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Report Highlights:

Israel's planted area with citrus in marketing year (MY) 2021/22 is forecast to be 16,200 hectares (ha) with no change from the area planted in MY 2020/21. The productive area is estimated at 15,350 ha. In past years, the main challenges citrus farmers and exporters faced were weather conditions and market prices. This year, for the second time, farmers had to manage COVID-19 restrictions, which affected their field work, packing house operations, and shipping logistics. Also, this year farmers and exporters faced sea logistics challenges, soaring prices for sea container transport, lack in available sea containers, and long delays in the sea ports. Even though weather conditions throughout most of the season were favorable, a ten-day period with dry winds and extreme heat in May led to the falling of flowers and fruit buds. Later in the season, higher than normal temperatures led to greater water demand, causing high expenses for the farmers.

Overview:
Post estimates that MY 2021/22 will be characterized by low production – falling considerably below the average total citrus production of 512 thousand metric tons (TMT) – due to extreme weather conditions during the growing season, which has been occurring more frequently in recent years. Farmers face extreme heatwaves and rain storms, uneven distribution of winter rainfall, and sometimes weeks of high temperatures with no rainfall. MY 2021/22 began with higher-than-average air temperatures with almost no rainfall and early predictions are that December 2021 and January 2022 will see heavy rainfalls that might effect yields.

In MY 2020/21, Israeli citrus production fell 4.3 percent below initial 2020 estimates of 418 TMT. Producers reported decreased production, especially in lemons. As a result, Post is revising down MY 2020/21 production estimates for oranges, lemons, and grapefruit, and revising upwards the initial production estimates for tangerines by 9 TMT.

MY 2020/21 began with high air temperatures and no heavy rains or hailstorms. Early enough in the season, during May, a ten-day heat wave struck across the country causing flowers and fruit buds to drop. This was followed by higher-than-average temperatures for the rest of the growing season, leading to greater irrigation demands and costs for farmers. The COVID-19 pandemic also had an impact, but this season the effect was more moderate than in the previous MY where the government – aiming to control the spread of the virus – implemented restrictions that limited workplace operations, including the number of employees working per shift, and employees having to stay home in quarantine. The low production led to small supplies to the processing industry. One of Israel's long time processors, Gan-Nir, closed this year due to the low profitability.

The citrus industry also faced a number of export logistics problems. There was a limited availability of sea shipments and in some cases sea containers were not readily available for exporters. Port delays in vessel arrivals led to delayed shipments and high demurrage costs. 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 2021/22 to be at 16,200 ha, which reflects no change in the overall planted area of MY 2020/21.

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 having to irrigate also in the wintertime, a phenomenon 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 2021/22, Post forecasts production to remain low and below average based on production challenges outlined above, 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. Post estimates that MY 2021/22 orange production to reach 58 TMT, which reflects almost no change from the current MY. Oranges now represent 22 percent of the total area for citrus.

In MY 2020/21, orange production fell below previous estimates. Post is revising production downwards to 57 TMT, which is a 5 percent decrease from MY 2019/20. The updated production numbers are based on industry-reported data and mainly reflect the effects of adverse weather conditions. Due to strong prices in the domestic and in EU markets, Post is also revising upwards exports and domestic consumption. The low production and high demands for fresh produce to supply the industry fell well below expectations, and post is revising downwards processing supply to 8 TMT, 28.5 percent below previous figures.

Production, Supply, and Distribution:

Oranges, Fresh	**2019/2020**		**2020/2021**		**2021/2022**	
Market Year Begins	**Oct 2019**		**Oct 2020**		**Oct 2021**	
Israel	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Planted (HECTARES)	4100	4100	4100	3500	0	3500
Area Harvested (HECTARES)	3800	3500	3800	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)	76	60	76	57	0	58
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	76	60	76	57	0	58
Exports (1000 MT)	4	2	4	4	0	3
Fresh Dom. Consumption (1000 MT)	44	30	44	45	0	27
For Processing (1000 MT)	28	28	28	8	0	28
Total Distribution (1000 MT)	76	60	76	57	0	58
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Mandarin/Tangerine – In MY 2021/22, Post forecasts total mandarin and tangerine production to reach 160 TMT, this decrease reflects the severe drought earlier in the growing season that led buds to drop, negatively impacting production levels.

Post is revising downwards MY 2020/21 tangerine production estimates based on industry-reported data, which reflects mainly weather effects, impacting all Israeli citrus. Mandarin and tangerine production in MY 2020/21 was 169 TMT, 13 TMT below previous estimates. In line with decreased production, Post is also lowering processing and export numbers, and raising fresh domestic consumption figures by 36 percent. The processing sector received smaller quantities of tangerines this year due to high demand and strong prices in the domestic market. Customers were even welcoming lower quality fruit which were sold for fresh consumption and not diverted to processors. 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. The *Or* is estimated to make up 75 percent of the total tangerine production in MY 2021/22, and today holds 53 percent of the total exports of Israeli citrus and 95 percent of total mandarin/tangerine exports. Israeli growers face strong international competition mainly in the European markets, from tangerine producers in North Africa and Spain. Mandarins and tangerines now represent 42 percent of the total area for citrus.

Production, Supply, and Distribution:

Tangerines/Mandarins, Fresh	**2019/2029**		**2020/2021**		**2021/2022**	
Market Year Begins	**Oct 2019**		**Oct 2020**		**Oct 2021**	
Israel	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Planted (HECTARES)	8135	7235	7415	6750	0	6700
Area Harvested (HECTARES)	7850	7000	7000	6550	0	6600
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)	200	182	160	169	0	160
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	200	182	160	169	0	160
Exports (1000 MT)	110	98	90	76	0	90

Fresh Dom. Consumption (1000 MT)	55	44	40	60	0	40
For Processing (1000 MT)	35	40	30	33	0	30
Total Distribution (1000 MT)	200	182	160	169	0	160
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Grapefruit – In MY 2021/22, grapefruit production is expected to remain low at 130 TMT, due to harsh weather conditions during the growing season. Increasing demands, mainly for red but also for white, grapefruits in international markets resulted in 50 ha of new plots planted in MY 2020/21, replacing mainly niche, easy peeler varieties. 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 declines in other Israeli citrus, Post is lowering MY 2020/21 grapefruit production estimates by 15 percent, from 143 TMT to 121 TMT, despite expanded planted area. Post is also lowering export figures and processing numbers and increasing the fresh consumption figures by 16 percent. The grapefruit processing sector received smaller quantities of produce this year due to the low yields and to high demands in overseas markets. In the current marketing season, there were also difficulties in shipping grapefruit to Asian markets due to disruptions in sea freight and in seaports. Despite the challenges of exporting logistics and prices, Israel managed to export 54 TMT of grapefruit, which represents only a six percent decrease from MY 2019/20 quantities, mainly due to high international demands but with lack of exportable yields.

Production, Supply, and Distribution:

Grapefruit, Fresh	**2019/2020**		**2020/2021**		**2021/2022**	
Market Year Begins	**Oct 2019**		**Oct 2020**		**Oct 2021**	
Israel	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Planted (HECTARES)	3275	3855	4335	3950	0	4000
Area Harvested (HECTARES)	3000	2750	3100	3500	0	3500
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)	155	143	130	121	0	130
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	155	143	130	121	0	130
Exports (1000 MT)	75	59	63	54	0	63

Fresh Dom. Consumption (1000 MT)	8	6	7	7	0	7
For Processing (1000 MT)	72	78	60	60	0	60
Total Distribution (1000 MT)	155	143	130	121	0	130
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Lemons – In MY 2021/22, production is expected to be 70 TMT, 17 TMT higher than MY 2020/21. Lemons are somewhat more resistant to harsh weather conditions than other citrus fruit. The harsh weather this season seems to have a smaller effect on lemon yields.

In MY 2020/21, lemons, like all other citrus varieties, were affected by the weather conditions and yields were low. On the other hand, higher lemon demand in international markets grew exports to 2 TMT, a hundred percent increase over MY 2019/20 figures. Post is increasing MY 2020/21 export estimates to this figure as a result. Due to low production this year, there was also less available fruit for the domestic market. In line with this, Post is also decreasing MY 2020/21 domestic consumption from the previous estimate to 48 TMT. In MY 2020/21, the processing sector was able to absorb 3 TMT, 6 TMT under the previous forecast.

Production, Supply, and Distribution:

Lemons/Limes, Fresh	**2019/2020**		**2020/2021**		**2021/2022**	
Market Year Begins	**Oct 2019**		**Oct 2020**		**Oct 2021**	
Israel	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Planted (HECTARES)	2150	2150	2150	2000	0	2000
Area Harvested (HECTARES)	1850	1850	2000	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)	75	75	70	53	0	70
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	75	75	70	53	0	70
Exports (1000 MT)	3	0	1	2	0	2
Fresh Dom. Consumption (1000 MT)	68	66	64	48	0	63
For Processing (1000 MT)	4	9	5	3	0	5
Total Distribution (1000 MT)	75	75	70	53	0	70
(HECTARES) ,(1000 TREES) ,(1000 MT)						

Consumption:
Post expects local consumption of all fresh citrus for MY 2021/22 to decrease to 143 TMT, due to tight supply and increased demands overseas which might lead to increased consumer price in the domestic market (see Table 1).

In MY 2019/20, local consumption of fresh citrus was extremely low due to tight supplies, and closure of wet markets in Israel. Additionally, the quality of the fruit supplied to the local market was lower than usual and prices were relatively high, also associated with the tight supplies. Local fresh citrus consumption in MY 2020/21 was 15 percent higher than previous reported estimates of 144 TMT. This growth in fresh 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 and due to 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. The tight supply situation in MY 2020/21 created this dynamic. Domestic consumption this year also went up due to limited travel abroad of Israelis due to government imposed COVID-19 travel restrictions.

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

Product	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**
Oranges	60	46	42	42	30	45	27
Grapefruit	10	8	8	8	6	7	7
Easy Peelers	63	68	42	54	44	60	40
Lemons/Limes	55	60	60	68	66	48	63
Others	7	6	6	6	6	6	6
Total	**195**	**188**	**158**	**178**	**152**	**166**	**143**

*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 both for the local market and for export. A plant called Pri-Gat also produces frozen juice that is sold locally and exported. A smaller processer, Gan-Nir, that had been processing citrus for the past 30 years, closed this year due to tight supplies.

Farmers see the domestic processing industry as their last resort. In general, prices paid by domestic processors would not support an orchard, but this year the high domestic and overseas demands shifted most of the citrus from this industry. Unlike in MY 2019/20 when larger quantities of fruit were sent to the processors, this industry now became a perfect escape for fruit that was not exported due to the limited availability of sea shipments during the COVID-19 outbreak, as well as for the fruit that was diverted from open-air markets, which had been closed.

MY 2020/21 weather conditions were challenging, and citrus groves produced much smaller quantities but, unlike past years, some processing quality fruit was also sent to the local markets to fill up demands. In MY 2020/21, there was a decrease of 51 TMT of total citrus delivered to the processors as a result of high demands for exports and high demands in the domestic markets for fresh citrus (see Tables 2 and 3).

Table 2: Citrus Delivered for Processing (TMT)

Processing	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**
Oranges	46	30	30	23	28	8	28
Grapefruit	92	80	68	77	78	60	60
Easy Peelers	40	55	32	42	40	33	30
Lemons/Limes	2	4	4	6	9	3	5
Total	**160**	**169**	**134**	**148**	**155**	**104**	**133**

*Source: Israeli Citrus Board and Israeli media

Table 3: Total Citrus Utilization (TMT)

Period	**Total exports**		**Delivery to processors**		**Local fresh market**	
MY	**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	158	36	133	31	143	33

*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 2020/21, 8 TMT of oranges were delivered to the processors, down to 28.6 percent of MY 2019/20 figures. Post expects these figures to rebound to near MY 2019/20 levels 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. This year, due

to limitations placed by the government of Israel, hotel and resort operations as well as restaurants and coffee shop operations, were restricted. As a result, domestic consumption of FOJ has declined. This drop in consumption could also be correlated to the awareness the Ministry of Health has put on unhealthy foods, urging consumers to consume more fresh fruit saying it is much healthier than FOJ.

Production, Supply, and Consumption:

Orange Juice	**2019/2020**		**2020/2021**		**2021/2022**	
Market Year Begins	**Oct 2019**		**Oct 2020**		**Oct 2021**	
Israel	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Deliv. To Processors (MT)	30000	28000	28000	8000	0	24000
Beginning Stocks (MT)	100	100	100	100	0	100
Production (MT)	3000	2800	2800	800	0	2400
Imports (MT)	22700	13600	15000	16100	0	14500
Total Supply (MT)	25800	16500	17900	17000	0	17000
Exports (MT)	15900	11100	12300	11600	0	11400
Domestic Consumption (MT)	9800	5300	5500	5300	0	5500
Ending Stocks (MT)	100	100	100	100	0	100
Total Distribution (MT)	25800	16500	17900	17000	0	17000

Trade: Post forecasts that Israel's exports of citrus in MY 2021/22 will reach 158 TMT (not including niche varieties captured as "others" in Table 4 below). This is up 16 percent from MY 2020/21 exports. The increase in exports is explained by anticipated higher production in MY 2021/22 as compared to MY 2020/21, and for local market demands to return to average. If higher than normal freight costs and limited shipping options continue, we might once again see lower exports and higher domestic consumption.

Table 4: Citrus Exported (TMT)

Export	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**
Oranges	6	7	4.5	4	3	2	4	3
Grapefruit	61	61	61	68	54	59	54	63
Easy Peelers	93	87	119	88	102	98	76	90
Lemons/Limes	3	3	3	1	2	0	2	2
Others	NA	NA	1.5	2	1.5	NA	2	2
Total	**163**	**158**	**189**	**163**	**162.5**	**159**	**138**	**160**

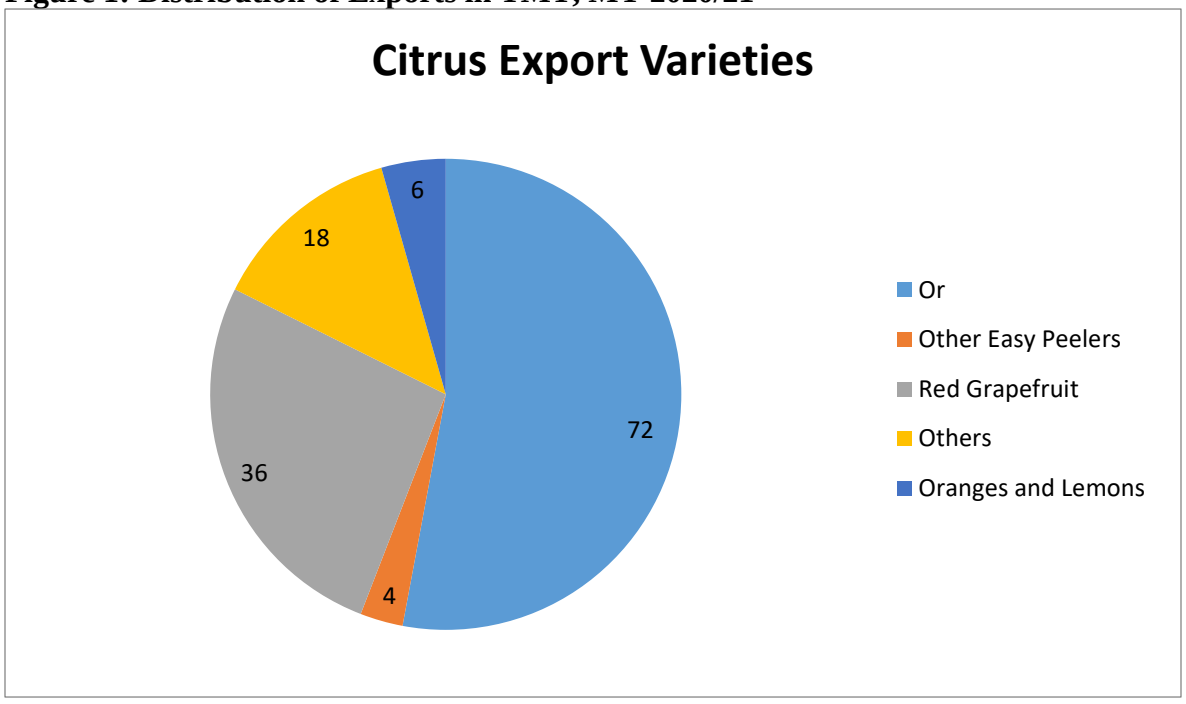
*Source: Israeli Citrus Board, Central Bureau of Statistics

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. 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 79 percent of citrus exports from Israel in 2020/21 – red grapefruit with 36 TMT and the *Or* mandarin variety with 72 TMT (see Figure 1).

Figure 1: Distribution of Exports in TMT, MY 2020/21



*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 that citrus greening is found in. 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