



Sugar and Sweeteners Outlook

Outlook

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U.S. Sugar Production, Use Projected To Be Slightly Higher for 2019/20

The May *World Agricultural Supply and Demand Estimates* (WASDE) has released the first U.S. and Mexico sugar market projection for the 2019/20 fiscal year. U.S. domestic sugar production is projected to increase 1.8 percent from the current 2018/19 estimate. Beet sugar production is projected to increase 4.0 percent to 5.114 million short tons, raw value (STRV)—although the crop is currently being hampered by a slow planting progress. Cane sugar production is projected to be 4.001 million STRV—a 0.9 percent decrease from the 2018/19 estimate.

Total sugar use for 2019/20 is projected to be 12.355 million STRV, a 0.4-percent increase from the 2018/19 estimate. Domestic deliveries for food and beverage use are projected to be 12.175 million STRV, also a modest 0.4 percent higher than the previous year. Deliveries for 2018/19 are estimated at 12.125 million STRV, unchanged from the April forecast.

Mexico is projected to produce 6.100 million metric tons, actual value (MT) of sugar in 2019/20—a 1.6-percent decline from the revised estimate for 2018/19. The current Mexico sugarcane harvest has continued its strong pace in the later stages of the season. Deliveries for 2019/20 are projected to be 4.297 million MT, a small increase from the 4.236 million MT estimated for 2018/19; which is reduced from the previous month due to the pace reported through March. Ending stocks for 2018/19 are estimated at 995,000 MT, a 425,000-MT decrease from the previous month, based on high exports expected due to evidence of growing participation in the domestic certificate program designed to facilitate the export of supplies to global markets.

U.S. Domestic Outlook

Beet Sugar Production in 2019/20 Projected To Increase, but Slow Planting Pace Lowers Outlook for Crop

The USDA released the first official production forecast for the 2019/20 U.S. sugar market in the May 2019 *World Agricultural Supply and Demand Estimates (WASDE)*. U.S. domestic sugar production for 2019/20 is projected to total 9.115 million short tons, raw value (STRV). This represents a 1.8-percent increase from revised 2018/19 production estimates of 8.947 million STRV.

Table 1: U.S. sugar: supply and use, by fiscal year (Oct./Sept.), May 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	1,505	1,702	1,822	1,365
Total production	9,293	8,947	9,115	8,430	8,117	8,269
Beet sugar	5,279	4,910	5,114	4,789	4,454	4,639
Cane sugar	4,014	4,037	4,001	3,641	3,663	3,630
Florida	1,983	2,014	2051	1,799	1,827	1,861
Louisiana	1,862	1,875	1,800	1,689	1,701	1,633
Texas	169	148	150	153	134	136
Hawaii	0	0	0	0	0	0
Total imports	3,277	2,855	3,218	2,973	2,590	2,920
Tariff-rate quota imports	1,663	1,538	1,381	1,509	1,395	1,253
Other program imports	326	350	350	296	318	318
Non-program imports	1,287	967	1,487	1,168	877	1,349
Mexico	1,223	897	1,417	1,110	813	1,286
High-duty	64	70	70	58	64	64
Total supply	14,445	13,810	13,838	13,105	12,528	12,554
Total exports	170	35	35	154	32	32
Miscellaneous	82	0	0	75	0	0
Deliveries for domestic use	12,185	12,270	12,320	11,054	11,131	11,177
Transfer to sugar-containing products for exports under re-export program	110	120	120	100	109	109
Transfer to polyhydric alcohol, feed, other alcohol	28	25	25	25	23	23
Commodity Credit Corporation (CCC) sale for ethanol, other	0	0	0	0	0	0
Deliveries for domestic food and beverage use	12,048	12,125	12,175	10,930	11,000	11,045
Total use	12,438	12,305	12,355	11,283	11,163	11,208
Ending stocks	2,008	1,505	1,483	1,822	1,365	1,346
Private	2,008	1,505	1,483	1,822	1,365	1,346
Commodity Credit Corporation (CCC)	0	0	0	0	0	0
Stocks-to-use ratio	16.14	12.23	12.01	16.14	12.23	12.01

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

The March 29 National Agricultural Statistics Service's (NASS) *Prospective Plantings* reported that growers intended to plant 1.120 million acres of sugarbeets in 2019/20, a slight 0.6-percent increase from 2018/19 levels. This would represent the first increase in planted area since

2016/17, if realized. The increased area was spread across most of the major sugarbeet-growing States; although the largest increases came from Idaho and Montana, in terms of number of acres. Minnesota and North Dakota—the top two States by area—both registered modest 0.5-percent increases in planted area, contributing a combined 3,000 more acres than planted the previous year.

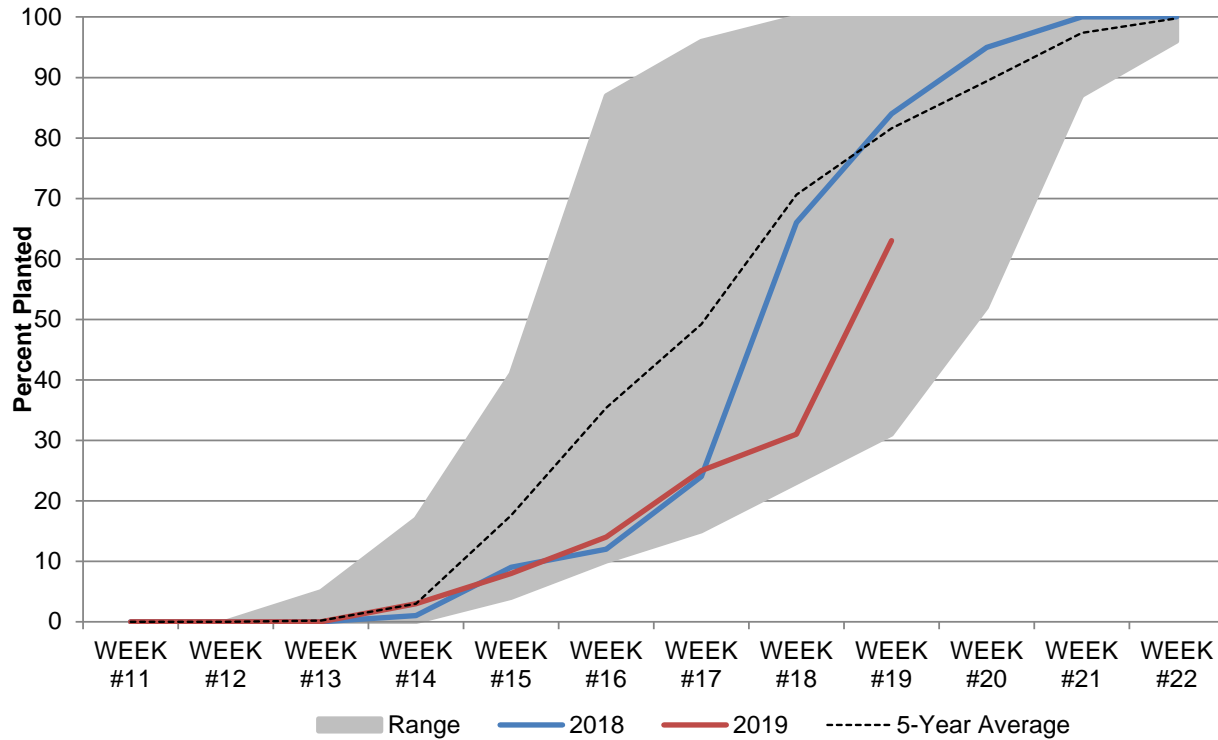
Table 2: Sugarbeet planted area, 2015/16 to 2018/19

State	2015/16	2016/17	2017/18	2018/19	2019/20 (forecast)	Annual Change
	<i>1,000 acres</i>					<i>percent</i>
Minnesota	443.0	437.0	420.0	415.0	417.0	0.5
North Dakota	208.0	213.0	214.0	202.0	203.0	0.5
Idaho	174.0	172.0	167.0	163.0	167.0	2.5
Michigan	152.0	151.0	144.0	150.0	147.0	-2.0
Nebraska	47.5	48.0	46.1	45.5	43.8	-3.7
Montana	44.0	45.6	42.9	43.5	46.8	7.6
Wyoming	31.3	30.7	32.1	32.1	33.1	3.1
Colorado	27.5	28.1	29.4	26.3	26.5	0.8
California	24.7	25.3	25.0	24.6	24.5	-0.4
Oregon	7.8	10.7	9.1	9.3	9.7	4.3
Washington	N/A	2.0	1.8	1.8	1.8	0.0
U.S. Total	1,159.8	1,163.4	1,131.4	1,113.1	1,120.2	0.6

Source: USDA, National Agricultural Statistics Service.

Many sugarbeet-growing States have experienced wet and cold spring weather conditions, which have affected the pace at which growers have been able to plant fields. Through May 5, NASS reported that national sugarbeet planting progress was only 31-percent complete, compared with 66-percent complete the year before and 71-percent complete as a 5-year average. Of the four-major sugarbeet-producing States, only Idaho's planting progress was ahead of previous-year and 5-year levels. Minnesota, North Dakota, and Michigan were all well behind the normal pace of planting. This development has implications for the outlook of the sugarbeet crop yield outlook and the potential for early-season production, which affects production forecasts for both 2018/19 and 2019/20.

Figure 1
United States total sugarbeet planting progress, 2000 to 2019



Source: USDA, National Agricultural Statistics Service.

With no forecasts for the 2019/20 sugarbeet yield from NASS, the current projections are based on a planting progress-adjusted trend yield. The yield calculation is based on a regression of the sugarbeet crop from 2000/01 to 2018/19. The time trend is the major variable affecting yields, with the results showing that yields increase about 0.5 tons per acre each year, on average. The forecast is also for adjusted the weighted-average of planting progress for the four major sugarbeet-growing States during NASS's Week 18 reporting. This week is used for several reasons: it correlates closely to the mid-May period that growers see as critical in getting sugarbeet planted for optimal crop development; that week of reporting has one of the highest variances in completion since the 2000/01 planting period, suggesting the period is a very active one for growers; and the week usually occurs prior to the May WASDE release, allowing for it to be a reliable leading market indicator. Through Week 18 in 2019/20, which ended on May 5, the four-State average planting progress was 30.7 percent. Finally, an intercept-adjuster is modeled for crop years beginning with 2008/09, when several technological developments were widely adopted by growers—such as the use of biotech varieties of sugarbeet seeds. The regression model's parameters account for 87 percent of the total variation seen in yields during the period.

Table 3: Sugarbeet yield regression model parameters

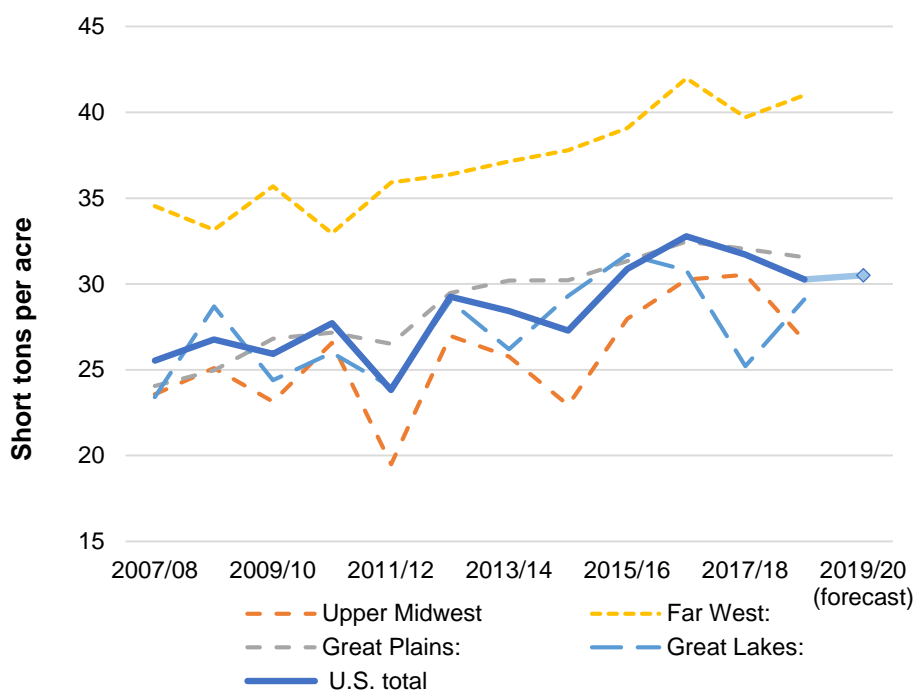
Observations:	19		
R-square:	0.870		
<i>Parameter</i>	<i>Coefficient</i>	<i>t-stat</i>	<i>Significance 1/</i>
Intercept	17.8	14.9	*
Time trend	0.514	4.2	*
4-State planting progress 2/	0.036	2.7	*
Post-2008	1.269	0.9	*

1/ * = Significant at the 95% level 2/ Planting progress for NASS's week 18.

Source: USDA, Economic Research Service and Interagency Commodity Estimates Committee.

The adjusted trend yield used in the May WASDE is 30.5 tons per acre for the 2019/20 sugarbeet crop. This would be a slight 0.8 percent increase from the 2018/19 crop yield, but would remain below the relatively large yields recorded from 2015/16 to 2017/18. The yield forecast is combined with the planted area forecast from the *Prospective Plantings* report, along with a 5-year average harvest-to-planted rate, to forecast 2019/20 harvested area. This results in sugarbeet production totaling 33.556 million short tons.

Figure 2
Yields, sugarbeets, by region, 2007/08 to 2019/20



Source: USDA, National Agricultural Statistics Service.

Beet sugar production for 2019/20 is projected to total 5.114 million STRV, which would be a 4.0-percent increase from the revised 2018/19 estimate. The forecast for beet sugar production

relies primarily upon 5-year averages to forecast expected shrink rates, extraction rates, and early-season production for the 2020/21 crop. Averages are used since it is too early to look for reliable indicators that suggest more than “normal” weather and growing conditions that affect these variables.

Table 4: Beet sugar production projection calculation, 2018/19 and 2019/20

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2018/19	2019/20
						April	May	May
Sugarbeet production (1,000 short tons) 1/	32,789	31,285	35,371	36,881	35,325	33,145	33,145	33,556
Sugarbeet shrink 2/	6.8%	5.4%	6.5%	8.3%	7.3%	5.0%	5.0%	6.5%
Sugarbeet sliced (1,000 short tons)	30,545	29,595	33,066	33,834	32,742	31,488	31,488	31,375
Sugar extraction rate from slice	14.3%	14.6%	14.6%	13.7%	15.2%	14.7%	14.8%	14.6%
Sugar from beets slice (1,000 STRV)	4,325	4,325	4,820	4,643	4,970	4,626	4,663	4,575
Sugar from molasses (1,000 STRV) 2/	324	341	380	352	368	368	368	368
Crop-year sugar production (1,000 STRV) 3/	4,648	4,667	5,201	4,995	5,338	4,994	5,031	4,943
August-September sugar production (1,000 STRV)	315	461	688	606	715	655	655	502
August-September sugar production forecast (1,000 STRV)	461	688	606	715	655	625	502	633
Sugar from imported beets (1,000 STRV) 4/	--	--	--	--	--	33	33	40
Fiscal year sugar production (1,000 STRV)	4,794	4,893	5,119	5,103	5,279	4,997	4,910	5,114

Notes: 1/ USDA, National Agricultural Statistics Service. 2/Projections based on processor forecasts published by USDA, 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: USDA, Economic Research Service and World Agricultural Outlook Board.

Early-season production from the crop being planted—which is expected to be harvested and processed into sugar prior to October 1, 2019 and therefore accounted for in the 2018/19 fiscal year—is modeled using a regression, however. The regression uses yield and planting progress in the Minnesota and North Dakota, the two most significant States in terms of variation of beet sugar production in August and September, to forecast expected early-season production. Like the yield model, the regression includes the 2000/01 to 2018/19 crop years. The model captures 64 percent of total variation in early-season production during this period. Based on the forecast national yield and reported planting progress thus far, the model forecasts early-season production to be 502,000 STRV for the current crop. This is a reduction from the 625,000-STRV forecast based on 5-year averages and precedes information about known planting progress. As a result, beet sugar production for the 2018/19 fiscal year is lowered to 4.910 million STRV—an 87,000-STRV reduction from the previous month as the lower early-season production is slightly offset by a higher extraction rate for sugarbeets sliced during the 2018/19 campaign.

Table 5: Beet sugar early-season production regression model parameters

Observations:	19		
R-square:	0.639		
<i>Parameter</i>	<i>Coefficient</i>	<i>t-stat</i>	<i>Significance 1/</i>
Intercept	-357.6	-2.1	
Yield	27.392	4.2	*
2-State planting progress 2/	1.709	2.3	*

1/ * = Significant at the 95% level; 2/ Planting progress for NASS's week 18.

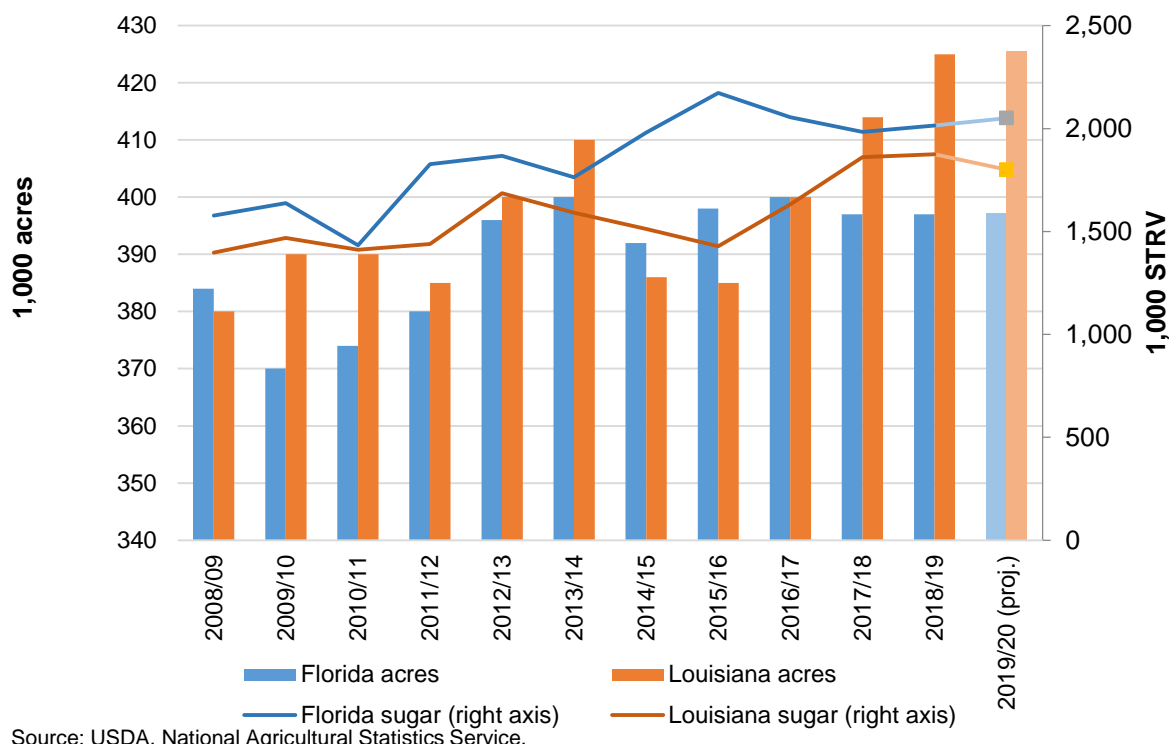
Source: USDA, Economic Research Service and Interagency Commodity Estimates Committee.

Cane Sugar Production Projected To Be Slightly Lower for 2019/20

Cane sugar production for 2019/20 is projected to total 4.001 million STRV, which would be a 0.9-percent decline from the adjusted 2018/19 estimates. Very little significant data is available yet from USDA reporting systems for the 2019/20 crop, however. The first significant piece of USDA market data for the sugarcane sector will be released in the June 28 *Acreage* report, which will include the first official USDA forecasts for harvested area of sugarcane in Florida, Texas, and Louisiana. As a result, the current forecast is an extrapolation from averages from recent harvests; they do reflect important trends in each region over the past few years.

Louisiana cane sugar production for 2019/20 is projected to total 1.800 million STRV, which would be a 4.2-percent decline from the record set in 2018/19. Over the last 2 years, Louisiana has produced significantly more sugarcane and sugar. This is primarily the result of adoption of new sugarcane varieties in the region that have several important characteristics. First, the new varieties are typically harvested for more growing cycles before a replant is necessary. This means that less area needs to be grown for seed stock—and therefore can be harvested for sugar production instead. Second, the varieties seem to be more resilient to frost conditions that can occur during Louisiana's harvest season. This has allowed for better yields and an expansion of area on the northern edges of the State's growing region. The projection for 2019/20, therefore, reflects the larger acreage base developed the past few years, along with adoption of the new varieties and sugarcane yields and recovery rates consistent with normal crop development and processing conditions. The projection calls for less output than the past few years of record-setting production, but it does demonstrate the new range that recent developments suggest the State is capable of producing under normal weather conditions.

Figure 3
Sugarcane and sugar production, Florida and Louisiana, 2007/08 to 2019/20



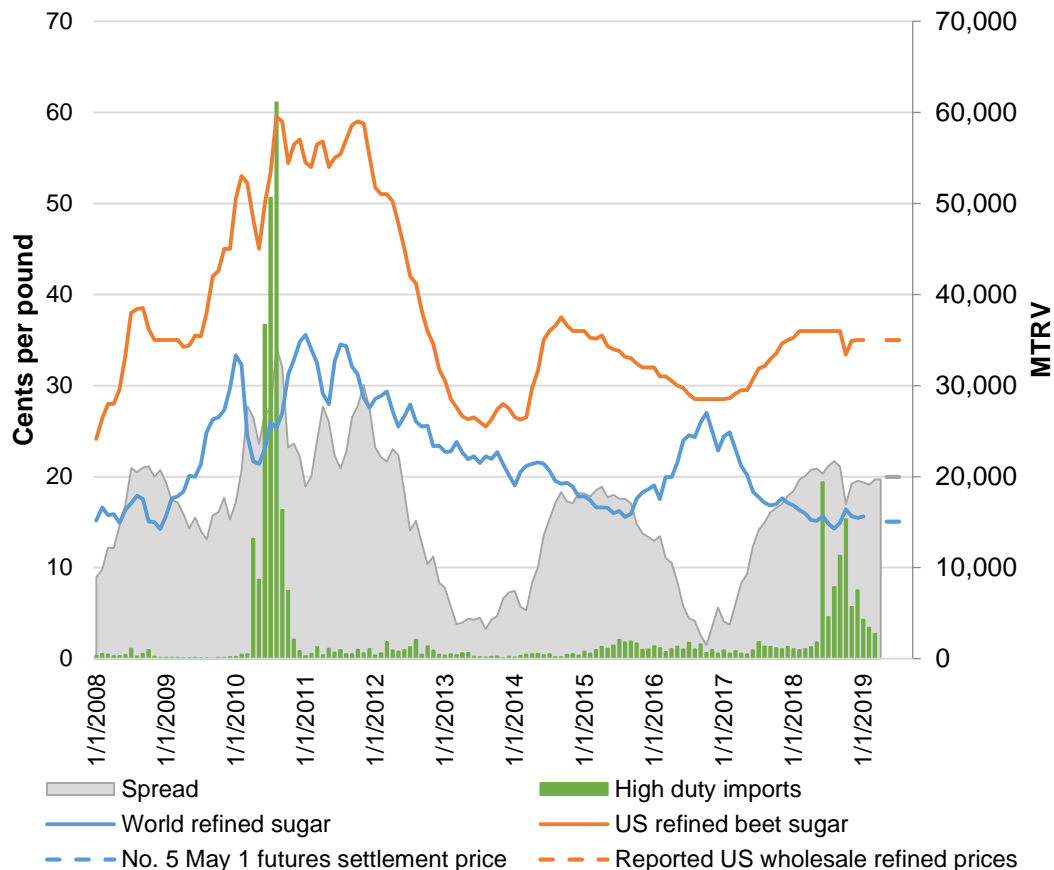
Production in Florida is projected to total 2.051 million STRV for 2019/20. This would be a 1.8-percent increase from the previous year, which was lowered 29,000 STRV in the May WASDE due to updated reporting from the State’s processors. Harvested sugarcane acreage in the State has remained fairly stable in recent years, as production levels have largely been driven by local weather conditions that have affected the crop’s yield and recovery quality. The current projection reflects the stable acreage base and yields and recovery rates consistent with historical averages to reflect normal weather conditions expected for the growing and harvest season.

Imports for 2019/20 Projected To Be Sharply Higher

U.S. sugar imports for 2018/19 are lowered a slight 7,000 STRV in the May WASDE, as lower imports from quota programs are nearly offset by increased high-duty imports. Shipments from Mexico under the terms of the suspension agreement remain unchanged at 897,000 STRV. Imports under quota programs are reduced 22,000 STRV to 1.538 million STRV. This is due to an increase in the WTO raw sugar tariff rate quota (TRQ) shortfall, as shipments expected from large quota-holding partners are no longer expected to arrive in the United States. High-tier

tariff imports are increased from 55,000 STRV to 70,000 STRV, however. The increase is due to the continued pace of entries that have persisted with the relatively high spread between U.S. and global prices—with recent months settling at around 3,000 to 5,000 STRV per month, compared with previous established rates of about 1,000 STRV per month.

Figure 4
U.S. and World refined sugar prices, monthly, January 2008 to September 2019



Source: USDA, Economic Research Service.

Imports for 2019/20 are projected to total 3.218 million STRV. Imports under quota programs are projected to total 1.381 million STRV. This total, however, only reflects minimum levels consistent with WTO obligations and implemented free-trade agreements (FTA). In particular, additional volumes under the Specialty Sugar Quota and country allocations for the WTO refined sugar TRQ have not yet been announced by the Secretary for 2019/20. The WTO raw sugar WTO TRQ is predicated on shortfall being 99,000 STRV.

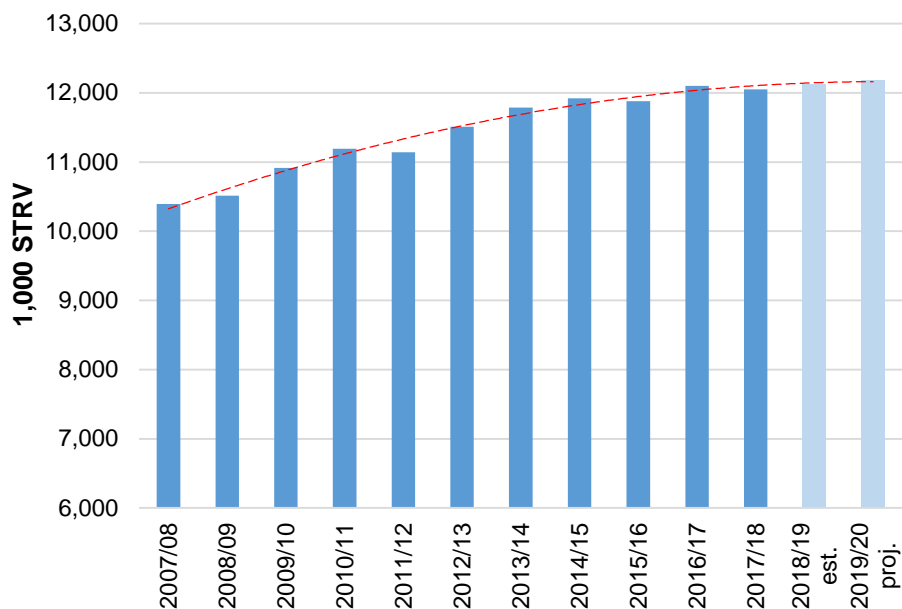
High-duty imports and imports under the re-export program assume levels comparable to current year estimates—at 70,000 STRV and 350,000 STRV, respectively—given that the outlook for world sugar markets does not show any substantial changes to price structures from current conditions.

Imports from Mexico are projected to be 1.417 million STRV, a substantial 58.1-percent increase from current 2018/19 estimates. The projection is based on the terms of the suspension agreement, calculating the full U.S. Needs as the expected Export Limit for the year. The projection does assume that the not yet announced, but expected, additional specialty quota amounts are comparable to the previous year's levels, however—as these volumes would eventually be factored into the U.S. Needs calculation. Relative to the terms of the 2018/19 Export Limit, the substantially lower beginning stock level projected coming into the year is the biggest change among the parameters of the U.S. Needs calculation for the 2019/20 period.

Domestic Deliveries Up for the First Half of 2018/19, but Uncertainties Cloud Outlook for Outlying Quarters

Total sugar use estimates for 2018/19 remain unchanged from the previous month at 12.305 million STRV. Domestic deliveries for food and beverage use are also unchanged at 12.125 million STRV. This represents a modest 0.6-percent growth over 2017/18 deliveries, but trends and uncertainties seen for 2018/19 factored heavily into the outlook for the outlying year. Food and beverage deliveries for 2019/20 are projected to total 12.175 million STRV, or just 0.4 percent higher than the current year's estimate. The projection is based on a continuation of the trend of increasing growth, but at a steadily decreasing rate, since the implementation of NAFTA's terms in U.S. and Mexico's sweetener markets.

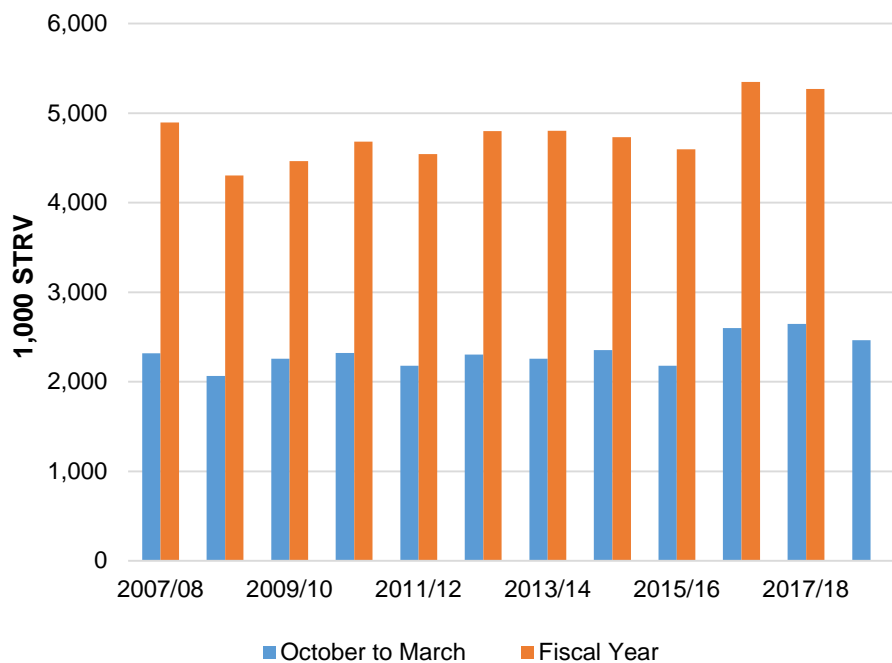
Figure 5
**U.S. sugar deliveries for food and beverage use, fiscal year,
 2007/08 to 2019/20**



Source: USDA, Economic Research Service.

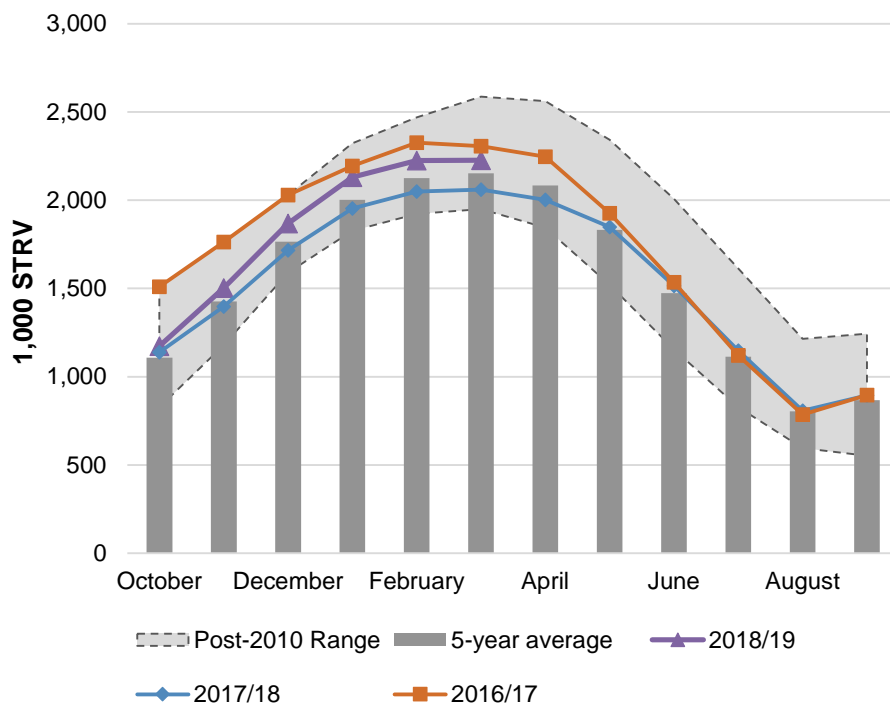
With deliveries reported through March, beet processors have delivered 2.466 million STRV of sugar for food and beverage use—a 6.8-percent decline from the previous year. This total would represent the third-highest total through the first half of the year, however, only exceeded by the last 2 years. Inventories held by beet processors at the midpoint of the fiscal year were 8.1 percent larger than the previous year, although levels are well within the ranges of the past couple of years. Given current market prices, inventories are expected to be drawn down to usual August levels. The current estimate is under the assumption that the pace of beet deliveries increases in the second half of the year to exceed 5.0 million STRV, but not to reach the same range as the record-setting paces of 2016/17 and 2017/18—which totaled 5.348 million STRV and 5.271 million STRV, respectively.

Figure 6
U.S. sugar deliveries by beet processors, fiscal year, 2007/08 to 2018/19



Source: USDA, Farm Service Agency.

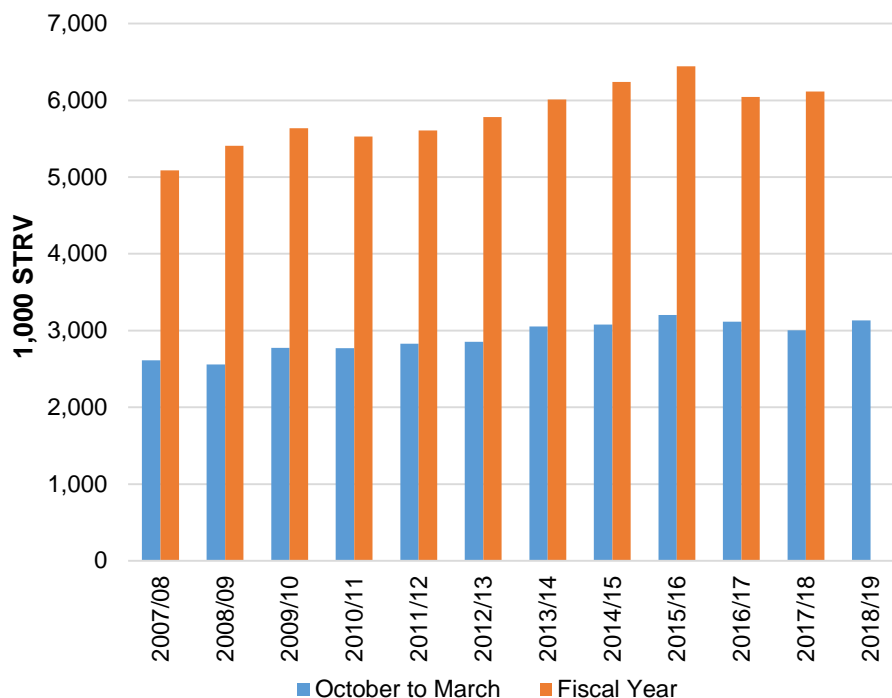
Figure 7
Sugarbeet processors' total sugar inventories, monthly, 2016/17 to 2018/19



Source: USDA, Farm Service Agency.

Deliveries from the reporting U.S. cane refining sector totaled 3.130 million STRV through the first half of the year—a 5.8-percent increase from the previous year’s pace. In contrast to the beet sector, cane sector deliveries have been recovering from a below-trend period that began at the end of 2016/17 and carried into 2017/18. While still not as large as a few years ago when cane sector deliveries saw annual growth, levels have recovered.

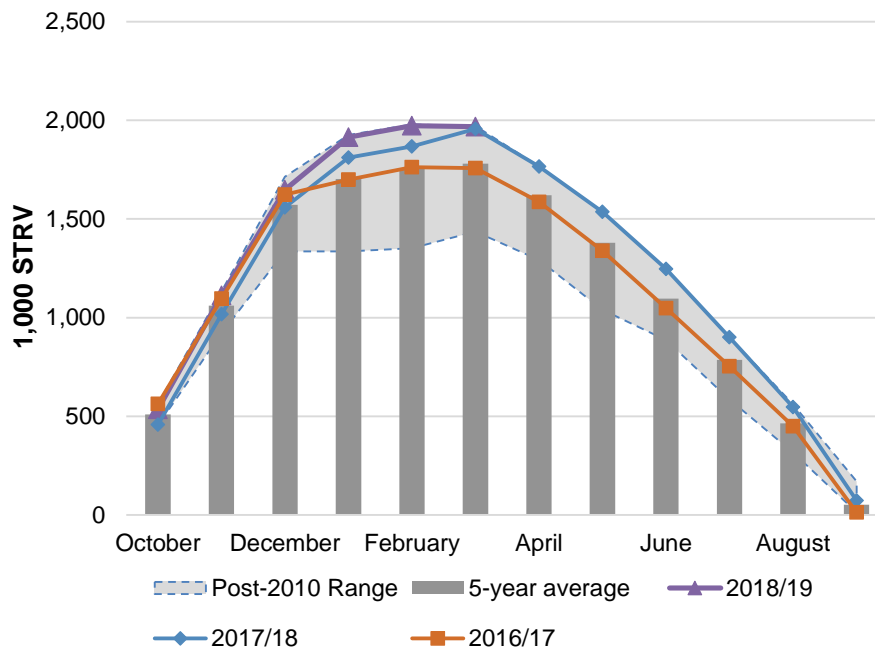
Figure 8
U.S. sugar deliveries by cane refiners, fiscal year, 2007/08 to 2018/19



Source: USDA, Farm Service Agency.

This is partially due to strong inventory levels in the domestic cane processing sector, particularly in the Gulf region, caused by two record production years in Louisiana. Inventories from the cane-refining sector—which pulls from both domestic and imported sources of raw sugar—have remained at or below recent historical averages in recent months. The cane-processing sector is holding near-record inventories for this time of year. Refiners’ melt rates and capacity utilization have been more or less in line with historical averages the past few years, however. The data and market reports suggest a structural dislocation between the domestic cane-processing facilities and refining capacities in the United States where areas with surplus raw sugar inventories (Louisiana and the Mississippi delta region) need logistical and market mechanisms to bring their sugar to available refining capacities (coastal refineries) in order for the market to clear. The extent and rate at which this takes place will be an important determinant for the sector’s delivery total for the year. The current estimate is under the assumption that domestic raw sugar inventories will successfully find market-efficient refining facilities; resulting in a continuation of the strong pace of deliveries from the cane sector.

Figure 9
Sugarcane processors' inventories, monthly, 2016/17 to 2018/19



Source: USDA, Farm Service Agency.

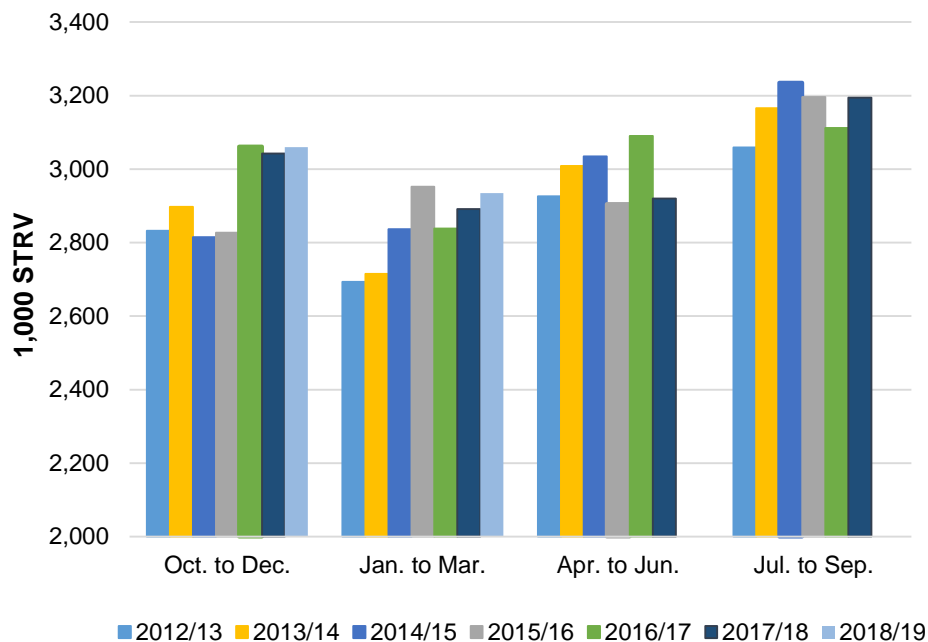
Total deliveries through the first 6 months of the fiscal year are 1.0 percent larger than the same period the previous year. The fact that estimated growth for the year is not as strong is primarily due to two market factors.

First, the growth through the first 2 months is entirely due to deliveries from nonreporters—meaning imports for direct human use by entities that don't report under the Farm Bill sugar program; as deliveries from reporting beet processors and cane refiners are slightly less than 0.2 percent behind the previous year. The monthly series for nonreporter deliveries is volatile; although there have typically been constraints on annual imports that can be accessed for direct consumption from Mexico and CAFTA-DR markets that may limit continued growth for the remainder of the year. The increased rate of high-duty imports could be resulting in increased nonreporter deliveries. High-duty imports are subject to continued price-spread opportunities between global and U.S. sugar markets, as well as to the mix of high-duty imports entering as refined sugar versus raw sugar that will be refined and reported by U.S. cane sugar refineries.

The second driver of uncertainty for the remainder of the year is changes to seasonal patterns that have occurred in the U.S. market over the past few years. Historically, the majority of sugar deliveries have occurred in the second half of the fiscal year—preceding the baking and holiday

seasons in the United States. For the past several years however, this pattern hasn't been as strong. A higher share of deliveries have occurred between October and March since 2016/17. Moreover, the second half of the year has had lower deliveries, but usually as the result of the performance of 1 or 2 isolated months, rather than a steady, smooth trend. There are several potential explanations for this change in pattern. It could be the result of the implementation of the suspension agreements, which may have altered the structure of contracts and leverage of parties in the market. The trend could be due to the residual sectoral imbalances that occurred subsequent to the 2016/17 fiscal year, which had unusual patterns due to impending State- and Federal legislation regarding labeling of products derived from genetically modified plant varieties. The trend could also be demonstrating an overall softening demand for sugar in the United States, due to food manufacturers' and consumers' increased awareness of caloric sweetener intake.

Figure 10
Total U.S. sugar deliveries, quarterly, 2012/13 to 2018/19



Source: USDA, Farm Service Agency.

If looking only at the paces established during the first 6 months of 2018/19, it would appear that 2018/19 replicated strong results in the first quarter and is experiencing a steady, trend-growth for the second quarter. Taking into account unusually lower totals in the third quarters of 2015/16 and 2017/18, as well as the fourth quarter of 2016/17, the likelihood of another short-

term period of lower-than-expected deliveries is high enough to merit a conservative outlook for the pace of outlying quarters.

Projections for 2019/20 carry over the uncertainties posed for the second-half of the current year—resulting in projections of a modest 0.4-percent increase year over year. Whether the short-term disruptions prove to be related to specific market incidents, with deliveries returning to a stronger trend rate, the current outlook may prove to have some upside risk associated with it. If the recent, isolated disruptions instead prove to be related to sustained trends in consumer demand, there could also potentially be some downside risk to the current projections—even to the extent of use having no or negative growth in the outlying year.

Mexico Outlook

Mexico Expected To Export Substantial Volumes in 2018/19

Mexico is estimated to have ending stocks available for domestic use at 995,000 million metric tons, actual value (MT) in 2018/19—a substantial reduction of 425,000 MT from the previous month's forecast. The reduction is due to adjustments to assumptions about Mexico's likely carryout and the utilization of programs to facilitate exports.

Table 6: Mexico sugar supply and use, 2017/18 - 2018/19 and projected 2019/20, May 2019

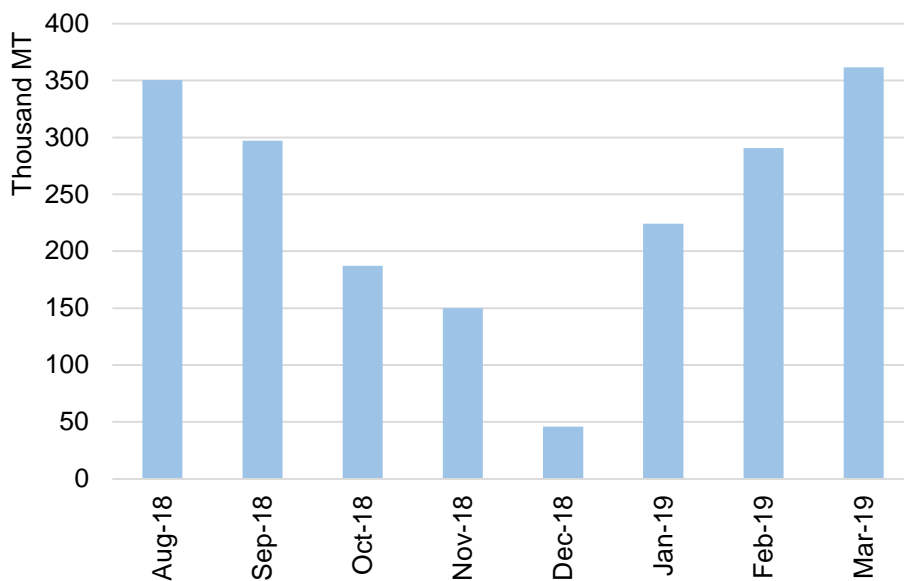
Items	2017/18	2018/19 (estimate)	2018/19 (forecast)
	1,000 metric tons, actual weight		
Beginning stocks	1,002	1,395	995
Production	6,010	6,200	6,100
Imports	220	70	70
Imports for consumption	132	20	20
Imports for sugar-containing product exports, IMMEX 1/, other	88	50	50
Total supply	7,232	7,665	7,165
Disappearance			
Human consumption	4,228	4,236	4,297
For sugar-containing product exports (IMMEX)	482	480	480
Other deliveries and end-of-year statistical adjustment	29	0	0
Total	4,739	4,716	4,777
Exports	1,099	1,954	1,394
Exports to the United States & Puerto Rico	1,047	767	1,213
Exports to other countries	52	1,186	180
Total use	5,838	6,670	6,170
Ending stocks	1,395	995	995
	1,000 metric tons, raw value		
Beginning stocks	1,062	1,478	1,055
Production	6,370	6,572	6,466
Imports	234	74	74
Imports for consumption	140	21	21
Imports for sugar-containing product exports (IMMEX)	93	53	53
Total supply	7,666	8,125	7,595
Disappearance			
Human consumption	4,482	4,490	4,554
For sugar-containing product exports (IMMEX)	510	509	509
Other deliveries and end-of-year statistical adjustment	31	0	0
Total	5,023	4,999	5,063
Exports	1,165	2,071	1,477
Exports to the United States & Puerto Rico	1,110	813	1,286
Exports to other countries	55	1,258	191
Total use	6,188	7,070	6,540
Ending stocks	1,478	1,055	1,055
Stocks-to-human consumption (percent)	33.0	23.5	23.2
Stocks-to-use (percent)	23.9	14.9	16.1
High-fructose corn syrup (HFCS) consumption (dry weight)	1,593	1,520	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.

Reporting of volumes in the *CEDES* program—a managed certificate program designed to take supplies out of the domestic market and ship them to global sugar markets—has increased to large amounts in recent months. The program was initiated in the summer 2017/18, with the first volumes reported by Conadesuca in August. The objective of the program was to ship all participating volumes by the end of the calendar year, to relieve some of the supply glut in the domestic market and satisfy domestic laws regarding payments for sugarcane growers. Conadesuca reporting shows that the program was successful in reducing its balances to near zero by December 2018, but supplies have increased substantially during the 2018/19 harvest season to levels that exceed initial volumes from 2017/18. The WASDE market outlook is updated in May, reflecting the intention of Mexico to ship these volumes to world sugar markets in order to restore ending stocks to the country’s long-term goal of maintaining supplies for the period between October 1 and the beginning of the subsequent harvest season, equating to about 10 weeks of domestic use. Due to the structure of the program, the timing of the shipments may spill over into the first 3 months of the 2019/20 balance sheet. However, the ultimate result is expected to be substantially larger exports for Mexico to bring ending stocks back to historical levels for 2018/19 and 2019/20.

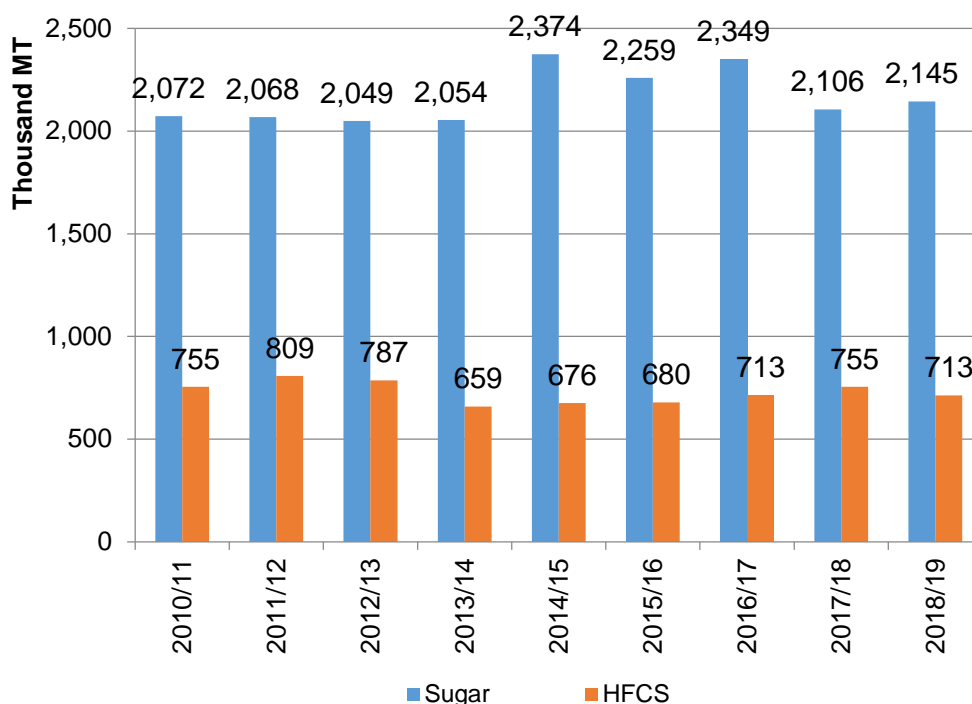
Figure 11
Mexico sugar supplies reported in the CEDES certificate program, August 2018 to March 2019



Source: Conadesuca.

Further increasing the estimated supplies available for export is a 379,000-MT expected reduction in domestic deliveries for human consumption for 2018/19—now estimated to total 4.236 million MT. This would represent a slight 0.2-percent increase from 2017/18 totals. The pace of deliveries started strongly in 2018/19 through the first 4 months of the year, potentially signaling that the lower deliveries in 2017/18 were an outlier. That pace has slowed substantially in recent months, however, and current projections are in line with the pace of 2017/18 deliveries. That pace is carried into 2019/20—with total per capita sweetener deliveries the same as 2018/19 estimates and HFCS deliveries held at the updated estimate for 2018/19 of 1.520 million MT.

Figure 12
Mexican sweetener consumption October to March, 2010/11 to 2018/19



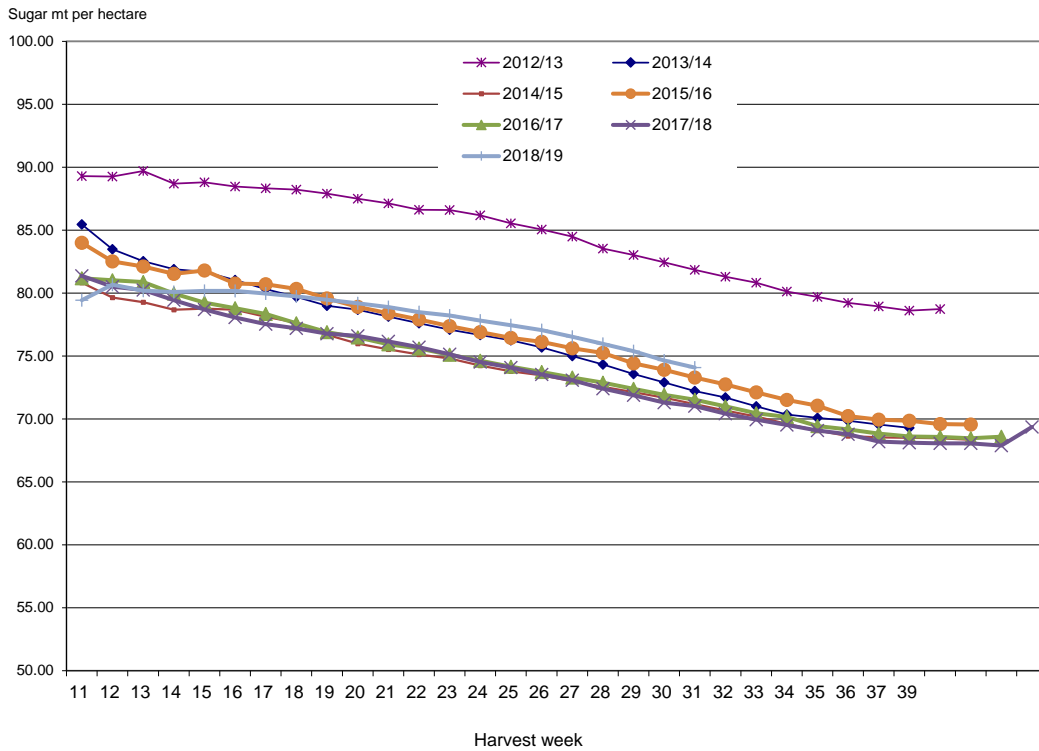
Source: Conadesuca.

Strong Production Reports Continue Deep Into 2018/19 Campaign

Mexico's production estimate for 2018/19 is increased, as well, also contributing to higher available supplies. Production in 2018/19 is estimated to total 6.200 million MT, a 48,000-MT increase from the previous month's forecast. The pace of the Mexican sugarcane harvest campaign has been very strong based on reporting through the end of April. Sugarcane yields

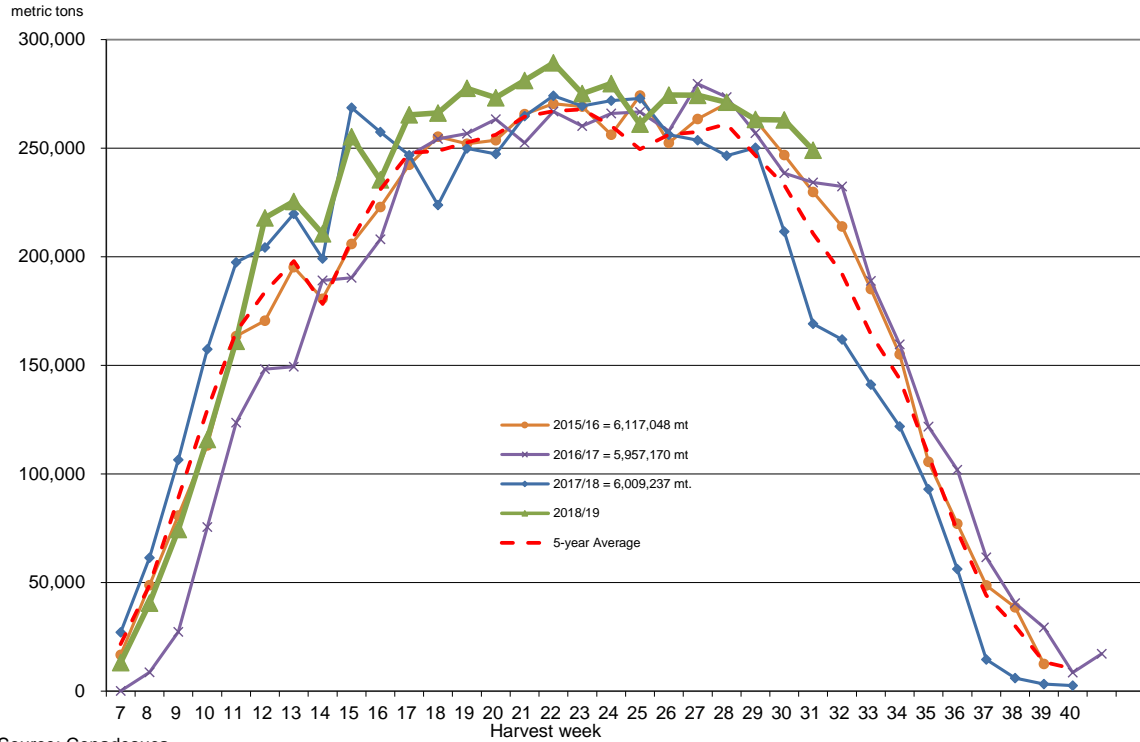
have been high compared with recent years' results, and weekly sugarcane and sugar production have remained at peak levels deep into the campaign season.

Figure 13
Cumulative Mexican sugarcane yield in metric tons (mt) per hectare (ha) during harvest season



Source: Conadesuca.

Figure 14
Mexico sugar production, by week of harvest, 2015/16-2018/19



Projected production in Mexico for 2019/20 is 6.100 million MT, which would represent a 1.6-percent decline from the current estimate for the previous year. The projection reflects a return to yields and recovery rates in line with normal weather conditions and harvested area remaining at levels comparable to the current pace of the 2018/19 crop.

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Data

Tables from the *Sugar and Sweeteners Yearbook* are available in the Sugar and Sweeteners Topics at <http://www.ers.usda.gov/topics/sugar/>. They contain the latest data and historical information on the production, use, prices, imports, and exports of sugar and sweeteners.

Related Websites

Sugar and Sweeteners Outlook <http://www.ers.usda.gov/Publications/SSS/>
WASDE <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documented=1194>
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