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**Report Name:** Citrus Annual

**Country:** Morocco

Post: Rabat

Report Category: Citrus

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## **Report Highlights:**

Morocco's MY 2022/2023 citrus production is expected to fall 35 percent from the previous season due to water scarcity and unfavorable weather. Tangerine and mandarin production are expected to decrease by 34 percent from the previous year to 900,000 MT, while orange production should fall by 35 percent to 750,000 MT. Lemon and lime production will reach 35,000 MT, a 22 percent decline from MY 2021/2022. Declining citrus production will diminish Moroccan citrus exports. Increasing pressure on water resources has resulted in an estimated loss of six percent of planted citrus area, including the removal of ten percent of tangerine/mandarin orchards.

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## **Executive Summary**

High temperatures in July-September 2022 created unfavorable conditions during the Moroccan citrus crop's blossoming and fruit-setting periods. Consequently, MY 2022/2023 tangerine and mandarin production is estimated to fall 34 percent to 900,000 metric tons. Exports and consumption will also decline. Heat stress and a water shortage have also drive down orange, orange juice, and lemon/lime production. MY 2022/2023 orange production is estimated at 750,000 metric tons, down 35 percent from the previous season. MY 2022/2023 orange juice production is estimated at 4,000 metric tons (65 degrees brix), down 27 percent lower than MY 2021/2022 based on lower orange supplies for processing. Morocco's lemon and lime production for MY 2022/2023 is estimated to reach 35,000 MT, about 22 percent lower than MY 2021/2022. Increasing water scarcity and higher production costs have resulted in citrus growers shifting to annual crops and less water intensive alternatives. An estimated six percent of citrus orchards were removed in Morocco this year, including up to ten percent of tangerine and mandarin planted area.

Summary of Post's Citrus PSDs (1.000MT)

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Citrus	MY 2021/2022			MY 2022/2023					
	Production	Domestic	Exports	Production	Domestic	Exports			
		Consumption			Consumption				
Tangerines/Mandarins Fresh	1,360	735	625	900	575	325			
Oranges, Fresh	1,150	965	130	750	630	80			
Lemons/Limes Fresh	45	39	7	35	30	5			
Orange Juice (65° brix)*	5.5	4.8	3	4	4.5	2.5			

Source: Office des Changes, \* For import data see trade section.

## I. Tangerines/Mandarins, Fresh

HS-080520, 080521, 080522, 080529

**Production:** For MY 2022/2023, Morocco's tangerine and mandarin production is expected to fall to 900,000 MT, a 34 percent decline from previous season levels due to heat stress, water scarcity, and increased input costs. According to trade sources, many orchards in the Berkane region suffered 40-50 percent losses during fruit-setting.

Water scarcity in Morocco had significant impact on all citrus production leading to the removal of orchards. Growers report that the crop year 2021/2022 drought diminished snowpack, resulting in record low levels of irrigation water. While some farms were able to substitute ground water, many small farms could not justify the expense of drilling new wells. The increasing cost of irrigation, combined with other production cost increases led many growers to remove citrus orchards. Post estimates that up to six percent of Moroccan area planted to citrus was permanently removed in 2022, including an estimated ten percent of tangerine and mandarin planted area. Growers report that land will be repurposed for alternative crops such as potato in the Oriental region and red fruits (raspberries, blueberries, strawberries, blackberries) in the Souss-Massa region.

Consumption: Post forecasts domestic tangerine and mandarin consumption at 575,000 MT in MY 2022/2023, a decrease of 22 percent compared to MY 2021/2022 based on lower production. Post also updates MY 2021/2022 and MY 2020/2021 fresh domestic consumption, reflecting remaining available supply in the balance sheet after accounting for year-end trade data. Post notes that increasing domestic tangerine/mandarin prices have helped maintained domestic supply at the cost to some exports.

*Trade:* The export season started in early November, two weeks later than average as fruit maturation was delayed. Post projects MY 2022/2023 tangerine and mandarin exports to reach 325,000 MT, 48 percent lower than MY 2021/2022, based on lower supplies. Russia and the European Union remain Morocco's top export markets. In MY2021/2022, Morocco shipped a record 109,254 MT to the United States. Post also updates MY 2021/2022 and MY 2020/2021 export figures based on year-end trade data. Exporters commented that increasing freight costs will diminish Moroccan citrus exports to the United States in MY 2022/2023.

Tangerine/Mandarin Exports (1.000 MT) by Marketing Year (Sep-Aug)

Tungerme/Manaarm Exports (1,000 MI) by Marketing Tear (Sep-Aug)										
Partner Country	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	% Change				
Russia	205,091	303,330	124,247	149,464	182,346	22%				
EU 27	166,191	151,914	150,097	165,801	180,699	9%				
United States	55,561	56,477	38,244	43,208	109,254	153%				
Canada	67,604	64,492	53,824	54,160	69,033	27%				
Sub-Saharan Africa	26,596	24,093	27,119	31,146	53,434	72%				
Middle East	15,385	16,051	14,550	18,390	20,299	10%				
Other	2,124	6,468	2,870	3,484	9,912	185%				
Total	538,554	622,823	410,952	465,652	624,976	34%				

Source: Office des Changes

## Production, Supply & Distribution: Tangerines/Mandarins, Fresh

Tangerines/Mandarins, Fresh	2020/	2021	2021/	2022	2022/	2023
Market Year Begins	Sep 2	Sep 2020 Sep 2021		Sep 2	2022	
Morocco	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	65515	65515	65750	65750	0	59150
Area Harvested (HECTARES)	58850	58850	58900	58900	0	50000
Bearing Trees (1000 TREES)	19975	19975	20000	20000	0	17975
Non-Bearing Trees (1000 TREES)	6800	6800	6820	6820	0	6150
Total No. Of Trees (1000 TREES)	26775	26775	26820	26820	0	24125
Production (1000 MT)	1205	1205	1360	1360	0	900
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	1205	1205	1360	1360	0	900
Exports (1000 MT)	463	466	590	625	0	325
Fresh Dom. Consumption (1000 MT)	742	739	770	735	0	575
For Processing (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	1205	1205	1360	1360	0	900
(HECTARES), (1000 TREES), (1000 N	MT)					

## II. Oranges, Fresh

HS-080510

**Production:** Moroccan MY 2022/2023 orange production is expected to decline 35 percent to 750,000 MT due to unfavorable weather during the growing season, water shortages, and a decrease in area harvested and yields.

*Consumption*: Post estimates MY 2022/2023 domestic consumption of fresh oranges at 630,000 MT, a decline of 35 percent from the previous season. Deliveries to processors are estimated to fall 40,000 MT due to lower supplies. Post adjusts domestic consumption for MY 2021/2022, based on year-end trade figures.

*Trade*: Post projects orange exports for MY 2022/2023 to reach 80,000 MT, 38 percent lower than MY 2021/2022 due to declining supplies. Post also updates the MY2020/2021 export number based on year-end trade data.

Orange Exports (MT) by Marketing Year (Oct-Sep)

Partner Country	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	%∆
EU 27	87,541	97,459	84,191	52,011	51,379	-1%
Russia	13,625	14,908	9,909	9,609	20,307	111%
United States	10,806	6,244	2,142	2,919	18,611	538%
Canada	8,385	12,869	6,968	10,972	17,783	62%
Sub-Saharan Africa	13,631	10,094	8,730	10,095	13,869	37%
Middle East	10,332	9,353	4,532	4,459	6,779	52%
Other	851	3,757	714	1,483	1,722	16%
Total	145,174	154,683	117,184	91,546	130,454	42.5

Source: Office des Changes

## Production, Supply & Distribution: Oranges, Fresh

HS-080510

Oranges, Fresh	2020	/2021	2021/	2022	2022/	2023
Market Year Begins	Oct 2020		Oct 2	2021	Oct 2022	
Morocco	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HECTARES)	58850	58850	59600	59600	0	58500
Area Harvested (HECTARES)	55405	55405	56500	56500	0	55100
Bearing Trees (1000 TREES)	17150	17150	17200	17200	0	17125
Non-Bearing Trees (1000 TREES)	1615	1615	1635	1635	0	1600
<b>Total No. Of Trees</b> (1000 TREES)	18765	18765	18835	18835	0	18725
Production (1000 MT)	1039	1039	1150	1150	0	750
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	1039	1039	1150	1150	0	750
Exports (1000 MT)	96	92	130	130	0	80
Fresh Dom. Consumption (1000 MT)	893	897	965	965	0	630
For Processing (1000 MT)	50	50	55	55	0	40
Total Distribution (1000 MT)	1039	1039	1150	1150	0	750
(HECTARES),(1000 TREES),(1000 N	MT)					

## III. Orange Juice (65° brix basis)

HS-200911, 200912, 200919

**Production:** Post forecasts orange juice production for MY 2022/2023 to fall to 4,000 MT, nearly 27 percent lower than MY 2021/2022 based on lower orange supplies for processing.

**Consumption:** Post forecasts MY 2022/2023 domestic consumption at 3,500 MT, 17 percent lower than the previous season. Declines in consumption reflect production shortfalls in Morocco. Post revised its estimate for MY2021/2022 following year-end trade figures.

*Trade*: For MY 2022/2023, Post estimates that orange juice exports will reach 2,500 MT, about 18 percent lower than MY 2021/2022. Post also expects Morocco to import 2,000 MT of orange juice, an increase of 720 MT over the previous year. Increased imports reflect domestic production shortfall.

Orange Juice Imports (MT @ 65°) by Marketing Year (Oct-Sep)

Product	conv. factor	2017/18	2018/19	2019/20	2020/21	2021/22	% Change
2009.11: Frzn	1.0154	1,141	1,052	627	243	165	-32.1%
2009.12: Not Frzn, ≤20 Brix	0.1815	3	7	5	9	8	-11.11%
2009.19: Not Frzn, Other	1	1,006	1,320	1,054	1,304	1,607	23.24%
Total (65° Basis)		2,149	2,379	1,687	1,556	1,780	14.4%

Source: Office des Changes

Orange Juice Exports (MT @ 65°) by Marketing Year (Oct-Sep)

Product	conv. factor	2017/18	2018/19	2019/20	2020/21	2021/22	% Change
2009.11: Frzn	1.0154	1,195	1,310	226	522	818	56.7%
2009.12: Not Frzn, ≤20 Brix	0.1815	1,137	1,266	755	554	841	51.81%
2009.19: Not Frzn, Other	1	1,962	1,707	1,075	1,594	1,398	-12.3%
Total (65° Basis)		4,293	4,283	2,056	2,670	3,057	14.49%

Source : Office des Changes

## Production, Supply & Distribution: Orange Juice (65 $^{\circ}$ brix basis)

HS-200911, 200912, 200919

Orange Juice	2020/	2021	2021/	2022	2022/	2023
Market Year Begins	Oct 2	2020	Oct 2	2021	Oct 2	2022
Morocco	<u> </u>		USDA Official	New Post	USDA Official	New Post
Deliv. To Processors (MT)	50000	50000	55000	55000	0	40000
<b>Beginning Stocks</b> (MT)	0	0	0	0	0	0
<b>Production</b> (MT)	5000	5000	5500	5500	0	4000
Imports (MT)	1556	1556	2000	1780	0	2000
Total Supply (MT)	6556	6556	7500	7280	0	6000
Exports (MT)	2670	2670	2700	3057	0	2500
Domestic	3886	3886	4800	4223	0	3500
Consumption (MT)						
Ending Stocks (MT)	0	0	0	0	0	0
<b>Total Distribution (MT)</b>	6556	6556	7500	7280	0	6000
(MT)						

## IV. Lemons/Limes, Fresh

HS-080550

**Production:** Post forecasts lemon and lime production for MY 2022/2023 to reach 35,000 MT, about 22 percent lower than MY 2021/2022. Production declines are due to heat stress during the growing season.

**Consumption:** Post forecasts MY 2022/2023 fresh domestic consumption at 30,000 MT. Post revised its estimate for MY 2021/2022 and MY 2020/2021 following year-end trade figures.

**Trade:** Post projects lemon/lime exports for MY 2022/2023 to reach 5,000 MT, a 32 percent decrease from MY 2021/2022. Post also updates MY 2021/2022 and MY 2020/2021 exports number based on year-end trade data.

## Lemon/Lime Exports by Destination (MT)

Partner Country	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	%Δ
Russia	3,709	5,151	6,477	4,242	2,091	-51%
Sub Saharan Africa	3,273	7,708	6,855	2,727	2,536	-7%
EU 27	594	703	2,117	891	1,120	26%
United Kingdom	267	115	317	4	44	1000%
Canada	502	719	1,073	649	1,642	153%
United States	351	0	2	26	0	-100%
Middle East	62	658	434	339	4	-99%
Other	26	149	44	31	0	-100%
Total	8,785	15,228	17,319	8,909	7,437	-17%

Source: Office des Changes

# **Production, Supply & Distribution:** Lemons/Limes, Fresh HS-080550

Lemons/Limes, Fresh	2020/2	2021	2021/2	2022	2022/2	2023
Market Year Begins	Oct 2020		Oct 2	021	Oct 2022	
Morocco	USDA	New	USDA	New	USDA	New
	Official	Post	Official	Post	Official	Post
Area Planted (HECTARES)	3995	3995	4000	4000	0	3900
Area Harvested (HECTARES)	3100	3100	3110	3110	0	3000
Bearing Trees (1000 TREES)	1675	1675	1680	1680	0	1650
Non-Bearing Trees (1000 TREES)	0	0	0	0	0	0
Total No. Of Trees (1000 TREES)	1675	1675	1680	1680	0	1650
Production (1000 MT)	44	44	45	45	0	35
Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	44	44	45	45	0	35
Exports (1000 MT)	10	9	10	7	0	5
Fresh Dom. Consumption (1000	34	35	35	38	0	30
MT)						
For Processing (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	44	44	45	45	0	35
(HECTARES), (1000 TREES), (1000 N	MT)					

## V. Policy

Drought conditions have been both severe and widespread, with generalized water deficiency throughout the entire country leading to lowest level of dam reserves ever. On September 27, 2022, the government of Morocco decided to lift their irrigation subsidy on the cultivation of citrus fruits, avocado, and watermelon. The decision is part of Morocco's efforts to scale up water rationing as it faces alarming water scarcity.

#### VI. Annex

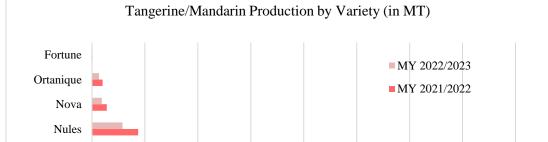


Figure 1: Morocco's Tangerine/Mandarin Production by Variety in MY 2022/2023

Nour Other Nador Cott Clementine 100,000 200,000 300,000 400,000 500,000 600,000

Source: MinAg, MY2022/2023 forecast

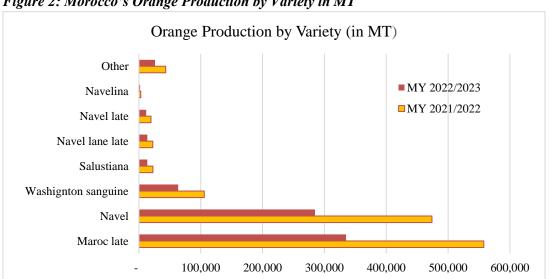


Figure 2: Morocco's Orange Production by Variety in MT

Source: MinAg, MY2022/2023 forecast

## Field trip observations:



Due to water scarcity, small farmers are starting to uproot clementine trees in the Berkan area.



Citrus trees that died from severe drought this season.



Impacts of drought on citrus trees in Berkan region.

## **Attachments:**

No Attachments