

**Required Report:** Required - Public Distribution

**Date:** January 13, 2023

**Report Number:** IS2022-0013

**Report Name:** Citrus Annual

**Country:** Israel

**Post:** Tel Aviv

**Report Category:** Citrus

**Prepared By:** Oren Shaked, Agricultural Specialist and Jenny Morgan, Agricultural Attaché

**Approved By:** Elizabeth Mello, Senior Agricultural Attaché

**Report Highlights:**

Israel's planted citrus area in marketing year (MY) 2022/23 is forecast to be 16,200 hectares (ha) with no change from the area planted in MY 2021/22. The productive area is estimated at 15,850 ha and official figures have yet to be published by the Citrus Board this year regarding the area planted. In recent years, weather conditions and market prices were the main challenges for citrus farmers and exporters; however, this year, shipping logistics and prices were the main challenges due to soaring prices for sea container transport, lack in available sea containers, and long delays at the seaports. Weather conditions throughout the season were favorable, which led to high yields directed mainly to the local market because of export challenges.

**Overview:**

Post estimates that MY 2022/23 will be characterized by an average production of 496 thousand metric tons (TMT) due to normal weather conditions during the growing season and no change in the growing area. If farmers face extreme weather conditions into the coming season, a (which have been occurring more frequently in recent years) it may interrupt the harvest which in turn would decrease the production. Israeli farmers commonly face extreme heatwaves and rainstorms, uneven distribution of winter rainfall, and sometimes weeks of high temperatures with no rainfall. MY 2021/22 was an exceptional normal year with no extreme weather conditions, despite a longer rain season and heavier rainfall yields which had no effect.

In MY 2021/22, Israeli citrus production was 21 percent higher than initial 2021 estimates of 418 TMT. Producers reported much higher production in oranges and grapefruits and a small decrease in lemon and tangerine yields. Post is revising upward MY 2021/22 production estimates for oranges and grapefruits and decreasing the figures for lemons and tangerines.

The citrus industry also faced a number of export logistical problems. There was limited availability of sea shipments and in some cases, sea containers were not readily available for the exporters. Port delays in vessel arrivals led to delayed shipments and high demurrage costs. Shipments that were ready for export and left in the port for several days due to the late arrival of vessels, were also damaged. Soaring cost of sea shipments (which was up by hundreds of percent in many cases) also challenged exporters.

**Crop Area:**

Israeli citrus production is located throughout the country with the exception of the far south (south of Beer-Sheva) in the North Negev area. Currently, 27 percent of citrus is grown in the north of the country, 34 percent in the central areas, and 36 percent in the south; the rest are located along the eastern border of the country. Post estimates the total planted area in MY 2022/23 to be at 16,200 ha, which reflects no change in the overall planted area of MY 2021/22.

In recent years, the main challenge for Israeli farmers has been the longer summers and shorter winters with a severe decrease of rainfall. Farmers find themselves also having to irrigate in the wintertime, a practice that was rare in the past. Israeli farmers receive an allocation of water in the beginning of the year and are prohibited from using more. Therefore, farmland for irrigated crops is limited and farmers are incentivized to plant high-value cash crops or those that use less water. In the future, Post expects that citrus planted area will decrease and be replaced by grapes, olives, and figs which are more heat tolerant and demand less water. In 1970, planted area for citrus was 42,000 ha, most of which were oranges. In MY 2020/21, the land occupied by citrus orchards is only 38.5 percent of the area in 1970.

**Oranges** – In MY 2022/23, Post forecasts production to be average after a high yielding year and below MY 2021/22 yields, with area remaining at 3,500 ha. Demand from the institutional sector is expected to increase due to the lifting of government restrictions that were set in the past year to prevent the spread of COVID-19. The bulk of Israeli orange production will find its way to the local market and to the domestic processing industry – same as it was in the past years – as international market prices are still less attractive and face high competition from Southern Europe and from North Africa. Post estimates that MY 2022/23 orange production to reach 60 TMT, which reflects a 39 percent decrease from the current MY. Oranges now represent 22 percent of the total area for citrus.

In MY 2021/22, orange production was 70 percent higher than 2020/21 estimations, mainly due to good weather which did not cause falling of fruit and allowed the timely harvest of the fruit. Post is revising production upward to 99 TMT, which is 70 percent higher from MY 2019/20 production. The updated production numbers are based on industry-reported data and mainly reflect the effects of good weather

conditions. Due to strong competition for oranges in the EU, (Israel’s largest export market) and good domestic prices. Post is also revising upwards domestic consumption and decreasing exports. Post is also revising upwards processing supply to 43 TMT, 54 percent above previous figures, due to high production which caused more oranges to be sent for processing.

**Table 1: Production, Supply, and Distribution:**

| Oranges, Fresh<br>Market Year Begins<br>Israel | 2020/2021     |          | 2021/2022     |          | 2022/2023     |          |
|--|---------------|----------|---------------|----------|---------------|----------|
|  | Oct 2020      |          | Oct 2021      |          | Oct 2022      |          |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted (HECTARES)                        | 3500          | 3500     | 3500          | 3500     | 0             | 3500     |
| Area Harvested (HECTARES)                      | 3400          | 3400     | 3400          | 3400     | 0             | 3400     |
| Bearing Trees (1000 TREES)                     | 0             | 0        | 0             | 0        | 0             | 0        |
| Non-Bearing Trees (1000 TREES)                 | 0             | 0        | 0             | 0        | 0             | 0        |
| Total No. Of Trees (1000 TREES)                | 0             | 0        | 0             | 0        | 0             | 0        |
| Production (1000 MT)                           | 57            | 58       | 58            | 99       | 0             | 60       |
| Imports (1000 MT)                              | 0             | 0        | 0             | 0        | 0             | 0        |
| Total Supply (1000 MT)                         | 57            | 58       | 58            | 99       | 0             | 60       |
| Exports (1000 MT)                              | 4             | 3        | 3             | 1        | 0             | 2        |
| Fresh Dom. Consumption (1000 MT)               | 45            | 27       | 27            | 55       | 0             | 28       |
| For Processing (1000 MT)                       | 8             | 28       | 28            | 43       | 0             | 30       |
| Total Distribution (1000 MT)                   | 57            | 58       | 58            | 99       | 0             | 60       |
|  |               |          |               |          |               |          |
| (HECTARES) ,(1000 TREES) ,(1000 MT)            |               |          |               |          |               |          |

**Mandarin/Tangerine** – In MY 2022/23, Post forecasts total mandarin and tangerine production to reach 170 TMT, this reflects the good weather conditions throughout the growing season, thus far.

Post is revising downwards MY 2021/22 tangerine production estimates based on industry-reported data. Mandarin and tangerine production in MY 2021/22 was 159TMT, 1 TMT below previous estimates. Post is also lowering processing and export numbers and raising fresh domestic consumption figures by 40 percent. The processing sector received smaller quantities of tangerines this year due to high demand and strong prices in the domestic market. Exports were low due to sea shipment challenges and high costs, as well as the fact that the local market was willing to pay high prices which made it more attractive for the growers.

Israel grows more than 15 varieties of mandarins and tangerines. However, Israeli growers today focus mainly on one variety of tangerine: the *Or/Ori* variety. *Or* maintains high demand and strong prices in both local and export markets. Areas planted in other tangerine varieties are decreasing as farmers switch to the *Or* variety. Currently, there are no new varieties with better characteristics being propagated that could potentially replace the *Or* in the near future. Mandarins and tangerines now represent 42 percent of the total area for citrus.

**Table 2: Production, Supply, and Distribution:**

| Tangerines/Mandarins, Fresh<br>Market Year Begins<br>Israel | 2020/2021     |          | 2021/2022     |          | 2022/2023     |          |
|---|---------------|----------|---------------|----------|---------------|----------|
|   | Oct 2020      |          | Oct 2021      |          | Oct 2022      |          |
|   | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted (HECTARES)                                     | 6750          | 6700     | 6700          | 6700     | 0             | 6700     |
| Area Harvested (HECTARES)                                   | 6550          | 6600     | 6600          | 6600     | 0             | 6650     |
| Bearing Trees (1000 TREES)                                  | 0             | 0        | 0             | 0        | 0             | 0        |
| Non-Bearing Trees (1000 TREES)                              | 0             | 0        | 0             | 0        | 0             | 0        |
| Total No. Of Trees (1000 TREES)                             | 0             | 0        | 0             | 0        | 0             | 0        |
| Production (1000 MT)  | 169           | 160      | 160           | 159      | 0             | 170      |
| Imports (1000 MT)   | 0             | 0        | 0             | 0        | 0             | 0        |
| Total Supply (1000 MT)                                      | 169           | 160      | 160           | 159      | 0             | 170      |
| Exports (1000 MT)   | 76            | 90       | 90            | 79       | 0             | 90       |
| Fresh Dom. Consumption (1000 MT)                            | 60            | 40       | 40            | 56       | 0             | 40       |
| For Processing (1000 MT)                                    | 33            | 30       | 30            | 24       | 0             | 40       |
| Total Distribution (1000 MT)                                | 169           | 160      | 160           | 159      | 0             | 170      |
|   |               |          |               |          |               |          |
|   |               |          |               |          |               |          |

**Grapefruit** – In MY 2022/23, grapefruit production is expected to increase to 190 TMT, due to good weather conditions during the growing season. Increasing demands, mainly for red but also for white grapefruits in both the international and domestic markets resulted in good market prices for growers. Previously, farmers were decreasing their plantings of grapefruit due to low demand; however, in the last few years, there have been growing markets for the product in Asia, especially for red grapefruit. Japan, Korea, and China are all increasing imports and Israel intends to focus on these markets because of limited competition and favorable prices.

In line with production reports of the citrus growers, Post is increasing MY 2021/22 grapefruit production estimates by 34 percent, from 130 TMT to 175 TMT. Post is lowering export figures from 63 TMT by 1 TMT (despite good yields and good market prices) because of lower exports to Russia due to the Russia -Ukraine war. Post is revising upwards processing numbers by 37 TMT and increasing the fresh consumption figures by 128 percent to 16 TMT. The grapefruit processing sector received higher quantities of produce this year due to high yields, to high export costs, and other export challenges which limited exports. In the current marketing season, there were also difficulties in shipping grapefruit to Asian markets due to disruptions in sea freight, particularly with seaports in China.

**Table 3: Production, Supply, and Distribution:**

| Grapefruit, Fresh<br>Market Year Begins<br>Israel | 2020/2021     |          | 2021/2022     |          | 2022/2023     |          |
|---|---------------|----------|---------------|----------|---------------|----------|
|   | Oct 2020      |          | Oct 2021      |          | Oct 2022      |          |
|   | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted (HECTARES)                           | 3950          | 0        | 4000          | 4000     | 0             | 4000     |
| Area Harvested (HECTARES)                         | 3500          | 0        | 3500          | 3500     | 0             | 3950     |
| Bearing Trees (1000 TREES)                        | 0             | 0        | 0             | 0        | 0             | 0        |
| Non-Bearing Trees (1000 TREES)                    | 0             | 0        | 0             | 0        | 0             | 0        |
| Total No. Of Trees (1000 TREES)                   | 0             | 0        | 0             | 0        | 0             | 0        |
| Production (1000 MT)                              | 121           | 0        | 130           | 175      | 0             | 190      |
| Imports (1000 MT)                                 | 0             | 0        | 0             | 0        | 0             | 0        |
| Total Supply (1000 MT)                            | 121           | 0        | 130           | 175      | 0             | 190      |
| Exports (1000 MT)                                 | 54            | 0        | 63            | 62       | 0             | 80       |
| Fresh Dom. Consumption (1000 MT)                  | 7             | 0        | 7             | 16       | 0             | 30       |
| For Processing (1000 MT)                          | 60            | 0        | 60            | 97       | 0             | 80       |
| Total Distribution (1000 MT)                      | 121           | 0        | 130           | 175      | 0             | 190      |
|   |               |          |               |          |               |          |
|   |               |          |               |          |               |          |

**Lemons** – In MY 2022/23, production is expected to be 70 TMT, 7 TMT higher than MY 2021/22. Despite good weather in MY 2021/22 yields were 7 TMT lower than anticipated, possibly due to limited harvest as a result of stagnant demands for exports and in the domestic market. In MY2021/22 low demands for the local lemons stopped nearly all lemon exports as well as a slowdown in the local fresh lemon demands. Post is decreasing MY 2021/22 export estimates of 2 TMT to 0 TMT. Post is also decreasing domestic consumption estimates to 60 TMT. There were also smaller demands from the industry and processing figures are also updated downwards by 2 TMT to 3 TMT that were sent for processing.

**Table 4: Production, Supply, and Distribution:**

| Lemons/Limes, Fresh<br>Market Year Begins<br>Israel | 2020/2021     |          | 2021/2022     |          | 2022/2023     |          |
|---|---------------|----------|---------------|----------|---------------|----------|
|   | Oct 2020      |          | Oct 2021      |          | Oct 2022      |          |
|   | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted (HECTARES)                             | 2000          | 2000     | 2000          | 2000     | 0             | 2000     |
| Area Harvested (HECTARES)                           | 1850          | 1850     | 1850          | 1850     | 0             | 1850     |
| Bearing Trees (1000 TREES)                          | 0             | 0        | 0             | 0        | 0             | 0        |
| Non-Bearing Trees (1000 TREES)                      | 0             | 0        | 0             | 0        | 0             | 0        |
| Total No. Of Trees (1000 TREES)                     | 0             | 0        | 0             | 0        | 0             | 0        |
| Production (1000 MT)                                | 53            | 70       | 70            | 63       | 0             | 70       |
| Imports (1000 MT)                                   | 0             | 0        | 0             | 0        | 0             | 0        |
| Total Supply (1000 MT)                              | 53            | 70       | 70            | 63       | 0             | 70       |
| Exports (1000 MT)                                   | 2             | 2        | 2             | 0        | 0             | 3        |
| Fresh Dom. Consumption (1000 MT)                    | 48            | 63       | 63            | 60       | 0             | 63       |
| For Processing (1000 MT)                            | 3             | 5        | 5             | 3        | 0             | 4        |
| Total Distribution (1000 MT)                        | 53            | 70       | 70            | 63       | 0             | 70       |
|   |               |          |               |          |               |          |
|   |               |          |               |          |               |          |

**Consumption:**

Post expects local consumption of all fresh citrus for MY 2022/23 to increase to 193 TMT, due to high export costs and challenging export logistics and increasing local market prices for fresh produce which will make the local fresh market more attractive for suppliers. (See Table 5)

In MY 2021/22, local consumption of fresh citrus was high due to supplies of good quality fruit that was supplied to the local fresh market and not exported. Local fresh citrus consumption in MY 2021/22 was 35 percent higher than previous reported estimates of 143 TMT. This growth in fresh citrus consumption was mainly due to high local market prices coupled with logistical challenges and high shipping costs that made the domestic market much more appealing to producers as well as the reopening of some local markets. This MY, domestic citrus prices were similar to the price received in overseas markets, thus moving produce to be sold in the domestic markets.

The Israeli fresh citrus market is price sensitive. When international prices drop, exporters tend to shift sales back to the domestic market, where prices tend to remain high and demand frequently outstrips supply.

**Table 5: Fresh Citrus Consumption by the Israeli Market (TMT)**

| Product      | 2015/16    | 2016/17    | 2017/18    | 2018/19    | 2019/20    | 2020/21    | 2021/22    | 2022/23    |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Oranges      | 60         | 46         | 42         | 42         | 30         | 45         | 55         | 28         |
| Grapefruit   | 10         | 8          | 8          | 8          | 6          | 7          | 16         | 30         |
| Easy Peelers | 63         | 68         | 42         | 54         | 44         | 60         | 56         | 40         |
| Lemons/Limes | 55         | 60         | 60         | 68         | 66         | 48         | 60         | 63         |
| Others       | 7          | 6          | 6          | 6          | 6          | 6          | 6          | 6          |
| <b>Total</b> | <b>195</b> | <b>188</b> | <b>158</b> | <b>178</b> | <b>152</b> | <b>166</b> | <b>193</b> | <b>167</b> |

\*Source: Israeli Citrus Board, Media

### Processing Sector

The Israeli citrus processing industry is highly consolidated, as are many other sectors of Israeli food and agriculture production. In the case of citrus, two large firms control the country's local production. The primary producers are Gan-Shmuel (Pri-Mor) and Pri-Niv. These plants produce mainly liquid products for both the local market and exports. A plant called Pri-Gat also produces frozen juice that is sold locally and exported. A smaller processor, Gan-Nir, that had been processing citrus for the past 30 years, closed this year due to tight supplies, and plans to reopen have not yet been discussed.

Farmers see the domestic processing industry as their last resort as prices paid by domestic processors are much lower than prices received from exports or from the fresh market. However, in MY 2021/22, larger quantities of fruit were sent to processors as the limited availability of sea shipments decreased the opportunity to export. In MY 2021/22 weather conditions were good, and citrus groves produced higher quantities unlike past years. In MY 2021/22, there was an increase of 44 TMT of total citrus delivered to the processors, over earlier projections. (See Tables 6 and 7)

**Table 6: Citrus Delivered for Processing (TMT)**

| Processing   | 2015/16    | 2016/17    | 2017/18    | 2018/19    | 2019/20    | 2020/21    | 2021/22    | 2022/23    |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Oranges      | 46         | 30         | 30         | 23         | 28         | 8          | 42         | 30         |
| Grapefruit   | 92         | 80         | 68         | 77         | 78         | 60         | 97         | 80         |
| Easy Peelers | 40         | 55         | 32         | 42         | 40         | 33         | 24         | 40         |
| Lemons/Limes | 2          | 4          | 4          | 6          | 9          | 3          | 3          | 4          |
| <b>Total</b> | <b>160</b> | <b>169</b> | <b>134</b> | <b>148</b> | <b>155</b> | <b>104</b> | <b>167</b> | <b>154</b> |

\*Source: Israeli Citrus Board and Israeli media

**Table 7: Total Citrus Utilization (TMT)**

| Period  | Total exports |    | Delivery to processors |    | Local fresh market |    |
|---------|---------------|----|------------------------|----|--------------------|----|
|         | Quantity      | %  | Quantity               | %  | Quantity           | %  |
| 2014/15 | 163           | 30 | 199                    | 36 | 186                | 34 |
| 2015/16 | 158           | 31 | 160                    | 31 | 195                | 38 |
| 2016/17 | 189           | 35 | 168.5                  | 31 | 188                | 34 |
| 2017/18 | 163           | 36 | 134                    | 30 | 152                | 34 |
| 2018/19 | 161           | 34 | 148                    | 31 | 164                | 35 |
| 2019/20 | 159           | 34 | 155                    | 33 | 152                | 33 |
| 2020/21 | 136           | 34 | 104                    | 25 | 166                | 41 |
| 2021/22 | 142           | 28 | 167                    | 34 | 187                | 38 |
| 2022/23 | 175           | 35 | 154                    | 31 | 167                | 34 |

\*Source: Israeli Citrus Board, Israeli local media, and Israeli Central Bureau of Statistics

### ***Frozen Orange Juice***

As Israel is an importer of frozen orange juice (FOJ), its world price has a direct effect on the prices paid by the industry to growers. As global prices of FOJ increase, the domestic industry will demand higher volumes, impacting procurement prices. In MY 2021/22, 42 TMT of oranges were delivered to the processors, up by 425 percent of MY 2020/21 figures. Post expects these figures to rebound to 30 TMT in the coming MY.

Consumption of local fresh citrus is driven by sales at coffee shops and hotels, as well as supermarket chains and open-air markets. While the former is a new and developing market, the latter remains highly competitive and sensitive to international price fluctuations.

**Table 8: Production, Supply, and Distribution:**

| Orange Juice<br>Market Year Begins | 2020/2021     |          | 2021/2022     |          | 2022/2023     |          |
|------------------------------------|---------------|----------|---------------|----------|---------------|----------|
|                                    | Oct 2020      |          | Oct 2021      |          | Oct 2022      |          |
|                                    | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Israel                             |               |          |               |          |               |          |
| Deliv. To Processors (MT)          | 8000          | 28000    | 24000         | 43000    | 0             | 28000    |
| Beginning Stocks (MT)              | 100           | 100      | 100           | 100      | 0             | 100      |
| Production (MT)                    | 800           | 2800     | 2400          | 4300     | 0             | 2800     |
| Imports (MT)                       | 16100         | 15000    | 14500         | 13700    | 0             | 14000    |
| Total Supply (MT)                  | 17000         | 17900    | 17000         | 18100    | 0             | 16900    |
| Exports (MT)                       | 11600         | 12500    | 11400         | 12400    | 0             | 11200    |
| Domestic Consumption (MT)          | 5300          | 5300     | 5500          | 5600     | 0             | 5600     |
| Ending Stocks (MT)                 | 100           | 100      | 100           | 100      | 0             | 100      |
| Total Distribution (MT)            | 17000         | 17900    | 17000         | 18100    | 0             | 16900    |
| (MT)                               |               |          |               |          |               |          |

**Trade:** Post forecasts that Israel’s exports of citrus in MY 2022/23 will reach 175 TMT (not including niche varieties captured as “others” in Table 9 below). This is up 23 percent from MY 2021/22 exports. The increase in exports is explained by anticipated high production in MY 2022/23, and for local market demands to return and remain high. If higher than normal freight costs and limited shipping options halt, Post may once again see lower exports and higher quantities diverted to the domestic consumption and industry.

**Table 9: Citrus Exported (TMT)**

| Export       | 2014/15    | 2015/16    | 2016/17    | 2017/18    | 2018/19      | 2019/20    | 2020/21    | 2021/22    | 2022/23    |
|--------------|------------|------------|------------|------------|--------------|------------|------------|------------|------------|
| Oranges      | 6          | 7          | 4.5        | 4          | 3            | 2          | 4          | 1          | 2          |
| Grapefruit   | 61         | 61         | 61         | 68         | 54           | 59         | 54         | 62         | 80         |
| Easy Peelers | 93         | 87         | 119        | 88         | 102          | 98         | 76         | 79         | 90         |
| Lemons/Limes | 3          | 3          | 3          | 1          | 2            | 0          | 2          | 0          | 3          |
| Others       | NA         | NA         | 1.5        | 2          | 1.5          | NA         | 2          | 2          | 2          |
| <b>Total</b> | <b>163</b> | <b>158</b> | <b>189</b> | <b>163</b> | <b>162.5</b> | <b>159</b> | <b>138</b> | <b>144</b> | <b>177</b> |

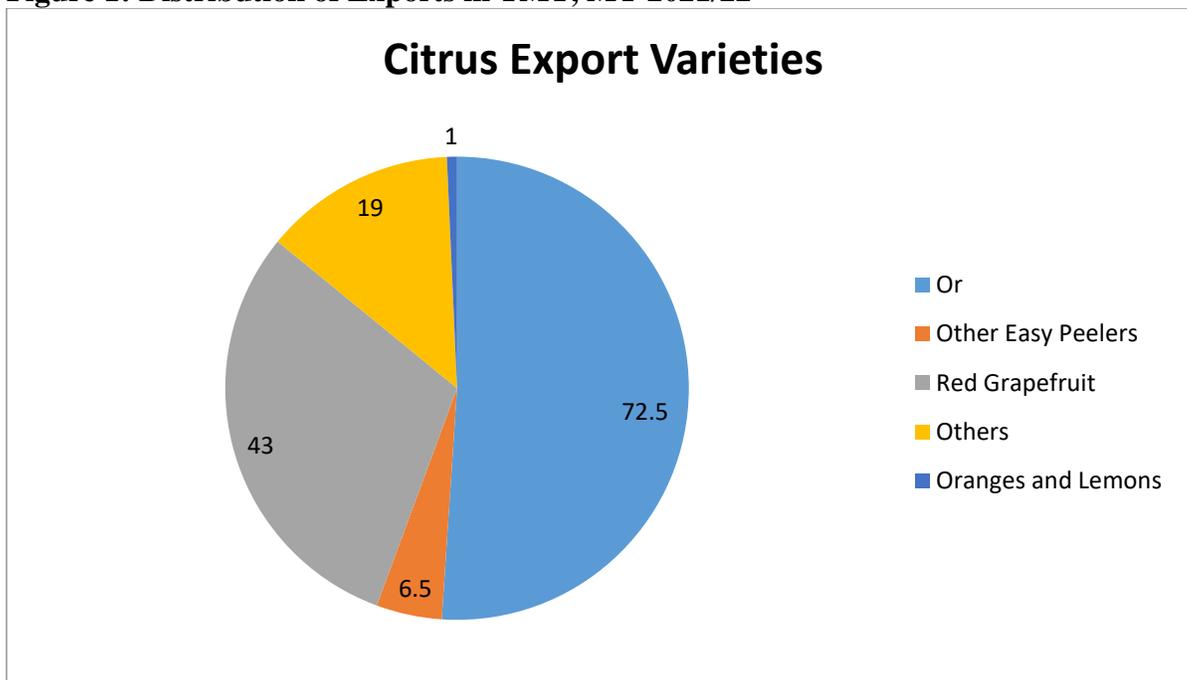
\*Source: Israeli Citrus Board, Central Bureau of Statistics

Israel is seeking new export markets that will be able to absorb its produce with little competition from other countries. Currently, the aim is to increase exports of grapefruit mainly to Asian markets due to the lack of competition and favorable prices. These markets give a higher dollar value for the product compared to closer markets such as Europe where Israeli produce faces stiff competition from other exporting countries such as Morocco and Spain. Also elongated export seasons of the southern hemisphere compete with the early yield of Israeli citrus.

The Israeli citrus industry intends to expand shipments to China, Japan, and South Korea, as well as gain access to other markets, such as Australia and India. Currently, these two markets are closed for Israeli citrus exports due to sanitary and phytosanitary issues and recently there were reports of detection of Lime Butterfly (*papilio demoleus*), an invasive pest in Israel. However, it is too soon to predict how this insect could affect citrus production in Israel and if it will have any impact on international trade.

Two varieties made up 81 percent of citrus exports from Israel in 2021/22 – red grapefruit with 36 TMT and the Or mandarin variety with 72 TMT (see Figure 1).

**Figure 1: Distribution of Exports in TMT, MY 2021/22**



\*Source: Israeli Citrus Board

**Policy:**

Exports of U.S. fresh citrus to Israel are currently not permissible, as are exports from other countries. A Pest Risk Assessment (PRA) has not been conducted for U.S. citrus. Diseases such as *citrus greening* are not found in Israel and is considered a quarantine pest, automatically blocking imports from any country in which *citrus greening* is found. Indications are that even if Israel's Plant Protection Inspection Services conducted a PRA for U.S. citrus, high shipping costs would limit the commercial viability. In addition, Israel does not import any fresh citrus fruit and is not expected to do so in the coming years.

**Attachments:**

No Attachments