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Prepared By: Sinem Duyum

Approved By: Christine Mumma

Report Highlights:

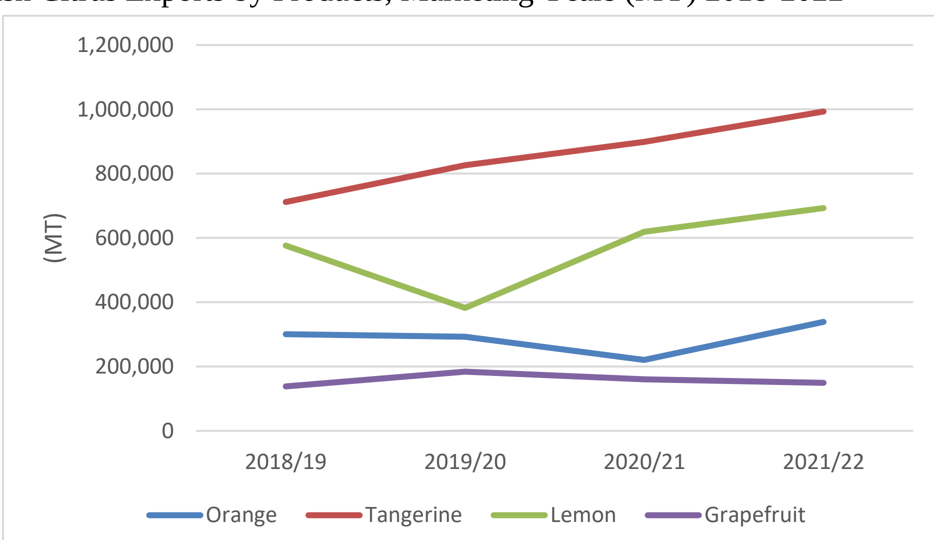
In MY 2022/23, all citrus production in Turkiye is expected to decrease due to freezing weather conditions in March 2022 at the beginning of the blossoming period. Retail prices are expected to increase for MY 2022/23 due to low yields and high farmgate prices as a result of increasing input costs for fertilizers, fuel, disinfestation, packaging and transportation. Later maturing varieties with thicker skin, are easier to transport longer distances and are often sold to export markets. MY 2022/23 citrus exports, except tangerines, will decrease in correlation with the lower yields and lower demand from the European Union due to the economic recession. However Turkish exporters believe that demand from Russia, Ukraine, and Middle Eastern countries will remain the same.

Highlights:
In MY 2022/23, all citrus production in Turkiye is expected to decrease due to freezing weather conditions in March 2022 at the beginning of blooming period which significantly affected orange production. Retail prices are expected to increase for MY 2022/23 due to low yields and high farmgate prices as a result of increasing input costs such as fertilizers, fuel, disinfestation, packaging and transportation. Early citrus varieties, which typically have thinner skin, are typically sold in the local market. Later varieties with thicker skin, are easier to transport longer distances and are often sold to export markets.

It is expected that in MY 2022/23 citrus exports, except tangerines, will decrease in correlation with the lower yields and lower demand from the European Union due to the economic recession. However Turkish exporters believe that demand from their other major markets in Russia, Ukraine, and the Middle East will remain the same. Especially, demand from Russia is expected to increase since Italy and Spain cannot export citrus to Russia due to sanctions. Although citrus exports have been increasing in quantity, the export revenue has been decreasing for years. Turkiye sells citrus at prices 50 percent cheaper than 10 years ago, even accounting for inflation. The major concerns of Turkish citrus exporters are the unstable markets in Russia and Ukraine due to the war and the impending recession in Europe. Oranges, lemons, and tangerines are among the list of products that the Ministry of Agriculture & Forestry (MinAF) may decide to restrict from export to stabilize the market during 2022.

There is limited investment and research into developing new citrus varieties. The Turkish citrus industry believes that The Government of Turkiye should do more to assist the citrus industry in adapting to the effects of climate change.

Figure 1. Turkish Citrus Exports by Products, Marketing Years (MY) 2018-2022



Source: Trade Data Monitor, LLC

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
TDM	Trade Data Monitor, LLC
MT	Metric ton (1,000 kg)
MMT	Million Metric Tons
GoT	The Government of Turkiye
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

Background
Citrus in Turkiye is grown mostly in the Mediterranean Region and Aegean Region as shown in Figure 2. According to the Turkish Statistical Institute (TurkSTAT), 166,167 hectares (ha) was planted as citrus in 2021, which is 5.2 percent higher than 2020 at 157,830 hectares (ha). This growth trend is not forecast to continue in 2022 because of the increase of non-bearing trees due to unfavorable weather conditions during the blooming period in March 2022. According to farmers, intensive efforts are required to maintain the trees through fertilization, disinfestation, and irrigation; however, producers are struggling to cope with increasing input costs. Higher energy, fuel, and electricity costs, as well as labor costs, have become the main issues among citrus and orange juice producers. In recent years, producers have become concerned about drought conditions affecting the fruit. According to producers, the amount of water which is provided by the Irrigation Unions in the region is restricted for orchards due to the overall decreasing water levels in local dams because of limited rainfall in the southern part of the country.

Figure 2: Citrus Growing Areas in Turkiye

Source: Turkish Citrus Council, 2022

Table 1: Turkiye Start of Harvest and Export Dates for Citrus. MY 2022/23

Variety	Harvest	Export
Lemon		
Meyer	September 8, 2022	September 15, 2022
Enterdonat	September 30, 2022	October 6, 2022
Lamas		
Grapefruit		
Starruby	October 14, 2022	October 19, 2022
Rubyred	October 27, 2022	November 3, 2022
M.Seedless	October 27, 2022	November 3, 2022
Rio Red	October 27, 2022	November 3, 2022
Tangerines		
Okitsu	September 30, 2022	October 6, 2022
Miho-Wase	September 30, 2022	October 6, 2022
Primasol	September 30, 2022	October 6, 2022
Early Enn	September 30, 2022	October 6, 2022
Satsuma	October 20, 2022	October 20, 2022
Marisol	September 30, 2022	October 6, 2022

Dobashi beni	October 21, 2022	October 25, 2022
Orange		
Navelina	October 27, 2022	November 3, 2022
Washington		
Fukomato	October 27, 2022	November 3, 2022
Thomson Navel		

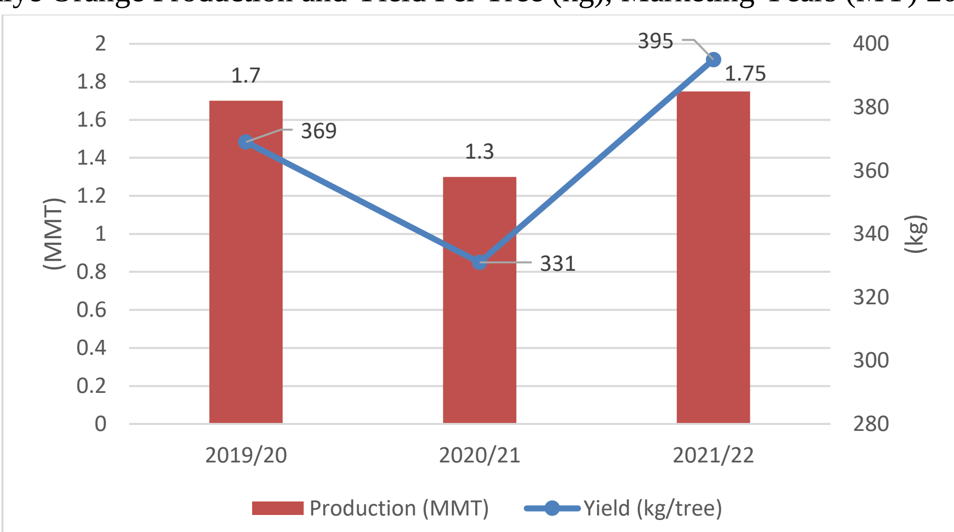
Source: Mediterranean Exporters Union, 2022

Commodities:
Oranges, Fresh

Production:
In MY 2022/23, the orange yield is forecast to decrease 20 percent to 1.4 MMT due to freezing weather conditions reaching -7 C^0 during the beginning of the orange blossoming period in March 2022. The yield loss is expected for mostly the Washington variety which accounts for 70 percent of total orange production. in the Aegean region was especially affected, and the expectation for yield loss in that region is approximately 45 percent. According to producers, although yields are expected to be lower than the previous season, there are not any quality or disease or pest concerns in the orchards.

Most oranges in Turkiye are produced in *Antalya* province. The orange harvest for MY 2022/23 started with early varieties such as *Navelina* and *Fukomato* on October 30, which is later than normal. Although farmers are keen with the farmgate prices above 10-15 TL/kg ($0.50-0.81), retail prices will also rise in correlation to 25-29 TL/kg ($1.34-$1.59). In MY 2021/22, Turkiye produced 1.75 MMT of oranges, which is 35 percent higher than MY 2020/21 (1.3 MMT), due to favorable rainy weather conditions in the Mediterranean region, which accounts for 80-85 percent of the country's orange production.

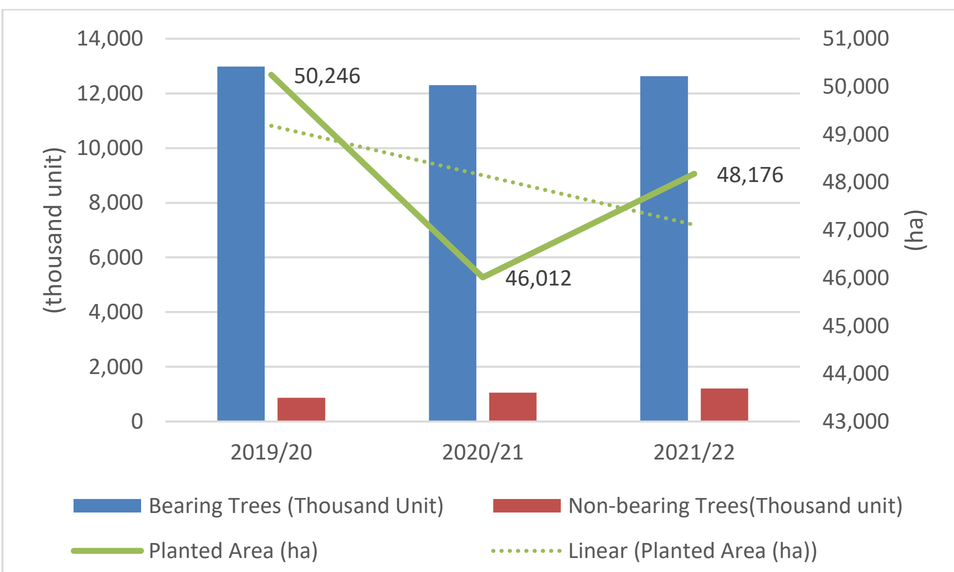
Figure 3. Turkiye Orange Production and Yield Per Tree (kg), Marketing Years (MY) 2019-2022



Source: TurkSTAT, 2022

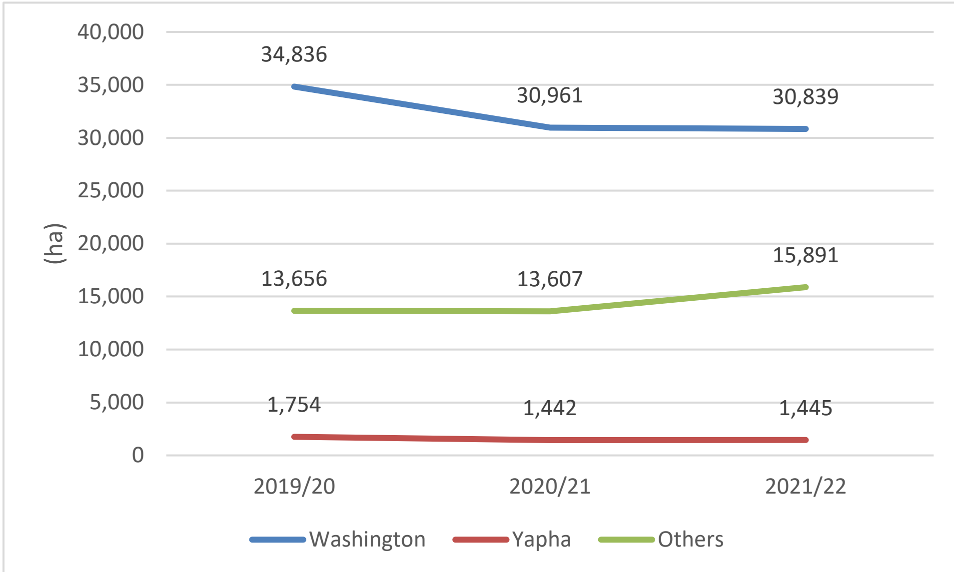
Recently, the Turkish Patent and Trademark Office granted geographical indication status to one of the local orange varieties named “Koycegiz” which is the area where this variety is grown.

Figure 4. Orange Orchards Area (ha) versus Bearing and Non-bearing Trees, MY 2019/20- MY 2021/22



Source: TurkSTAT, 2022

Figure 5. Orange Orchards Area (ha) by Variety, MY 2019/20- 2021/22



Source: TurkSTAT, 2022

As shown in Figure 4 and 5, the number of orchards except for other orange varieties has been decreasing for the last 3 years as producers convert orchard land or determine profits are not great enough to invest in expensive fertilizer and pesticides. However, there is an upward trend for other varieties in correlation with export demands. In MY 2022/23, Turkish producers expect a 10 percent increase on planted area for oranges with these new varieties.

The Mediterranean fruit fly is still a major concern causing quality and quantity losses. In order to combat the Mediterranean fruit fly, the Ministry has just started the distribution of pheromone traps for fruit flies to farmers free of charge through provincial offices and member associations.

Consumption:

In MY 2022/23, orange consumption is expected to decrease to 1.04 MMT due to lower production and high market prices as a result of yield losses. The MY 2021/22 orange consumption was realized at 1.3 MMT.

The average retail price for oranges is about three times more than the farm gate price as shown in Figure 6. This price difference is attributed to traders and transportation and logistics companies marking up the prices as the product makes its way to retail shelves. Other citrus also faces large price differences between the farmgate and retail stores for the same reason.

The MY 2020/21 consumption totaled 1.02 MMT. Consumption during the winter months of MY 2020/21 started off strong as health-conscious consumers were interested in increasing vitamin C consumption amid the pandemic. However, consumption later softened due to reduced domestic supplies and rising prices. According to the latest data published by TurkSTAT, orange consumption per capita was 9.8 kg. According to the sector, domestic orange consumption has been shrinking over the years in favor of other fruits.

Figure 6. Orange Producers' Price versus Retail Market Price, MY 2020/21- MY 2021/22

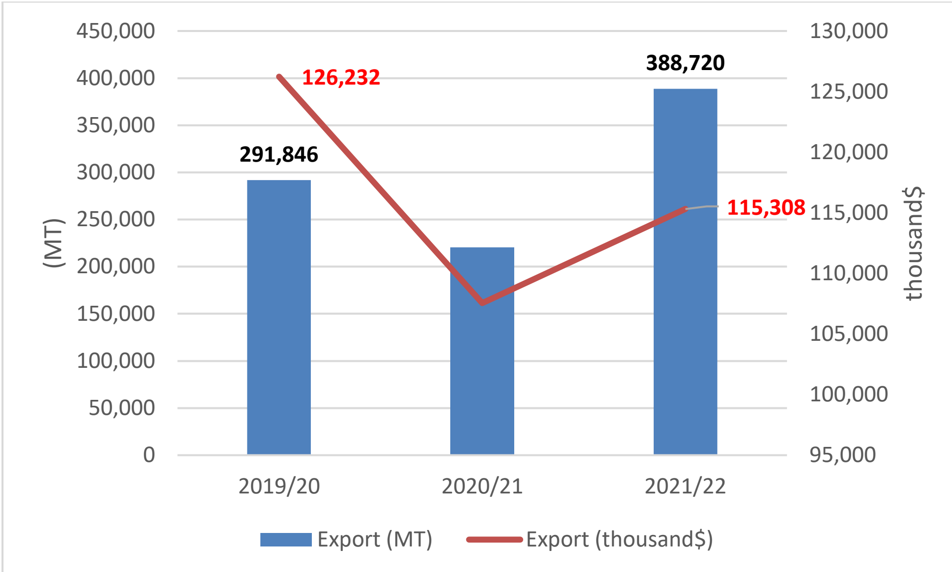
Source: TurkSTAT, 2022 (With exchange rate 18.6 TL to $1 USD as of December 2022)

Trade:

Orange exports in MY 2022/23 are expected to decrease 25 percent to 291,000 MT when compared with the previous season in correlation with low yield expectations. In the beginning of MY 2022/23, exports to Russia, Ukraine, and Romania declined but exports to Iraq and Serbia increased. However, Russia is always a promising export market for Turkish oranges. Turkish exporters believe that exports to Russia will recover due to economic sanctions from European countries and the lifting of the import ban for Turkish oranges which had been implemented in October 2021 due to maximum residue limits (MRLs) and labelling concerns. Russia lifted the ban for Turkish oranges in April 2022. Russia, Iraq, and Ukraine are the main Turkish orange export markets.

In 2021/22, Turkiye exported 389,000 MT of oranges which was 76 percent more than MY 2020/21 (220,608 MT). In MY 2021/22, exports to Iraq and Syria increased since exporters prioritized Middle Eastern countries as a result of MRL concerns by Russian authorities. In the meantime, citrus shipments to Russia and Ukraine were complicated because of the war in Ukraine. Payments for citrus sales to Russia have reportedly been delayed because of banking challenges.

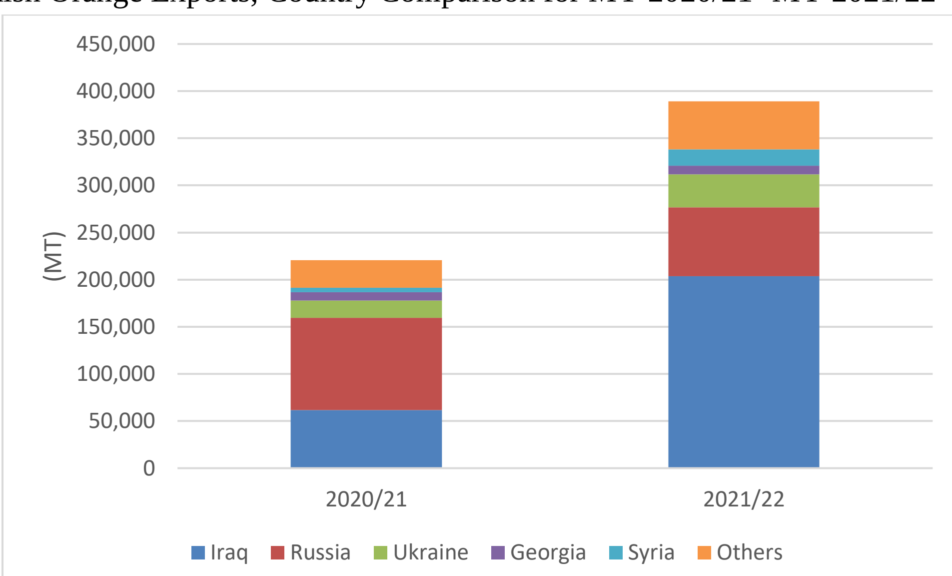
Figure 7. Turkiye Orange Exports (MT) and Export Value ($) Comparison, MY 2019/20- MY 2021/22



Sources: Trade Data Monitor, LLC

In MY 2021/22, Turkiye's orange export value decreased 8 percent when compared to two years ago although exports in quantity increased 32 percent. According to exporters, varieties and fruit quality need to be improved and new markets such as India, China, East Asia, South Korea, and the United States need to be opened in order to make profits from exports. Storage conditions also need to be improved to avoid price fluctuations in the domestic market and foreign markets as well. Better storage facilities will enable Turkish producers to sell their products as a steady supply throughout the year, including at higher prices during lower harvest months.

Figure 8. Turkish Orange Exports, Country Comparison for MY 2020/21- MY 2021/22



Sources: Trade Data Monitor, LLC

As of January 2022, to address MRL concerns, the EU and UK started requiring a conformity certificate for Turkish oranges. To qualify for a conformity certificate, shipments must be tested for certain residues prior to export. The new requirement adds extra costs for exporters. Turkish orange exports to the UK are still subject to increased testing for pesticides on arrival. The rate of testing by shipment is 50 percent.

Oranges, lemons, and tangerines are among the list of products that the Ministry of Agriculture & Forestry (MinAF) may decide to restrict from export to stabilize the domestic market prices during 2022.

Imports: In MY 2022/23 orange imports are expected to stagnate at 43,000 MT, the same as MY 2021/22 and MY 2020/21. Almost all orange imports come from the Turkish Republic of Northern Cyprus (TRNC). Turkiye's orange imports depend on domestic production, but the imports from TRNC are also a way for Turkiye to economically and politically support TRNC.

Table 1: PSD Oranges, Fresh
Production, Supply and Distribution Statistics:

Oranges, Fresh	2020/2021		2021/2022		2022/2023	
Market Year Begins	Oct 2020		Oct 2021		Oct 2022	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	46012	46012	48176	48176	0	48000
Area Harvested (HECTARES)	46000	46000	48176	48176	0	47000
Bearing Trees (1000 TREES)	12306	12306	12620	12620	0	12000
Non-Bearing Trees (1000 TREES)	1052	1052	1210	1210	0	1300
Total No. Of Trees (1000 TREES)	13358	13358	13830	13830	0	13300
Production (1000 MT)	1300	1300	1750	1750	0	1400
Imports (1000 MT)	46	43	40	43	0	43
Total Supply (1000 MT)	1346	1343	1790	1793	0	1443
Exports (1000 MT)	223	220	400	389	0	291
Fresh Dom. Consumption (1000 MT)	1018	1018	1280	1294	0	1042
For Processing (1000 MT)	105	105	110	110	0	110
Total Distribution (1000 MT)	1346	1343	1790	1793	0	1443
(HECTARES) ,(1000 TREES) ,(1000 MT)						

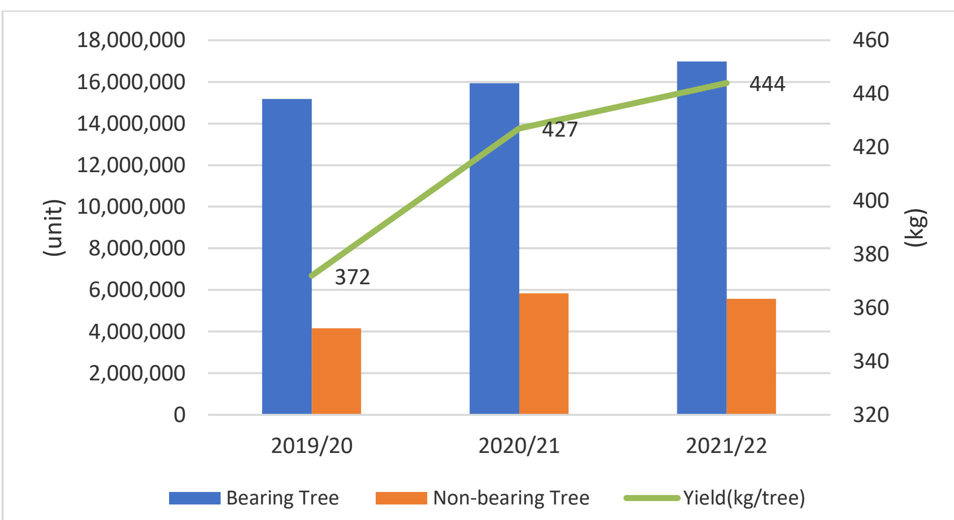
Commodities:
Tangerines/Mandarins, Fresh

Production:
MY 2022/23, overall tangerine production is forecast to decrease 18 percent to 1.48 MMT due to freezing temperature conditions during blossoming in March 2022, although tangerines were not impacted as severely as the orange production. The tangerine harvest for MY 2022/23 started with early varieties such as *Eary-N*, *Okitsu*, and *Miho Wase* on September 30, later than normal due to the cold weather conditions in spring 2022. The early varieties suffered significant yield losses this season. Although farmgate prices are higher than last year at 5 TL/kg ($0.27) the prices are still not enough to compensate their production costs due to a smaller harvest. On the other hand, it is expected that consumer prices will also be higher than the previous year at 10-15 TL/kg ($0.50- $0.90).

However, the yield in the Aegean region is expected to increase approximately 100 percent due to favorable temperature conditions in March and April 2022. The Satsuma variety is the most widely produced variety in the region and is crucial for both domestic consumption and exports. Future production volume in the region is uncertain as a result of increasing constructions and tourism investments being built on traditional agricultural land close to the Aegean shore.

The MY 2021/22 mandarin production is estimated at 1.81 MMT, resulting from favorable weather conditions in the Mediterranean region. In MY2021/22, Turkiye produced an increasing amount of tangerines, accounting for 37 percent of total citrus production. In MY 2020/21, production was 1.6 MMT. Most of tangerines in Turkiye are produced in Hatay province, on the Mediterranean coast bordering Syria.

Figure 9. Turkiye Tangerine Bearing and Non-bearing Trees and Yield per tree Comparison, MY 2019/20- MY 2021/22



Source: TurkSTAT, 2022

Tangerines are the most produced citrus fruit in Turkiye, with 84 percent of tangerines being produced in the Mediterranean region. Satsuma is also the dominant variety in this region.

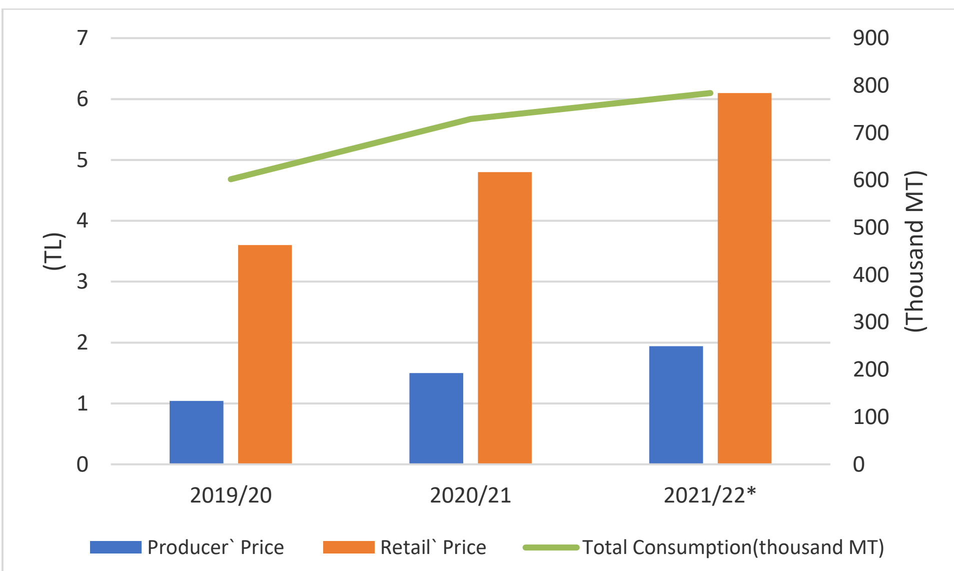
Tangerine producers are struggling with labor shortages and rising input costs, such as fuel, electricity, fertilizers, and crop protectants. According to growers, tangerines are the most expensive fruit to produce, and producer costs have increased 140 percent in 2022 compared to last year. The main problems facing tangerines producers are the effects of climate change which affect the quality and quantity of the fruit.

Consumption:

In MY 2022/23, Turkiye's domestic consumption of tangerines is estimated to decrease to 539,000 MT because of low yields, efforts to continue the more expensive export sales, and a later winter onset since Turks tend to eat more tangerines in cold weather.

In MY 2021/22, Turkiye's domestic consumption of tangerines is estimated at 868,000 MT due to increased orchard areas and bearing trees. In MY 2020/21, Turkiye's domestic consumption of mandarins was 739,000 MT or 7.7 kg per capita. The gap between the lower farmgate prices and higher retail market prices remains a concern for farmers.

Figure 10. Turkish Tangerines Prices at Local Markets and Gate Price Comparison with Total Consumption, from MY 2019/20 to MY 2021/22

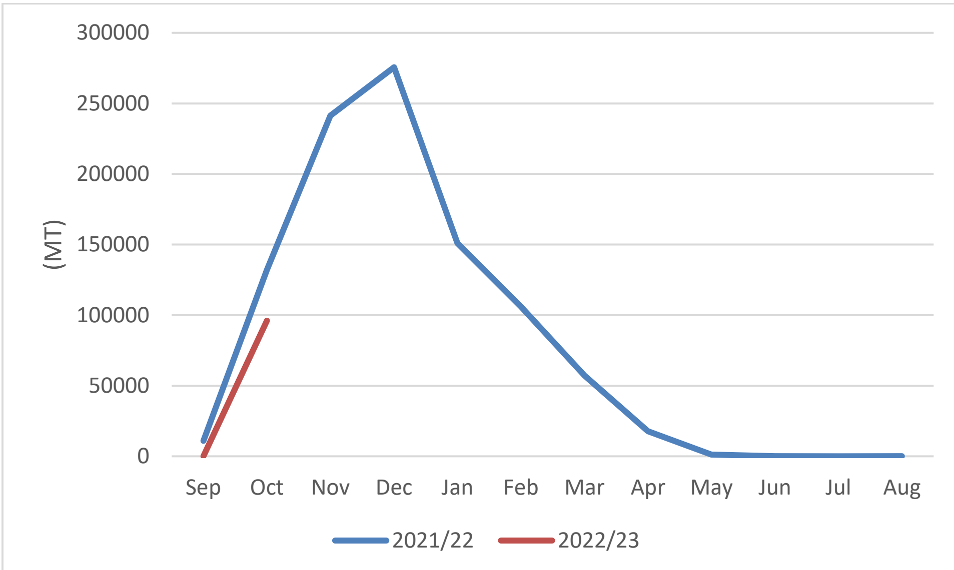


Source: TurkSTAT, 2022 (1 USD equals to 18.6 Turkish Lira as of December 12, 2022). *MY 2021/22 consists of October 2021- March 2022 prices and the estimation of total consumption).
In Turkiye, tangerines are about 26 percent of total citrus consumption.

Trade:

The tangerine export forecast for MY 2022/23 is expected to remain unchanged at 990,000 MMT due to lower yields, the war in Russia and recession in Europe, and turmoil in other neighboring countries. In Turkiye, the export season for tangerines starts in September and October, with strong demand from Syria and Romania this year.

Figure 11. Turkish Tangerine Exports, Monthly Comparison Table for MY 2021/22 and MY 2022/23

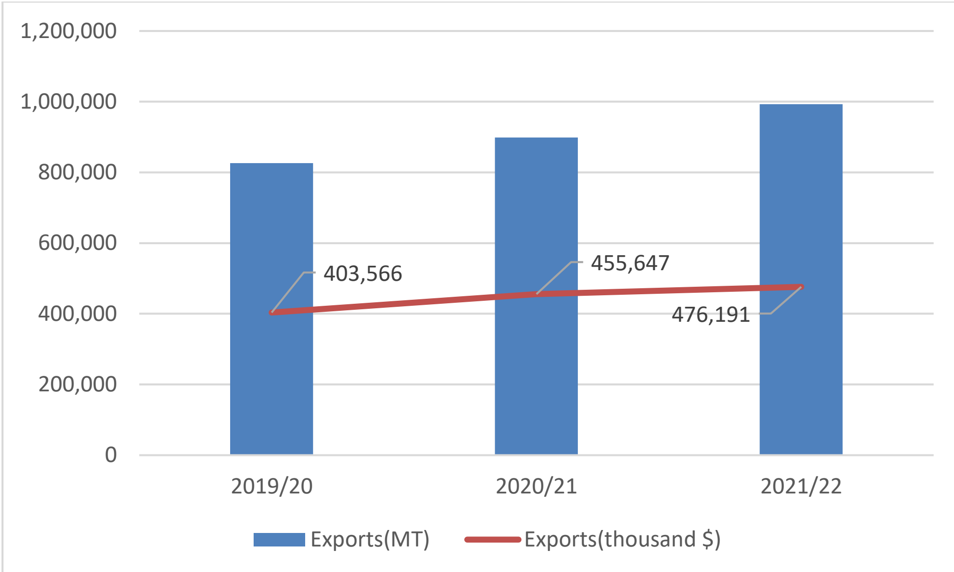


Source: Trade Data Monitor, LLC

Tangerine exports for MY 2021/22 were realized at 993,319 MT. More than half of the total tangerine production was exported in MY 2021/22 due to increased high-quality volume and high export demand. According to exporters, Turkish tangerine exports also increased due to the low yields in Spanish production. On the other hand, while export volume increased 10 percent in MY 2021/22, export value increased only 4 percent.

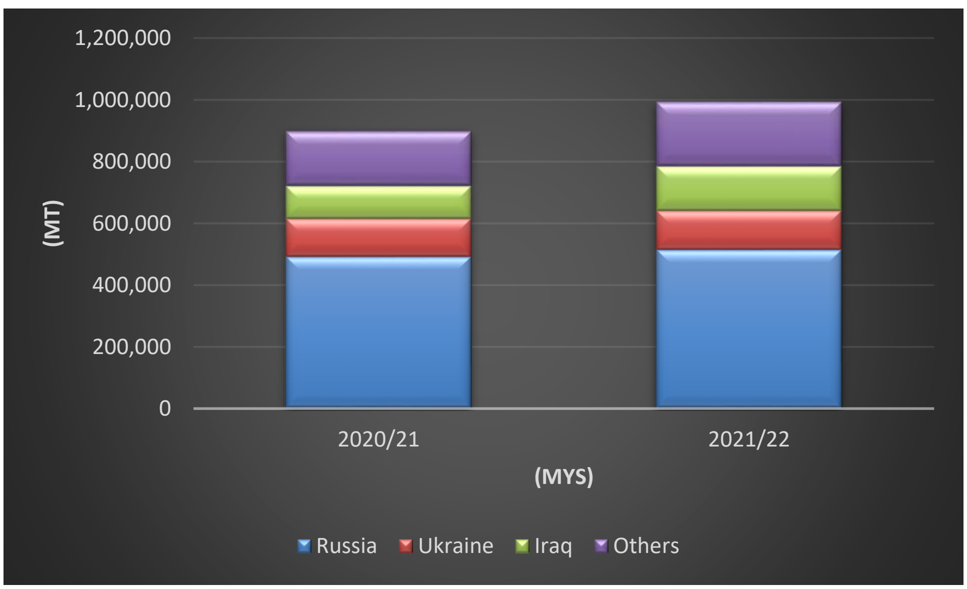
In MY 2020/21, Turkiye exported 898,322 MT of tangerines mostly to Russia, Ukraine, and Iraq.

Figure 12. Turkiye Tangerine Export Comparison in MT vs USD for MY 2019/20 - MY 2021/22.



Source: Trade Data Monitor, LLC

Figure 13. Turkiye Tangerine Export Comparison by main export markets in MY 2020/21 and MY 2021/22.



Source: Trade Data Monitor, LLC

Like oranges, tangerine exports to EU countries require a conformity certificate. In addition, as of January 2022, Turkish tangerine exports to the UK are now subject to increased testing for pesticides on arrival. The rate of testing by shipment is now 50 percent.

According to exporters, foreign market demand decreases during excessively high summer temperatures.

Imports: Ninety-eight percent of the tangerine imports came from the Turkish Republic of Northern Cyprus (TRNC).

Table 2: PSD Tangerines, Fresh
Production, Supply and Distribution Statistics:

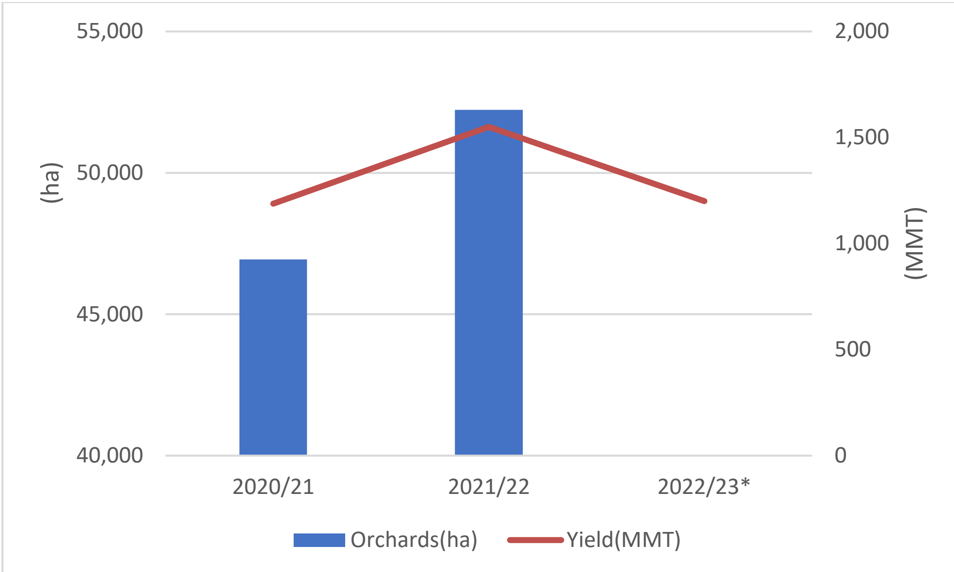
Tangerines/Mandarins, Fresh	2020/2021		2021/2022		2022/2023	
Market Year Begins	Sep 2020		Sep 2021		Sep 2022	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	59832	59832	60719	60719	0	60000
Area Harvested (HECTARES)	58000	58000	60719	60719	0	60000
Bearing Trees (1000 TREES)	15926	15926	16987	16987	0	15000
Non-Bearing Trees (1000 TREES)	5842	5842	5571	5571	0	6000
Total No. Of Trees (1000 TREES)	21768	21768	22558	22558	0	21000
Production (1000 MT)	1600	1600	1810	1810	0	1480
Imports (1000 MT)	38	38	35	52	0	50
Total Supply (1000 MT)	1638	1638	1845	1862	0	1530
Exports (1000 MT)	898	898	1000	993	0	990
Fresh Dom. Consumption (1000 MT)	739	739	844	868	0	539
For Processing (1000 MT)	1	1	1	1	0	1
Total Distribution (1000 MT)	1638	1638	1845	1862	0	1530
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Lemons, Fresh

Production:
In MY 2022/23, lemon production is expected to decrease 20 percent to 1.2 MMT due to freezing temperature conditions during blossoming in March 2022. According to producers, although yields are expected to be lower than the previous season, they do not expect any quality concerns or disease or pest

issues at orchards. Since the beginning of MY 2022/23, the farmgate prices are 7 TL/kg ($0.30) but are not enough to compensate their production costs.

Figure 14. Lemon Orchards Area and Yield (MT) Comparison, MY 2020/21- MY 2022/23*



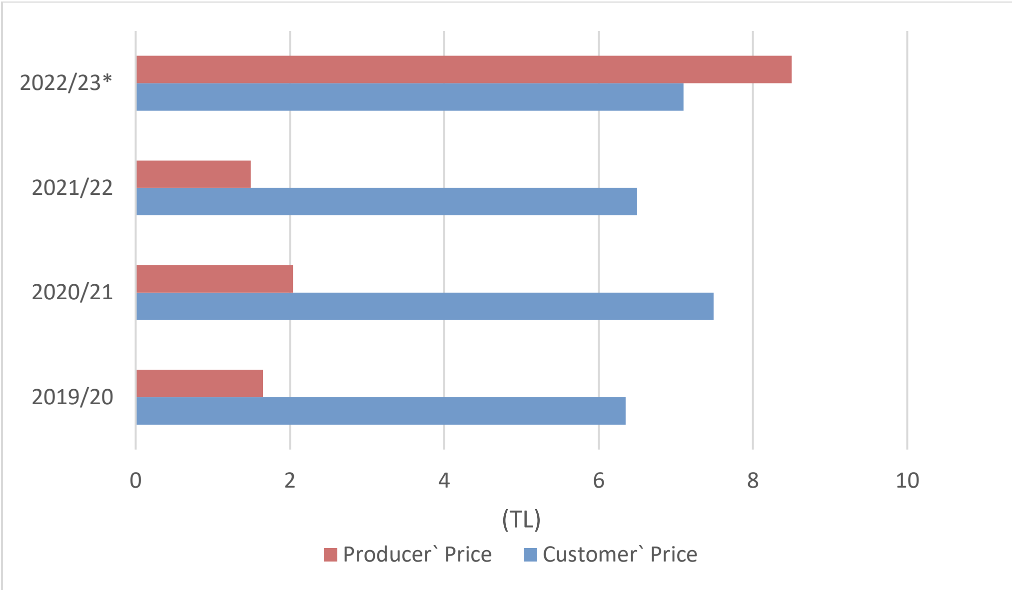
Source: TurkSTAT, 2022. *MY 2022/23* is Post estimation.*

Lemon orchards are more limited than some other citrus varieties in Turkiye since lemons are particularly sensitive to cold weather conditions. In the Aegean region, lemon production is expected to decrease 30 percent this year due to the freezing weather conditions in spring 2022. At the same time, Turkish producers and exporters are concerned about lower domestic and foreign demand.

Post revised MY 2021/22 lemon production to 1.5 MMT with good quality fruit due to favorable weather conditions in late spring 2021. According to lemon producers, 30 percent of the *Meyer* lemon variety production went unharvested in MY2021/22 because the farmgate price was too low. Growers blame the low selling prices on middlemen and the government's ban last year on lemon exports to prevent domestic shortfalls amid the pandemic. In MY 2020/21, lemon production reached 1.1 million MT.

More than half of the total lemon production in Turkiye is produced in *Mersin* province. The main problems reported by lemon producers in Turkiye are diseases and pests, input costs such as fertilizers and chemicals, labor costs for tree trimming, crop quality, and marketing issues. The other important problem is the struggle to keep lemons in cold storage for export. Storage costs are expensive, and producers sometimes use workarounds; for example, producers in Urgup in Cappadocia use caves to store lemons. Recently, packaging costs have exceeded the production costs as a result of high imported packaging material prices; producers are waiting for support from the government to maintain their production efficiently.

Figure 15. Producer and Customer price comparison, MY 2019/20 – MY 2021/22



Source: MinAF, 2022 (With exchange rate 18.6 TL to $1 USD as of December 2022). *MY 2022/23 includes the average data in September and October, 2022.

In contrast to the low producer prices, supermarket prices are noticeably higher due to an increase in costs such as packaging, transport, and labor during the marketing process. Turks usually consume lemons fresh.

Consumption:

In MY 2022/23, lemon consumption is estimated to decrease 27 percent to 553,000 MT due to low yields and increasing lemon prices at domestic markets due to high input and processing costs. Consumer prices will be higher than the previous year, around 12-15 TL/kg ($0.70- $0.90) as a result of increasing farmgate prices, in addition to other costs such as de-greening and packaging. Although TurkSTAT calculates the average lemon prices are around 7-8 TL in the markets, the prices even at discount supermarkets even in poorer neighborhoods are around 14.9 TL.

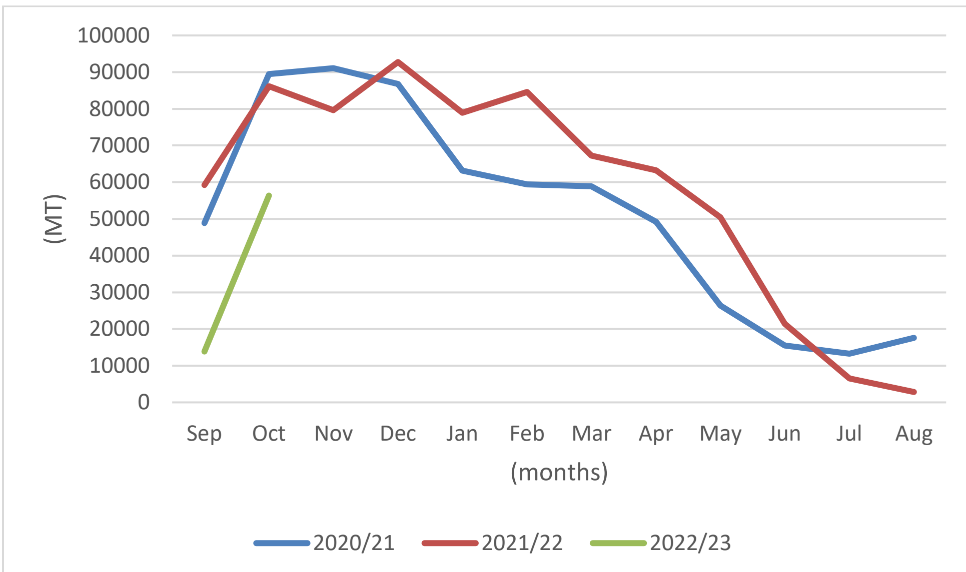
In MY 2021/22, lemon consumption was realized at 761,000 MT due to high production and decreasing lemon prices at markets as shown Figure 14, The lower prices were due to the government's ban on lemon exports in 2021 to prevent domestic shortfalls amid the pandemic, and the government started selling lemons at lower prices at government-affiliated markets.

With higher market prices and the government mandated closing of restaurants and cafes in response to COVID-19, lemon consumption in MY 2020/21 was realized at 433,000 MT, 5.8 kg per capita. Meyer variety is the most consumed lemon variety in Turkiye.

Trade:
In MY 2022/23, lemon exports are expected to decrease 13 percent to 600,000 MT due to the lower harvest and lower demands from foreign markets due to global economic turmoil and increasing logistic costs.

Turkish exporters believe the GoT should provide subsidies to keep lemons fresh while in storage since they anticipate export demands will be lower for the year. However, such an action may escalate market prices. Turkiye's lemon exports in October 2022 decreased 35 percent in quantity and 16 percent in USD value. On the other hand, Turkiye increased its lemon exports to Poland and Turkish exporters are looking for additional new export market opportunities.

Figure 16. Turkiye Lemon Export Comparison in MT for MY 2020/21- MY 2022/23.



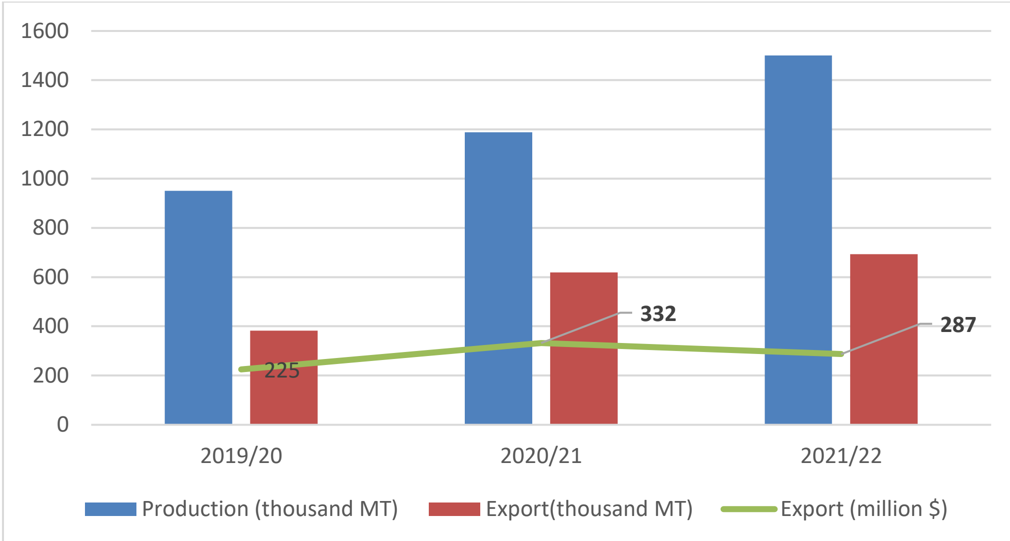
Source: Trade Data Monitor, LLC

In 2021/22, Turkiye exported nearly 693,000 MT of lemons, valued at $287 million, which is 11 percent more on a volume basis than the previous year. However, the MY 2021/22, lemon export value in U.S. dollar terms decreased when compared with the previous year.. In 2020/21, Turkey exported nearly 620,000 MT of lemons, valued at $296 million.

Turkiye generally exports half of its total lemon production, and the export season starts in September every year with the *Meyer* and *Enterdonat* varietise. For exports to the EU, Turkish exporters try to obtain the "GlobalGAP certificate" which provides an advantage compared to exporters from competitor countries due to a higher assured quality standard.

As of January 2022, Turkish lemon exports to the EU and the UK are subject to increased testing for pesticides. The rate of testing by shipment has now been raised to 50 percent.

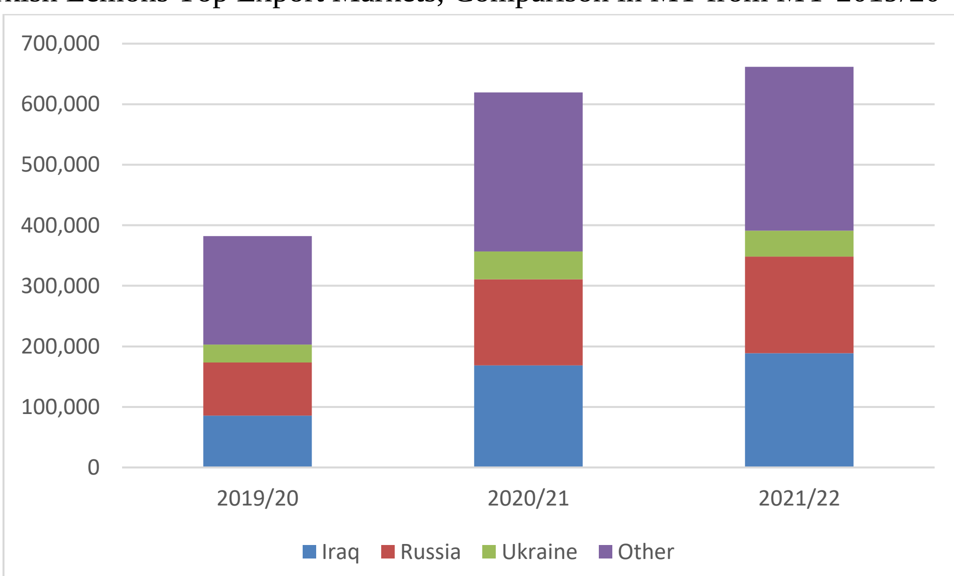
Figure 17. Lemon Production and Export Comparison, MY 2019/20- -MY 2021/22



Source: Trade Data Monitor, LLC and TurkSTAT, 2022

The Mediterranean fruit fly issue remains the biggest concern among producers and exporters, as the pest is the reason for many of the rejections for Turkish lemons at EU and Russian ports. Excessively high MRLs account for the rest of the rejections. Turkiye has started to implement biological methods and traps supported by MinAF to combat the Mediterranean fruit fly, notably in Izmir and Antalya provinces. Additional concerns are the low unit export prices and the residues of products used to extend longevity in storage.

Figure 18. Turkish Lemons Top Export Markets, Comparison in MT from MY 2019/20 - MY 2021/22.



Source: Trade Data Monitor, LLC.

Turkiye imported a very low quantity of lemons, mostly from Northern Cyprus (TRNC). Turkiye imports lemons from Northern Cyprus to economically support its close political ally, depending on the level of production there.

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

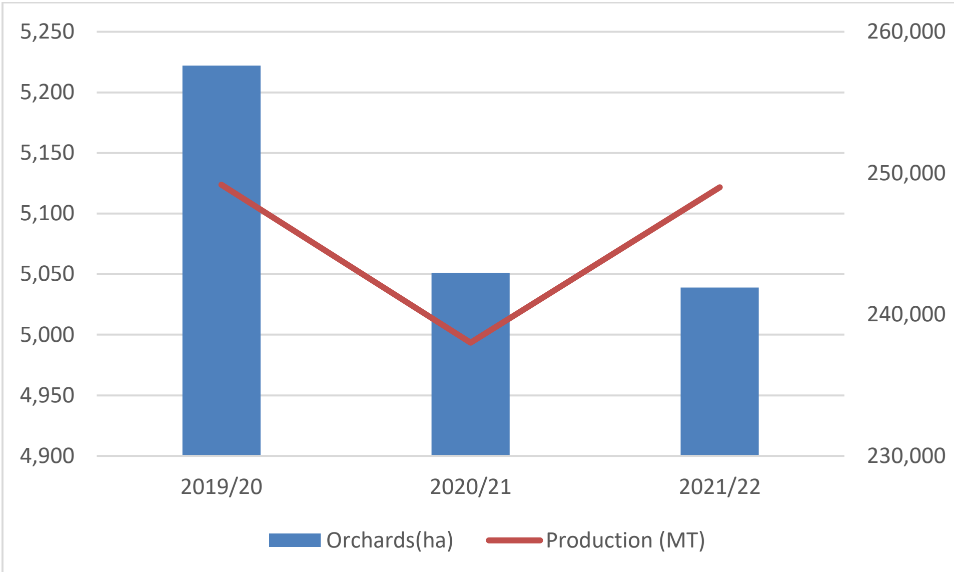
Lemons/Limes, Fresh	2020/2021		2021/2022		2022/2023	
Market Year Begins	Sep 2020		Sep 2021		Sep 2022	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	46935	46935	52233	52233	0	51000
Area Harvested (HECTARES)	45000	45000	52233	52233	0	51000
Bearing Trees (1000 TREES)	11139	11139	13539	13539	0	12000
Non-Bearing Trees (1000 TREES)	4391	4391	4112	4112	0	4500
Total No. Of Trees (1000 TREES)	15530	15530	17651	17651	0	16500
Production (1000 MT)	1100	1100	1337	1500	0	1200
Imports (1000 MT)	4	3	4	4	0	3
Total Supply (1000 MT)	1104	1103	1341	1504	0	1203
Exports (1000 MT)	620	620	765	693	0	600
Fresh Dom. Consumption (1000 MT)	434	433	526	761	0	553
For Processing (1000 MT)	50	50	50	50	0	50
Total Distribution (1000 MT)	1104	1103	1341	1504	0	1203
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Grapefruit, Fresh

Production and Consumption:
In 2022/23, grapefruit production is expected to decrease 25 percent totaling 186,000 MT due to freezing temperatures in March 2022. In MY 2021/22, grapefruit production reached 249,000 MT, which was 5 percent more than the 238,000 MT of production in MY 2020/21. The orchard areas have been decreasing year over year, as shown Figure 17, though the bearing trees numbers remained the same MY 2021/22. Most of the grapefruits in Turkiye are produced in *Adana* province.

Since production costs are high, as is the case with other citrus products, producers are not satisfied with the lower consumption and the low sales prices at and the farmgate and in wholesale markets.

Figure 19. Turkiye Grapefruit Production and Orchards Comparison, from MY 2019/20 - MY 2021/22



Source: TurkSTAT, 2022

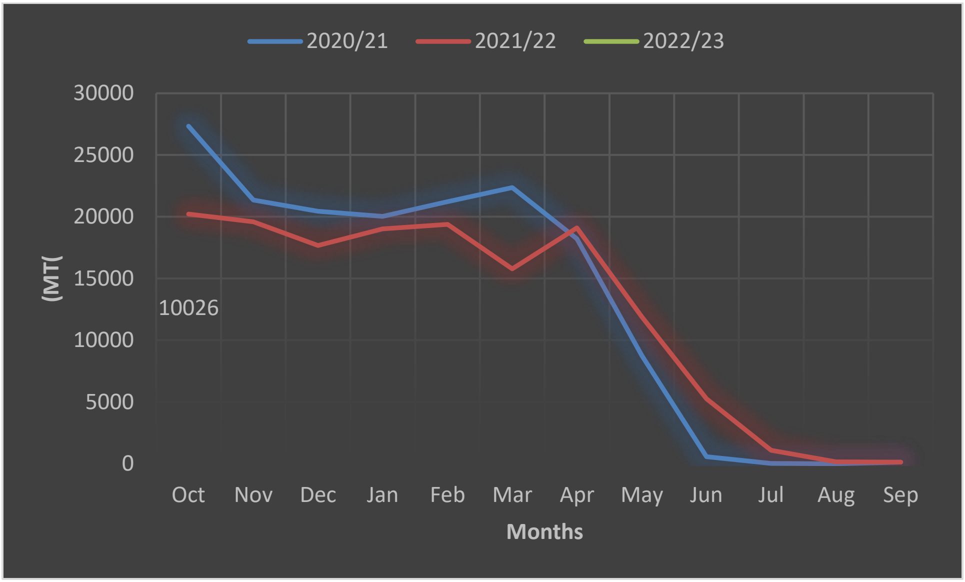
In 2022/23, grapefruit consumption is expected to decrease 41 percent to 60,000 MT due to low domestic demand and low yields. However, exporters believe that the consumption number also includes fruit losses. Domestic demand for grapefruit is very small in Turkiye, and the fruit is mostly consumed as fresh-squeezed juice. The grapefruit consumption for MY 2021/22 was 103,000 MT in response to rising domestic production and cheaper prices. Grapefruit consumption per capita in MY 2020/21 was 0.8 kg per person, totaling 77,000 MT.

The gap between lower farmer wholesale prices and higher retail market prices remains a concern for farmers. Although grapefruit is not widely consumed in Turkiye, retail prices are still 3 times more expensive than farmgate prices.

Trade:

In 2022/23, grapefruit exports are expected to be 15 percent lower than MY 2021/22, at 126,000 MT, due to the lower production and export demand. In October 2022, Turkiye has exported 35 percent less grapefruit when compared with the same month of the previous year. However, Russia is always a promising export market for Turkish grapefruit. Turkish exporters believe that exports to Russia will recover since Russia has discontinued the import ban for Turkish grapefruits due to residue and labelling concerns.

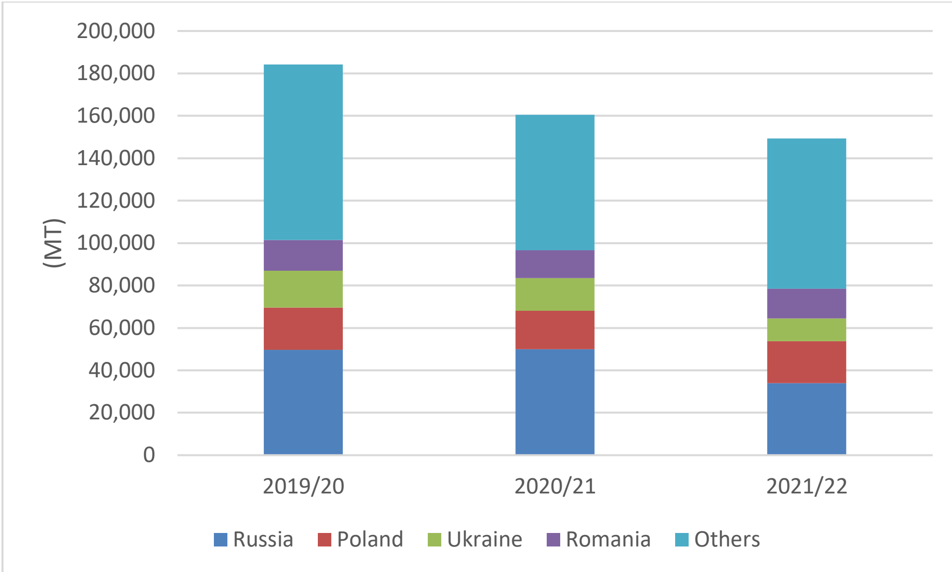
Figure 20. Turkiye's Grapefruit Exports, MY 2020/21 –MY 2022/23 Comparison by Month



Source: Trade Data Monitor, LLC

In 2021/22, grapefruit exports were 149,355 MT and valued at $71 million. The main export destinations were Russia, Poland, and Romania. In 2020/21, Turkiye exported 160,506 MT of grapefruit valued at $90 million. As of January 2022, Turkish grapefruit exports to the European Union and the UK are subject to increased testing for pesticides. The rate of testing by shipment is now 50 percent. Due to climate change, especially extreme temperatures, Turkiye is struggling to maintain sweetness in its grapefruit, and most grapefruits are sour and bitter. For this reason, Turkiye is not a stable supply market but is a backup possibility if the other large exporting countries are not able to produce enough grapefruits in a given year. Turkiye has a geographic advantage for exports of citrus fruit to Iraq; however, grapefruit exports to Iraq are very small due to a lack of traditional grapefruit consumption in Iraq.

Figure 21. Turkiye's Grapefruit Exports by Top Destination, MY 2019/20 -MY 2021/22



Source: Trade Data Monitor, LLC

Recently, Turkiye has been authorized to export grapefruits to Japan; however, many shipments have not met the cold chain treatment procedures during transport that are required by Japanese authorities and have been rejected upon arrival. According to Turkish exporters, exports of citrus to geographically distant countries are becoming more difficult and expensive due to costs to meet technical requirements such as cold chain storage and rising transport costs.

Table 4: PSD Grapefruit, Fresh
Production, Supply and Distribution Statistics

Grapefruit, Fresh	2020/2021		2021/2022		2022/2023	
Market Year Begins	Oct 2020		Oct 2021		Oct 2022	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	5051	5051	5039	5039	0	4700
Area Harvested (HECTARES)	4800	4800	4900	4900	0	4500
Bearing Trees (1000 TREES)	1184	1184	1189	1189	0	1000
Non-Bearing Trees (1000 TREES)	44	44	27	27	0	28
Total No. Of Trees (1000 TREES)	1228	1228	1216	1216	0	1028
Production (1000 MT)	238	238	249	249	0	186
Imports (1000 MT)	1	1	1	4	0	1

Total Supply (1000 MT)	239	239	250	253	0	187
Exports (1000 MT)	161	161	140	149	0	126
Fresh Dom. Consumption (1000 MT)	77	77	109	103	0	60
For Processing (1000 MT)	1	1	1	1	0	1
Total Distribution (1000 MT)	239	239	250	253	0	187
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Commodities:
Orange Juice

Production and consumption:
In MY 2022/23, orange juice production is forecast at 10,000 MT, which is same as MY 2021/22. The Turkish fruit sector does not expect any diminished production of orange juice in response to the lower orange yields.

The number of oranges sent to processing plants remained unchanged at 110,000 MT. The Turkish fruit processing industry is still under development and is seeking government support to develop the industry to reach potential export markets which are very limited. According to fruit juice exporters, the juicing rates for orange varieties in Turkiye do not always meet the ideal industry standards. In order to achieve those standards, Turkish producers expect the GoT to support them to establish a citrus policy plan to improve the standards for juicing fruit.

The most popular fruits in Turkiye for juice production are apple, apricot, cherry, orange, and pomegranate. Five to ten percent of the total citrus production is processed in the fruit juice industry. According to the Turkish Fruit Juice Industry Association (MEYED), 7 percent of the total processed fruits is orange and 5 percent is lemon.

After the COVID-19 pandemic began, demand for orange juice increased. However, total fruit juice consumption in Turkiye is estimated at 8-9 liters per year which is quite low compared to European countries.

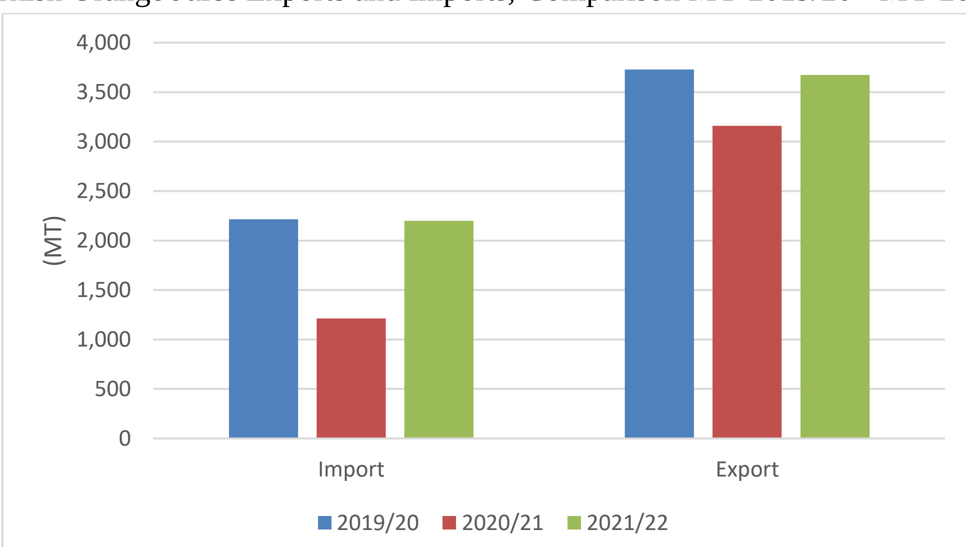
Trade:
Exports: Orange juice exports are forecast at 3,500 MT for MY 2022/23, almost the same as the previous season, in correlation with stable production. Turkiye exported 3,675 MT of orange juice valued at $5.7 million in MY 2021/22, mainly to Italy, the Netherlands, and Iraq, which was 16 percent higher than MY 2020/21 with 3,160 MT of exports valued at $4.7 million.

Figure 22. Turkish Orange Juice Exports by HS Codes, Comparison MY 2019/20 - MY 2021/22

Source: Trade Data Monitor, LLC. 200919: Orange Juice, Other Than Frozen, Whether Or Not Sweetened; 200912: Orange Juice, Not Frozen, Of A Brix Value Not Exceeding 20; 200911: Orange Juice, Frozen, Whether Or Not Sweetened; All categories are converted to 65 degree brix.

Imports: In MY 2022/23, orange juice imports are estimated to increase to 2,500 MT due to a slight increase in demand from the domestic market. Turkiye imported 2,200 MT of orange juice in MY 2021/22 mostly from Cyprus, Israel, and Italy. Turkiye mostly imports orange juice, frozen, whether or not sweetened.

Figure 23. Turkish Orange Juice Exports and Imports, Comparison MY 2019/20 - MY 2021/22



Source: Trade Data Monitor, LLC

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

Orange Juice	2020/2021		2021/2022		2022/2023	
Market Year Begins	Oct 2020		Oct 2021		Oct 2022	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Deliv. To Processors (MT)	105000	105000	110000	110000	0	110000
Beginning Stocks (MT)	150	150	150	150	0	150
Production (MT)	9500	9500	10000	10000	0	10000
Imports (MT)	1213	1213	1213	2200	0	2500
Total Supply (MT)	10863	10863	11363	12350	0	12650
Exports (MT)	3159	3159	2800	3675	0	3500
Domestic Consumption (MT)	7554	7554	8413	8525	0	9000
Ending Stocks (MT)	150	150	150	150	0	150
Total Distribution (MT)	10863	10863	11363	12350	0	12650
(MT)						

Policy:
Citrus Production Support Policies:
For farmers who are registered in the 'Farmer Registration system' run by MinAF:

- 170 TL ($9.11)/hectare is given as fuel support,
- 80 TL ($4.29)/hectare is given as fertilizer support,
- For organic lemons meeting the top-quality standard; supports are 1000 TL ($53.60)/hectare for individual producers and 500 TL ($26.80)/hectare for a joint producers group.
- Good Manufacturing Plan support is given for conventional lemons meeting the 2nd quality standard. It is 400 TL ($21.44)/hectare for individual producers and 200 TL ($10.72)/hectare for a joint producers group.
- A 40 TL ($2.14) payment can be reimbursed per soil sample analysis. Soil analysis must be done by an authorized laboratory.
- 1000 TL ($53.60)/hectare for standard saplings, 4000 TL ($214.40)/hectare for certified saplings.
- 700 TL ($37.52)/hectare is given for implementing biological control of pests and 1000 TL ($53.60)/hectare is given for implementing biotechnical controls using pheromones to combat Mediterranean fruit flies.

In 2022, the MinAF provided citrus producers with traps at no cost to the producers to combat the Mediterranean fruit fly. However, fruit losses due to freezing weather conditions are not covered under the agricultural crop insurance policies offered by TARSIM, the government-affiliated insurance company for agricultural production.

Attachments:

No Attachments