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## Israel

## Citrus Annual

## Citrus Annual - Israel 2018

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## Report Highlights:

Israel's area planted in citrus in MY 2018/19 is estimated at 17,843 hectares (ha), 957 ha less than the planted area in MY 2017/18. The productive area is $17,000 \mathrm{ha}$, with the remaining 843 ha being young orchards, which have not yet reached maturity. The total area has decreased mainly due to uprooting easy peeler varieties that are less in demand. Total citrus production in MY 2017/18 was extremely low, compared to the past years and well below 2017 estimates. Post is decreasing production estimates for MY 2017/18 for all citrus varieties. Production is expected to return to normal levels in MY 2018/19.

## Overview

Israeli citrus production in MY 2017/18 is falling well below 2017 estimates. Producers reported decreased production across all citrus varieties, though tangerine and mandarin production showed the greatest decreases. Post is decreasing MY 2017/18 production estimates across all citrus varieties. During MY 2018/19, post anticipates production to return to levels more in line with previous years.

Industry has not identified a single cause for the reduced production; likely, the decrease is the result of a confluence of several factors. First, regional climate patterns are changing. The Mediterranean regions of Turkey as well as parts of Egypt are seeing higher average temperatures and longer summers, which is affecting citrus production practices and yields. Second, precipitation patterns are changing. Israel reported rains in May, which is much later in the year than is generally considered normal. Third, estimates in 2017 assumed that young orchards would have reached maturity in time for the 2018 harvest. It is unclear if all of that planted area reached peak yield this season.

## 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 2018/19 to be 17,843 ha, which is a five percent decrease from the MY 2017/18 planted area of 18,800 ha. The decrease in overall planted area is the result of reduced areas planted in tangerines and other niche varieties, such as pomelo and citron. Israeli growers are now focusing mainly on one variety of tangerine, the Or/Ori variety. In many cases, other tangerine varieties are being uprooted or being replaced by other citrus varieties. With citrus, it is very common and easy to replace a variety simply by grafting the new variety on the old rootstock. Post estimates the total harvested area to be 17,000 ha.

In recent years, the main challenge for Israeli farmers has been the longer summers and shorter winters with a severe decrease of rainfall and rain days. Farmers find themselves having to irrigate also during the wintertime, a phenomena that was rare in the past. Israeli farmers are receiving an allocation of water in the beginning of the year and are prohibited from using more than their allocation. Farm land for irrigated crops is limited and farmers are incentivized to plant high-value cash crops or those that use less water. Area planted in citrus will likely continue to decrease to be replaced by grapes, olives, and figs. In 1970, planted area for citrus was 42,000 ha, most of which were oranges. In MY 2018/19 the land occupied by citrus orchards is only 57.5 percent of the area in 1970.

Oranges - In MY 2017/18, orange production did not meet 2017 estimates. Post is revising production downward to 76 TMT, which is a six percent decrease from MY 2016/17. The updated production numbers are based on industry-reported data and reflect the climactic and production changes outlined above. Due to the decreased production numbers in MY 2017/18, post is also revising downward exports, domestic consumption, and processing estimates. Exports fell to 3.8 TMT, domestic consumption dropped to 42 TMT, and oranges sent for processing reached 30.3 TMT.

In MY 2018/19, post expects production trends to return to normal, with area reaching 4,100 ha, which is a 2.5 percent increase over the previous season. High demand and strong prices are expected to continue driving growth in orange production. The bulk of Israeli orange production will find its way to the local market and to the domestic processing industry, as prices are less attractive on the international
markets. Post estimates that MY 2018/19 orange production to reach 90 TMT, an 18 percent increase over the current year. This increase reflects stable weather conditions throughout the growing season. Oranges now represent 23 percent of the total area for citrus.

| Oranges, Fresh Market Begin Year Israel | 2016/2017 |  | 2017/2018 |  | 2018/2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct 2016 |  | Oct 2017 |  | Oct 2018 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted | 4000 | 4000 | 4000 | 4000 | 0 | 4100 |
| Area Harvested | 3750 | 3750 | 3750 | 3750 | 0 | 3800 |
| Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Total No. Of Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Production | 81 | 81 | 90 | 76 | 0 | 90 |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Supply | 81 | 81 | 90 | 76 | 0 | 90 |
| Exports | 5 | 5 | 5 | 4 | 0 | 5 |
| Fresh Dom. Consumption | 46 | 46 | 46 | 42 | 0 | 46 |
| For Processing | 30 | 30 | 39 | 30 | 0 | 39 |
| Total Distribution | 81 | 81 | 90 | 76 | 0 | 90 |
|  |  |  |  |  |  |  |
| (HECTARES), (1000 TREES) ,(1000 MT) |  |  |  |  |  |  |

Mandarin/Tangerine - Post is revising downward MY 2017/18 tangerine production estimates based on industry-reported data, which reflect the climactic and production changes impacting all Israeli citrus. Mandarin and tangerine production in MY 2017/18 is expected to reach 162 TMT, 103 TMT below 2017 estimates and a decrease of 33 percent below MY 2016/17. These are the lowest production levels seen in a decade in Israeli mandarins and tangerines. In line with decreased production, post is also lowering domestic consumption, processing, and export numbers in MY 2017/18. With relatively stronger prices, export markets will receive the largest share of mandarin and tangerine production, followed by domestic consumption, and processing. The processing sector will consume 42 percent less than MY 2016/17 levels.

In MY 2018/19, post forecasts total mandarin and tangerine production to reach 220 TMT, an increase of 35.8 percent from MY 2017/18. The increased production is a return to more normal yields following an extremely low productive season.

Over the past 13 years, the average yields of the Or/Ori variety of tangerine was around $24.5 \mathrm{MT} / \mathrm{ha}$. [Note: These are data collected from trees over five years old, producing export-quality fruit.] These production levels are profitable for farmers and sustainable. During the MY 2017/18 season, yield in the same groves decreased to $14.6 \mathrm{MT} / \mathrm{ha}$ of export-quality fruit, well below the breakeven point for most farmers.

Israel grows more than 15 varieties of mandarins and tangerines; however, Israeli growers are focusing today mainly on one variety of tangerine: the Or/Ori variety. The Or variety 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. The Or variety is estimated to make up 61 percent of the total tangerine production in MY 2018/19. Today, the Or variety holds 45 percent of the total exports of the Israeli citrus and 82 percent of the total mandarin/tangerine exports. Israeli
growers are facing strong international completion mainly in the European markets, from producers of tangerines from North Africa and Spain.

| Tangerines/Mandarins, Fresh Market Begin Year Israel | 2016/2017 |  | 2017/2018 |  | 2018/2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct 2016 |  | Oct 2017 |  | Oct 2018 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted | 8385 | 8385 | 8385 | 8385 | 0 | 8100 |
| Area Harvested | 7700 | 7700 | 7850 | 7850 | 0 | 7850 |
| Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Total No. Of Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Production | 243 | 243 | 265 | 162 | 0 | 220 |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Supply | 243 | 243 | 265 | 162 | 0 | 220 |
| Exports | 120 | 120 | 140 | 88 | 0 | 110 |
| Fresh Dom. Consumption | 68 | 68 | 70 | 42 | 0 | 70 |
| For Processing | 55 | 55 | 55 | 32 | 0 | 40 |
| Total Distribution | 243 | 243 | 265 | 162 | 0 | 220 |
|  |  |  |  |  |  |  |
| (HECTARES) ,(1000 TREES) ,(1000 MT) |  |  |  |  |  |  |

Grapefruit - In line with other production decreases, post is decreasing MY 2017/18 grapefruit production estimates four percent, from 150 TMT to 144 TMT. As shipments of grapefruit to certain Asian markets remain strong, post is raising grapefruit exports by 5.0 TMT , eight percent above USDA official estimates. Consumption decreases are expected to be seen in the processing sector, which are estimated to decrease to 68 TMT.

In MY 2018/19, grapefruit production is expected to return to its normal levels at 155 TMT. Post expects area planted to increase by 3.5 percent and area harvested to increase by 1.8 percent as farmers respond to export demand from Asian markets. In the recent past, farmers were decreasing their plantations of grapefruit due to low demand; however, in the last few years there is a growing market for the product in Asia, especially for red grapefruit. Japan, Korea and China are all increasing imports. Israel intends to continue focusing on these markets because of limited competition and good prices.

Red grapefruit remain the most popular in international markets. The biggest market for the red grapefruit was France with a share of 23 percent (10.4 TMT) followed by China and the UK with a share of 13 percent each. The red grapefruit exported in MY 2017/18 was 44.6 TMT, which represents 65.5 percent of the total grapefruit exported.

| Grapefruit, Fresh Market Begin Year Israel | 2016/2017 |  | 2017/2018 |  | 2018/2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct 2016 |  | Oct 2017 |  | Oct 2018 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted | 2850 | 2850 | 2850 | 2850 | 0 | 2950 |
| Area Harvested | 2650 | 2650 | 2750 | 2750 | 0 | 2800 |
| Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Total No. Of Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Production | 149 | 149 | 150 | 144 | 0 | 155 |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Supply | 149 | 149 | 150 | 144 | 0 | 155 |
| Exports | 61 | 61 | 63 | 68 | 0 | 75 |
| Fresh Dom. Consumption | 8 | 8 | 8 | 8 | 0 | 8 |
| For Processing | 80 | 80 | 79 | 68 | 0 | 72 |
| Total Distribution | 149 | 149 | 150 | 144 | 0 | 155 |
|  |  |  |  |  |  |  |
| (HECTARES) ,(1000 TREES) ,(1000 MT) |  |  |  |  |  |  |

Lemons - In MY 2017/18, post is decreasing lemon and lime production estimates from 70 to 65 TMT in line with overall citrus decreases. Lower domestic consumption is expected as a result of the decreased production.

In MY 2018/19, post forecasts lemon and lime production to increase to 75 TMT. Domestic demand for lemons and limes remains high and fresh domestic use absorbs most of the supply. Post expects domestic consumption to increase to 67 TMT in MY 2018/19 as production rebounds and prices stabilize.

| Lemons/Limes, Fresh <br> Market Begin Year <br> Israel | 2016/2017 |  | 2017/2018 |  | 2018/2019 |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  | Oct 2016 |  | Oct 2017 |  | Oct 2018 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Planted | 2100 | 2100 | 2100 | 2100 | 0 | 2150 |
| Area Harvested | 1800 | 1800 | 1800 | 1800 | 0 | 1850 |
| Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Bearing Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Total No. Of Trees | 0 | 0 | 0 | 0 | 0 | 0 |
| Production | 67 | 67 | 70 | 65 | 0 | 75 |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Supply | 67 | 67 | 70 | 65 | 0 | 75 |
| Exports | 3 | 3 | 3 | 1 | 0 | 3 |
| Fresh Dom. Consumption | 60 | 60 | 65 | 60 | 0 | 67 |
| For Processing | 4 | 4 | 2 | 4 | 0 | 5 |
| Total Distribution | 67 | 67 | 70 | 65 | 0 | 75 |
|  |  |  |  |  |  |  |
| (HECTARES),(1000 TREES),(1000 MT) |  |  |  |  |  |  |

## Consumption:

Local consumption of fresh citrus in MY 2017/18 was extremely low due to tight supply. Additionally, the quality of the fruit supplied to the local market was lower than usual, likely also associated with the decreased production. Local fresh consumption in MY 2017/18 was 16 percent lower than in the previous marketing year. The tight supply and continued domestic demand for fresh citrus put upward pressure on domestic prices.

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. The tight supply situation in MY 2017/18 created this dynamic.

Post expects local consumption of fresh citrus for MY2018/19 to increase to 197 TMT, an increase of almost 25 percent over the 2017/18 marketing year.

Table 1: Fresh Citrus Consumption by the Israeli Market (TMT)

| Product | $\mathbf{2 0 1 4 / 1 5}$ | $\mathbf{2 0 1 5 / 1 6}$ | $\mathbf{2 0 1 6} / \mathbf{1 7}$ | $\mathbf{2 0 1 7 / 1 8}$ | $\mathbf{2 0 1 8} / \mathbf{1 9}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Oranges | 45 | 60 | 46 | 42 | $\mathbf{4 6}$ |
| Grapefruit | 8 | 10 | 8 | 8 | $\mathbf{8}$ |
| Easy Peelers | 67 | 63 | 68 | 42 | $\mathbf{7 0}$ |
| Lemons/Limes | 60 | 55 | 60 | 60 | $\mathbf{6 7}$ |
| Others | 6 | 7 | 6 | 6 | $\mathbf{6}$ |
| Total | $\mathbf{1 8 6}$ | $\mathbf{1 9 5}$ | $\mathbf{1 8 8}$ | $\mathbf{1 5 8}$ | $\mathbf{1 9 7}$ |

## 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 both for the local market and for export. A plant called Pri-Gat is also producing frozen juice that is also sold locally and exported.

The farmers look at the domestic processing industry as their last resort. This year the prices paid by the domestic industry would not support an orchard. The low production this year led to increased imports. As Israel is an importer of frozen orange juice (FOJ), the world price of frozen orange juice has 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.

| Orange Juice Market Begin Year Israel | 2016/2017 |  | 2017/2018 |  | 2018/2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct 2016 |  | Oct 2017 |  | Oct 2018 |  |
|  | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Deliv. To Processors | 40000 | 40000 | 40000 | 30000 | 0 | 39000 |
| Beginning Stocks | 100 | 100 | 100 | 100 | 0 | 100 |
| Production | 4000 | 4000 | 4000 | 3000 | 0 | 3900 |
| Imports | 21400 | 21400 | 20400 | 24516 | 0 | 24000 |
| Total Supply | 25500 | 25500 | 24500 | 27616 | 0 | 28000 |
| Exports | 13000 | 13000 | 14000 | 17116 | 0 | 17400 |
| Domestic Consumption | 12400 | 12400 | 10400 | 10400 | 0 | 10500 |
| Ending Stocks | 100 | 100 | 100 | 100 | 0 | 100 |
| Total Distribution | 25500 | 25500 | 24500 | 27616 | 0 | 28000 |
|  |  |  |  |  |  |  |
| (MT) |  |  |  |  |  |  |

Table 2: Citrus Delivered for Processing (TMT)

| Processing | $\mathbf{2 0 1 4 / 1 5}$ | $\mathbf{2 0 1 5 / 1 6}$ | $\mathbf{2 0 1 6 / 1 7}$ | $\mathbf{2 0 1 7 / 1 8}$ | $\mathbf{2 0 1 8 / 1 9}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Oranges | 35 | 46 | 30 | 30 | 39 |
| Grapefruit | 117 | 92 | 80 | 68 | 72 |
| Easy Peelers | 45 | 40 | 55 | 32 | 40 |
| Lemons/Limes | 2 | 2 | 4 | 4 | 5 |
| Total | $\mathbf{1 9 9}$ | $\mathbf{1 6 0}$ | $\mathbf{1 6 9}$ | $\mathbf{1 3 4}$ | $\mathbf{1 5 6}$ |

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

Table 3: Total Citrus Utilization (TMT)

| Period | Total exports |  | Delivery to processors |  | Local fresh market |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MY | Quantity | $\mathbf{\%}$ | Quantity | \% | Quantity | \% |
| $\mathbf{2 0 1 4 / 1 5}$ | 163 | 30 | 199 | 36 | 186 | 34 |
| $\mathbf{2 0 1 5 / 1 6}$ | 158 | 31 | 160 | 31 | 195 | 38 |
| $\mathbf{2 0 1 6 / 1 7}$ | 189 | 35 | 168.5 | 31 | 188 | 34 |
| $\mathbf{2 0 1 7 / 1 8}$ | 163 | 36 | 134 | 30 | 152 | 34 |
| $\mathbf{2 0 1 8 / 1 9}$ | 193 | 36 | 156 | 29 | 191 | 35 |

## Trade:

Post forecasts that Israel's exports of citrus in MY 2018/19 will reach 195 TMT. This is up 20 percent from the 2017/18 marketing year. The increased exports are explained by higher production due to good climatic conditions and due to a season that follows a very low production year. Total citrus exports in MY 2017/18 were 163 TMT, a decrease of 14 percent from the previous year.

Table 4: Citrus Exported (TMT)

| Export | $\mathbf{2 0 1 4 / 1 5}$ | $\mathbf{2 0 1 5 / 1 6}$ | $\mathbf{2 0 1 6} / \mathbf{1 7}$ | $\mathbf{2 0 1 7 / 1 8}$ | $\mathbf{2 0 1 8 / 1 9}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Oranges | 6 | 7 | 4.5 | 4 | 5 |
| Grapefruit | 61 | 61 | 61 | 68 | 75 |
| Easy Peelers | 93 | 87 | 119 | 88 | 110 |
| Lemons/Limes | 3 | 3 | 3 | 1 | 3 |
| Others | NA | NA | 1.5 | 2 | 2 |
| Total | $\mathbf{1 6 3}$ | $\mathbf{1 5 8}$ | $\mathbf{1 8 9}$ | $\mathbf{1 6 3}$ | $\mathbf{1 9 5}$ |

Israel is seeking out new export markets that will be able to absorb its produce with little competition from other countries. Currently, the aim is to increase the exports of grapefruit, to Asian markets among others. The Israeli citrus industry intends to expand shipments to China, Japan and South Korea, as well as gain market access to other markets, such as India. Israel faces stiff competition in the European from exporters in Morocco and Spain.

In recent years Israel has focused more on developing far away markets, such as North America, Japan, China, and Korea. These markets give a higher dollar value for the product than others. In the forecast year, Israel's exports to these destinations are 44 TMT compared to 28.5 TMT in 2015/16 and 40 TMT in 2016/17. Israel expects these markets to make up a bigger share of the total shipments in the future. Meanwhile Israel continues to explore new markets for its products, such as Australia and India. Currently, these two markets are closed for Israeli citrus exports due to SPS issues.

Two varieties make up 72 percent of citrus exports from Israel, red grapefruit with 44.6 TMT and the Or mandarin variety with 72.5 TMT. Of citrus fruit, mandarins and tangerines are the most exported at 88 TMT, which make up 54 percent of all citrus exports.

Figure 1: Distribution of Exports, MY 2016/17
Citrus Export Varieties


$$
\begin{aligned}
& \square \text { Or } \\
& \square \text { Other Easy Peelers } \\
& \square \text { Red Grapefruit } \\
& \square \text { Others } \\
& \square \text { Oranges and Lemons }
\end{aligned}
$$

The European Union remains by far the largest importer of Israeli citrus, importing 114 TMT in MY 2016/17, which represents 60 percent of total exports. This is followed by Russia at 11 percent of exports, and the US at 6.3 percent. Importantly, certain Asian markets represent a growing destination for Israeli citrus. Exports to South Korea, China, and Japan reached 9.5 percent compared to eight percent of the MY 2015/16 total.

Table 5: Five Leading Destinations for Israeli Citrus, MY 2016/17

| Destination | Quantity (TMT) | Percent of Exports |
| :---: | :---: | :---: |
| EU+ UK | 99.6 | 61 |
| Russia | 12.8 | 7.8 |
| USA | 9 | 5.5 |
| S. Korea, China, Japan | 26 | 16 |
| Canada | 8.8 | 5.4 |

Israel is focusing on the development of Asian markets, primarily South Korea, China and Japan, as a destination for red grapefruit. Growth in mandarin/tangerine exports will focus on European markets. Israel expects to export 140 TMT of Or to Europe by the year 2020.

Figure 2: Citrus Export Destinations, MY 2017/18, in MT


## Policy:

Exports of US citrus to Israel are not currently permissible. A Pest Risk Assessment (PRA) has not been conducted for US citrus. Indications are that even if Israel's Plant Protection Inspection Services (PPIS) conduct a PRA for US 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.

