2,613	2,175	1,515	952	3,131

Source: Korea Customs Service & Korea International Trade Association

Import Quota under the KORUS FTA (Unit: MT, %)

HSK 10	Description	Base Rate	2017	2018	2019
0805100000	Oranges				
March1 – end Aug		50	5	Zero	Zero
Sept 1 – end Feb					
TRQ (MT)			2,898	2,985	3,075
In-quota Rate			0	0	0

Out of Quota Rate		50	50	50	50
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Note: After year 5, the in-quota quantity increases by 3% per year, compounded annually.

#### Import Matrix for Oranges

Import Trade Matrix				
Country: Korea				
Commodity: Orange (HS 0805.10)			Unit: MT & US\$1,000	
Imports from	MY 2016/17 (Oct. 16 – Sep. 17)		MY 2017/18 (Oct. 17 – Sep. 18)	
Country	Volume	Value	Volume	Value
U.S.	133,490	211,511	130,673	235,697
Others				
South Africa	3,577	4,061	3,190	3,671
Australia	1,743	2,974	3,183	5,728
Spain	2,530	2,867	2,744	3,670
Chile	1,252	1,697	659	893
Other	308	309	218	205
Total for Others	9,410	11,908	9,994	14,167
Grand Total	142,900	223,419	140,667	249,864

Source: Global Trade Atlas

#### Price

Korea: Average Retail Prices for Imported Oranges (Navel), Nationwide  
(Unit: Korean Won per 10 Fruits)

Year Month	2016	2017	2018	% Change from the previous year
Jan	10,973	11,681	11,999	2.7
Feb	11,648	12,758	11,737	-8.0
Mar	10,922	10,957	9,860	-10.0
Apr	9,535	9,886	9,243	-6.5
May	9,291	10,412	9,446	-9.3
Jun	9,673	9,969	9,644	-3.3
Jul	-	-	-	-
Aug	-	-	-	-
Sep	-	11,464	-	-

Oct	-	12,035	-	-
Nov	11,397	11,411	-	0.1
Dec	11,180	10,914	-	-2.4

Prices for high quality

Source: Agricultural & Fishery Marketing Corporation

Korea: Average Wholesale Prices for Imported Navel Oranges

(Unit: Korean Won per 18 Kilogram box)

Month	High Quality		Medium Quality	
	2017	2018	2017	2018
Jan.	60,850	58,873	55,980	53,873
Feb.	62,500	60,678	57,510	55,578
Mar.	56,927	52,819	51,564	48,133
Apr.	48,620	47,848	43,820	43,248
May	50,768	49,550	45,168	44,950
Jun.	54,411	50,556	48,861	45,956
Jul.	-	-	-	-
Aug.	-	-	-	-
Sep.	46,147	-	41,333	-
Oct.	47,863	-	43,063	-
Nov.	53,500	-	48,609	-
Dec.	56,758	-	51,779	-

Source: Agricultural & Fishery Marketing Corporation

Korea: Wholesale Prices for Domestic Hallabong & Imported Navel Oranges

(Unit: Korean Won per Kilogram)

Month	Imported Navel 1/		Hallabong 2/	
	2017	2018	2017	2018
Jan.	3,381	3,271	4,447	3,771
Feb.	3,472	3,371	3,477	4,254
Mar.	3,163	2,934	3,158	2,701
Apr.	2,701	2,658	2,922	2,580
May	2,820	2,753	2,954	3,480
Jun.	3,023	2,809	3,056	-

1/ High quality navel oranges

2/ Late variety Unshu oranges

Source: Agricultural & Fishery Marketing Corporation / Jeju Special Self-Governing Province  
Citrus Marketing & Shipping Association

## Orange Juice

### PS&D Table

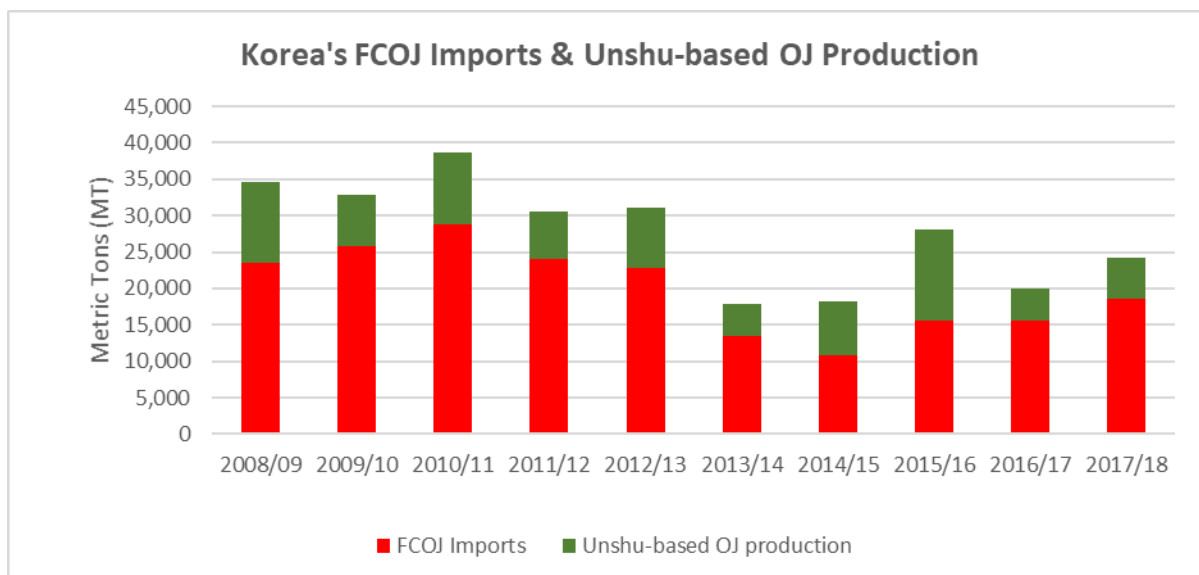
Orange Juice Market Begin Year Korea, Republic of	2016/2017		2017/2018		2018/2019	
	Oct 2016		Oct 2017		Oct 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Deliv. To Processors	0	0	0	0	0	0
Beginning Stocks	4500	4500	4600	2076	0	3879
Production	0	0	0	0	0	0
Imports	14854	15509	14500	18489	0	15000
Total Supply	19354	20009	19100	20565	0	18879
Exports	150	150	100	186	0	180
Domestic Consumption	14604	17783	13000	16500	0	16000
Ending Stocks	4600	2076	6000	3879	0	2699
Total Distribution	19354	20009	19100	20565	0	18879
(MT)						

Production – There is no domestic production of orange juice in Korea

### Unshu-based Orange (Tangerine) Concentrate

Korea produces Unshu-based orange juice (concentrate) sourced mostly from non-marketable Unshu oranges, while frozen concentrated orange juice (FCOJ) is imported mainly from the United States and Spain. The Jeju tangerine industry has three tangerine concentrate producers: Jeju Development Corporation (owned by Jeju Provincial Government) and two private companies (Ilhae and Lotte). As the Jeju tangerine industry needs to maintain stable market prices, designating tangerines for processing helps balance the tangerine supply in the market and stabilize incomes for tangerine growers. As previously stated, in MY 2014/15, tangerines for processing spiked at 158,291 MT. About 12 to 15 percent (80,000 MT – 100,000 MT) of total tangerine production has been utilized for processing in the past, but this number has decreased gradually to 60,000 MT to 80,000 MT as a result of reduced overall production and an increased focus on production of high quality tangerines in recent years.

In MY 2018/19, post forecasts about 60,000 MT of fresh tangerines will be utilized for tangerine concentrate production, about 17 percent less than used during the previous marketing year mainly due to a higher demand for tangerines for direct consumption as they are cheaper than other major domestic fruits such as apples, pears and sweet persimmons.



Source: Global Trade Atlas

### Consumption

Orange juice (excluding tangerine juice) is the leading product in the Korean fruit juice market, covering more than 50 percent of market share, followed by grape juice (30 percent of market share), and then other fruit juices such as mango. The entire fruit juice market (including orange juice) has gradually decreased in size over the past several years due to the following reasons:

- 1) reduced consumer demand, as consumers have become more interested in health and diet drinks other than fruit juice, which is understood to have a high sugar content,
- 2) increased competition from the coffee market, which grew substantially over the same period. In consequence, orange and tangerine juice consumption is expected to continue to gradually decrease over the coming years. However, the demand for premium fresh orange juice (NFC-Not From Concentrate) is projected to increase gradually with the current health-conscious trend. Note that the NFC market represents less than 5 percent of overall orange juice imports.

### Trade

In MY 2018/19, Korea's frozen concentrated orange juice (FCOJ) imports are forecast to decline 18.8 percent to 15,000 MT from 18,489 MT in MY 2017/18 due to the continued reduction of the size of the fruit juice market, and increased inventory by local orange juice producers in Korea. However, U.S. orange juice is forecast to slightly increase its share of imports in MY 2018/19 because of the rebound in orange production in Florida. The United States had been the main FCOJ supplier for Korea for many years, but imports dropped 19.3 percent to 6,536

MT in MY 2017/18 from 8,099 MT in MY 2016/17 due to the citrus greening disease and damage from Hurricane Irma in 2017. Meanwhile, FCOJ imports from Spain increased 123 percent to 9,160 MT in MY 2017/18 from 4,103 MT in MY 2016/17, offsetting the reduction of U.S. imports that year.

As Japanese tangerine production has also declined over the past several years, Korea exported about 1,000 MT of Unshu orange concentrate to Japan every year for the past five marketing years (2014/15 – 2017/18). In MY 2018/19, Korea's tangerine concentrate exports are forecast to be maintained at 1,000 MT, as Japanese demand will remain stable.

#### Import Matrix for Frozen Concentrated Orange Juice (FCOJ)

Import Trade Matrix				
Country: Korea				
Commodity: FCOJ (2009.11/12/19)			Unit: MT & US\$1,000	
Imports from	MY 2016/17 (Oct. 16 – Sep. 17)		MY 2017/18 (Oct. 17 – Sep. 18)	
Country	Volume	Value	Volume	Value
U.S.	8,099	26,592	6,536	23,686
Others				
Spain	4,103	9,180	9,160	22,591
Brazil	1,021	2,041	803	1,797
Australia	642	1,080	490	997
Thailand	510	645	416	508
Other	1,134	2,541	1,084	2,482
Total for Others	7,410	15,487	11,953	28,375
Grand Total	15,509	42,079	18,489	52,061

Source: Global Trade Atlas

#### Export Matrix for Tangerine Juice Concentrate

Export Trade Matrix				
Country: Korea				
Commodity: Tangerine Juice Concentrate (2009.39.9000)			Unit: MT & US\$1,000	
Exports to	MY 2016/17 (Oct. 16 – Sep. 17)		MY 2017/18 (Oct. 17 – Sep. 18)	
Country	Volume	Value	Volume	Value
U.S.	5	11	0	0
Others				
Japan	550	1,371	1,341	3,315
Singapore	7	26	10	35
Other	42	102	14	47

Total for Others	599	1,499	1,365	3,397
Grand Total	604	1,510	1,365	3,397

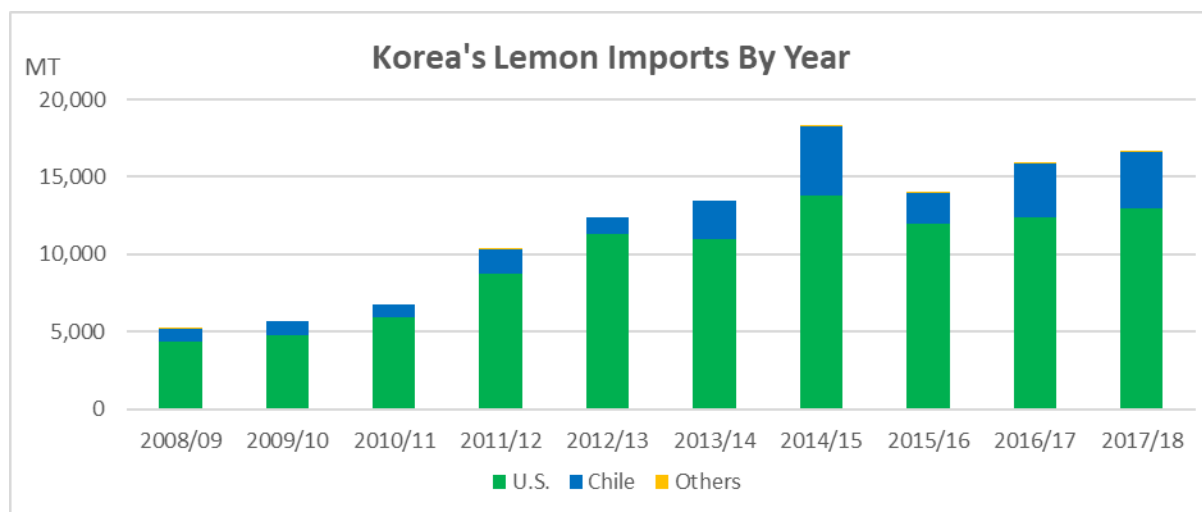
Source: Global Trade Atlas

## Lemons

Production – Domestic lemon production is essentially non-existent so there is no official data to report.

## Trade

In MY 2018/19, Korea's lemon imports are forecast to increase slightly to 17,000 MT from 16,683 MT in the previous year due to a steady increase in demand for lemons from the food service sector and for home use. Korea imports about 16,000 MT of fresh lemons annually, mostly from the United States and Chile under FTAs. As a result of increased demand for lemon drinks (aide) at cafés, lemon water at home and in restaurants, and a popular detox diet among young female consumers, Korea's lemon imports for the past decade increased 221 percent to 16,683MT in MY 2017/18 from 5,202 MT in MY 2008/09. The United States was the main supplier with a 78 percent share of imports, followed by Chile with a 22 percent share of imports in MY 2017/18.



Source: Global Trade Atlas

## Import Matrix for Lemons

Import Trade Matrix
---------------------

Country: Korea				
Commodity: Lemon (0805.50.10)			Unit: MT & US\$1,000	
Imports from	MY 2016/17 (Oct. 16 – Sep. 17)		MY 2017/18 (Oct. 17 – Sep. 18)	
Country	Volume	Value	Volume	Value
U.S.	12,427	31,064	12,991	32,976
Others				
Chile	3,452	7,857	3,629	8,073
Other	11	23	63	101
Total for Others	3,463	7,880	3,692	8,174
Grand Total	15,890	38,944	16,683	41,150

Source: Global Trade Atlas

## Price

Korea: Average Wholesale Prices for Imported Lemons

(Unit: Korean Won per 17 Kilograms Box)

Month	High Quality		Medium Quality	
	2017	2018	2017	2018
Jan.	61,620	67,109	56,320	60,309
Feb.	61,920	67,356	56,920	60,556
Mar.	62,818	65,857	57,818	59,229
Apr.	64,010	61,295	59,010	54,924
May	70,958	57,250	65,958	51,050
Jun.	87,286	73,916	81,410	67,589
Jul.	84,229	92,927	77,705	86,327
Aug.	72,209	83,755	64,709	77,227
Sep.	68,819	76,400	60,476	70,000
Oct.	69,163	78,667	60,563	72,267
Nov.	68,873	-	61,664	-
Dec.	67,316	-	60,516	-

Source: Agricultural & Fishery Marketing Corporation

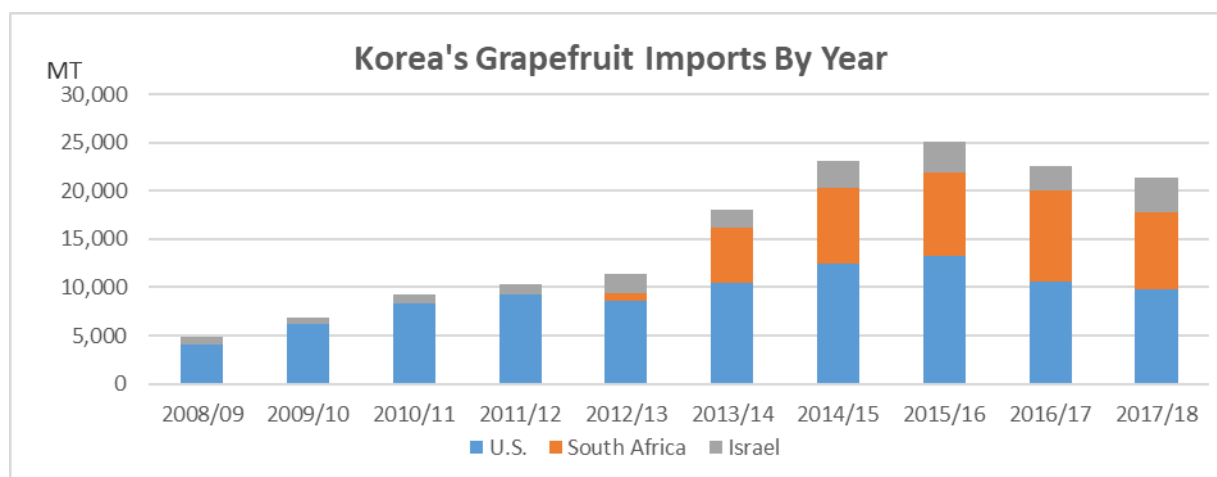
## Grapefruit

Production: There is no domestic grapefruit production.

## Trade



In MY 2018/19, Korea's grapefruit imports are forecast to decrease slightly to 21,000 MT from 21,319 MT in the previous marketing year due to limited use of grapefruit in food menus. Korea imported 21,320 MT of grapefruit in MY 2017/18, mostly from the United States (46 %), South Africa (37.7 %), and Israel (16.5 %). As U.S. grapefruit production decreased in recent years due to citrus greening disease and Hurricane Irma in Florida, imports also declined 26 percent (3,456 MT) to 9,768 MT in MY 2017/18 from 13,224 MT in MY 2015/16.



Source: Global Trade Atlas

#### Import Matrix for Grapefruit

Import Trade Matrix				
Country: Korea				
Commodity: Grapefruit (0805.40)			Unit: MT & US\$1,000	
Imports from	MY 2016/17 (Oct. 16 – Sep. 17)		MY 2017/18 (Oct. 17 – Sep. 18)	
Country	Volume	Value	Volume	Value
U.S.	10,597	15,630	9,768	16,395
Others				
Israel	2,573	3,019	3,524	4,807
S. Africa	9,428	11,255	8,027	9,552
Mexico	0	0	0	0
Total for Others	12,001	14,274	11,552	14,359
Grand Total	22,598	29,904	21,320	30,754

Source: Global Trade Atlas

#### Price

#### Korea: Average Retail Prices for Imported Grapefruit

(Unit: Korean Won per 10 Fruits Box)

Month	High Quality		Medium Quality	
	2017	2018	2017	2018
Jan.	-	-	17,844	15,522
Feb.	-	-	16,503	15,902
Mar.	-	-	17,071	16,354
Apr.	-	-	15,777	15,437
May	-	-	15,258	18,984
Jun.	-	-	15,310	12,980
Jul.	-	-	15,046	-
Aug.	-	-	13,684	-
Sep.	-	-	13,494	-
Oct.	16,230	-	14,267	-
Nov.	-	-	15,778	-
Dec.	-	-	16,777	-

Source: Agricultural & Fishery Marketing Corporation

## Annex I. Korea's Citrus Production

### Korea: Citrus Production Situation 1/

Year	Area (HA)	Production (MT)	Farm Household	Gross Income (Mil.won)
2009	20,898	741,014	31,200	601,113
2010	20,747	568,478	30,905	668,484
2011	20,608	588,054	30,797	764,158
2012	20,595	668,610	31,070	801,175
2013	20,577	672,267	31,041	901,421
2014	20,555	696,763	31,404	670,739
2015	20,523	635,032	31,458	602,196
2016	20,491	599,642	31,525	911,392
2017	20,140	576,772	30,957	945,792
2018 2/	20,100	610,000	N/A	N/A

1/ Calendar year basis including greenhouse

2/ Preliminary forecast by FAS Seoul

Source: Jeju Provincial Government

### Korea: Citrus Utilization (Unit: MT)

Year	Total	Fresh	Processing	Other 1/
2009	741,014	519,423	123,551	98,040
2010	568,478	385,456	81,117	101,905
2011	588,054	371,944	102,933	113,177
2012	668,610	432,058	55,814	180,738
2013	672,267	433,650	92,834	145,783
2014	696,763	400,712	158,371	137,680
2015	635,032	340,353	84,679	210,000
2016	599,642	351,826	56,372	191,444
2017	576,772	331,612	72,460	172,650

1/ Other – including exports, military consumption and consumption within Jeju island

Source: Jeju Provincial Government

### Korea: Purchasing Price of Processing Tangerine Oranges (Korean Won/kg)

Year	Price
2010	120
2011	140
2012	160
2013	160
2014	160

2015	160
2016	160
2017	180
2018	180

Source: Jeju Citrus Growers' Cooperative

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

Year	Total Fruits	Citrus	Ratio
2008	2,740	636	23.2
2009	2,500	727	29.1
2010	2,216	615	27.8
2011	2,102	645	30.7
2012	2,027	654	32.3
2013	2,207	655	29.7
2014	2,347	688	29.3
2015	2,364	640	27.1
2016	2,387	610	25.6
2017	2,358	597	25.3

Source: Korea Statistical Information Service (KOSIS)

Korea: Total Fruits and Citrus Per Capita Consumption

Year	Total Fruits (Kg)	Total Tangerine (Kg)
2009	62.5	15.2
2010	57.6	12.4
2011	58.1	13.6
2012	57.9	13.7
2013	59.6	13.4
2014	61.8	14.2
2015	59.8	12.5
2016	60.6	11.9
2017	61.2	11.6

Source: Ministry for Food, Agriculture, Forestry, and Fisheries

## Annex II. Tariff

Korea: Import Quota and Tariff for Fresh Orange (Unit: MT, %)

Year	Quota	In-quota Tariff	Out-quota Tariff
2004	57,017	50	50
2016	57,017	50	50
2017	57,017	50	50
2018	57,017	50	50
2019	57,017	50	50

Korea: Import Quota and Tariff for Other Citrus (Unit: MT, %)

Year	Quota	In-quota Tariff	Out-quota Tariff
2004	2,097	50	144
2016	2,097	50	144
2017	2,097	50	144
2018	2,097	50	144
2019	2,097	50	144

1/ HS 0805.21.1000, HS 0805.21.9000, HS0805.22.0000, HS0805.50.2020 & HS 0805.90.0000

## Annex III. Exchange Rate

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

Month	2016	2017	2018
Jan.	1201.67	1134.40	1066.70
Feb.	1217.35	1144.92	1079.58
Mar.	1188.21	1134.77	1071.89
Apr.	1147.51	1132.73	1067.76
May	1171.51	1125.28	1076.39
Jun.	1170.50	1130.04	1092.80
Jul.	1144.09	1134.40	1122.80
Aug.	1111.68	1130.79	1121.15
Sep.	1107.49	1131.59	1120.60
Oct.	1125.28	1131.57	1130.81
Nov.	1161.64	1105.04	-

Dec.	1172.24	1085.78	-
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Source: Industrial Bank of Korea

#### Annex IV. Price Table

Korea: Average Wholesale Prices for Regular Unshu (tangerines) (Unit: Korean Won per 10 Kilogram)

Month	High Quality		Medium Quality	
	2017	2018	2017	2018
Jan.	20,880	21,800	17,560	17,400
Feb.	39,510	-	34,860	-
Mar.	51,400	-	46,000	-
April - September: N/A				
Oct.	24,200	-	19,633	-
Nov.	21,136	-	16,600	-
Dec.	21,000	-	16,463	-

Source: Agricultural & Fishery Marketing Corporation Korea: Average Wholesale

Korea: Average Retail Prices for Regular Unshu (tangerines), Nationwide  
(Unit: Korean Won per 10 Fruits)

Year Month	2016	2017	2018	% Change from the previous year
Jan	2,212	3,043	3,325	9.3
Feb	2,913	4,357	5,118	17.5
Mar	3,256	6,108	6,075	-0.5
Oct	3,668	4,015	4,245	5.7
Nov	2,751	3,053	3,149	3.1
Dec	2,689	2,852	-	6.1

Prices for high quality

Source: Agricultural & Fishery Marketing Corporation

Korea: Wholesale Prices for Domestic Hallabong & Imported Navel Oranges  
(Unit: Korean Won per Kilogram)

Month	Imported Navel 1/		Hallabong 2/	
	2017	2018	2017	2018
Jan.	3,381	3,271	4,447	3,771
Feb.	3,472	3,371	3,477	4,254

Mar.	3,163	2,934	3,158	2,701
Apr.	2,701	2,658	2,922	2,580
May	2,820	2,753	2,954	3,480
Jun.	3,023	2,809	3,056	-

1/ High quality navel oranges

2/ Late variety Unshu oranges

Source: Agricultural & Fishery Marketing Corporation / Jeju Special Self-Governing Province  
Citrus Marketing & Shipping Association