



Sugar and Sweeteners Outlook

Michael McConnell, coordinator

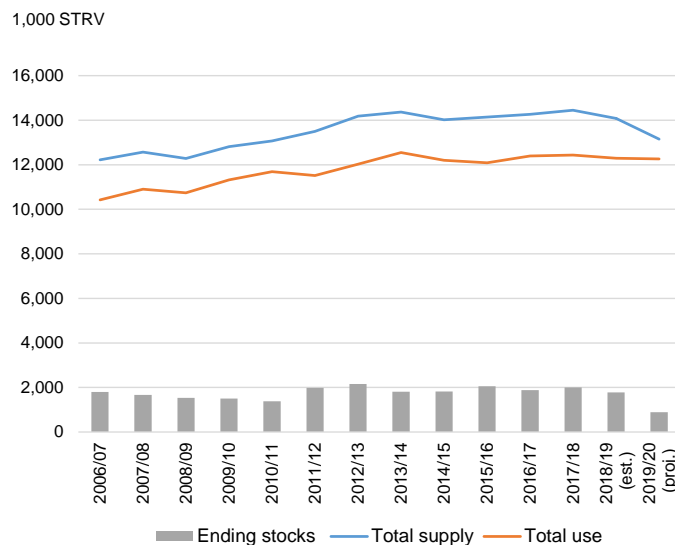
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U.S. Sugar Supplies and Ending Stocks Tighten With Reduced Mexico Production Forecasts

In the March *World Agricultural Supply and Demand Estimates* (WASDE), Mexico sugar production for 2019/20 is reduced substantially due to continued poor yields and recovery rates as it passes the halfway mark in the harvest season. With less production, Mexico’s exports are lowered, as well—particularly exports to the United States.

U.S. sugar supplies for 2019/20 are also reduced, as less beet sugar production and lower imports from Mexico are only slightly offset by higher high-tier tariff imports. Projections for U.S. domestic deliveries and exports are unchanged, resulting in substantially lower ending stocks and a very tight market, by historical standards.

U.S. sugar supply, use, and ending stocks, 2006/07 to 2019/20



Source: USDA, World Agricultural Outlook Board.

Mexico Outlook

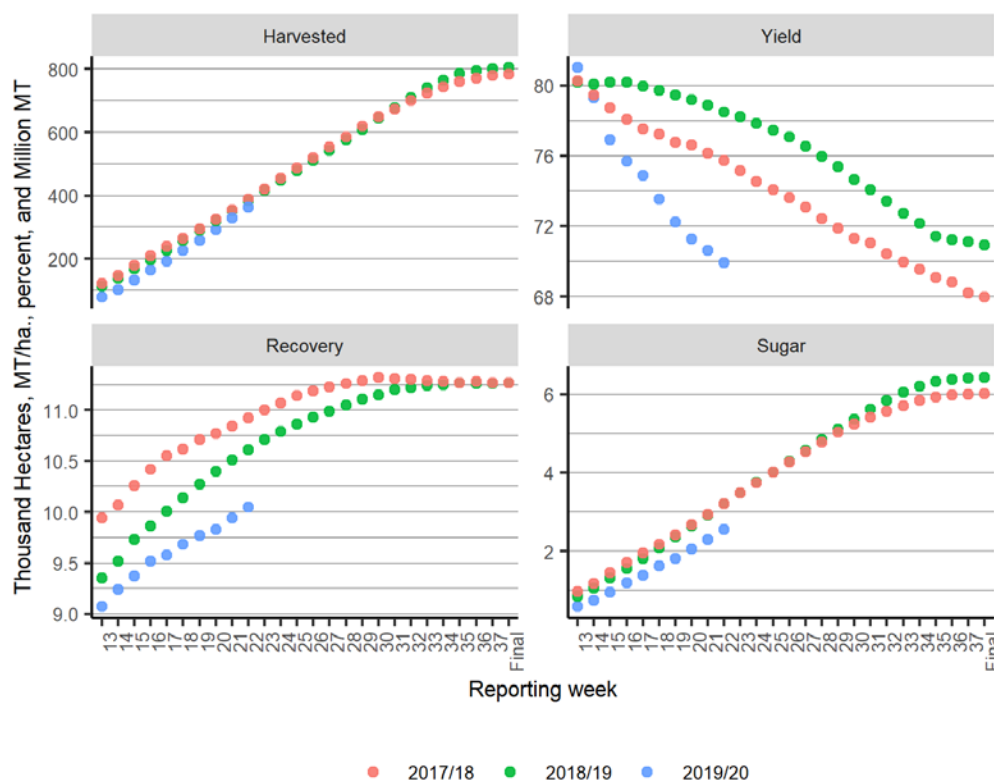
Low Yields and Recovery Rates Lower Mexico Production Forecasts

Unfavorable weather conditions have continued to impact Mexico's sugarcane sector, reducing the outlook for sugar production from the 2019/20 crop. Drought conditions through the summer and fall of 2019 have resulted in lower yields. Additionally, rain throughout the peak harvest season has resulted in a slow pace of harvesting the crop and has negatively impacted recovery rates.

The USDA projects Mexico sugar production at 5.200 million metric tons, actual value (MT) in the March *World Agricultural Supply and Demand Estimates (WASDE)*, a 472,000-MT decrease from the previous month. The projection is based on Mexico's harvesting about 780,000 hectares, which would be lower than the previous year's record total but in line with recent historical averages. The Mexico sugarcane crop is often strongly influenced by how the latter portion of the harvest season performs. If dry weather conditions persist through May and early June, then additional area can be harvested and production boosted. The current USDA forecast would require that conditions, unlike in January and February, remain dry and allow the harvest to continue at a strong pace through the remainder of the year.

Figure 1

Mexico sugarcane cumulative harvest progress



Source: Conadesuca; USDA, Economic Research Service.

Mexico's sugarcane yields and mill recovery rates have remained much lower than historical levels. Through the end of February, the cumulative yield of the current crop is nearly 11-percent lower than the previous year, and the lowest yield on record going back to at least 2008/09. Recovery rates are at the lowest level since 1991/92, down 5 percent compared with the previous year's crop. Typically, by this point in the harvest season, these parameters can be accurate predictors for the crop's overall performance. The low yield and recovery rate figures can be mostly attributed to drought conditions during the growing phase of this year's crop and are unlikely to substantially improve, even with favorable conditions for the remainder of the harvest season.

Table 1: Mexico sugar supply and use, 2017/18 - 2018/19 and projected 2019/20, March 2020

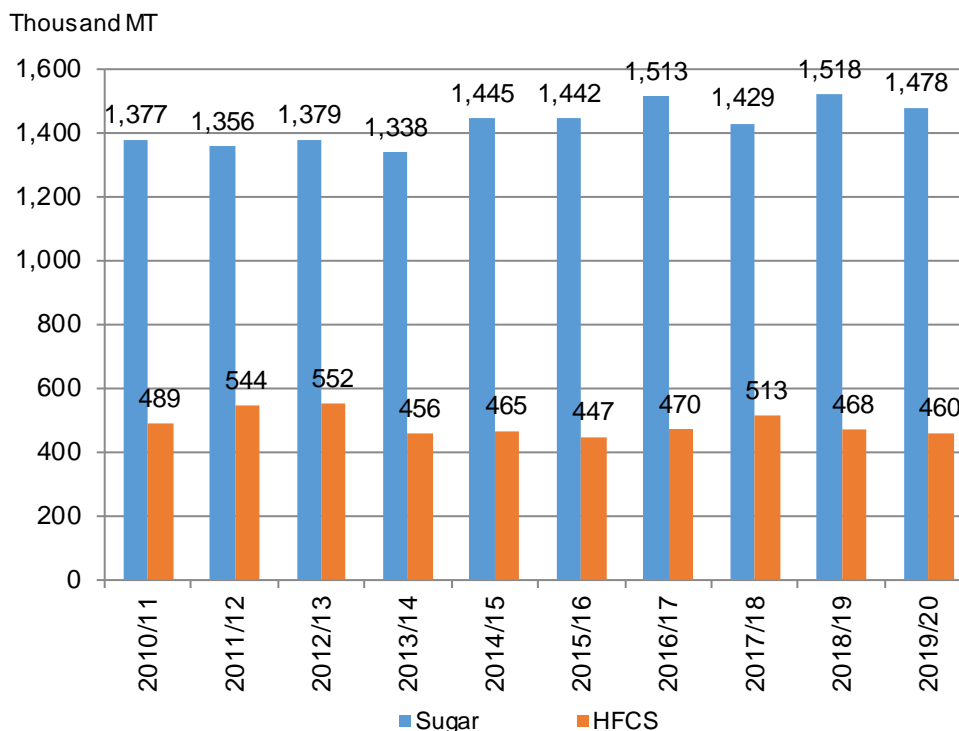
Items	2017/18	2018/19 (estimate)	2019/20 (forecast)
	1,000 metric tons, actual weight		
Beginning stocks	1,002	1,395	1,169
Production	6,010	6,426	5,200
Imports	220	85	89
Imports for consumption	132	22	24
Imports for sugar-containing product exports, IMMEX 1/, other	88	63	65
Total supply	7,232	7,905	6,458
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	1,030
Exports to the United States & Puerto Rico	1,047	856	997
Exports to other countries	52	1,348	34
Total use	5,838	6,737	5,522
Ending stocks	1,395	1,169	936
	1,000 metric tons, raw value		
Beginning stocks	1,062	1,478	1,239
Production	6,370	6,811	5,512
Imports	234	90	94
Imports for consumption	140	23	25
Imports for sugar-containing product exports (IMMEX)	93	67	69
Total supply	7,666	8,380	6,845
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	1,092
Exports to the United States & Puerto Rico	1,110	908	1,057
Exports to other countries	55	1,429	36
Total use	6,188	7,141	5,853
Ending stocks	1,478	1,239	992
Stocks-to-human consumption (percent)	33.0	28.6	23.1
Stocks-to-use (percent)	23.9	17.3	16.9
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.

Domestic deliveries in Mexico are projected to be 4.492 million MT, unchanged from the previous month. This includes 4.057 million MT delivered for domestic food and beverage consumption, also unchanged from the February report but representing a 0.9-percent decrease from 2018/19 totals. Through January, sugar deliveries for domestic human consumption are 2.7 percent lower than the same period the previous year. Overall, trends from the past several years show a general flattening trend in sugar and caloric sweetener use in Mexico. This may be at least partially due to campaigns from the local popular press and Government agencies designed to promote health and combat obesity trends in Mexico.

Figure 2
Mexican sweetener consumption October to January, 2010/11 to 2019/20

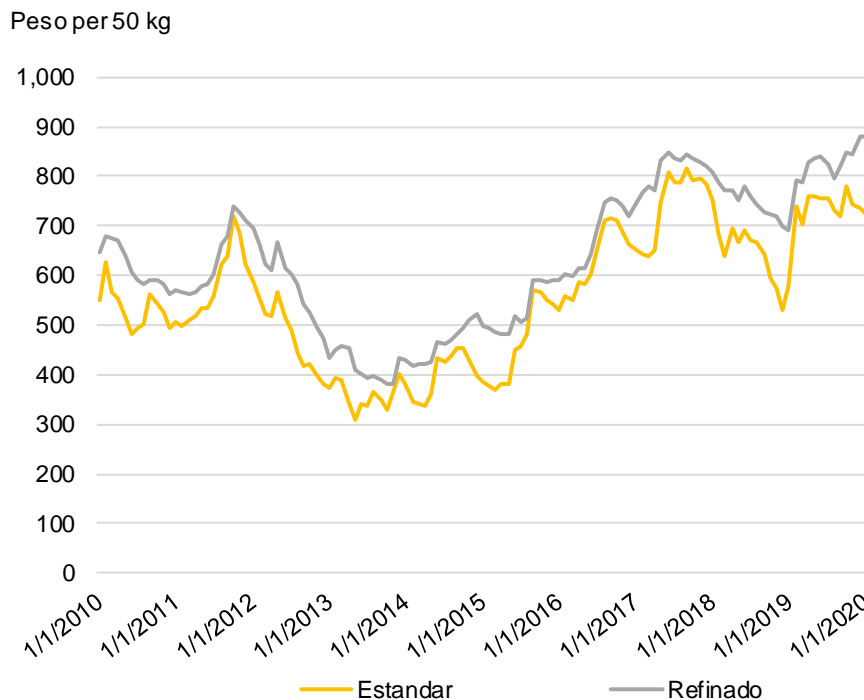


Source: Conadesuca.

Deliveries to the IMMEX program, which focuses on manufacturing products for export, are projected at 435,000 MT—also unchanged from the previous month's report, but down from 2018/19 totals. This total includes deliveries made from domestic mills, as well as imported sugar used specifically for exported products.

Prices in Mexico's domestic markets have remained strong, likely due to the expected tight supply situation. Prices for Mexican-produced *refinado* sugar (high-polarity sugar most similar to U.S.-produced refined sugar) have been particularly strong, as tight supplies in the United States may be influencing the Mexican domestic market. Despite not increasing as much as *refinado*, prices for lower-polarity *estandar* sugar—most commonly used by households in Mexico—have also remained elevated. The average wholesale price for *estandar* in Mexico City for the first 3 weeks of February equated to over 35 cents per pound.

Figure 3
**Mexico Estandar and Refinado sugar prices,
 monthly, January 2010 to February 2020**



Source: USDA, Economic Research Service.

Mexico Sugar Exports Constrained by Lower Production

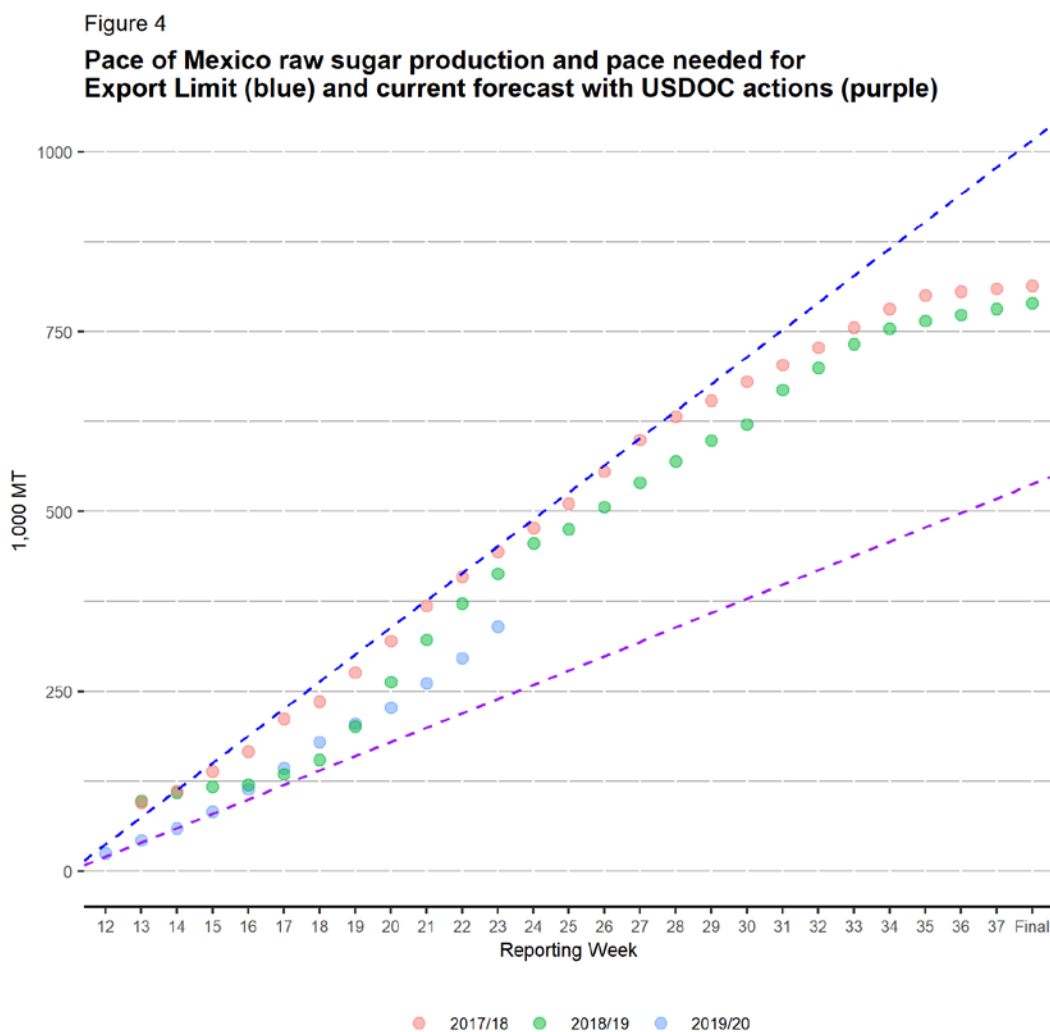
The weather-related decline in production in Mexico has significant impacts on Mexico's available supplies for foreign markets. The March WASDE forecasts Mexico exports for 2019/20 at 1.030 million MT, a 472,000-MT reduction from the February report. The reduction is expected to come from fewer shipments to the United States. Mexico exports to the United States are projected to be 997,000 MT, accounting for nearly all the change in Mexico's total export outlook. Exports to other countries are projected at 34,000 MT—a less-than 1,000-MT increase from the previous month—which assumes that no additional exports are made to non-U.S. destinations for the remainder of the fiscal year.

Ending stocks are the key constraints on Mexico's available supplies for export. Ending stocks are projected to total 936,000 MT for 2019/20. The projection is unchanged from the previous month and equals 2 ½ months of domestic deliveries (both for human consumption and for IMMEX) as a domestic policy target, ensuring that there is enough sugar to bridge the period between the end of the fiscal year and the beginning of the 2020/21 sugarcane harvest in late-November. Any additional exports beyond the current forecast would likely result in shortages in Mexico's domestic market.

The production of low-polarity sugar may also become a constraint, depending on developments as the harvest progresses. According to the Suspension Agreements between the U.S. Department of Commerce (USDOC) and the Government of Mexico, Mexico sugar exporters must ship 70 percent of their exports as raw sugar, defined in the agreement as having less than 99.2 polarity. Through the end of February, Mexican mills have produced

296,000 MT of this specification, which is 19 percent lower than the previous year. This polarity specification is only produced by a minority of Mexican mills, usually near Gulf of Mexico ports, since this type of sugar is only exported and not used domestically. This is the region, however, that has been most severely impacted by the drought, resulting in lower production in the region.

The USDOC—after consultation with the USDA—announced in November 2019 that there would be an increase of 100,000 short tons, raw value (STRV) for “refined sugar” within the Export Limit. The USDOC also announced in March 2020 that they would add an additional 200,000 STRV of “refined sugar” to the quota. These two actions allow 300,000 STRV of higher polarity sugar to enter under the quota. Given the current export forecast, that would mean that about 518,000 MT of low-polarity sugar would need to be shipped from Mexico to the United States to remain compliant with the Suspension Agreement. The pace remains well below the amount needed to meet the proportion of the full Export Limit, as calculated by USDOC from the March WASDE—even with the USDOC actions in November and March. The progress and production mix for the remainder of the Mexican sugar-producing season will remain an important market factor to monitor.



Source: Conadesuca; USDA, Economic Research Service.

U.S. Domestic Outlook

U.S. Sugar Production Lowered Due to Less Beet Sugar

The U.S. sugar supply and use balance sheet for 2019/20 is currently projected to be tight—with a stocks-to-use ratio of 7.2 percent—primarily due to the reduced outlook for imports. Domestic production is also lowered in the March WASDE, however. U.S. sugar production is projected to be 8.030 million STRV, a 127,000-STRV reduction from the February report.

Table 2: U.S. sugar: Supply and use, by fiscal year (Oct./Sept.), March 2020

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	1,783	1,702	1,822	1,617
Total production	9,293	8,999	8,031	8,430	8,163	7,285
Beet sugar	5,279	4,939	4,317	4,789	4,480	3,917
Cane sugar	4,014	4,060	3,713	3,641	3,683	3,369
Florida	1,983	2,005	2,069	1,799	1,819	1,877
Louisiana	1,862	1,907	1,513	1,689	1,730	1,372
Texas	169	147	131	153	134	119
Hawaii	0	0	0	0	0	0
Total imports	3,277	3,070	3,339	2,973	2,785	3,029
Tariff-rate quota imports	1,663	1,541	1,674	1,509	1,398	1,519
Other program imports	326	438	350	296	397	318
Non-program imports	1,287	1,092	1,315	1,168	990	1,193
Mexico	1,223	1,000	1,165	1,110	908	1,057
High-duty	64	91	150	58	83	136
Total supply	14,445	14,077	13,153	13,105	12,770	11,932
Total exports	170	35	35	154	31	32
Miscellaneous	82	28	0	75	26	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	12,294	12,265	11,283	11,153	11,127
Ending stocks	2,008	1,783	888	1,822	1,617	805
Private	2,008	1,783	888	1,822	1,617	805
Commodity Credit Corporation (CCC)	0	0	0	0	0	0
Stocks-to-use ratio	16.14	14.50	7.24	16.14	14.50	7.24

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

Beet sugar production for 2019/20 is projected to be 4.317 million STRV, a 127,000-STRV reduction from the February report. The reduction is due to a reduced sucrose extraction rate and higher rate of shrink in the sugarbeet piles, resulting in less sugar produced from sliced beets. The sugar from beet slices matches the forecast provided by beet processors in the latest *Sweetener Market Data* (SMD) released by the USDA Farm Service Agency (FSA).

The processors' forecast corroborates the reported data on the slicing campaign thus far. Through January, the rate of sugar produced from sliced sugarbeets has been below last year's levels as well as long-term averages. Likewise, the reduction in the forecasts from sugarbeet processors suggest that an increase in shrink is warranted. With the smaller sugarbeet crop, it

is difficult to estimate shrink based on historical values. Shrink is impacted by environmental and weather conditions present for sugarbeets stored in the winter for slicing. The smaller sugarbeet crop means that slicing at most beet processors will not continue as long as in past years—which means that pile management systems may not be as stressed as they have been in recent years when processors are needing to keep beets frozen through the spring. On the other hand, difficult harvest conditions throughout much of the sugarbeet-growing region in the fall resulted in some lower quality beets having to be processed during this campaign. While most damaged beets were segregated and strategically processed to limit the impact on higher-quality beets and processing equipment, the impacts of this harvest are distinct from recent market history. The March forecast is based on a shrink rate that is higher than the previous month, but still low by historical standards.

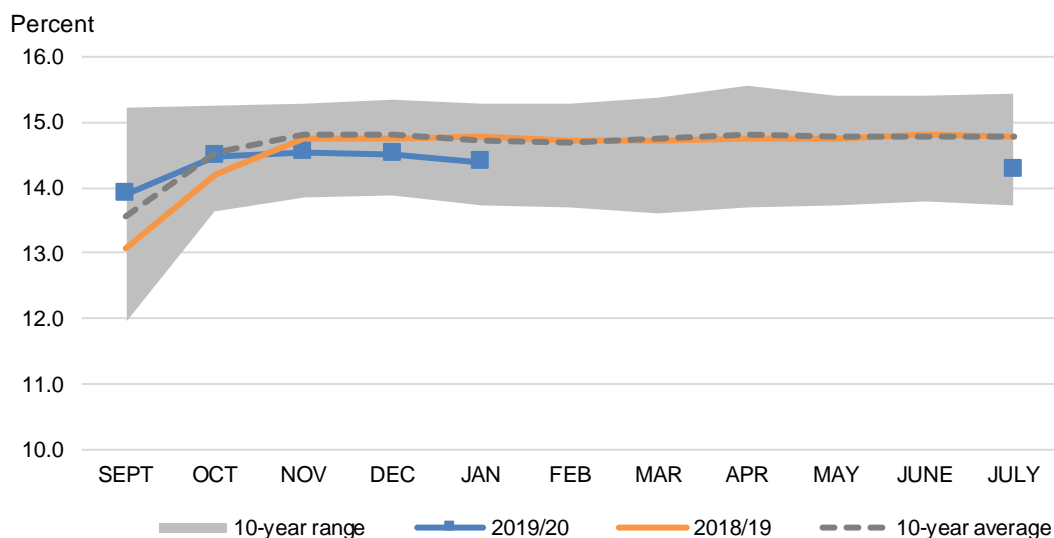
Table 3: Beet sugar production projection calculation, 2018/19 and 2019/20

	2015/16	2016/17	2017/18	2018/19	2019/20	
					February	March
Sugarbeet production (1,000 short tons) 1/	35,371	36,881	35,325	33,282	28,600	28,600
Sugarbeet shrink	6.5%	8.3%	7.3%	5.2%	4.0%	5.0%
Sugarbeet sliced (1,000 short tons)	33,066	33,834	32,742	31,561	27,456	27,170
Sugar extraction rate from slice	14.58%	13.72%	15.18%	14.77%	14.58%	14.27%
Sugar from beets slice (1,000 STRV) 2/	4,820	4,643	4,970	4,660	4,003	3,876
Sugar from molasses (1,000 STRV) 2/	380	352	368	352	350	350
Crop-year sugar production (1,000 STRV) 2/	5,201	4,995	5,338	5,012	4,353	4,226
August-September sugar production (1,000 STRV)	688	606	715	655	582	582
August-September sugar production of subsequent crop (1,000 STRV)	606	715	655	582	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	4,939	4,444	4,317

1/ USDA, National Agricultural Statistics Service for historical data. 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 is incorporated into total production in historical data.

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

Figure 5
Cumulative sugar extraction rate, beet sugar produced per sugarbeet sliced, by crop year



Source: USDA, Economic Research Service and Farm Service Agency.

Cane sugar production is projected to be 3.713 million STRV, unchanged from the previous forecast. The forecast for each cane sugar-producing State is also unchanged: Florida remains

at 2.069 million STRV; Louisiana at 1.513 million STRV; and Texas at 131,000 STRV. The USDA's National Agricultural Statistics Service (NASS) updated sugarcane production forecasts in its March *Crop Production* report. The changes made by NASS did not merit any changes to cane sugar production, however, which remains largely based on information provided by processors in the SMD. The most significant changes were to Louisiana's sugarcane crop, lowering both area harvested for sugar and yields. The Louisiana sugarcane harvest concluded in early January, however, so these adjustments helped confirm the numbers to the reporting provided in the SMD. Louisiana will produce sugar in September 2020 from their 2020/21 crop, which is being estimated in line with recent-year averages for the current forecast.

Table 4: U.S. sugarcane and cane sugar production, by State, 2015/16 to 2019/20

	2015/16	2016/17	2017/18	2018/19	2019/20	Annual change Percent
Florida						
Sugarcane harvested for sugar (1,000 acres)	398	392	397	397	397	0.0
Sugarcane yield (short tons per acre)	42.5	40.3	40.9	41.7	42.8	2.6
Sugarcane production (1,000 short tons)	16,915	16,120	16,237	16,555	16,992	2.6
Recovery rate (percent)	12.8	12.7	12.2	12.1	12.2	0.5
Sugar production (1,000 STRV)	2,173	2,055	1,983	2,005	2,069	3.2
Louisiana						
Sugarcane harvested for sugar (1,000 acres)	385	400	414	425	442	4.0
Sugarcane yield (short tons per acre)	29.6	28.8	32.5	35.3	27.7	-21.5
Sugarcane production (1,000 short tons)	11,396	11,520	13,455	15,003	12,243	-18.4
Recovery rate (percent)	12.5	14.2	13.8	12.5	12.4	-1.1
Sugar production (1,000 STRV)	1,428	1,632	1,862	1,875	1,513	-19.3
Texas						
Sugarcane harvested for sugar (1,000 acres)	35	38	41	38	31	-16.8
Sugarcane yield (short tons per acre)	31.4	37.0	36.8	36.6	33.6	-8.2
Sugarcane production (1,000 short tons)	1,105	1,395	1,490	1,376	1,052	-23.6
Recovery rate (percent)	10.5	9.9	11.3	10.7	12.5	16.4
Sugar production (1,000 STRV)	116	138	169	148	131	-11.0

Source: USDA, Farm Service Agency; USDA, National Agricultural Statistics Service.

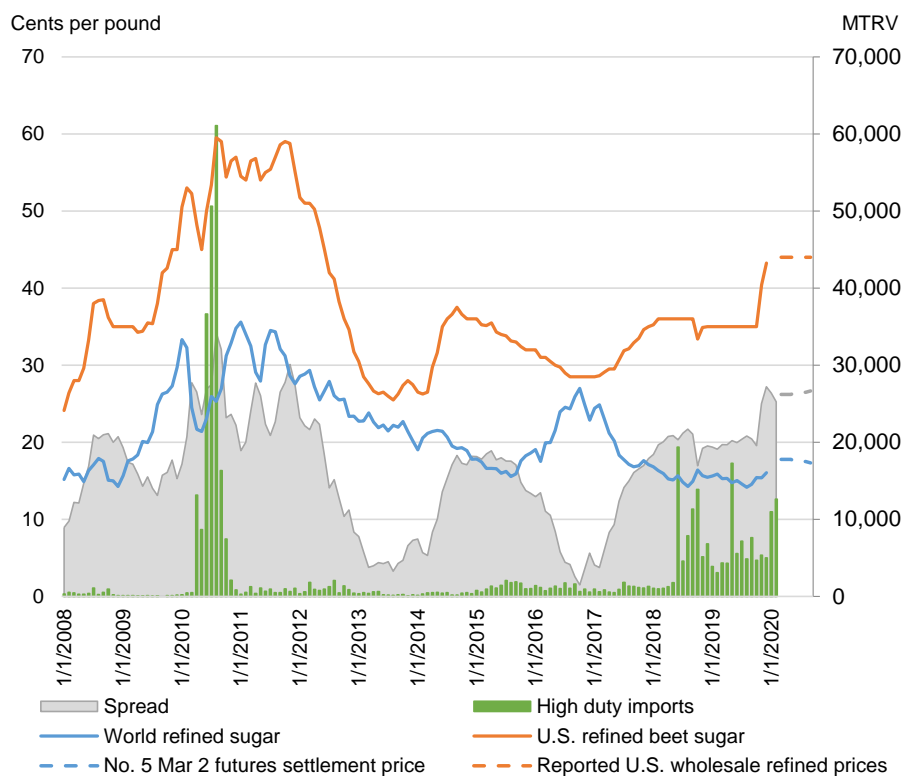
Imports Reduced Due to Lower Shipments from Mexico

U.S. sugar imports in 2019/20 are projected to total 3.070 million STRV, a 502,000-STRV reduction from the previous month. The reduction is due to fewer imports from Mexico, slightly offset by increased high-tier imports. Imports under quota programs and imports under the reexport program are unchanged at 1.674 million STRV and 350,000 STRV, respectively.

Imports from Mexico are forecast at 1.165 million STRV, a 552,000-STRV reduction from February. The reduction is due to the limited supplies available in Mexico to ship to the United States. Based on the terms of the Suspension Agreement, the Export Limit calculated by the USDOC would be 1.933 million STRV. Due to the poor growing and harvesting conditions that Mexico sugarcane growers have experienced over the past several months, imports from Mexico are not expected to meet the full allocation.

High tier imports are projected at 150,000 STRV, a 50,000-STRV increase from the previous month. The increase is due to the greater pace of imports in January and February, combined with price differentials between the U.S. and World futures markets. Refined sugar prices in the world futures market have been volatile in recent weeks, with the nearby contract ranging between 17.15 and 19.49 cents per pound since late February. High-tier imports have remained viable from a price standpoint throughout that period, depending on the logistical and transportation costs.

Figure 6
U.S. and World refined sugar prices, monthly, January 2008 to September 2020



Source: USDA, Economic Research Service.

Deliveries for Food and Beverage Use Remain Unchanged

Sugar use in 2019/20 is projected to be 12.265 million STRV, unchanged from the previous month. Domestic deliveries for food and beverage use are also unchanged, at 12.125 million STRV. Through January, deliveries for food and beverage are 0.7-percent higher than the same period in 2018/19. Deliveries from beet processors and cane refineries that report to the SMD were 1.1-percent higher than the previous year. Deliveries are expected to moderate a bit going forward, as the impacts of the poor sugarbeet harvest and tighter sugar supplies are expected to impact the market in the spring and summer.

Table 5: Food and beverage deliveries, 2014/15 to 2019/20, October through January

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Annual change
	1,000 STRV						Percent
Beet sugar processors	1,569	1,434	1,724	1,784	1,623	1,654	1.9
Cane sugar refiners	2,043	2,092	2,028	1,967	2,108	2,118	0.5
Total reporters	3,611	3,526	3,752	3,751	3,732	3,772	1.1
Nonreporter, direct consumption	171	231	206	317	265	253	-4.4
Total deliveries	3,782	3,757	3,957	4,068	3,996	4,025	0.7
Final fiscal year deliveries 1/	11,921	11,881	12,102	12,048	12,106	12,125	0.2

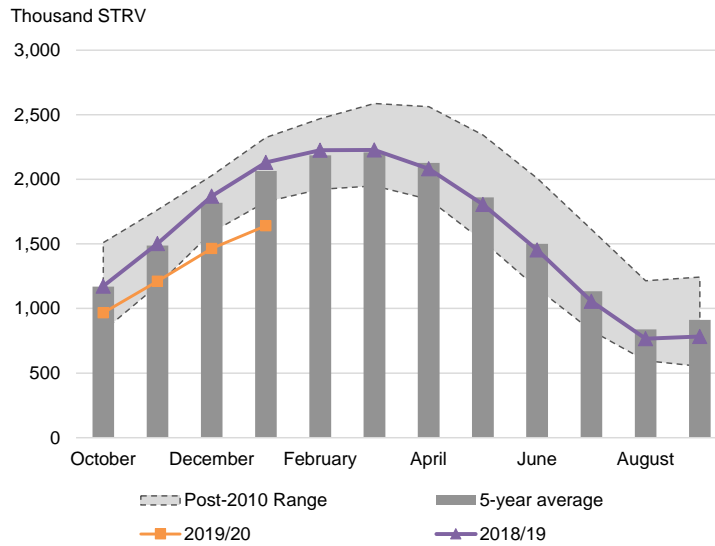
1/ Latest WASDE estimate for 2019/20.

Source: USDA, Farm Service Agency.

Inventories held by sugarbeet processors, sugarcane processors, and cane sugar refiners remain relatively tight. Refined sugar inventories held by beet processors and cane refiners through January are down nearly 21 percent from a year ago—particularly due to lower

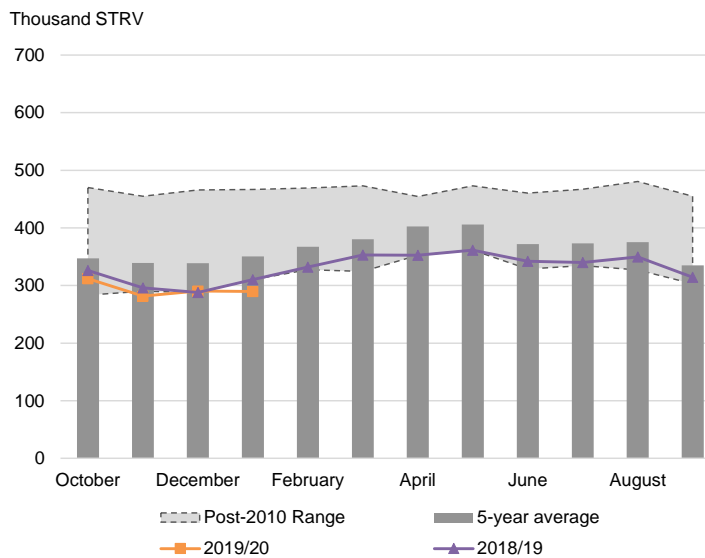
inventories from the sugarbeet sector. Raw sugar supplies—held by sugarcane processors and cane refiners—are 11-percent lower than the corresponding 2018/19 levels. Overall, reported inventories in January are 16 percent lower than the previous year.

Figure 7
Sugarbeet processors' total sugar inventories, monthly, 2016/17 to 2019/20



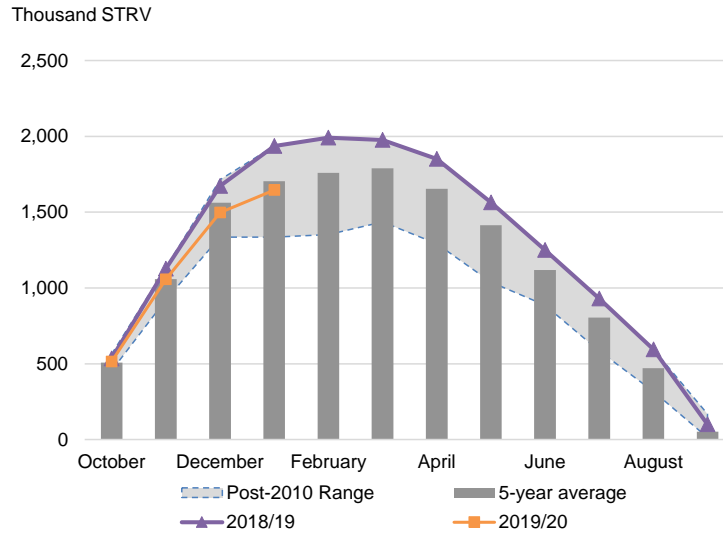
Source: USDA, Farm Service Agency.

Figure 8
Sugarcane refiners' refined sugar inventories, monthly, 2016/17 to 2019/20



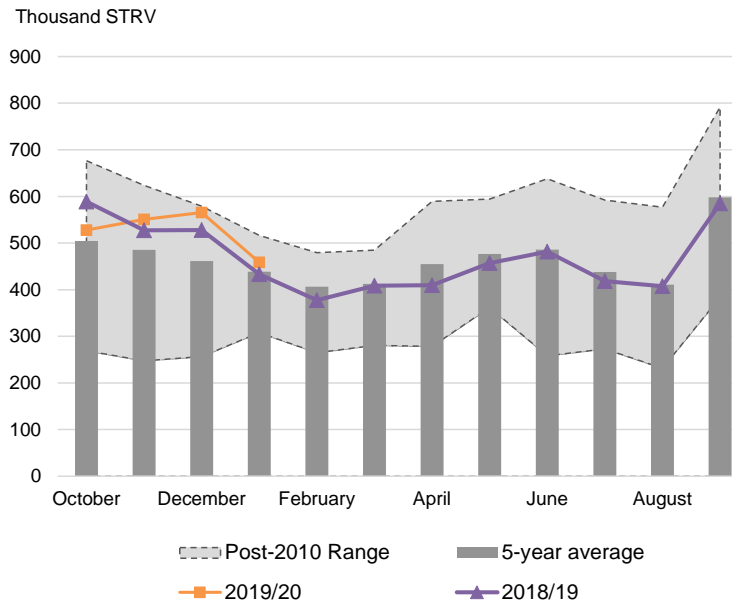
Source: USDA, Farm Service Agency.

Figure 9
Sugarcane processors' inventories, monthly, 2016/17 to 2019/20



Source: USDA, Farm Service Agency.

Figure 10
Sugarcane refiners raw sugar inventories, monthly, 2016/17 to 2019/20



Source: USDA, Farm Service Agency.

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