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Mexico

Citrus Annual

Citrus Production Expected to Increase

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Report Highlights:

Citrus production in Mexico is expected to increase for MY 2018/19 on optimal weather conditions and improved yields. Fresh orange and lime production is forecast to continue to grow for MY 2018/19. Growers in the northern states of Mexico have indicated that due to the decrease in orange production in Florida, fresh fruit exports to the United States for processing purposes have increased. Fresh concentrated orange juice production for MY 2018/19 is forecast to increase on expected ample supplies of oranges and attractive international prices. Orange producers indicate a strong demand from processors due to attractive orange juice future prices, as Florida is unable to cover domestic demand.

Fresh Oranges

Crop Area

Post does not anticipate that planted area will change significantly in MY 2018/19, with an initial forecast of 341,000 hectares (Ha) planted. Growers expect good production due to optimal weather conditions resulting in increased yields. Post area planted and harvested for MY 2017/18 is revised lower compared to the previous estimate based on official data. Fresh orange production has been affected by weather, including cold conditions in northern states in early January and very warm weather in May 2018. The Post forecast for area planted for MY 2016/2017 is revised down from previous estimates, and area harvested is revised higher based on official data. The change in harvested area in general reflects weather conditions on overall production. However, it is common for growers to abandon groves due to high production costs, wide swings in fresh orange prices, unfavorable weather conditions, and marketing channel distribution problems. Production increases over the last several years have been due to increased tree planting density rather than large expansion of planted area.

National yields for MY 2018/19 are forecast to be higher, at approximately 14.3 metric tons per hectare (MT/ha), compared to MY 2017/18 average yields. Yields for MY 2017/18 are expected to be slightly low at 13.9 MT due to weather problems. Regional orange yields differ widely depending on the production area. The variation in yields are the result of many factors, including weather, frequency of fertilizer and pesticide applications, tree density, and soil quality.

Production

There is no official forecast for orange production, however, the Post forecast for the MY 2018/19 (November/October) orange harvest is 4.6 million metric tons (MMT). Although weather and rainfall could affect overall citrus production, producers are expecting good quality and size of oranges. The state of Veracruz is by far the largest producer of oranges, with 50 percent of the planted area and 51 percent of production in MY 2016/17. Other significant producing states include Tamaulipas, San Luis Potosi, and Nuevo Leon. Orange production occurs on a limited scale throughout the country. The majority of Mexican orange production is Valencia and other juice varieties. According to the Plant Health Office, approximately US \$1.85 million dollars have been dedicated in 2018 to a citrus greening campaign to protect orchards in Veracruz. Production in Nuevo Leon, Tamaulipas and San Luis Potosi States is expected to be slightly higher compared to the previous marketing year when weather issues reduced production. Producer prices for oranges in Nuevo Leon are currently (October 2018) between \$2.00 and \$2.50 pesos/Kg on the tree (US \$0.10 and \$0.12/Kg). Producer prices from Veracruz began in November 2018 at around \$2.00 pesos/kg (US\$ 0.10/Kg). The Post forecast for the MY 2017/18 crop has been revised down to 4.5 MMT based on official information, cold weather issues in Tamaulipas, and very warm weather in San Luis Potosi. The Post forecast for MY 2016/17 orange production is revised marginally down based on official data.

According to orange producers in Nuevo Leon, production costs for MY 2017/18 ranged from \$15,750 to \$25,200 pesos per hectare for a well-tended area (U.S. 779.70 to \$1,247.52) per hectare.

**Table 1: Top Mexican Orange-Producing States
(MY 2016/17)**

State	Planted Area (Ha)	% of Total	Production (MT)	% of Total
Veracruz	167,883	50%	2,331,659	51%

Tamaulipas	37,038	11%	669,512	14%
San Luis Potosi	31,687	9%	368,135	9%
Nuevo Leon	25,404	8%	335,109	7%
Puebla	23,772	7%	239,339	5%
All Others	49,641	15%	686,004	14%
Total	335,425	100%	4,629,758	100%

Source: Secretariat of Agriculture and Rural Development / Agrifood and Fisheries Information System. (Secretaria de Agricultura y Desarrollo Rural / Servicio de Información Agroalimentaria y Pesquera) -SADER/SIAP

Consumption

Fresh orange consumption in Mexico is mainly for fresh-squeezed orange juice, as Mexico primarily produces juice varieties. Fresh consumption depends on the volume of oranges purchased by the processing industry and international juice prices. Recently, in MY 2016/17 and MY 2017/18, the volume of oranges destined to the processing industry increased due to opportunities to export fresh concentrate orange juice. Post forecasts domestic consumption of fresh oranges at approximately 2.4 MMT for MY 2018/19, on increased industry purchasing, and subsequent higher prices reducing consumer demand. Post MY 2017/18 fresh consumption estimates are revised down due to a higher volume of oranges destined for the processing industry. Wholesale orange prices in Mexico City were slightly higher during May/August MY 2017/18 than in the previous year. As MY 2018/19 began, prices dropped from \$12.62 pesos/kg (U.S. \$0.67/kg) in August to \$4.65 pesos/kg (U.S. \$0.24/kg) in October. Prices could continue to decline as the orange harvest progresses, but this will depend on demand from processors. However, consumer prices for oranges from the state of Nuevo Leon are reportedly higher, due to a slightly lower volume available and a growing export demand. Consumption for MY 2016/17 is revised down due to less availability of oranges than previously estimated and corresponding high prices.

Based on information from processing industry contacts, Post forecasts that 2.1 MMT of oranges will be delivered to commercial juice processors in MY 2018/19, but will depend on international juice prices. Due to the lower production in Florida, Mexican processors will try to fulfill that demand. Estimated deliveries to processors for MY 2016/17 and MY 2017/18 were revised upward based on market intelligence.

Table 2: Mexico – Wholesale Orange Prices (Pesos/Kg) cif Mexico city

Month	2016	2017	2018	Change % 17/18
January	3.58	5.88	4.73	(19.55)
February	4.05	5.78	5.49	(5.01)
March	4.97	5.99	5.46	(8.84)
April	6.38	6.73	5.94	(11.73)
May	9.57	7.64	9.51	24.47
June	11.69	8.52	14.64	71.83
July	11.76	7.80	16.56	112.30

August	11.45	6.74	12.62	87.24
September	8.24	4.90	6.68	36.32
October	5.02	4.62	4.65	0.64
November	5.26	4.80	4.56*	(0.5)
December	6.18	4.71	N/A	N/A

Source: Servicio Nacional de Información de Mercados
Avr. exchange rate for 2016 US\$1.00 = \$ 18.62 pesos
Avr. exchange rate for 2017 US\$1.00 = \$ 18.91 pesos
exchange rate November 4, 2018 US\$1.00 = \$ 20.22 pesos
**As of 3rd Week Nov 2018*

Trade

Growers in the northern states of Mexico have indicated that due to the decrease in orange production from Florida, fresh fruit exports to the United States for processing purposes have increased. Post forecasts that in MY 2018/19, Mexican fresh orange exports will increase slightly to 78,000 MT since demand from the international market is expected to be good. The Post forecast for MY 2017/18 exports is revised down from previous estimates due to lower demand than expected. Exports for MY 2016/17 are revised marginally downward based on Global Trade Atlas (GTA) statistics. However, both marketing years show an increase from the MY 2015/16 volume of 55,000 MT.

Mexico exports a relatively small portion of its total fresh orange production; all of which goes to the United States, with smaller volumes going to the United Kingdom and other markets. Most of the oranges exported to the United States are Navel oranges grown in Sonora. Additionally, Nuevo Leon has increased exports to the United States.

Mexico also imports some fresh oranges from the United States, primarily for consumption in the border region. Post forecasts Mexican imports for MY 2018/19 at 18,000 MT, nearly the same level as the previous two years. However, the depreciation of the peso against the dollar may reduce imports.

Marketing

Fresh oranges in Mexico are mainly for fresh-squeezed orange juice, as Mexico primarily produces juice varieties. There are usually no in-store supermarket promotions. Street vendors sell fresh orange juice in the mornings with breakfast. Some supermarkets also have fresh orange juice for sale in small proportions. Small-size oranges are sold sometimes in 5 Kg bags in supermarkets. Mexico is a price-sensitive market and imported U.S. orange prices are relatively high compared to domestic prices. Additionally, due to the current exchange rate, prices are expected to be higher. Most of the imported product is sold at the border or high-end supermarkets.

Policy

Fresh orange imports (HS 0805.10) from the United States are not subject to any duty under the North American Free Trade Agreement (NAFTA), and are subject to phytosanitary inspection. Imports are only from the United States due to proximity of the market. Most of the oranges exported to the United States are Navel oranges grown in Sonora, as the state is in a fruit fly-free area. Some areas from the state of Nuevo Leon also export limited amounts of oranges to the United States.

Citrus Greening

As with other citrus-producing countries, Mexico is facing significant issues with citrus greening, or Huanglongbing (HLB). The disease, caused by bacteria introduced by psyllids, makes citrus trees produce misshapen, partially green fruit. Mexico's first detection was in 2009, and since then the National Service of Agricultural Food Safety and Quality (SENASICA) has implemented an extensive monitoring program for the disease. HLB has been detected in 24 states and 404 municipalities with citrus production. Producing states, including Veracruz, Tamaulipas, San Luis Potosi, and Nuevo Leon, have had HLB detections. According to SENASICA the detections –to date- for these states have only been in psyllids and not in plant material.

Producers in some regions indicate that HLB has not had a direct impact on their production. However, producers report increased vigilance and precision of agrochemical applications to prevent any outbreaks.

See FAS Mexico GAIN reports [MX9043](#) (2009), [MX0005](#) (2010), and [MX0055](#) (2010) for additional information about SAGARPA's regulatory measures to monitor and protect the country from HLB. SENASICA's web page on HLB contains information about programs and control and prevention campaigns:

<http://www.gob.mx/senasica/documentos/informes-y-evaluaciones-huanglongbing>

<https://www.gob.mx/senasica/documentos/estrategia-operativa-huanglongbing>

Table 3: Mexico – Fresh Orange Production

Oranges, Fresh Market Begin Year	2016/2017		2017/2018		2018/2019	
	Nov 2016		Nov 2017		Nov 2018	
Mexico	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	340586	335425	342000	340570	0	341000
Area Harvested	318000	320793	320000	318000	0	320000
Bearing Trees	64236	64800	64640	64236	0	64640
Non-Bearing Trees	4562	2995	4444	4559	0	4042
Total No. Of Trees	68798	67795	69084	68795	0	68882
Production	4640	4630	4600	4530	0	4630
Imports	19	18	14	18	0	18
Total Supply	4659	4648	4614	4548	0	4648
Exports	76	75	82	75	0	78
Fresh Dom. Consumption	2873	2473	2832	2573	0	2470
For Processing	1710	2100	1700	1900	0	2100
Total Distribution	4659	4648	4614	4548	0	4648

(HECTARES) ,(1000 TREES) ,(1000 MT)

Frozen Concentrated Orange Juice (FCOJ) 65⁰ Brix

Production

According to industry, MY 2016/17 and 2017/18 (November/October) have been good years for production of FCOJ due to industry taking advantage of greater international demand due to the decrease in U.S. juice production.

FCOJ production for MY 2018/19 is forecast to increase on expected ample supplies of oranges and attractive international prices. Orange producers indicate a strong demand from processors due to attractive orange juice future prices, as Florida is unable to cover domestic demand. International prices for FCOJ in 2017 were approximately U.S. \$1.70 per pound and decreased in 2018 to about U.S. \$1.43 per pound. The Post forecast for MY 2018/19 orange juice production is 210,000 MT based on industry sources (on a 65⁰ Brix basis). FCOJ production for MY 2017/18 is estimated at 195,000 MT, an increase from previous estimates, as demand and international prices were good. Production of FCOJ for MY 2016/17 is revised higher due to a greater demand than expected at good international prices. Most processing plants begin working at the beginning of the year.

Based on expectations of higher exports to the United States, and orange grower reports of strong processor demand, Post's forecast for MY 2018/19 orange use by processors is 2.1 MMT. The Post estimate for orange deliveries to processors for MY 2017/18 is 1.9 MMT and 2.1 MMT for MY 2016/17. The Government of Mexico does not prepare official statistics related to orange juice production. Production tends to vary based on international juice prices and the availability and price of domestic fresh oranges. The current international price for FCOJ is approximately U.S. \$1.43 dollars per pound.

Consumption

Industry sources suggest that domestic orange juice consumption is relatively stable at 7,500-8,000 MT per year. However, it varies with the consumption of trendy orange juice based drinks. Additionally, new "green beverages" are displacing orange juice for breakfast. The Post forecast for MY 2018/19 is 8,000 MT. The estimate for MY 2017/18 remains unchanged. Mexican consumers generally prefer fresh squeezed juice to commercially processed orange juice; however, the industry is observing the increase of orange juice based drinks. Industry reports that stocks are approximately 2,000 MT, as a certain amount is needed for blending during the production process.

Trade

Post forecasts exports at 203,000 MT of orange juice for MY 2018/19, based on early industry reports. Estimates for MY 2016/17 and MY 2017/18 are revised upward from previous estimates, as international demand was stronger than expected due to the shortage of FCOJ in the United States. The United States is the primary market for Mexican orange juice, but exports to Europe continue.

Mexico imports a small amount of orange juice for the hotel, restaurant, and institutional sector. Post forecasts that Mexico will import approximately 1,000 MT of orange juice in MY 2018/19, the same level as MY 2017/18. Most imports come from the United States at zero duty.

Marketing

The majority of Mexican consumers prefer freshly squeezed juice as opposed to processed orange juice, however, this trend is slowly changing and other juice based drinks are becoming popular. Most of the FCOJ is sold in restaurants and hotels. Orange juice is also sold in beverages with orange flavoring by different brands, or in alcoholic drinks.

Policy

Based on a 2011 agreement, Mexico may export 8,000 MT to Japan under a reduced tariff of five percent (most favored nation (MFN) tariff is 20 percent). Also, Mexico may export 30,000 MT of FCOJ to the European Union (EU) at a reduced tariff of 15 percent based on the Mexico-EU free trade agreement. However, the U.S. market is viewed as more lucrative and preferred by Mexican exporters. The HS codes are 2009.11, 2009.12, and 2009.19.

Table 4: Mexico – Frozen Concentrated Orange Juice Production

Orange Juice Market Begin Year	2016/2017		2017/2018		2018/2019	
	Nov 2016		Nov 2017		Nov 2018	
Mexico	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Deliv. To Processors	17100000	2100000	1700000	1950000	0	2100000
Beginning Stocks	1700	1700	2700	1200	0	2000
Production	171000	210000	170500	195000	0	210000
Imports	1000	1000	1000	1000	0	1000
Total Supply	173700	212700	174200	197200	0	213000
Exports	163000	203500	164000	187200	0	203000
Domestic Consumption	8000	8000	8000	8000	0	8000
Ending Stocks	2700	1200	2200	2000	0	2000
Total Distribution	173700	212700	174200	197200	0	213000
(MT)						

Fresh Lemons/Limes

Crop Area

Weather for MY 2018/19 (November/October) is expected to be better in comparison to MY 2017/18, when rainfall was not abundant, and cold temperatures affected the northern states. In general, producers indicated that both Persian and Key limes have experienced overproduction problems at certain times of the year. Good international market prices and fewer phytosanitary concerns have led to increased planted area for both Persian and Key limes. However, issues like HLB are a concern for all areas planted with citrus. Area planted for key limes in the state of Colima has been slowly increasing due to a replanting of limes that were affected with HLB. In fact, in 2018, more trees have been planted with a variety resistant to HLB. The Post planted and harvested areas forecast for MY 2018/19 are forecast to increase, however, cost of production and weather issues will determine the pace. Total Post estimates for planted and harvested area for MY 2017/18 are revised lower from previous estimates, but still reflect growth compared to MY 2016/17. MY 2016/17 planted and harvested area is revised lower based on official information. Planted area for Persian limes has been growing and is now about 93,313 hectares. Key lime area has also increased to 89,795 hectares in MY 2016/17. The Persian lime area planted in Veracruz has grown at a faster rate than that of Key limes in other places. Persian and Key lime yields vary widely depending on production conditions. The average yields for Persian limes in the state of Veracruz range from 8 to 18 MT/Ha, depending on cultivation practices, but some yields are as high as 25 MT/Ha. Key lime yields average 7-14 MT/Ha, with a few well-tended groves reaching 30 MT/Ha.

Veracruz is the main Persian lime producer. More than 25 percent of the Persian lime groves in Veracruz use micro-jet irrigation, or other irrigation systems, and produce year-round. The Persian lime industry tends to be dominated by large producers who have achieved economies of scale. Rain-fed Persian lime production costs on average between \$19,500 pesos/Ha to \$31,000 pesos/Ha (U.S. \$965.34/Ha to \$1,534.65/Ha). Intensive production areas in Veracruz can have production costs as high as \$46,500 pesos/Ha or more (U.S. \$2,302.00/Ha). Production costs are affected by imported herbicide and fertilizer prices, which have become more expensive for Mexican producers due to the depreciation of the Mexican Peso relative to the U.S. Dollar.

Michoacán and Colima are the main Key lime producing states. Key lime planted area has increased at slower rates due to domestic price swings. Michoacán has an excellent winter production window (December to February) that allows its Key limes to enter the domestic market first. HLB has been well managed in Michoacán and it has not affected production as much. As such, planted area has tended to expand more rapidly in this state. According to producers, the domestic market is saturated with Key limes affecting prices. It has become common practice for producers in Michoacán to suspend harvesting during the course of the year to prevent oversupplying the domestic market and subsequent low prices. Most of the irrigated Key lime groves are in the states of Michoacán and Colima, and are able to produce year-round. In contrast, almost all of the planted area for Key limes in Guerrero and Oaxaca is rain-fed. The cost of production for Key limes varies according to cultivation practices and technology. In the most important Key lime-producing states (Oaxaca, Colima, and Michoacán), production costs can vary from \$15,484 pesos/Ha to \$33,447 pesos/Ha (U.S. \$766.53/Ha to \$1,655.80/Ha), and can increase to \$49,245 pesos/Ha (U.S. \$2,438.00/Ha) for intensively managed areas.

Production

Key limes and Persian limes are economically significant for Mexico. Mexican Key limes are grown along the Pacific coast in the states of Colima, Michoacán, Guerrero, and Oaxaca. Meanwhile, most Persian limes are grown in a micro-climate in northern Veracruz with smaller scale production in Chiapas, Tabasco, Oaxaca, Puebla, Jalisco, and Yucatan. Although Key lime production is year round, production in Michoacán targets the winter season, while production in Colima covers demand from May through September. Oaxaca and other states cover the rest of the year. According to the Secretariat of Agriculture, Mexico is the second largest lemon/lime producer in the world.

There is not yet an official forecast for MY 2018/19 Key limes and Persian limes, but Post forecasts total production to be 2.6 MMT, as more area is expected to come into full production. The state of Veracruz is expecting a good output, as weather has been optimal, The state of Michoacán is expected to have good production of Key limes. Post lime production for MY 2017/18 is revised lower from previous estimates according to official data. Key lime production in Colima continues to increase. The state of Colima is trying to recover from an approximate 20-30 percent fall in production due to citrus greening disease in MY 2013/14. The New/Post MY 2016/17 lime production estimate is revised upward based on official data.

Italian lemons (Eureka) are grown in the states of Tamaulipas, Yucatan, San Luis Potosi, Colima, and Nuevo Leon. In the 1990's, producers in Tamaulipas and San Luis Potosi began producing lemons on a contract basis for a soft-drink bottler to be used for juice and lemon oil. However, after the contract ended in 2006, growers began exploring the international market. Producers in the state of Yucatan began producing lemons for the bottling company once the Tamaulipas contract ended. According to official sources, for MY 2016/17 production was 153,980 MT and yields of 20.9 MT/Ha on about 9,612 hectares planted to Italian lemons. According to growers, more production is expected for MY 2018/19; however, there is no current data available.

Grower prices in October 2018 for Persian limes range from \$2,330 to \$4,820 pesos/MT (U.S. \$115.34/MT to \$238.61/MT) for the domestic market, and \$4,850 or more (U.S. \$240.00 /MT) for the export market. Grower prices for Key limes fluctuate more than prices for Persian limes, depending on the season and the producing state. On average, Key lime grower prices for October range from \$3,500 to \$5,500 pesos/MT (U.S. \$594.00/MT to \$272.27/MT) or higher if limes are destined for export.

Consumption

Domestic consumption of both Key and Persian limes in Mexico depends largely on prices as well as the volume of limes exported. Post consumption for MY 2018/19 is forecast at 1.4 MMT due to expected strong demand. Post consumption estimates for MY 2017/18 are revised upward, due to more demand than expected. While Persian limes are being exported during the first months of the year, domestic prices tend to be higher and demand falls. Post domestic consumption for MY 2016/17 is revised upward due to better demand.

Depending upon U.S. demand, approximately 50-60 percent of Persian limes from Veracruz- or about a third of total Persian lime production- goes to the export market. Persian limes that do not meet the higher quality requirements of the export market are consumed within Mexico. On the other hand, most Key limes go to the fresh domestic market, but exports have been increasing. In general, approximately 16-20 percent of total Key lime production goes to processing. Producers from Colima and Michoacán indicate that approximately 30 percent of their limes go to processors. Italian lemon producers in

Tamaulipas indicate that about 40 percent of their production goes to the export market, and 60 percent goes to the juice processing industry. Italian lemon producers from other states indicate that about 35 percent of their production is for fresh consumption. Official estimates of processing industry demand are unavailable.

Mexican Key limes and Persian limes compete for the same market. When Key limes and Persian limes are both present in the domestic market during peak season, prices are relatively low. When the Persian lime harvest season is at its peak (June to September), prices for both tend to fall. After two to three months, when Persian lime growers begin to export, prices for Persian limes increase and remain high until April or May, when exports decrease and both crops compete for the fresh domestic market. Key limes from Michoacán, Colima, and Oaxaca are sold on the wholesale market in 18-20 kg boxes, while those from Guerrero are sold in 20-22 kg bags. Persian limes are sold in wholesale markets in 50-100 kg bags.

Table 5: Mexico - Key Lime Wholesale Prices (Pesos/Kg) cif Mexico city

Month	2016	2017	2018	Change% 17/18
January	4.72	8.38	7.66	(8.59)
February	6.88	11.00	10.49	(4.63)
March	9.72	13.96	14.84	6.30
April	15.41	11.79	9.68	(17.89)
May	8.04	4.69	4.86	3.62
June	4.21	4.32	4.53	4.86
July	4.40	4.23	4.76	12.52
August	5.31	5.64	7.49	32.80
September	6.34	6.99	6.97	(0.28)
October	4.11	6.66	5.74	(13.81)
November	4.04	7.89	5.68*	(28.01)
December	6.80	6.86	N/A	N/A

Source: Servicio Nacional de Información de Mercados
 Avr. exchange rate for 2016 US\$1.00 = \$ 18.62 pesos
 Avr. exchange rate for 2017 US\$1.00 = \$ 18.91 pesos
 exchange rate November 4, 2018 US\$1.00 = \$ 20.22 pesos
 *As 3er Week Nov 2018

Table 6: Mexico - Persian Lime Wholesale Prices (Pesos/Kg) cif Mexico city

Month	2016	2017	2018	Change % 17/18
January	5.98	9.00	14.75	63.88
February	7.96	15.52	21.19	36.53
March	10.56	17.56	34.01	93.67
April	22.84	11.35	27.40	141.40
May	24.89	5.61	7.98	42.24
June	11.27	5.11	5.94	16.24
July	5.22	4.82	6.16	27.80
August	5.53	5.52	8.73	58.15
September	6.32	6.30	9.00	42.85
October	5.78	6.29	8.28	31.63
November	5.57	7.30	8.29*	13.56
December	6.96	10.10	N/A	N/A

*Source: Servicio Nacional de Información de Mercados
 Avr. exchange rate for 2016 US\$1.00 = \$ 18.62 pesos
 Avr. exchange rate for 2017 US\$1.00 = \$ 18.91 pesos
 exchange rate November 4, 2018 US\$1.00 = \$ 20.22 pesos
 As 3er Week Nov 2018

Trade

Mexican Persian and Key lime exports for MY 2018/19 are expected to continue to be strong, and are forecast at 725,000 MT. However, exports depend heavily on international demand from Europe and the United States, and exchange rate swings. Post Persian and Key lime export estimates for MY 2017/18 are revised lower from previous estimates, as demand was not as strong as expected.

The spring Persian lime harvest begins in early April, and depending on prices, is usually shipped to European markets before being shipped to the United States. Lime exporters continue to expand into the European and Japanese markets, but still supply about 40 percent of the U.S. and Canadian markets. International prices for Persian limes began at U.S. \$16 to \$18 per 40-pound box in October/November 2018. According to exporters, a good price for Persian limes is about U.S. \$40 per 40-pound box. U.S. prices for April/May 2018 were at about U.S. \$53 to \$64 per 40-pound box.

Lime imports continue to be minimal due to ample domestic supplies. Post MY 2018/19 imports are forecast at 4,000 MT. Lime imports for MY 2017/18 are estimated to be close to 4,000 MT. Lime imports for MY 2016/17 imports remain unchanged from previous estimates.

Policy

Mexico's tariff rate on imported limes from the United States is zero percent under NAFTA. Other countries have a 20 percent duty. Lemons/Limes HS Code is 08.05.50.

Table 7: Mexico – Fresh Lemon/Lime Production

Lemons/Limes, Fresh	2016/2017	2017/2018	2018/2019
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Market Begin Year	Nov 2016		Nov 2017		Nov 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Mexico						
Area Planted	198310	193787	202000	201505	0	203000
Area Harvested	172500	170717	176000	174000	0	180000
Bearing Trees	49162	48654	50160	49590	0	51300
Non-Bearing Trees	7355	6574	7410	7838	0	6555
Total No. Of Trees	56517	55228	57570	57428	0	57855
Production	2500	2513	2580	2570	0	2600
Imports	3	3	3	4	0	4
Total Supply	2503	2516	2583	2574	0	2604
Exports	731	731	750	715	0	725
Fresh Dom. Consumption	1384	1397	1430	1463	0	1482
For Processing	388	388	403	396	0	397
Total Distribution	2503	2516	2583	2574	0	2604

(HECTARES) ,(1000 TREES) ,(1000 MT)

Fresh Grapefruit

Crop Area

Post area planted for MY 2018/19 is forecast to increase to 21,000 Ha. Area planted has fluctuated between 17,000 and 19,000 hectares in the last five years, depending on price variations and weather conditions. However, the rate of growth in newly developed areas in Michoacán and Veracruz is increasing with good yields. Area planted for MY 2017/18 is revised lower based on official estimates. Area in the state of Michoacán is expected to grow from 4,807 hectares in MY 2016/17 to 6,023 hectares in MY 2017/18; and the state of Veracruz is expected to grow from 7,895 hectares in MY 2016/17 to 7,912 hectares in MY 2017/18. Area planted and harvested for MY 2016/17 is revised down from previous estimates but still achieving good yields. Veracruz accounts for approximately 54 to 60 percent of Mexican grapefruit production, and the state of Michoacán, with newer developments, follows with 14 percent of production. Tamaulipas follows with 11 percent, and Nuevo Leon accounts for almost 8 percent of total grapefruit production.

The state of Veracruz has added some newly planted area; however, abandoned or damaged areas in other parts of the state have offset this growth. Michoacán has also increased area planted. However, price variations drive area planted up or down. Costs of production for grapefruit fluctuate between \$13,650 and \$26,250 pesos per hectare (U.S. \$675 to \$1,300/Ha). Production costs associated with pest control tend to be higher in Veracruz than in Michoacán, but Michoacán's irrigation costs are higher than Veracruz, as almost 80 percent of Veracruz grapefruit area is rain-fed. Generally, input costs have increased due to the exchange rate fluctuations that result in higher prices for imported fertilizers, pesticides, and other agrochemical products.

Grapefruit yields for MY 2018/19 are forecast at 24 MT/Ha, higher than MY 2017/18 yields of 23 MT/Ha. Grapefruit yields for MY 2016/17 are estimated at 24.9 MT/Ha. Veracruz has the highest yields in the country, between 20 and 39 MT/Ha. The state of Michoacán has yields between 9 and 17 MT/Ha. The state of Nuevo Leon generally has yields between 11 and 19 MT/Ha.

Production

There is not yet an official forecast for grapefruit production for MY 2018/19 (November/ October), but according to industry sources, production is forecast to be 445,000 MT, on optimal weather conditions. MY 2017/18 production is revised higher from previous estimates due to better yields than expected and more area entering into production. MY 2016/17 production is revised down based on official data. Weather has not been as dry in northern states, and since demand for processing increased, some growers could be encouraged to plant more grapefruit. Michoacán enjoys better weather conditions.

There are two types of grapefruit planted in Mexico: the red table varieties and the white-fleshed varieties. The red table varieties are produced in the states of Tabasco, Campeche, Michoacán, Nuevo León, Tamaulipas, and Veracruz, and are mainly for export as fresh fruit and peeled slices to the United States and Europe. White-fleshed varieties are produced in Tamaulipas and Veracruz and are used for juice production and peeled slices. Demand for peeled sliced fruit for export has increased, incentivizing producers in Tamaulipas and Veracruz to maintain white-fleshed varieties. According to growers, planting of red varieties over the last couple of years has increased because of the higher export demand.

Producer prices began in October 2018 at \$3.22 pesos/kg (US \$0.16/kg) in Veracruz, \$2.85 pesos/kg (US \$0.14/kg) in Michoacán, and \$4.67 pesos/kg (US \$0.23/kg) in Nuevo Leon. Grower prices for the state of Nuevo Leon tend to be higher due to quality. Michoacán has developed areas with red varieties that can be harvested from April to October/November, and grower prices tend to be higher than in Veracruz, as fruit enters the market earlier in the season.

In August, when Veracruz begins the marketing year, prices tend to fall by as much as 50 percent. Since the processing industry is buying more fruit for peeled slices and juice, grower prices have tended to be good.

Consumption

Fresh grapefruit consumption for MY 2018/19 is forecast at 333,000 MT due to ample supplies at affordable prices. Consumption for MY 2017/18 is revised higher from previous estimates, due to more demand than expected. Consumption for MY 2016/17 is revised downward due to a lower demand. Grapefruit is in demand, as it is perceived as a low calorie (healthy) food. Growers indicate there is no quality premium as consumers are interested in lower prices. Since Michoacán can harvest earlier than Veracruz, Michoacán producers often command higher prices in the domestic market. For 2018, grapefruit from Veracruz entered the market at slightly lower prices compared to Michoacán's product. Prices for Nuevo Leon fruit in November 2018 were on average \$11.50 pesos/kg (U.S. \$0.57 kg), as production is being sold to the processing industry at good prices.

**Table 8: Mexico - Grapefruit Wholesale Prices (Pesos/Kg)
cif Mexico city**

State	2017		2018	
	Veracruz	Michoacán	Veracruz	Michoacán
Month				
January	7.08	7.16	8.52	8.95
February	7.85	8.07	8.80	9.53
March	8.35	8.03	8.55	9.52
April	9.62	9.67	9.75	11.44
May	11.28	9.77	10.75	13.34

June	12.74	12.30	13.76	14.94
July	13.80	13.00	18.20	14.18
August	10.67	11.46	14.16	12.16
September	7.78	8.50	8.40	8.44
October	7.10	8.36	7.86	8.30
November	7.14	9.00	7.90	8.75
December	7.00	9.10	N/A	N/A

Source: Servicio Nacional de Información de Mercados
Avr. exchange rate for 2016 US\$1.00 = \$ 18.62 pesos
Avr. exchange rate for 2017 US\$1.00 = \$ 18.91 pesos
exchange rate November 4, 2018 US\$1.00 = \$ 20.22 pesos
**As 3er Week Nov 2018*

According to growers and the industry, approximately 20 percent of grapefruit production is destined for processing. However, that estimate largely depends on demand for peeled fruit in the international market and demand for juice in domestic and international markets. The MY 2018/19 forecast of grapefruit destined for processing is 93,000 MT, as growers believe the processing industry will continue to demand fruit. Estimates for grapefruit processing for MY 2017/18 are revised higher as the juice industry processed more fruit for juice due to good international prices. Estimates for MY 2016/17 remain unchanged from previous estimates.

Trade

Grapefruit exports for MY 2018/19 are forecast at 20,000 MT due to a high international demand. According to growers, demand from Europe is strong and offers better prices than the U.S. market. Export estimates for MY 2017/18 are revised lower from previous estimates due to a stronger demand from the processing industry. Exports to the United States increased about 25 percent from MY 2016/17 to MY 2017/18. About 80 percent of exports are shipped to European countries, and 20 percent to the United States. Grapefruit exports sometimes decrease when the domestic market offers higher prices.

According to industry sources, most of the imported grapefruit from the United States are processed for export to the European market or re-exported to the U.S. market. Grapefruit imports for MY 2018/19 are forecast at 1,000 MT, similar to MY 2017/18 levels, as demand from the peeled fruit industry is being covered with domestic product. Industry sources grapefruit from the domestic market all year round.

Marketing

Fresh grapefruit in Mexico is perceived as a low calorie food and is consumed fresh and as fresh-squeezed juice. Grapefruit juice is sold in beverages with grapefruit and orange flavoring. There are usually no promotions in the market. Red varieties are preferred over the white varieties for fruit cocktails served in hotels and restaurants.

Policy

Mexico's tariff rate on imported grapefruit from the United States is zero percent under NAFTA, other countries have a 20 percent duty. Most imports are from the United States due to the closeness of the market. HS Code is 08.05.40.

Table 9: Mexico – Fresh Grapefruit Production

Grapefruit, Fresh Market Begin Year Mexico	2016/2017		2017/2018		2018/2019	
	Nov 2016		Nov 2017		Nov 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	20127	19187	21000	20307	0	21000
Area Harvested	18400	17708	18600	19000	0	19500
Bearing Trees	5722	5489	5753	5890	0	6045
Non-Bearing Trees	537	458	777	405	0	465
Total No. Of Trees	6259	5947	6530	6295	0	6510
Production	444	442	440	445	0	445
Imports	1	1	2	1	0	1
Total Supply	445	443	442	446	0	446
Exports	21	21	25	20	0	20
Fresh Dom. Consumption	336	334	330	333	0	333
For Processing	88	88	87	93	0	93
Total Distribution	445	443	442	446	0	446

(HECTARES) ,(1000 TREES) ,(1000 MT)

**Table 10. Mexico: Monthly Exchange Rate
Averages for 2015-2018
MX Pesos per U.S. \$1.00**

	2015	2016	2017	2018
January	14.68	18.02	21.37	18.95
February	14.92	18.47	18.47	18.63
March	15.21	17.69	17.69	18.66
April	15.22	17.49	18.77	18.36
May	15.26	18.09	18.76	19.57
June	15.46	18.12	18.16	20.31
July	15.92	18.58	17.83	19.05
August	16.50	18.47	17.80	18.83
September	16.85	19.16	17.81	19.03
October	16.58	18.91	18.77	19.11
November	16.63	20.03	18.94	20.24
December	17.03	20.51	19.12	
Annual Avg	15.85	18.62	18.91	

Source: Mexican Federal Register

Note: Monthly rates are averages of daily exchange rates from the Banco de Mexico