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## **Turkey**

### **Citrus Annual**

## **Turkey Citrus Annual Report 2017**

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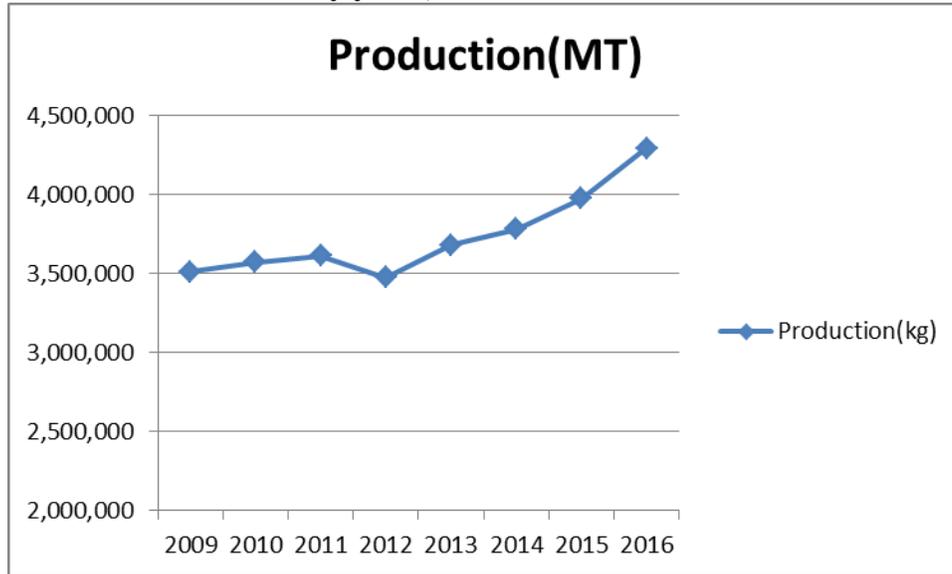
**Report Highlights:**

Turkey produced 4.3 million MT of citrus, including orange, lemon, mandarin, and grapefruit in MY 2016/17. Turkey is the eighth ranked country in the world for citrus production with a 2.7 percent share. Citrus production in Turkey is 63 percent above the amount that is consumed domestically. Turkish producers have started to search for new varieties from the other leading citrus producing countries in order to improve domestic production and capture new export markets. Approximately half of the total citrus production is exported, with an export value of \$880 million. Top export destinations are Russia and Iraq, followed by Ukraine. Turkish citrus exporters would prefer more diversified export markets to avoid complications from any political tensions.

### Executive Summary:

As in MY 2016/17, overall citrus production was good due to favorable weather conditions. The total production of citrus was 4.3 MMT in MY 2016/17, which is 10 percent higher than MY 2015/16. The sector expects that the yield in MY 2017/18 will also be high.

**Figure 1: Total Citrus Production by years, 2009-2016**



Source: TurkSTAT, 2017

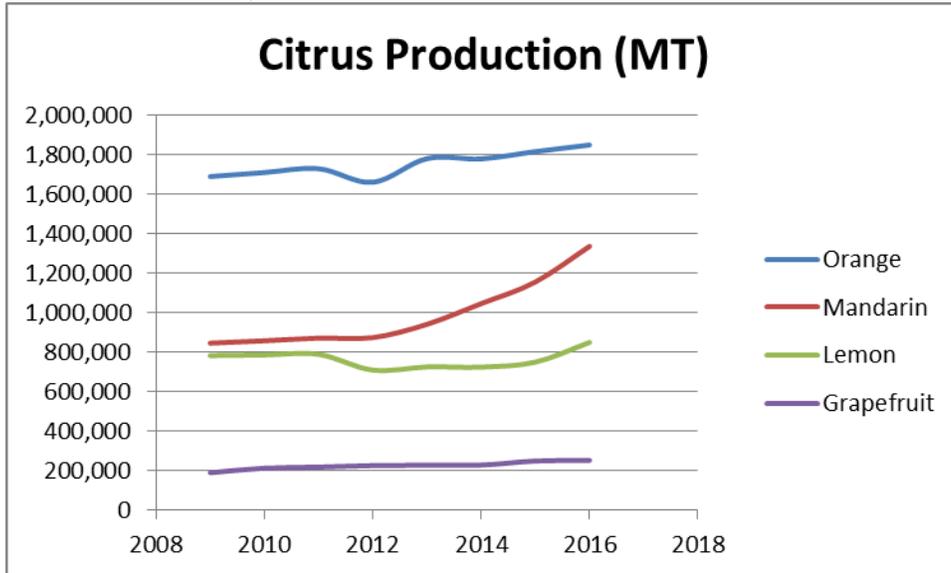
Within Turkey, 26.6 percent of total citrus is produced in Adana, 24.5 percent is produced in Mersin and 21.1 percent is produced in Hatay region. In Adana region alone, 60 percent of all mandarin, 10 percent of orange, 5 percent of lemon and grapefruit are produced. Producers believe that Turkey's importance in citrus is declining because they don't feel the government is subsidizing them as actively as their competitors are being supported and that the Turkish government has unpredictable agricultural policies such as unreliable subsidies, and low selling prices which are lower than production costs etc.

Turkey's fruit pressing for juice is not as developed as other markets and it struggles to compete with other countries on citrus production because of the production costs. Also citrus consumption is comparatively low and most citrus is consumed as fresh fruit in Turkey.

Citrus is one of the most important products for the Mediterranean region in Turkey and Turkish producers believe that it should be subsidized. Producers ask the Ministry of Agriculture for more subsidies since production is much more difficult than other agricultural products, especially when looking at the harvesting and irrigations procedures. They believe that citrus production is more costly. Producers have requested that the government subsidize some precautions producers have taken during the winter to prevent frost damage, such as running irrigation systems, fans to break ice, and other measures taken for preventing yield losses. Establishing fans in orchards is very expensive and for this reason, small-size farmers have had difficulties continuing to operate. The majority of production costs consist of fuel, pest control, and pruning. Prices are often so low though that some citrus is not even worth picking and farmers occasionally cut down their citrus

trees, especially orange and grapefruit trees.

**Figure 2: Citrus Production by items over time**



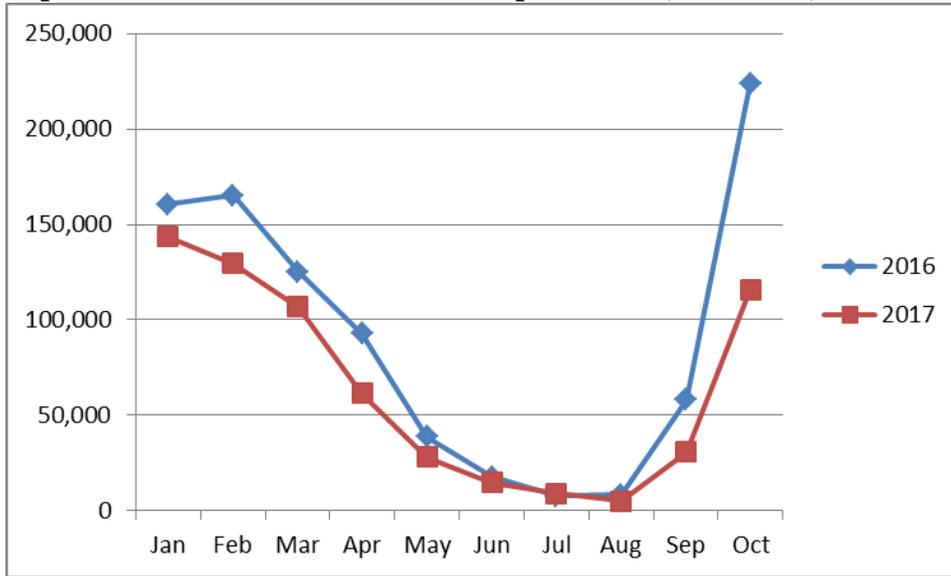
Source: TurkSTAT, 2017

Producers would like to establish a cooperative system independently from the Ministry of Agriculture, to promote and market their products. Although producer's prices are very low to sell products to wholesale markets, the prices at market chains are very high. Producers blame retail chains' markup to citrus as the main reason behind high citrus costs in the stores. Subsidies for farmers in Turkey are usually announced annually, while other countries are announced at a multiyear basis. Citrus producers benefit from Turkey's general ag subsidies such as for saplings, input subsidies, and then also export subsidies on citrus. Producers think that yearly announcements of subsidies are not useful to help producers plan their production for future years. Especially on export-related support for example, some early crops were already exported without getting subsidies from the government. Exporters are now waiting on payments from the government for citrus which were already sent to export.

Regarding Turkish citrus trade, grapefruit export stagnated in quantity and value in 2016/2017, while mandarin and lemon exports have increased. The main export markets of Turkey are Russia, Iraq, and European countries. Citrus exports were \$880 million of total \$2 billion fresh fruit-vegetable export last year and 16 percent of those were mandarin, 12.5 percent of those were lemon and 8.5 percent of those were orange.

The other issue that producers are concerned about is citrus production statistics. They are widely considered unreliable by producers and make it difficult to plan production and make business decisions for the coming years.

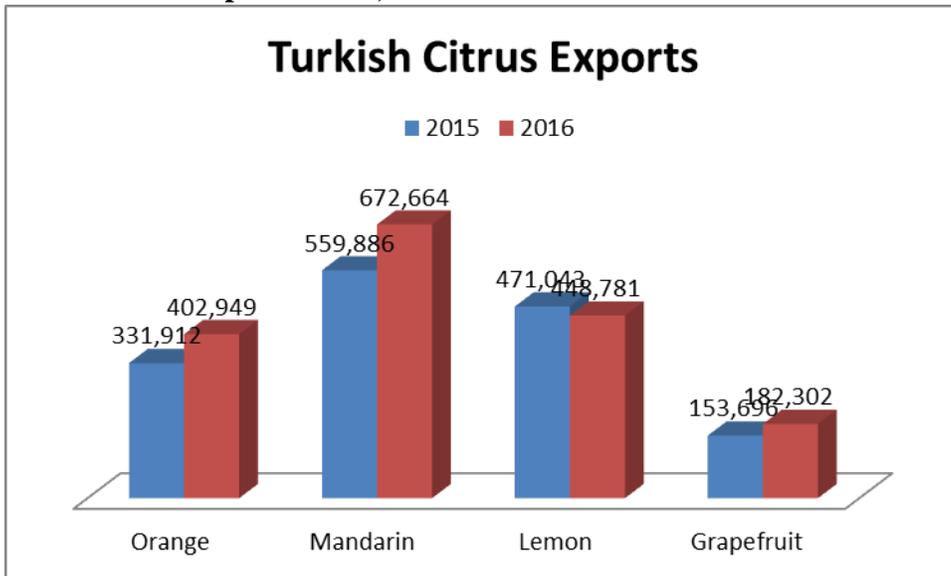
**Figure 3: Comparison of Turkish Total Citrus Export in MT, Jan.-Oct., 2016 and 2017**



Source: Mediterranean Exporters Association, 2017

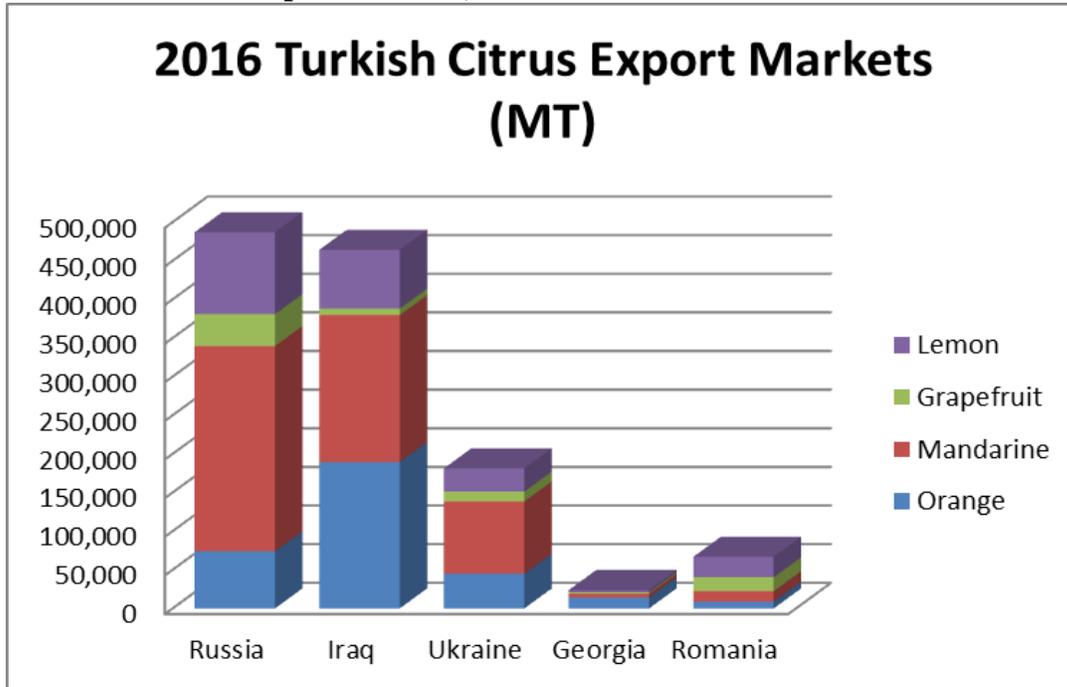
Additionally, the demand in Turkey is not as high as producer associations believe that domestic consumption should be. When compared with consumption in the biggest citrus producing countries, Turkish consumption is low. For this reason, some municipalities in the Mediterranean region have started projects in primary schools to promote citrus consumption habits.

**Figure 4: Turkish Citrus Export in MT, 2015 versus 2016**



Source: TurkSTAT, 2017.

**Figure 5: Turkish Citrus Export Markets, 2016 (MT)**



Source: TurkSTAT, 2017.

**Harmonized System (HS) Codes:**

- Oranges 080510
- Tangerines/Mandarins 080520
- 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
- MinFAL        Turkish Ministry of Food, Agriculture and Livestock
- MY             Marketing year
- PS&D          Production, Supply and Demand
- TRY or TL     Turkish Lira
- TurkSTAT     Turkish Statistical Institute
- USD            U.S. Dollar

**Commodities:**

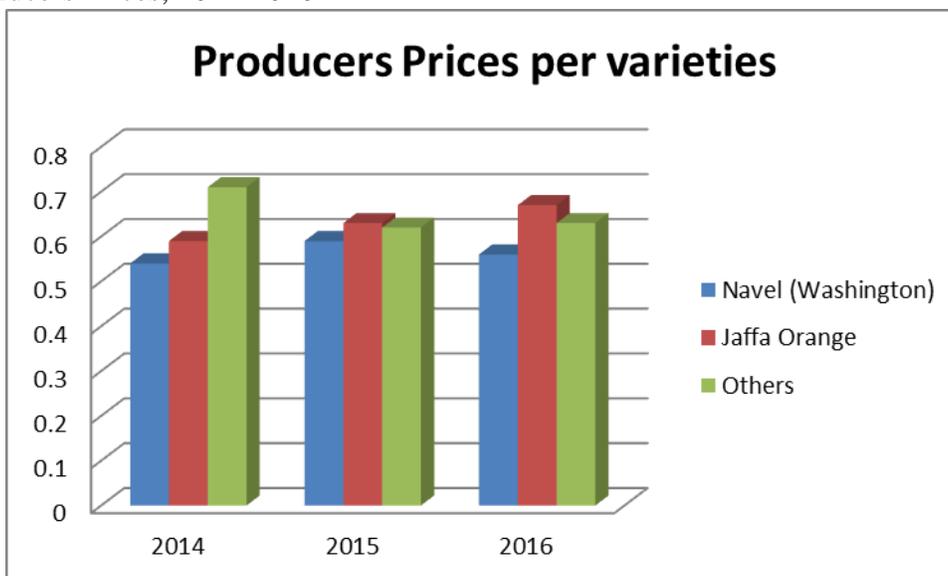
Oranges, Fresh

**Production:**

In MY 2017/18, orange production is forecast to increase 3 percent from the previous year due to favorable and stable weather conditions. MY 2017/18 production is estimated at 1.9 million MT. In MY 2016/17, orange production was at 1.85 million MT.

There were not any major orange crop problems in the regions, however producers did deal with citrus stubborn disease in oranges. The disease causes quality problems and losses. Producer profit margins have been decreasing for years because of high input costs and low producer prices.

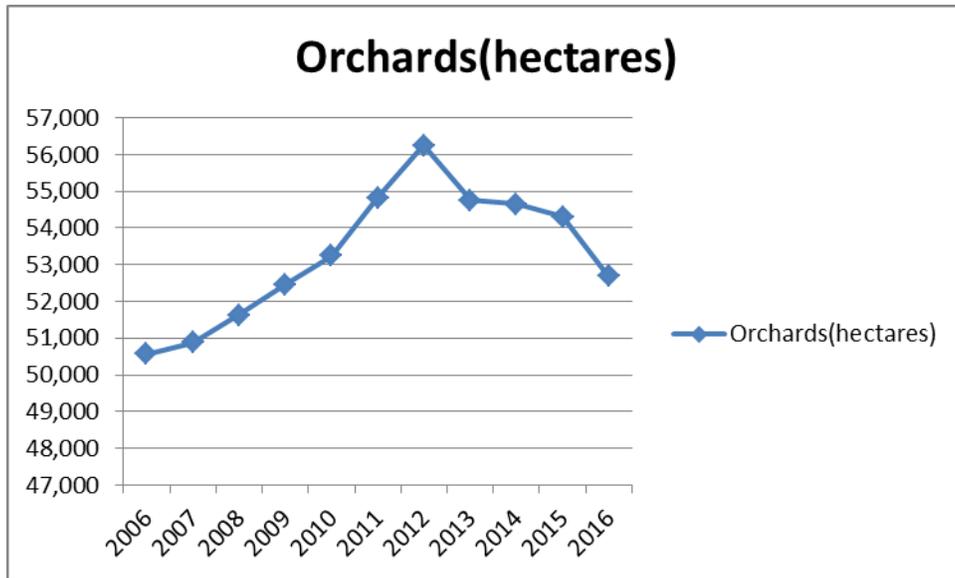
**Figure 6:** Producers Prices, 2014-2016



**Source:** TUIK, 2017. (with exchange rate 3.83TL to \$1 USD as of December 2017)

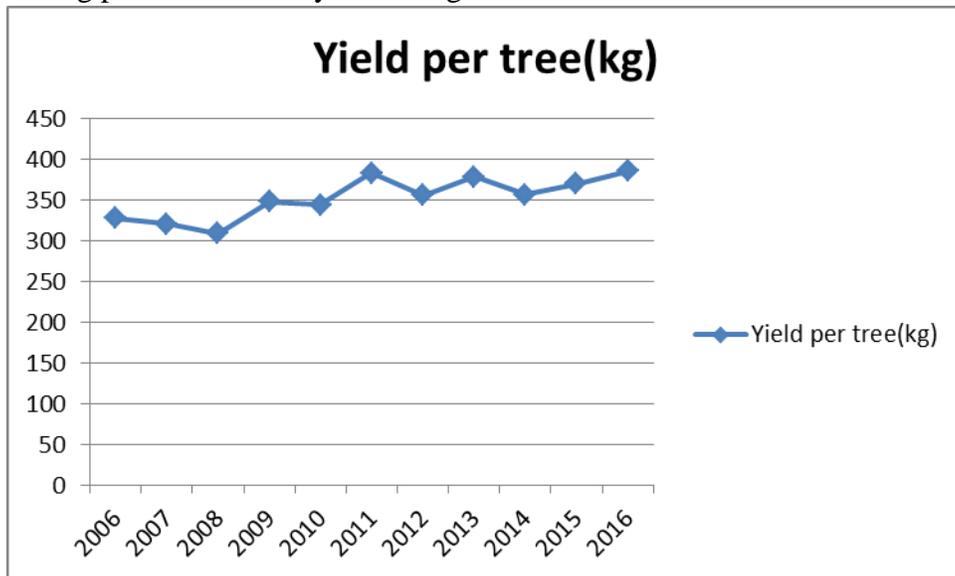
Washington Navel orange is the most commonly produced variety in Turkey and its harvest period is limited. Although Turkish producers are happy with its consumption rate in Turkey, they believe that they need to produce more orange varieties to export so that they can produce within the entire season. Sixty percent of the total orange crop is harvested usually from late November to January. Producers aim to extend this period with new varieties from September to May, which is active period within global trade.

**Figure 6:** Orange Orchard Area in Turkey by years (hectare)



Source: MinFAL, 2017

**Figure 7:** Yield in kg per tree in Turkey for Oranges



Source: MinFAL, 2017

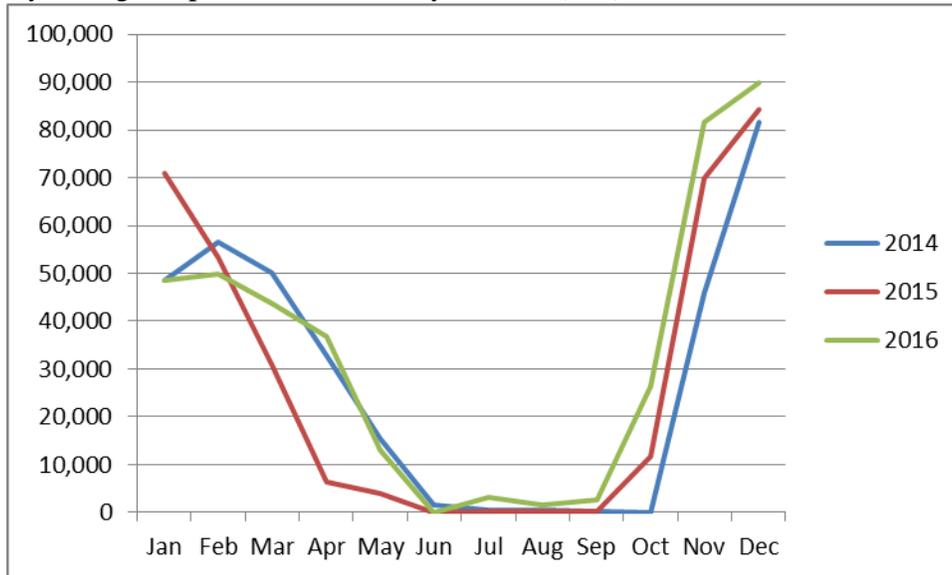
**Consumption:**

Per capita annual consumption is estimated at 20 kg for oranges in MY 2017/18 which is very small increase when compared with MY 2016/17. There is still a wide margin between farm and final prices and producers are having a hard time selling their products. Total consumption in MY 2017/18 is estimated 1.45 million MT. Most orange consumption is fresh in Turkey. Producers state that orange quality is quite good and should not be sent to the juicing industry.

**Trade:**

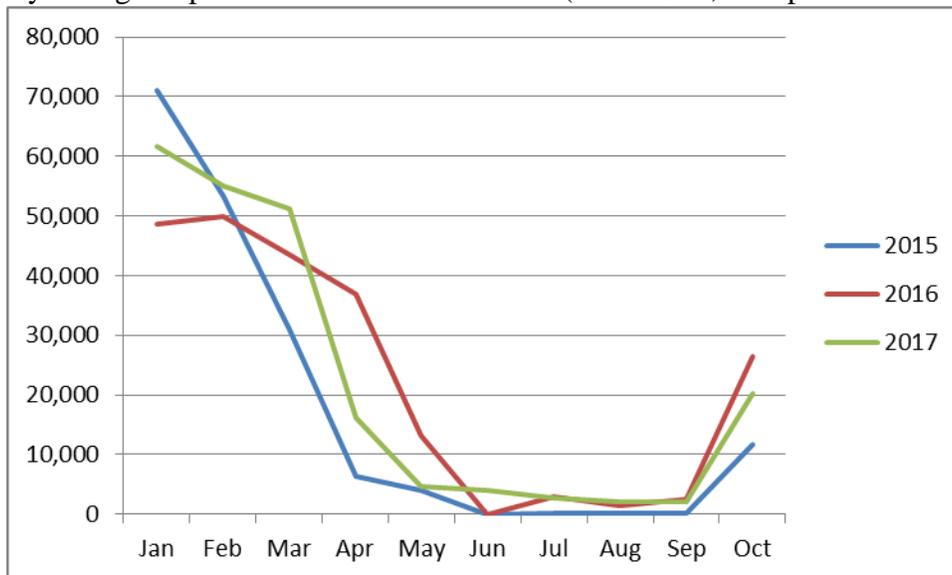
Orange exports in MY 2017/2018 are expected to be slightly higher than the previous year if the current export situation with Russia remains stable. In MY 2016/17, Turkey exported 393,000 MT of oranges, which is 9 percent higher than the previous marketing year, because of the demand in the Russian market.

**Figure 8:** Turkey Orange Exports, 2014-2016 by months (MT)



Source: TurkSTAT, 2017

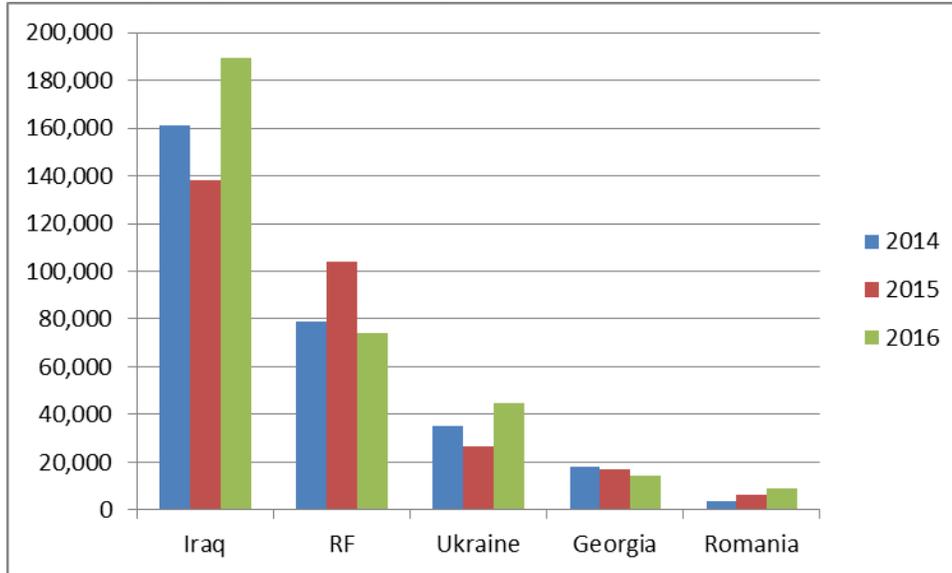
**Figure 9:** Turkey Orange Exports to All Countries in MT (Jan to Oct., Comparison 2015-16-17)



Source: TurkSTAT, 2017

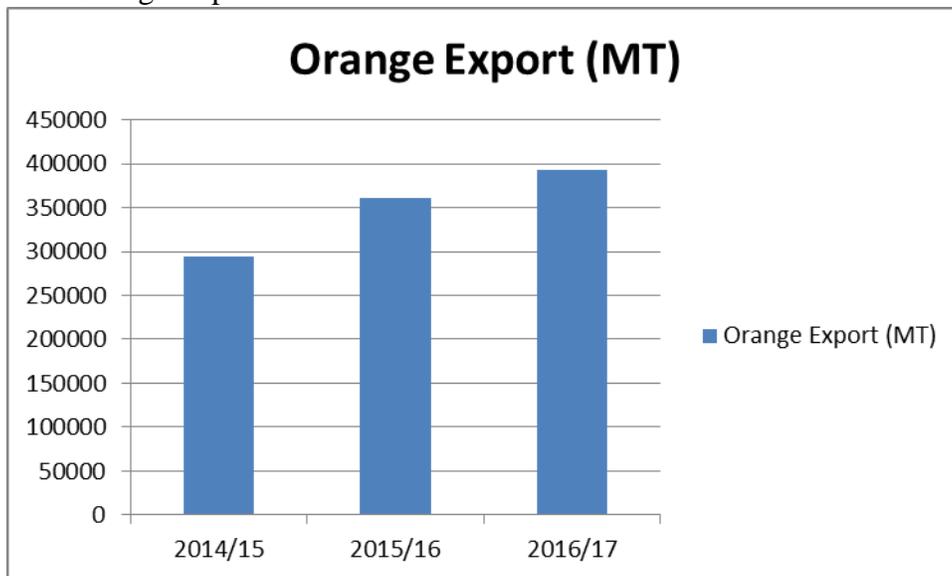
Most of Turkey’s orange exports are to Iraq. Turkish exporters consider Egypt a big competitor for Turkey because of its good orange yield. Turkish exporters have struggled to compete with Egypt in Egypt’s main export markets.

**Figure 10:** Turkish Orange Exports in MT to Key Countries



Source: TurkSTAT, 2017.

**Figure 11:** Turkish Orange Exports



Source: TurkSTAT, 2017.

**Production, Supply and Demand Data Statistics:  
Table 1: PSD Oranges, Fresh**

Oranges, Fresh Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Turkey</b>						
Area Planted	54500	0	54550	54550	0	54000
Area Harvested	53200	0	53300	53300	0	52300
Bearing Trees	14055	0	13900	13900	0	13861
Non-Bearing Trees	802	0	900	900	0	710
Total No. Of Trees	14857	0	14800	14800	0	14571
Production	1800	0	1850	1850	0	1905
Imports	37	0	55	40	0	48
Total Supply	1837	0	1905	1890	0	1953
Exports	371	0	395	393	0	405
Fresh Dom. Consumption	1366	0	1410	1397	0	1450
For Processing	100	0	100	100	0	98
Total Distribution	1837	0	1905	1890	0	1953
(HECTARES) ,(1000 TREES) ,(1000 MT)						

**Commodities:**

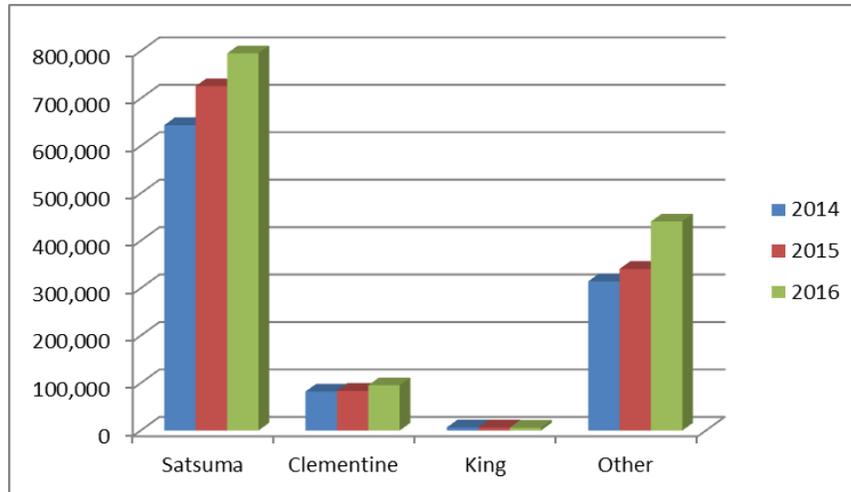
Tangerines/Mandarins, Fresh

**Production:**

In MY 2017/18, mandarin production is estimated to drop because of unfavorable weather conditions last March, which was the blooming period for mandarins. Yield has fallen by half.

In MY 2016/17, tangerine/mandarin production was 1.3 million MT, which is 25 percent higher than the previous year. According to producers, mandarin prices at the start of MY 2017/18 are high because of the poor yield.

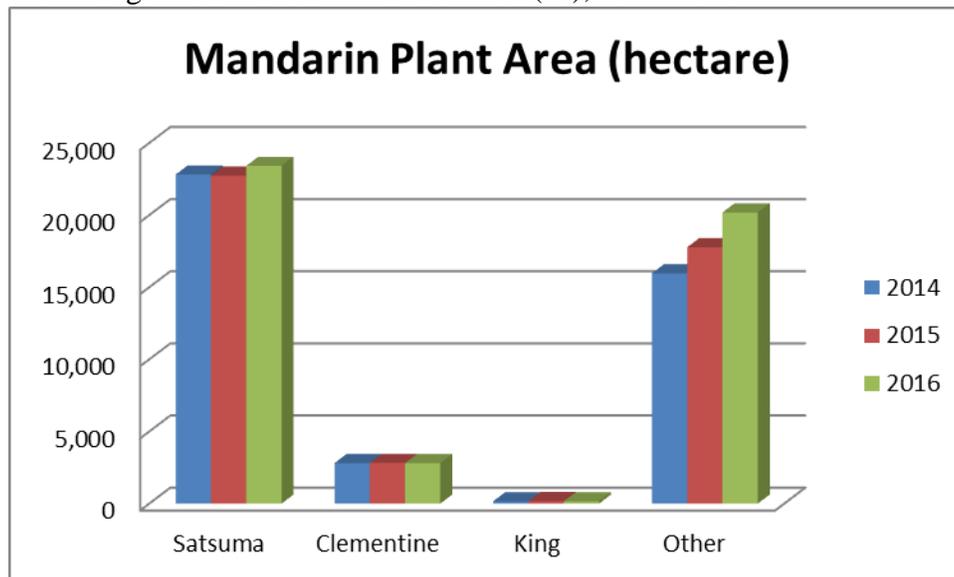
**Figure 12:** Turkish Tangerines/Mandarin Production in MT, 2014-2016



Source: Aegean Citrus Producers Association, 2017.

As seen in Figure 11 and Figure 12 , producers have been tending towards new mandarin varieties ('others' in the figures) since they believe that export of new varieties (Nova, Murkott, Fremont) are more profitable.

**Figure 13:** Turkish Tangerines/Mandarin Planted Area (ha), 2014-2016



Source: Aegean Citrus Producers Association, 2017.

**Consumption:**

In MY 2017/18, Turkey's domestic consumption of mandarins is forecast at 634,000 MT, while it was 638,000 MT in MY 2016/17. Turkish customers prefer the Satsuma variety because of its taste. However, consumption does not increase as expected since retail market prices do not reflect low farm gate prices. Retail market prices are five times the price the farmer receives. Per capita annual consumption of tangerines/mandarins is estimated at 6.5 kg in MY 2017/18.

**Trade:**

Mandarin exports in MY 2017/2018 are expected to be slightly higher than the previous year if the current export situation with Russia remains stable. Mandarins are the number one exported citrus product from Turkey and are a third of all the exported products within the fresh fruits group. Turkey exported 681,000 MT of mandarins worth \$325 million in MY 2016/17.

Mersin and Hatay provinces are the most exporting regions of mandarin in Turkey with 42,000 MT in MY 2016/17. The following chart shows the main mandarin markets of Turkey.

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

Countries	Jan.- April 2016		Jan.-April 2017		Increase/ Decrease (%)		2017 Share (%) of total exports	
	Quantity (MT)	Value (\$)	Quantity (MT)	Value (\$)	Quantity (MT)	Value (\$)	Quantity (MT)	Value (\$)
Russia*	0	0	58,388	31,683,525	100	100	40	47
Iraq	49,265	21,577,156	40,125	13,794,902	-19	-36	27	20
Ukraine	17,784	9,149,586	13,824	5,854,057	-22	-36	9	9
S,Arabi a	13,664	6,688,518	10,190	4,063,310	-25	-39	7	6
Romani a	4,179	2,118,946	3,857	1,928,815	-8	-9	3	3

Source: Mediterranean Exporters Association, 2017.

\* Due to ban by Russia in 2016

According to Aegean Exporter Association, the reason for lower than expected mandarin export in MY 2016/17 is the low yield and it will affect exports from that region in MY 2017/18, but total figures will remain stable if yields in other regions, such as Adana, are normal.

**Production, Supply and Demand Data Statistics:**

**Table 2: PSD Tangerines/Mandarins**

Tangerines/Mandarins, Fresh Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Planted	41745	0	41740	41740	0	41750
Area Harvested	37795	0	39450	39450	0	40000
Bearing Trees	11306	0	10900	10900	0	11300
Non-Bearing Trees	2250	0	2500	2500	0	2700
Total No. Of Trees	13556	0	13400	13400	0	14000
Production	1040	0	1213	1300	0	1310
Imports	23	0	25	20	0	25
Total Supply	1063	0	1238	1320	0	1335
Exports	575	0	705	681	0	700
Fresh Dom. Consumption	487	0	532	638	0	634
For Processing	1	0	1	1	0	1
Total Distribution	1063	0	1238	1320	0	1335

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

## Commodities:

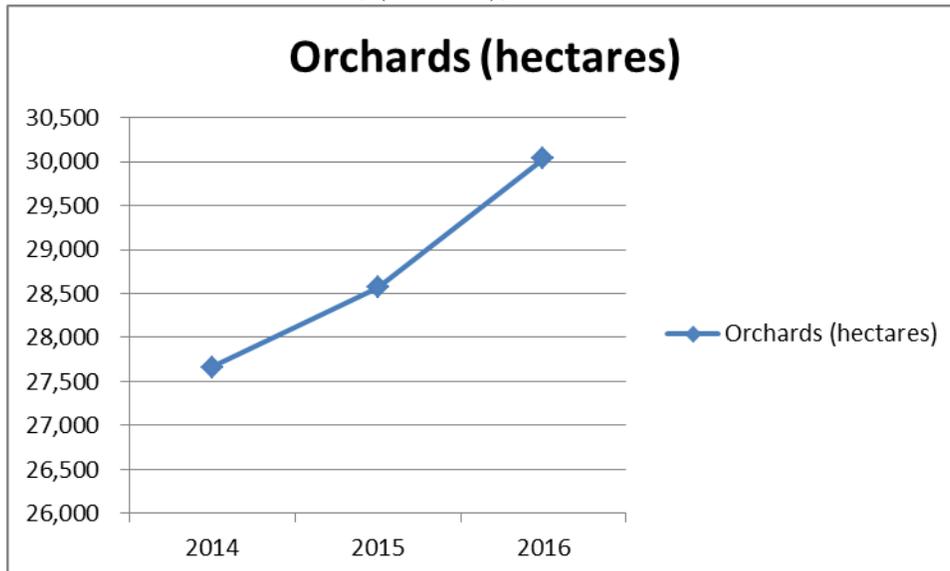
Lemons, Fresh

## Production:

According to lemon producers, production in MY 2017/18 will be 675,000 MT, which is 10 percent lower than the previous season, as freezing weather conditions affected lemon production. Excessive cold weather at the end of harvest time and hot summer conditions in 2017 negatively affected lemon trees. Enterdonat and meyer varieties are the most impacted. For this reason, it is anticipated that the lemon prices at markets will be high in MY 2017/18.

In MY 2016/17, lemon production was 750,000 MT, which was higher than the earlier post estimate. Since the lemon prices have been getting higher for the last few years in Turkey, producers keep their lemon orchards and when planting new ones they try to fit in as many trees as possible. According to citrus associations, planting trees at narrow intervals harms yields though, which in the end may end up with market prices which could be automatically higher.

**Figure 14:** Turkish Lemon Orchards Area, (hectares), 2014-2017



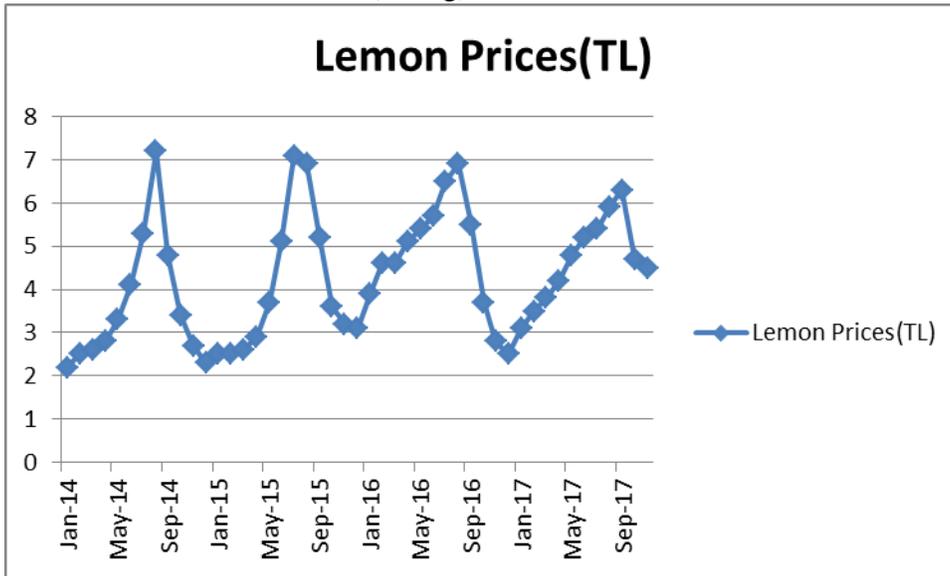
Source: TurkSTAT, 2017

## Consumption:

In MY 2017/18, post forecasts domestic lemon consumption will be lower than MY 2016/17 due to the high market prices. Producers believe that MinFAL should take measures to regulate lemon prices, such as by improving production quality and storage conditions.

The other factor impacting lemon prices is a new required `packaging` regulation which is obligatory for lemons destined for the Turkish domestic market. This is part of the new standardization/quality control/modernization regulations by the government. Producers think that pre-packaged lemons are not be necessary because customers prefer to buy unpackaged lemons at the markets, but so far they haven't been able to influence this policy.

**Figure 15: Turkish Markets Lemon Prices (TL/kg)**

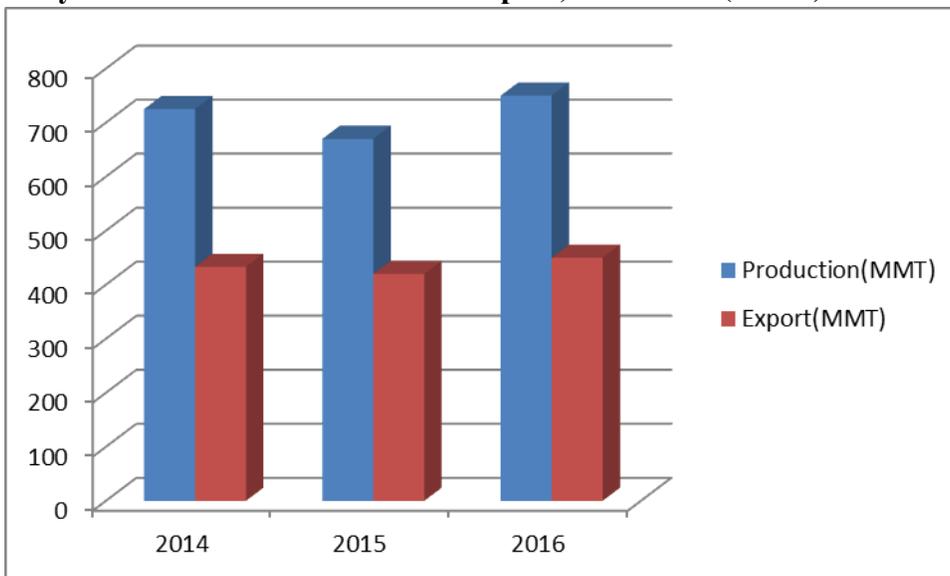


Source: TurkSTAT, 2017. (With exchange rate 3.83TL to \$1 USD as of December 2017)

**Trade:**

Lemon is the second most exported citrus of Turkey. In MY 2017/18, lemon exports are expected to increase 6 percent compared to the previous year. In MY 2016/2017, Turkey exported 450,000 MT of lemon worth \$305 million. Turkey exported 400,000 MT worth \$246 million of lemons from January to November 2017, which is 5 percent higher than the same period of the previous year. Russia remained the biggest export market for Turkish lemons in 2016 with 106,000 MT worth \$77 million. Lemons were not impacted by any of Russia’s trade bans on Turkey.

**Figure 16: Turkey’s Lemon Production versus Export, 2014-2016 (MMT)**



Source: Mediterranean Exporters Association, 2016

## Production, Supply and Demand Data Statistics:

**Table 3: PSD Lemons/Limes**

Lemons/Limes, Fresh Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	27000	0	28500	30000	0	31000
Area Harvested	24000	0	25000	27000	0	27500
Bearing Trees	6613	0	7000	7500	0	7600
Non-Bearing Trees	1000	0	1000	1000	0	1000
Total No. Of Trees	7613	0	8000	8500	0	8600
Production	670	0	747	750	0	675
Imports	4	0	4	3	0	4
Total Supply	674	0	751	753	0	679
Exports	434	0	494	450	0	480
Fresh Dom. Consumption	200	0	217	263	0	199
For Processing	40	0	40	40	0	0
Total Distribution	674	0	751	753	0	679
(HECTARES) ,(1000 TREES) ,(1000 MT)						

### Commodities:

Grapefruit, Fresh

### Production:

In MY 2017/2018, production is forecast to increase an estimated six percent more than MY 2016/17. The production for MY 2016/2017 was 253,000 MT.

**Chart 2: Grapefruit Yield and Production with high producing provinces, 2015-2016**

		Adana	Mersin	Muğla		
Bearing Trees	2015	1,045,489	158,364	30,750		
	2016	1,021,044	148,741	32,160		
Orchards (hectares)	2015	4,768	720	129		
	2016	4,512	807	135		
Yield per tree (kg)	2015	181	169	118		
	2016	191	169	129		
Production (MT)	2015	189,450	26,830	3,630		
	2016	195,066	25,131	4,139		

Source: TurkSTAT, 2017

Adana province in the Mediterranean region of Turkey produces three out of four grapefruit in Turkey. The most produced grapefruit varieties are Star Ruby and Rio Red. The total grapefruit orchard area is estimated at 6,100 hectares. According to Turkish producers, grapefruit is produced mostly in hot climate and Turkey is not considered suitable to produce grapefruit efficiently. Grapefruit consumption is very low in the domestic market since its sour flavor is not preferred by Turkish consumers. For this reason, most grapefruit production is exported. Domestic use of grapefruit was 64,000 MT during MY 2016/17 and it is estimated that consumption will be lower in MY 2017/18 as a result of low consumer demand.

#### Trade:

In MY 2017/18 grapefruit export is estimated to increase by 8 percent to reach 207,000 MT. In MY 2016/2017, grapefruit exports were unchanged compared with the previous year and it was 190,000 MT with a value of \$87 million. In MY 2016/17, 42,000 MT went to Russia, 19,000 MT went to Poland and 18,000 MT went to Romania. Exporters were happy to export grapefruit to Japan for this year; even though it was very little quantity.

**Chart 3: Grapefruit Exports to Top Five Countries, Jan-Oct 2016/2017**

Country	Jan.-Nov. 2016(MT)		Jan.-Nov. 2017(MT)		Change (%)		2017-Share (%)	
	Quantity (thousand MT)	Value (\$million)	Quantity (thousand MT)	Value (\$)	Quantity (kg)	Value (\$)	Quantity (kg)	Value(\$)
Russia	38.3	18.9	29.0	15.0	-24	-21	26	25
Poland	18.3	8.0	11.3	6.9	-38	-14	10	12
Romania	16.8	7.0	10.1	5.6	-40	-20	9	9
Netherlands	10.0	5.0	6.9	3.6	-31	-29	6	6
Ukraine	12.0	5.9	7.6	3.4	-37	-42	7	6

Source: Mediterranean Exporters Association, 2017

**Table 4: PSD Grapefruit**

Grapefruit, Fresh Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Planted	6300	6300	6347	6347	0	6200
Area Harvested	5300	5300	5300	5300	0	5300
Bearing Trees	1300	1300	1395	1395	0	1390
Non-Bearing Trees	200	200	75	75	0	100
Total No. Of Trees	1500	1500	1470	1470	0	1490
Production	250	250	253	253	0	268
Imports	2	2	2	2	0	2
Total Supply	252	252	255	255	0	270
Exports	190	190	126	190	0	207

<b>Fresh Dom. Consumption</b>	62	62	129	64	0	62
<b>For Processing</b>	0	0	0	1	0	1
<b>Total Distribution</b>	252	252	255	255	0	270
(HECTARES) ,(1000 TREES) ,(1000 MT)						

### Commodities:

Orange Juice

### Production:

Although Turkish juice sector aims to increase their production annually, the processed fruit amount to make juice is still around one million MT. The biggest amount is for apple juices with 458,000 MT (48 percent of the total amount) while the share of orange is 9.3 percent with 90,000 MT. The establishments producing fruit juice in Turkey is divided four categories; 100 percent fruit juice, fruit nectars, fruit beverages and aromatic beverages.

### Consumption:

Citrus consumed as juice is still quite low compared to some other citrus-growing countries; however the sector hopes that it would be increasing in proportion with the increase of income per capita in Turkey. Orange is the still the least preferred juice by Turkish consumers, who love their peach, apricot, sour cherry, and pomegranate juices. Juice/nectar consumption per capita was 11 liters annually in 2016. Again this year, nectars are still the most highly consumed beverages in Turkey.

### Trade:

Orange juice exports are forecast at 8,600 MT for MY 2017/18, seven percent higher than MY 2016/17. Turkish exporters has been trying to export fruit juice to the EU since they believe that the new technologies they use are more advanced than processing establishments in the EU.

Turkey's total orange juice exports are mainly to Iraq, Syria and some eastern Asian countries and imports are mainly from Germany, Spain, and Brazil.

Post estimates that imports of orange juice will remain the same. Brazil is the main source country for Turkey with regard to frozen orange juice.

**Table 5: PSD Orange Juice**

Orange Juice Market Begin Year	2015/2016		2016/2017		2017/2018	
	Oct 2015		Oct 2016		Oct 2017	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
<b>Deliv. To Processors</b>	80000	0	90000	90000	0	95000
<b>Beginning Stocks</b>	100	100	150	0	0	150
<b>Production</b>	8500	0	8550	8550	0	9000
<b>Imports</b>	3616	0	3700	3700	0	3900
<b>Total Supply</b>	12216	100	12400	12250	0	13050
<b>Exports</b>	7500	0	8000	8000	0	8600
<b>Domestic Consumption</b>	4566	0	4250	4250	0	4450
<b>Ending Stocks</b>	150	0	150	150	0	0
<b>Total Distribution</b>	12216	0	12400	12400	0	13050
(MT)						

