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Turkey

Citrus Annual

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Report Highlights:
Turkey's marketing year (MY) 2018/19 citrus production is expected to be 4.3 million MT, slightly lower than MY 2017/18. This drop is expected to be seen especially in the Mediterranean region, mostly for orange and mandarin production, due to hot weather conditions and drought in the summer and fall season. The yield in the Aegean region is anticipated to be higher than in the Mediterranean region and lemon production is expected to be higher this year due to favorable weather conditions. Exports in MY 2018/19 are expected to be higher mainly due to the depreciation of the Turkish Lira and better product quality. The main concern of Turkish producers and exporters is the Mediterranean fruit fly which has an impact on the quality of products. Mediterranean fruit fly is the most common reason for exported products to be sent back to Turkey.

Executive Summary:

For MY 2018/19, Turkish producers do not expect a significant drop in citrus production due to favorable weather conditions in the Aegean region, which partially offset anticipated lower yields in the Mediterranean region, particularly for orange and mandarin production. In MY 2017/18, Turkey produced 4.7 million metric tons (MT) of citrus which is 10 percent higher than the previous season.

Eighty percent of the total production is realized in the Mediterranean region of Turkey and Turkey has 43.5 million citrus trees of which 37 million are bearing trees. Citrus has a 38 percent share of the total fresh fruit and vegetable exports from Turkey. In total, Turkey exported 1.92 million MT of citrus in MY 2017/18, worth $917 million which is slightly higher than MY 2016/17 due to stable demand in foreign markets. Turkish citrus exporters have expressed concern about Russian citrus import rules which are leading to some rejections of shipments. Approximately 24 percent of total Turkish citrus exports are shipped to Russia. While citrus exports to Russia remained stable in MY 2017/18 at 550,000 MT, exports to Iraq dropped 10 percent due to low purchase prices in Iraq. Turkey exports to a limited group of countries, mainly Russia, Iraq and Ukraine, which together make up 70 percent of the total citrus exports.

Turkish citrus producers have expressed concern about a reduction in export support and the price stabilization fund provided by the Turkish Government for exporters. This support was reduced in 2017 and the amount for 2018 has not been announced yet. The other main problem of Turkish citrus producers is the Mediterranean fruit fly issue. The pest causes quality problems and has a negative impact on market access. To help producers struggling with the Mediterranean fruit fly, the Turkish Ministry of Agriculture and Forestry has increased supports such as providing traps at no charge to producers. In addition, a Turkish institute has started to work on population control of these insects by providing sterilized male insects to orchards.

Harmonized System (HS) Codes:
Oranges 080510
Tangerines/Mandarins 080520, 080521, 080522, 080529
Lemons 080550
Grapefruits 080540
Orange Juice 200911, 200912, 200919

Abbreviations used in this report:

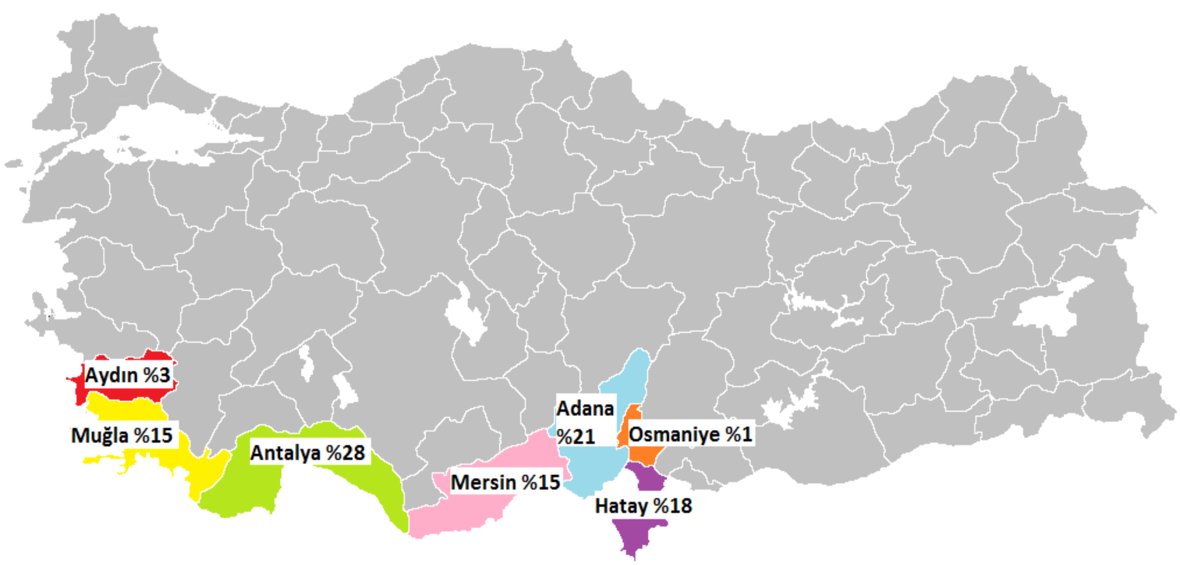
FAS	USDA Foreign Agricultural Service
MT	Metric ton (1,000 kg)
MMT	Million Metric Tons
MinAF	Turkish Ministry of Agriculture and Forestry
MY	Marketing year
PS&D	Production, Supply and Distribution
TL	Turkish Lira
TurkSTAT	Turkish Statistical Institute
USD	U.S. Dollar

Commodities:
Oranges, Fresh

Production:
In MY 2018/19, orange yield is forecast to slightly decrease compared to the previous season to 1.88 MMT due to hot weather conditions and drought in the summer and fall season in the Adana and Mersin regions. However, the expected orange yield in the Aegean region is higher due to the favorable weather conditions in those provinces during the fall season. Orange production was slightly better in MY 2017/18 at 1.9 MMT since the weather was stable and favorable.

Orange production represents 41 percent of total Turkish citrus production, which was 4.7 million MT in MY 2017/18. 74 percent of total orange production is the Washington variety, with the Jaffa variety representing 4 percent.

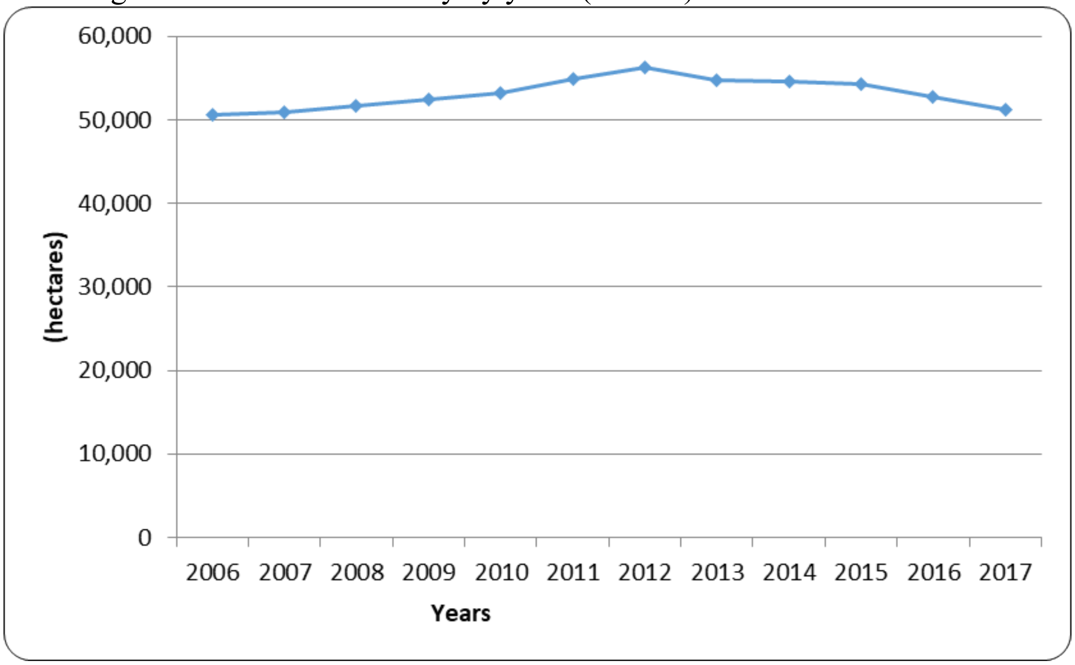
Figure 1. Production Shares of Oranges by Province



Source: MinFAL, 2018

The Mediterranean region, including Antalya, Adana, Mersin and Hatay provinces, has produced 82 percent, and the Aegean region, including Mugla, has produced 18 percent of the total orange production. The harvest of Fukumoto varieties in the Adana region has started earlier than the previous season due to warmer weather.

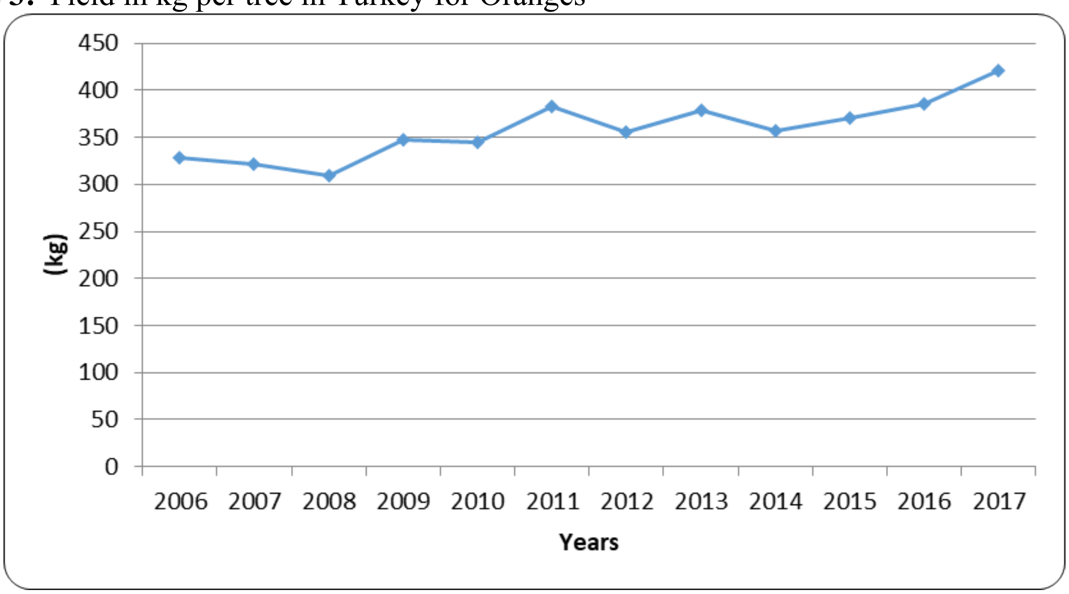
Figure 2: Orange Orchard Area in Turkey by years (hectare)



Source: MinFAL, 2018

The number of bearing trees was 13.8 million in 2017, a reduction of 3 percent when compared with 2013 since producers are facing low incomes and high input prices. The number of non-bearing trees reduced significantly by 33 percent within the same period.

Figure 3: Yield in kg per tree in Turkey for Oranges



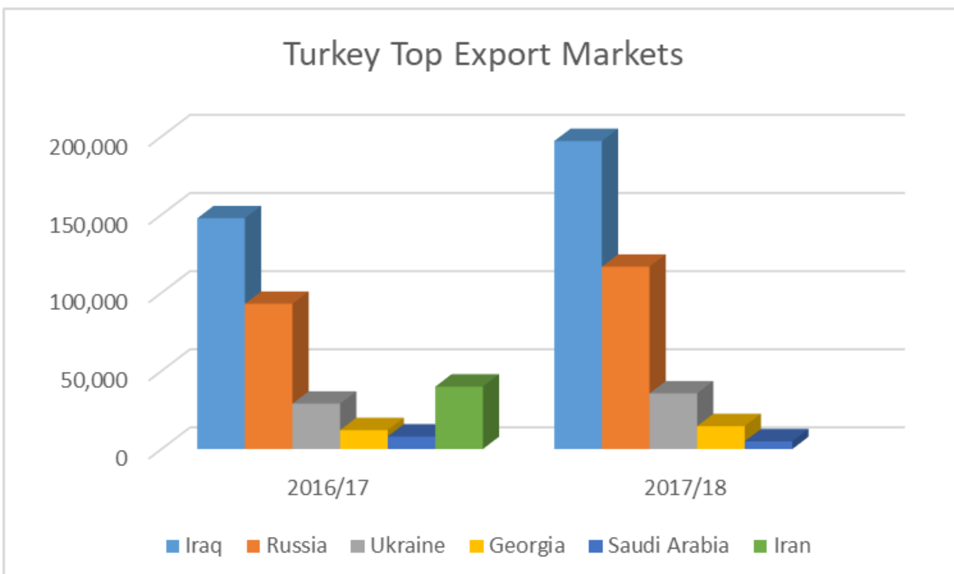
Source: MinFAL, 2018

Although orange orchard areas and bearing trees have been decreasing, yield per tree has been increasing in recent years due to improving farming practices.

Consumption:
Although orange production cost at orchards is estimated between .70 TL and 1 TL per kilo depending on varieties, the selling price at supermarkets is approximately 6 TL. There is still a wide margin between farm and retail prices and producers are reportedly having difficulty selling their products. Consumption is estimated slightly lower in MY 2018/19 at 1.33 MMT. Most orange consumption is in the form of fresh oranges in Turkey.

Trade:
In MY 2018/19 orange exports are expected to be higher than the previous year at 499,000 MT although the sector expects orange yields will be lower due to the hot weather conditions in summer and fall especially in the Adana region. The higher export expectations are due to the depreciation of the Turkish Lira. Exports to Russia have been growing for two years and exports to Iran increased in 2017. Turkey exported 454,000 MT in MY 2017/2018 valued at $172 million. In MY 2016/17, Turkey exported 397,000 MT of oranges.

Figure 4: Turkish Orange Exports in MT to Key Countries



Source: TurkSTAT, 2018.

Production, Supply and Distribution Statistics:

Table 1: PSD Oranges, Fresh

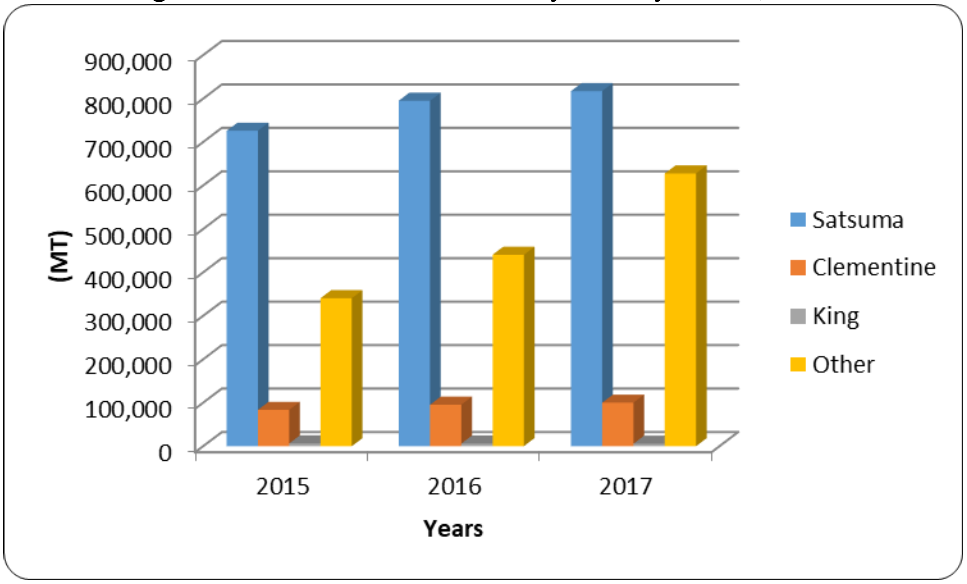
Oranges, Fresh	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	54550	54550	54000	54000	0	53500
Area Harvested	53300	53300	52300	52300	0	51339
Bearing Trees	13900	13900	13861	13861	0	13123
Non-Bearing Trees	900	900	710	710	0	916
Total No. Of Trees	14800	14800	14571	14571	0	14039
Production	1850	1850	1905	1905	0	1885
Imports	49	49	33	33	0	40
Total Supply	1899	1899	1938	1938	0	1925
Exports	397	397	465	454	0	499
Fresh Dom. Consumption	1402	1402	1375	1386	0	1331
For Processing	100	100	98	98	0	95
Total Distribution	1899	1899	1938	1938	0	1925
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Tangerines/Mandarins, Fresh

Production:
In MY 2018/19, mandarin yield is forecast to decrease **10 percent** from the previous season due to hot weather conditions and drought in the summer and fall season, the same as for orange production. However, the mandarin yield expectation in MY 2018/19 in the Aegean region is higher than the Mediterranean region because of the favorable weather conditions in the fall. Mandarin production was 1.3 MMT in MY 2017/18, which was similar to MY 2016/17 since the weather was stable and favorable.

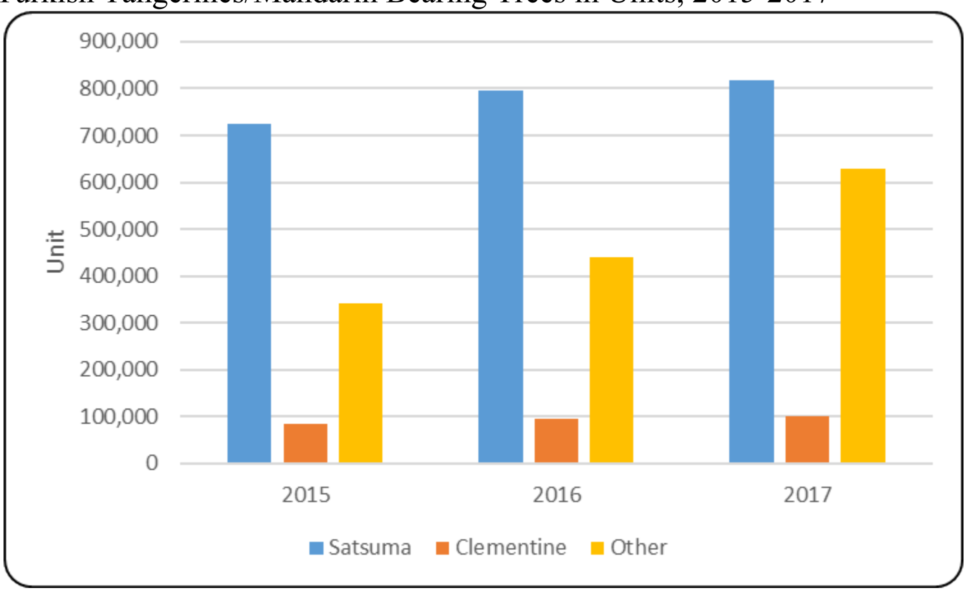
In the Aegean region, satsuma variety yield is expected to be high in MY 2018/19 following low yield in last year. In addition, the satsuma variety was harvested one month earlier than the previous season because of good weather conditions. While clementine variety yield is also expected to be high, marketing problems with this variety are causing production to decrease in this region. Another reason for decreasing production of local varieties in the Aegean region is loss of orchards due to increasing tourism investments.

Figure 5: Turkish Tangerines/Mandarin Production by Variety in MT, 2015-2017



Source: Aegean Citrus Producers Association, 2018.

Figure 6: Turkish Tangerines/Mandarin Bearing Trees in Units, 2015-2017



Source: Aegean Citrus Producers Association, 2018.

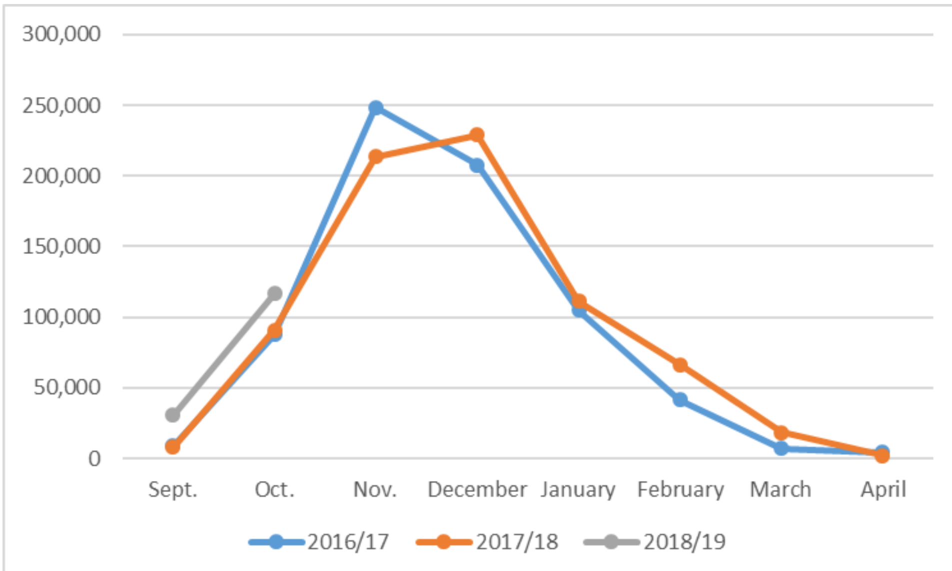
As seen in Figures 5 and Figure 6, producers have been tending towards new mandarin varieties ('others' in the figures) since they believe that exports of new varieties (Nova, Murkott, Fremont) are more profitable.

Consumption:

In MY 2018/19 Turkey's domestic consumption of mandarins is forecast at 366,000 MT, 30 percent lower than the previous year. There is still a big gap between farmer production costs and retail market prices. It is expected that mandarin prices will be higher than previous years since the yield for the upcoming year is not expected to be good and the production costs are increasing due to input prices which are dependent on exchange rates.

Trade:
Mandarin exports in MY 2018/19 are estimated at 838,000 MT, which is 10 percent higher than MY 2017/18. The higher export expectations are due to the depreciation of the Turkish Lira. Mandarins are 4th most exported product among all fresh fruit and vegetables exported from Turkey.

Figure 7. Turkey Mandarin Export Comparison in MT for MY 2016/17-MY 2017/18 and partial-year MY 2018/19.



Source: Turkish Statistical Institute, 2018

Turkey started the MY 2018/19 export season very strongly with exports to Iraq doubling at the beginning of the season. Especially the satsuma variety is exported to Iraq from the Aegean region where the yield for MY 2018/19 started out very well. However, foreign market prices are low since global mandarin yields are sufficient this year and Turkish citrus exporters expect revenue from exports to be low.

Chart 1. Top Five Turkish Mandarin Export Markets (partial year comparison with most recent data)

	Jan.- October 2017		Jan.-October 2018		Increase/ Decrease (%)		2018 Share (%) of total exports	
Countries	**Quantity (MT)**	**Value ($)**	**Quantity (MT)**	**Value ($)**	**Quantity (MT)**	**Value ($)**	**Quantity (MT)**	**Value ($)**
Russia*	101,688	53,230,134	128,376	64,735,385	26	22	37	43
Iraq	70,020	26,023,649	98,506	24,828,060	41	-5	28	17
Ukraine	23,865	10,375,585	34,476	15,056,217	44	45	10	10
S. Arabia	12,059	4,968,869	15,217	6,017,160	26	21	4	4
Romania	6,188	3,203,242	8,239	5,228,859	33	63	2	3

Source: Mediterranean Exporters Association, 2018.

Russia has recently rejected 200 tons of mandarins sent from Turkey due to Mediterranean fruit fly. This problem has a negative impact on Turkish citrus producers' future production plans. Turkey is focusing on projects regarding development of new earlier maturing mandarin varieties and is looking to export those varieties, especially Miyaze and Okitsu. Those varieties are able to be harvested one month earlier than other varieties. It is believed that this trend will extend Turkey's mandarin export season.

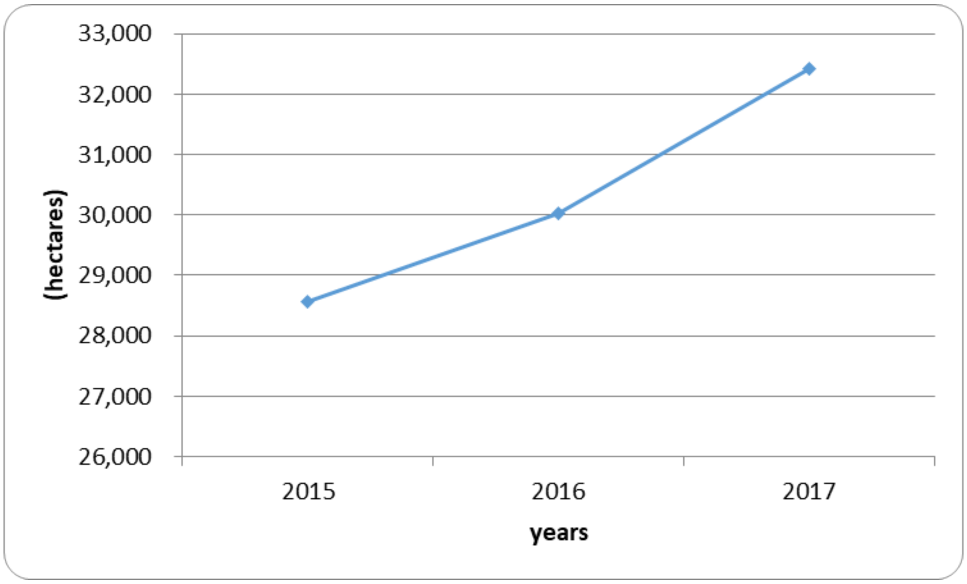
Production, Supply and Distribution Statistics:
Table 2: PSD Tangerines/Mandarins

Tangerines/Mandarins, Fresh	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	41740	41740	41750	41750	0	45760
Area Harvested	39450	39450	40000	40000	0	43000
Bearing Trees	10900	10900	11300	11300	0	13000
Non-Bearing Trees	2500	2500	2700	2700	0	3000
Total No. Of Trees	13400	13400	14000	14000	0	16000
Production	1300	1300	1310	1310	0	1179
Imports	25	25	26	26	0	26
Total Supply	1325	1325	1336	1336	0	1205
Exports	710	710	740	762	0	838
Fresh Dom. Consumption	614	614	595	573	0	366
For Processing	1	1	1	1	0	1
Total Distribution	1325	1325	1336	1336	0	1205
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Lemons, Fresh

Production:
In MY 2018/19, lemon yield is forecast to increase **15 percent** from the previous season due to favorable weather conditions. In MY 2017/18, lemon production reached 825,000 MT, which is 10 percent higher than the previous season. The yield was high due to better than expected weather conditions. Despite the high yield, lemon prices are not expected to decrease due to high processing and packaging costs including fuel prices and difficult storage conditions. Since lemon prices have been increasing for the last few years in Turkey, producers have expanded their lemon orchards. Orchards have been increasing as shown below.

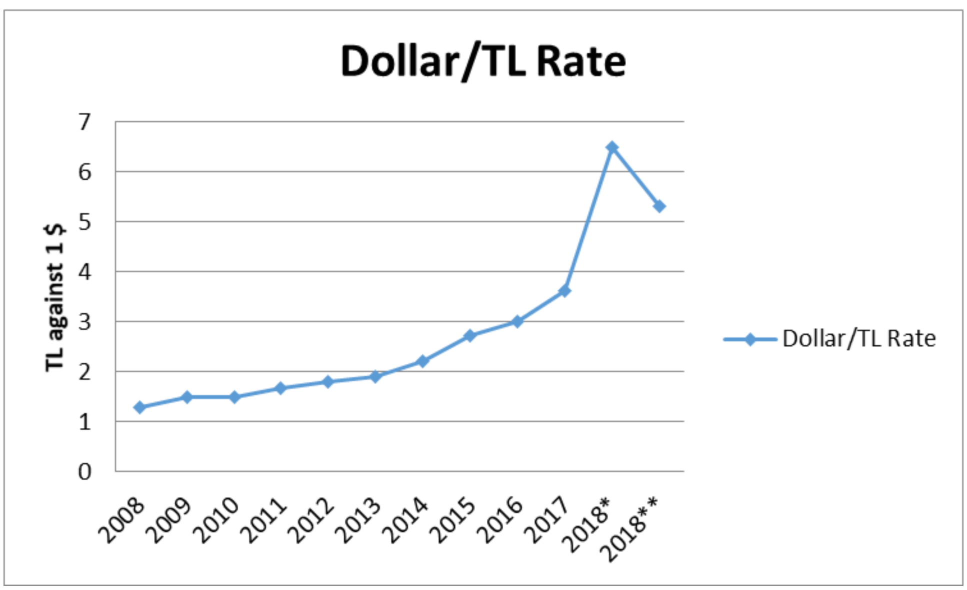
Figure 8: Turkish Lemon Orchards Area, (hectares), 2015-2017



Source: TurkSTAT, 2018

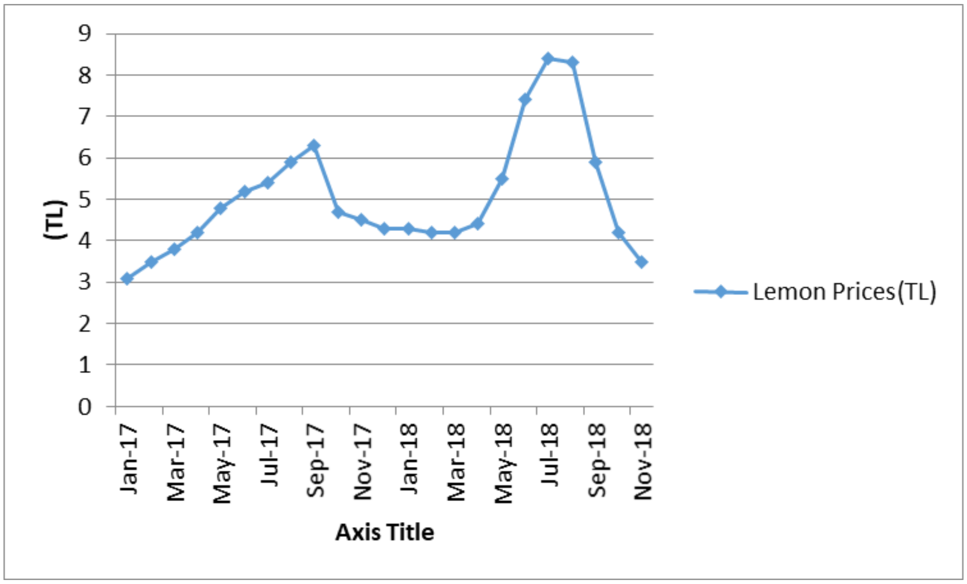
Consumption:
In MY 2018/19, post forecasts domestic lemon consumption at 260,000 MT, which is similar to MY 2017/18 due to the continued high market prices. The main factors that lead to high lemon prices are packaging, transportation and various input costs which are impacted by fluctuating exchange rates.

Figure 9: Turkish Lira fluctuation against dollar



Source: Turkish Central Bank, 2018. *rate as of September 5, 2018, ** rate as of December, 2018.

Figure 10: Turkish Markets Lemon Prices (TL/kg)



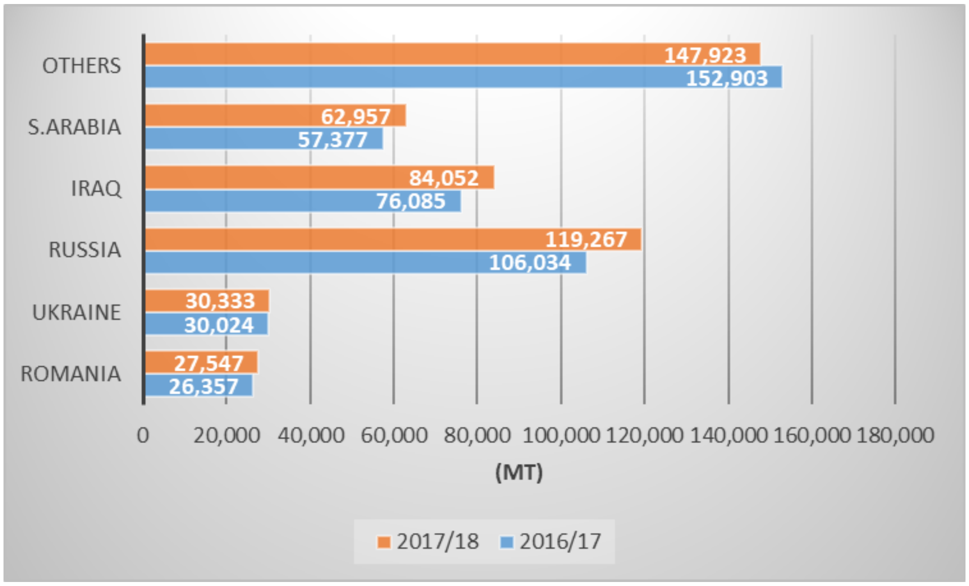
Source: TurkSTAT, 2018. **(**With exchange rate 5.2TL to $1 USD as of December 2018)

Trade:

In MY 2018/19, lemon exports are expected to increase 23 percent to 641,000 MT. In MY 2017/18, Turkey exported 520,000 MT of lemons worth $293 million compared to 495,000 MT and $305 million the previous year. While lemon export quantities have increased, the dollar value has decreased. According to Turkish exporters, decreasing revenue is due to low export prices of lemons exported to Iraq. Russia remained the biggest export market for Turkish lemons in MY 2017/18 with 119,000 MT worth $82 million.

According to Turkish exporters, lemon demand has been decreasing due to high yields in Spain and Argentina. They believe that low prices from Argentina have started to impact the Russian market and limited Turkey's exports there. At the same time, demand in the domestic market has also stagnated due to the high market prices.

Figure 11: Turkey's Lemon Exports by Top Destination Countries, Comparison MY 2016/17 with MY 2017/18 (MT)



Source: Mediterranean Exporters Association, 2018

Production, Supply and Distribution Statistics:
Table 3: PSD Lemons/Lime, Fresh

Lemons/Limes, Fresh	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	30000	30000	31000	31000	0	32500
Area Harvested	27000	27000	27500	27500	0	30000
Bearing Trees	7500	7500	7600	7600	0	8200
Non-Bearing Trees	1000	1000	1000	1000	0	1500
Total No. Of Trees	8500	8500	8600	8600	0	9700
Production	750	750	675	825	0	948
Imports	4	4	3	3	0	3
Total Supply	754	754	678	828	0	951
Exports	495	495	520	520	0	641
Fresh Dom. Consumption	219	219	158	258	0	260
For Processing	40	40	0	50	0	50
Total Distribution	754	754	678	828	0	951
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Grapefruit, Fresh

Production:
In MY 2018/19, production is forecast at 270,000 MT, which is similar to MY 2017/18 which was 267,000 MT. Producers are not seeking to increase production of grapefruit since domestic demand is very small. Although the yield has not decreased, orchards areas are estimated at 6,200 hectares and have decreased 2 percent in MY 2017/18 when compared with the previous season. Eighty percent of orchards are in the Adana region.

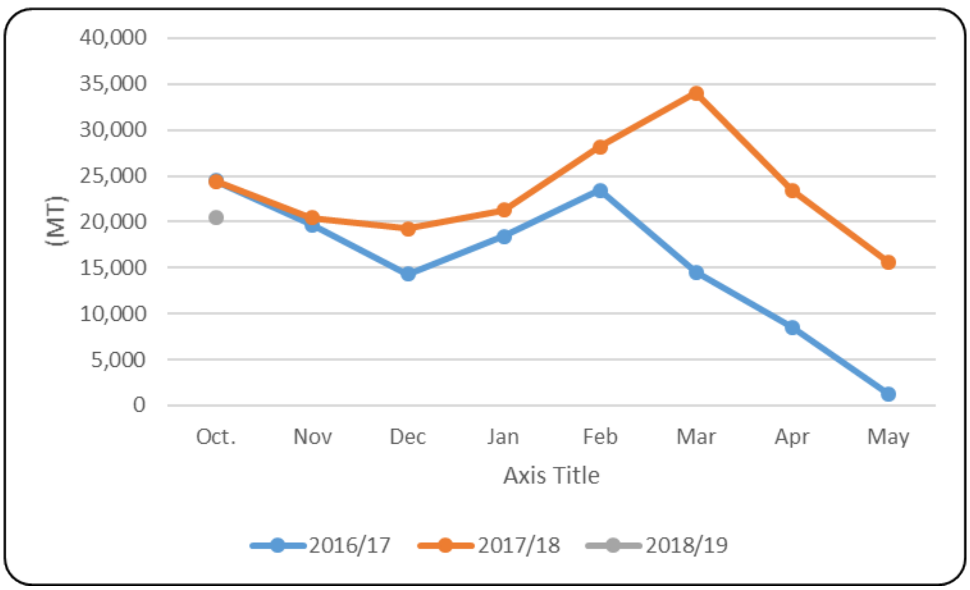
Consumption:

Grapefruit consumption has decreased 30 percent in MY 2017/18 to 80,000 MT while it was 131,000 MT in MY 2016/17. Grapefruit is not a preferred fruit in Turkey for fresh consumption and therefore consumption is expected to continue to decline to 71,000 MT in 2018/2019.

Trade:

In MY 2018/19, grapefruit exports are estimated to increase by seven percent to reach 200,000 MT. In MY 2017/18, grapefruit exports were 186,000 MT with a value of $68 million, which is 48 percent higher than MY 2016/17. Turkish grapefruit is mostly exported to European countries, Russia, and Ukraine. Additionally, it is exported to African countries and Japan since grapefruit is durable for transport to export markets. Although Turkish exporters believe that exports will increase in MY 2018/19, the beginning of the season started lower than the previous seasons. According to exporters, foreign market demands started low this year and didn't fully compensate for the high yield. But the expectation is that exports will increase for the rest of season.

Figure 12: Turkey's Total Grapefruit Exports, MY 2016/17/18 Comparison



Source: Mediterranean Exporters Association, 2018

Production, Supply and Distribution Statistics:

Table 4: PSD Grapefruit

Grapefruit, Fresh	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	6347	6347	6200	6200	0	6250
Area Harvested	5300	5300	5300	5300	0	5500
Bearing Trees	1395	1395	1390	1390	0	1200
Non-Bearing Trees	75	75	100	100	0	60
Total No. Of Trees	1470	1470	1490	1490	0	1260
Production	253	253	265	265	0	270
Imports	3	3	2	2	0	2
Total Supply	256	256	267	267	0	272
Exports	125	125	190	186	0	200
Fresh Dom. Consumption	131	131	77	80	0	71
For Processing	0	0	0	1	0	1
Total Distribution	256	256	267	267	0	272
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Orange Juice

Production:
In MY 2018/19, orange juice production is forecast at 9,500 MT, utilizing five percent of total orange production. Orange is the still the least preferred juice by Turkish consumers, who love their peach, apricot, sour cherry, and pomegranate juices. Ninety-five percent of total fruit juice is domestically consumed and the rest is exported. However, 65 percent of total concentrated fruit juice is exported.

Trade:
Orange juice exports are forecast at 9,150 MT for MY 2018/19, which is six percent higher than MY 2017/18. Turkey's total orange juice exports are mainly to the United States and European countries. Imports are mainly from Germany, Spain, and Brazil. Post estimates that imports of orange juice will be slightly higher since the northern region of Cyprus is increasing its exports to Turkey. Brazil is the main source country for Turkey with regard to frozen orange juice.

Production, Supply and Distribution Statistics:
Table 5: PSD Orange Juice

Orange Juice	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Deliv. To Processors	90000	90000	95000	95000	0	95000
Beginning Stocks	150	150	150	150	0	150
Production	8550	8550	9000	9000	0	9500
Imports	3700	3700	3900	3900	0	4000
Total Supply	12400	12400	13050	13050	0	13650
Exports	8000	8000	8600	8600	0	9150
Domestic Consumption	4250	4250	4300	4300	0	4350
Ending Stocks	150	150	150	150	0	150
Total Distribution	12400	12400	13050	13050	0	13650
(MT)						

Citrus Production Support Policies;

For farmers who are registered in the 'Farmer Registration system' by the Turkish Ministry of Agriculture;

- 100 TL/ hectare is given as fuel support,
- 40 TL/ hectare is given as fertilizer support,
- 40 TL/per soil analysis for each 5 hectares. Soil analyses must be done by an authorized laboratory.
- 1000 TL/ hectare for standard saplings, 4000 TL/hectare for certified saplings,

NGOs (Non-governmental organizations) are also supporting Turkish Universities' projects such as 'improving new mandarin varieties to export' and 'improving disease-tolerant mandarin varieties by crossbreeding and mutation techniques.'