United States Department of Agriculture

Economic Research Service | Situation and Outlook Report

SSS-M-375 |November 15, 2019 Next release is December 16, 2019

Sugar and Sweeteners Outlook

Michael McConnell, coordinator

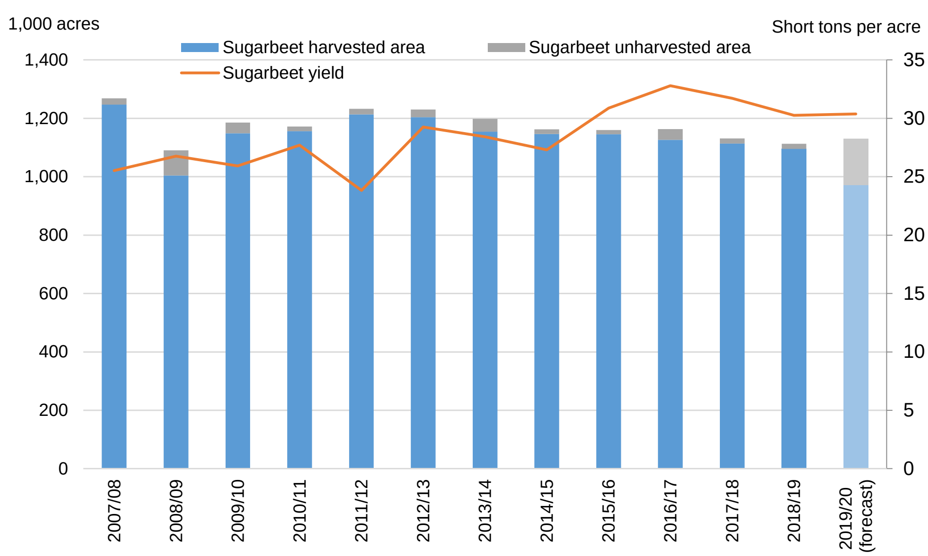
David Olson, contributor

High Levels of Unharvested Sugarbeet Area Reduces U.S. Sugar Production Outlook for 2019/20

Projected U.S. sugar production for 2019/20 is reduced, as both cane sugar and beet sugar production are lowered based on most recent crop data. Domestic deliveries for 2019/20 are reduced as well, based on lower forecast totals than previously reported for 2018/19. Reported ending stocks by domestic processors and refiners for 2018/19 resulted in an ending stocks-to-use ratio of 14.5 percent.

Domestic deliveries for human consumption in Mexico fell for the second consecutive year in 2018/19 and a slight reduction is projected for 2019/20, continuing the recent trend. Mexico sugar production is reduced significantly from the previous month's figure, as drought is expected to lower sugarcane yields. Projected sugar exports are down from the previous month, as the availability of fewer supplies is expected to reduce the volume of shipments to non-U.S. markets.

Sugarbeet harvested area and yields, 2007/08 to 2019/20



Source: USDA, National Agricultural Statistics Service.

Approved by USDA's World Agricultural Outlook Board

U.S. Domestic Outlook

Record-late Sugarbeet Harvest Results in Higher Proportion of Unharvested Beets and Lower Beet Sugar Production for 2019/20

Total U.S. sugar supplies for 2019/20 are reduced by 524,000 short tons, raw value (STRV) to 13.550 million STRV. A large reduction in projected domestic production more than offsets an increase in beginning stocks.

Table 1: U.S. sugar: supply and use, by fiscal year (Oct./Sept.), November 2019

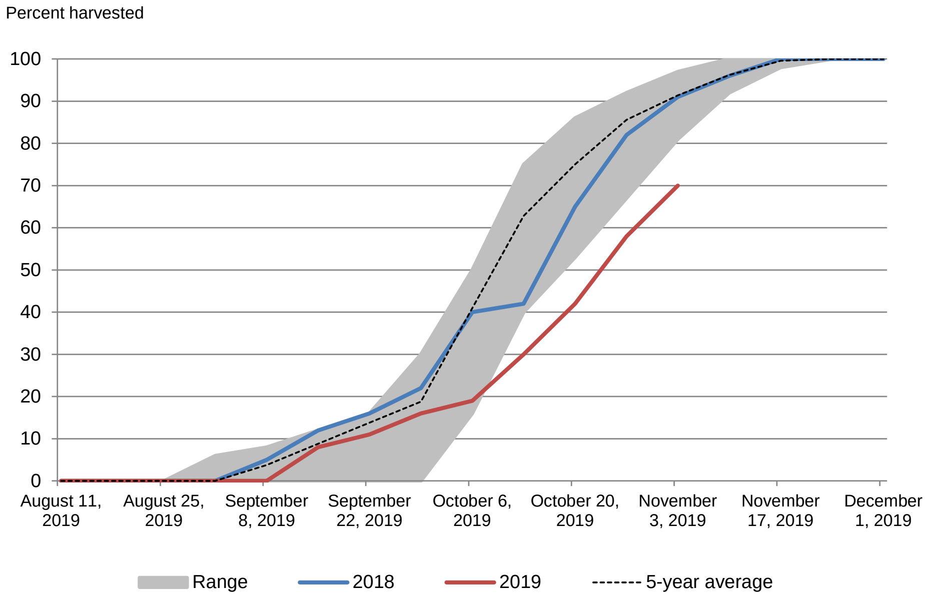
Items	2017/18	2018/19 (estimate)	2019/20 (forecast)	2017/18	2018/19 (estimate)	2019/20 (forecast)
	1,000 Short tons, raw value			1,000 Metric tons, raw value		
Beginning stocks	1,876	2,008	1,779	1,702	1,822	1,614
Total production	9,293	8,994	8,612	8,430	8,159	7,812
Beet sugar	5,279	4,937	4,588	4,789	4,478	4,162
Cane sugar	4,014	4,057	4,024	3,641	3,680	3,650
Florida	1,983	2,005	2,096	1,799	1,819	1,901
Louisiana	1,862	1,904	1,794	1,689	1,728	1,628
Texas	169	147	134	153	134	121
Hawaii	0	0	0	0	0	0
Total imports	3,277	3,070	3,159	2,973	2,785	2,866
Tariff-rate quota imports	1,663	1,541	1,621	1,509	1,398	1,471
Other program imports	326	438	350	296	397	318
Non-program imports	1,287	1,092	1,188	1,168	990	1,078
Mexico	1,223	1,000	1,118	1,110	908	1,014
High-duty	64	91	70	58	83	64
Total supply	14,445	14,072	13,550	13,105	12,766	12,292
Total exports	170	35	35	154	31	32
Miscellaneous	82	27	0	75	24	0
Deliveries for domestic use	12,185	12,231	12,230	11,054	11,096	11,095
Transfer to sugar-containing products for exports under re-export program	110	98	80	100	89	73
Transfer to polyhydric alcohol, feed, other alcohol	28	27	25	25	25	23
Commodity Credit Corporation (CCC) sale for ethanol, other	0	0	0	0	0	0
Deliveries for domestic food and beverage use	12,048	12,106	12,125	10,930	10,982	11,000
Total use	12,438	12,292	12,265	11,283	11,151	11,127
Ending stocks	2,008	1,779	1,285	1,822	1,614	1,166
Private	2,008	1,779	1,285	1,822	1,614	1,166
Commodity Credit Corporation (CCC)	0	0	0	0	0	0
Stocks-to-use ratio	16.14	14.48	10.48	16.14	14.48	10.48

Source: USDA, Economic Research Service, Sugar and Sweetener Outlook.

Projected beginning stocks for 2019/20 are 1.779 million STRV, a 54,000-STRV increase from the previous month. The Farm Service Agency's (FSA) *Sweetener Market Data* (SMD) through September 2019 showed processors' and refiners' ending stocks for 2018/19 at 1.779 million, which carried into the new fiscal year. September data also raised estimates for both 2018/19 beet sugar and 2018/19 cane sugar by a combined 59,000 STRV and lowered 2018/19 food and beverage deliveries by 19,000 STRV, all of which contributed to higher reported inventories than the previous month's estimate.

Production for 2019/20 has been hampered by cold, wet weather conditions in most of the key sugarbeet-producing regions during the harvest season. Through November 3, the national sugarbeet harvest was only 70 percent complete—the slowest pace on record since 2000. This was mainly due to record-slow harvest progress made in Minnesota (70 percent), North Dakota (67 percent), and Michigan (55 percent). At the time of the WASDE release, growers were still contending with freezing temperatures and wet soil conditions, which can hinder growers' ability to get in the field, harvest sugarbeet roots from the soil, and provide healthy, clean beets that can be stored and processed during the winter and spring slicing season. The likelihood of unusually high levels of sugarbeets being left unharvested has been increasing as winter conditions continue in those States.

Figure 1
United States sugarbeet harvest progress, 2018, 2019, and 5-year average



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

The prospect of above-average amounts of unharvested sugarbeets reduces the sugarbeet production forecast. The National Agricultural Statistics Service (NASS) November *Crop Production* report lowered its November 1 sugarbeet national production forecast by 12.1 percent compared with the previous month. The reduction is primarily in Minnesota and North Dakota—the first- and third-largest sugarbeet-producing States. The reduction is due to lowered harvested area forecasts, currently at 971,000 acres—an 11.3-percent reduction from the October forecast. If realized, this would be the lowest harvested acreage total since 1960/61. More recently, the current forecast surpasses the previous 10-year low of 1.005 million acres in 2008/09. The national yield forecast increased slightly, from 30.1 tons per acre in October to 30.4 tons in the most recent report.

Table 2: Sugarbeet production, 2015/16 to 2019/20, November 2019

State	2016/17	2017/18	2018/19	2019/20 (forecast)		Monthly	Annual
				October	November	change	change
			1,000 short tons				*percent*
Minnesota	12,510	12,515	10,486	11,367	8,878	-2,489	-15.3
North Dakota	6,252	6,445	5,731	5,886	4,187	-1,699	-26.9
Idaho	7,038	6,507	6,602	6,673	6,640	-33	0.6
Michigan	4,589	3,604	4,278	3,988	4,046	58	-5.4
Nebraska	1,411	1,437	1,407	1,203	1,212	9	-13.9
Montana	1,586	1,396	1,319	1,302	1,323	21	0.3
Wyoming	951	891	946	838	857	19	-9.4
Colorado	927	1,035	831	809	816	7	-1.8
Oregon	428	334	366	381	381	0	4.1
Washington	91	87	87	97	96	-1	10.3
U.S. Total	36,920	35,317	33,145	33,606	29,498	-4,108	-11.0

Source: USDA, National Agricultural Statistics Service.

Beet sugar production is reduced 466,000-STRV to 4.588 million STRV. Due to the dynamic nature of production forecasts at the time of the WASDE, the beet sugar projection was predicated on processors' expectation of slicing 28.422 million short tons of sugarbeets, as reported by the SMD on November 7, 2019. With the extraction rate currently expected to be comparable with recent averages, other changes to the outlook include a 30,000-STRV reduction due to higher-than-expected early-season production and 9,000-STRV less production from molasses—in line with processors' forecasts. The current projection would be the lowest fiscal year beet sugar total since 2009/10.

Table 3: Beet sugar production projection calculation, 2018/19 and 2019/20

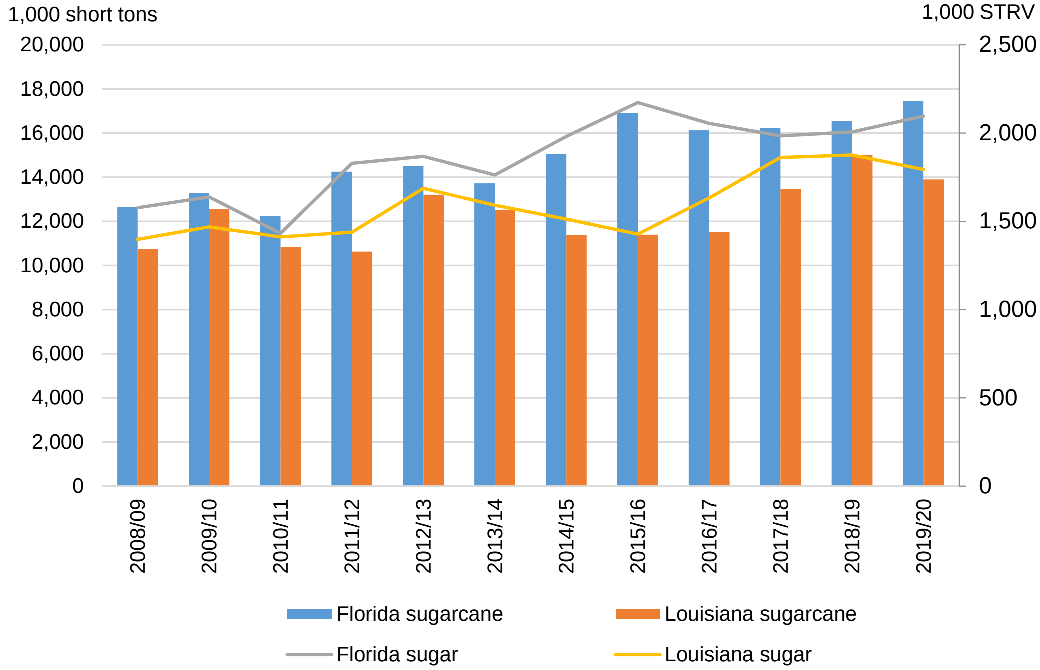
	2015/16	2016/17	2017/18	2018/19	2018/19	2019/20	2019/20
				October	November	October	November
Sugarbeet production (1,000 short tons) 1/	35,371	36,881	35,325	33,145	33,145	33,606	29,498
Sugarbeet shrink	6.5%	8.3%	7.3%	4.8%	4.8%	6.5%	3.6%
Sugarbeet sliced (1,000 short tons)	33,066	33,834	32,742	31,561	31,561	31,437	28,422
Sugar extraction rate from slice	14.58%	13.72%	15.18%	14.77%	14.77%	14.55%	14.58%
Sugar from beets slice (1,000 STRV) 2/	4,820	4,643	4,970	4,660	4,660	4,573	4,144
Sugar from molasses (1,000 STRV) 2/	380	352	368	352	352	359	350
Crop-year sugar production (1,000 STRV) 2/	5,201	4,995	5,338	5,012	5,012	4,932	4,494
August-September sugar production (1,000 STRV)	688	606	715	655	655	550	580
August-September sugar production of subsequent crop (1,000 STRV)	606	715	655	550	580	633	633
Sugar from imported beets (1,000 STRV) 3/	--	--	--	--	--	40	40
Fiscal year sugar production (1,000 STRV)	5,119	5,103	5,279	4,907	4,937	5,055	4,588

Notes: 1/ USDA, National Agricultural Statistics Service. 2/ August-July basis. 3/ Sugar from imported beets split out for projections only, included in total once full crop-year slice is recorded. Sugar from imported beets are incorporated into total production in historical data.

Source: USDA, Economic Research Service and World Agricultural Outlook Board.

Cane sugar production is reduced 106,000 STRV to 4.024 million STRV, with all the reduction coming from production in Louisiana. NASS forecasts for sugarcane production in Louisiana were lowered 660,000 short tons in the November *Crop Production* report, as both harvested area and yields dropped compared with the previous month. Processors in the State also reported a lower recovery rate than previously forecast, further reducing the cane sugar outlook. Louisiana is currently projected to produce 1.794 million STRV of cane sugar. This would represent a large total by historical standards, but it is below the record-breaking years of 2017/18 and 2018/19. Cane sugar production remains unchanged in Florida (2.096 million STRV) and Texas (134,000 STRV), as NASS forecasts to the sugarcane crops in the respective States were changed only marginally based on small adjustments to yields.

Figure 2
Sugarcane and Sugar Production, Florida and Louisiana, 2007/08 to 2019/20



Source: USDA, National Agricultural Statistics Service.

Estimated Food and Beverage Deliveries 0.5-Percent Higher Than 2017/18

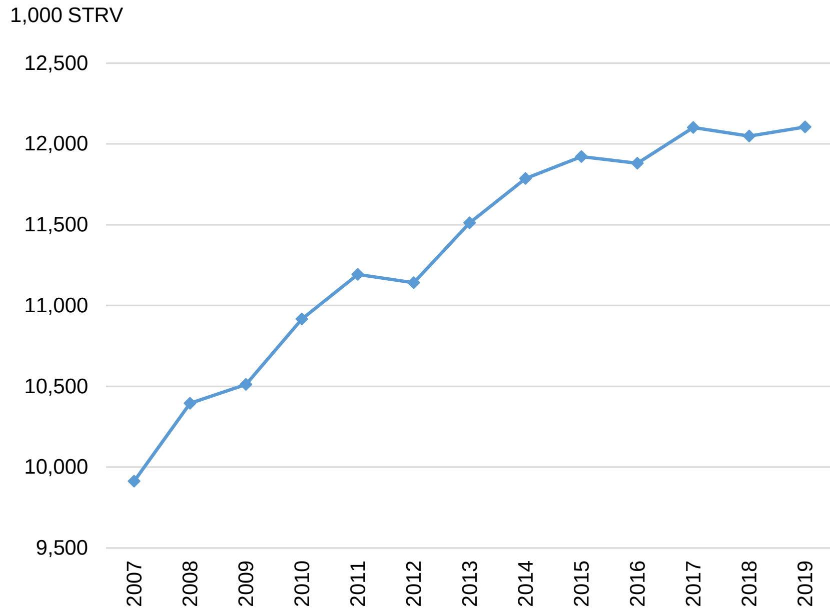
U.S. sugar deliveries for food and beverage use are estimated at 12.106 million STRV, a 19,000-STRV decrease from the previous month's forecast. The November estimate represents the first with complete fiscal year data reported in the SMD. The total is a 0.5-percent increase from 2017/18 deliveries and continues a flattening trend in deliveries since 2016/17. Additionally, the annual growth was due to direct consumption imports, as deliveries from reporters—accounting for over 90 percent of the market—have been relatively unchanged since 2016/17.

Table 4: Food and beverage deliveries, 2014/15 to 2018/19, October through September

	2014/15	2015/16	2016/17	2017/18	2018/19	Annual change
			1,000 STRV			*Percent*
Beet sugar processors	4,730	4,598	5,348	5,271	5,044	-4.3
Cane sugar refiners	6,241	6,444	6,044	6,113	6,302	3.1
Total reporters	10,972	11,042	11,392	11,384	11,346	-0.3
Nonreporter, direct consumption	950	839	710	664	760	14.3
Final fiscal year deliveries 1/	11,921	11,881	12,102	12,048	12,106	0.5

1/ Latest WASDE estimate for 2018/19.
Source: USDA, Farm Service Agency.

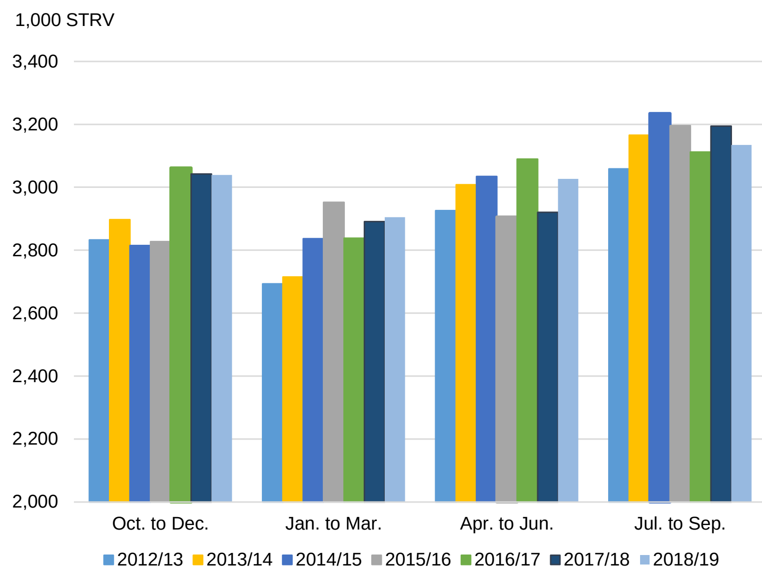
Figure 3
U.S. sugar deliveries for food and beverage use, fiscal year, 2007 to 2019



Source: USDA, Farm Service Agency.

Following the pattern of recent years, deliveries in the second half of the fiscal year were lower relative to the typical seasonal patterns. While the July-to-September quarter was the largest of the year for deliveries, its performance was 1.9 percent lower than the previous year. As has been the trend since 2016/17, the most recent year had a more significant share of deliveries in the first-half of the fiscal year compared with the prior decade.

Figure 4
Total U.S. sugar deliveries, quarterly, 20012/13 to 2018/19



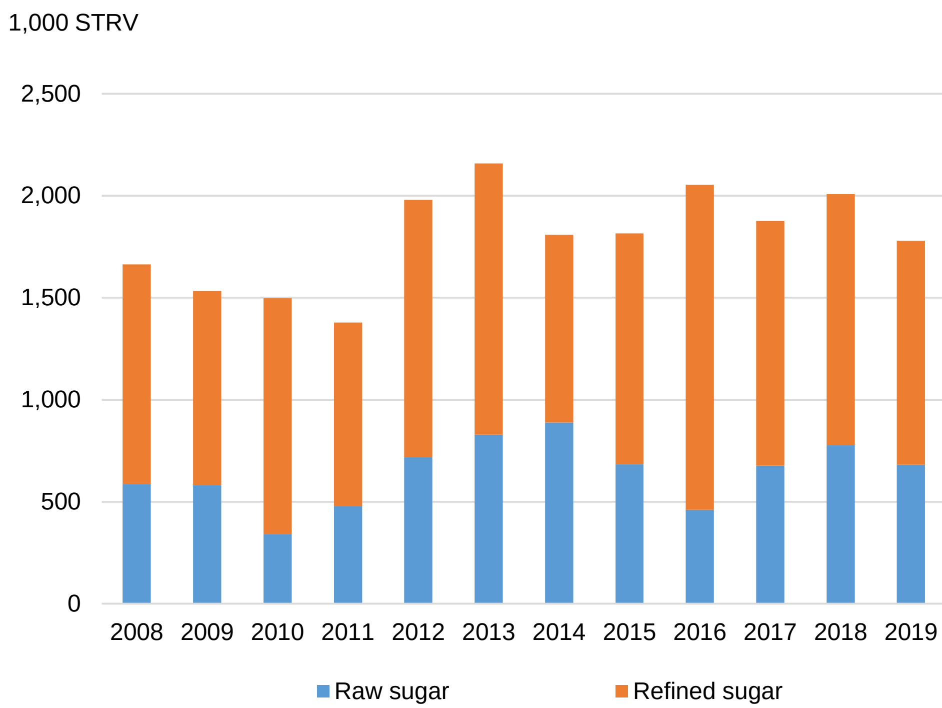
Source: USDA, Farm Service Agency.

Deliveries for 2019/20 are projected to total 12.125 million STRV, a 25,000-STRV reduction from the previous month. The updated projection—a 0.2-percent increase from the previous year's estimate—reflects a continuation of the relatively flat growth seen in food and beverage deliveries since 2016/17.

Ending Stocks in 2018/19 Down Slightly From Previous Year

U.S. ending stocks held by processors and refiners totaled 1.779 million STRV, an 11.4-percent decline from the previous year. Total inventories held by cane sugar refiners at the end of the year were 13.6 percent lower than the previous year, while beet sugar processors' stocks were 11.4 percent lower. Raw sugar made up 38.3 percent of total ending stock figures, nearly unchanged from the previous year's ending stock levels of 38.8 percent.

Figure 5
September 30 sugar inventories, fiscal year



Source: USDA, Farm Service Agency.

Mexico Outlook

Drought in Major Producing Regions of Mexico Lower Production Prospects for 2019/20

Mexico is projected to have 7.025 million metric tons, actual value (MT) of sugar supply in 2019/20, an 11.1-percent decrease from 2018/19. This is predominantly due to lower beginning stocks and production, the former due to record-high exports to non-U.S. destinations in 2018/19 and the latter due to severe drought impacting the 2019/20 sugarcane crop.

Table 5: Mexico sugar supply and use, 2017/18 - 2018/19 and projected 2019/20, November 2019

Items	2017/18	2018/19 (estimate)	2019/20 (forecast)
	1,000 metric tons, actual weight		
Beginning stocks	1,002	1,395	1,168
Production	6,010	6,426	5,772
Imports	220	84	85
Imports for consumption	132	21	20
Imports for sugar-containing product exports, IMMEX 1/, other	88	63	65
Total supply	7,232	7,905	7,025
Disappearance			
Human consumption	4,228	4,092	4,057
For sugar-containing product exports (IMMEX)	482	460	435
Other deliveries and end-of-year statistical adjustment	29	-20	0
Total	4,739	4,532	4,492
Exports	1,099	2,204	1,598
Exports to the United States & Puerto Rico	1,047	856	957
Exports to other countries	52	1,348	641
Total use	5,838	6,737	6,090
Ending stocks	1,395	1,168	935
	1,000 metric tons, raw value		
Beginning stocks	1,062	1,478	1,238
Production	6,370	6,811	6,118
Imports	234	89	90
Imports for consumption	140	22	21
Imports for sugar-containing product exports (IMMEX)	93	67	69
Total supply	7,666	8,379	7,446
Disappearance			
Human consumption	4,482	4,337	4,300
For sugar-containing product exports (IMMEX)	510	488	461
Other deliveries and end-of-year statistical adjustment	31	-21	0
Total	5,023	4,804	4,761
Exports	1,165	2,337	1,694
Exports to the United States & Puerto Rico	1,110	908	1,014
Exports to other countries	55	1,429	680
Total use	6,188	7,141	6,455
Ending stocks	1,478	1,238	991
Stocks-to-human consumption (percent)	33.0	28.6	23.1
Stocks-to-use (percent)	23.9	17.3	15.4
High-fructose corn syrup (HFCS) consumption (dry weight)	1,593	1,528	1,520

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.

Mexico's Conadesuca released its first estimate for the 2019/20 sugarcane crop based on surveys of Mexican mills, with the forecast totaling 5.772 million MT. This is 293,000-MT lower than the October WASDE projection. Harvested area is projected at 809,000 hectares, a 0.5-percent increase from 2018/19 crop. Yields are expected to be significantly lower, at 63.2 metric tons per hectare. This would be 10.8 percent lower than the previous year's crop and the lowest yield in more than a decade. Mexico has experienced drought conditions during the growing season, particularly in the Northeast and Gulf regions, which are major cane-producing areas of the country. The harvest campaign is expected to begin in late November, with most of the country's mills beginning their seasonal operations by the end of December, which coincides with the dry season for most of the country.

Table 6: Mexico sugar production, first estimate and final production report, 2014/15 to 2019/20 (forecast)

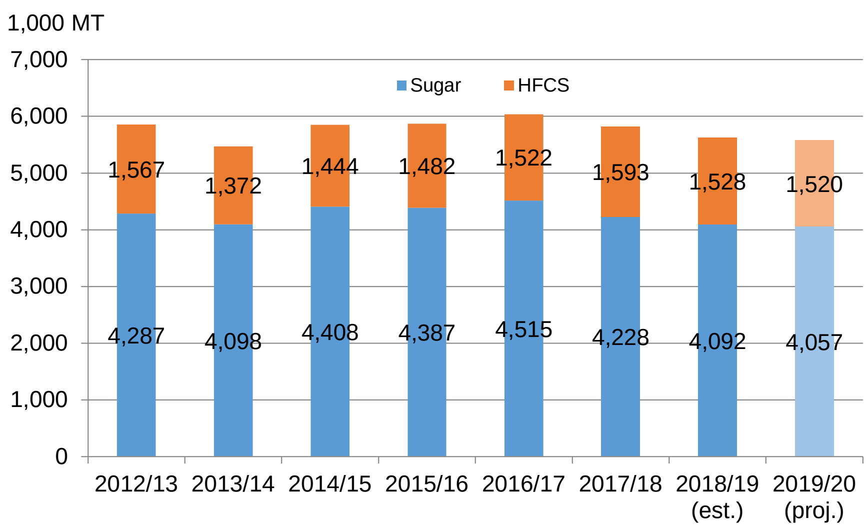
		2014/15	2015/16	2016/17	2017/18	2018/19	2019/2020 (forecast)
Harvested Area (hectares)	First Estimate	816,505	801,745	808,218	801,907	822,935	809,212
	Final	783,416	778,930	777,078	784,661	805,511	--
Yield (MT/hectare)	First Estimate	67.36	67.70	69.79	69.38	68.80	63.17
	Final	68.42	69.57	68.60	67.89	70.81	--
Industrial Recovery (percent)	First Estimate	11.18	11.16	11.29	11.11	11.20	11.29
	Final	11.16	11.29	11.18	11.27	11.27	--
Production (MT, actual value)	First Estimate	6,151,372	6,056,025	6,370,922	6,182,273	6,358,193	5,771,680
	Final	5,984,903	6,117,048	5,957,170	6,009,237	6,425,332	--

Source: Conadesuca; USDA, World Agricultural Outlook Board.

Mexico Has Lower Domestic Deliveries but Large Exports in 2018/19

Conadesuca reported ending stocks of 1.169 million MT at the conclusion of 2018/19, with a resulting 28.6 percent stocks-to-consumption ratio for the year. While the ratio is high by historical standards, Mexico was able to export a record 1.348 million MT of sugar to non-U.S. destinations. Domestic deliveries for human consumption totaled 4.092 million MT, a 4.4-percent decline from the previous year and the second-consecutive year of decline.

Figure 6
Mexican sweetener consumption October to September, fiscal year



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

Deliveries for human consumption are projected to fall again in 2019/20, continuing the trend of the past several years. For 2019/20, deliveries are projected to be 4.057 million MT, a 143,000-MT decline from the previous month's report and a 0.9-percent annual reduction. Deliveries of high-fructose corn syrup (HFCS) are projected to be 1.520 million MT in 2019/20, a slight decline from 2018/19's estimate of 1.528 million MT.

Mexico exported an estimated 2.204 million MT of sugar in 2018/19. Shipments to the United States totaled 856,000 MT, based on data reported to the U.S. Census for the complete 2018/19 fiscal year. Shipments to non-U.S. destinations totaled 1.348 million MT—a record total. The exports to non-U.S. destinations were facilitated by the CEDES program in Mexico, which aided in the marketing of domestic mills' production to foreign markets. At its peak in July, the program held more than 500,000 MT of inventories. By the end of the fiscal year, the program accounted for fewer than 50,000 MT of sugar.

Exports in 2019/20 are projected to total 1.598 million MT, a reduction of 97,000 MT compared with the previous month. Exports to the United States are currently projected at 957,000 MT, unchanged from the previous month and consistent with the U.S. Department of Commerce's calculation of U.S. Needs based on the September WASDE, per the terms of the Suspension Agreements. Shipments to other countries are projected to total 641,000 MT, a 97,000-MT reduction from the previous month. The reduction is predicated on less production expected for 2019/20. Ending stocks are projected to total 936,000 MT—which would be an amount sufficient for Mexico's domestic needs during the first 10 weeks of 2020/21, before that year's harvest begins. Supplies above that level of ending stocks are forecast to be exported—first to the United States to satisfy its market access provided by the Suspension Agreements and then to non-U.S. markets.

Suggested Citation

McConnell, Michael J., and David Olson, *Sugar and Sweeteners Outlook*, SSS-M-375, U.S. Department of Agriculture, Economic Research Service, November 15, 2019