



Sugar and Sweeteners Outlook

Michael McConnell, coordinator

David Olson, contributor

Lower Production Projected for U.S. Sugar Market in 2018/19

U.S. sugar production in 2018/19 is projected to decline 3.0 percent compared with 2017/18, totaling 8.981 million short tons, raw value (STRV). Declines are projected for both beet sugar production (down 3.7 percent) and cane sugar production (down 2.2 percent). Domestic sugar use is projected to increase 1.4 percent, including 12.500 million STRV of deliveries for food and beverage use. Imports are also projected to decline, by 1.7 percent, primarily due to fewer imports under quota programs. Imports from Mexico are projected to increase nearly 30 percent. The net result is projected ending stocks of 1.542 million STRV for 2018/19 and a stocks-to-use ratio of 12.1 percent. This suggests a tighter U.S. sugar market than the 2017/18 estimate, which has a stocks-to-use ratio of 15.0 percent.

Mexico sugar production in 2018/19 is projected to increase 0.9 percent compared with the previous year's estimate, totaling 6.025 million metric tons, actual value (MT). Total supplies are boosted by higher beginning stocks, as Mexico processors are expected to hold more ending stocks in 2017/18 for domestic markets or shipments to the United States the following year rather than exporting to non-U.S. destinations. Domestic sugar deliveries for human consumption are projected to increase 5.2 percent, resuming trends in sweetener consumption growth after the lowering of 2017/18 estimates due to high sugar prices earlier in the year and slow pace-to-date. Ending stocks for 2018/19 are projected to be 983,000 MT, resulting in a 21.6 percent stocks-to-consumption ratio, which is in line with historical levels.

U.S. Domestic Outlook

Speedy Pace of Sugarbeet Planting Boosts Production for both 2017/18 and 2018/19

Planting season for sugarbeet growers was significantly delayed by a cold spring during April and early May, particularly for the Eastern growing regions in North Dakota, Minnesota, and Michigan. Growers were able to plant a considerable proportion of their crop during the week ending May 4, however. Assuming normal weather conditions in the upcoming months of crop emergence and development, the planting pace allows for a relatively strong sugarbeet yield forecast and increases the expectations of beet sugar production in August and September. As a result, the recent planting progress data released by NASS has important implications for U.S. sugar production in 2017/18 and 2018/19.

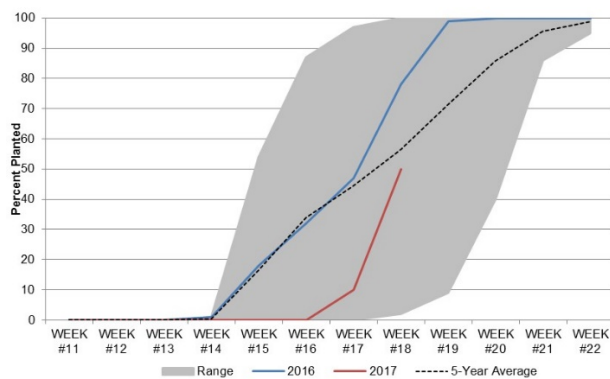
Table 1: U.S. sugar: supply and use, by fiscal year (Oct./Sept.), May 2018

Items	2017/18			2018/19		
	2016/17	(estimate)	(forecast)	2016/17	(estimate)	(forecast)
	1,000 Short tons, raw value			1,000 Metric tons, raw value		
Beginning stocks	2,054	1,876	1,901	1,863	1,702	1,724
Total production	8,969	9,252	8,981	8,137	8,394	8,147
Beet sugar	5,103	5,221	5,036	4,629	4,736	4,569
Cane sugar	3,866	4,031	3,945	3,507	3,657	3,579
Florida	2,055	1,998	2,085	1,864	1,812	1,891
Louisiana	1,628	1,859	1,680	1,477	1,686	1,524
Texas	140	175	180	127	159	163
Hawaii	43	0	0	39	0	0
Total imports	3,244	3,422	3,365	2,943	3,105	3,053
Tariff-rate quota imports	1,611	1,788	1,355	1,462	1,622	1,229
Other program imports	419	350	350	380	318	318
Non-program imports	1,213	1,284	1,660	1,101	1,165	1,506
Mexico	1,201	1,269	1,645	1,090	1,152	1,492
Total supply	14,267	14,551	14,247	12,943	13,200	12,925
Total exports	95	170	50	86	154	45
Miscellaneous	38	0	0	35	0	0
Deliveries for domestic use	12,258	12,480	12,655	11,121	11,322	11,480
Transfer to sugar-containing products for exports under re-export program	127	120	120	115	109	109
Transfer to polyhydric alcohol, feed, other alcohol	29	35	35	27	32	32
Commodity Credit Corporation (CCC) sale for ethanol, other	0	0	0	0	0	0
Deliveries for domestic food and beverage use	12,102	12,325	12,500	10,979	11,181	11,340
Total use	12,391	12,650	12,705	11,241	11,476	11,526
Ending stocks	1,876	1,901	1,542	1,702	1,724	1,399
Private	1,876	1,901	1,542	1,702	1,724	1,399
Commodity Credit Corporation (CCC)	0	0	0	0	0	0
Stocks-to-use ratio	15.14	15.03	12.14	15.14	15.03	12.14

Source: U.S. Dept. of Agriculture, Economic Research Service, Sugar and Sweetener Outlook.

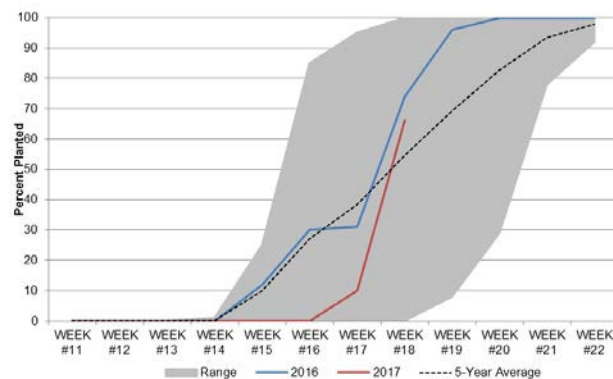
Sugarbeet growers in Minnesota, North Dakota, and Michigan were able to complete significant portions of their expected planting in a single week—including the majority of the crop in North Dakota and Michigan. As a result, the pace of planting in these States shifted from significantly delayed to in-line with the 5-year average. These regions represent primarily nonirrigated sugarbeet production, with weather conditions playing an important role in yields and production. Western growing regions, which are predominantly irrigated production systems, have had a relatively smooth planting period, as evidenced by Idaho—the second-largest sugarbeet producing State in the United States. The improved planting progress in the Red River Valley raises expected beet sugar production in 2017/18 by increasing production from the current crop that will be harvested and processed before the beginning of the 2018/19 fiscal year on October 1.

Figure 1
Minnesota sugarbeet planting progress, 2000 to 2018



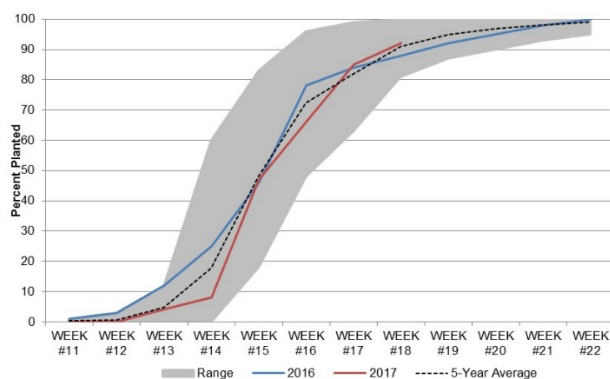
Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Figure 2
North Dakota sugarbeet planting progress, 2000 to 2018



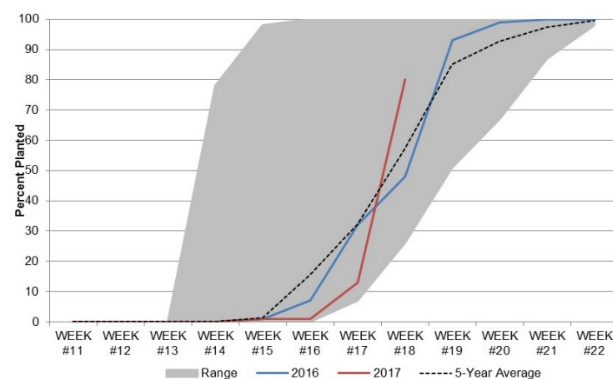
Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Figure 3
Idaho sugarbeet planting progress, 2000 to 2018



Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Figure 4
Michigan sugarbeet planting progress, 2000 to 2018



Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Beet sugar production in 2017/18 is projected to be 5.221 million short tons, raw value (STRV), an 82,000-STRV increase from the April projection. The increase is primarily due to a forecast of 598,000 STRV of sugar production expected in August and September, compared with the

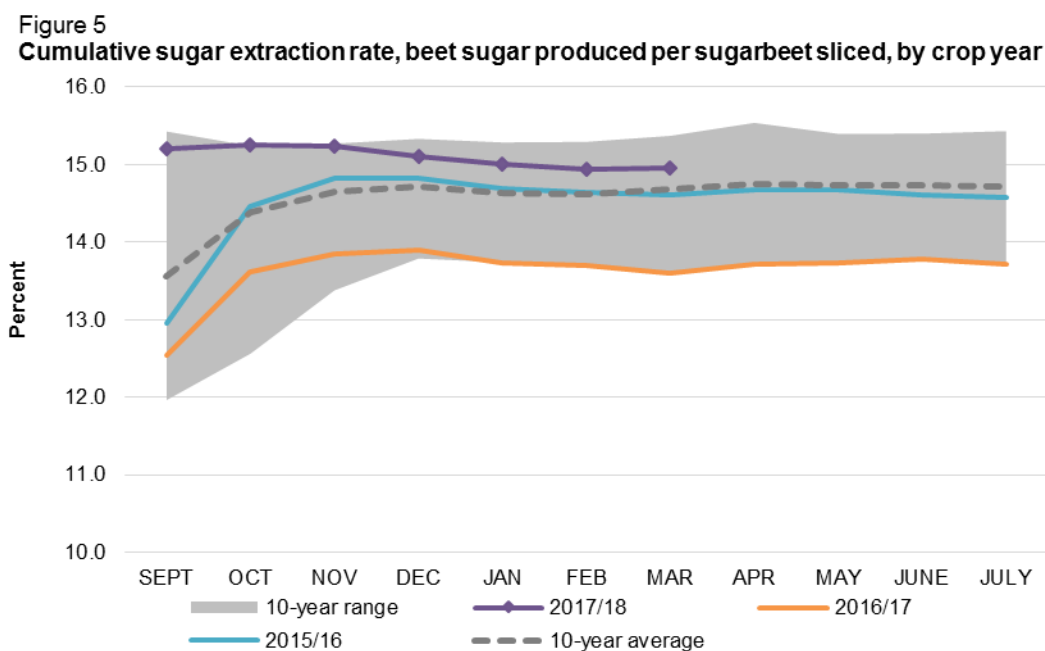
previous month's forecast of 504,000 STRV that was based on a 5-year average. Relatively minor adjustments were also made based on the sucrose extraction rate for sliced sugarbeets and shrink, based on data and forecasts that processors submitted to the Farm Service Agency's (FSA) *Sweetener Market Data* (SMD). The large sugarbeet crop in 2017/18 required many processors to continue their slicing campaign through the spring, which poses storage challenges for processors, even with the adoption of ventilation techniques to keep piled sugarbeets frozen. Expected shrink is raised slightly, as less tonnage of sugarbeets is expected to be sliced due to spoilage. The cumulative sucrose extraction rates for sliced beets remain strong, however.

Table 2: Beet sugar production projection calculation, 2017/18

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2017/18
									April	May
Sugarbeet production (1,000 short tons) 1/	29,783	32,034	28,896	35,224	32,789	31,285	35,371	36,881	35,325	35,325
Sugarbeet shrink 2/	5.7%	5.9%	5.9%	4.8%	6.8%	5.4%	6.5%	8.3%	6.4%	6.7%
Sugarbeet sliced (1,000 short tons)	28,097	30,137	27,184	33,532	30,545	29,595	33,066	33,834	33,076	32,958
Sugar extraction rate from slice	14.3%	15.4%	15.0%	15.3%	14.3%	14.6%	14.6%	13.7%	15.0%	15.0%
Sugar from beets slice (1,000 STRV)	4,023	4,631	4,086	5,142	4,325	4,325	4,820	4,643	4,967	4,955
Sugar from molasses (1,000 STRV) 2/	325	357	401	327	324	341	380	352	345	345
Crop-year sugar production (1,000 STRV) 3/	4,348	4,987	4,487	5,469	4,648	4,667	5,201	4,995	5,312	5,300
August-September sugar production (1,000 STRV)	396	623	294	708	315	461	688	606	715	715
August-September sugar production forecast (1,000 STRV)	623	294	708	315	461	688	606	715	504	598
Sugar from imported beets (1,000 STRV) 4/	--	--	--	--	--	--	--	--	38	38
Fiscal year sugar production (1,000 STRV)	4,575	4,659	4,900	5,076	4,794	4,893	5,119	5,103	5,139	5,221

Notes: 1/ National Agricultural Statistics Service, U.S. Dept. of Agriculture. 2/Projections based on processor forecasts published by U.S. Dept. of Agriculture, Farm Service Agency. 3/ August-July basis. 4/ Sugar from imported beets split out for projections only, included in total once full crop-year slice is recorded. They are incorporated into total production in historical data.

Source: U.S. Dept. of Agriculture, Economic Research Service and World Agricultural Outlook Board.



Source: U.S. Dept. of Agriculture, Economic Research Service and Farm Service Agency.

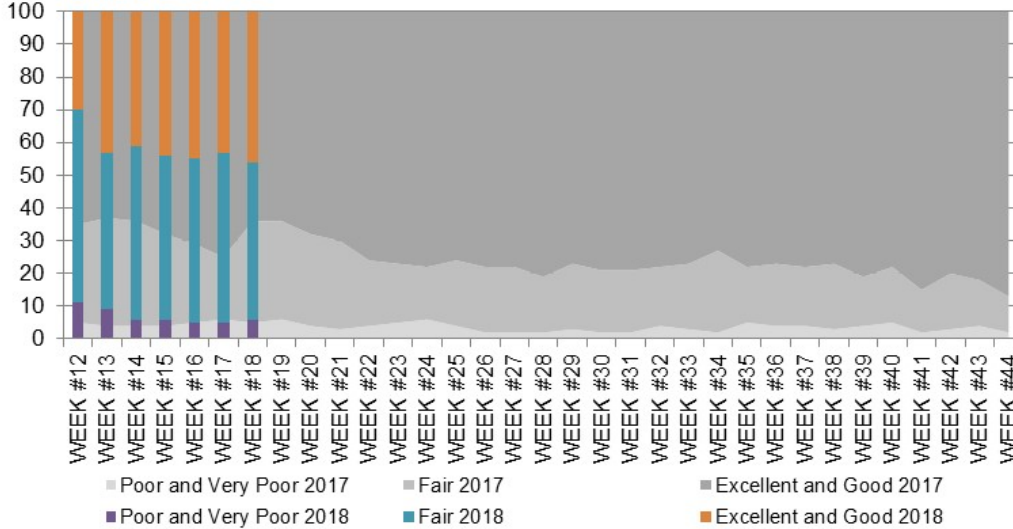
With the majority of planting complete, beet sugar production for 2018/19 is projected to total 5.036 million STRV. The projection is based on planted area forecast in the National Agricultural Statistics Service's (NASS) *Prospective Plantings* report from March 29, 2018, and assumes an abandonment rate in line with recent averages. National yield is forecast based on a planting progress-adjusted time trend of 31.6 tons per acre, which would be slightly behind the 2017/18 crop yield of 31.7 tons per acre. The crop-year (August-to-July basis) beet sugar production is projected to be 4.980 million STRV, based on average shrink rates, sucrose extraction rates, and production from molasses for the 2018/19 slicing campaign. The fiscal year projection is adjusted for estimated early-season production for August and September 2018, along with early-season production from the 2019/20 crop in line with the 5-year average.

Cane sugar production for 2018/19 is projected to total 3.945 million STRV, a 2.2-percent decline from the revised 2017/18 estimate of 4.031 million STRV, based on a return to trend yield and recovery rate levels.

Cane sugar production in Florida is projected to total 2.085 million STRV, a 4.2-percent increase from the 2017/18 estimate. Trend yields and recovery rates, along with slightly higher harvested area, account for the annual increase. Normal weather conditions are assumed for the region, which was detrimentally impacted by Hurricane Irma in September 2017 and a particularly rainy period during the beginning of the harvest period. Estimated production for 2017/18 is raised 25,000 STRV from the previous month based on processor reports, as the State's growers complete their harvest over the next few weeks.

Cane sugar production in Louisiana is projected to total 1.680 million STRV, a 10.6-percent reduction from the record-setting production total from the 2017/18 crop. Even with harvested area expected to be comparable to its 2017/18 levels, trend yields and expected recovery rates in line with recent averages result in the annual reduction. Much more of the State's sugarcane crop is rated in Fair condition, compared with the previous crop that had a higher proportion rated Good or Excellent at this time last year, according to NASS reports. If usual weather conditions prevail, another record-setting crop is unlikely.

Figure 6
Louisiana sugarcane crop conditions, 2017/18 and 2018/19



Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Cane sugar production in Texas is projected to total 180,000 STRV for 2018/19, a slight increase from the revised 2018/19 estimate of 175,000 STRV. The increase is based on continued improvement in sugarcane production in the region.

Imports in 2018/19 Projected To Be Lower than 2017/18

Total U.S. sugar imports for 2018/19 are projected to be 3.365 million STRV in 2018/19, a 1.7-percent decline from the current 2017/18 estimate. Imports under quota programs are projected to be 1.355 million STRV. This total reflects the WTO minimum commitments under the raw TRQ—including a 99,000 STRV estimated shortfall, refined sugar TRQ, and specialty sugar TRQ. The projection does not include the additional quantity of the Specialty Sugar TRQ for 2018/19, which has not yet been announced by the Secretary of Agriculture. Imports under free-trade agreements (FTAs) are based on estimated timing of shipments of calendar-year quotas set within the respective agreements.

Imports under the re-export program for 2018/19 are projected to be 350,000 STRV; the same as the revised estimate for 2017/18—lowered 50,000 STRV based on pace-to-date.

Imports from Mexico are projected to total 1.645 million STRV in 2018/19. The projection is based on the estimated U.S. Needs, as defined in the suspension agreements signed between the U.S. Department of Commerce (USDOC) and the Government of Mexico in December 2014 and amended in June 2017. The projection anticipates that processors in Mexico will expect an Additional Specialty Sugar TRQ amount in line with the 2017/18 announced levels. The

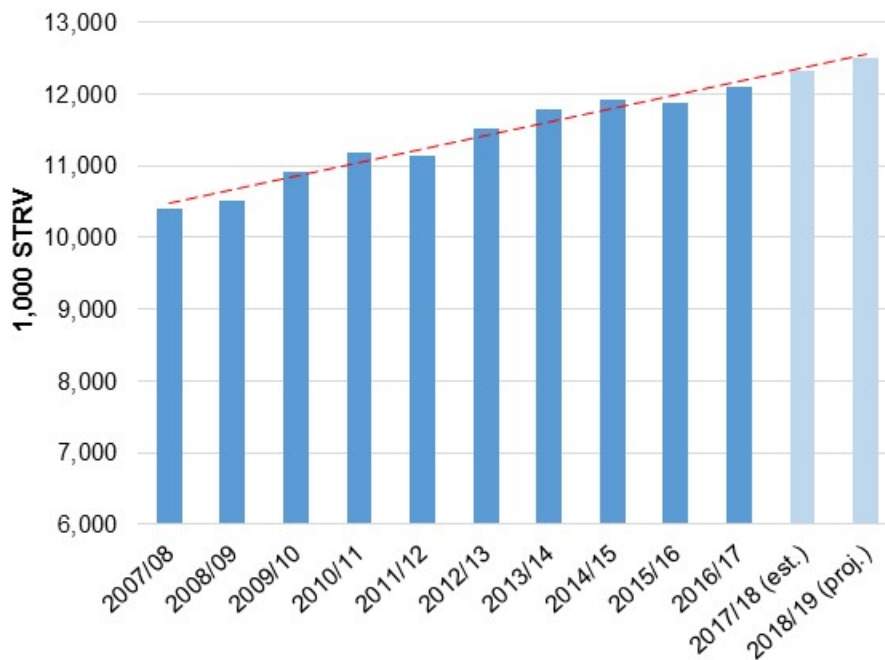
projected 2018/19 level would be a 29.6-percent increase from the current 2017/18 estimate. The increase reflects a higher expected U.S. Need, mainly due to less domestic production, fewer imports under quota programs, and higher total use in the United States.

Steady Increase in Domestic Deliveries Projected for 2018/19

Sugar use in the United States is expected to continue to steadily increase, primarily due to continued steady growth in deliveries for food and beverage use, partially offset by fewer exports. Total sugar use in the United States is projected to be 12.705 million STRV, a 0.4 percent increase from the current 2017/18 estimate.

Domestic deliveries are projected to total 12.655 million STRV, including 12.500 million STRV delivered for food and beverage use—both of which would constitute a 1.4-percent increase from the respective 2017/18 estimates. Food and beverage use growth is driven by the same key factors that have explained growth over the past decade: an increasing population and a higher per capita delivery rate for refined sugar, at the expense of lower deliveries for corn sweeteners. Statistical analysis of quarterly deliveries data show that, on average, the United States sugar market for food and beverage use increased between 150,000 and 200,000 STRV per year, or approximately 1.5 percent.

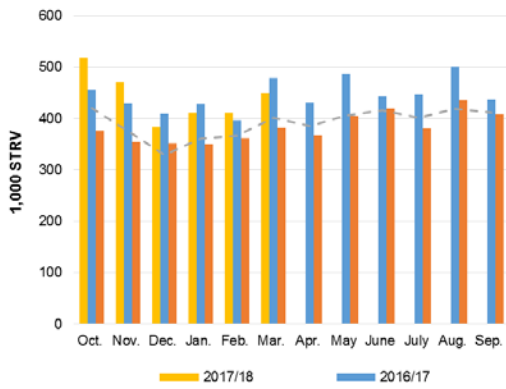
Figure 7
**U.S. sugar deliveries for food and beverage use, fiscal year,
 2007/08 to 2018/19**



Source: U.S. Department of Agriculture, Economic Research Service.

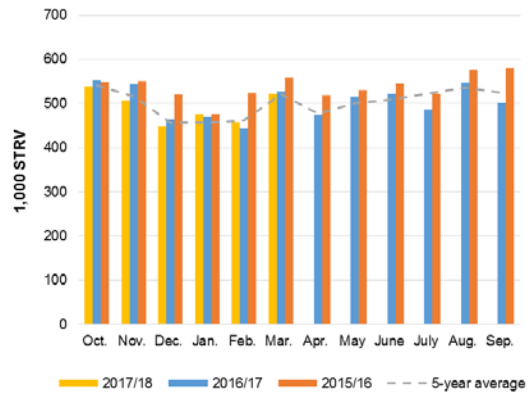
Deliveries for food and beverage consumption are estimated at 12.325 million STRV for 2017/18, unchanged from the previous month's projection. Through March, total sugar deliveries are up 0.5 percent compared with the previous year. Deliveries from beet sugar processors are 1.7 percent higher, while deliveries from cane refiners are down 0.2 percent over the same period. Inventories from the end of March show cane refiners carrying a substantially higher level of raw sugar compared with recent years, which should result in an increased pace of deliveries in the latter portion of 2017/18. Beet processors' inventories are lower than the 5-year average—although not to a degree that would appear to be constraining. Additionally, the forecast for relatively higher August and September production from the 2018/19 sugarbeet crop would provide additional supplies for processors.

Figure 8
Beet sugar deliveries, monthly, 2015/16 through 2017/18



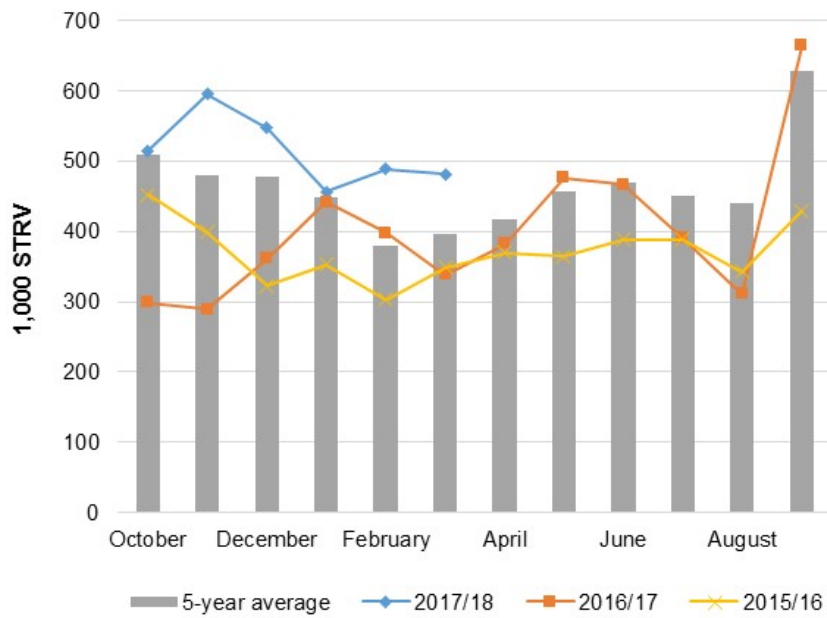
Source: U.S. Department of Agriculture, Farm Service Agency.

Figure 9
Cane sugar deliveries, monthly, 2015/16 through 2017/18



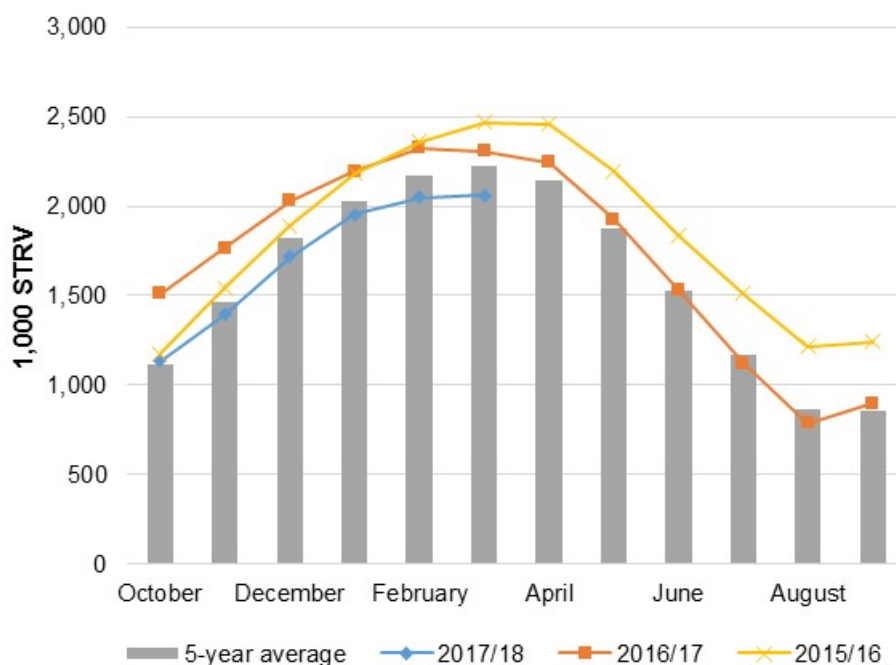
Source: U.S. Department of Agriculture, Farm Service Agency.

Figure 10
Sugarcane refiners raw sugar inventories, monthly, 2010/11 to 2016/17



Source: U.S. Department of Agriculture, Farm Service Agency.

Figure 11
Sugarbeet processors' total sugar inventories, monthly, 2015/16 to 2017/18



Source: U.S. Department of Agriculture, Farm Service Agency.

Total sugar use estimates for 2017/18 are raised 20,000 STRV above the April projection. The increase is due to higher expected sugar exports—raised to 170,000 STRV- based on pace-to-date trade data. The majority of exports have been to Mexico, due to high domestic prices there, particularly in the earlier period of the 2017/18 fiscal year. Exports for 2018/19 are projected to total 50,000 STRV, as price differentials between U.S. and Mexico prices have narrowed from a year ago.

Ending Stocks Raised for 2017/18, but Expected To Decline in 2018/19

Ending stocks for 2017/18 are estimated to total 1.901 million STRV, a 42,000-STRV increase from the previous month's projection, as additional production is expected to exceed higher use. The resulting stocks-to-use ratio is estimated to be 15.0 percent, compared with 14.7 percent in the April report.

Ending stocks for 2018/19 are projected to total 1.542 million STRV. This would represent a 23.3-percent decline from the previous year's estimate. The projected stocks-to-use ratio is 12.1 percent, which would indicate a relatively tight U.S. market by historical comparisons.

Mexico Outlook

Mexico Sugar Production Reduced for 2017/18 Crop

Estimates for the 2017/18 Mexican sugar market show higher ending stocks carried into 2018/19 compared with the previous month's projection. Estimates for domestic production are reduced, however, by 80,000-metric tons, actual value (MT), to 5.970 million MT. The reduction is due to analysis of the latest weekly production reports published by the *Comité Nacional para el Desarrollo Sustentable de la Caña de Azúcar* (Conadesuca).

Table 3: Mexico sugar supply and use, 2016/17 - 2017/18 and projected 2018/19, May 2018

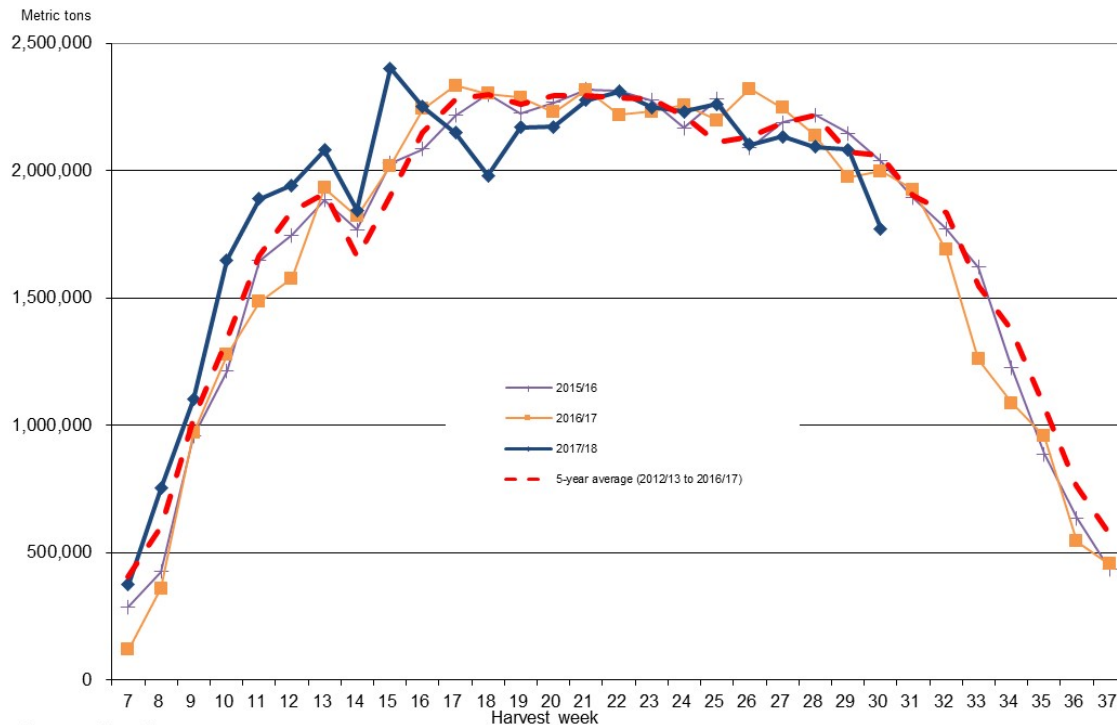
Items	2016/17	2017/18 (estimate)	2018/19 (forecast)
	1,000 metric tons, actual weight		
Beginning stocks	1,037	1,002	1,243
Production	5,957	5,970	6,025
Imports	93	190	84
Imports for consumption	48	140	34
Imports for sugar-containing product exports, IMMEX 1/, other	45	50	50
Total supply	7,087	7,162	7,353
Disappearance			
Human consumption	4,515	4,337	4,562
For sugar-containing product exports (IMMEX)	397	390	390
Other deliveries and end-of-year statistical adjustment	-61	0	0
Total	4,851	4,727	4,952
Exports	1,234	1,192	1,418
Exports to the United States & Puerto Rico	1,028	1,086	1,408
Exports to other countries	205	106	10
Total use	6,085	5,919	6,370
Ending stocks	1,002	1,243	983
	1,000 metric tons, raw value		
Beginning stocks	1,099	1,062	1,318
Production	6,315	6,328	6,387
Imports	98	201	89
Imports for consumption	51	148	36
Imports for sugar-containing product exports (IMMEX)	47	53	53
Total supply	7,512	7,592	7,794
Disappearance			
Human consumption	4,786	4,597	4,835
For sugar-containing product exports (IMMEX)	420	413	413
Other deliveries and end-of-year statistical adjustment	-64	0	0
Total	5,142	5,010	5,249
Exports	1,308	1,264	1,503
Exports to the United States & Puerto Rico	1,090	1,152	1,492
Exports to other countries	218	112	11
Total use	6,450	6,274	6,752
Ending stocks	1,062	1,318	1,042
Stocks-to-human consumption (percent)	22.2	28.7	21.6
Stocks-to-use (percent)	16.5	21.0	15.4
High fructose corn syrup (HFCS) consumption (dry weight)	1,522	1,608	1,608

1/ IMMEX = Industria Manufacturera, Maquiladora y de Servicios de Exportación.

Source: USDA, *World Agricultural Supply and Demand Estimates* and Economic Research Service, Sugar and Sweeteners Outlook; Conadesuca.

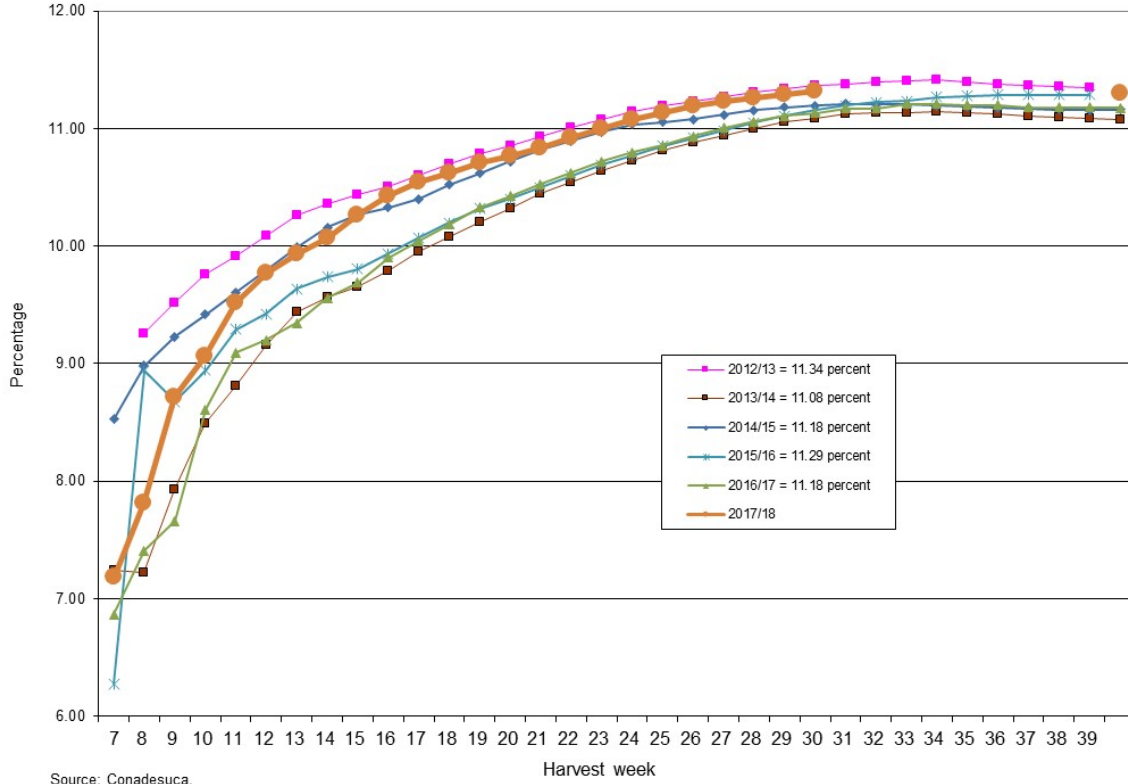
Through April 28, 2018, Mexican sugarcane processors harvested 649,000 hectares of sugarcane and processed 46.299 million MT of sugarcane—0.7 percent and 1.0 percent, respectively, behind the comparable period the prior year. Strong recovery rates, however, have resulted in slightly more sugar production than last year, totaling 5.240 million MT. Weekly production figures indicate that the peak portion of the harvest campaign has concluded. The reduced outlook for production in Mexico is based on the current cumulative figures and less weekly production expected to be reported for the remainder of the year.

Figure 12
Mexican sugarcane production, by week of harvest, 2010/11-2017/18



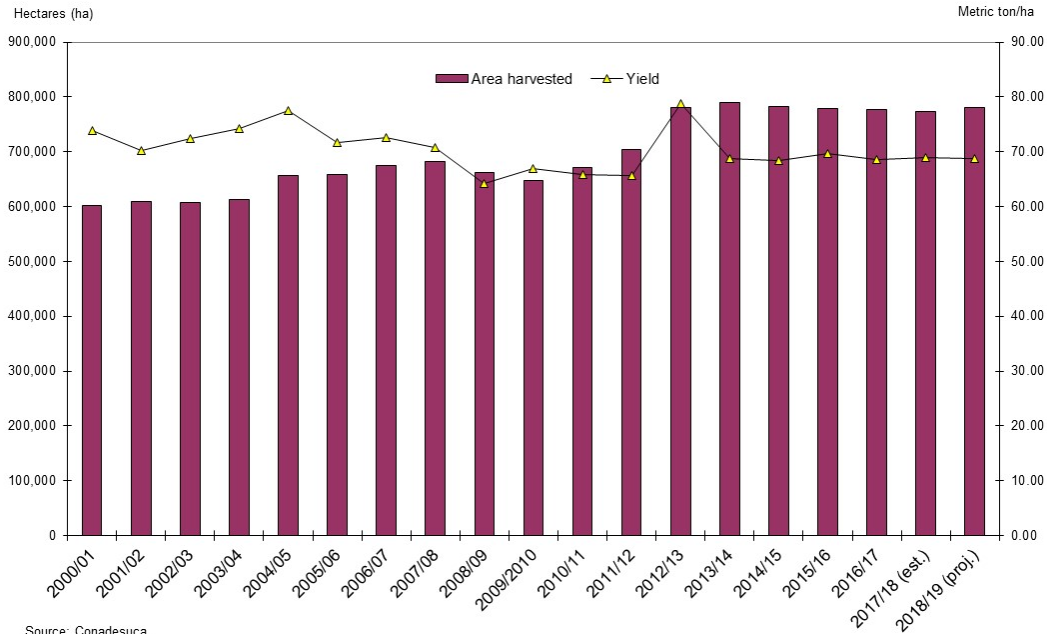
Source: Conadesuca.

Figure 13
Intra-seasonal, cumulative sugar recovery rates in Mexico, recent crop years



Production in 2018/19 is projected to total 6.025 million MT, which would represent a 0.9 percent increase from the prior year. The projection is based on harvested sugarcane area forecast to reach 780,000 hectares, which would be a slight increase from the current estimate for the 2017/18 crop but in line with recent history. Along with sugarcane yields and recovery rates consistent with recent averages, projected sugar production is larger than the past 2 years, but still well within the range of established over the past 5 years.

Figure 14
Mexico sugarcane, area harvested and yield, 2000/01-2018/19



Source: Conadesuca.

The reduction in estimated production for 2017/18 is partially offset by higher imports, at 190,000 MT—which is 20,000 MT higher than the April projection. The increase is expected to be used for domestic human consumption, estimated at 140,000 MT. Imports for the IMMEX program are estimated to total 50,000 MT. Imports for 2018/19 are projected to decline on a year-over-year basis, however, totaling 84,000 MT. Imports for IMMEX are projected to be 50,000 MT—level with the current year’s estimates. The remaining 34,000 MT are projected to be for human domestic consumption, based on expectations that the majority of U.S. exports will be shipped for the Mexico market.

Ultimately, total sugar supplies in Mexico in 2018/19 are projected to be 7.353 million MT. This represents a 2.7-percent increase from the 2017/18 estimate. The increase is predominantly due to larger beginning stocks expected for 2018/19.

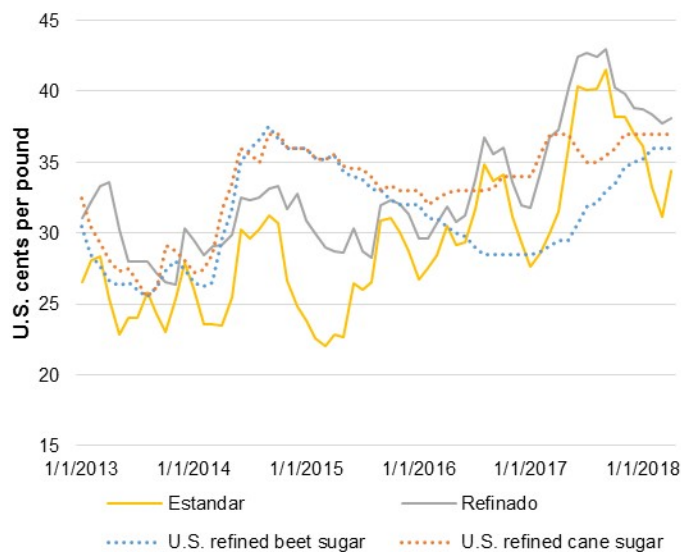
Sluggish Pace of Domestic Deliveries Reduces Estimates for Current Year

Mexico’s domestic market for sugar has been relatively sluggish for domestic processors through the first 6 months of 2017/18. Domestic sugar deliveries in 2017/18 are expected to be 4.377 million MT, a 159,000-MT reduction from the previous month. The reduction is based on the pace of deliveries reported by Conadesuca. Fiscal year deliveries through March are

reported to be 10.4 percent lower than the same period the previous year. Deliveries began the year relatively slowly, with high domestic prices and relatively tight supplies—due to both tight carryover from the previous year and a high proportion of new production having low polarity to satisfy terms of trade in order to be shipped to the United States. The slow pace of deliveries has continued through the first half of the year, with deliveries being at the lowest level since 2013/14. This has been partially offset by a 6.0 percent increase in high fructose corn syrup (HFCS) deliveries over the same time period. Overall sweetener deliveries have been 6.6 percent lower than the previous year.

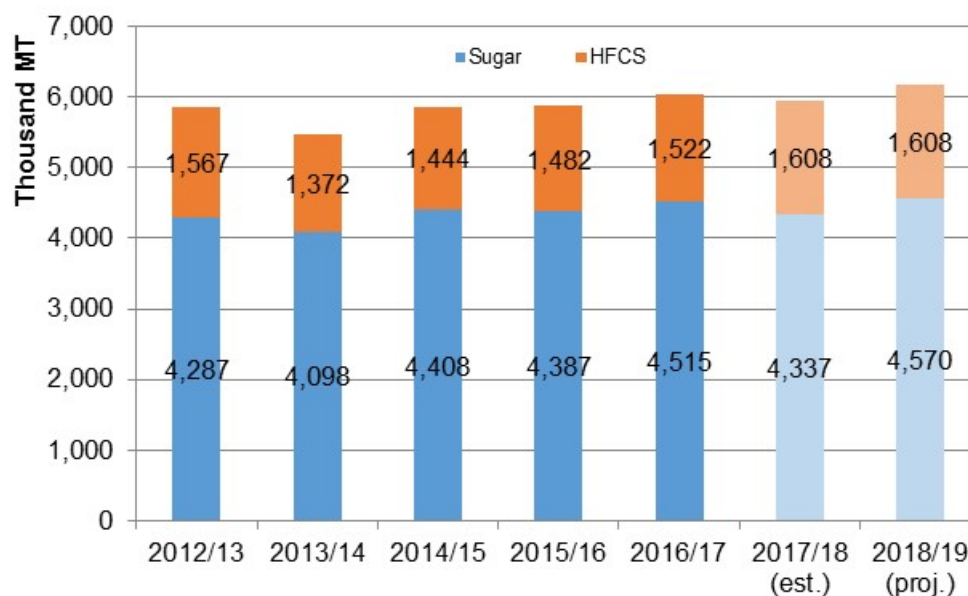
This trend is not expected to be sustained beyond the current year, however. Wholesale prices in Mexico's domestic market have fallen from the recent highs of the spring and summer of 2017, which should encourage more sales to domestic users and fewer imports. Domestic deliveries for human consumption are projected to be 4.562 million MT. This projection represents per capita sweetener consumption in line with 2016/17 levels, and projected HFCS deliveries bring the current estimate for 2017/18 to 1.608 million MT. The lower deliveries thus far in 2017/18 are expected to be an anomaly similar to the temporary decrease in deliveries in 2013/14, which saw a resumption of growth the following year.

Figure 15
Mexico Estandar and Refinado sugar prices, monthly, January 2013 to April 2018



Source: U.S. Department of Agriculture, Economic Research Service.

Figure 16
Mexican sweetener consumption October to September, fiscal year



Source: Conadesuca; U.S. Dept. of Agriculture, World Agricultural Outlook Board.

Current-year export estimates are also reduced from with the previous month. The combination of low world prices and growth in shipments to the United States expected for 2018/19 will likely mean that Mexican processors will carry more ending stocks, with the intention of marketing them the following year to the United States or their domestic market—both of which are expected to have better returns than shipping to non-U.S. foreign markets under current world market conditions. Total exports are estimated to be 1.192 million MT, a 155,000-MT reduction from the April report. The reduction is due entirely to shipments to countries other than the United States. Exports to the United States are estimated to be 1.086 million MT, in line with the Export Limit announced by the USDOC subsequent to the March WASDE release. Mexico is expected to fill the entirety of the refined sugar and other sugar amounts specified in the terms of the suspension agreements. Through the end of April, Mexico processors had produced enough low-polarity sugar fill about 90 percent of the Export Limit allocated for raw sugar.

Improved Domestic and Foreign Outlook Result in Higher Ending Stocks Expected for 2017/18

Mexico's exports in 2017/18 are expected to predominantly be shipped to the United States; the terms of the suspension agreements will allow for Mexico to ship a higher volume of sugar to

the United States, given the current outlook. Mexico is projected to export 10,000 MT to non-U.S. destination in 2018/19, whereas exports to the United States are projected to be 1.408 million MT. This amount corresponds to the projected U.S. Needs amount, expected based on current projections of the U.S. market. The amount is adjusted for the fact that current U.S. imports under quota programs only reflect WTO minimum commitment levels, since the Secretary of Agriculture has not announced any additional quotas. The projection for Mexico exports to the United States assumes that future 2018/19 quotas, such as the Specialty Sugar TRQ, are in line with 2017/18 levels until further announcements are made.

Mexico's estimated ending stocks for 2017/18 are 1.243 million MT, a 254,000-MT increase from the previous month's level. This is based on processors' holding enough supplies: to bridge the end of the marketing year on September 30 and the beginning of the next harvest campaign in late-November and December—along with having the ability to export to the United States in the early months of the 2018/19 Export Limit Period, in line with the suspension agreement's terms for shipping patterns and refined sugar. Historically, September 30 ending stocks have not fallen below 18 percent of domestic consumption. This level, along with 30 percent of the expected shipments to the United States, result in the current ending stock estimate level and a 28.7 stocks-to-consumption ratio—compared with the previous month's projection of 22.0 percent.

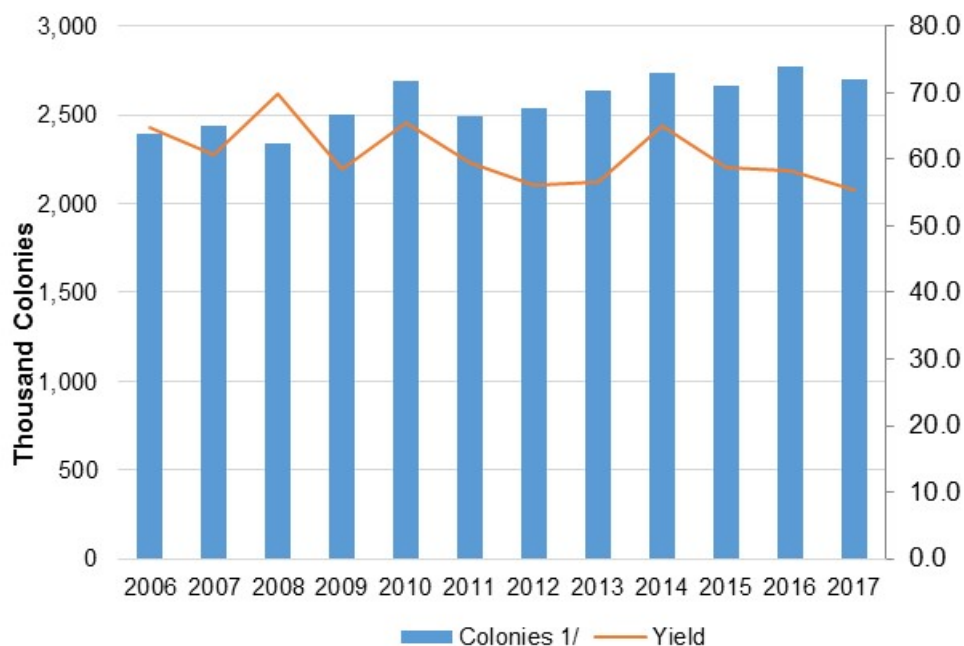
Ending stocks in 2018/19 are projected to be reduced considerably from the previous year, totaling 983,000 MT—or 21.6 percent of domestic consumption. This is the result of a 7.6-percent increase in projected use, despite only a 2.7-percent increase in total supplies. Projected stock levels are in line with historical levels, however.

Special Article: U.S. Honey Market

U.S. Honey Production Continues To Drop; Imports Jump to Record Levels

U.S. honey production in 2017 totaled 147.6 million pounds, an 8.8-percent decrease from 2016 due to both fewer colonies and lower yields. There were 2.699 million honey-producing colonies in 2017, a 5.2-percent decrease from the previous year (2016 had 2.775 million colonies). Honey yields of 55.3 pounds per colony were down 5.2 percent from 2016, at the lowest levels since 1989.

Figure 17
U.S. honey bee colonies and honey yields, 2006-2017

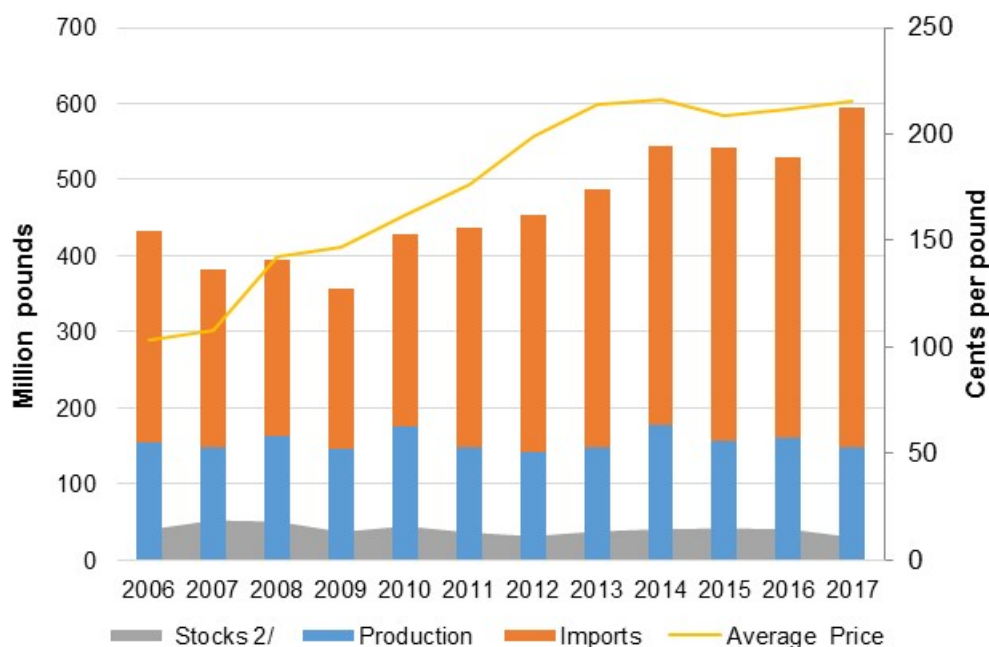


1/ Data include only beekeepers with five or more colonies.
Source: U.S. Department of Agriculture, Farm Service Agency.

Stocks were the lowest reported since 1986, with honey producers holding 30.6 million pounds in 2017. These stocks represent a 25.9-percent decline from the prior year's stocks. National average honey prices were 215.6 cents per pound, which is 1.7 percent above the revised 2016 price. This price is also the second highest, fractionally behind 2014's record price of 216.1 cents per pound. Honey producers have experienced a sustained upward trend in prices since

the late 1990's through 2014 as apparent domestic honey use has increased. It is unclear if this trend has paused or leveled out, as prices remain at these historically high levels.

Figure 18
U.S. honey supplies and prices, 2006-2017

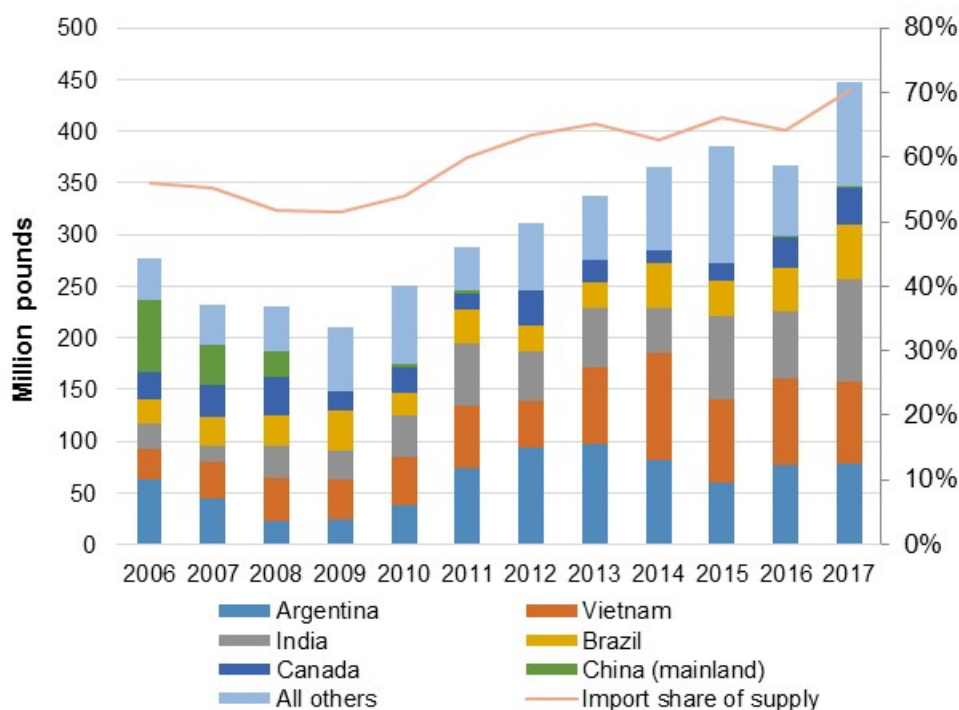


Note: Stocks held by producers.
 Source: U.S. Department of Agriculture, Farm Service Agency.

Prices are often understood as one gauge of demand within an economy. If supply is consistent and demand or perceived demand increases, then prices are expected to increase, signaling producers or importers that a profit can be made through increasing the supply (sum of production, imports, and previous-year ending stocks) in the economy. This is precisely what was observed in the honey market; as prices increased, supply increased. Imports into the United States were 447.7 million pounds in 2017, a 22.0 percent increase from the 367.0 million pounds imported in 2016, more than offsetting the decline in domestic production. Imports made up 70.3 percent of U.S. total honey supplies. This represents the highest import level on record, continuing the longer term trend of a growing share of honey supplies coming from foreign sources. The largest foreign source of honey in 2017 was India, outpacing Vietnam and Argentina, the second and third leading sources, respectively. Although U.S. honey imports were recorded for many different countries in 2017, the top five foreign suppliers

(Vietnam, Argentina, India, Brazil, and Ukraine) accounted for 77 percent of total imports. This is the first year that Ukraine has been one of the U.S.'s top-five import sources, replacing Canada on that list—Ukraine's imports increased 75 percent from 24 million pounds in 2016 to 43 million pounds in 2017, while Canada provided 35 million pounds in 2017. India also increased its shipments to the United States by 35 million pounds, to 100 million pounds in 2017, a 53.9-percent increase over 65 million pounds in 2016.

Figure 19
U.S. honey imports by country and import share of total supplies, 2006-2017

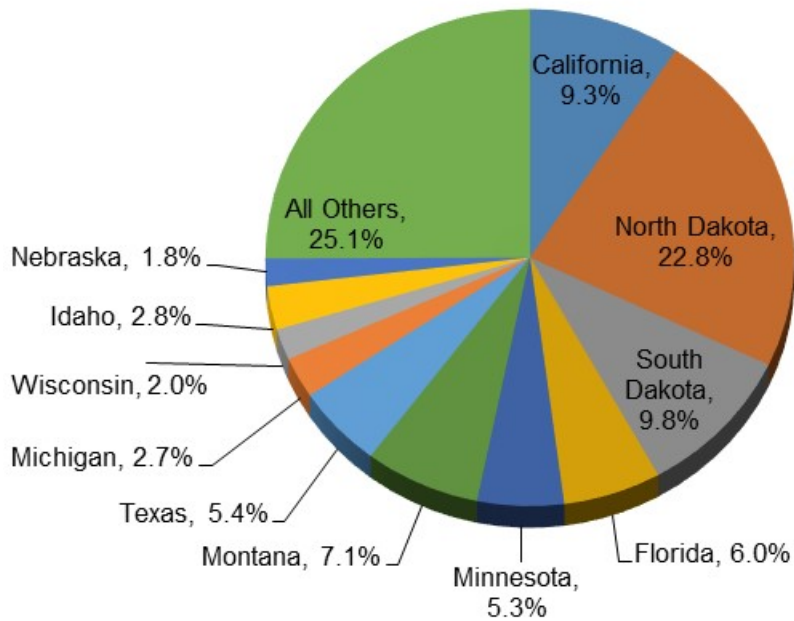


Note: Stocks held by producers.
 Source: U.S. Department of Agriculture, Farm Service Agency.

Domestically, production can be found in nearly every region of the United States. The largest honey producing State in 2017 was North Dakota, with 33.670 million pounds. North Dakota's production came from its 455,000 colonies, which each produced around 74 pounds of honey. South Dakota was the second largest producer, with 14.535 million pounds of honey from their 255,000 colonies (a yield of 57 pounds per colony). The third largest producer was California, with 13.735 million pounds in 2017 from 335,000 colonies, which on average produced 41 pounds of honey each (this was the second largest number of colonies for a State, showing the importance of yield in production). Montana was the fourth largest honey producer in 2017, with 10.440 million pounds, followed by Florida, with 8.815 million pounds.. A large portion of honey production, however, occurs in States aggregated by NASS into the category "All Others."

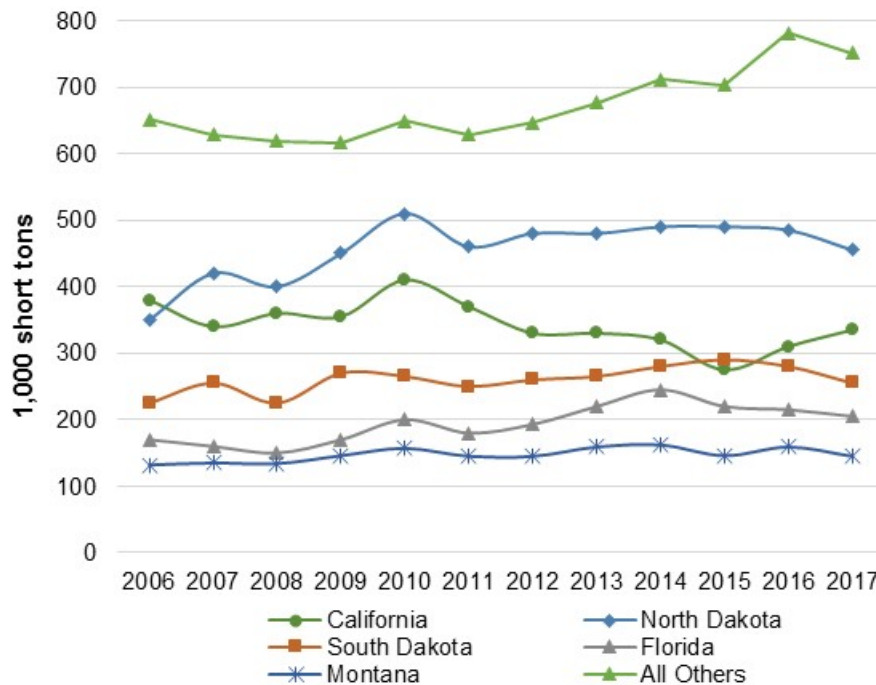
Production from the “All Others” States totaled 37.0 million pounds in 2017, or 25 percent of the U.S. total. For reference, the highest yield recorded among these States in 2017 was from Hawaii, where the average honey-producing colony yielded 131 pounds of honey. Weather and other environmental characteristics influence yield, making Hawaiian bee colonies particularly productive in 2017 (Hawaiian yield in 2016 was 113 pounds per colony).

Figure 20
U.S. honey production, by State, 2017



Note: Data includes only bee keepers with more than 5 colonies.
 Source: U.S. Department of Agriculture, National Agricultural Statistics Service.

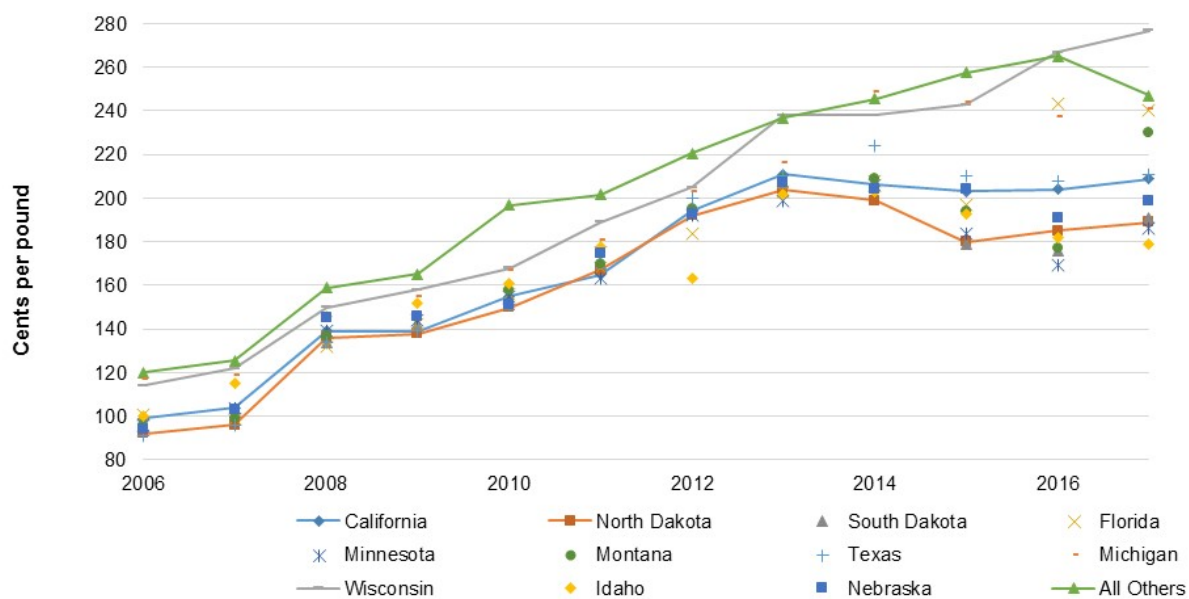
Figure 21
U.S. honey bee colonies for top-producing States, 2006-2017



Note: Data includes only bee keepers with more than 5 colonies. Presented States account for 37 percent of U.S. total.
 Source: U.S. Department of Agriculture, National Agricultural Statistics Service.

Geographic diversity in transportation costs, quality, production, and taste preferences for honey drives diversity in prices as well. Therefore, examining the national-level statistics doesn't tell the full story. National average honey prices in 2017 were the second highest on record at 215.6 cents per pound, only 0.5 cents per pound off of the record-high price of 216.1 cents recorded in 2014. In general we continue to observe lower prices in the large producing States. In 2017, by color class, the prices for the extra-light amber grade of honey increased the most, from 200.8 cents per pound in 2016 to 213.5 cents per pound in 2017. Prices also increased for the "Water white, extra white, white" category, while prices remained constant in the "Light amber, amber, dark amber" category. Prices actually fell by 3 percent in the "All other honey, area specialties," from 385.2 cents per pound in 2016 to 373.8 cents per pound in 2017, showing how visual differentiation can affect prices, based on the NASS Honey report for March.

Figure 22
 U.S. honey prices by State, 2006-2017



Note: Data includes only bee keepers with more than 5 colonies.
 Source: U.S. Department of Agriculture, Farm Service Agency.

Suggested Citation

McConnell, Michael J., Sugar and Sweeteners Outlook, SSS-M-357, U.S. Department of Agriculture, Economic Research Service, May 16, 2018