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Report Highlights:

The total cherry production forecast in Turkey in Marketing Year (MY) 2022/23 is 980,000 metric tons (MT), which is 14 percent more than MY 2021/2022, due to the favorable weather conditions and improved yields this year. The peach and nectarine production forecast for MY 2022/23 is 940,000 around six percent more than MY 2021/22, again due to no frost damage and enough rainfall for this year's crop. Stone fruit exports are forecast to increase in parallel with the higher production in MY 2022/23. Turkey especially aims to increase its exports of fresh sweet cherries to South Korea through technical negotiations. This report covers cherries, peaches, and nectarines.

EXECUTIVE SUMMARY

Turkey has historically been among the top cherry producing countries in the world and is usually a top four exporter. Sweet cherries are grown mainly in the Central Anatolia, Aegean, Marmara, and Mediterranean Regions in Turkey. Konya, Izmir, Manisa and Denizli are the top cherry-producing provinces within these regions. The marketing year for cherries begins in April. For the MY 2022/23 season, post forecasts total cherry production to be 980,000 MT, of which 794,000 MT are sweet cherries and 186,000 MT are sour cherries, due to the favorable weather and growing conditions.

Turkey continues to be among the top ten exporters in the world for peaches and nectarines. Bursa, Canakkale, Izmir, and Mersin are the top provinces where peaches and nectarines are produced. Typically, they are harvested between April and early October. The marketing year starts in April. Post's forecasts total peach and nectarine production to be 940,000 MT for MY 2022/23 due to the favorable weather conditions and high fruit yields.

Turkey is one of the largest exporters of stone fruit in the world. Turkey exports more than 250,000 MT of stone fruits annually, with the majority going to EU countries and Russia. Turkish exporters are also looking for opportunities for stone fruits such as cherries in the Far East, particularly South Korea in recent years.

PLANTING AREA

Sweet and Sour Cherries

Turkey is the world's leading sweet cherry producer. Enjoying increasing demand from export markets in recent years, Turkish farmers have invested in new orchards, uprooted non-commercial varieties, and replanted tree varieties that are more competitive in export markets. There are also new investments being made in juice production and fruit exports.

Turkish sweet cherry planted area grew around 10 percent from marketing year (MY) 2012/13 to MY 2021/22 (Figure 1). Post estimates the sweet cherry planted area at around 81,000 hectares (ha) in MY 2022/23. Post expects the sour cherry planted area to stay at 20,000 ha in MY 2022/23. Total cherry planting area in MY 2022/23 is expected to be about 101,000 hectares, slightly less than the MY 2021/2022. There is a decreasing trend in terms of total planted area for cherries since MY 2016/17. In 2016, total planted area for cherries was around 107,000 hectares compare it to around 102,000 hectares in 2022.



Figure 1. Turkey's Planted Area of Sweet and Sour Cherries 2011-2022 (ha)

Source: The Turkish Statistical Institute (TurkStat), 2022

In the last ten years, scientists have been trying to increase yields and the quality of the native Napoleon Cherry. A scientist from Suleyman Demirel University, has achieved three better Turkish Napoleon types with higher yields per tree. (News link) After these scientific improvements, farmers have been replacing their older varieties of Turkish Napoleon sweet cherry trees with enhanced versions for higher yields. These actions are the main reason cherry production is increasing whereas planted area has slightly decreased over the last ten years (Figure 1, 8). According to Turkish official data, the total estimated number of cherry trees in the country was about 27.8 million in 2021. The total number of bearing trees for sweet cherries increased from 16.9 million to 22.1 million in ten years. The total number of sour cherry trees stayed at similar levels over the last 10 years (Figures 2 and 3).



Figure 2. Number of Sweet Cherry Trees for Turkey 2012-2022 (thousands)



Figure 3. Number of Sour Cherry Trees for Turkey 2012-2022 (thousands)

Turkey is the location of many valuable cherry genetic resources because of the fruit's origin in northern Anatolia. There are more than one hundred varieties of sweet cherries produced in Turkey. The *0900 Ziraat* variety, also known as the Turkish Napoleon, was developed in Turkey and is the most popular variety because it meets the higher quality characteristics demanded by export markets. It is heart shaped with pink and red fruit flesh, bright, firm, juicy, and very large fruit, suitable for transportation and long shelf life. However, producers have started to try new cherry varieties such as *Sweet Heart, Celeste*,

Source: TurkStat, 2022

Source: TurkStat, 2022

Early Lory, Kordia, Regina, Sam, and *Sunburst* for higher quality products, later harvests (to capture higher prices later in the season), and higher yields.

Fresh Peaches and Nectarines

Farmers have been replacing their older varieties of peach and nectarine trees with higher yield varieties. Also, modern high-density orchards have been established using new cultivars, rootstocks, training systems, and growing techniques. Using modern technologies and changing to higher yielding trees has caused an increase in the quality and production of peaches over the years even while planting the same amount of land, as can be seen in Figure 4. Over the last 10 years, the planted area of peaches stayed at a similar level of 39,000 ha whereas the planted area of nectarines increased by more than 100 percent to 10,967 ha. The number of nectarine orchards is increasing in Turkey to meet changing consumer preferences for nectarines in both domestic and foreign markets (Figure 4). Most of the peach varieties planted in Turkey are *Early Amber, Spring Crest, May Crest, Red Haven*, and *Early Red*.



Figure 4. Turkey's Planted Area of Peaches and Nectarines 2012-2022 (ha)

According to Turkish official data, the total estimated number of all bearing peach and nectarine trees was about 18.7 million in MY 2021/22. The total number of bearing trees increased from 14.2 million in 2012 to 18.7 million in 2021. The number of bearing peach trees increased by around 19 percent over the last 10 years whereas the number of bearing nectarine trees increased by 146 percent (Figures 5 and 6). The production and consumption of nectarines is increasing over the last 10 years compared to peaches, although peach production still accounts for 78 percent of total production.

Source: TurkStat, 2022







Figure 6. Number of Nectarine Trees for Turkey 2012-2022 (thousands)

Source: TurkStat, 2022

Source: TurkStat, 2022

PRODUCTION

Sweet and Sour Cherries

Turkey has historically been among the top cherry producing countries in the world and is usually a top four exporter. Sweet cherries are grown mainly in the Central Anatolia, the Aegean, the Marmara, and the Mediterranean Regions in Turkey. Konya (10.3 percent), Izmir (10 percent), Bursa (9.2 percent), Manisa (7.3 percent), and Amasya (5.8 percent) are the top cherry producing provinces within these regions (Figure 7). The marketing year for cherries in Turkey begins in April.



Figure 7. Top Cherry Producer Cities of Turkey

For the MY 2022/23 season, post forecasts total cherry production to be 980,000 MT, of which 794,000 MT are sweet cherries and 186,000 MT are sour cherries, due to the favorable weather and growing conditions. The Turkish Statistical Institute (TurkStat)'s first yearly estimation reports a 14.8 percent increase in total sweet and sour cherry production for MY 2022/23, compared to the total production of 874,000 metric tons (MT) in MY 2021/22 season. Generally, the soil in major production areas received enough rain to achieve higher yields, and there was no frost damage this year. The only challenge this season for farmers was a slightly later harvest season due to the late arrival of the warmer spring temperatures.

Even though yields are higher this year, sweet cherry prices stayed at higher levels due to the severe food inflation rocking the Turkish economy. Sweet cherry prices are at the range of 50-80 Turkish Lira per kg (TL; \$2.70-\$4.44) in the retail stores. Sour cherry prices are around 30-40 TL (\$1.66- \$2.21) per kg in the retail stores. (1 U.S. dollar = 18.00 TL as of the date of this report). Input prices are increasing sharply due to the weak TL against foreign currencies and hyperinflation rates in Turkey. Fertilizer prices have increased around 300 percent, electricity prices have increased by around 57 percent, and fuel prices have increased by around 130 percent compared to 2021. Farmers are struggling to keep up with the rapidly increasing input prices.



Figure 8. Cherry Production of Turkey 2011-2021 (MT)

Source: TurkStat, 2022

Cherry trees are cultivated in different parts of Turkey with a variety of different physical and climatic conditions. Because of this, the harvest time can differ by 45-55 days according to the region of planting. While the cherry harvest starts on the Aegean coast in Izmir in late May, it continues further inland in Afyon, Burdur, Salihli and Konya in June and July. Farmers harvest the cherries in Kahramanmaras in August.

Strong export demand in recent years is the driving force behind an increase in cherry production. Turkey has been slowly transitioning from traditional to modern cherry production. Recently, modern high-density orchards have been established, using new cultivars, rootstocks, training systems, and growing techniques. However, most cherry production is still carried out using predominantly traditional methods among agricultural holdings operated by family-owned farmers. A relatively cheap labor force of seasonal workers and family-owned farms provides the advantage of a stable, affordable labor supply.

Because of the growth in the export market, the production of Turkish sweet cherries increased by 33 percent from MY 2012/13 to MY 2021/22 (Figure 8). The increase in production of better-quality cherries to meet the specifications of export markets also helps to increase the quality of cherries for the domestic market. Production of sour cherries, however, is staying at steady levels as the fruit is used primarily in the juice and jam industries in Turkey.

Fresh Peaches and Nectarines

Turkey continues to be among the top ten exporters in the world for fresh peaches and nectarines. Bursa, Canakkale, Izmir, and Mersin on the Aegean and Mediterranean are the top provinces where peaches and nectarines are produced. Typically, they are harvested between April and early October. The marketing year in Turkey starts in April.

Post forecasts total peach and nectarine production to be 940,000 MT for MY 2022/23 due to the favorable weather conditions. According to estimates by TurkStat for the MY 2022/23 season, total peach and nectarine production is expected to increase by 6.7 percent. Peach production has increased by around 46 percent from MY 2012/13 to MY 2021/22, even though the production area stayed relatively stable (Figure 4, 9). With technological improvements, Turkish farmers transitioned to better quality peach trees which return higher yields.

Even though yields are high this year, peach prices are in the range of 15-25 Turkish Lira (TL) per kg (0/83-1.11) in the retail stores and 10-15 TL per kg (0.55-0.83) in wholesale stores. Nectarine prices are around 20-25 TL per kg (1.11-1.38) in the retail stores and 15-20 TL per kg (0.83-1.11) in wholesale stores due to the high inflation rates in Turkey. (1 US dollar = 18.00 TL as of the date of this report).



Figure 9. Production of Peaches and Nectarines for Turkey 2011-2022 (MT)

Source: TurkStat, 2022

CONSUMPTION

Sweet and Sour Cherries

Over one hundred different varieties of cherries are consumed in many forms in Turkey. More than half of the sweet cherries produced in Turkey are consumed fresh domestically. Approximately 20 percent of all cherry production is used in the processing sector to make canned products, marmalades, frozen fruits, and fruit juice. Most processed products are made from sour cherries. In MY 2022/23, domestic consumption is estimated to be approximately 900,000 MT, which is an increase of 118,500 MT compared to the previous marketing year.

Fresh Peaches and Nectarines

In MY 2022/23, domestic consumption of peaches and nectarines is expected to be around 764,000 MT, ten percent more than MY 2021/22 due to the higher production. Approximately 15 percent of all peach production is used for juice. Turkish consumers prefer fruit juices of peach, cherry, and apricot in "nectar" form. A nectar is a beverage with 25-99 percent fruit concentrate. Nectar can be sweetened with sugar, honey or artificial sweeteners, but it cannot contain preservatives or colorants. Nectars are very popular, but there is also a growing trend for 100 percent fruit juices. Peaches are also used to make canned products, marmalades, and are sold as frozen fruit.

TRADE

Sweet and Sour Cherries

Turkey is one of the largest exporters of stone fruit in the world. Turkey exports more than 250,000 MT of stone fruit annually, with the majority going to EU countries and Russia. Turkey is one of the largest exporters of cherries in the world, representing 15 percent of total global cherry exports. Chile, the United States, and Hong Kong are the other leading global exporters. Turkish exporters are also looking for opportunities for stone fruit exports, such as sending cherries to East Asia. In 2020, The Ministry of Agriculture and Forestry started negotiations with South Korea to ease the technical regulations in terms of fresh cherry exports. Turkey's exports of fresh cherries increased in the last two years due to new markets for exports (Figure 10), although shipping logistics due to Covid-19 and a smaller crop limited growth in MY 2021/22. In MY 2022/23, post estimates Turkey's fresh cherry export to be 80,000 MT, an increase of around 12 percent compared to MY 2021/22's export volume of 71,000 MT.



Figure 10. Turkey's Cherry Export Volume and Value (2017-2022)

Source: Trade Data Monitor, LLC, 2022

Turkey has also increased its export markets in Russia and the EU in recent years. Germany (24,558 MT), Russia (23,116 MT), and Iraq (7,128 MT) are the main destinations for Turkish cherries in MY 2021/22 (Table 1).

Turkey's Cherry Exports to World 2017-2022 (MT)							
Partner	2017/18	2018/19	2019/20	2020/21	2021/22		
Germany	22,963	23,651	24,558	25,894	24,558		
Russia	14,416	24,020	23,116	29,788	23,116		
Iraq	9,479	13,171	7,128	7,243	7,128		
Netherlands	2,558	1,298	2,241	2,142	2,241		
Austria	1,775	784	2,194	3,877	2,194		
Italy	1,303	1,583	1,154	2,754	1,154		
Sweden	1,788	1,289	1,311	1,361	1,311		
Norway	1,522	1,887	1,520	1,523	1,520		
Denmark	885	1,380	1,031	1,239	1,031		
United Kingdom	473	1,088	833	1,373	833		
World	60,209	75,376	70,946	87,512	70,946		

Table 1. Fresh Cherry Exports of Turkey 2017-2022

Source: Trade Data Monitor, LLC, 2022

Fresh Peaches and Nectarines

In MY 2021/22, Post estimates fresh peach and nectarine exports to increase to 176,000 MT, in parallel to the increase in production. Turkey's fresh peach and nectarine exports increased by 92 percent from 88,960 MT in MY 2017/18 to 170,597 MT in MY 2021/22 (Figure 11). Adopting modern cultivation methods increased the quality of peaches and nectarines which caused the increase in exports over the last five years. Russia (118,534 MT), Ukraine (13,161 MT), and Iraq (12,484 MT) were the main destinations for Turkish peaches and nectarines in MY 2021/22 (Table 2).



Figure 11. Turkey's Peach and Nectarine Export Volume and Value (2017-2022)

Table 2. Fresh Peaches and Nectarines Export of Turkey 2017-2022

Turkey's Fresh Peaches and Nectarines Exports to World 2017-2022 (MT)							
Partner	2017/18	2018/19	2019/20	2020/21	2021/22		
Russia	55,996	72,826	73,283	118,239	118,534		
Iraq	13,844	22,233	11,398	9,626	12,484		
Syria	3,546	9,104	5,927	3,056	3,611		
Ukraine	1,195	1,773	1,071	7,678	13,161		
Romania	1,620	4,267	303	6,204	9,697		
Saudi Arabia	7,781	6,685	2,970	2,303	0		
Belarus	850	2,246	6,249	1,658	1,484		
Cyprus	1,022	993	1,044	139	937		
Georgia	160	1,938	704	1,673	148		
Germany	278	601	370	1,445	1,712		
World	88,960	127,023	105,670	163,513	170,597		

Source: Trade Data Monitor, LLC, 2022

Source: Trade Data Monitor, LLC, 2022

MARKETING

Sweet and Sour Cherries

In recent years there has been a considerable increase in terms of sweet cherry production and marketing. There is an increase in the number of savvy firms which are exporting, more investments made in cold storage, and additional packaging factories. Farmers have been trained to produce sweet cherry varieties which are demanded by export markets. The number of market-conscious merchants who know the export markets and regulations have increased. The Turkish government has been subsidizing farmers who rehabilitate their old sweet cherry orchards to produce higher quality sweet cherries for the export market. In terms of sweet cherries, domestic consumption and preferences has stayed at similar levels over the years whereas the export of sweet cherries increased at sizable levels utilizing the right marketing strategies.

Fresh Peaches and Nectarines

Turkey is aiming to take the first place for the peach export. For 2022 the goal for peach export is around 200 million dollars. To be able to increase the export market Aegean Exporters' Association started a campaigned called "we know which pesticides we use". Working with the Aegean University they are aiming to control pesticides usage on peaches to increase exports to Europe.

Demand for nectarines increased sharply in both domestic and international markets as they are considered easier to consume compared to peaches since they are less juicy and messy. Also, nectarines are easier to store and distribute, since they are less likely to bruise during the harvest and transportation process.

POLICY

Stable export demand and government supports have helped Turkish farmers to invest in new stone fruit orchards. There are payments for producers who are registered in the Ministry of Agriculture and Forestry's farmer registration system.

The Ministry of Agriculture and Forestry announced a subsidy program for farmers who are returning to their villages to create orchards in 2022. According to the program, farmers can benefit from a 30,000 TL (\$1,667) subsidy plus a 100,000 TL (\$5,556) cash credit if they can fulfill the qualifications. More information can be found at the <u>Ministry of Agriculture and Forestry Website</u>. The Ministry also continues providing supports for fuel and fertilizer, standard and certified saplings, organic farming, and sample analysis. This program supports farmers' investments to buy government-certified dwarf saplings to ensure higher quality trees are being planted in Turkey. Turkey also subsidizes juice exporters through various export programs such as giving subsidies for digital commerce, attendance at trade fairs, conducting market research, etc. More information can be found at <u>Ministry of Trade</u> website.

Cherries (Sweet&Sour), Fresh	2020/2021 Apr 2020		2021/2022 Apr 2021		2022/2023 Apr 2022	
Market Year Begins						
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HA)	103000	103000	104900	101691	0	104000
Area Harvested (HA)	0	0	0	0	0	0
Bearing Trees (1000 TREES)	27500	27500	27500	27809	0	28000
Non-Bearing Trees (1000 TREES)	7000	7000	7000	6703	0	6500
Total Trees (1000 TREES)	34500	34500	34500	34512	0	34500
Commercial Production (MT)	914000	914000	860000	873591	0	980000
Non-Comm. Production (MT)	0	0	0	0	0	0
Production (MT)	914000	914000	860000	873591	0	980000
Imports (MT)	100	0	50	0	0	0
Total Supply (MT)	914100	914000	860050	873591	0	980000
Domestic Consumption (MT)	826600	827000	788050	802645	0	900000
Exports (MT)	87500	87000	72000	70946	0	80000
Withdrawal From Market (MT)	0	0	0	0	0	0
Total Distribution (MT)	914100	914000	860050	873591	0	980000
(HA), (1000 TREES), (MT)						

Peaches & Nectarines, Fresh	2020/2021 Jan 2020		2021/2022 Jan 2021		2022/2023 Jan 2022	
Market Year Begins						
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HA)	46900	46900	46500	50127	0	51000
Area Harvested (HA)	0	0	0	0	0	0
Bearing Trees (1000 TREES)	17800	17800	17800	18687	0	19000
Non-Bearing Trees (1000 TREES)	3900	3900	3900	4849	0	4500
Total Trees (1000 TREES)	21700	21700	21700	23536	0	23500
Commercial Production (MT)	890000	890000	830000	891857	0	940000
Non-Comm. Production (MT)	0	0	0	0	0	0
Production (MT)	890000	890000	830000	891857	0	940000
Imports (MT)	200	134	300	300	0	0
Total Supply (MT)	890200	890134	830300	892157	0	940000
Domestic Consumption (MT)	726800	730134	665300	721560	0	764000
Exports (MT)	163400	160000	165000	170597	0	176000
Withdrawal From Market (MT)	0	0	0	0	0	0
Total Distribution (MT)	890200	890134	830300	892157	0	940000
(HA), (1000 TREES), (MT)						

Attachments:

No Attachments