

Required Report: Required - Public Distribution **Date:** December 20, 2021

Report Number: MX2021-0001

Report Name: Citrus Annual

Country: Mexico

Post: Mexico City

Report Category: Citrus

Prepared By: Ariel Osoyo

Approved By: Rhiannon Elms

Report Highlights:

Citrus production in Mexico is expected to increase marginally in marketing year (MY) 2021/22, on optimal weather conditions and improved yields. Fresh concentrated orange juice production is forecasted higher, on more orange supplies being utilized for juice production due to low fresh fruit prices and consistent demand from the United States. Other citrus fruits grown in Mexico, including lemon, lime, and grapefruit are also forecasted to see moderate production increases in MY 2020/21. Exports to the United States, Mexico's top market for citrus fruits, are expected to remain strong.

Fresh Orange

Planted Area

According to Mexico's Agrifood and Fisheries Information Service (SIAP), oranges are the most widely planted citrus fruit in Mexico, with the state of Veracruz accounting for 49 percent of total planted area. Its high elevation, nutrient-rich soil, and high humidity make it ideal for citrus production. Other significant producer states include Tamaulipas (10 percent), San Luis Potosí (nine percent), Nuevo Leon (nine percent) and Puebla (seven percent).

The Post orange planted area forecast for MY 2021/22 (November/October) is 349,421 hectares (ha), a slight increase from the previous MY as drought and a lack of robust government support for growers has prevented crop expansion. After consecutive years of production losses due to drought, it has been very difficult for growers to invest in technology or inputs needed for better tree development. In Veracruz, 97 percent of planted hectares lack irrigation technology and depend solely on rainfall. Producers, many of whom are small scale (three hectares or less), have little liquidity or government assistance to invest in tree maintenance such as leaf removal and fertilization necessary to maintain soil health for optimal production. In Veracruz, only three percent of orange planted area, typically owned by large juice production businesses, utilizes sophisticated irrigation technologies, and regular fertilizer application. Tamaulipas, Nuevo León and Yucatán have the most significant area planted with irrigation technology.

Production

The Post orange production forecast for MY 2021/22 is 4.28 million metric tons (MMT), three percent higher than the previous MY due to ample rainfall levels in Veracruz during the growing season. The Valencia variety accounts for 98 percent orange production in Veracruz, with approximately 70 percent destined for the fresh domestic market, and 30 percent for processing. However, crop size and fresh fruit prices may lead to variations. While most processed orange is frozen concentrated orange juice (FCOJ), not from concentrate (or fresh juice) production has been increasing over the last five years to meet growing consumer demand in both Mexico and the United States. According to industry, 300,000 MT of oranges will be used for fresh juice production in MY 2021/22.

There is not yet an official government forecast. Yields and fruit sugar content is also forecasted higher than the previous marketing year, on a return to more normal weather conditions. Production in Tamaulipas, which is predominately used for juice production, is forecasted slightly higher than the previous MY.

Mexico produces three main orange varieties. Valencia, which begins harvest in May, and is favorable for juice production. The navel-lane-late is harvested from February onwards and is utilized mainly for fresh consumption. The navelina harvest begins in December and is consumed fresh and is also used for juice production.

Post national orange yield for MY 2021/22 is forecast at 13.3 metric tons per hectare (MT/ha), one percent higher than the previous MY. Regional yields differ widely and depending on weather, frequency of fertilizer and pesticide applications, tree density and soil quality.

Citrus growers in Mexico have begun efforts to expand organic orange production (which is currently less than five percent of production), to meet rising foreign demand and capitalize on price premiums, which are often three times higher than conventional production. However, vast expansion is unlikely due to a lack of funding for field conversion and investment.

Citrus Greening

Huanglongbing (HLB), or citrus greening, is the most prevalent citrus disease in Mexico. Greening is caused by the bacterium Candidatus Liberibacter spp and is transmitted by two insect vectors (Asian psyllid and African psyllid). In Mexico, the main vector is the Asian psyllid, which lives and develops in all citrus species. Symptoms of this disease are difficult to detect, as they are often confused with nutritional deficiencies or with symptoms caused by other pests. In general, the symptoms shown by the tree are yellow leaves or leaves with yellow spots, stunted growth of plants in full development, as well as the production of deformed, small, and poorly colored fruit.

Once the tree is infected, it dies within a maximum period of eight years, depending on the age and conditions of the crop at the time of infection. It is estimated that tree yields are reduced by 60 to 100 percent as a result of this disease. Although some growers are using pest control measures to protect trees from HLB infestation, 40 percent of citrus trees in Mexico were infected with HLB in MY 2020/21.

Nuevo León 7% Tamaulipas 16% Veracruz 51% Puebla 6%

Top Orange Producing States

Table 1: Production by State MY 2020/21

Orange	Planted Area (ha)	Harvested Area (ha)	Production (mt)	Yield (mt/ha)
Total	347,645	313,795	4,136,104	13.2
Veracruz	170,381	168,066	2,114,315	12.6
Tamaulipas	34,347	31,575	677,081	21.4
San Luis Potosí	32,852	21,505	269,232	12.5

Puebla	31,812	21,132	254,034	12.0
Nuevo León	25,854	25,267	209,877	8.3
Others	52,400	46,251	611,565	13.2

Source: Agri-food and Fisheries Information Service (SIAP)

Consumption

The Post forecast for fresh orange consumption in MY 2021/22 is 2.53 MMT, seven percent lower than the previous MY on low fresh fruit prices incentivizing supplies to be sent for more profitable juice production. Annual per capita consumption reached 37.4 kg in 2020. Fresh orange is mainly used for freshly squeezed juice found in grocery stores and street stands.

Table 2: Wholesale Orange Prices (Pesos/Kg)
Mexico City

Wickied City					
Month	2020	2021	% Change		
January	8.82	N/A	N/A		
February	7.76	5.30	32		
March	8.18	4.83	41		
April	10.53	6.70	36		
May	13.07	9.14	30		
June	N/A	11.41	N/A		
July	15.13	11.00	27		
August	13.64	10.60	22		
September	11.03	8.08	27		
October	8.96	5.08	43		
November	7.02	4.99	29		
December	6.28	5.20*	17		

Source: National Market Information Service (SNIIM)

Through the first week of December

Trade

The Post export forecast for MY 2021/22 is 75,000 MT, four percent higher than the previous MY, on strong U.S. demand due to a forecasted reduction in domestic orange production¹. According to the National Health, Safety and Agrifood Quality Service (SENASICA), Veracruz, Tamaulipas, Nuevo León, San Luis Potosí, and Michoacán have orchards registered to export fresh oranges to the United States. The state of Sonora, designated as a fruit fly free zone and therefore does not require orchard registration, exports Navel oranges to the United States for fresh consumption only. The Post forecast for MY 2021/22 imports is 34,000 MT. Mexico imports fresh oranges exclusively from the United States, primarily for fresh consumption at the border region.

¹ https://www.nass.usda.gov/Statistics by State/Florida/Publications/Citrus/Citrus Forecast/index.php

Table 3: Fresh Orange PSD

Oranges, Fresh	2019	2019/2020		2020/2021		2022
Market Begin Year	nov-19		nov-20		nov-21	
Mexico	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HA)	342,885	342,885	343,108	347,645	0	349,421
Area Harvested (HA)	271,226	271,226	301,890	313,795	0	321,000
Bearing Trees (1000 TREES)	54,830	54,830	61,580	65,725	0	67,141
Non-Bearing Trees (1000 TREES)	14,180	14,180	5,320	4,520	0	4,397
Total No. Of Trees (1000 TREES)	69,010	69,010	66,900	70,245	0	71,538
Production (MT)	2,530	2,530	4,010	4,136	0	4,280
Imports (MT)	31	31	30	35	0	34
Total Supply (MT)	2,561	2,561	4,040	4,171	0	4,314
Exports (MT)	60	65	65	72	0	75
Fresh Dom. Consumption (MT)	1,601	1,596	1,975	2,749	0	2,539
For Processing (MT)	900	900	2,000	1,350	0	1,700
Total Distribution (MT)	2,561	2,561	4,040	4,171	0	4,314

Frozen Concentrated Orange Juice (FCOJ) 65⁰ Brix

Production

The Post forecast for MY 2021/22 FCOJ production is 170,000 MT, an increase of 26 percent from the previous marketing year, on more orange supplies being utilized for juice production due to low fresh fruit prices and consistent demand from the United States. Juice in Mexico is produced mainly with Valencia orange, which is characterized by its intense color, aroma, flavor and Brix (solids content).

By-Product

Processing companies use oil and peel biproduct as an ingredient for animal feed, and oil essences and flavorings for the food, beverage, and fragrance industries. Peels are also dried for pectin extraction and sold to the food industry as a gelling agent, thickener, and food stabilizer.

Consumption

The Post MY 2021/22 consumption forecast is 7,000 tons, 16 percent higher than the previous MY, on an increased supply of low-priced oranges sent for processing that would have otherwise been sold fresh, and strong domestic demand.

Final FCOJ consumption will depend on U.S. demand, as producers the first supply the export market. The sector reports that optimal stock levels have grown to 5,000 tons due to the investment in containers to have year-round supply.

Trade

Mexico is the second leading exporter of FCOJ after Brazil. The Post export forecast for MY 2021/22 is 160,850 MT, 24 percent higher than the previous MY due to ample production and expected strong

demand from the United States, Mexico's main export market. Post forecasts MY 2021/22 imports at 850 MT, as Mexico imports a small amount of orange juice for supermarkets or small processors. Processors report that the majority of FCOJ imports is juice produced in Mexico that was shipped for labeling to the United States and reimported for sale in supermarkets.

Based on a 2011 agreement, Mexico may export 8,000 MT of FCOJ to Japan under a reduced 6.4 percent tariff (the most favored nation tariff is 25.5 percent). Mexico may also export 30,000 MT of FCOJ to the European Union at a reduced tariff of 2.9 percent based on the Mexico-EU free trade agreement. The U.S. market is preferred by Mexican exporters due to proximity and logistics. HS codes for FCOJ are 2009.11, 2009.12, and 2009.19.

Orange Juice 2019/2020 2020/2021 2021/2022 **Market Year Begins** nov-19 nov-20 nov-21 **USDA USDA USDA** New Mexico **New Post New Post** Official Official Official **Post Deliv. To Processors** (MT) 1.955,000 900,000 2000,000 1,350,000 0 1,700,000 **Beginning Stocks** (MT) 5.317 20,000 2,000 2,000 0 2,000 **Production** (MT) 170,000 195,500 90,000 200,000 135,000 0 **Imports** (MT) 0 860 850 1,000 1,000 850 **Total Supply** (MT) 201,677 110,850 203,000 138,000 0 172,850 Exports (MT) 190,577 104,850 195,000 130,000 0 160,850 **Domestic Consumption (MT)** 9.100 4.000 6,000 6,000 0 7,000 **Ending Stocks (MT)** 2,000 2,000 2,000 2,000 0 5,000

Table 4: Frozen Concentrated Orange Juice PSD

Fresh Lemon/Lime

Total Distribution (MT)

Planted Area

Mexico is the world's second-largest producer of limes, and it is the second largest produced citrus crop in Mexico after oranges. The Post forecast for MY 2021/22 (November-October) planted area is 221,918 ha, with harvested area forecasted at 196,768 ha, based on information from SIAP.

110,850

203,000

138,000

0

172,850

201,677

Lemons and limes in Mexico are harvested throughout the year, with peak levels obtained between May and October. Lime supplies are typically more resilient than other citrus due to widespread production (28 states), more robust irrigation infrastructure, and young and efficient trees.

Persian Lime

Post planted area for MY 2021/22 is forecast at 109,401 ha. and the national yield at 18.6 MT/ha, with Veracruz reaching 22.4 MT/ha and Oaxaca 12.9 MT/ha, based on information from SIAP. The Persian lime industry is dominated by large producers who have achieved economies of scale, with new and efficient trees.

Key Lime

The state of Michoacán is the leading Key lime producer in Mexico, followed by Colima and Oaxaca. Post forecasts planted area for MY 2021/22 at 102,410 hectares and the national yield at 16.14 MT/ha, with Michoacán reaching 17.10 MT/ha, and Colima 13.90 MT/ha, based on information from industry sources and SIAP. Michoacán has a winter production window (December to February) that allows key lime to enter the domestic market first.

Production

Principal lime producing states are Michoacán, Veracruz, Oaxaca, and Tamaulipas. The Post production forecast for MY 2021/22 is 3.21 MMT, seven percent higher than the previous MY due to good weather conditions, investments in irrigation systems, and new plantations in the states of Oaxaca and Veracruz.

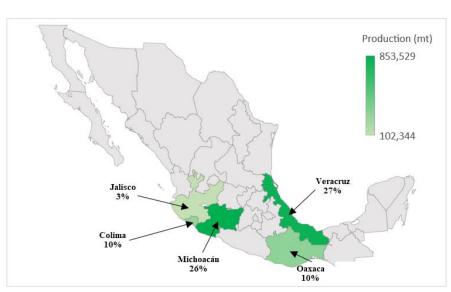
Persian limes are grown in northern Veracruz, with smaller scale production in Chiapas, Tabasco, Oaxaca, Puebla, Jalisco, and Yucatan. Key limes are grown along the Pacific coast in the states of Colima, Michoacán, Guerrero, and Oaxaca. Supplies from Michoacán are available during the winter season, and production in Colima covering demand from May through September. Oaxaca and other states cover the rest of the year. Persian lime is the most widely cultivated variety, and Key lime the most popular for domestic consumption.

Italian (Eureka) Lemon

Italian lemons are grown in the states of Tamaulipas, Yucatan, San Luis Potosi, Colima, and Nuevo Leon. According to industry sources, MY 2021/22 lemon production is forecasted at 91,000 MT on approximately 10,100 ha.

By-Product

Limes are also used in industrial processing (pharmaceutical products), essential oils (flavorings, perfumes, and soaps), concentrated juices, and extracts. After processing, peels are used for livestock feed and pectin.



Top Lime Producing States

Table 5: Production by State MY 2020/21

Limes	Planted Area (ha)	Harvested Area (ha)	Production (mt)	Yield (mt/ha)
Total	215,848	190,220	2,998,412	15.8
Michoacán	63,984	50,702	853,529	16.8
Veracruz	52,110	50,912	809,261	15.9
Oaxaca	22,272	21,403	304,693	14.2
Colima	21,107	21,004	285,992	13.6
Jalisco	6,793	5,851	102,344	17.5
Others	49,581	40,348	642,592	15.9

Source: Agri-food and Fisheries Information Service (SIAP)

Consumption

The Post lemon/lime consumption forecast for MY 2021/22 is 2.02 MMT on increased domestic supplies. Most Key limes go to the fresh domestic market, with approximately 16 to 20 percent for processing. Producers from Colima and Michoacán indicate that roughly 30 percent of limes from that state go to processing. Persian limes that do not meet export quality requirements are sold on the domestic market. Italian lemon producers in Tamaulipas indicate that approximately 40 percent of production there is exported, with 60 percent sent to the juice processing industry.

Trade

The Post lemon/lime export forecast for MY 2021/22 is 798,000 MT, on consistent international demand. Approximately 50-60 percent of Persian limes from Veracruz are for export. Mexico is the top supplier of limes to the United States, and accounts for over 80 percent of total exports.

Lemon/lime imports for MY 2021/22 are forecast at 4,000 MT, slightly lower than the previous MY due to higher domestic production. Lemons are imported to cover months when there is no production in Tamaulipas and are generally destined for the hotel and restaurant industry.

Table 6: Key Lime Wholesale Prices (Pesos/Kg) Mexico City

(I csos/IIg) Mexico City						
Month	2020	2021	% Change			
January	5.03	N/A	N/A			
February	5.89	9.47	61			
March	11.78	10.94	7			
April	13.11	7.53	43			
May	10.37	6.18	40			
June	N/A	6.18	N/A			
July	9.05	5.89	35			
August	10.68	6.89	35			
September	10.09	7.92	22			
October	6.4	6.8	6			

November	4.97	9.09	83
December	4.41	11.58*	163

Source: National Market Information and Integration System (SNIIM) *Through the first week of December.

Table 7: Persian Lime Wholesale Prices (Pesos/Kg) Mexico City

(I coosing) whenever the					
2020	2021	% Change			
11.91	N/A	N/A			
10.11	16.45	63%			
11.96	25.38	112%			
13.33	27.33	105%			
12.61	20.06	59%			
N/A	9.37	N/A			
8.45	5.74	32%			
12.33	10.3	16%			
11.88	11.56	3%			
10.48	9.66	8%			
10.59	10.4	2%			
7.65	12.50*	63%			
	2020 11.91 10.11 11.96 13.33 12.61 N/A 8.45 12.33 11.88 10.48 10.59	2020 2021 11.91 N/A 10.11 16.45 11.96 25.38 13.33 27.33 12.61 20.06 N/A 9.37 8.45 5.74 12.33 10.3 11.88 11.56 10.48 9.66 10.59 10.4			

Source: National Market Information and Integration System (SNIIM) Through the first week of December.

Table 8: Fresh Lemon/Lime PSD

Lemons/Limes, Fresh	2019/2020		2020/2021		2021/2022	
Market Begin Year	nov-19		nov-20		nov-21	
Mexico	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (HA)	208,000	207,838	209,120	215,848	0	221,918
Area Harvested (HA)	163,120	185,116	178,416	190,220	0	196,768
Bearing Trees (1000 TREES)	45,118	45,118	49,462	49,462	0	50,065
Non-Bearing Trees (1000 TREES)	11,124	11,124	7,142	7,142	0	6,892
Total No. Of Trees (1000 TREES)	56,242	56,242	56,604	56,604	0	56,957
Production (MT)	2,199	2,851	2,870	2,998	0	3,217
Imports (MT)	3	3	3	5	0	4
Total Supply (MT)	2,202	2,854	2,873	3,003	0	3,221
Exports (MT)	755	798	852	795	0	798
Fresh Dom. Consumption (MT)	1,140	1,549	1,671	1,858	0	2,023
For Processing (MT)	307	507	350	350	0	400
Total Distribution (MT)	2,202	2,854	2,873	3,003	0	3,221

Fresh Grapefruit

Planted Area

Grapefruit planted area for MY 2021/22 (November/October) is forecast at 21,610 ha. Planted area is not expected to increase soon, due to a lack of government support for expansion, crop insurance, or inputs (which account for 20 to 40 percent of total production costs). Veracruz accounts for 37 percent of planted area followed by Michoacán with 28 percent. Nearly 80 percent of planted area is rain-fed, although Michoacán has irrigation systems. Yields for MY 2021/22 are forecasted at 23 Mt/ha. Veracruz continues to have the highest yield with 32 Mt/ha, followed by Sonora with 28 Mt/ha and Tamaulipas with 26 Mt/ha, according to information from SIAP.

Production

Mexico is the fourth largest grapefruit producer in the world. The Post production forecast for MY 2021/22 is 534,000 tons. Mexico produces red, pink, and white grapefruit. The red-fleshed Star Ruby and Rio Red varieties are grown mainly in Campeche, Michoacán, Nuevo León, Tamaulipas, and Veracruz, and are the most in demand. In Michoacán, growers harvest red grapefruit varieties from April to October/November and growers tend to receive higher prices than those in Veracruz, as their fruit enters the market earlier in the MY. White varieties are produced in Tamaulipas and Veracruz for juice and fresh consumption.



Top Grapefruit Producing States

Table 9: Production by State MY 2020/21

Grapefruit	Planted Area (ha)	Harvested Area (ha)	Production (mt)	Yield (mt/ha)
Total	21,479	21,124	521,340	24.7
Veracruz	8,029	8,941	312,532	35.0
Michoacán	6,023	5,640	82,899	14.7

Tamaulipas	2,306	2,102	58,207	27.7
Yucatán	1,070	673	13,852	20.6
Sonora	532	416	11,691	28.1
Others	3,519	3,353	42,160	12.6

Source: Agri-food and Fisheries Information Service (SIAP)

Consumption

Grapefruit use is mainly for fresh-squeezed juice, with per capita fresh consumption averaging only 3.7 kg. The Post consumption forecast for MY 2021/22 is 404,000 MT, three percent higher than the previous MY. Grapefruit is also used in juice, jams, liqueurs, and food supplements.

Approximately 20 percent of annual grapefruit production is sent for processing. However, that estimate depends on peeled fruit or juice demand in international markets. The MY 2021/22 forecast of grapefruit for processing is 105,000 MT.

Trade

Grapefruit exports for MY 2021/22 are forecast at 22,000 tons, down slightly from MY 2020/21 on a forecasted rebound in U.S. grapefruit production according to the United States Department of Agriculture citrus forecast published in December. Exports in 2021 were elevated after a winter storm destroyed crop area in Texas. Nuevo Leon is the largest exporter of grapefruit in Mexico with the United States receiving 60 percent of market share. According to the Global Agricultural Trade System (GATS), the main port of entry for grapefruit in the United States is Nogales, Arizona with 86 percent of total shipments, followed by Laredo, Texas with 13 percent. Additional markets include Japan, the Netherlands and Canada. Grapefruit imports for MY 2021/22 are forecast at 1,000 MT.

2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200

Therefore the transfer procedure to the procedure to th

Table 10: Mexico Grapefruit Exports to the United States

Source: Global Agricultural Trade System (GATS)

Mexico's tariff rate for non-U.S. markets is 20 percent duty. The HS Code for grapefruit is 08.05.40.

Table 11: Red Grapefruit Wholesale Prices (Pesos/Kg) Mexico City

Month	2020	2021	% Change
January	11.64	N/A	N/A
February	10.8	8.74	19
March	10.12	8.27	18
April	11.13	9.73	13
May	12.2	14.32	17
June	N/A	17.72	N/A
July	15.95	18.52	16
August	13.35	14.92	12
September	11.43	11.79	3
October	10.7	10.12	5
November	8.88	11.06	25
December	8.4	11.50*	37

Source: National Market Information Service (SNIIM)

Table 12: Fresh Grapefruit PSD

Grapefruit, Fresh	2019/2	2020	2020/20	021	2021/2022		
Market Begin Year	nov-	19	nov-2	20	nov-21		
Mexico	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Planted (HA)	21,294	21,151	21.,480	21,479	0	21,610	
Area Harvested (HA)	18,344	19,834	19,120	21,124	0	21,340	
Bearing Trees (1000 TREES)	5,310	5,310	5,985	5,985	0	5,895	
Non-Bearing Trees (1000 TREES)	1,178	1,178	612	612	0	745	
Total No. Of Trees (1000 TREES)	6,488	6,488	6,597	6,597	0	6,640	
Production (MT)	350	491	495	510	0	534	
Imports (MT)	1	1	1	2	0	1	
Total Supply (MT)	351	492	496	512	0	535	
Exports (MT)	18	21	21	23	0	22	
Fresh Dom. Consumption (MT)	254	376	381	395	0	407	
For Processing (MT)	79	95	94	94	0	105	
Total Distribution (MT)	351	492	496	512	0	535	
TS=TD	0	0	0	0	0	0	

^{*}Through the first week of December.

Table 13: Citrus Harvest Calendar

Citrus	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Orange	*	*	*	*	*	*	*					
Lime/Lemon	*	*	*	*	*	*	*	*	*	*	*	*
Grapefruit	*							*	*	*	*	*

Attachments:

No Attachments